EUROPEAN CENTRAL BANK

Report on financial structures

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Foreword

Central banks operate through the banking system and financial markets. This strategic choice requires central banks to have a thorough knowledge of how the financial system works, while at the same time it also puts them in a unique position to monitor ongoing developments in the financial system. This publication is a further step in the Eurosystem's continued efforts to improve our understanding of the financial system. The report also aims to serve as a reference work for researchers, policy-makers and the general public. Thus, it also seeks to share the Eurosystem's insights into euro area financial systems and is designed to make it easier for others to study financial structures in the euro area. Hopefully, both we and other policy-makers will benefit from these studies.

Most of us have a good knowledge of the financial system that we grew up with. We have a tendency to assume that the characteristics of that system apply to other systems and that this is the way financial systems work or should work. This is obviously not a feasible approach for a euro area-wide policy-making institution, and this report aims to increase our understanding both of the diversity of and the similarities between the financial structures across the euro area.

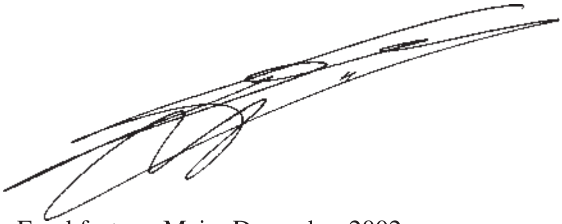
The Eurosystem has had to make great efforts to develop a euro area-wide approach to understanding economic and financial developments, with a view to implementing the best possible monetary policy for the euro area as a whole. There are many aspects of the economy, including financial structures, where an understanding of national structures is essential for a thorough understanding of the same structures at the euro area level. In this context, the Eurosystem, by consisting both of the European Central Bank and the twelve euro area national central banks, is well positioned to promote the understanding of how the national financial systems work and how they form a euro area-wide system.

Financial systems in the euro area countries share many similar characteristics. This applies, for example, to the functions performed by financial intermediaries. Credit institutions play a pivotal role in the euro area economy as the main collectors of financial funds. Nevertheless, non-financial sectors have been directing their savings and surplus funds increasingly towards new forms of financial intermediation, involving for instance investment funds, insurance corporations and pension funds, as well as towards the capital markets. Similarly, a notable, but still limited, development is the increased scope for non-financial corporations to use debt securities for their financing. These developments seem to suggest that the intermediation process in the euro area is undergoing changes. The introduction of the euro and the gradual progress towards a Single Market for financial services also seem in many ways to imply a reshaping of the euro area capital markets.

The notion of a "spare tyre" has been used to describe the advantages stemming from a diversified financial system. If one part of the system does not work, another part can be used as a substitute. The report shows that the euro area financial system is both deep and highly diversified. There is, however, still ample scope for further development.

This report is the result of co-operation within the Eurosystem and between the monetary policy experts who have drafted it. It is also the fruit of joint efforts across business areas within both the European Central Bank and the euro area national central banks. Moreover, the contribution of the staff who prepared the statistical framework for conducting the single monetary policy was essential. Needless to say, the major benefit of this statistical structure is a more solid foundation for monetary policy. However, it is my hope that sharing this report with the public in general, and the financial sector more specifically, could also serve as a small token of appreciation to those in the financial sector reporting statistics to us.

Willem F. Duisenberg
President of the European Central Bank



Frankfurt am Main, December 2002

Introduction

This report is intended to provide a description, based as far as possible on comparable data, of the financial structures of the euro area countries, their recent evolution and their integration, as well as an analysis of the underpinning factors in each case. The aim is to produce a reference source for use by the general public.

One reason why central banks are interested in financial structures is because they can play an important role in shaping the transmission of monetary policy (see also Box 1). A change in the policy-controlled interest rate has an effect on market interest rates and prices of financial assets. These interest rate and asset price changes are then transmitted to the rest of the economy, affecting spending decisions and ultimately the inflation rate. The magnitude and speed of the pass-through of monetary impulses depend on various features of the financial system, such as the importance and the role of banks and capital markets respectively, the maturity structure of non-financial sector financing, and the prevalence of variable and fixed interest rate contracts. Other institutional characteristics such as the tax system, corporate governance, banking relationships and competition in the banking sector should not be neglected either when describing financial structures and their implications for monetary policy.

A detailed knowledge of its country's financial structure is thus of interest to any central bank. The usefulness of this information is further heightened by the special nature of the euro area, where the 12 member countries still have different financial structures. Single Market pressure has already led to some integration of member countries' financial intermediaries and markets. Further integration is under way as a result of the introduction of the euro – which eliminated exchange rate risk –and the globalisation of economic activities.

The Eurosystem has already published several papers and reports on financial structures in the euro area, including:

- 'EU banks' income structure," April 2000; 'Asset prices and banking stability," April 2000; 'Mergers and acquisitions involving the EU banking industry – facts and implications," December 2000;
- The ECB's first Occasional Paper, 'The impact of the euro on money and bond markets," July 2000;
- The ECB reports entitled 'The euro equity market," August 2001; 'The euro bond market," July 2001; and 'The euro money market," July 2001;
- The Blue Book on payment systems, 'Payment and securities settlement systems in the European Union," June 2001;
- ECB Working Papers 91 to 112 and 114 reporting on the wide-ranging set of studies on the effects of monetary policy in the euro area, co-ordinated by the Eurosystem Monetary Transmission Network (MTN).

This report will provide a detailed description of the overall features of the financial structures in the euro area, focusing on what they have in common and the extent to which they are integrated across countries. It consists of one chapter describing the financial structure of the euro area as a whole followed by 12 chapters on the financial structures of the various euro area countries. The euro area chapter includes an analysis of common features and differences across the euro area countries, together with some brief comparisons with the financial structures of the United States and Japan.

All chapters in this report follow the same structure. They describe how savings flow from the different economic sectors through intermediaries and markets and eventually to finance households, government and corporations. Each chapter includes comparable statistics whenever possible, as well as a description of the national characteristics of the financial system, e.g. how specific areas are regulated. The report ends with statistical notes, a glossary and a set of tables with comparative ratios for all euro area countries.

In addition, a statistical annex including data for the period 1995-2000 is available on the ECB's website, www.ecb.int.

Box 1: Financial structure and the monetary policy transmission mechanism: an overview

For most central banks, the main policy instrument is the short-term interest rate. This instrument is set in order to achieve the monetary policy objectives. The monetary policy transmission mechanism consists of all the channels through which the interest rate changes decided by the central bank affect the economy.[1] Financial structures or financial systems can play an important role for a number of these channels.

If the financial markets are well developed and efficient, then monetary policy normally affects household spending via its impact on interest rates and asset prices. Following a change in the interest rate, households may be induced to shift their expenditure patterns through time, advancing or postponing their consumption of goods and services and residential investment. Changes in asset prices can affect consumption through wealth effects. Moreover, interest rate changes may also affect disposable income directly via the proceeds received (or paid) on variable rate contracts. For firms, the transmission mechanism operates through the user cost of capital and the relationship between the market value of capital and its replacement cost, which can affect firms' expenditure in fixed and inventory investment.

However, if the financial markets are incomplete or imperfect, then the effect of using these transmission channels can be amplified by changes in the availability of internal cash flow or of external credit.[2] If, as in the euro area, banks are the main providers of funds for households and enterprises, then monetary policy could affect their spending by modifying the supply of bank loans.[3] For instance, the availability and value of collateral is a highly relevant factor in borrowing. If the value of assets falls, e.g. as a result of monetary tightening, and thus the value of collateral falls, lenders may be more reluctant to grant new loans for investment.

1 'Monetary policy transmission in the euro area,"ECB Monthly Bulletin, July 2000.
2 Using company data, MTN studies have found significant evidence that euro area firms' demand for investment goods depends on the availability of cash flow or of liquid assets. See ECB Working Papers 106 to 111 for country case studies, and ECB Working Paper 112 for a summary presentation of these results.
3 MTN studies using bank data found some limited evidence of shifts in the supply of loans by banks in the euro area. See ECB Working Papers 96 to 104 for country case studies, and ECB Working Paper 105 for a summary presentation of these results.

The remainder of this introductory chapter expands on the statistical framework used to produce the individual chapters and provides a description of the content and the tables included in each chapter.

1 The statistical framework of the Report on Financial Structures (RFS)

The statistical framework on which this report is based is the financial accounts (drawn up according to the European System of Accounts 1995 –ESA 95), given that they provide a detailed and complete overview of the various financial relationships that exist between the different economic sectors of a country.[1] Harmonised money and banking statistics for monetary financial institutions (MFIs) as well as data on other financial intermediaries (OFIs) (in particular investment funds) were also included in the analysis of certain segments.

The general criteria used to select the data, together with the common layout of the tables, are intended to guarantee the highest possible degree of comparability across the country chapters and between these and the euro area chapter. In particular, figures that appear in the main text of the report are expressed as ratios to GDP rather than as absolute figures. Shares of the total are also used in balance sheets (for MFIs, etc.). In the statistical annex, the tables are presented in absolute figures.

For the purposes of this report, data were classified into three main categories. Data from the harmonised financial accounts and money and banking statistics were classified as "group 1 data", and are presented in all chapters. [2] "Group 2 data" are data reported in all chapters but for which complete harmonisation was not possible. This is the case, for example, for figures referring to the insurance sector and to the stock markets. Finally, those data that are only presented in particular cases, e.g. to depict specific national developments, are referred to as "group 3 data". Tables and charts reporting these numbers are marked with an "a". All three types of data are also reported in the statistical annex.

It is well known that transaction and amount outstanding figures do not always reflect the same reality. This is mainly due to valuation problems, and applies particularly to the analysis of equities. In this report, the solution was to include both stock and transactions data.

Another issue was the review period considered, where the decisive restriction was availability. Harmonised data (group 1) were largely available, at least for the period from 1998 to 2000. The cut-off date for data revision was end-July 2002. The figures for 2001 were not included, as the compilation process for financial accounts had not been finalised.

Consequently, most country chapters only include transaction data for the 1998-2000 average and stock data for 2000. However, individual references to any available relevant data for earlier years were also included. The chosen approach reflects the emphasis of this report on a cross-country comparison rather than on developments over a longer period of time. The statistical annex includes data where available from 1995 to 2000.

The fact that the review period is confined to 1998-2000 has consequences for the analysis of the data. It clearly limits the scope for studying developments over time, especially with regard to the integration and convergence of national financial systems. In addition, in 1999 and 2000 the wholesale market was using the euro whereas the retail markets were still using national currencies as a unit of account. This may have had an impact on the differences noted between sectors.[3]

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1 Financial accounts positions do not coincide with real national accounts. In particular, the financial accounts data for the general government sector include the accrued interest of securities other than shares, whereas these are not included in the excessive deficit procedure figures, for example. In addition, financial accounts data are compiled using market values, whereas the figures used for the excessive deficit procedure are expressed as nominal values. To a lesser extent, the exclusion of data from Ireland and Luxembourg in the euro area financial accounts data also explains some of the differences between the two measurements.

2 Although in a few cases some figures are not available for all member countries.

3 For instance, developments in the financial structure of the financial sector and large corporations were partly driven by the introduction of the euro, whereas adjustments for households and small and medium-sized enterprises (SMEs) are more likely to have taken place later.

The data do not, in general, allow a distinction to be made between cross-country transactions with other euro area countries and those with non-euro area countries. For most member countries, a breakdown of this kind is not available for a large part of the statistics.

2 Chapter contents

In order to facilitate cross-country comparisons, all chapters have the same overall structure. The sections, tables and chart of each chapter are shown in Box 2.

Box 2: Sections and tables common to all chapters

Sections	Tables and Charts
1 Overall description of the main features and recent developments of the national financial system	Table 1: Distribution of the financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments.
2 Financial assets and liabilities of the domestic sectors	Table 2: Financial transactions and position by sector.
3 Intermediaries 3.1 Channelling of funds through intermediaries. 3.2 Monetary financial institutions (MFIs). 3.3 Other financial intermediaries (OFIs). 3.4 Insurance corporations and pension funds (ICPFs).	Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector. Table 3.2: Number of MFIs. Table 3.3: Concentration and average size of credit institutions. Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs. Table 3.5: Aggregated balance sheet of OFIs. Table 3.6: Aggregated balance sheet for ICPFs.
4 Markets 4.1 The bond market. 4.2 The stock market.	Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector. Chart 4.1: Outstanding nominal amount of euro-denominated debt securities by issuing sector. Table 4.2: Characteristics and activity of the stock market. Chart 4.2: National stock index development relative to EURO STOXX.
5 Financing 5.1 Non-financial corporations. 5.2 General government. 5.3 Households. 5.4 Flow of funds abroad.	Table 5.1: Financing and financial balance of non-financial corporations. Table 5.2: Financing and financial balance of general government. Table 5.3: Financing and financial balance of households. Table 5.4: Investment and financing vis-àvis non-residents.

In each chapter, Section 1 gives an overview of the features and recent development of the euro area country's financial system, summarising the main issues resulting from the analyses made in the subsequent sections. Table 1 shows the distribution of financial assets and liabilities for each sector divided into intermediated and non-intermediated assets and liabilities. The purpose of this distinction is to highlight the role of intermediaries, which are perceived to add value to financial investments by reducing transaction costs and acquiring and processing information.

While a clear-cut distinction between intermediated versus non-intermediated assets and liabilities is difficult to draw, financial assets (and liabilities) have been assigned to the first category when financial intermediaries were judged to play a non-negligible role in making them available to the final users. They have been assigned to the second category when that was not the case and assets were directly placed through markets. Some assets, which neither flow through financial intermediaries (for example deposits issued by governments) nor through markets (for example, trade credits and other financial transactions among non-financial sectors), were not attributed, and are therefore excluded from the total referred to in Table 1. As a result of this assignment criterion, intermediated assets include deposits, money market fund shares, investment fund shares, and technical reserves. Non-intermediated assets include securities and listed and non-listed shares. On the liability side, intermediated instruments are defined as loans from intermediaries, whereas non-intermediated liabilities consist of bonds and shares including other equity.

As is often the case in overviews, certain simplifications are inevitable. For example, intermediated and non-intermediated assets each include very different types of financial instruments, whereas investment funds, which are very close to market instruments, are considered to be intermediated instruments, on a par with bank deposits. Non-listed shares, on the other hand, are considered to be non-intermediated assets, even though they may be closer to internal financing than to market financing.

Section 2 of each chapter describes the financial assets and liabilities of the four domestic sectors: households, non-financial corporations, financial corporations and general government. Table 2 shows the financial positions for all sectors in terms of both transactions and amounts outstanding.

In Section 3 the allocation of assets via the different intermediaries is discussed in detail. The intermediaries are divided into three sub-sectors: monetary financial institutions (MFIs), so-called other financial intermediaries (OFIs), including investment funds, and insurance corporations and pension funds (ICPFs). Table 3.1 shows how the non-financial and financial sectors channel their funds to the various intermediaries. The comparison of the balance sheets of MFIs, OFIs and ICPFs shows the relative importance of each intermediary and their respective structures (see Tables 3.4 to 3.6). The section also includes some information on the number of MFIs broken down by banking groups (see Table 3.2) and on concentration in the banking sector (see Table 3.3).

Section 4 describes the activities of the financial markets. A comparison of Tables 3.1 and 4.1 highlights the relative importance of intermediaries and markets. The section subsequently describes the bond and stock markets and includes institutional features of the primary and secondary markets for bonds and shares. The euro area chapter has an additional section on financial innovation (Section 4.3).

Section 5 concentrates on the liability side of non-financial corporations, government and households, and analyses the financing of these sectors. Topics such as internal versus external financing, dependence on bank and other loans and financing maturity are further examined.

3 Contributors

This report is a joint Eurosystem venture, produced at the initiative of the Monetary Policy Committee. For the purposes of this report, the Monetary Policy Committee comprised experts from the European Central Bank and the national central banks of the euro area. A Task Force was established to draft the report.

Euro area

1 Overall description of the main features and recent developments in the euro area financial system

The euro area financial system offers a wide variety of financing and saving instruments, both intermediated and non-intermediated. A measure of the significant depth of the financial system is given by the sum of claims as a ratio to GDP.[1] For the euro area this size indicator amounted to more than 700% at the end of 2000, which is a figure comparable to that of the United States.

The euro area system has often been described as a bank-based system, owing to the prominent role traditionally played by banks in the major economies of the euro area, while the US financial system has long been recognised as the foremost example of a market-based system.[2] Banks, however, are only one group of financial intermediaries. More generally, any attempt at presenting a simple characterisation of a complex system like the euro area is bound to be, at best, somewhat arbitrary and partial. Nevertheless, in this section some prominent features of the euro area financial system will be highlighted, as a way of summarising the more articulated picture that emerges from the analysis in this report. Thus, Table 1 shows the distribution of financial assets and liabilities between intermediated and non-intermediated instruments.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sector between intermediated and non-intermediated instruments
(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and other equity, securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and other equity, securities other than shares)
Households	134.4	74.3	51.1	0.0
Non-financial corporations	19.9	83.2	66.1	159.6
General government	7.7	11.6	15.2	58.1
Total	162.0	169.1	132.4	217.7

Source: ECB, financial accounts statistics.

1 This value includes claims of intermediaries, see Section 2.
2 See Allen and Gale (2000), among others.

On the asset side, at the end of 2000 financial assets[3] were split almost equally between intermediated and non-intermediated assets. Intermediated assets represented 49% of the total and were worth 162% of GDP.[4] Most of the intermediated assets were included in household portfolios. With regard to financial assets, intermediaries play a more important role for households than for non-financial corporations. Concerning holdings of non-intermediated assets, the euro area was roughly halfway between the United States and Japan.[5] In the same vein, holdings of non-intermediated assets by euro area households are also at a level between those of the United States and Japan.

Intermediated financial liabilities appear less important than non-intermediated ones. Intermediated liabilities' share of the total of intermediated and non-intermediated financial liabilities was around 38% at the end of 2000. As one might expect, households' financial debt, worth 51% of GDP, was exclusively composed of intermediated liabilities. Non-intermediated liabilities, on the other hand, are the preferred choice of non-financial corporations.

A number of additional conclusions can be drawn from the analysis made in this report.

First, the household sector is a net holder of financial assets in the euro area. This strongly positive net financial position of households mirrors the sum of the negative net positions of non-financial corporations and governments and a virtually balanced position vis-à-vis the rest of the world.

Second, among financial intermediaries, monetary financial institutions (MFIs) collect the majority of funds. However, in recent years non-financial sectors have allocated significant amounts of their financial assets to pension funds and insurance corporations, as well as to investment funds. This trend could be characterised as a relative decline in traditional banking, although not of the role of banks as major actors in financial markets. Banks administer many of the investment funds, are part of holding companies along with insurance groups, and are major participants on the securities markets.

Third, shares and other equity, which include both listed and non-listed shares, represented the largest liability item for non-financial corporations at the end of 2000. This partly reflects the high valuation of shares during the period under consideration. Euro area economies are widely dominated by small and medium-sized enterprises (SMEs) and, partly as a result of this, non-listed shares and other equity are extensively used as a means of financing, thereby playing a central role among non-intermediated financial assets and liabilities.[6]

Fourth, debt securities financing has historically only occupied a minor role for euro area non-financial corporations. However, debt securities financing has recently acquired greater importance, especially relative to shares and other equity. The start of Stage Three of Economic and Monetary Union seems to have had a strong, positive impact on the possibilities for corporate issuers (both financial and non-financial) to resort to corporate bond issuance as a financing source.

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3 Some financial assets that neither flow through financial intermediaries (for example deposits issued by governments) nor through markets (like trade credits and other financial transactions among non-financial sectors) are excluded from the figures in Table 1 (see also the Introduction).

4 The ratio to GDP is calculated taking into account the fact that the financial accounts data cover only nine euro area countries, as footnote 4 of the introduction mentions. The GDP value used in the calculations reflects the sum of the individual GDPs of these nine countries and therefore differs from the official euro area GDP.

5 For these and all other data in this chapter relating to the United States and Japan, the sources are the following: United States data are based on the "Flow of Funds Accounts of the United States, flows and outstanding, first quarter 2002," published by the Board of Governors of the Federal Reserve System. Data on Japan are based on Bank of Japan "Time Series Table of Flow of Funds."

6 Estimates of the value of non-listed shares in some of the euro area countries show that such shares may represent more than a half of the total value of shares and other equity.

Fifth, the bond market has undergone a series of structural changes over the past few years. Changes have been particularly pronounced with regard to market liquidity, tick sizes, the behaviour of sovereign issuers, growth in the corporate bond market, more closely integrated pan-European trading possibilities and, finally, what seems to be a certain degree of specialisation among countries in the euro area.

Sixth, there are many similarities between the financial systems of the different euro area countries. For example, several measures of the role of intermediaries are broadly similar, with the values calculated for the individual euro area countries tending to cluster around the euro area average. This holds, for example, for deposits as a percentage of total liabilities and the percentage of loans granted to residents in the MFIs balance sheet.

Seventh, the insurance corporations and pension funds (ICPF) sector's importance relative to GDP, as well as (inside the sector) the relative size of life insurance, casualty insurance, public and private pension funds, varies a great deal across the euro area countries. These variations reflect, among other aspects, country-specific factors with regard to the degree to which funded pension schemes are mandatory, the different social security systems and the tax treatment of voluntary pensions. However, even in cases where there are substantial differences among euro area countries, typically related to the role of the markets or the increasing role of non-banks, similar trends among these countries are nonetheless discernible.

Eight, there are signs of increasing financial integration. The share of foreign securities in the balance sheet of both MFIs and OFIs is increasing. Furthermore, the number of foreign participants in euro area stock exchanges has also risen.

2 Financial assets and liabilities of the domestic sectors

The financial accounts data on transactions (for the period 1998-2000) and amounts outstanding (at the end of 2000), as illustrated in Table 2, show the distribution among the

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	Financial asset acquisition	Liabilities incurrence	Net financial transactions	Financial assets	Liabilities	Net financial position
Households	8.3	4.1	4.3	212.3	56.0	156.2
Non-financial corporations	10.7	13.2	-2.5	146.4	256.2	-109.8
General government	0.7	1.9	-1.1	30.5	81.4	-50.8
Financial corporations	33.2	33.0	0.2	371.4	366.6	4.8
Total	53.0	52.1	0.8	760.6	760.2	0.4

Source: ECB, financial accounts statistics.

euro area resident sectors of financial assets and liabilities.[7] Households are net savers and, through their investments, finance corporations and general government. Financial corporations have the largest gross positions but a very limited net position, as one would expect given their role as financial intermediaries. This distribution of financial assets and

7 The financial assets and liabilities reported in Table 2 are not directly comparable with the ones reported in Table 1, as detailed in footnote 3.

liabilities holds true for all euro area member countries. The only exception is Finland,[8] where the government sector had a positive net financial position at the end of 2000.[9]

The household sector is a net holder of financial assets. At the end of 2000, the net value of the financial assets of households amounted to 156% of GDP. The strongly positive net financial position of households mirrors the sum of the negative net positions of corporations and governments. The corporate sector has substantial holdings of both financial assets and liabilities and a net negative position close to 110% of GDP. By comparison, the government sector has much smaller amounts of assets and liabilities, and its net negative position amounted to about 51% of GDP. The net position of financial intermediaries and the financial position of the euro area vis-à-vis the rest of the world is close to balance.

This overall picture in which households finance the other two domestic, non-financial sectors and the position of the euro area is balanced vis-à-vis the rest of the world has been broadly stable since the mid-1990s. All gross financial positions, measured by amounts outstanding, have been increasing relative to GDP except the government sector. Here, the ratio of financial assets relative to GDP has been stable, while the ratio of liabilities to GDP has fallen, leading to a slight improvement in the financial position of euro area governments over the period. The net financial position of non-financial corporations became more negative, reflecting an increase in the degree of indebtedness[10] from around 59% of GDP in 1995 to around 74% in 2000. As displayed by transactions data, households' net financial position declined by around 2% of GDP between 1995 and 2000.[11]

The financial sector is the largest in terms of both financial assets and liabilities. Financial corporations held a little less than one-half of all financial assets and liabilities[12] at the end of 2000, and between 1998 and 2000 they accounted for over 63% of all euro area financial flows.[13] This reflects the pivotal role played by financial intermediaries in the euro area, notwithstanding the increasing value of non-intermediated financial assets.

The euro area had a slightly positive net financial position vis-à-vis the rest of the world at the end of 2000, equal to about 0.4% of GDP. Transactions data show that between 1998 and 2000 the euro area acquired foreign financial assets amounting to a net value of about 0.8% of GDP per year. The overall effect of these acquisitions has been to convert the euro area's slightly negative external position in 1998 into the current positive balance.

3 Intermediaries

3.1 Channelling of funds through intermediaries

The most common way of holding intermediated financial assets is to keep them with MFIs. Even excluding interbank holdings, holdings with MFIs amount to 159% of euro area GDP, and represent significantly more than one-half of all financial assets held with intermediaries (see Table 3.1).

8 This reflects the fact that in Finland pension fund assets are classified as government assets, and that Finnish municipalities have a positive net financial position.

9 There are no financial accounts data for Luxembourg. Other sources indicate, however, that the financial position of the government sector in Luxembourg is also positive.

10 The degree of indebtedeness of non-financial corporations is calculated as the sum of all the liabilities excluding shares, insurance technical reserves and other accounts payable (see also Section 5.1).

11 This trend is confirmed in the transactions data for 2001 (cf. "Saving, financing and investment in the euro area," ECB Monthly Bulletin, August 2002).

12 They held respectively 49% of total assets and 48% of total liabilities.

13 This comparison may be influenced by the fact that financial accounts data are, in principle, non-consolidated.

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (Deposits and money market fund shares)	**Other financial intermediaries (OFIs)** (Deposits and investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (Technical reserves)
Acquisitions (Average annual transactions, 1998-2000)			
Households	1.4	2.8	3.8
Non-financial corporations	0.8	0.3	0.1
General government	0.5	0.1	0.0
Financial corporations	4.2	2.4	0.1
Total	6.8	5.6	4.0
Holdings (Outstanding amounts, end-2000)			
Households	62.8	22.3	49.4
Non-financial corporations	15.4	3.2	1.4
General government	6.8	0.8	0.1
Financial corporations	74.2	15.4	1.2
Total	159.2	41.7	52.0

Source: ECB, financial accounts statistics.

However, when considering the distribution of flows for the period 1998-2000, it is noticeable that non-financial sectors allocated significant amounts of financial assets into pension funds and insurance corporations as well as into investment funds. This trend was seen throughout the euro area, although it was particularly pronounced in Belgium, France, Italy and the Netherlands, indicating that domestic sectors are gradually shifting their preferences away from keeping financial assets with MFIs in favour of placing a larger share with other intermediaries.

There are many factors that could explain this development. In some countries, changes in tax regulations have played a part. In view of the decline in interest rates and inflation in recent years, it might also reflect overall increased demand among investors for high-yield, although riskier, instruments (such as investment fund certificates) as opposed to safer, but lower-yield bank deposits. The introduction of the euro may have led to diversification within and between asset classes, e.g. from deposits into tradable securities. In this context, liberalisation, as well as the development of information technologies in the 1980s and 1990s, has underpinned the development of capital markets and increased the scope for asset diversification. The increase in demand for non-bank intermediation products also tends to reflect demographic developments in the euro area, where the ageing of the population has encouraged long-term saving and hence the channelling of funds into investment funds, pension funds and insurance companies.

It would therefore appear that the importance of banks has been diminishing relative to other types of intermediaries. However, the fact that life insurance companies and investment funds are often located within banking conglomerates ("bancassurance") suggests that this change may be interpreted as a change in banking rather than reflecting a diminishing role for banks.[14] While the importance of traditional banking activities, such as collecting deposits

14 This is also evidenced by the fact that banks' interest income has gradually been declining relative to their non-interest income; see "EU banks' income structure," ECB, 2000.

and granting loans on a retail basis, has diminished in relative terms, banks remain the predominant players in the euro area financial system.

Overall, the redistribution of intermediated assets out of deposits and into investment fund shares and pension fund shares, etc. could increase the sensitivity of household wealth, and thereby potentially also of consumption, to capital market movements. However, since households' investments in private pension schemes and life insurance are likely to be of a long-term nature, the effect of short-term market volatility on consumption may be limited.

It is noticeable that with regard to the relative size of traditional bank intermediation, as measured by the ratio of holdings of MFI-related financial assets to other intermediated assets, the euro area lies about halfway between the United States and Japan. More specifically, whereas the share of holdings of financial assets in MFIs accounts for 63% of total intermediated financial assets in the euro area, it accounts for only 48% in the United States, compared with 85% in Japan. This pattern is especially evident when looking at households' holdings of intermediated financial assets.

3.2 Monetary financial institutions (MFIs)

At the end of 2000 there were 9,076 MFIs (excluding central banks) in the euro area (see Table 3.2). Seen in a historical perspective, the number of MFIs in the euro area has been declining steadily by about 5% a year over the past couple of decades. However, this trend was interrupted in the late 1990s with the surge in the number of money market funds: these went from occupying a minor position in the MFI population to making up nearly 20% of the total number of MFIs in 2000. Even though the number of money market funds has expanded, the relative size of their assets as a percentage of the aggregated euro area MFI balance sheet is small (around 2-3% at end-2000). The picture is mixed, however, given that in a few countries (France, Ireland and Luxembourg) money market funds' share of total MFI assets amounts to somewhere between 5 and 20%.

The decline in the number of credit institutions is primarily the result of mergers between smaller institutions at both regional and national levels. The number of co-operative banks, in particular, has been declining over recent years, although they still retain an important role in some countries.[15] At the same time, the relative size of universal banks has been increasing, primarily as a result of mergers.

There have been relatively few cross-border mergers regarding banks in euro area countries, and those that have occurred tended to affect larger institutions. In some euro area countries, cross-border mergers with banks outside the euro area have been more common: Austrian credit institutions buying banks in central and eastern Europe, Finnish banks merging with other Nordic and/or Baltic institutions, and Spanish banks acquiring and participating in banks in Latin America.

The euro area banking sector has undergone a wave of consolidation in recent years, although this development has largely been concentrated in a limited number of countries. Partly related to this, the number of branches and the number of employees in MFIs have diminished markedly in some countries, such as Finland, and within certain categories of credit institutions, such as savings banks.[16]

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15 However, in Greece and France the number of co-operative institutions actually increased between 1998 and 2000, counter to the general trend. See also Section 3 of the country chapters.

16 For a more detailed analysis of banking consolidation in the euro area, see "Mergers and acquisitions involving the EU banking industry – facts and implications" ECB, 2000.

Table 3.2: Number of MFIs excluding the Eurosystem
(end of year)

	1998 [1)]	2000
Credit institutions	8,320	7,464
Money market funds	1,516	1,604
Other institutions	8	8
Total	9,844	9,076

Source: ECB, money and banking statistics.
1) The 1998 figures correspond to the euro area-wide number of MFIs as at 1 January 1999.

The number of institutions offering the entire range of universal banking services across borders remains relatively limited. In the euro area, they are restricted to the Benelux countries and Finland (whose financial industry is closely linked to that of the other Nordic countries). Where banks in other countries do operate across borders, they generally tend to focus on specific product segments.

A handful of large institutions have activities throughout the euro area, but cater mainly to corporate customers outside their home market. Cross-border activities in the field of retail banking remain limited, although it is perhaps natural that differences exist in the pattern and nature of integration of banking services for retail customers as opposed to corporate customers. Large international banks can probably better cater to large corporate customers' funding needs and demand for cross-border or even global services; while for retail customers, given that informational asymmetries matter more for households and small and medium-sized enterprises (SMEs), smaller domestic players continue to play a dominant role. It is therefore unlikely that retail banking services will experience the same degree of integration as corporate banking.

All in all, this simply suggests that integration in the banking industry is more likely to occur through liquid integrated markets for interbank funding and through developed markets for loan securitisation and credit derivatives (see also Section 4.3 on financial innovation), rather than just through cross-border mergers of banks.

Table 3.3: Concentration of the banking sector (euro area average)
(end of year)

	1998	2000
Herfindahl	0.058	0.064
Top five's share of total assets (%)	36	39

Sources: National statistics.
Note: Weighted averages. Number of banks used as weightings.

The growing number of mergers between MFIs, which, all things being equal, implies the creation of larger entities, has led to an increase in the concentration of the euro area banking sectors at national level (as evidenced by Table 3.3[17]). Even though the trend is clearly towards a more concentrated banking sector, the degree of concentration still varies considerably from one member country to the next. At the end of 2000, concentration in the

17 Concentration indices for the euro area are not available. The indices in Table 3.3 have been constructed using a weighted average, where the weightings are the number of banks in each country. This weighted average presumably overestimates the true value.

banking sector, measured in terms of the five biggest domestic banks' shares of total assets, was above 70% in Belgium, the Netherlands and Finland, and above 50% in Greece, Spain and Portugal. In Italy, it was 54% when measured considering the five largest banking groups, while in Portugal, according to the same measure, it was over 80%.[18] In all the other countries, the value of the index was below 50%, and in Germany, around 20%. In comparison, the share of the five largest banks was 27% in the United States and 30% in Japan.[19] More or less the same picture emerges from the Herfindahl indicator, which measures global concentration in a market.[20]

MFI assets

Despite the fact that funds have moved more into other intermediaries than into MFIs, the value of MFIs' assets to GDP nevertheless rose during the period 1998-2000, and at the end of 2000 it amounted to 255% of GDP. Thus, the hypothesis that the importance of traditional banking is declining in relative terms reflects the increasing importance of other financial channels (see Section 3.1).

The "core" of the asset side of the aggregated balance sheet of the euro area MFIs consists of loans, which accounted for more than 70% of the total assets at the end of 2000, followed by securities other than shares, which made up around 16% (see Table 3.4). Shares and other equity at the end of 2000 amounted to around 5% of total assets. The composition of total assets of MFIs is broadly similar across euro area countries.

Loans to resident non-MFIs amounted to 41% of total assets in 2000. Thus, even disregarding interbank lending, loans constituted the most important asset of the balance sheet of euro area MFIs, and this classical bank intermediation activity hence remains highly significant. This is also underlined by the fact that loans to resident non-financial in the euro area in 2000 amounted to about 105% of GDP. In comparison, in the United States and Japan loans to resident non-financial sectors as a ratio to GDP only stood at 40% and 90% respectively at the end of 2000.[21]

As regards the maturity structure of loans, it is notable that medium and long-term lending predominates, constituting about 75% of total loans[22] to resident non-MFIs at the end of 2000. Lending to enterprises and mortgage lending, in particular, are granted on medium and long-term conditions. Long-term lending at fixed interest rates would, ceteris paribus, protect borrowers against the direct effects of changes in monetary policy interest rates. However, in Greece, Ireland, Italy, Luxembourg, Portugal and Finland, short-term or medium and long-term variable rate loans still dominate. In all other member countries, and in Germany and the Netherlands in particular, medium and long-term lending at fixed interest rates is the norm. The heterogeneity across the euro area with respect to the use of medium and long-term vs. short-term lending and fixed vs. variable-rate lending is to a large extent a result of different

18 This is the appropriate national measure of concentration in those countries, as Italy and Portugal, where the trend was more towards forming conglomerates/banking groups rather than for outright mergers. In the case of Italy and Portugal, the concentration index based on the five largest banks, which is respectively only around 20% and 60%, underestimates concentration, since it does not take into account this effect (see the relevant country chapters).

19 Cf. Group of Ten, "Report on Consolidation in Global Banking in the Financial Sector", January 2001.

20 The Herfindhal indicator (HI) equals the sum of squared market shares. This indicator, by including all institutions in the calculation, takes the entire banking market into consideration as opposed to just the share of total assets of the top five credit institutions. See also Box 1 in "Mergers and acquisitions involving the EU banking industry – facts and implications," ECB, 2000.

21 Banking data for the United States are based on the Federal Reserve Statistical Release "Assets and liabilities of commercial banks in the United States" (8 February 2002). These do not include savings institutions. An approximation based upon the flow of funds statistics indicates that including savings institutions would increase the US figure by around one-fifth. Banking data for Japan are based on Bank of Japan information, "Financial and Economic Statistics Monthly," May 2002.

22 This value does not include loans to central government.

historical patterns in the level and variability of inflation and interest rates. The convergence in inflation rates and interest rates leading up to the introduction of the euro suggests that the future lending behaviour of euro area MFIs will turn out to be more homogeneous.

As for the sector breakdown of MFIs' holdings of securities, it should be noted that the composition changed significantly between 1998 and 2000. In particular, the holdings of securities other than shares issued by non-euro area resident institutions increased remarkably, reaching 17% of the total holdings of securities other than shares in 2000 compared with 12% in 1998. The same trend was seen with respect to shares and other equity. The percentage of MFIs' holdings of shares and other equity issued by non-residents increased from 10% in 1998 to 15% in 2000. The tendency to hold an increasing share of non-domestic securities (shares as well as securities other than shares) applies both to securities issued by residents from other euro area countries and to securities issued by residents from outside the euro area.[23] While the former may reflect growing financial integration among the euro area countries, the latter represent a more general trend towards the internationalisation of portfolios.

MFI liabilities

The "core" of MFI liabilities is constituted by deposits, which at the end of 2000 amounted to around 67% of total liabilities (see Table 3.4), with only minor variations across the euro area. With a share of 32%, deposits held by resident non-MFIs were the largest item on the liabilities side of the MFIs' balance sheet, underlining the fact that the "traditional" intermediation role of MFIs remains important. This share declined, however, in the period from 1998 to 2000. The ratio of loans to resident non-MFIs over deposits held by resident non-MFIs widened from 1.19 in 1998 to 1.29 in 2000. This implies that MFIs increasingly had to look beyond traditional deposits and seek alternative sources of funding for their lending activities, such as non-resident interbank funding and securities issuance.

Debt securities issued by MFIs have been growing in importance as a means of funding, and constituted 17% of total liabilities at the end of 2000. This notable trend may partly be due to the increasing concentration in the banking sector as well as the establishment of large universal banks with improved access to securities markets. Furthermore, the introduction of the euro and the associated elimination of exchange rate risk might also have contributed to enhancing banks' possibilities for debt issuance. Demand effects, such as a shift in demand among investors from traditional low-risk deposits to more price-sensitive financial assets like bank securities, may also be part of the explanation, especially in an environment of relatively reduced government debt issuance.

The growth of money market funds is reflected in the aggregated MFI balance sheet, where money market funds/shares increased to over 2% of total liabilities in 2000. As mentioned above, the relative importance of money market funds varies significantly across euro area countries, and is particularly notable in France, Ireland and Luxembourg. The extent to which money market funds are important seems mainly to depend on the regulatory environments in the respective countries (see also the country chapters).

At the end of 2000 capital and reserves stood at 5.6% of total liabilities in the euro area. However, the degree of capitalisation varies considerably across the euro area countries. In Germany capitalisation only amounted to around 4% in 2000, whereas at the other end of the spectrum this ratio stood at 9% and 10% respectively in Spain and Greece.

23 See country chapters.

Interbank activities

While the share of traditional deposits from resident non-financial sectors declined during the period under review, the share of interbank funding (including deposits held by banks outside the euro area) increased somewhat. Interbank loans and deposits are generally very important, accounting for around one-quarter of total balances.

Table 3.4: Aggregated balance sheet of MFIs, excluding the Eurosystem

(individual assets/liabilities as a % of total; end of year)

Assets	**1998**	**2000**
Cash	0.3	0.3
Loans	72.5	71.0
to resident MFIs	22.1	21.0
to other residents	41.6	41.4
of which < 1y original maturity [1)]	8.9	9.3
of which 1y < orig. mat. < 5y [1)]	4.6	5.2
of which 5y < orig. mat. [1)]	26.9	25.8
to non-residents	8.8	8.6
Securities other than shares	16.1	15.8
issued by resident MFIs	5.1	5.6
short term (< 1y)	0.1	0.2
long term (> 1y)	5.0	5.4
issued by other residents	9.1	7.5
short term (< 1y) [1)]	0.7	1.7
long term (> 1y) [1)]	6.8	6.2
issued by non-residents	1.9	2.7
Money market paper	0.8	0.8
Shares and other equity	4.1	5.3
issued by resident MFIs	1.2	1.4
issued by other residents	2.5	3.1
issued by non-residents	0.4	0.8
Fixed assets	1.1	1.0
Remaining assets	5.2	5.8
Total assets	100	100
Liabilities		
Deposits	68.7	66.9
from resident MFIs	23.2	22.0
from other residents	34.9	32.2
of which overnight deposits [2)]	9.7	9.9
of which other deposits [2)]	24.5	21.6
from non-residents	10.6	12.7
Money market fund shares	1.7	2.4
Securities other than shares	15.9	16.9
short term (< 1y)	1.4	2.0
long term (> 1y)	14.5	14.9
Capital & reserves	5.3	5.6
Remaining liabilities	8.5	8.2
Total liabilities	100	100
Total assets/liabilities as a % of GDP	237	255

Source: ECB, money and banking statistics.

1) The breakdown by maturity does not add up to the total since central government is not included in the breakdowns.

2) The breakdown by instrument does not add up to the total since central government is not included in the breakdowns.

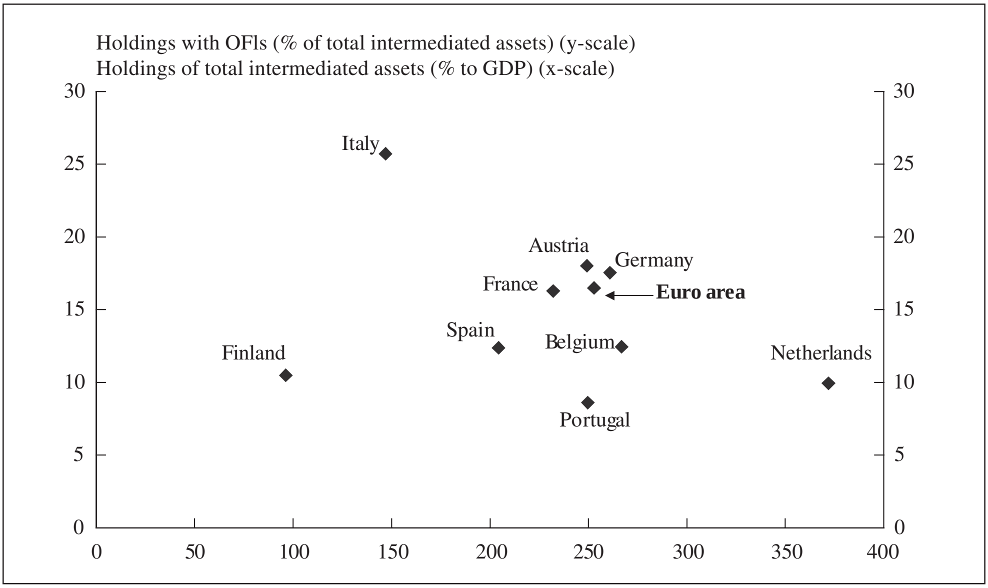
There is no uniformity regarding the nature and importance of interbank activities across institutions and across countries. Credit institutions that do not have access to the debt securities markets, for example because they are too small, may nonetheless have a funding need which can then be covered through interbank lending. Certain banking structures, such as interrelated institutions like co-operative banks and savings banks, which are prevalent in some countries, tend to fund themselves and make placements via their parent institutions, thereby expanding interbank volumes.

Furthermore, interbank business basically serves as a means of adjusting liquidity in the banking system and thus tends to be characteristically more volatile than other balance sheet items. By circulating liquidity the interbank market represents an important link between institutions and therefore eventually also eases access to credit for the non-financial sectors. Moreover, the observed expansion of interbank business is in line with what could be expected after the transition from a large number of segmented money markets anchored to domestic currencies before the introduction of the euro, to a unified money market underlying the single monetary policy in the euro area.

3.3 Other financial intermediaries (OFIs)

The importance of other financial intermediaries (OFIs), especially investment funds, has increased remarkably over the past few years, and this is reflected in the significant flows of funds into OFIs between 1998 and 2000 (see Table 3.1). At the end of 2000 their assets amounted to 49% of GDP, and they represented one-sixth of all intermediated assets in 2000.

Chart 3.3a: Percentage of holdings with OFIs of intermediated assets
(end-2000)



Sources: ECB, NCBs, financial accounts statistics.
Note: No data are currently available for Greece, Ireland and Luxembourg.

Table 3.5: Aggregated balance sheet of investment funds
(individual assets/liabilities as a % of total; end of year)

Assets	**2000**
Deposits	7
Securities other than shares	39
up to 1 year	2
over 1 year	37
Shares and other equity 1)	43
Investment fund shares/units	6
Fixed assets	3
Other assets 2)	3
Total assets	100
Liabilities	
Deposits and loans taken	1
Investment fund shares/units	96
Other liabilities 3)	3
Total liabilities	100
Total assets/liabilities as a % of GDP	50
Total assets of investment funds by type of fund	
Equity funds	30
Bond funds	30
Mixed funds	27
Real estate funds	4
Other funds	9
Total of all funds	100

Source: Preliminary estimate based on aggregation of national data.
Note: The Eurosystem Money and Banking Statistics functions are in the process of finalising new statistics on other financial intermediaries. The first data will be released in January 2003. As a consequence, it is not yet possible to provide firm statistical information. However, broad percentage shares may be given about the business of the other financial intermediaries, which should be treated with caution.
1) Excluding investment fund shares.
2) Including loans and financial derivatives.
3) Including debt securities issued, capital and reserves and financial derivatives.

OFIs were relatively important in Italy and Luxembourg[24] and, to a somewhat lesser extent, in Germany, France and Austria (see Chart 3.3a). There does not seem to be one single explanation for the comparable importance of OFIs in these countries, although tax treatment and legal structures have apparently played a role.

Investment funds are estimated to make up more than 80% of the assets held by OFIs. The growth of investment funds was mostly sparked by households, and at the end of 2000 they held about one-half of all investment fund shares. As a result of the low interest rates and booming stock markets during the latter half of the 1990s, households increasingly substituted traditional savings and deposits for investment fund shares. However, in the period 1998-2000, financial corporations actually invested almost the same amount in investment funds as households, with insurance companies, pension funds, etc. including investment funds in their portfolio investments.

The assets of investment funds mainly consist of shares and securities other than shares: these accounted for roughly 40% each of total assets in 2000 (see Table 3.5). Holdings with

24 See the country chapter, since financial accounts data are not available for Luxembourg, and holdings with OFIs are thus not reported in Chart 3.3a.

other financial corporations, either through deposits or investment fund shares, made up most of the remainder. Holdings of shares, in particular, grew in importance from 1998 to 2000, although this was presumably partly due to revaluation effects. Concerning securities other than shares held by investment funds, it is worth noting that these are almost entirely longer-term securities, mirroring the fact that investment fund shares, especially for households, typically serve as long-term saving instruments.

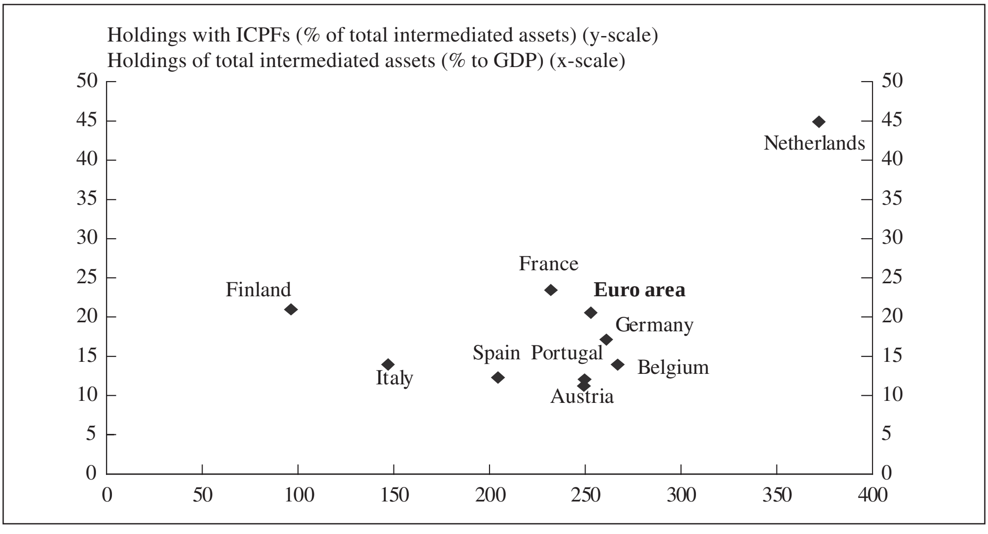
Among investment funds, equity, bond and mixed funds accounted for 30% each in terms of assets in 2000, while real estate funds represented 4%. However, this distribution masks significant differences between the euro area member countries, with equity funds especially important in the Benelux countries and in Finland. The overall trend until end-2000 was that equity and mixed funds continued to rise in importance relative to bond funds.

Another noticeable trend was the growing importance of OFIs' holdings of assets issued by non-residents (shares in particular), which even in the largest member countries increased relative to resident assets. This points to a diminishing home bias, which could reflect the removal of exchange rate risk within the euro area following the introduction of the euro. In some countries, the removal or loosening of regulatory quantitative limits on the share of foreign assets to total assets that investment funds are allowed to acquire is also likely to have intensified the trend towards more internationally diversified portfolios.

3.4 Insurance corporations and pension funds (ICPFs)

In most euro area countries, public pension schemes have traditionally played a dominant role in households' saving for old age. However, current demographic trends have heightened incentives to create complementary (private) pension schemes and, as shown in Table 3.1, the financial flows into insurance corporations and pension funds (ICPFs) during the period under review were consequently quite significant. It is almost exclusively households that

Chart 3.4a: Percentage of holdings with ICPFs of intermediated assets
(end-2000)



Sources: ECB, NCBs, financial accounts statistics.
Note: No data are currently available for Greece, Ireland and Luxembourg.

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(individual assets/liabilities as a % of total; end of year)

Assets	**1998**	**2000**
Deposits	13.5	13.0
Securities other than shares	34.4	30.4
Shares and other equity	35.1	42.6
Fixed assets	-	-
Remaining assets	17.0	14.0
Total assets	100	100
Liabilities		
Technical reserves	80.2	79.1
Remaining liabilities	19.8	20.9
Total liabilities	100	100
Total assets/liabilities as a % of GDP	51.0	58.0

Source: National statistics.

hold so-called technical reserves in the ICPFs, whose total assets amounted to almost 60% of GDP in 2000.

Shares and other equity are the largest item on the asset side of the ICPFs' aggregated balance sheet. At the end of 2000, shares (including investment fund shares) accounted for about 43% of total assets, while securities other than shares contributed 30% and deposits 13%. Whereas the percentage of deposits was broadly stable from 1998 to 2000, there was a significant increase in the percentage of shares, while the percentage of securities and other assets declined. The change of composition at least partly reflects revaluation effects primarily stemming from the stock market rise during these years.

As one might expect, technical reserves accounted for the major part (around 80%) of the liabilities of ICPFs at the end of 2000.

It is worth noting that the relative size of life insurance, casualty insurance, public and private pension funds, as well as the ICPF sector's importance relative to GDP, varies a great deal across the euro area countries (Chart 3.4a). At the euro area level, holdings with ICPFs represented about 20% of all intermediated assets held by residents in 2000. In the Netherlands, however, the ICPFs' share amounted to around 40% of all intermediated assets.[25] These variations reflect, among other things, country-specific factors with regard to the degree of mandatory funded pension schemes, the social security system and the tax treatment of voluntary pensions. In particular, countries that have historically had a generous coverage through public pension schemes tend to have a less developed private pension fund industry.

25 It should be noted, however, that in the Netherlands and in Finland a large part of pension schemes are funded through private pension funds (see country chapters), and this therefore tends to boost the ICPF sector's share of total intermediated assets in these two countries.

4 Markets

At the end of 2000, the value of non-intermediated financial assets (e.g. shares and securities other than shares) totalled more than 300% of euro area GDP, thus exceeding the value of intermediated assets, which amounted to around 250% of GDP in 2000 (see Tables 3.1 and 4.1).[26] Clearly, the higher weight of non-intermediated assets was partly due to the particularly high valuation of shares in 2000. But euro area residents also invested more in non-intermediated than in intermediated assets during the period 1998-2000, primarily on account of transactions of corporations.

Shares and other equity accounted for around 65% of the non-intermediated financial assets held by euro area residents, and their value was around 200% of GDP at the end of 2000. However, financial transactions in non-intermediated assets primarily involved securities other than shares, reflecting in particular acquisitions made by financial corporations during this period (see Table 4.1).

Between 1998-2000, investment in shares was higher than that in other securities for the household and non-financial corporations sectors. Only financial corporations invested in bonds to any significant extent during this period. At the end of 2000, 75% of household holdings of non-intermediated assets consisted of shares and other equity. For non-financial corporations and the government sector, the percentages were as high as 91% and 83% respectively. On the other hand, investment by financial corporations was more evenly split between holdings of shares (44%) and holdings of other securities (56%).

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares and other equity	Securities other than shares
Acquisitions (Average annual financial transactions, 1998-2000)		
Households	0.6	-0.5
Non-financial corporations	4.7	1.0
General government	-0.5	0.1
Financial corporations	5.1	12.1
Total	9.9	12.7
Holdings (Amounts outstanding, end-2000)		
Households	55.6	18.8
Non-financial corporations	75.5	7.7
General government	9.6	2.0
Financial corporations	61.7	79.4
Total	202.4	107.9

Source: ECB, financial account statistics.

Non-intermediated instruments are now playing an increasingly important role in most countries. However, the ratio to GDP of non-intermediated assets held by resident sectors differs quite significantly between countries, from about 1.25 in Austria to almost 5 in Finland

26 These figures also include intermediated and non-intermediated assets of financial corporations, which are not included in Table 1.

in 2000. The percentage of equity in the national portfolios of non-intermediated assets also varies from 30% to close to 80%.

Holding around 300% of GDP in non-intermediated assets, the euro area was around half way between the United States, where residents held 380% of GDP in non-intermediated assets in 2000, and Japan, where residents only held 250% of GDP in such assets in 2000. In the same vein, holdings of non-intermediated assets by euro area households are between the levels of the United States and Japan. At the end of 2000, households in Japan held 40% of the value of GDP in non-intermediated assets, divided more or less evenly between shares and other securities. In the euro area, they held a value of 74% of GDP, and placed 75% of the total in shares, while in the United States they held a value of 147% of GDP and placed 83% of those assets in shares.

Non-financial corporations held 26% of all euro area residents' non-intermediated assets. The corresponding figure was 13% in Japan and only 4% in the United States. This difference across countries may reflect structural specifics in the organisation of groups of companies. Factors such as a preference for establishing branches rather than subsidiaries, or the fact that corporate cross-shareholdings are rather more common for corporations based in the euro area than elsewhere,[27] may contribute to explaining the differences.

4.1 The bond market

The bond market has changed significantly over the past few years. Changes have been observed in particular as regards the liquidity of the markets, tick sizes, the behaviour of sovereign issuers, growth in the corporate bond market, the more closely integrated pan-European trading possibilities and, finally, what seems to be a certain degree of specialisation among countries in the euro area.

4.1.1 The primary market: issuance

The total amount outstanding of euro-denominated debt securities issued by euro area residents grew by 7% a year in the period 1998-2000 to reach 125% of GDP by the end of 2000. However, these growth rates differed sharply between issuing sectors.

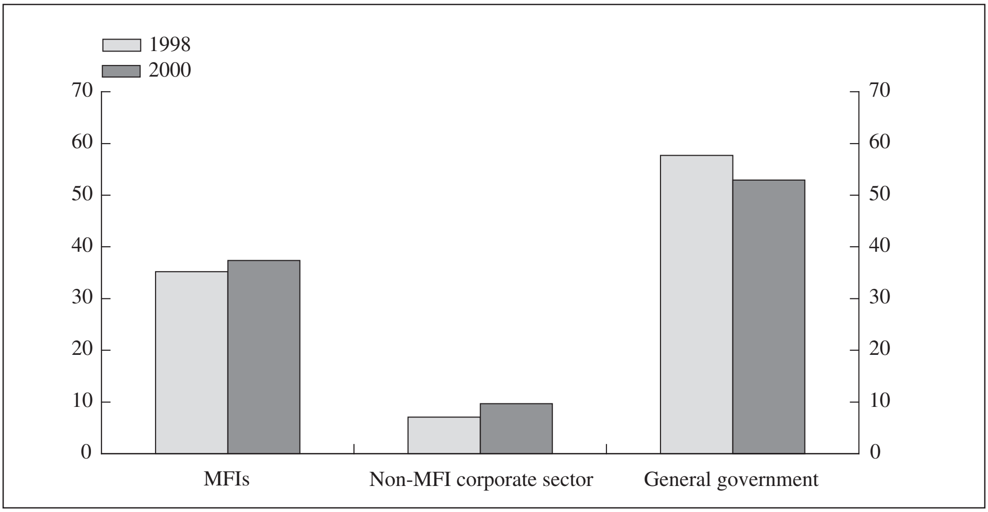
On account of fiscal prudence, the stock of public debt securities issued by central governments only grew by about 4% a year in the period 1998 to 2000, while the nominal amount outstanding of securities issued by banks increased at around 10% a year. In addition, the start of Stage Three of Economic and Monetary Union seems to have had a strong, positive impact on the possibilities for corporate issuers (both financial and non-financial) to resort to this financing source. This manifested itself in growth rates in the amount outstanding of corporate debt securities of between 20% and 40% a year. One driving force behind this growth was the merger and acquisition activity that characterised the telecommunications sector. Companies belonging to this sector accounted for almost 40% of total gross corporate securities issuance in 2000.[28] While the nationalities of the issuers were spread quite evenly across the euro area, with differences depending primarily on industry structure, the bulk of actual issuance activity was concentrated in just a few countries.

As a result of these very different sectoral growth rates in securities issuance, the relative shares in the total amount outstanding between the sectors have changed. The government share of the amount outstanding of debt securities declined from 58% to 53% from end-1998 to end-2000. That of other corporations increased from 7% to 10%, while the share of the MFI sector grew from 35% to 37%.

27 For a discussion of the use of cross-shareholding in the financial and non-financial sector of euro area countries, see Morin (2000), Gorton and Schmid (2000) and Focarelli and Pozzolo (2001).

28 Source: Bondware.

Chart 4.1: Development in the shares of the amount outstanding of euro-denominated debt securities by issuing sector
(as a % of total)



Source: ECB, Securities issues statistics.
Note: "The non-MFI corporate sector" includes non-financial corporations and so-called non-monetary financial corporations (OFIs, ICPFs and other financial intermediaries [29]).

The differentiated pattern of growth and the above-mentioned changes in the sectors' shares in the total amount outstanding apply to virtually all euro area countries.

In all but three countries, in terms of amounts outstanding, government debt retained the largest market share, with the share of debt securities issued by MFIs ranking second and corporate debt third. The exceptions are Luxembourg, where government debt was virtually nil, Germany, where the Pfandbriefe market was larger than the government debt market, and the Netherlands, where corporate issuance was larger than both MFI and government debt.

The total value of the debt securities market in the euro area was 90% of GDP at the end of 2000, compared with 160% in the United States and 134% in Japan.[30] While the differentiated growth rates of the debt market segments in the euro area have led this market increasingly to resemble that of the United States, the picture is quite different in Japan, where strong growth in government debt securities has been observed in the context of a prolonged recession. In 2000, Japanese government debt securities were worth almost 100% of GDP and thus dominated the Japanese debt market.

As regards public debt, the interest rate spreads among government issues decreased continuously up to the launch of the euro, as foreign exchange rate risk disappeared. After January 1999, however, spreads increased again, reflecting differences in credit risk and, more importantly, in liquidity. Specifically, ten-year bond yield spreads have increased in Luxembourg, the Netherlands and Austria. In 2001, the situation reversed, so that at the end of the year the spreads stood at similar levels to the ones observed in early 1999. To increase liquidity, euro area countries with smaller amounts of government debt in particular have

29 See also the statistical notes.
30 BIS securities statistics.

shifted their issuance policy towards fewer, larger issues. Overall, the maturity of government debt has also increased (see Section 5.2 for more details).[31]

4.1.2 The secondary market: organisation and integration

Historically, trading in debt securities in the euro area has been carried out on the over-the-counter (OTC) market, with government bonds constituting the benchmark for their national currency in each domestic market. With the introduction of the euro, the need for different benchmarks disappeared, and it seems that a certain amount of specialisation has taken place among countries with large amounts of government debt, leading to benchmark status being assigned to different issuers depending on the maturity segment.

Some electronic trading platforms[32] have recently expanded to cover trading in most euro area government bonds. The shift from OTC to trading on these electronic, cross-border platforms has differed across countries. The popularity of these platforms is generally higher in countries with a relatively small amount outstanding of public debt securities. This might reflect substantial differences in the entry costs among national markets. For instance, the German market has enough size and liquidity to attract a high number of global investors, and displays certain national peculiarities, such as being futures-driven. On the other hand, smaller government debt markets may not be able to attract foreign investors since they lack these features. Access to all these markets through a common, cross-border platform apparently represents an attractive feature for bond traders. Altogether, it would seem that these trading platforms have had quite a significant positive impact on the integration of government debt markets in the euro area, and on the liquidity of some of the smaller markets, as evidenced by the decline in trading spreads and in the rate spreads between these smaller markets and the Bund market (see individual country chapters).

The secondary markets for debt securities by private issuers have generally been characterised by a fairly low degree of liquidity, in particular in corporate debt securities, for which demand was virtually non-existent in a number of countries. The strong growth in corporate issuance and in tick sizes on the primary markets has started to have an impact on the secondary markets to the extent that for the very large corporate debt issues (those with an amount outstanding above €3 billion), the secondary markets are also admitted to the trading platforms used for government debt securities. However, even though average sizes of corporate debt issues have increased tremendously over the past few years (from below €140 million in 1997 to just above €500 million in 2001),[33] trading in the bulk of the amount outstanding of corporate debt securities is still confined to domestic markets, often with limited liquidity.

The market for short-term corporate debt securities, the commercial paper (CP) market, is a somewhat special case. Euro area issuers typically issue short-term securities either in their national domestic market, which is most developed in France and Germany, or through an offshore segment called the euro commercial paper market (ECP). The main difference between the two types of markets is that while papers issued in domestic markets are essentially purchased by domestic investors, the investor base in the euro commercial paper market is much more diversified geographically. To date the various commercial paper markets have remained highly segmented, although a convergence of technical features, in

31 See also “The euro bond market”, ECB, July 2001.
32 Galati and Tsatsaronis (2001) report that in 2000 an estimated 40% of all bond transactions took place through the euro-MTS electronic platform.
33 Source: Bondware, average size of corporate debt issues denominated in euro.

particular between the French market and the euro commercial paper market, seems to be taking place.

4.2 The stock market

The growing importance of shares has been the main driving force behind the increased weight of market instruments in the total holdings of financial assets, as described above. Widespread ownership of shares is still a relatively new phenomenon in most euro area countries. Although it has been growing fairly significantly over recent years (also partly on account of revaluation effects), at 56% of GDP in 2000, ownership by euro area households was significantly lower than in the United States (122% of GDP), but higher than in Japan (23% of GDP).[34] In the euro area, the bulk of investment in shares in the period 1998-2000 was made by financial and non-financial corporations.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of public companies listed	3,870	5,103
Market capitalisation of listed domestic shares (EUR millions)	3,625,348	5,720,685
Market capitalisation of listed domestic shares (as a % of GDP)	61	89
Gross amount of capital raised by domestic companies through listed shares (EUR millions)	120,010	245,720
Concentration indices (top ten company share of total market capitalisation) [1)] (%)	62	67
Number of foreign companies listed [2)]	971	976
Number of stock exchanges and other organised exchanges	28	29
Number of participants in these markets [3)]	1,692	2,178
Share of non-domestic participants (as a % of total) [4)]	14	26
Total turnover (as a % of GDP)	86	139

Sources: National statistics.

1) Euro area average; the 1998 figures for the Netherlands are based on data from the World Federation of Exchanges (FIBV).
2) Euro area average. Hence, foreign companies may include companies from other MUMS. For Germany the figures are based on data from the World Federation of Exchanges (FIBV).
3) Due to the fact that several market participants are present in more than one market, this number will be influenced by some degree of double-counting. Ireland, the Netherlands and Portugal are not included with regard to the 1998 figures.
4) Ireland and Luxembourg are not included in this figure. The Netherlands and Portugal are not included for 1998.

The extensive use and importance of non-listed shares seems to constitute a noteworthy characteristic of the euro area financial system, resulting partly from the importance of small and medium-sized enterprises (SMEs). Full data coverage on the value of private shares in the euro area are not readily available in all countries, and significant differences persist concerning the valuation of these financial instruments. However, a comparison of the total value of shares and other equities in the euro area and the value of the total market capitalisation reveals a remarkable gap, which represents the value of non-listed shares held by residents, as well as their holdings of foreign shares.

34 As already explained in Section 3, euro area households have invested significant amounts in indirect holdings of shares through investment funds. Once again, in this category US households hold substantially more than euro area ones, while Japanese households hold less.

4.2.1 The primary market

Market capitalisation in the euro area increased from 61% of GDP in 1998 to 89% in 2000 (see Table 4.2). Around 38% of this increase was fuelled by share issuance, while the primary cause was rising prices.[35] In terms of the value of initial public offerings (IPOs) and subsequent share offers, the privatisation policy implemented by several euro area governments played an important role. The telecommunications sector is a well-known example, but privatisation has also had an impact on other utilities, such as water, energy, transportation and postal services. The total number of IPOs in the euro area exceeded that of the United States for the first time in 1999. Furthermore, in 2000 the euro area IPO market was also higher in terms of value (€157 billion) than that of the United States (€138 billion).[36] The high number of IPOs resulted in a net increase in publicly listed companies on euro area exchanges in spite of the fairly high number of delistings, stemming from consolidation in various euro area industries which gathered speed after the introduction of the euro. However, the increasingly large size of the companies resulting from this consolidation process contributed to a slight increase in the average concentration index on the different euro area stock exchanges.

4.2.2 The secondary market

Stock trading in the euro area has historically taken place on the national stock exchanges. Although the introduction of the euro gave some impetus to consolidation of the trading structures, recent developments seem to point more towards specialisation and segmentation than consolidation. This is supported by the fact that the total number of exchanges in the euro area actually increased between 1998 and 2000.[37] In addition, existing exchanges organised new incorporated segments specialising in the trading of technology firms or firms with low capitalisation.[38] Alternatively they often offer different trading systems, which provide inexpensive and easy access to trading in a limited amount of shares, typically of the largest companies, i.e. the blue chips of the various national stock exchanges. It is possible that through the resulting increase in competitive pressure, the proliferation of suppliers of trading infrastructure is a necessary step on the road towards consolidation. The most noticeable example of consolidation already taking place is the creation of Euronext, a common trading platform for Belgian, Dutch and French shares (see the Belgian country chapter for more details).[39]

From 1998 to 2000, the average share of non-domestic participants in the exchanges of the euro area countries increased from 14% to 26%. This would seem to indicate that even if the current trading structure is not in itself integrated, a fair amount of integration is achieved through the very high level of cross-border participation in the euro area stock markets.

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35 Corrected for price increases, market capitalisation rose by 17% in the euro area between 1998 and 2000, compared with an increase of 8% in the United States and of 7% in Japan. Sources: Datastream and ECB calculations.

36 See the “Euro equity markets,” ECB, August 2001.

37 Anecdotal evidence suggests that a process of consolidation has been taking place since end-2000, reflecting more recent developments in certain stock market segments.

38 Among them, the seven new markets (NM) created between 1996 and 2000 (Amsterdam NM, Brussels NM, Helsinki NM, Neuer Markt, Nouveau Marché, Nuovo Mercato and Nuevo Mercado) are of particular importance (refer also to country chapters).

39 It should, furthermore, be noted that the Portuguese stock market merged with Euronext in January 2002.

4.3 Financial innovation in the euro area

Recent decades have seen a remarkable increase in the number of financial innovations.[40] These play an important role in the functioning of the financial system. Instruments such as asset-backed securities/securitisation and financial derivatives of various kinds are commonly used. This development has been sparked, inter alia, by the evolution of new technologies, the liberalisation, deregulation and integration of capital markets, and other regulatory initiatives at the national as well as supra-national levels. The new financial instruments are changing the way financial markets function and the ways financial intermediaries operate. Hence, financial innovations per se have profound implications for financial structures in the euro area, for the single monetary policy and for financial stability. The following paragraphs therefore aim to summarise the information on financial innovations in the individual country chapters of this report. It should be noted that statistical information on this issue is sparse and highly fragmented (non-harmonised), thereby severely limiting the analysis.

As discussed in some of the individual country chapters of this report, legal/regulatory changes adopted during the 1990s were crucial in fostering the creation of many new financial instruments, such as asset-backed securities and other financial derivatives. By way of an example, it seems that specific legislation allowing for the setting-up of "special purpose vehicles" (SPVs) and "financial vehicle corporations" (FVCs) in the context of securitisation has been instrumental in sparking the growth of the securitisation business in euro area countries (e.g. in Belgium, Spain and Portugal).

Securitisation – defined as the conversion of pools of financial assets into marketable financial instruments through the legal transfer of assets from the balance sheet of the originator to the third party – is an important and developing phenomenon in the euro area. Most euro area countries report an increasing use of securitised debt. There is also evidence suggesting that securitisation is growing in popularity as a balance sheet management tool for credit institutions, acting both as an alternative to deposit funding and, on the asset side, as an instrument for reducing capital requirements. There seem to be significant differences among euro area countries as regards the nature of securitisation (e.g. whether it is mainly household debt or corporate debt that is being securitised, and whether the securities issued are mainly short-term or long-term) and the relative quantities of securitised debt.

As in the United States, synthetic securitisation – defined as the process whereby the risks associated with loans are transferred to the market through the use of credit derivatives, while the loans remain on the balance sheet of the issuer – has also increased in popularity in the euro area.[42]

The overall amount of securitisation outstanding in the European Union was (according to estimates) €150 billion at the end of 2000.[43] The euro area market is still relatively fragmented and quite small in terms of the amounts outstanding compared with the United States. In the euro area, the asset-backed segment (excluding Pfandbriefe) is small compared with issues by government, financial institutions and Pfandbriefe (see Chart 4.3a).[44]

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40 Innovation can be defined as "something new that reduces costs, reduces risks, or provides an improved product/service/instrument that better satisfies participants' demands", Frame and White (2002).

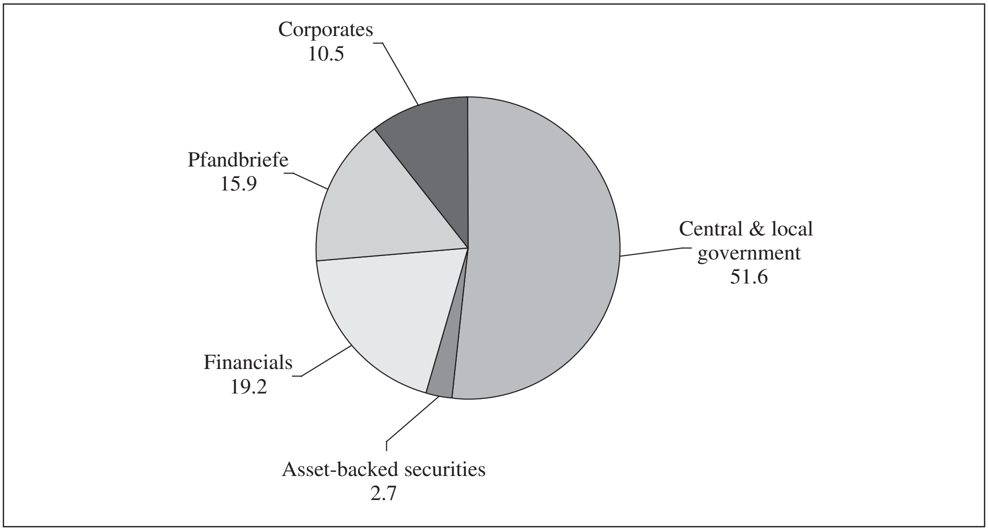
41 "Quarterly note on the euro-denominated bond markets" (October-December 2001).

42 On a global scale, the amounts outstanding of credit derivatives increased more than sixfold between 1998 and 2001. See BIS (2001), "Triennial Central Bank Survey, foreign exchange and derivatives market activity in 2001".

43 No figures exist for the distribution between the two forms of securitisation in the European Union and in the euro area.

44 For a discussion of the Pfandbriefe market, see the German chapter.

Chart 4.3a: Euro-denominated gross bond issuance
(as a % of total)



Source: European Commission.[41]

Another important financial innovation is the significant increase in the use of derivatives. There has been huge growth in exchange-traded and over-the-counter (OTC) markets and in the use of these instruments by financial intermediaries over the past three decades in order to manage and trade risk. Organised derivatives markets were set up in most euro area countries in the mid-1990s, and this helped trigger the growth of derivatives trading. Technological advances in clearing and settlement systems, trading platforms, etc. have also contributed to facilitating derivatives trading. More fundamentally, it would seem that the growing use of derivatives is related to the fact that financial intermediaries such as credit institutions face lower participation costs, in terms of time and the ability to deal with complex transactions, than individuals in operating on these markets. This facilitates a role for these intermediaries in risk management.[45] In turn, the provision of this service provides the opportunity for non-financial sectors to manage their financial risks via the risk management services offered by intermediaries. This type of argument has been used to explain the changing nature of the role of financial intermediaries, from mainly channelling funds from sectors with a financial surplus to those with a deficit, to also providing services to manage the risks that the various sectors incur as a result of holding financial instruments.

This gives rise to a high level of interdependency between financial markets and intermediaries. They compete with each other, while at the same time providing services to each other. The majority of the users of financial derivatives are financial intermediaries themselves.[46] In terms of the notional amount outstanding or gross market value, interest rate products are the most important types of derivatives instrument. Within this category, the swaps market, including euro-denominated swaps, accounts for just below 65% of the total

45 See Allen and Santomero (1997, 2001). The authors discuss the distinction between intertemporal risk-sharing traditionally carried out by intermediaries and that carried out in market-based systems. This view has not been without its critics: see, for example, Scholtens and van Wensveen (1999).

46 See BIS, Quarterly Review, on the basis of figures for global (i.e. all currencies) OTC markets.

notional amount outstanding in OTC markets. As mentioned above, the majority (87.5%) of these instruments are used in transactions between financial institutions or intermediaries, with only a small minority (12.5%) of the counterparts to transactions belonging to the non-financial sectors.

The activity of the OTC derivatives markets in the euro area grew by around 35% between April 1998 and April 2001.[47] This development was mainly driven by a marked increase in interest rate derivatives, notably forward rate agreements (FRAs) and swaps, which increased by 170% in the euro area as a whole. Apart from fundamental changes in risk management activities, the introduction of the euro is likely to have contributed to this expansion by creating a large and liquid market for euro-denominated interest rate swaps. By eliminating trading on the currencies of the euro area countries, the introduction of the euro may also partly explain the decline in turnover of foreign exchange products (both those traded on organised exchanges and those traded OTC) observed from April 1998 to April 2001. Hence, the euro area turnover of OTC-traded foreign exchange instruments decreased by 22%, while exchange-traded instruments decreased by 30%. The euro area's share of total OTC-traded derivatives in April 2001 amounted to around 23% of the global market turnover, which represented an increase of 4% since April 1998.[48] This increase resulted from a larger share of the trade in interest rate derivatives, while the euro area's share of trade in foreign exchange instruments declined.

5 Financing

There are a number of common characteristics with respect to financing behaviour across the whole euro area. Likewise, a number of common trends regarding the changing nature of the ways in which the various economic sectors finance their activities are discernible between 1998 and 2000. Above all, the private non-financial economic sectors in the euro area still seem, to a large degree, to depend on bank intermediation for their financing, even taking into account the increasing use of securities financing for the corporate sector.

As regards non-financial corporations, the euro area economies are widely dominated by small and medium-sized enterprises (SMEs), which, as a general rule, only have limited possibilities to list their shares on public stock exchanges or to issue corporate bonds. Loans and non-listed shares[49] therefore remained the primary sources of finance for euro area firms during the period 1998-2000. The process of fiscal consolidation reduced euro area governments' financing needs. At the same time, the creation of a more liquid government bond market following the introduction of the euro further moved governments' preferences towards issuing government bonds to the detriment of loan financing. Finally, households' financing needs were primarily directed towards house purchases, partly reflecting historically low long-term interest rates in many countries as well as the strong development of the property market in some countries.

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47 See BIS (2001), "Triennial Central Bank Survey, foreign exchange and derivatives market activity in 2001". Activity is measured as daily average market turnover. The data refer to April in 1998 and 2001 respectively. More detailed information regarding the euro money market is also available in "The euro money market," ECB, July 2001.

48 A lack of data on financial derivatives for the end of 2000 means that figures for April 2001 (based on the BIS survey mentioned in the previous footnote) had to be included in this section.

49 Including other equity.

5.1 Non-financial corporations

The amount outstanding of total liabilities of the euro area non-financial corporations exceeded 250% of GDP at the end of 2000 (see Table 5.1). The net incurrence of liabilities of non-financial corporations increased significantly during the period 1998-2000, as a result of both a high level of investment in a period of strong economic growth and low interest rates, and an unprecedented wave of corporate mergers and acquisitions.[50]

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	4.6	152.0
Securities other than shares	0.7	7.6
of which short-term bonds (<1y)	0.4	2.1
of which long-term bonds (>1y)	0.4	5.1
Loans	6.5	66.1
from resident MFIs	3.3	42.5
of which short-term (<1y)	1.2	15.3
of which long-term (>1y)	2.1	27.2
from resident OFIs	0.2	2.4
from resident ICPFs	0.0	0.8
from other resident sources and non-residents	3.1	20.4
Other liabilities	1.3	30.5
Total liabilities	13.2	256.2
Internal financing		
Gross savings	9.1	-
of which net savings	1.1	-
Net capital transfers	0.7	-
Ratio of external/internal financing	1.34	-

Source: ECB, financial accounts statistics.

Non-intermediated means of finance, i.e. shares and other equity and securities other than shares, constituted around 62% of total external financing for non-financial corporations at the end of 2000. Another 26% of external financing was obtained through loans, around two-thirds of which was provided by resident MFIs. Finally, around 12% of the financing to the non-financial corporate sector was accounted for by "other liabilities", which mainly consist of trade credits.

A comparison of the amounts outstanding with the transaction data for the period 1998-2000, however, offers a somewhat different picture. Over this period, non-financial corporations grew increasingly reliant on debt securities issuance, trade credits, inter-company loans and/or loans granted by non-monetary financial intermediaries.[51] Financial transaction data for the period 1998-2000 indicate a shift in corporate finance within the euro

50 See also the August 2002 issue of the ECB Monthly Bulletin (pp. 65-76), "Saving, financing and investment in the euro area".
51 For example, via indirect security issuance by so-called special-purpose vehicles.

area towards a growing reliance on debt securities issuance, especially relative to shares and other equity.[52]

It should, however, be noted that issuance of corporate bonds was generally restricted to very large companies and has been closely linked to the wave of mergers and acquisitions,[53] which also explains why financing through debt issuance differs quite significantly between the various corporate sectors of the euro area economy. One reason behind the continued importance of loans is difficulties of access for the bulk of euro area corporations to funding from the debt securities markets. However, this could also be explained, inter alia, by the increasing use of syndicated loans, whereby a number of intermediaries provide funds under pre-specified conditions, giving firms faster and generally easier access to funds than traditional bank loans. It is also worth noting that the issuance of corporate debt from 1998 to 2000 was mainly at the short to medium end of the maturity spectrum.

The majority of loans to non-financial corporations were granted by resident MFIs, and this share increased throughout the period compared with loans from other sources. Loans from resident MFIs were mainly medium and long-term in 2000 (around 64% of the total) and remained stable over the period 1998-2000, as confirmed by the transactions data.

There are substantial differences between euro area countries as regards the structure of external financing. In countries whose economies are dominated by small and medium-sized enterprises (SMEs), the primary sources of financing tend to be traditional bank loans, trade credits and non-listed shares as well as other equity, rather than more market-based financing, such as publicly listed shares and/or corporate debt issuance. Indeed, the industrial structure of the euro area consists predominantly of SMEs. This is evidenced by the fact that 66% of all employees in Europe are employed in SMEs,[54] compared with 46% in the United States and 33% in Japan. In the euro area, only in Germany and Finland do large-scale enterprises account for the majority of employees.[55] Hence, most euro area companies remain, by and large, dependent on banks to finance their activities. Taking into account the fact that banks in the euro area have expanded their role to encompass more market-oriented types of intermediation (see Section 3), as they would normally advise on and manage IPOs and the issuance of debt securities by corporations, it would seem that the financing of euro area companies remains in the hands of financial intermediaries.

The level of indebtedness of non-financial corporations, calculated as the sum of loans and securities other than shares issued, stood at 74% of GDP at the end of 2000. This ratio is comparable with that of the United States (66%), but lower than that of Japan (127%). There was wide divergence across member countries as regards the level of firms' indebtedness. Thus, in general, companies in countries such as Germany, Spain, France and Italy were less indebted than the euro area average. On the other hand, the general level of indebtedness of companies in the Netherlands, Portugal and Finland was above the euro area average.

The ratio of external financing to internal financing at the euro area level, calculated as the total net incurrence of liabilities of non-financial corporations over the sum of gross savings

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52 See also the May 2001 issue of the ECB Monthly Bulletin (pp. 75-82), "Financing and financial investment of the non-financial sectors in the euro area" and the August 2002 issue of the ECB Monthly Bulletin (pp. 65-76), "Saving, financing and investment in the euro area".

53 See also the January 2000 issue of the ECB Monthly Bulletin (pp. 35-49), "The euro area one year after the introduction of the euro: key characteristics and changes in the financial structure," and ECB WP series (No. 164, August 2002) G. de Bondt, "Euro area corporate debt securities market: first empirical evidence".

54 See Table 2.2, p. 14 in European Commission, Observatory of European SMEs (2002/No. 2), "SMEs in Europe, including a first glance at EU candidate countries". "Europe" includes the 15 EU countries and Norway, Switzerland, Iceland and Liechtenstein.

55 See ibid., Table 2.5, p. 17. An economy is said to be dominated by SMEs or LSEs (large-scale enterprises, with more than 250 employees) if the largest share of total employment is in SMEs/LSEs.

and net capital transfers, stood at 1.34 during the period 1998-2000.[56] Thus, in financing their investments, non-financial corporations relied more on external funds than on internal savings (e.g. retained profits). External financing was more important during this period than in previous years.[57] There are a number of possible explanations for the widespread reliance on external funds during this period, such as the high level of investment, the intense merger and acquisition activity and more specific factors like the telecommunications sector's need to finance the acquisition of UMTS licences. It should be mentioned that there were significant differences across countries with regard to the relative importance of internal financing vis-à-vis external financing in the period 1998-2000 (see Section 5 of the country chapters). For example, whereas internal financing was comparatively high in Italy and Austria, external financing clearly dominated in Spain, France and Portugal. The other member countries lay somewhere in-between, although most had a ratio of external to internal financing of above one.

5.2 General government

Total liabilities of the general government sector amounted to around 81% of euro area GDP at the end of 2000 (see Table 5.2). However, total liabilities of most euro area governments represented around 60% of GDP, while this percentage was markedly higher in three countries, namely Belgium, Greece and Italy. In Luxembourg, on the other hand, government liabilities as a percentage of GDP were very low. In comparison, total liabilities of general government in the United States and Japan amounted to about 55% and 120% of GDP respectively in 2000.

Looking at transaction data, it is evident that in the period 1998-2000 the general government sector increasingly relied on securities in order to satisfy its financing needs.[58] The diminished reliance on bank loan financing and the increased use of longer-term debt financing seem to have been closely linked to the introduction of the euro and the process of fiscal consolidation leading up to it. Thus, the combination of reduced fiscal deficits, declining interest rates, lower inflation and a unified, more liquid government bond market seems to have further reduced governments' use of bank loans and increased issuance of government bonds, particularly at the longer end of the market (see also Section 4). Arguably, the increased degree of securitisation has, ceteris paribus, allowed more "cost-efficient" government debt management.

The share of securities in total liabilities of the general government was slightly above 70% in the euro area, which seemed to be representative for most euro area countries (see also Section 5 of the country chapters). As regards the maturity structure of government bonds issued, long-term bonds clearly dominate, accounting for almost 90% of total securities issued. Although the ratio of long to short-term debt varies across euro area countries, the average maturity of government debt in almost all countries was lengthened from 1998 to 2000 (see also Section 4 above). The lengthening of the maturity of government debt was particularly evident in countries such as Greece, Spain, Italy and Portugal, where inflation and interest rates came down from previously high levels on account of the process of

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56 In comparison, the ratio of external to internal financing among US corporations, according to the "Flow of Funds Accounts in the United States" (Board of Governors, 1st Quarter 2002), is lower, standing at 1.10 at the end of 2000.

57 See, for example, Chart 6 in the August 2002 issue of the ECB Monthly Bulletin (pp. 65-76), "Saving, financing and investment in the euro area".

58 See also the May 2001 issue of the ECB Monthly Bulletin (pp. 75-82), "Financing and financial investments of the non-financial sectors in the euro area" and the August 2002 issue of the ECB Monthly Bulletin (pp. 65-76), "Saving, financing and investment in the euro area".

Table 5.2: Financing and financial balance of general government

(as a % of GDP)

Liabilities	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
External financing		
Currency and deposits	-	-
Securities other than shares	1.9	58.1
of which short-term bonds (<1y)	-0.6	6.4
of which long-term bonds (>1y)	2.5	51.6
Loans	-0.4	15.2
from resident MFIs	0.0	13.2
of which short-term (<1y)	-0.1	0.7
of which long-term (>1y)	0.0	12.6
from resident OFIs	-0.1	0.1
from resident ICPFs	-0.1	0.6
from other resident sources and non-residents	-0.2	1.3
Other liabilities	0.4	8.1
Total liabilities	1.9	81.4
Internal financing		
Gross savings	2.0	-
of which net savings	0.3	-
Net capital transfers	-1.0	-

Source: ECB, financial accounts statistics.

economic convergence leading up to the third stage of Economic and Monetary Union. It should, however, be noted that despite the general tendency to rely on longer-term government bond issuance, some countries actually shortened the duration of their outstanding government debt through swaps and other risk management instruments.

5.3 Households

The level of indebtedness of euro area households amounted to 56% of GDP at the end of 2000 (see Table 5.3). The relative importance of external financing of households varied considerably across the euro area countries. Thus, while the ratio of total liabilities to GDP was relatively high in Germany, the Netherlands and Portugal, it was far below average in Greece and Italy. In both the United States and Japan, households' indebtedness was somewhat higher (74% and 60%, respectively).

Households primarily finance themselves through internal sources, i.e. savings. Thus, the ratio of external financing to internal financing only amounted to 0.4 during the 1998-2000 period.[59] However, there were significant differences across member countries in this respect, with Spain, the Netherlands and Portugal at the high end of the spectrum and Belgium, France and Italy at the lower end. It should be noted that, in general, households' savings decreased during the latter half of the 1990s amid subdued increases in wage compensation and significant wealth increases (resulting from the booming stock markets and, for some

59 In comparison, American households financed themselves by external funds to a somewhat larger degree. The ratio of external to internal financing in the United States was 0.51 on average during the period 1998-2000, see Board of Governors, "Flow of Funds Accounts in the United States", 1st Quarter 2002.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end 2000
External financing		
Loans	3.7	51.1
from resident MFIs	3.7	47.1
of which short-term (<1 year)	0.3	4.4
of which long-term (>1 year)	3.4	42.8
consumer loans	0.6	7.5
original maturity < 1y	0.1	1.5
1y < orig. mat. < 5y	0.2	2.6
5y < orig. mat.	0.3	3.4
housing loans	2.6	29.7
original maturity < 1y	0.0	0.4
1y < orig. mat. < 5y	0.0	1.0
5y < orig. mat.	2.5	28.4
other loans from resident MFIs	0.6	9.9
from resident OFIs	0.2	1.4
from resident ICPFs	0.1	1.8
other loans from resident lenders and from non-residents	-0.4	0.8
Other liabilities	0.4	4.9
Total liabilities	4.1	56.0
Internal financing		
Gross savings	9.4	-
of which net savings	5.6	-
Net capital transfers	0.5	-
Ratio of external/internal financing	0.41	-

Source: ECB, financial accounts statistics and money and banking statistics.

countries, also from booming property markets). This in fact led to an increased level of household gross indebtedness from 1998 to 2000.[60] Savings and financial wealth, however, still surpassed household indebtedness, thus allowing households to provide finance for the other economic sectors.

Households' liabilities consisted almost entirely of loans (around 91%), which were largely granted by resident MFIs (around 92% of the total). Thus, euro area households still rely on domestic MFIs to a very large degree for their financing.

Medium and long-term housing loans accounted for the majority of total loans granted by resident MFIs to households (62%) at the end of 2000. This share increased throughout the 1998-2000 period, arguably reflecting the boom in property markets in many member countries. However, there are notable differences across countries in this context, reflecting heterogeneous tax treatment and borrowing possibilities (e.g. the existence of a well-functioning mortgage financing market). In addition, it should be noted that in a number of countries "loans for house purchases" might be used to a significant extent for other purposes, such as the consumption of goods, via so-called equity withdrawal. Hence, although the rise in housing loans may have taken place against a background of growth in the property market, the use of these loans was presumably not entirely directed towards house purchases.

60 See also the August 2002 issue of the ECB Monthly Bulletin (pp. 65-76), "Saving, financing and investment in the euro area".

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Belgium

1 Main features of and recent developments in the Belgian financial system

Financial relations between non-financial sectors in Belgium, whilst largely conforming to the traditional pattern, nevertheless display very distinctive features, including some extremely large positions. As a result of a continuously high savings rate, households have a very large net creditor position, sufficient not only to cover the net financing needs of government, characterised by a sizeable public debt, and of non-financial corporations, but also to lend to the rest of the world. Indeed, though the steady decline in the public debt ratio since 1993 has been partly matched by a reduction in private sector net savings, in relative terms Belgium still has one of the largest external positions in the world.

Generally speaking, as a very open economy, Belgium is financially highly integrated with the rest of the world. In particular, the currency union with Luxembourg since 1921 under the Belgo-Luxembourg Economic Union[1] and Luxembourg's position as an international financial centre have, over the years, attracted large investment flows from Belgian residents to Luxembourg banks, which were in many cases subsidiaries of Belgian banks. The funds collected were then reinvested in Belgium, financing the public debt in particular. In general, international financial integration is signalled by large flows of funds with other countries, given the importance of foreign direct investment and cross-border portfolio investment and banking activities.

As far as financial intermediaries are concerned, credit institutions have as elsewhere experienced a disintermediation trend, although they remain the main actor. Furthermore, they have shared, directly or indirectly, in the growing success of investment funds and insurance products. Pension funds remain modest since there is a comprehensive public pension system, but will probably be promoted in the future owing to the increasing ageing of the population.

The last few years have been characterised by an impressive wave of mergers and acquisitions between banks and between insurance corporations and banks, with these operations frequently taking place across borders. As a result, the banking landscape has become highly concentrated and is dominated by international bancassurance conglomerates.

The bond market is dominated by government securities. During the last decade, public debt management received considerable attention and was modernised. The primary and secondary markets are now very liquid and attractive to foreign investors. The issuance of debt securities by MFIs is on a declining path, although notes issued by banks targeted at households still represent a major source of financing. Lastly, the market for securities other than shares issued by non-financial corporations remains rather small.

The Brussels stock exchange has recently undergone considerable changes as a result of its merger with the Amsterdam and Paris exchanges to form Euronext in September 2000. This

1 With an uninterrupted parity between the two currencies since 1944.

integration offers new investment opportunities for Belgian savers, as well as greater visibility for Belgian shares. During 1999 and the first quarter of 2000, the Brussels All Shares Index suffered from the handicaps of the Brussels stock exchange, i.e. its small size, low liquidity, lack of blue chips and conservative sectoral structure largely based on financial corporations. This non-participation in the global stock market rally contrasted with the former pattern of strong correlations with the major European exchanges.

As far as the financing of non-financial sectors is concerned, corporations largely finance themselves through the issuance of unlisted shares. This stems from the importance in the Belgian corporate sector of small and medium-sized enterprises (SMEs), which are often family-owned. These SMEs also rely on bank lending. In a changing banking landscape, the future financing of SMEs is becoming a cause for concern. Venture capital particularly needs to be further developed. In the last decade, government financing became longer term in nature and increasingly based on the national currency. After having shown an upward trend since the start of EMU, a significant share of OLOs (Belgian linear government bonds) is now held by non-residents. Lastly, household debt is relatively low and largely in the form of semi-variable rate mortgage loans.

At first sight, the Belgian financial system seems to be based more on non-intermediated than intermediated assets and liabilities, compared with the euro area average. This can to a large extent be explained by the importance of unlisted shares, which are counted as non-intermediated instruments: at the end of 2000, they represented respectively 176.7% and 163.1% of GDP in the assets and liabilities columns of Table 1. These unlisted shares excepted, the breakdown between non-intermediated and intermediated instruments looks similar to the euro area pattern.

On the assets side, while European households still tend to prefer intermediated assets (nearly two-thirds of total intermediated and non-intermediated assets), Belgian ones split their assets more or less equally between both categories. This is largely explained by the importance of unlisted shares issued by family-owned SMEs, on the one hand, and fixed-income securities (e.g. traditional notes issued by banks, offering low liquidity), on the other.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(as a % of GDP; end-2000)

Amounts outstanding	Financial assets		Liabilities	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	181.0	289.9	100.4	329.7
Households	155.9	144.0	39.8	-
Non-financial corporations	22.6	142.3	48.5	229.5
General government	2.5	3.5	12.1	100.2
Non-residents [1]	99.8	127.3	16.2	172.9
Total	280.8	417.2	116.5	502.6

Source: National Bank of Belgium, national financial accounts statistics.

1) Whereas the assets and liabilities of the resident non-financial sectors are with respect to both residents and non-residents, the assets and liabilities of the non-residents are only vis-à-vis residents.

Cross-holdings of shares, including unlisted shares and large cross-border stakes owing to the openness of the Belgian economy, explain the relative importance of non-intermediated assets in the portfolios of non-financial corporations. Lastly, the financial assets of the rest of the world vis-à-vis the resident sectors are generally more intermediated than in the other euro area countries. A salient feature of Belgian banks is their substantial cross-border activity.

On the liabilities side, while unlisted shares represent the main form of external financing for non-financial corporations given the predominance of SMEs, bank lending nevertheless remains important, not least for SMEs. For larger companies, which often form part of a multinational group, impressive amounts of financing flow from their parent companies abroad. The liabilities of government and the rest of the world are more non-intermediation oriented than elsewhere. As far as foreign non-intermediated liabilities are concerned, household portfolios are not only diversified into foreign shares, but have also long been characterised by the popularity of foreign fixed-income securities (i.e. eurobonds).

Lastly, some assets/liabilities that are neither intermediated nor non-intermediated in the meaning used throughout this report play a far from insignificant role in the Belgian financial system. These are direct investment loans between resident and foreign, parent, non-financial corporations.

2 Origin of flows

Belgian financial accounts broadly present the traditional picture in that households are the main creditors and finance the deficits of the other resident non-financial sectors. However, on closer analysis there are some differences and pronounced features. Firstly, the net creditor

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
Resident sectors						
Households	10.2	2.1	8.1	308.2	44.4	263.8
Non-financial corporations	12.7	15.5	-2.8	215.9	315.4	-99.4
General government	0.1	0.6	-0.4	12.1	114.3	-102.2
Financial corporations	12.4	12.4	...	366.3	366.3	...
Total	35.4	30.5	4.9	902.5	840.4	62.1
Non-residents	20.7	25.6	-4.9	271.3	333.3	-62.1

Source: National Bank of Belgium, national financial accounts statistics.

position of households is, in fact, so large that it covers the financing needs of both the other domestic sectors (government and non-financial corporations)[2] and the rest of the world. Secondly, the only category similar in size to the euro area average is the debtor position of

2 In the Belgian financial accounts, the net position of the financial intermediaries is assumed to be zero.

non-financial corporations. At the end of 2000, the positions of the other sectors lay at the extremes of the range for euro area countries: the largest creditor position was recorded for the household sector, while the government and the rest of the world posted the largest debtor positions. These observations, together with the recent declining paths of the government deficit and the household savings rate, suggest the presence of a Ricardian equivalence effect in Belgium. Finally, while the debtor positions of government and non-financial corporations are of the same magnitude, the interpretation of the latter's position must consider the fact that their net indebtedness (i.e. excluding shares) is much smaller.

While the public debt remains large, flows tell a different story, as the public deficit was substantially reduced during the last decade and brought close to balance (0.4% of GDP on average between 1998 and 2000). At the same time, the financial surplus of households remains impressive, having been the largest among the euro area countries over the same period (at 8.1% of GDP). Consequently, Belgium's net external position has continued to grow (reaching 62.1% of GDP in 2000), fed by the continuing current account surpluses and favourable price developments.

3 Intermediaries

3.1 Channelling of funds through intermediaries

Of all the Belgian intermediary sectors, resident MFIs manage the most funds globally and on behalf of domestic non-financial sectors taken as a whole. They form one of the largest MFI sectors in the euro area, as measured by the share of their intermediated liabilities[3] in GDP.

Deposits with resident MFIs account for the largest share of intermediated assets held by households, owing inter alia to the continuous, though slightly waning, popularity of savings deposits redeemable at notice, which benefit from a tax exemption up to a certain level of interest income. These deposits represented 13.2% of households' total financial assets at the end of 1998 and 11.8% at the end of 2000. Next come assets with foreign intermediaries, primarily investment fund shares (especially "capitalisation" fund shares, i.e. which pay no dividends), but also significant deposits with foreign banks. In fact, the foreign investment funds are mainly Luxembourg investment funds created by their Belgian parent banks. Lastly, investments with insurance companies have become very significant, though still less so than Belgian and foreign investment fund shares taken together, while investments with pension funds remain modest. These developments are best seen in the flow figures for 1998-2000, where the funds flowing from households to resident pension funds and insurance corporations are much larger (on average €8.1 billion per year) than those going to resident MFIs (€3.6 billion).

The international activity of resident MFIs is important. At the end of 2000, nearly half of their intermediated liabilities were vis-à-vis the rest of the world (€238.4 billion out of a total of €488.1 billion). Furthermore, although the amount of notes issued by MFIs has been decreasing over the years, these remain an important source of funds for them.

3 Given the definition used in this report, intermediated liabilities of Belgian MFIs correspond quasi-exclusively to deposits with banks.

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (Deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (Investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (Deposits and technical reserves)	**Non-resident intermediaries** (Deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	0.4	6.1	3.5	1.8
Households	1.5	5.0	3.4	1.6
Non-financial corporations	0.6	-	0.1	1.4
General government	0.1	...	-	0.2
Financial corporations	-1.8	1.0	-	-1.3
Non-residents	-2.5	0.3	-	
Total	-2.1	6.4	3.5	1.8
Memo item Securities other than shares issued by MFIs and bought by the resident non-financial sectors	-0.4	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	100.5	32.5	37.2	102.9
Households	55.8	27.1	35.1	37.9
Non-financial corporations	15.6	-	2.1	4.9
General government	1.8	0.1	-	0.6
Financial corporations	27.3	5.3	-	59.5
Non-residents	96.0	0.7	-	
Total	196.5	33.2	37.2	102.9
Memo item Securities other than shares issued by MFIs and bought by the resident non-financial sectors	34.4	-	-	-

Source: National Bank of Belgium, national financial accounts statistics.

3.2 Monetary financial institutions (MFIs)

Money market funds (MMFs) remain unimportant in Belgium; their number and total balance sheet even shrank from 1998 to 2000. This lack of an "MMF culture" in Belgium, be it on the part of institutional investors, non-financial corporations or households, is mainly due to the absence of tax incentives. When reallocating their portfolios towards short-term investments, investors traditionally prefer time deposits. The following comments on MFIs should therefore be interpreted as concerning quasi-exclusively credit institutions.

The MFI landscape is dominated by incorporated enterprises, even though the number of these diminished between 1998 and 2000 given the numerous M&A transactions. Another significant development has been the growing internationalisation of the banking sector, as the number of branches and subsidiaries of foreign banks has considerably increased. Finally, the 1990s saw a change in status of the so-called "public credit institutions", among them major players, so that no MFI is government-owned any longer.

Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Incorporated enterprises limited by shares	63	56
Co-operative enterprises	17	14
Saving banks	29	25
Branches and subsidiaries of foreign institutions	39	47
Other credit institutions	3	4
Money market funds [1)]	31	23
Total	182	169

Source: Banking and Finance Commission.
1) Number of compartments. For 1998, at the end of August.

Historically, banks have been central to the financial structure of the Belgian economy through their role in both households' investments and the financing of government and non-financial corporations. Among the non-financial corporations, the numerous SMEs are potentially more bank-dependent. During the 1990s, banks in Belgium, as elsewhere, had to adapt to new trends in terms of disintermediation, internationalisation and rapid technological advances. Faced with a shrinking intermediation margin, they extended the scope of their activities towards investment fund management, insurance, asset management and investment banking in order to be less dependent on their traditional intermediation activities and to boost their revenues from fees and commissions. A gradual shift thus occurred from traditional maturity transformation towards securities activity.

Belgian banks also sought to achieve economies of scale and scope through M&A activity. Much of this activity was of a cross-border nature, thereby also permitting geographical diversification. This M&A activity has given birth to large bancassurance conglomerates. Unsurprisingly, the indicators of concentration in the banking market show an upward trend in recent years. At the end of 2000, the five largest banks accounted for 75.2% of the total balance sheet of the sector. The Herfindahl index confirms that banking concentration in Belgium is among the highest in the euro area.

Traditionally, competition among the major Belgian banks was more of the "bricks-and-mortar" type, depending on proximity to clients. This policy resulted in one of the highest densities of bank branches in the euro area, though it has since sharply declined and moved towards the euro area average. In 1990, Belgium had the second highest density in the euro area, whereas in 2000 it was the fourth highest at 0.64 branches per 1,000

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.091	0.151
Top 5's share of total assets (%)	63.1	75.2
Average size of top 5 (€ millions)	84,152	105,175
Average size of all banks (€ millions)	5,656	5,972

Source: ECB calculations based on data from National Bank of Belgium.

inhabitants[4]. Following the early and rapid implementation of technological advances and the concentration which then took place, banks have engaged in downsizing and are planning to restructure using different networks. Firstly, customers will be able to perform standardised labour-intensive operations through the extensive network of ATMs and make use of widely available telephone and PC banking facilities. Secondly, fewer local branches with a limited number of employees will provide basic banking services and general information, thus allowing the banks to preserve some proximity to and contact with their customers. Thirdly, less routine and higher value-added activities (e.g. investment banking, customer and business advice) will be concentrated in regional centres.

Looking at Belgian MFIs' total balance sheet, the picture for traditional banking is somewhat peculiar. While deposits constitute some three-quarters of the funds they collect, which is significantly above the euro area average of some two-thirds, loans represent only a little more than 60% of their assets, which is well below the level in most euro area countries. The counterpart of this "overfunding" is the still large portfolio of Belgian government securities held by Belgian MFIs, which is a legacy of the past: securities other than shares issued by non-MFI residents amounted to 14.4% of their total assets at the end of 2000.

However, when comparing deposits of, and loans to, non-MFI residents, a more balanced picture emerges: they stood respectively at 29.8% and 30.0% of the aggregated balance sheet of MFIs at the end of 2000. Notes issued by banks (8.8% of the MFIs' total balance sheet at the end of 2000) should be added to deposits, as they are an important alternative source of funds for banks. They are a particular type of security, mainly targeted at households, which have no secondary market and can only be redeemed before maturity at the cost of a penalty. They became popular because they were more or less constantly being issued and could be delivered in the form of physical certificates.[5] Most of the lending activity with non-MFI residents is of a long-term nature, although the share of long-term lending decreased from 83.1% in 1998 to 73.1% in 2000.

Belgian MFIs have, for a long time, engaged in significant activity on the international interbank market in order to cover the large operations of other resident sectors with foreign countries. At the end of 2000, 41.2% of the MFIs' loans was granted to, and 51.1% of their deposits taken from, the rest of the world[6]. Furthermore, compared with many other euro area countries, the share of resident MFIs' activity with non-MUMS (e.g. North America, developing and transition economies) is quite large. While foreign lending activity is more or less equally split between MUMS and non-MUMS, two-thirds of non-residents' deposits come from non-MUMS. In recent years, Belgian financial conglomerates have tried to increase their presence abroad, for instance in central and eastern Europe, thus entering markets which present greater development opportunities than Belgium.

The share of interbank transactions has clearly diminished in recent times. This decrease is partly attributable to a reduced recourse to correspondent banking networks owing to EMU together with the adoption of more effective large-value payment arrangements using real-time gross settlement systems. There has also been a decrease in resident interbank activity as a consequence of the decline in the number of Belgian banks.

Lastly, regarding financial health, the solvency ratio of Belgian banks, measured on a consolidated basis, stood at the high level of 11.9% at the end of 2000, while the leverage, measured by the ratio of total assets to equity, was 37.1%. Despite the narrowing interest

4 Source: Belgian Bankers' Association.

5 An evaluation of the development of new forms of banking (i.e. more based on securities) in Belgium must therefore take into consideration the peculiarities represented by the large amounts of government securities on the assets side and of banks' notes on the liabilities side of the credit institutions' balance sheet.

6 Based on total activity, i.e. with other MFIs and with non-MFIs.

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank

(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Cash	0.2	0.2
Loans	62.9	60.1
to domestic MFIs	9.7	5.3
short term	0.7	0.5
long term	9.0	4.8
to other domestic residents	28.2	30.0
of which < 1y original maturity	4.8	8.1
of which 1y < orig. mat. < 5y	4.4	4.4
of which 5y < orig. mat.	19.1	17.5
to other euro area residents	11.9	12.7
to non-euro area residents	13.2	12.1
Securities other than shares	28.2	28.1
issued by domestic MFIs	0.2	0.5
short term (< 1y)	0.1	0.0
long term (> 1y)	0.2	0.4
issued by other domestic residents	19.9	14.4
short term (< 1y)	0.3	0.3
long term (> 1y)	2.1	0.9
issued by other euro area residents	4.8	9.3
issued by non-euro area residents	3.3	4.0
Shares and other equity	2.5	3.5
issued by domestic MFIs	0.3	0.2
issued by other domestic residents	0.6	0.8
issued by other euro area residents	1.5	2.1
issued by non-euro area residents	0.2	0.5
Fixed assets	0.6	0.6
Remaining assets	5.6	7.4
Total assets	100	100
Liabilities		
Deposits	76.6	74.3
from domestic MFIs	9.2	6.5
from other domestic residents	28.9	29.8
overnight deposits	6.7	7.7
other deposits	22.3	22.1
from other euro area residents	14.3	12.8
from non-euro area residents	24.2	25.2
Money market fund shares/units	0.2	0.1
Securities other than shares	12.2	12.2
short term (< 1y)	0.9	2.0
long term (> 1y)	11.2	10.2
Capital & reserves	4.0	4.8
Remaining liabilities	7.0	8.6
Total liabilities	100	100
Total assets/liabilities as a % of GDP	296.1	281.8

Sources: ECB and National Bank of Belgium.

margins, returns on assets and on equity have not only been maintained, but have even strongly increased over the last few years. This trend not only reflects cyclical and exceptional factors, but also the switch to non-interest income activities and moderate cost reductions.

3.3 Other financial intermediaries (OFIs)

Investment funds have long been very popular, not only because of their intrinsic advantage of enabling easier portfolio diversification, but also owing to the tax advantages they bring. As capital gains are not taxed in Belgium,[7] the bulk of investment fund shares are of the "capitalisation" type, i.e. no dividends are distributed. Investment fund products are usually managed and marketed by banks, which have thus been able to retain at least some of the income lost through the process of bank disintermediation. In the last few years, investment funds have also benefited from the popularity of some insurance products (see Section 3.4).

The portfolio of Belgian investment funds is more oriented towards shares: at the end of 2000, shares, including investment fund shares, accounted for 54.8% of their total assets, against 21.6% for securities other than shares. Historically, investment funds, and especially bond investment funds initially, tended to be created under Luxembourg law. Then, as the focus shifted to equity investments, equity investment funds were more frequently set up under Belgian law. Both developments occurred for tax reasons. Since the end of the 1990s, index-tracking investment funds with capital protection have also been very popular. As far as financial integration is concerned, it is interesting to note that foreign assets constituted the majority of securities held by Belgian investment funds in both 1998 and 2000.

Individual complementary pension schemes[8] take the form of investments in a special category of investment fund, named pension savings funds. These investments are tax-deductible up to a given amount, which has been raised to €580 from the 2002 fiscal year onwards. Pension savings funds heavily invest in Belgian shares: despite the fact that, at the end of 2000, they managed slightly less than 10% of the total assets of Belgian investment funds, they accounted for more than 40% of the latter's investments in Belgian listed shares[9]. This is largely due to the legal requirement for them to invest at least 30% of their assets in Belgian shares, a rule they have always amply complied with. For instance, this percentage stood at 60% at the end of 2000. Their portfolio choices are further constrained by upper limits of 10% of total assets applied, on the one hand, to investments in foreign securities listed in Belgium or in Belgian investment fund shares and, on the other hand, to liquid assets. These restrictions will soon have to be lifted to comply with European regulations, which could be potentially harmful for some Belgian companies with a medium stock market capitalisation. For such companies in which pension savings funds hold a large stake, a selling wave arising from a removal of these restrictions could indeed trigger a large decrease in their share price.

Compared with the euro area pattern, OFIs other than investment funds show an impressive balance sheet, which is even much larger than that of the investment funds. Financial holding companies (e.g. with stakes in many large banks) have indeed always been an important feature of the Belgian financial system.[10]

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7 With the (rare) exception of clearly speculative transactions.
8 See Section 3.4 for a more complete description of the Belgian pension system.
9 Source: Belgian Association of Investment Funds and Companies.
10 Some methodological issues also play a role. For instance, the non-consolidated figures in Table 3.5 imply some double-counting in the case of financial holdings structured in a cascade. Also, contrary to the usual practice in Belgian financial accounts statistics, holdings of unlisted shares are sometimes valued as listed shares, which means larger revaluations.

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Investment funds**	**Other OFIs 1)**	**Investment funds**	**Other OFIs 1)**
Deposits	23.1	1.3	22.5	1.6
with domestic residents	23.1	1.3	22.5	1.6
with other euro area residents (e)	...	...	...	...
with non-euro area residents (e)	...	...	...	...
Securities other than shares	25.0	0.3	21.6	0.4
issued by domestic residents	10.5	0.1	9.0	0.4
issued by other euro area residents (e)	8.2	0.0	8.6	0.0
issued by non-euro area residents (e)	6.3	0.2	4.0	0.0
Shares and other equity	48.2	96.1	54.8	94.4
issued by domestic residents	18.8	83.5	18.7	73.9
issued by other euro area residents (e)	17.9	12.2	17.8	18.8
issued by non-euro area residents (e)	11.5	0.4	18.4	1.7
Remaining assets	3.7	2.4	1.1	3.6
Total assets	100	100	100	100
Liabilities				
Investment fund shares	100	-	100	-
Remaining liabilities	-	100	-	100
Total liabilities	100	100	100	100
Total assets/liabilities as a % of GDP	22.3	55.0	33.2	54.2
Number of OFIs				
Investment/mutual funds 2)	132	-	151	-
Securities and derivatives dealers	-	52	-	46
Financial corporations engaged in lending	-	-	-	-
Other institutions 3)	-	25	-	24

Source: National Bank of Belgium.
1) Data for securities and derivatives dealers and for financial holding corporations may be revised in the near future, as they are here established according to a first provisional methodology. These figures are not yet incorporated into national financial accounts statistics.
2) The number of compartments amounts to, respectively, 1139 and 1851.
3) Financial holding corporations only.

3.4 Insurance corporations and pension funds (ICPFs)

The Belgian pension system, based on an earnings-related pay-as-you-go scheme (which forms the "first pillar"), is only partly funded as there are no compulsory investments in group ("second pillar") or individual ("third pillar") retirement schemes. Private group pension contributions can take the form of life assurance premiums, managed by insurance corporations, or investments in pension funds.[11]

Over the years, insurance corporations have tended to play a steadily growing role in the financial system, especially with the emergence of bancassurance. Individual life assurance products first became popular in the mid-1990s in the form of insurance securities which

11 Whereas, as already mentioned, individual investments in pension funds are made in pension savings funds.

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	2.8	2.5	2.3	2.8
with residents	-	-	-	-
with non-residents	-	-	-	-
Securities other than shares	17.6	51.2	16.3	48.7
issued by residents	-	-	-	-
issued by non-residents	-	-	-	-
Shares and other equity	48.4	22.3	55.7	27.6
issued by residents	-	-	-	-
issued by non-residents	-	-	-	-
Fixed assets	0.8	2.6	0.5	1.8
Remaining assets	30.4	21.4	25.2	19.1
Total assets	100	100	100	100
Liabilities				
Technical reserves	99.2	79.0	99.2	82.0
Remaining liabilities	0.8	21.0	0.8	18.0
Total liabilities	100	100	100	100
Total assets/liabilities as a % of GDP	5.6	38.3	5.8	43.1
Number of pension funds and insurance corporations				
Pension funds	239	-	243	-
Insurance corporations	-	157	-	134

Source: National Bank of Belgium, national financial accounts statistics and calculations based on data from Insurance Supervision Office.

were subscribed in Luxembourg. In the last few years, the so-called “branch 23” products, i.e. fund-based life assurance where the risk related to the volatility of the return is transferred to investors, have made a significant contribution to the insurance sector’s growth.

Pension funds remain rather modest, as their balance sheet total was equivalent to only 5.8% of GDP in 2000. They take the legal form of non-profit institutions, unlike investment funds which have the status of companies and are thus subject to a different tax regime. They are not liable to pay corporate income tax, but instead an annual tax on their total assets. They also have to pick up the bill for the withholding tax on interest income and dividends. They thus mainly invest in investment fund shares which do not pay dividends. A draft law currently under scrutiny could broaden the pension fund sector as it aims to promote the setting-up of complementary group retirement schemes (“second pillar”) at the level of corporate sectors rather than individual companies.

4 Markets

Leaving aside the government sector,[12] the three other resident sectors held roughly the same volume of non-intermediated assets at the end of 2000, i.e. in the range of €350-365 billion. The composition nevertheless differed greatly from sector to sector. Non-financial corporations almost exclusively held shares, largely as a direct investment, in both Belgian and foreign companies. In 2000, a small majority of these shares were unlisted. However, financial corporations mainly held securities other than shares: large amounts of Belgian government and foreign bonds are held by MFIs, the rest being principally accounted for by insurance companies, followed by investment funds.

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	-1.9	-4.4	10.4	7.8
Households	-0.7	-0.8	2.6	0.5
Non-financial corporations	-1.0	0.1	3.4	0.1
General government	-0.5	0.2	...	...
Financial corporations	0.3	-4.0	4.4	7.2
Non-residents	9.6	6.5	-	-
Total	7.7	2.1	10.4	7.8
Holdings (Amounts outstanding, end-2000)				
Resident sectors	163.5	100.7	89.9	83.0
Households	59.6	34.9	20.6	29.0
Non-financial corporations	94.5	2.4	44.7	0.7
General government	.	3.5	.	...
Financial corporations	9.5	59.9	24.6	53.3
Non-residents	77.2	50.2	-	-
Total	240.7	150.8	89.9	83.0

Source: National Bank of Belgium, national financial accounts statistics.

Portfolio choices of households perhaps underwent the most significant changes over the last decade. At first sight, it appears that the balance between fixed-income securities and shares has shifted from the former to the latter – fixed-income securities accounted for 60.8% of the total of the two at the end of 1990 and 44.3% at the end of 2000 – but this trend is largely explained by the substantial revaluation of shares over this period. Two types of formerly popular fixed-income securities nevertheless recorded large decreases over the last decade: notes issued by banks and public debt securities. Notes issued by banks fell from 32.9% of the non-intermediated assets of households at the end of 1990 to 16.3% at the end of 2000, with the disinvestment having been recorded since the mid-1990s. As for public debt securities, Treasury policy has been to lay the emphasis on dematerialised securities targeted at

12 Shares held by the Belgian Government are not yet taken into account in the national financial accounts statistics.

institutional investors, although a new kind of security intended for the public, available in a materialised form, was launched in 1996.[13] On the other hand, eurobonds remain very popular, having retained a share of 18.3% in 2000. The success of these bonds has partly been due to foreign-currency issues by highly creditworthy issuers (sovereigns, prime banks) bringing attractive returns, but also to their materialised form which facilitates tax evasion. There has also been some recent interest in convertible and reverse convertible bonds.

As was already the case for fixed-income securities, households seem to have been developing a growing interest in foreign shares. Over the last decade, the percentage of foreign shares in total non-intermediated assets held by households rose by more than the percentage of Belgian shares. This reallocation, which mainly took place from 1998, is confirmed by flow figures. The launch of the euro and the internationalisation of the Brussels stock exchange through the creation of Euronext certainly contributed to this development.

Lastly, it should be mentioned that the market for Belgian non-financial corporate bonds is rather underdeveloped, meaning that these securities constitute a small share of the financial assets of the various sectors.

4.1 The bond market

4.1.1 The primary market: Issuance

The primary bond market is dominated by government issuance. The bulk of bond issues are thus of a long-term nature and increasingly so over the years, although Treasury certificates, which have a maturity of up to 12 months, are nonetheless important. The virtual absence of some important euro area countries from the short-term segment for government paper, and the lack of differences in credit and liquidity risks in this segment, have indeed enabled the Belgian Treasury to meet an unsatisfied demand.

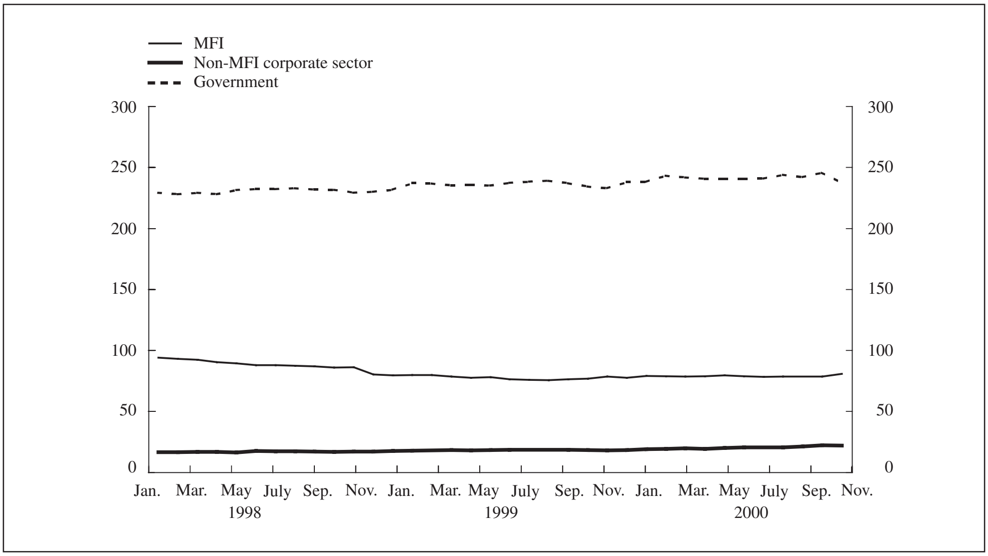
Another feature of the Treasury's issuance policy has been to concentrate long-term security issuance on a limited number of OLOs. Since 1999, all new lines have been launched by syndication in order to immediately achieve a high volume. Furthermore, since 2000 the frequency of regular tenders and the number of different lines used for these auctions have been reduced. As a result, at the end of 2000, the three largest lines (from a total of 19) accounted for nearly a quarter of the total outstanding amount of OLOs. All OLOs are issued in euro and only one small line offers a variable rate.

More than 70% of the paper issued by MFIs takes the form of notes issued by banks mainly targeted at households, although as already mentioned their popularity is waning. Belgian MFIs also issue certificates of deposit (see below). Securitisation only occurs off-balance sheet for the time being, via special purpose vehicles. These securitisation vehicles were created by a law passed in 1992. Their total balance sheet peaked at €2.9 billion at the end of 1998, before falling to €2.5 billion at the end of 2000, i.e. 1% of GDP. Legislation to allow on-balance sheet securitisation of mortgage loans by means of Pfandbrief-style securities is currently under consideration.

Lastly, the corporate bond market is not particularly developed, partly because most Belgian companies do not have a credit rating enabling them to access the international

13 These state notes, which compete with banks' notes, are issued every 3 months and exist in various forms: one with a 5-year maturity that the investor can decide to prolong for two years with the same coupon rate; another with a 7-year maturity, with intermediate maturities of 3 and 5 years when the coupon rate can be revised upwards and the security can be redeemed; and finally one with a fixed coupon rate for the entire 8-year maturity. Contrary to banks' notes, there is an organised secondary market, as state notes are listed on Euronext Brussels.

Chart 4.1: Outstanding amount of debt securities by issuing sector
(EUR billions)



Sources: ECB and National Bank of Belgium.

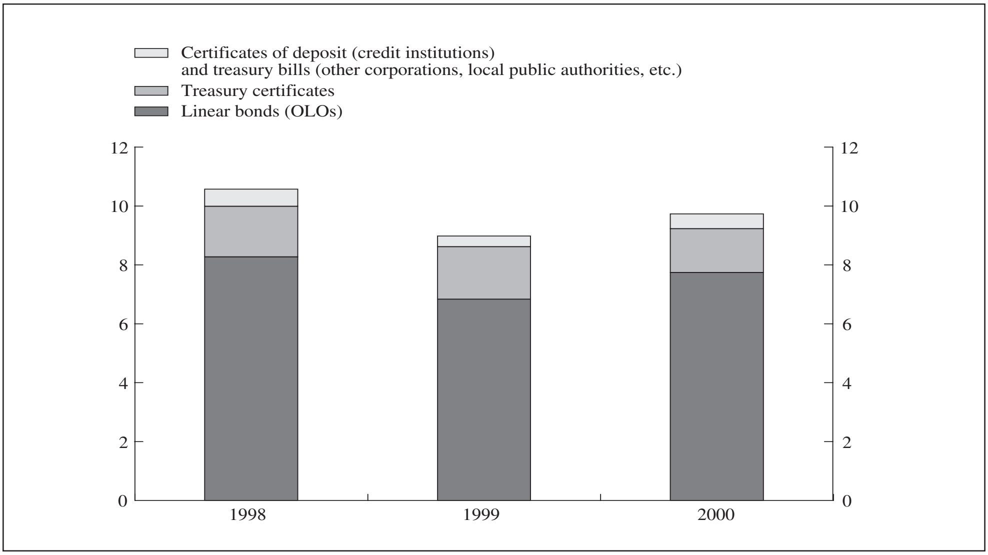
markets. Non-financial corporations are nevertheless able to issue securities, mainly of a short-term nature, on the Belgian commercial paper market. The current shape of this market was designed in 1991, when certificates of deposits (for credit institutions) and treasury bills (for other private corporations and local public authorities) were introduced. The main issuers are Belgian multinationals, which often operate via their co-ordination centres (see below), banks, and public companies (e.g. the national railway company) or public bodies (e.g. regional authorities, social security institutions). While relatively few Belgian companies have a credit rating (the prime banks and some co-ordination centres are among those that do), this could change with the growing internationalisation of the commercial paper market, as large well-known domestic companies are unlikely to be recognised abroad. Even for corporations of a more limited size, such a rating could be useful to give a clearer idea of their creditworthiness.

Despite the still modest stock of corporate bonds, not negligible issues of short-term paper have been made in recent years among other by the co-ordination centres. Each co-ordination centre centralises a number of management and financial services for one multinational group and its members alone. Among their activities, they collect funds, inter alia by issuing securities, which are sometimes bought by their parent company. They then redistribute the proceeds from these issues, for instance through direct investment loans, to the company's various establishments. In this way they function as a liquidity hub for their group, channelling large flows of funds between its members. However, their overall influence on the net financial position of Belgium is finally relatively limited.

4.1.2 *The secondary market: Organisation and integration*

Unsurprisingly, the only highly liquid secondary markets for bonds are those for government securities. Notes issued by banks are not very liquid as there is no organised secondary market.

Chart 4.1.2a: Average daily turnover by issuing sector and original maturity
(EUR billions)

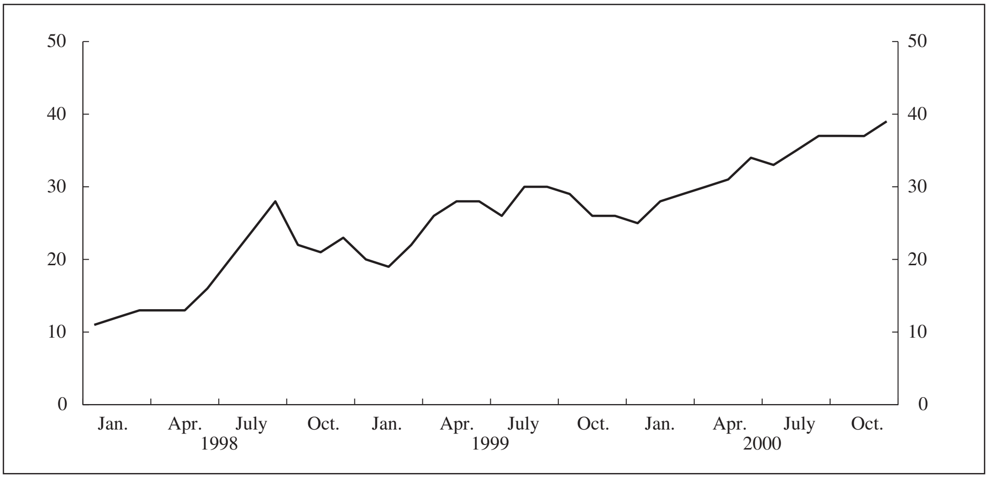


Source: National Bank of Belgium, clearing system.

Since 1999, the two determinants of the yield spread between euro area government securities and German Bunds have been credit risk and debt liquidity. The ten-year spread of the OLO was at its lowest (slightly above 10 basis points) during the first half of 1998. It then followed a rising trend, which took it to around 40 basis points at the end of 2000 and the beginning of 2001, as EMU gave rise to a repricing of the spreads in favour of the most liquid market, i.e. the Bund market. Since then, it has declined to slightly more than 20 basis points, as the markets have apparently revised downwards their views on the spreads between euro area government securities.

The policy of public deficit and debt reduction has already and will continue to contribute to reducing the perceived credit risk of Belgian government debt. To stimulate and accelerate the spread reduction, the Treasury has made considerable efforts to increase the liquidity of its debt – probably the main determinant of the spread. Firstly, as previously mentioned, the primary market policy has recently been geared towards promoting a few very large lines. Secondly, a major role was played by the inclusion in 1999 of a few OLO lines in the EuroMTS platform, which enhanced the visibility of OLOs abroad, and the creation of MTS Belgium in May 2000, which was first limited to OLOs and then extended to Treasury certificates. Primary dealers in Belgian government debt play the role of market-makers on this electronic market, which has clearly benefited the turnover in government bonds. Lastly, EMU has attracted the interest of international investors, including euro area MFIs, which can use Belgian government securities to obtain credit from the ECB.

Chart 4.1.2b: Ten-year interest-rate differential between the Belgian OLO and the German Bund
(Basis points)



Source: National Bank of Belgium.

4.2 The stock market

4.2.1 The primary market

The Brussels stock exchange has had to adapt in the last few years in order to remedy the handicaps of its small size and peculiar sectoral structure. In September 2000, a new company, named Euronext, was created by merging the Amsterdam, Brussels and Paris stock exchanges. The Euronext company, governed by Dutch law, has a subsidiary in each of the participating countries, e.g. Euronext Brussels in Belgium, which is the new name of the Brussels stock exchange. Each subsidiary holds a local stock market operating licence and constitutes an entry point into the transnational market. While unity is guaranteed in many domains (e.g. single quotation, common order book and price dissemination systems, unified trading platform and clearing and settlement system), the local markets are not legally merged and, as a result, the respective regulatory bodies retain their prerogatives.

Stock exchange mergers and alliances constitute a fairly recent international and European trend. From the start, Euronext was not conceived as a closed structure and was eager to expand. This was already the case in 2001 when it took over Liffe, the derivatives exchange of the London Stock Exchange, and reached an agreement to integrate the Lisbon and Oporto Exchange. Furthermore, the Brussels stock exchange has been demutualised and is now listed.

Although it has risen strongly over the last decade, the market capitalisation of Euronext Brussels remains rather low, equivalent to 79.2% of GDP at the end of 2000. It was at its highest at the end of 1998 owing to the high share price level at that time. Subsequently, 1999 was marked by a collapse in share prices and delistings of companies with a high capitalisation (e.g. Société générale de Belgique, Royale belge), which were acquired by foreign companies. Generally speaking, Belgian blue chips have mainly been bought by Dutch and French companies owing to the close links of these economies with Belgium, making them attractive and affordable targets for expansion abroad.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies	159	174
Number of non-listed companies	106,489	109,505
Market capitalisation of listed shares (as a % of GDP)	92.3	79.2
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	1.2	3.0
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	5.1	8.0
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	3/23	1/13
Concentration indices (top ten companies' share of total market capitalisation) (%)	62.9	69.4
Number of foreign companies listed	139	121
Number of stock exchanges and other organised exchanges [1)]	3	2
Number of participants in these markets	71	90
Share of non-domestic participants (%)	11.3	41.1
Number of transactions of traded shares	3,424,267	2,992,042
Total turnover of traded shares (as a % of GDP)	24.7	19.1

Sources: Euronext Brussels, STOXX Limited, National Bank of Belgium – Central Balance sheet Office and national financial accounts statistics.

1) Includes the derivatives market Belfox, before its merger with the Brussels stock exchange under BXS in 1999, and Easdaq, which became Nasdaq Europe in 2001. Other figures in the table only concern the Brussels stock exchange, i.e. Euronext Brussels in 2000.

Belgian blue chips are limited in number and size, and few of them are included in the EURO STOXX, let alone the EURO STOXX 50. They nevertheless account for a large proportion of the total capitalisation of Euronext Brussels, which makes the latter rather concentrated, and increasingly so. Another handicap of Euronext Brussels is its sectoral structure. Owing to the substantial level of financial activity in Belgium and the emergence of bancassurance conglomerates, the financial sector is over-represented (around 50% of the total capitalisation), whereas few TMT stocks are present.

A potential development for Euronext Brussels could be to promote the listing of "small caps".[14] This could constitute a niche for a stock exchange handicapped by a lack of blue chips and would, of course, also benefit Belgian SMEs as it would provide them with a new source of financing in a context of changing banking relationships. Lastly, such a market could take over from venture capital funds, which until now have tended to be concentrated on the early stages of a company's development (see Section 5.1). Nevertheless, the potential role of the stock exchange in this area is probably limited, as most Belgian SMEs are too small to consider a listing. Such a development would thus only be of benefit to the largest SMEs.

4.2.2 The secondary market

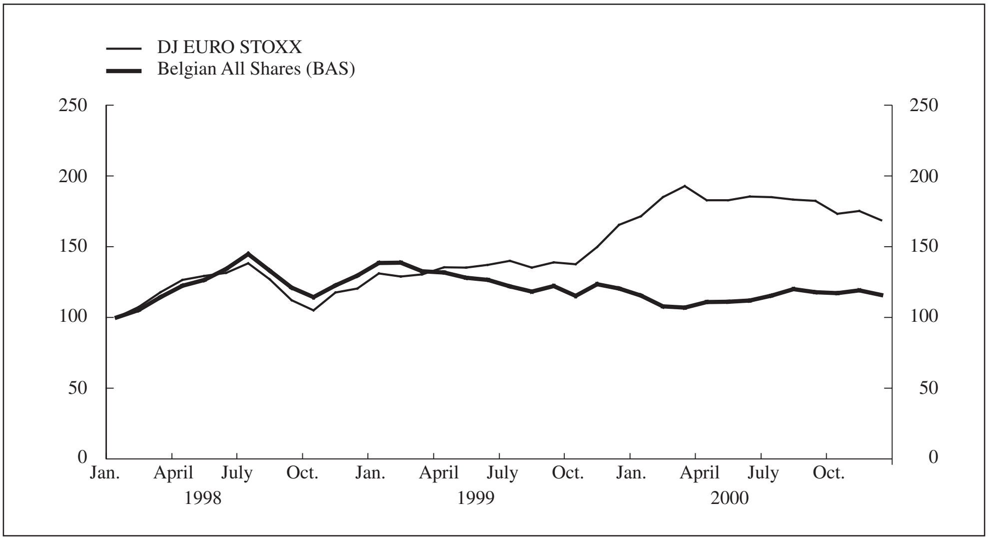
The potential turnover on Euronext Brussels is more constrained by the fact that the free float (i.e. the shares that are available for trading) is limited, than by its small market capitalisation. This is due to the historical influence of holding companies and reference shareholders in the

14 It should be noted that a company newly listed on Euronext can choose its entry point, independently of its nationality, and that this choice determines the applicable national stock exchange law, including the competent supervisory authorities.

management of the major companies, rendering large amounts of shares unavailable for day-to-day trading. Large foreign stakes in the form of direct investment also play a part in limiting the number of tradable shares. According to yearly computations by BBL, a Belgian bank, the registered shareholders[15] hold a significant and quite stable proportion of the stock market capitalisation, i.e. between 50% and 55%, leaving a free float of less than 50%. The degree of concentration is also quite high: at the end of 2000, the reference, i.e. main direct, shareholder held on average nearly 40% of any Belgian company listed on Euronext Brussels. From 1998 to 2000, both the number of transactions and the total turnover declined.

The number and share of foreign participants strongly increased in 1999, even before the launch of Euronext, when Dutch and Luxembourg investors applied for membership in the Belgian market in the context of the "cross-membership agreement" concluded between these three stock exchanges. At the end of 2000, foreign participants represented a little more than two-fifths of the total number of members of Euronext Brussels.[16]

Chart 4.2: National stock index development relative to EURO STOXX
(January 1998 = 100)



Sources: Euronext Brussels, STOXX Limited.

In view of its small size, limited sectoral structure and low liquidity, the Belgian stock market suffered greatly from the portfolio reallocations that took place following the start of EMU. Belgian investors were more eager to buy shares from other euro area countries than foreigners were to invest in Belgian shares.[17] As a consequence, the Belgian share price index

15 Since the Transparency Law was passed in 1989, any single shareholder holding at least 5% of a listed Belgian company (3% for the companies which have made use of the legal opportunity to lower this level) is required to make a public notification.
16 Even if an authorised member of one of Euronext's subsidiaries is automatically allowed to operate in the other ones, it does not necessarily do so.
17 This phenomenon could reappear when the restrictions on the portfolio composition of pension savings funds are lifted (see Section 3.3). However, the share prices of small companies will be affected most, whereas the impact on the blue chips, and therefore on the index, will be modest.

followed a completely different path than the EURO STOXX index, after years of closely paralleling the main European exchanges. It fell from the beginning of 1999 onwards, did not react to the global stock market rally at the end of 1999 and the beginning of 2000, and recovered only slightly after that. From February 1999 to December 2000, it lost 16.4% while the EURO STOXX index gained 30.7%.

5 Financing

5.1 Non-financial corporations

In the period 1998-2000, Belgian corporations used slightly more external funding than internal funding, but to a lesser extent than many other euro area corporate sectors. As far as external financing is concerned, the greatest part of the outstanding liabilities is accounted for

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	7.8	221.6
Securities other than shares incl. financial derivatives	1.0	7.9
of which short-term bonds (<1y)	0.5	2.0
of which long-term bonds (>1y)	0.5	5.9
Loans	4.4	63.4
from resident MFIs	1.6	35.6
of which short-term (<1y)	0.2	15.6
of which long-term (>1y)	1.4	20.0
from resident OFIs	...	2.1
from other resident sources	...	0.2
from non-residents	2.8	25.5
Trade credits and advances	-	-
Other liabilities	0.5	7.5
Total liabilities	13.7	300.4
Internal financing		
Gross savings	12.5	-
Net savings	4.1	-
Net capital transfers	0.8	-

Sources: National Accounts Institute; National Bank of Belgium, national financial accounts statistics.

by shares,[18] of which 64.9% are unlisted shares. This is confirmed by the flow figures: in the 1998-2000 period, the net issuance of shares amounted to 56.9% of the new liabilities of Belgian corporations, the highest percentage in the euro area. Conversely, net lending represented slightly less than a third of the new financing during the same period. Furthermore, this figure goes beyond bank credit, as it includes significant loans made by foreign parent companies.

18 The percentage of shares in external financing is one of the highest in the euro area, but this is partly biased as unlisted shares are not taken into account in every country.

As already mentioned, the importance of equity financing is due to the reliance of SMEs on unlisted shares. Bank credit is nevertheless also important, especially for those SMEs which do not have access to liquid securities markets. The future availability of bank credit to SMEs has recently been a cause for concern because of the growing concentration of the Belgian banking sector. Generally speaking, the financing of SMEs is receiving considerable attention at present.

Venture capital has been gaining in importance during the last few years of the 1990s: new funds raised by venture capital companies established in Belgium represented 0.09% of GDP in 1996 and 0.32% in 2000. This last figure was slightly under the euro area average of 0.35%.[19] The role of the venture capital industry in financing enterprises remains nevertheless limited as, over the years 1996-2000, investments made by venture capital funds established in Belgium corresponded to only 3.3% of the net issuance of unlisted equities by Belgian non-financial corporations. The Belgian venture capital industry is traditionally characterised by a high proportion of early stage and expansion investments by the public sector, especially in high-tech industries. A shortage of private venture capital, and of bridging finance in particular, may thus in the long run restrict the growth of this market.

A law permitting the participation of workers in the capital and profits of their corporation was passed and came into force in 2001. It constitutes the first general legislative framework to make the various forms of participation attractive to all Belgian-based companies and their employees. These participation systems, especially those in the capital, are subject to lower tax. Special rules have been laid down for SMEs to enable their founders to avoid losing decision-making power, while still benefiting from the system.

As in many other euro area countries, financing through securities other than shares remains very limited. Nevertheless, flows tell a slightly different story than stocks: over the period 1998-2000, they represented a yearly average of 1.0% of GDP to reach a stock of 7.9% of GDP at the end of 2000.

Generally speaking, foreign external financing is important for Belgian companies in the form of direct investment equities and loans between related Belgian and foreign companies, especially in recent years, since some of the largest Belgian companies have been bought by foreign ones.

5.2 General government

Though the government's financing needs are diminishing, its total liabilities still represented 114.3% of GDP at the end of 2000. The bulk of the government's external financing takes place through capital markets, while bank loans, mainly with a long-term maturity, amount to only slightly more than 10% of total liabilities. No other euro area government relies more on securities to cover its financing needs.

In the 1990s, the structure of the government's liabilities underwent two major changes. Firstly, the share of foreign currency-denominated debt decreased substantially, from 13.1% at the end of 1990 to 2.9% at the end of 2000. The increase in the national currency's share began in the mid-1990s and is thus not solely attributable to a mechanical EMU effect. Secondly, the share of long-term debt increased. By the end of 2000, securities with a maturity of over one year represented 77.4% of total liabilities, against 59.1% ten years earlier. These two changes were made possible by a virtuous circle which increased confidence in the Belgian currency and in the commitment of successive governments to reducing public debt.

19 Source: European Venture Capital Association. Euro area average based on 10 countries, as Luxembourg is missing and Greece had not yet joined the euro area.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	...	0.2
Securities other than shares incl. financial derivatives	0.7	100.2
of which short-term bonds (<1y)	-2.3	11.8
of which long-term bonds (>1y)	3.0	88.4
Loans	-0.2	13.1
from resident MFIs	-0.1	11.8
of which short-term (<1y)	0.1	0.9
of which long-term (>1y)	-0.2	11.0
from resident OFIs	-0.3	0.3
from other resident sources	0.1	0.8
from non-residents	...	0.2
Other liabilities	0.1	0.8
Total liabilities	0.6	114.3
Internal financing		
Gross savings	2.0	-
Net savings	0.4	-
Net capital transfers	-0.8	-

Sources: National Accounts Institute; National Bank of Belgium, national financial accounts statistics.

The popularity of OLOs is demonstrated by the large proportion held by foreign investors, a level which has been growing since the launch of the euro. At the end of 2000, this share amounted to more than 40%, having risen from a mere 20% at the end of 1998.

5.3 Households

Though slightly increasing, household indebtedness is still rather limited in comparison with several other euro area countries. At the end of 2000, total liabilities amounted to 44.4% of GDP while, over the period 1998-2000, external financing represented only 21.1% of the sum of households' gross savings and net capital transfers received, one of the lowest such ratios in the euro area. The structure of Belgian households' liabilities is comparable to the pattern in many other euro area countries. At the end of 2000, 76.0% took the form of loans (mainly for housing) from resident MFIs, which nevertheless leaves a more important role for resident lenders other than MFIs as compared with the euro area average.

The mortgage loan market is still rather traditional. Nearly all mortgage loans have a maturity of more than 5 years, their typical duration being 20 years. The use of variable rates was rather restricted by the legislator before 1992. The revision of the relevant law in 1992, which came into force in 1994, eased these constraints as the minimum period for a fixed rate was lowered to one year. The most common variable rate formulas are "semi-variable", i.e. adjustments are possible every five years from the starting date or after a fixed period of ten years (the so-called "10+5+5 formula"). The share of fixed and variable rate mortgages in new loan production is very cyclical, depending primarily on the trend in the long-term interest rate. Although the semi-variable rate formulas became popular during the 1990s, the share of mortgage loans with a fixed rate over the entire duration of the loan is still substantial

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	1.8	39.8
Loans from resident MFIs	1.7	33.7
of which short term (<1y)	0.1	3.1
of which long term (>1y)	1.6	30.6
Consumer loans	0.1	3.5
original maturity < 1y	...	0.3
1y < orig. mat. < 5y	0.1	2.7
5y < orig. mat.	...	0.5
Housing loans	1.5	22.6
original maturity < 1y	-	-
1y < orig. mat. < 5y	...	0.3
5y < orig. mat.	1.5	22.3
Other loans from resident MFIs	-0.3	7.4
Other loans from resident lenders	0.1	6.1
From non-residents	-	-
Other liabilities	0.3	4.6
Total liabilities	2.1	44.4
Internal financing		
Gross savings	9.9	-
Net savings	6.6	-
Net capital transfers	-0.1	-

Sources: National Accounts Institute; National Bank of Belgium, national financial accounts statistics.

(54% of the volume of the new loans granted in 2000[20]), especially since in recent years households have taken advantage of the low level of interest rates to secure a low rate over the entire duration of the loan. On this occasion, many loans were refinanced as this is allowed at the cost of a penalty not exceeding three months of interest. Total or partial reimbursement is a legal right of the debtor. Lastly, home equity withdrawal is unknown.

A new product was nevertheless launched in 2000 to allow mortgage holders to make repayments on their loan on the basis of the results of an investment fund-linked insurance contract (“branch 23” product, see Section 3.4). At the end of the contract, it is therefore not certain whether the capital saved in the investment fund will be sufficient to reimburse the amount borrowed.

The typical loan-to-value ratio lies in the range of 80-85%. There is no absolute ceiling, but the applied rate increases with the value of the ratio. Interest payments and capital repayments are partially tax-deductible, as are the fees paid for the life assurance that guarantees the reimbursement of a housing loan in case of death of the debtor. The bulk of mortgage loans are provided by credit institutions: in 2000, they were the creditors for 85% of the number of existing contracts. The rest was divided between mortgage companies, housing institutes, insurance companies and other financial institutions.

The mark-up applied by Belgian banks on mortgage credit used to be low by international standards. Belgian banks have been providing cheap mortgage loans to attract customers in

20 Source: Union Professionnelle du Crédit – Beroepsvereniging van het Krediet.

order to be able to cross-sell other financial products and services, a strategy further enhanced by the bancassurance phenomenon. Nevertheless, and although the strong rise in this mark-up in 2001, sometimes interpreted as a realignment of the conditions offered by Belgian banks towards a European level, has since been offset, it may be that this mark-up has established itself more permanently at a higher average level.

Although not registered by Belgium's financial accounts statistics, mortgage loans to households granted by foreign lenders are known to be rare. This marginal market share could be related to the late transposition of the principle of free provision of services into Belgian law. For instance, tax relief on capital repayments of mortgage credits was limited to borrowers taking out a loan from a Belgian lender until the 1998 fiscal year.

In spite of the generally comfortable financial position of households, the growing number of overindebted households has become a cause for concern. It should be mentioned that the indebtedness picture given by the Belgian financial accounts statistics is not complete, as non-bank loans, i.e. loans granted by financing companies (included in OFIs), are not covered and could be gaining in importance. In this context, a law has been passed which will establish from June 2003 a "positive" central register of all consumer and mortgage loans granted to households, replacing the already-existing "negative" register, which is restricted to overdue debts relating to such loans. As is already the case with the latter, credit institutions and financing companies will be required to consult the "positive" register when granting a new loan.

5.4 Flow of funds abroad

Owing to the high degree of openness of the Belgian economy, financial flows with the rest of the world are large. These are visible at all levels: for example, the acquisition of foreign

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	-1.5	99.1
Shares	9.9	77.9
Securities other than shares	6.5	50.2
Other financial assets	5.7	44.2
Total financial assets	20.7	271.3
Liabilities of non-residents		
Deposits	-0.2	77.5
Securities other than shares	7.8	83.0
of which short-term (<1y)	0.3	2.8
of which long-term (>1y)	7.5	80.1
Loans	9.5	48.7
of which granted by financial institutions	1.6	16.2
Shares and other equity	12.0	112.4
of which held by financial institutions	5.5	29.0
Other liabilities	-3.5	11.8
Total liabilities	25.6	333.3

Source: National Bank of Belgium, national financial accounts statistics.

securities by households, cross-border holdings of shares between non-financial corporations, international interbank activity of Belgian MFIs, and the presence of many co-ordination centres which serve as liquidity hubs for multinational companies.

Altogether, the amount of financing provided to the rest of the world is huge, as Belgium's net external position represented 62.1% of GDP at the end of 2000. This stems from an accumulation of current account surpluses, as well as price effects in the last few years when foreign share prices were on an upward trend, while Belgian share prices were declining.

With regard to the structure of the liabilities of the rest of the world, shares and other securities form the main financing instruments, as is the case for the other euro area countries. There is, however, an important difference regarding loans, even though their total share is largely in line with the average of euro area countries. The majority of these loans are granted by resident non-financial corporations and take the form of large direct investment loans to foreign parent companies. Such large flows also take place in the other direction, meaning that the same remark remains valid for the financial assets of the rest of the world. Lastly, the important share of deposits on both sides of the rest of the world's balance sheet should be mentioned. This stems from the international interbank activity of Belgian banks.

Germany

1 Main features of and recent developments in the German financial system

In contrast to other euro area countries, the German financial system has not changed dramatically over the past few decades, mainly because financial liberalisation took place very early in Germany. In the 1990s, however, market orientation gradually grew stronger. There are a few dominant features which have characterised the German financial system over the last 50 years. First, banks (MFIs), which are mostly organised as universal banks, continue to play a central role. In the past, households usually held deposits with banks and, whenever firms needed external assets, they obtained loans from their *Hausbanken*, taking advantage of the very close relationship between the bank and the firm. From about 1980 onwards, the importance of insurance corporations as another intermediary slowly grew. In the 1990s mutual funds (included in OFIs) became very successful institutions. For a long time, the allocation of assets via the markets was of much less relevance, with shares even less important than bonds. The issuance of securities served as the usual means of financing for banks and above all the government. The lesser importance of shares is reflected in the

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments[*)]

(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual funds shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	148.1	110.6	156.6	123.4
Households	118.4	46.3	73.4	0.0
Non-financial corporations	18.4	59.0	61.7	84.5
General government	11.3	5.3	21.5	38.9
Non-residents	48.4	65.0	23.3	71.5
Total	196.5	175.7	180.5	194.9

Source: Deutsche Bundesbank, national financial accounts statistics.

*) In addition there are direct financial relationships between non-financial sectors, e.g. households hold assets vis-à-vis enterprises in the form of claims from company pension provisions (end-2000: 8.2% of GDP) or the general government grants loans to enterprises (end-2000: 1.6% of GDP).

relatively low stock market capitalisation compared with other countries. But in the 1990s, especially in the second half, shares became much more attractive. Several reasons for this must be mentioned: the privatisation of large public enterprises, the international stock market boom and the founding of the *Neuer Markt*, a special stock segment for relatively new technologically-oriented firms. Consequently, in Germany stock market capitalisation increased to roughly 70% of GDP in 2000. This development in the last ten years was accompanied by new legal regulations (*Finanzmarktförderungsgesetze*, or Financial Market Promotion Acts). To that extent, the Government has prepared the institutional setting for the modernisation of the German financial system.

The data in Table 1 support the above arguments. In 2000 the German non-financial sectors together channelled financial assets equivalent to about 150% of GDP to the intermediary sectors, whereas the markets (characterised by non-intermediated assets) directly attracted funds equivalent to only 110% of GDP. On the liability side, the dominance of the intermediaries was similar. In the euro area, however, the markets outweighed the intermediary sectors, above all with respect to external funds. The funds received via the markets represented 220% of GDP, as opposed to 130% from intermediaries. The findings for Germany are in line with the traditional view that the German financial system is bank-based in contrast to the clear market orientation of the Anglo-Saxon countries. Yet the dominance of the bank sector was even greater only a few years ago; this can be interpreted as meaning that the process of disintermediation has since begun to take place in Germany. When interpreting these stock figures for intermediaries/markets over time, it must not be forgotten that the stock market boom at the end of the 1990s and the ensuing high share values have influenced the statistical picture. Nevertheless, flow data also confirm the ongoing disintermediation process, albeit to a less significant extent.

The various non-financial sectors have shown different preferences for intermediaries versus markets. Most household assets and liabilities are channelled via intermediaries. On the liability side, this is obvious as loans are the only possible source of external funds for households. In 2000 households held more than twice as many intermediated assets as shares and bonds, but the trend over the last few years has been much more towards market instruments. The behaviour of firms was totally different, their borrowing being mainly on the markets. This holds for both sides of the balance sheet. In a certain sense, the government sector stands as an intermediary between households and firms. For the Government, intermediation-oriented assets clearly outweighed market-oriented assets, but the former were very small in comparison with the other sectors' financial assets as a whole. On the financing side, market orientation dominates; the Government's most important source of funding has traditionally been the issuance of bonds.

As emphasised above, intermediaries play a dominant role in the German financial system. A further characteristic is that over the past few years MFIs, OFIs and insurance corporations (including pension funds) have become increasingly interlinked as a result of mergers and acquisitions as well as the establishment of subsidiaries. In general OFIs are not independent, but rather are controlled by banks. It is no exaggeration here to speak of a financial industry in its own right. Additionally, these institutions together not only provide traditional intermediary services, but also lend and borrow intensively on the markets by buying or issuing bonds and shares. On the liability side, bond financing played an increasingly important role for banks owing to the decline of traditional deposits.[1]

1 Therefore, the German financial system can also be classified as a "mixed" system lying somewhere between a purely bank-based and a purely market-oriented system (see Deutsche Bundesbank 2000a).

The allocation of financial assets and liabilities described is not limited to resident sectors, but also takes place between German sectors and the rest of the world (non-residents). Table 1 shows that links with foreign countries were in no way negligible. Additionally, the rest of the world clearly preferred the market and this preference grew strongly: foreign investors purchased more German bonds and shares than intermediation-oriented products, and the liabilities of non-residents (or in other words the foreign assets of German sectors) were likewise dominated by market orientation. The dynamics observed mainly resulted from the recent trend towards globalisation and the greater integration of the international financial markets in the second half of the 1990s.

2 Origin of flows

The financial transactions depicted in Table 2 clearly show that for Germany, as for the euro area, the classical net lending/net borrowing structure holds. On the one hand, for the whole 1998-2000 period households were able to contribute financial assets to the other sectors (3.5% of GDP), whereas non-financial corporations and the government sector, on balance, generally required external funds. The financial corporations, however, played a more or less neutral role, in line with their intermediation function. When considering the economy as a whole, net household lending was not sufficient to meet the demand of the other resident sectors for the period under review. Therefore, the German economy was dependent on capital inflows from abroad (on average 0.2% of GDP).

The stock data for 2000 roughly provide the same picture as the flows: households' financial assets (180% of GDP) were much higher than their liabilities (74% of GDP), in contrast to the other non-financial sectors. But one important difference from the flow data must be emphasised regarding the net financial position vis-à-vis the rest of the world. Here, German financial assets outweighed external debt by 1.5% of GDP. The explanation is that Germany was an important net exporter of capital before unification in 1990 and was able to build up a very high net position. This net position has decreased year by year owing to the demand for foreign capital, but in 2000 still remained slightly positive.

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
Resident sectors						
Households	6.7	3.2	3.5	179.8	74.1	105.8
Non-financial corporations	8.1	11.3	-3.2	102.1	168.5	-66.4
General government	1.0	1.7	-0.6	19.3	60.8	-41.5
Financial corporations	26.6	26.5	0.1	359.3	355.8	3.5
Total	42.5	42.7	-0.2	660.5	659.2	1.3
Non-residents	18.4	18.1	0.2	134.4	135.7	-1.3

Source: Deutsche Bundesbank, national financial accounts statistics.

When considering the 1998-2000 period in detail, at least two special factors have to be mentioned. First, from 1998 onwards the non-financial corporations dramatically increased their acquisition of financial assets to 8% of GDP on average, and their external financing to 11.5% of GDP. It can be noted that a similar development also characterised the euro area. The corresponding stock figures for 2000, however, were much higher for the euro area than for Germany. The main reasons for this dramatic increase were very strong external growth by purchasing as well as issuing shares, and also lending to and borrowing from other non-resident enterprises. The acquisition of a German telecommunications firm by a British enterprise in 2000 also played a major role. Second, general government was a net lender of funds to other sectors in 2000 (1.5% of GDP), unlike in previous years, when the government sector had been a net borrower. The extremely high level of public financial asset formation was based on the proceeds from the sales of UMTS licences to telecommunications firms, which correspondingly increased their demand for external financing. In conclusion, the 1998-2000 period was in a certain sense different from the years before and can only be understood by taking into account the development of the stock markets and the objective of large firms to become global players.

3 Intermediaries

3.1 Channelling of funds through intermediaries

According to the flow data in Table 2, the resident non-financial sectors acquired financial assets equivalent to 16% of GDP from 1998 to 2000. Table 3.1 shows that about half of this amount was invested via resident or non-resident intermediaries (for Germany a sectoral breakdown for resident versus non-resident intermediaries is not available). In contrast to the non-financial sectors, the financial corporations themselves channelled most of their funds in the form of non-intermediated assets (see Section 1).

In the last few years the non-financial sectors' current investment in the insurance sector (3.1% of GDP) on average slightly outpaced investment in OFIs (2.6% of GDP) and MFIs (1.8% of GDP). When looking at the movement year by year, it can be seen that the MFIs have significantly lost market share whereas the OFIs, starting at a relatively low level, are a very dynamic sector. The high level of investment in the insurance sector has been more or less stable over the last few years.

In general, the stock data confirm the above findings. They also underline the fact that MFIs have become less attractive for financial investment in the form of traditional deposits and money market fund shares. On the one hand, the non-financial sectors formerly allocated most of their intermediated assets to MFIs in the past, but over the past few years the amount allocated has more or less stagnated. On the other hand, assets held by OFIs have increased by more than 100%, implying that in 2000 the intermediation-oriented assets with OFIs and insurance corporations together were only slightly lower than the assets held by banks. Five years before, the corresponding ratio was only 50%.

A rough comparison of German intermediaries by economic importance in terms of total assets gives a clear ranking (see Tables 3.4 to 3.6). In 2000 total assets of MFIs were 300% of GDP, whereas insurance corporations including pension funds and OFIs reached levels of 64% and 41% of GDP, respectively. Nevertheless, as described above, OFIs were the most dynamic sector among the various intermediaries. In the euro area, the order was the same, but the difference between banks and the other intermediaries was smaller. With respect to the portfolio structure of the assets, German intermediaries were significantly different. Whereas

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % GDP)

	Monetary financial institutions (MFIs) (Deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (Investment fund shares)	**Insurance corporations and Pension funds (ICPFs)** (Deposits and technical reserves)	**Non-resident intermediaries** 2) 4) (Deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	4.8	5.2	3.2	-
Households 1)	0.5	2.2	3.1	-
Non-financial corporations 1)	0.3	0.4	0.1	-
General government 1)	1.0	0.0	0.0	-
Financial corporations 1)	3.0	2.6	0.0	-
Non-residents	6.0	0.2	0.3	-
Total	10.8	5.4	3.4	-
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	125.3	44.8	42.5	-
Households 3)	58.7	19.0	40.7	-
Non-financial corporations 3)	12.3	4.5	1.6	-
General government 3)	10.4	0.7	0.2	-
Financial corporations 3)	43.9	20.6	0.0	-
Non-residents	45.2	0.9	2.3	-
Total	170.5	45.8	44.7	-
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-

Source: Deutsche Bundesbank, national financial accounts statistics.
1) Resident and non-resident acquisitions.
2) Acquisitions of intermediated assets of resident sectors vis-à-vis non-residents: 2.3% of GDP.
3) Resident and non-resident holdings.
4) Holdings of intermediated assets of resident sectors vis-à-vis non-residents: 32.6% of GDP.

MFIs' main financial asset was loans to other sectors, insurance corporations relied on deposits and mutual funds shares. OFIs seemed to be much more concentrated on market instruments (with bonds equal to shares). Therefore, each intermediary has its own risk structure on the asset side.

3.2 Monetary financial institutions (MFIs)

Credit institutions

According to the legal definition in the German Banking Act, German banks may, in principle, conduct all types of banking business. In fact, universal banking is the predominant type of banking in Germany. Typically, German universal banks are not only engaged in deposit and lending business, but also in securities business (own-account trading, underwriting, issuing and safe custody business) and asset management, for instance. In this context, and especially for the commercial banks, off-balance sheet activities have become more and more important over the past few years. As an exception to the general rule, there are two categories of banks engaged in special types of banking business: mortgage banks (engaged in mortgage lending and lending to public authorities) and banks with special functions (such as the provision of subsidised lending).

Table 3.2: Number of MFIs excluding the central bank (of which government owned) [1)]

(end of year)

	1998	2000
Incorporated enterprises limited by shares [2)]	172 (-)	148 (-)
Co-operative enterprises	2,260 (...)	1,796 (...)
Saving banks	607 (600)	575 (568)
Branches and subsidiaries of foreign institutions	156 (...)	146 (...)
Other credit institutions	85 (27)	75 (19)
Money market funds	41 (...)	40 (...)
Total	3,321	2,780

Source: Deutsche Bundesbank.

1) Figures for "government owned" are partly estimated because there is no such breakdown in the German banking statistics.

2) Commercial banks including banks with the legal status of limited liability company, general partnership and limited partnership.

The German banking sector, numbering 2,740 credit institutions at the end of 2000, is highly fragmented. Concerning the different types of banks, the largest number of institutions can be found in the category of co-operative banks, which accounted for over 65% of all banks at the end of 2000. In addition, savings banks and commercial banks accounted for 21% and 5.5% respectively of all German credit institutions.

The ongoing consolidation process – the number of credit institutions decreased by 540 between 1998 and 2000 – is affecting co-operative banks in particular. The vast majority of bank mergers involved the latter owing to their comparably small size as measured, for example, by their balance sheet total.

The contributions of the different categories of banks in terms of the balance sheet total differ quite significantly from their respective shares in the total number of German credit institutions. If we look at the most important banking groups, savings banks (including their head institutions) account for 35.5%, co-operative banks (including their head institutions) for 12.5% and the more heterogeneous group of commercial banks for another 23.5% of the German banking industry's total assets.

In Germany, the two large categories, savings banks and credit co-operatives, are characterised by a two-tier system: the savings banks are closely linked to their head institutions, the regional giro institutions (*Landesbanken*) with whom they are almost exclusively involved in interbank business.[2] The same holds for the co-operative banks and their head institutions, the central institutions of credit co-operatives *(Genossenschaftliche Zentralbanken)*. Within these alliances, the respective head institutions perform the role of

2 The institutional set-up will change for the German savings banks as well as for their head institutions (and for other publicly owned banks). Owing to European Commission concerns about the impact of public guarantees on competitiveness, the latter will be mostly abolished from 2005 onwards.

short-term debtors and long-term creditors; they adopt the function of liquidity provision as well as risk transformation.[3] Moreover, the two-tier systems work on the basis of a clear regional demarcation limiting individual institutions' scope for expanding their business.

German banks are often described as *Hausbanken*, i.e. they maintain close (and long-lasting) relationships with their customers. The large number of small banks as well as their high degree of regional dispersion enable them to be geographically close to their customers and to have personal contacts which help to reduce potential information problems that could restrict small and medium-sized enterprises' (especially the *Mittelstand's*) access to funds. Moreover, the fact that the vast majority of these small and medium-sized banks are either savings banks or co-operative banks allows them to indirectly access the interbank market through their respective large central institutions. This creates sufficient flexibility to maintain these *Hausbank* relationships even in times when overall liquidity is scarce. This is of specific importance for monetary policy, because small regionally active banks are thus not necessarily forced to make greater cutbacks in lending to non-banks than large banks in reaction to a monetary tightening. Indeed, this is a major argument in favour of the hypothesis that the bank-lending channel of monetary transmission is of only comparatively minor importance in Germany.

With respect to the internationalisation of the banking industry, 146 branches and subsidiaries of foreign banks were operating in Germany at the end of 2000. At the same time German banks had established 212 branches and 170 subsidiaries abroad, most of which were located in EU countries (122 and 93, respectively).

Table 3.3: Concentration of credit institutions
(end of year)

	1998	**2000**
Herfindahl	0.013	0.015
Top 5's share of total assets (%)	19.1	19.9

Source: ECB calculations based on Deutsche Bundesbank data.

The degree of banking concentration is very low in Germany. Even the five largest banks, which substantially exceed the overall average in terms of total assets, only accounted for a market share of about 20% at the end of 2000. At the same time, the density of bank branches, which numbered 39,600 at the end of 2000 along with an additional 13,600 branches of Postbank AG, is relatively high. Not surprisingly, competition among banks is comparably strong in Germany. Competition from foreign banks, however, remains limited. The foreign banks compete with large domestic banks mainly in the areas of international payments, or securities, foreign exchange and derivatives trading as well as investment banking.

Against this background, the relatively low profitability of German banks can be partially explained by the rather strong competition in most areas of banking business in Germany. In general, interest rate-related business still represents the most important source of earnings, although the picture is becoming increasingly diversified for the different categories of banks. In recent years, commercial banks in particular have managed to generate an increasing income share from non-interest-related business. On the cost side, staff costs still account for more than half of all general administrative costs.

3 For more details, see Deutsche Bundesbank (2000b).

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank
(as a % of total assets/liabilities; end of year)

Assets	1998	2000
Cash	0.3	0.3
Loans	77.2	74.0
to domestic MFIs	19.1	18.2
to other domestic residents	47.4	43.8
of which < 1y original maturity	9.4	6.1
of which 1y < orig. mat. < 5y	2.3	3.7
of which 5y < orig. mat.	35.7	34.1
to other euro area residents	3.4	4.1
to non-euro area residents	7.3	7.9
Securities other than shares	15.1	16.2
issued by domestic MFIs	8.9	9.5
short-term (< 1y)	0.1	0.4
long-term (> 1y)	8.8	9.1
issued by other domestic residents	3.6	2.8
short-term (< 1y)	0.1	0.0
long-term (> 1y)	3.6	2.7
issued by other euro area residents	1.5	2.5
issued by non-euro area residents	1.2	1.4
Shares and other equity	4.4	6.0
issued by domestic MFIs	0.5	0.6
issued by other domestic residents	3.1	3.8
issued by other euro area residents	0.4	0.6
issued by non-euro area residents	0.4	0.9
Fixed assets	0.7	0.6
Remaining assets	2.2	3.0
Total assets	100	100
Liabilities		
Deposits	68.3	66.3
from domestic MFIs	20.8	19.5
from other domestic residents	35.4	31.9
overnight deposits	7.0	7.1
other deposits	28.4	24.8
from other euro area residents	5.0	5.0
from non-euro area residents	7.1	9.9
Money market fund shares/units	0.4	0.3
Securities other than shares	21.8	23.9
Capital & Reserves	4.0	4.3
Remaining liabilities	5.6	5.2
Total liabilities	100	100
Total assets/liabilities as a % of GDP	274.42	300.36

Sources: ECB and Deutsche Bundesbank.

If we look at the German banking sector in aggregate, loans to resident non-MFIs, although declining, still accounted for approximately 44% of total assets in 2000, which is slightly above the euro area average of 41%. Thus, the classical role of intermediation still remains the core banking business in Germany and dominates the structure of the German banks' balance sheet. With regard to other lending, loans to resident MFIs accounted for 18% of total assets in 2000, loans to other euro area countries 4%, and loans to the rest of the world 8%. Concerning loans to residents, the most striking feature is the predominantly long-term maturity, especially of loans to enterprises and for house purchases. The underlying contracts typically specify fixed interest rates locked in for several years.

Regarding the most prominent banking categories, the importance of loans to non-MFIs again differs markedly. Measured as a share of total assets, they range from 54% for commercial banks to roughly 70% for the savings banks and co-operative banks (excluding their respective head institutions). Interestingly, in recent years the importance of loans to non-MFIs remained almost unchanged for the latter two categories, while it continuously dropped for commercial banks. This is not least due to differing alternative forms of financing for German enterprises. Although in Germany disintermediation gained momentum during the 1990s, this development was not spread evenly across enterprises. While larger companies became less dependent on banks, smaller and medium-sized enterprises continued to depend on bank financing.

The banking categories with a large volume of interbank business are primarily the head institutions of the savings banks and of the co-operative banks, followed by banks with special functions and, to a minor extent, commercial banks.

On the liability side of the balance sheet, the picture of a banking sector performing the traditional role of intermediation (liquidity, risk and maturity transformation) is confirmed. Deposits are by far the most important source of refinancing for the German banking industry. They accounted for two-thirds of total liabilities in 2000, with deposits from resident non-MFIs amounting to almost half of them (32% of total liabilities, which perfectly corresponds to the euro area average). The rest is divided between deposits from abroad (15%) and from resident MFIs (20%). Not surprisingly, the picture differs for the different types of banks; once again, the share of deposits by non-MFIs is in decline, at little more than 35% for commercial banks, more than 60% for savings banks and 70% for co-operative banks (excluding the respective head institutions).

The degree of securitisation – although growing – is comparably low in Germany. Moreover, to a large extent it takes place within the balance sheet of the German banking sector. Thus, securitisation in Germany does not necessarily cast doubt on the role of banks as intermediaries, but rather prolongs the intermediation chain. Its main emphasis is on longer term securities and not on money market paper.[4]

Money market funds

Money market funds were introduced relatively recently to Germany (1994). After an initial period of rapid growth, the importance of money market fund shares has not increased during the past few years, but has remained stable instead. As to their balance sheet structure, assets are typically evenly distributed between domestic and foreign investments.

3.3 Other financial intermediaries (OFIs)

Although OFIs enjoyed above-average growth in Germany during the 1990s, their importance is still modest by international standards. Accordingly, the investment funds' share of household financial assets in Germany increased from 4% in 1991 to over 11% at the end of 2000.

4 See Deutsche Bundesbank (2000a).

Table 3.5: Aggregated balance sheet of OFIs
(as a % of balance sheet unless otherwise indicated; end of year)

	1998		2000	
Assets	**Investment funds**	**Other OFIs**	**Investment funds**	**Other OFIs**
Deposits with	6.7	-	5.3	0.0
residents	-	-	-	-
non-residents	-	-	-	-
Securities other than shares issued by	48.5	-	39.6	1.1
residents	35.3	-	24.3	-
non-residents	13.2	-	15.3	-
Shares issued by [1)]	38.4	-	46.4	15.0
residents	18.7	-	12.7	-
non-residents	19.7	-	33.2	-
Remaining assets	6.5	-	8.8	83.9
Total assets	100	-	100,	100,
Liabilities				
Mutual fund shares	98.6	-	98.6	-
Remaining liabilities	1.4	-	1.4	-
Total liabilities	100,	-	100,	100,
Total assets/liabilities as a % of GDP	29.1	-	40.1	0.9
Number of OFIs				
Investment funds	5050	-	6403	-
Securities and derivatives dealers	-	-	-	155
Financial corporations engaged in lending	-	-	-	31
Other institutions	-	-	-	0

Source: Deutsche Bundesbank.
1) The split of securities into residents and non-residents comprises only security-based funds, which account for over 80% of overall funds volume.

Almost two-thirds of investment fund assets are invested in special funds. These are investment funds whose certificates may be issued for a maximum of ten investors. Special funds are mostly established so that institutional investors can meet their idiosyncratic portfolio allocation needs. Tax advantages and accounting policy issues are the main reasons for institutional investors to outsource asset management to special funds. German insurance corporations account for one-half of the assets in special funds, German banks for one-quarter, and other enterprises, corporate and other supplementary pension funds and non-profit organisations for roughly the remaining quarter. Almost all special fund assets are security-based funds (99%), with mixed funds clearly predominating (61%), followed by purely bond-based funds (26%) and share-based funds (12%). Security-based funds also predominate in the case of investment funds open to the general public, accounting for about 74% of the assets. Open-ended real-estate funds (16%) and money market funds (6.5%) lag behind. Nevertheless, since their introduction in 1994, money market funds have increasingly competed with bank deposits.

For both types of funds (i.e. special funds and funds open to the general public), investment has shifted towards equities, which now account for over 50% of the funds' assets. The trend towards the internationalisation of security portfolios has accelerated further since the start of Monetary Union. At the end of 1998, foreign securities accounted for well below one-half of the total equity and bond assets of domestic investment funds open to the general public. By the end of 2000, the holdings of foreign shares in particular had risen to 70%, i.e. a level indicative of a less significant home bias. In contrast, the share of foreign bonds remained somewhat lower at just under 40%.

Financial corporations owned by car manufacturers and engaged in financing purchases of cars by households make up the majority of other OFIs in terms of asset volume.

3.4 Insurance corporations and pension funds (ICPFs)

The German insurance sector, which includes insurance corporations and pension funds, plays an important role in the German pension system, which is still dominated by the public pay-as-you-go system (the "first pillar"). The second pillar is based on additional benefits from private and public enterprises. Here, on the one hand, pension funds as well as

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations [1)]**	**Pension funds**	**Insurance corporations [1)]**
Deposits	-	31.2	-	29.4
with residents	-	-	-	-
with non-residents	-	-	-	-
Securities other than shares	-	11.1	-	7.3
issued by residents	-	-	-	-
issued by non-residents	-	-	-	-
Shares and other equity [2)]	-	34.9	-	41.5
issued by residents	-	-	-	-
issued by non-residents	-	-	-	-
Fixed assets	-	8.3	-	8.6
Remaining assets	-	14.5	-	13.2
Total assets	-	100,	-	100,
Liabilities				
Technical reserves	-	74.2	-	70.5
Remaining liabilities	-	25.8	-	29.5
Total liabilities	-	100,	-	100,
Total assets/liabilities as a % of GDP	-	54.4	-	64.0
Number of pension funds and insurance corporations				
Pension funds [3)]	185	-	180	-
Insurance corporations	-	480	-	470

Source: National statistics.
1) Including (supervised and non-supervised) pension funds.
2) Including mutual funds shares.
3) Supervised pension funds only.

supplementary pension funds have to be taken into account.[5] On the other hand, households have direct claims from company pension commitments, which are carried on firms' balance sheets as pension provisions (in 2000 these household assets represented about 8% of GDP, see Table 1). Finally, the private investment of households must be mentioned. One often-used channel within this third pillar is investment in life assurance policies, which is promoted by tax rules.

In 2000, the liabilities of the whole insurance sector were mainly based on the so-called insurance technical reserves mostly held by households (see Tables 3.1 and 3.6). A major share of these reserves can be interpreted as precautionary savings for retirement income. The second important source of funds was the issuance of shares (included in the item remaining liabilities'), as most German insurance corporations are public limited companies. Owing to the stock market boom, the value of shares has grown much faster than that of technical reserves in the last few years. On the asset side, the holding of shares played only a minor role in Germany. At first glance, the item shares seemed to be the dominant one for 1998 and 2000 however (in 2000 it accounted for over 40% of total assets, which nearly matched the euro area ratio), but it also included mutual funds shares (usually of special investment companies), which were the preferred instrument (23% of total assets). Before 1998, the amount of deposits with MFIs was much higher than the total shareholdings.

4 Markets

If all sectors are considered together for the 1998-2000 period, current investment in shares was, surprisingly, no higher than in securities despite the booming stock market (see Table 4.1). The reason was that the rest of the world and the resident financial sectors preferred less risky securities. Unlike these sectors, the non-financial sectors as a whole purchased much more shares than securities from 1998 to 2000; this finding also holds for the euro area. Nevertheless, behaviour within the non-financial sectors was not uniform. For example, general government sold shares worth about 1.5% of GDP when pursuing its privatisation policy. A slightly positive direct investment in shares could be seen for households. The most active sector was that of non-financial corporations. As mentioned above, a process of dynamic external growth was launched in 1998, with German non-financial corporations increasing their holdings of participating interests in other firms within and outside Germany.

Even if households were much less active in purchasing shares, 1996 proved to be something of a turning-point: the issuance of shares by a major telecommunications firm led to a sharp increase in purchases of shares. The growing importance of shares within household portfolios can be seen when comparing levels of the ratio of shareholdings to GDP. In the mid-1990s, shareholdings by households were about 15% of GDP, whereas by 2000 the ratio had increased to just below 30% of GDP. On the asset side of firms' balance sheets, however, shares were much more important (over 50% of GDP in 2000). Nevertheless, the euro area average for shareholdings was much higher: in 2000 it was 55% of GDP for households and 71% for firms. As this instrument includes listed and non-listed shares, such a breakdown would be important in order to assess the relevance of markets. However, owing to missing primary statistics, exact figures for the various sectors' holdings of non-listed

5 The term pension funds used in ESA 95 is not limited to Anglo Saxon-type funds, but is more general. During the review period, German pension funds' asset formation was restricted to German insurance corporations. According to a new law (the *Altersvermögensgesetz*), "real" pension funds are now accepted. The establishment of this type of pension funds started in mid-2002 (for further details see Deutsche Bundesbank 2001b).

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents [1]	Securities other than shares issued by non-residents [2]
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	9.3	8.0	-	-
Households [3]	0.7	-0.1	-	-
Non-financial corporations [3]	4.4	1.4	-	-
General government [3]	-0.5	0.0	-	-
Financial corporations [3]	4.7	6.7	-	-
Non-residents	2.8	5.1	-	-
Total	11.9	13.1	-	-
	Shares issued by residents	**Securities other than shares issued by residents**	**Shares issued by non-residents [4]**	**Securities other than shares issued by non-residents [5]**
Holdings (Amounts outstanding, end-2000)				
Resident sectors	138.2	98.3	-	-
Households [6]	28.1	18.3	-	-
Non-financial corporations [6]	51.1	7.9	-	-
General government [6]	4.7	0.5	-	-
Financial corporations [6]	54.3	71.6	-	-
Non-residents	25.9	39.1	-	-
Total	164.1	137.4	-	-

Source: Deutsche Bundesbank, national financial accounts statistics.
1) Acquisitions of shares of resident sectors issued by non-residents: 7.5% of GDP.
2) Acquisitions of securities of resident sectors issued by non-residents: 3.7% of GDP.
3) Resident and non-resident acquisitions.
4) Holdings of shares of resident sectors issued by non-residents: 45.9% of GDP.
5) Holdings of securities of resident sectors issued by non-residents: 25.6% of GDP.
6) Resident and non-resident holdings.

shares are not available for Germany. Based on rough estimates, non-listed shares held by the non-financial sectors as a whole made up about 50% of all shares. Financial corporations, however, invested less in non-listed shares.

4.1 The bond market

In terms of the volume of funds allocated from savers to borrowers in Germany, the bond market ranks second behind only the banking sector. At the end of 2000, €2.3 trillion worth of debt securities – 110% of GDP – were outstanding.

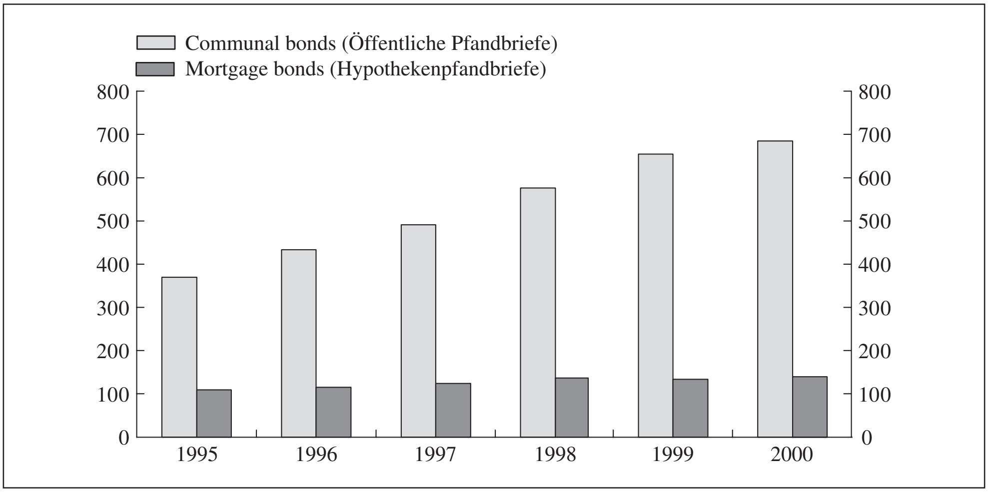
4.1.1 The primary market: issuance

The German bond market is dominated by bank bonds. At the end of 2000, almost two-thirds of the outstanding amount of debt securities were issued by banks. At the same time, government bonds amounted to €800 billion – nearly 40% of GDP. The market for German 10-year *Bundesanleihen (Bunds)* represents the most liquid segment of the European bond market and provides a benchmark for the pricing of long maturity bonds throughout Europe.

The issue policy has been adapted in order to increase the liquidity of the government bond market. The measures introduced in the run-up to EMU included bond stripping, a broadening of the range of Federal financing instruments, and regular auctions for special Federal bonds.[6]

In addition, the German bond market is a long-term market, where 80% of debt securities are issued with an original maturity of over four years. However, issues of short-term paper such as money market and commercial paper have increased during recent years and now account for roughly 5% of overall issuance.

Chart 4.1.1a: Outstanding amounts of Pfandbriefe
(EUR billions)



Source: Deutsche Bundesbank, capital market statistics.

Bank-issued German *Pfandbriefe* constitute the largest individual bond market in Europe.[7] They provide security independent of the individual debtor by having a collateral pool of public sector loans or through the existence of a real-estate lien. Communal bonds constitute the bulk of the outstanding amount of *Pfandbriefe* with over 80% of the €825 billion total. *Pfandbriefe* have evolved from a German speciality into an international investment vehicle with the introduction of Jumbo *Pfandbriefe* of over €500 million for a single issue, the establishment of book-building as a method of issue, and the assignment of an external rating (mostly AAA for German *Pfandbriefe*), which is not yet standard practice for private bonds in the euro area. Like the Federal Government, credit institutions have also made their issues more liquid and hence more attractive to institutional investors. The foremost innovation has been the issue of Jumbo *Pfandbriefe* since 1995 in what was previously a fairly fragmented segment. The high liquidity of this market segment is ensured by issue sizes averaging around €1.3 billion as well as the existence of a market-making mechanism. In each Jumbo *Pfandbrief issue*, at least three syndicate leaders are committed to quote two-way prices with fixed bid-offer spreads on a continuous basis.

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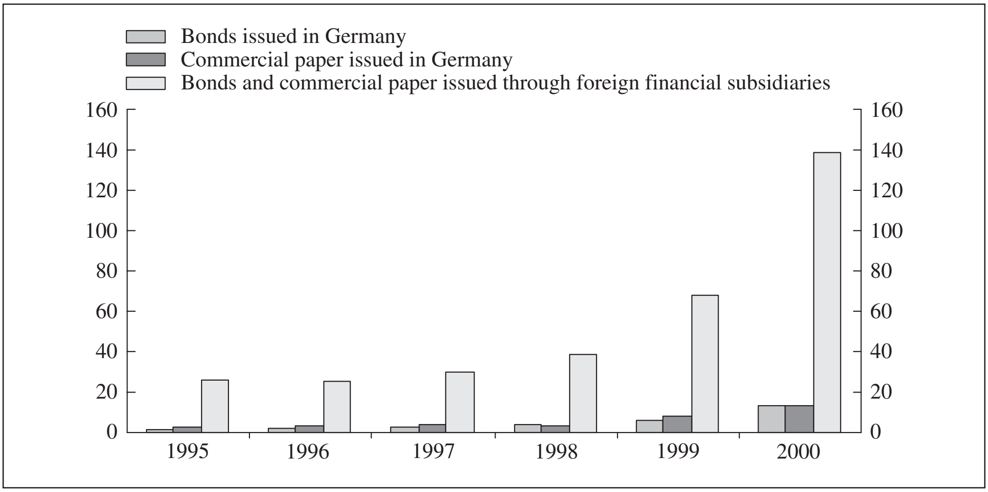
6 See Deutsche Bundesbank (1998).
7 See Maestroeni, O. (2001) and von Köller, K. (2001) for further information on the market for German *Pfandbriefe*.

Chart 4.1.1b: Outstanding amounts of securitised liabilities of corporations
(EUR billions)



Source: Deutsche Bundesbank, capital market statistics and BIS.

The sharp increase in sales of corporate bonds in 1999 and 2000 is a good example of the increasing importance of the securities markets in Germany. Yet, over 80% of the €160 billion worth of German companies' debt securities outstanding are issued via their foreign financial subsidiaries. These financial resources are then channelled back to the parent company as loans. Advantages relating to the trade earnings tax are likely to be the main reason for this "indirect" method of raising finance in the capital market.[8]

4.1.2 The secondary market: organisation and integration

German government bonds are traded on organised exchanges as well as over the counter (OTC), the latter accounting for the bulk of trading. There is also a very active futures market for German government bonds. In December 2000, the Euro Bund Future accounted for 30% of all contracts traded on the derivatives exchange Eurex. Furthermore, the implied volatility derived from options on the Euro Bund Future serves as a benchmark for assessing the uncertainty of short-term market expectations about future long-term interest rates in the euro area. More recently, the spot market for government bonds has changed. Electronic trading systems like EuroMTS have become popular during the past few years. However, it was not until bonds were included in the Eurex trading platform in late 2000 that it became possible to trade bonds and futures simultaneously on a unified trading platform.

Bank bonds are mostly traded OTC with the exception of Jumbo *Pfandbriefe*, which account for the bulk of issues traded on the newly introduced electronic trading platform EuroCredit MTS. Debt securities issued by MFIs are mostly held by institutional investors.

8 When calculating this tax on earnings, 50% of interest on permanent debt is included in the assessment base, whereas interest on short-term loans is tax-free (see Deutsche Bundesbank 2000a).

4.2 The stock market

4.2.1 The primary market

The German stock exchanges comprise several listing segments. There are three statutory market segments distinguished by differences in disclosure and other listing requirements. The first segment, called *Amtlicher Handel* (comprising 545 companies in 2000), and the second segment, called *Geregelter Markt* (105 companies and 283 companies listed on the *Neuer Markt*), belong to the regulated official market. Besides the shares listed on the official market, there are 4,705 other stocks which are tradable on the regulated unofficial market *(Freiverkehr)*. In addition, independent segments organised under private law have been set up. These comprise the blue-chip segment, DAX, the segments for small and mid-caps, SDAX and MDAX, and the so-called *Neuer Markt*. The latter was introduced in 1997 as a special market for growth stocks and comprised 283 domestic and 56 foreign companies in 2000. Due to restructuring the private segments, the *Neuer Markt* segment will be terminated in 2003. Altogether, 905 domestic and 4,789 foreign companies are listed on German stock exchanges. Most of the listed foreign companies are also listed on Nasdaq. The introduction of foreign companies allowing them to trade on German stock exchanges was driven by the desire to be a first-mover and thereby gain a competitive advantage. However, trading in most of the listed foreign companies is not heavy.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed domestic public limited companies	741	905
Number of non-listed public limited companies	4,727	9,677
Market capitalisation of listed shares of domestic companies (as a % of GDP)	48.0	68.0
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	1.2	0.9
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	0.1	0.2
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	12/45	13/121
Concentration indices (top ten companies' share of total market capitalisation) (%)	45.0	45.5
Number of foreign companies listed	3,249	4,789
Number of stock exchanges and other organised exchanges	8	8
Number of participants in these markets (XETRA participants only)	280	431
Share of non-domestic participants out of all participants (XETRA participants only) (%)	13.6	40.0
Number of transactions of traded shares, million trades	107	276
Total turnover of traded shares (as a % of GDP)	140.0	224.0

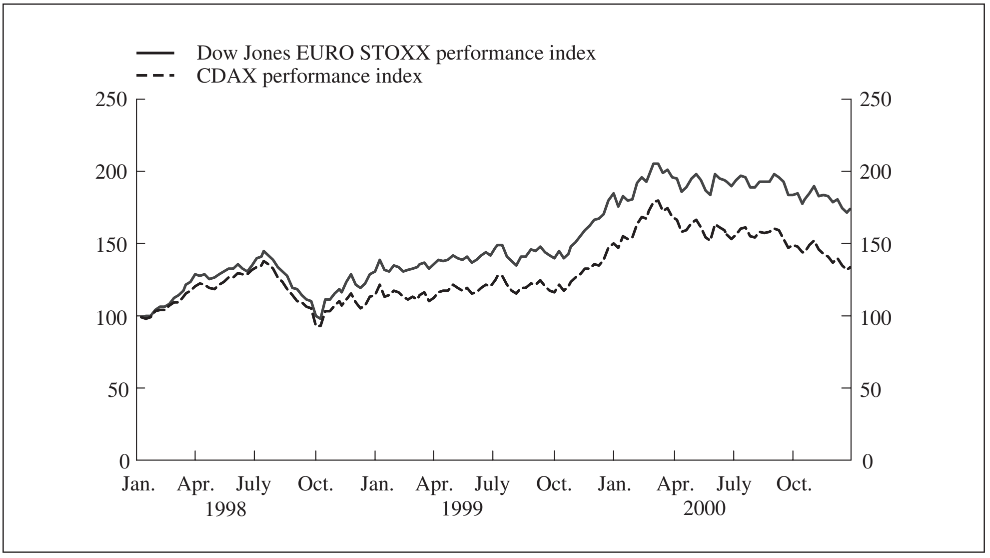
Sources: Deutsche Börse AG, Deutsches Aktieninstitut, Deutsche Bundesbank, STOXX Limited.

From 1997 onwards, the number of IPOs increased owing to the introduction of the *Neuer Markt* (152 in 2000, totalling €25.6 billion at issue). In 2001, the number of IPOs fell sharply. IPOs in the *Neuer Markt* were also used as a divestment vehicle by investors in the domestic venture capital market. The portfolio of German venture capital investment companies grew by about 50% per annum in the late 1990s. Then, weakened by stock market developments, growth rates remained positive but moderate compared with 1998 and 1999. In 2000, venture capital investment accounted for 0.7% of GDP.[9]

4.2.2 The secondary market

There are eight stock exchanges in Germany, of which the largest, *Frankfurter Wertpapierbörse* (FWB), is run by Deutsche Börse AG. Deutsche Börse AG is also the owner of the electronic trading platform XETRA and half-owner of the derivatives exchange Eurex and of the Clearstream clearing and settlement system at the Frankfurt end.[10] The number of participants in the German stock markets grew significantly in the late 1990s, with a total of 2,866 traders in 2000 compared with 1,666 traders in 1998. In 2000, 173 non-domestic participants were active on XETRA. Electronic trading was introduced in 1997 and accounted for 41% of the stock trading volume of all German exchanges.

Chart 4.2: National stock index development relative to EURO STOXX



Source: Deutsche Börse AG.
Note: Weekly data, rebased, beginning of 1998 = 100.

By the end of 2000, the German stock exchange capitalisation totalled 68% of GDP, compared with 24% in 1995. This reflects favourable share price developments, which peaked in March 2000 and fell afterwards. In 2000, the 42 largest companies (5% largest stocks of all listed stocks) accounted for 74% of the total market capitalisation, while the top ten companies accounted for 45% of the total market capitalisation. The on-exchange trading volume in equities totalled €4,529 billion in 2000 (compared with €3,188 billion in 2001).

9 Further details on the evolution of venture capital in Germany are presented in Deutsche Bundesbank (2000c).
10 Deutsche Börse AG took over Clearstream in August 2002.

Index products

The CDAX (DAX composite) reflects the price level of German stocks listed on the regulated official market. It is the basis of the German sector indices. The DAX is the benchmark index of the German stock market, comprising the top 30 companies in terms of market capitalisation and trading volume. There are derivative products on the DAX, such as the DAX futures and the VDAX, reflecting the implied volatility of options on stocks included in the DAX. In addition, there are the MDAX for mid-capitalisation stocks and the SDAX for small-capitalisation stocks. The NEMAX index reflects the price level of companies that are listed on the *Neuer Markt*. In 2000, 13 German companies belonged to the EURO STOXX 50 and 121 German companies were included in the EURO STOX 600.

Equity culture and ownership

In the 1990s, and particularly since the privatisation of the public telecommunications enterprise as well as the foundation of the *Neuer Markt*, a broader equity culture has established itself in Germany. The number of shareholders has nearly doubled, from 3.2 million at the end of the 1980s to 6.2 million in 2000.[11] Overall, more than 20% of households' financial portfolios were invested in stocks and mutual funds by the end of 2000. Foreign investors owned 28% of the stock market capitalisation.

5 Financing

5.1 Non-financial corporations

According to the average of the flows from 1998 to 2000, external financing proved to be more important than internal funds including capital transfers (see Table 5.1). The corresponding ratio of just above 130% was more or less the same as the euro area average. Once again, 1998 seemed to be a turning point for enterprises. Beforehand, retained profits plus depreciation were the dominant sources of finance, in line with the pecking order theory. From 1998 onwards, however, the demand for external funds rose sharply. The corresponding growth rate from 1997 to 1998 was over 100%, compared with the "outlier" year of 2000, which saw growth in excess of 400%. As described in Section 2, several factors led to this development, robust external growth through an increase in holdings of participating interests in other firms and, in 2000, the purchase of UMTS licences[12]. Additionally, over the whole three-year period, high equipment investment resulted in relatively strong demand for external funds.

When analysing external financing in more detail, it can be seen that loans were by far the most important source. On average for the 1998-2000 period, they were nearly twice as high as the funds received from issuing shares, although this latter position rose significantly from 1998 onwards. Securities-based financing was of little importance for German firms. The term structure of all loans taken together was long term, yet in 2000 in particular, the amount of short-term loans greatly increased. The reason for this was that in 2000 German firms received large amounts of mostly short-term credit from abroad, mainly from subsidiaries (see also Section 4.1). In 1999 and 2000, the demand for loans from non-residents was higher than that for credit from German MFIs. Previously, MFIs' loans clearly outweighed other

11 These figures are based on a regular survey (see Deutsches Aktieninstitut 2001).
12 For a more detailed analysis of these special factors, see Deutsche Bundesbank (2001b).

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	3.6	81.9
Securities other than shares incl. financial derivatives	0.1	2.6
of which short-term bonds (<1y)	0.2	0.7
of which long-term bonds (>1y)	0.0	1.9
Loans	6.7	63.3
from resident MFIs	2.6	38.6
of which short term (<1y)	0.5	11.2
of which long term (>1y)	2.1	27.4
from resident OFIs	-	-
from other resident sources	0.6	3.0
from non-residents 1)	3.5	21.7
Trade credits and advances	-	-
Other liabilities 2)	0.9	20.7
Total liabilities	11.3	168.5
Internal financing		
Gross savings	8.6	-
Net savings	0.1	-
Net capital transfers	0.6	-

Source: Deutsche Bundesbank, national financial accounts statistics.
1) Including trade credit from non-residents.
2) Other accounts payable, including provisions for pensions.

kinds of credit. This macroeconomic picture was strongly influenced by large firms. The enterprises' balance sheet statistics underline the fact that for small and medium-sized firms, bank loans (mainly from their *Hausbanken*) played a dominant role, whereas in the 1990s large corporations were able to find alternative external sources of finance.[13]

In contrast to the transaction figures, the stock data show that shares and other equity[14] significantly outpaced loans in 2000 owing to high share valuations. In 2000, the market value of shares and other equity was over 80% of GDP (resulting in a "market-oriented" own funds ratio of 49% which was significantly higher than corresponding ratios from primary statistics[15]), but was much lower than the euro area figure, which was just below 150%. When analysing these figures, it should be taken into account that the position considered here is a mixture of instruments influenced to varying degrees by valuation. Based on estimates, other equity and non-listed shares taken together were slightly higher than listed shares, where the market value can directly be calculated according to stock exchange indices. To avoid the statistical problem of obtaining a harmonised valuation of non-listed shares and other equity for international comparisons, debt ratios are usually compiled. In 2000 the debt ratio for Germany (including other accounts payable) was 85% of GDP, while for the euro area it stood at about 100%.

13 For a comparison of balance sheet structures classified by different legal forms, see Deutsche Bundesbank (2001c).
14 Other equity should ideally include data on venture capital. Figures on venture capital are presented in Section 4.2.
15 According to the Bundesbank's corporate balance sheet statistics, the average own funds ratio was about 18% in 1999 (see Deutsche Bundesbank 2001c). An additional breakdown by legal forms emphasises that the variation of the own funds ratio was very high.

5.2 General government

According to Table 5.2, government sector demand for external funds was mainly based on the issuance of securities and loans from resident MFIs. Other sources such as loans from abroad were of little importance. Taking into account stock data, two-thirds of all liabilities were financed via bonds, with one-third coming from MFIs. The long-term structure clearly dominated. Short-term bonds accounted for a slightly more than 1% of all bonds, and short-term loans made up roughly 10% of all loans. In 2000, general government debt was just above 60% of GDP, clearly lower than the euro area average.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	0.0	0.4
Securities other than shares		
incl. financial derivatives	1.7	38.9
of which short-term bonds (<1y)	-0.0	0.6
of which long-term bonds (>1y)	1.8	38.3
Loans	-0.1	21.5
from resident MFIs	-0.0	21.0
of which short term (<1y)	0.0	1.2
of which long term (>1y)	-0.0	19.7
from resident OFIs	-	-
from other resident sources	-	-
from non-residents	-0.1	0.5
Other liabilities [1)]	-	-
Total liabilities	1.7	60.8
Internal financing		
Gross savings	1.3	-
Net savings	-0.4	-
Net capital transfers	-1.0	-

Source: Deutsche Bundesbank, national financial accounts statistics.
1) Other accounts payable.

5.3 Households

Households financed their asset formation with internal funds to a larger extent than the other non-financial sectors. As shown in Table 5.3, on average from 1998 to 2000 net saving including capital transfers was twice as high as external financing. Furthermore, internal funds have been more or less stable in recent years. Nevertheless, the saving ratio declined in the 1990s, an observation which holds for most industrialised countries.

The dominant external source for households was resident MFIs, with loans from insurance corporations playing only a minor role. The breakdown by purpose shows that housing investment was the central motive for taking out loans. More than 50% of all loans were used to buy or build houses. According to German statistics, houses are usually financed by long-term loans, mainly longer than five years including fixed interest rate agreements. Even consumer loans (in 2000 14% of all MFIs' loans) or loans to self-employed persons (a quarter of total MFI loans) did not change that picture. In total, short-term loans represented

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	3.2	73.4
Loans from resident MFIs	3.1	69.9
of which short-term (<1year)	0.4	5.6
of which long-term (>1year)	2.7	64.3
Consumer loans	0.3	9.6
original maturity < 1y	0.1	2.0
1y < orig. mat. < 5y	0.3	1.9
5y < orig. mat.	-0.1	5.7
Housing loans	2.0	43.2
original maturity < 1y	0.0	0.4
1y < orig. mat. < 5y	0.1	1.7
5y < orig. mat.	1.9	41.0
Other loans from resident MFIs	0.9	17.1
Other loans from resident lenders	0.1	3.6
From non-residents	0.0	0.0
Other liabilities	0.1	0.7
Total liabilities	3.2	74.1
Internal financing		
Gross savings	166.5	-
Net savings	6.4	-
Net capital transfers	12.0	-

Source: Deutsche Bundesbank, national financial accounts statistics.

no more than 10% of all loans granted to households. In 2000, German household debt reached a level of 74% of GDP, whereas the euro area figure was 20 percentage points lower.[16]

5.4 Flow of funds abroad

In line with the trend towards global economic activities, Germany's financing of the rest of the world has significantly increased in recent years (see Table 5.4). The 1998-2000 average was more than twice as high as the average figure for the 1995-1997 period. The main reasons for this upswing were high loans granted to non-resident sectors and dynamic purchases of shares and other equity. Both facts are closely linked to international investments made by firms and the stock market boom already described above.

On the rest of the world's asset side, a similar trend also driven by shares and loans could be observed. But the portfolio structure itself was different from the liability side. Non-resident economic agents invested much more heavily in German deposits and securities than in German shares (including other equity and mutual funds shares). The German sectors investing abroad, however, preferred shares. This might result from the fact that in other countries the stock markets were much more developed and, of course, larger than in

16 For further details on loans to households, see Deutsche Bundesbank (2002).

Table 5.4: Investment and financing vis-à-vis non-residents

(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	6.0	45.2
Shares [1]	3.0	26.9
Securities other than shares	5.1	39.1
Other financial assets	4.2	24.4
Total financial assets	18.3	135.6
Liabilities of non-residents		
Deposits	1.4	26.0
Securities other than shares	3.8	25.6
of which short-term (<1 year)	0.1	0.5
of which long-term (>1 year)	3.8	25.1
Loans	3.5	23.9
of which granted by financial institutions	-	-
Shares and other equity [1]	8.7	52.4
held by financial institutions	-	-
Other liabilities [2]	0.6	7.7
Total liabilities	17.9	135.7

Source: Deutsche Bundesbank, national financial accounts statistics.
1) Including mutual funds shares.
2) Other accounts payable.

Germany, whereas in other fields the German financial system seemed to have a comparative advantage. In spite of these preferences on both the asset and liability sides of the rest of the world's balance sheet, market orientation outweighed orientation towards intermediaries at the end of the last decade.

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Greece

1 Main features of and recent developments in the Greek financial system

The Greek financial system plays a central role in channelling savings from surplus sectors (mainly households) to deficit sectors (mainly non-financial enterprises and the Government). Until recently, the system was dominated by credit institutions, the largest of which were controlled by the Government. Moreover, credit institutions were heavily regulated both to help finance a large public deficit at very low interest rates and to channel funds to selected economic sectors. The deregulation process started in the late 1980s and was completed in the 1990s. As a result, credit institutions are now free to determine the terms and conditions of both deposits and loans, subject only to prudential regulations set by the Bank of Greece. Following the Greek Government's privatisation policy, the share of state-controlled credit institutions in total assets was reduced from 63% at end-1998 to 53% at end-2001.

The liberalisation of the financial system was accompanied by a gradual contraction in bank intermediation due to both the proliferation of collective investment institutions and a pick-up of activity on the Athens Stock Exchange. It should be noted that the number of money market and investment funds increased from 7 at the end of 1990 to 269 by the end of 2000, while the number of listed companies increased from 140 to 342 in the same period. Banks, however, continue to dominate the financial intermediation process, either directly or indirectly, since the large majority of money market and investment funds are managed by bank subsidiaries, and fund units are distributed to the public mainly through bank branches.

Greece's entry into the euro area on 1 January 2001 was a turning point for the Greek financial system, since it intensified competitive pressures on all institutions. Credit institutions had posted significant profits in recent years and were thus able to restructure their asset portfolios by writing-off bad loans. Moreover, favourable conditions on the Athens Stock Exchange allowed credit institutions to significantly increase their share capital (in 2000 by €619 million, i.e. 4% of their end-2000 capital and reserves, and in 1999 by €3,774 million, i.e. 25% of their end-1999 capital and reserves), while a series of mergers and acquisitions (14 in the period 1998-2000) strengthened the position of individual institutions. At the same time, a number of Greek credit institutions entered into strategic alliances with major European financial institutions and expanded their presence in the Balkan countries, establishing 26 branches by the end of 2001.

In the run-up to euro area membership, credit institutions were able to benefit from the sharp reduction in interest rates, which led to sizeable capital gains on their significant holdings of government securities. Their income was also boosted in 1998-99 by underwriting fees when a large number of companies listed their shares on the stock exchange. However, the fall in lending rates led to a reduction in income from their traditional business clients. To counter this trend, credit institutions shifted their attention from the corporate to the household sector, where interest rates are relatively high and the profit margin is greater. As a result, bank lending to households has increased at very high rates in recent years (2001: 40.0%, 2000: 34.8% and 1999: 27.3%) and its share in total bank lending increased from 18.4% in 1995 to 31.9% in 2001.

One part of the financial sector that still remains underdeveloped in Greece is the insurance market. Total assets of insurance corporations were less than 6.5% of GDP in 2000 and total insurance premiums slightly over 2% of GDP, and there were no private pension funds in operation in 2000 (the first private pension fund was only established in 2002). Indeed, due to the relatively small size of the market, no detailed data on insurance corporations and pension funds are currently available. The Bank of Greece only established a system of statistical reporting for these institutions in 2002. Credit institutions are keen to penetrate the insurance business sector, and a number of them are forming alliances with domestic or foreign insurance corporations with a view to cross-selling bank and insurance products in bank branches and through the insurance firms' sales network.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets** [1]		**Liabilities**	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans) [2]	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	122.4	95.1	67.7	144.0
Households	97.2	52.9	13.9	0.0
Non-financial corporations	20.5	24.3	34.4	60.9
General government	4.7	18.0	19.5	83.2
Non-residents	16.9	38.0	16.3	-
Total	139.3	133.2	84.0	-

Source: Bank of Greece, national financial accounts statistics.

1) Excluding insurance technical reserves and foreign assets of households and non-financial corporations.

2) Excluding loans of households and non-financial corporations from non-residents.

2 Financial assets and liabilities

2.1 Distribution of amounts outstanding

Most of the financial assets of households are in the form of bank deposits. Almost 50% of their financial assets (i.e. 73% of GDP) were deposited in domestic credit institutions at the end of 2000, while an additional 16.5% were held in the form of money market and investment fund shares. This means that about a third of their financial assets were invested in market-oriented instruments.

Two factors have underlined this development. In recent years, households have refrained from investing in government bonds. In particular, in the period 1999-2000, households ran down their holdings of government bonds by €13,693 million, partly because the Greek

Government had issued relatively small amounts of short-term paper, and partly because it had initiated a policy of financing its borrowing requirements mainly through sales of long-term fixed rate securities. The share of treasury bills in the total amount of government paper issued declined from 48.5% in 1998 to 22.6% in 1999, 12% in 2000 and to 5% in 2001. Small savers who were accustomed to purchasing treasury bills (especially 12-month bills) were reluctant to alter the composition of their portfolios in favour of 10 to 20 year bonds and thus reverted to traditional bank deposits. Moreover, the Athens Stock Exchange experienced significant fluctuations during the period 1998-2000. Share prices (and trading volume) increased sharply in 1998 and 1999, with the ASE Composite Share Price Index rising from 1,480 at end-1997 to 5,535 at end-1999. However, after reaching a peak in September 1999, share prices started to decline rapidly, a trend that has not yet been reversed. At the end of 2000, share prices were almost 40% lower than a year before, so that the market value of shares held by households was significantly reduced. Thus, the relatively small amount of shares in households' financial assets recorded in 2000 conceals a key characteristic of the period 1998-2000: unprecedented interest on the part of households in investing in shares traded on the Athens Stock Exchange.

Money market and other investment funds are a relatively new phenomenon in the Greek financial system. At the end of 2000 their total assets totalled almost €31 billion, or 25.5% of GDP, compared with €7 billion or 9% of GDP at end-1995. More than 80% of fund units are held by domestic households, which consider them largely as substitutes for bank deposits. This is especially the case for money market funds which, at end-2000, accounted for almost half of the total fund assets, with the share of bond funds in total fund assets amounting to 15%, and the share of equity funds slightly over 35%. Almost three-quarters of all money market fund assets are invested in short-term bank deposits, with the remaining quarter invested in Greek government bonds with a maturity of over two years[1].

As already mentioned, there are no data on households' assets in the form of insurance technical reserves, because the private insurance sector is still relatively unimportant in Greece. Moreover, information on the large amount of household deposits abroad is incomplete.

As far as market-oriented instruments are concerned, household holdings at end-2000 consisted basically of two instruments: Greek government bonds (€23 billion, or 19% of GDP) and shares traded on the Athens Stock Exchange (€41 billion, or 34% of GDP). The amount of bank bonds in circulation is very small (less than €200 million), as is the amount of bonds issued by non-financial corporations (less than €7 million). This is partly due to the tax system, which contributed to discouraging the issuance of bonds by sectors other than central government. The tax rate on government bond coupons is only 10%, while that on bank bonds is 15%. The tax rate on corporate bonds was 20% until 1999, but was reduced to 10% thereafter. Although tax reforms were introduced in autumn 1999 – to encourage the establishment of a private bond market – developments so far have been slow and at present only three corporations have their bonds traded on the stock exchange.

On the liabilities side, the outstanding amount of bank loans to households at end-2000 stood at €16.8 billion, or 13.8% of GDP. Two-thirds of these loans are long-term housing loans, while the remaining third represents consumer credit. Consumer loans have been growing at rates exceeding 30% over the period 1998-2001, and indeed a major development in bank lending throughout the 1990s has been the rise in consumer credit. However, it must

1 Money market funds in Greece are obliged to invest at least 60% of their assets in short-term instruments.

be taken into account that, because of the restrictions that were in force until the early 1990s, consumer credit was formerly at very low levels (less than 0.5% of GDP at end-1992). Despite stronger growth in recent years, it reached only 4.5% of GDP in 2000 and 6% of GDP in 2001. Developments in housing credit followed a similar pattern, with the average annual growth rate close to 26% in the period 1998-2000, while housing credit as a percentage of GDP increased from 4.5% in 1992 to 9.3% in 2000 and to 12% in 2001. In general, despite the very high rates at which households' indebtedness has been increasing in recent years, and despite the sharp decline in share prices in 2000, the net financial position of households remained strongly positive at end-2000.

Financial assets of non-financial corporations are divided almost evenly between bank deposits and shares, and at end-2000 totalled €54.3 billion or 45% of GDP, whereas their financial liabilities were significantly higher and stood at €115.6 billion, or 95% of GDP. The lion's share (almost two-thirds) of these liabilities represents the market value of shares issued, while securities other than shares are virtually nil. As already mentioned, in recent years banks have tended to shift their attention away from business customers and towards households. Moreover, the exceptionally favourable conditions on the Athens Stock Exchange have encouraged firms to raise funds from the stock market, and in 1999 and 2000 total funds raised by non-financial corporations amounted to €10.8 billion.

The Greek Government's financial assets are mainly in the form of shares in state-controlled enterprises and amounted to €26.2 billion or 22.3% of GDP at end-2000, while liabilities were €124.6 billion or 102.6% of GDP. More than 80% of the liabilities are in the form of securities with an average maturity of 8.4 years in 2000, up from 6.1 years in 1999 and 5.4 years in 1997. Almost 44% of these securities are held by MFIs (credit institutions and money market funds), while other investment funds hold 8%, households 23%, and non-residents the remaining 25%. Non-residents hold a significant amount of financial assets, which at the end of 2000 amounted to around €67 billion or 55% of GDP. Most of these assets are market instruments, with the share of bank deposits just under 45%. On the liability side, the outstanding amount of bank lending to non-residents was €19.8 billion at the end of 2000, i.e. almost equal to the bank deposits of non-residents. Although there is no information on

Table 2: Financial transactions and position by sector

(as a % of GDP)

	Financial transactions (average 1998-2000) 1), 2)			Amounts outstanding (end-2000) 1), 2)		
Sectors	Financial asset acquisition	Liabilities incurrence	Net financial transactions	Financial assets	Liabilities	Net financial position
Resident sectors	17.0	16.6	0.3	263.9	248.7	15.0
Households	8.5	2.9	5.6	150.1	13.9	136.2
Non-financial corporations	4.8	8.0	-3.2	44.7	95.2	-50.5
General government	0.9	3.3	-2.4	22.8	102.6	-79.9
Financial corporations	2.8	2.4	0.3	46.3	37.0	9.2
Total	17.0	16.6	0.3	263.9	248.7	15.0
Non-residents	8.1	1.2	6.8	54.9	n/a(2)	n/a(2)

Source: Bank of Greece, national financial accounts statistics.
1) Excluding insurance technical reserves.
2) Financial assets of households and corporations exclude foreign assets. Their financial liabilities exclude loans from non-residents.

the amount of foreign shares and other securities held by Greek residents, there are indications that the amount is relatively insignificant.[2] Thus non-residents have a significant net positive position, estimated at close to 35% of GDP.

2.2 Origin of flows

Although households have been accumulating debt at very high rates, they were a significant net investor in financial assets in the period 1998-2000. More specifically, households' annual purchases of financial assets amounted to €9.7 billion or 7.5% of GDP, while their average annual liability incurrence was equal to €3.3 billion or 2.9% of GDP. At end-2000 their stock of financial assets was equal to 150% of GDP, i.e. more than 10 times higher than their debt, which was just under 14% of GDP. However, the net financial assets of households are declining.

An important characteristic of the period 1998-2000 was that households altered significantly the composition of their financial assets by increasing their relative holdings of shares and other equity at the expense of government securities. Thus households' annual purchases of shares and investment fund units (including money market funds) equalled €5.1 billion, while at the same time the annual sales of government securities amounted to €4.9 billion.

Non-financial corporations were net borrowers as their annual incurrence of financial liabilities was €9.1 billion, or 8% of GDP, i.e. almost 2.5 times higher than their purchases of financial assets. Their net financial liabilities at end-2000 were 50.5% of GDP, compared with 37% of GDP at end-1998. This increase reflects the significant amount of funds that non-financial corporations raised from the Athens Stock Exchange and the 25% rise in share prices that increased the market capitalisation of these corporations from 41% of GDP at end-1998 to 61% of GDP at end-2000.

The general government was also a net absorber of financial assets, with its net borrowing increasing by 2% of GDP on an annual basis over the period 1998-2000. However, the stock of net financial liabilities of the government decreased from 85% of GDP at end-1998 to 80% of GDP at end-2000.

As the financial corporations neither contributed nor absorbed financial assets, the overall deficiency of net financial assets was covered by non-residents, whose annual net acquisition of such assets in the period 1998-2000 was 6.1% of GDP. The acquisition of financial assets by non-residents was entirely in the form of purchases of government securities, whose yields were at relatively high levels compared to the other euro area countries[3].

3 Intermediaries

3.1 Financial flows through intermediaries

As already mentioned, MFIs are by far the most important sector in the financial intermediation process in Greece, although investment funds are becoming increasingly important. There are no satisfactory data on insurance companies, but given that their total assets at end-2000 were equivalent to 5.6% of deposits and money market funds, it can be

2 Total assets of institutional investors investing outside Greece were less than EUR 500 million at end-2000.

3 The spread of ten-year government bond yields between Greece and the euro area was 374 basis points in 1998, 164 points in 1999 and 66 points in 2000.

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (Deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (Mutual fund shares)	**Insurance corporations and pension funds (ICPFs)** (Deposits and technical reserves)	**Non-resident intermediaries** (Deposits, money market fund shares, mutual fund shares and technical reserves)
Acquisitions (Average financial transactions, 1998-2000)				
Resident sectors	12.2	2.7	-	-
Households	8.0	2.3	-	-
Non-financial corporations	2.8	0.1	-	-
General government	0.2	0.1	-	-
Financial corporations	1.2	0.2	-	-
Non-residents	2.0	0.0	-	-
Total	14.2	2.7	-	-
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	0.4	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	111.9	9.4	-	-
Households	85.1	0.4	-	-
Non-financial corporations	20.1	0.7	-	-
General government	2.1	1.0	-	-
Financial corporations	4.6	0.1	-	-
Non-residents	4.6	11.7	-	-
Total	116.5	21.1	-	-
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	12.6	-	-	-

Source: Bank of Greece, national financial accounts statistics.

assumed that the outstanding amount of technical reserves was very small. The total value of bank deposits and money market funds at end-2000 amounted to 116.3% of GDP, and 73% of these assets belonged to households. The total value of investment fund shares was 11.7% of GDP and more than 80% of these shares were held by households.

Flows into financial intermediaries originate mainly from households. The average yearly amount of funds flowing into MFIs in the period 1998-2000 was 13.5% of GDP, while the corresponding amount flowing into OFIs was 2.6%. More than 55% of the total flows into MFIs originated from households, whereas the non-financial corporations' share was 19%, with financial corporations accounting for 8%, and non-resident 14%. The dominant position of households as providers of funds is even stronger in the case of OFIs, as the amount of investment fund shares bought by households amounted to 87% of the total. It should be borne in mind that the period 1998-2000 was rather atypical because of developments in the stock exchange and unprecedented purchases of shares by households (in 1999-2000). In 1999, in particular, households purchased €4.3 billion (3.8% of GDP) worth of shares as prices more than doubled between December 1998 and September 1999. The acquisition of shares by households was also considerable in 2000 (€3.9 billion) despite the sharp reduction in their prices. Moreover, the flow of households' funds into MFIs was influenced by developments in their savings behaviour. The savings ratio in Greece declined considerably in the period 1995-2000, a decline which was more noticeable than in other developed economies. The ratio of savings to net disposable income declined from 10.6% in 1995 to 5.3% in 2000, but it is believed that this downward trend has since come to an end in 2001.

In the period 1998-2000 MFIs, and in particular credit institutions, attracted a relatively significant amount of funds from non-financial corporations (€3.1 billion or 2.8% of GDP). However, it should be pointed out that these corporations actually invested in bank deposits only in 1998 and 1999, whereas in 2000 and 2001 they hardly increased their stock of deposits at all. Non-residents also increased their deposits in Greek credit institutions by a yearly average of €2.3 billion (2% of GDP) in the period 1998-2000. These deposits represent mainly interbank deposits and are related to the particulars of monetary policy in the run-up to Monetary Union. The Bank of Greece had kept short-term rates at high levels throughout most of 2000, with most of the convergence to euro area rates taking place in the second half of 2000, especially in the final two months. Thus foreign credit institutions could place their funds on the Greek interbank market and benefit from the interest rate differential until the end of 2000[4]. No such opportunities existed, of course, in 2001 and this has actually led to a significant reduction in deposits held by non-residents with Greek credit institutions.

3.2 Monetary financial institutions (MFIs)

Financial intermediation is mainly conducted through Greek commercial banks, which account for almost 80% of the total assets of credit institutions. There were 17 such banks at the end of 2000, five of which were controlled by the Government in the sense that it appointed senior management. In addition to these banks, there are also three specialised credit institutions and the Postal Savings Bank, all controlled by the Government. The reduction in the number of commercial banks in recent years was due to mergers that took place in 1998 and 1999, while it should also be pointed out that all of the Government-controlled institutions that were privatised in this period merged with existing private banks. Notwithstanding the recent mergers, the size of credit institutions in Greece remains small by European standards, and only two credit institutions have entered the list of the top 100 European banks. The strategy of the major commercial banks is to expand in the Balkans, where they have already set up a network of 26 branches and subsidiaries.

There are a considerable number of branches of foreign institutions operating in Greece, but their share in total assets has declined from 15.4% in 1995 to 13.7% in 2000. Indeed, foreign banks seem to follow differentiated strategies. Some of them have chosen to exit from the Greek market, others have decided to concentrate just on wholesale banking, whereas a few have increased the number of their local branches and put emphasis on retail business. Finally, 14 co-operative banks were operating in December 2000 and, although their number has grown quite rapidly, their share in total bank assets does not exceed 0.5%.

Unlike other European countries, the number of branches in the Greek banking system continues to increase. There were 2,862 branches at the end of 2000, up from 2,687 in 1998,

4 The interest differential between three-month interbank rates was 199 basis points in October 2000, 116 points in November 2000 and 28 points in December 2000.

while the number of employees has also increased from 57,798 in 1998 to 60,154 in 2000. It is worth noting that the number of employees per branch has declined steadily over recent years (1997: 22 and 2000: 21), but still remains considerably higher than the euro area average of about 12. However, the average amount of assets per branch is relatively small, and despite this figure's increase from €47 million in 1998 to €59 million in 2000, it does not exceed 60% of the euro area average. Moreover, the number of ATMs, though increasing very rapidly in recent years, remains relatively small. Thus, in 2000 there were 329 ATMs per million inhabitants, compared with 206 ATMs per million inhabitants in 1998[5].

Table 3.2: Number of MFIs (of which government controlled)

	1998	2000
Incorporated enterprises limited by shares	23 (12)	20 (8)
Co-operative enterprises	12	14
Saving banks	1 (1)	1 (1)
Branches and subsidiaries of foreign institutions	23	22
Other credit institutions	0	0
Money market funds	44 (11)	49 (10)
Total	103	106

Source: Eurostat.
Note: The Eurostat definition differs from that of the Eurosystem, notably with respect to conglomerates. The figures in this table therefore do not correspond to those used to compute the ratios in Table 3.3, nor to the reporting population used for Table 3.4 (a and b).

Table 3.3: Concentration and average size of credit institutions

	1998	2000
Herfindahl	1,170	1,125
Top five's share of total assets (%)	63.4	65.2
Average size of top five (EUR millions)	15,842	22,985
Average size of all banks (EUR millions)	2,118	3,317

Source: ECB calculations based on Bank of Greece data.

In the period 1998-2000 concentration in the Greek banking sector, as measured by the market share of the five largest institutions, has followed a slightly upward trend, increasing from 63.4% in 1998 to 65.2% in 2000. The concentration ratio reached a peak (67.1%) in 1999 because of two important mergers that took place in that year, whereas in 2000 it was somewhat reduced. It should be pointed out that concentration is more pronounced in the case of bank deposits, with a ratio of 71.8% in 2000, whereas the ratio in terms of bank loans is 68.8%.

The outstanding amount of loans extended by Greek credit institutions has been increasing at very high rates in recent years, but at around 33% of their aggregated total assets it remains relatively small by European standards. Three main factors account for this phenomenon. First, the high reserve ratio (12%, compared with 2% in the euro area) imposed on credit institutions until the middle of 2000, together with the high interest rates that the Bank of Greece offered to collect interbank deposits in order to restrain liquidity and keep inflationary

5 The corresponding figure for the euro area was 609 in 1999.

pressures under control in the run-up to Greece's participation in Monetary Union. Second, credit institutions hold a relatively large stock of government securities. As already noted, until the last quarter of 2000 Greek government securities had high coupon rates and offered the near certainty of substantial capital gains. Finally, the demand for loans was relatively weak because lending rates were kept at high levels. The differential between the short-term lending rate to enterprises between Greece and the euro area was 9.5 percentage points in January 1999 and 3.9 points in November 2000. Following the entry of Greece into the euro area, all of the above factors that had kept bank loans at relatively low levels have now disappeared, and this has contributed to the relatively high bank loan growth rates recently observed.

In the period 1998-2000 the categories of loans that exhibited the largest increase were loans to trade, which increased by an annual rate of 22%; housing loans, which increased by a rate of 26%; and consumer loans, which increased by a rate of 37%. Loans to trade and consumer loans are mainly short-term loans, i.e. their maturity is up to one year, whereas housing loans are mainly in the category of loans with a maturity of over five years. The principal characteristic of bank lending in recent years has been the very fast rate at which households have accumulated debt. Thus households' bank debt increased from 6% of GDP in 1995 to 13.8% in 2000 (and 18% in 2001). Most Greek credit institutions have placed particular emphasis on the household market, both because profit margins are higher and in an attempt to shield themselves from competition from foreign banks. In general, lending to households is based on close personal relations between customers and bank officials, and it is not easy for a foreign bank to enter this market segment.

Contrary to loans, deposits of Greek credit institutions from non-MFIs are relatively high but their share in aggregated total liabilities has declined from 83% in 1998 to 73% in 2000. Until the beginning of 2000, the rates on ordinary savings deposits were particularly high[6] and, taking into account their high liquidity[7], they were the main instrument for credit institutions to attract funds from households. The rates on these deposits declined considerably in the second half of 2000 and, by the end of the year, the rate on savings deposits was 3.8%. To avoid withdrawals of funds, credit institutions started to offer new products and, in particular, time deposits with maturities of up to five years whose return is variable and depends on the developments of various stock exchange indices, yet is without risk of capital loss. One instrument not widespread in Greece is bank bonds, the outstanding amount of which was less than 0.2% of deposits at the end of 2000. One reason for the lack of interest in bank bonds is their relatively unfavourable tax treatment compared with government bonds: the tax rate is 15% in the case of bank bonds but only 10% in the case of government bonds.

The profitability of Greek banks during the period 1995-2000 was at a satisfactory level, although profits in 2000 declined relative to 1999. This is because 1999 was an exceptional year during which banks made sizeable profits from transactions in shares and underwriting fees. Moreover, the important mergers that took place in 1999 resulted in significant costs for the institutions involved that were incurred in 2000. Pre-tax profits in 2000 reached 1.9% of assets, compared with 1.0% in the period 1995-97. As far as the factors that determine profit are concerned, it should be noted that net interest income corresponded to 2.5% of assets in 2000 compared with 2.1% in the period 1995-97 – it is thus relatively low but increasing[8].

6 In February 2000 the rate was 7% compared with 2.1% in the euro area.
7 In general, they are withdrawable on demand, but they are not transferable by cheque, and a credit institution may object to the immediate withdrawal of a very large sum from a savings account; this is why they are not included in overnight deposits.
8 As a percentage of total income, net interest income in 2000 increased to 54.6%, up from 51.6% in 1997.

Operating expenses in 2000 corresponded to 2.4% of assets compared with 2.8% in the period 1995-97.

As already noted, in the period 1999-2000 credit institutions were able to increase significantly their share capital. Thus at the end of 2000 their capital and reserves were 9.5% of their aggregated balance sheet, up from 7.6% at the end of 1998. The capital adequacy ratio of Greek commercial banks on a consolidated basis was 16.0% in June 2000 and 13.9% on average in the period 1998-2000.

Money market fund shares are a close substitute for savings deposits and although, from a strictly legal point of view, funds can only be withdrawn after a week's notice, in practice the notice is no more than two working days. MMF shares increased very rapidly in the 1990s and by the end of 2000 had reached 12.1% of total deposits and repos. The large increase in MMF shares actually lasted until 1998, when they reached 18.7% of deposits and repos. In 1999 the outstanding amount of these shares declined as investors shifted their funds to equity funds in view of the sharp increase in share prices, whereas in 2000 their outstanding amount increased by 14.3% without, however, reaching its 1998 value. MMFs invest a relatively large share of their assets (24.5% in December 2000) in long-term government securities, while more than 50% of their assets are invested in foreign currency deposits, the so-called synthetic swaps instruments, which allows them to avoid the tax on deposit interest.[9]

3.3 Other financial intermediaries (OFIs)

The business of OFIs increased at very high rates in the 1990s, although these institutions are still relatively unimportant on the Greek financial market. More than 70% of their assets are accounted for by investment funds. There were 222 such funds in operation in 2000 with total assets of €15.6 billion or 12.9% of GDP, compared with 139 funds in 1998 with total assets of €9.1 billion or 8.6% of GDP. Although investment funds are becoming increasingly important on the Athens Stock Exchange, their holdings of shares was less than 9% of total market capitalisation at the end of 2000. The best year for these funds was 1999, when their assets reached a peak of €21.8 billion, but following the sharp reduction in stock prices from September 1999 onwards, their assets are on a downward trend.

In addition to investment funds there are also 20 financial corporations engaged in lending, and in particular leasing and factoring companies. It should be noted that credit institutions in Greece are not allowed to undertake leasing activities except through a subsidiary. Most leasing companies are indeed bank subsidiaries, and their assets in 2000 amounted to €1.9 billion, or 1.6% of GDP, compared with €0.9 billion or 0.9% of GDP in 1998. Thus although the leasing business increased significantly in the period 1998-2000, it is still relatively unimportant and does not exceed 3% of bank lending to residents.

9 A synthetic swap is a time deposit, usually in Japanese yen, where the foreign currency risk is fully covered by a forward sale of the yen.

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank
(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Cash	0.7	0.7
Loans	64.3	58.3
to domestic MFIs	24.0	17.2
to other domestic residents	29.7	30.3
of which < 1y original maturity	17.3	17.1
of which 1y < orig. mat. < 5y	4.0	4.3
of which 5y < orig. mat.	8.5	8.9
to euro area residents	2.3	2.2
to non-euro area residents	8.3	8.6
Securities other than shares	25.8	22.6
issued by domestic MFIs	0.0	0.0
short term (< 1y)	0.0	0.0
long term (> 1y)	0.0	0.0
issued by other domestic residents	25.1	21.8
short term (< 1y)	3.2	2.1
long term (> 1y)	21.9	19.6
issued by euro area residents	0.2	0.4
issued by non-euro area residents	0.4	0.5
Shares and other equity	2.9	5.8
issued by domestic MFIs	0.9	1.3
issued by other domestic residents	1.8	4.0
issued by euro area residents	0.0	0.1
issued by non-euro area residents	0.2	0.4
Fixed assets	1.1	1.4
Remaining assets	5.3	11.2
Total assets	100	100
Liabilities		
Deposits	78.1	71.4
from domestic MFIs	11.4	7.6
from other domestic residents	57.9	54.1
overnight deposits	6.8	6.6
other deposits	51.1	47.5
from euro area residents	2.8	3.1
from non-euro area residents	5.9	6.7
Money market fund shares/units	12.0	7.4
Securities other than shares	0.6	0.1
short term (< 1y)	-	0.1
long term (> 1y)	0.6	0.0
Capital & reserves	6.7	8.8
Remaining liabilities	2.7	12.3
Total liabilities	100	100
Total assets/liabilities as a % of GDP	138.8	171.1

Sources: ECB and Bank of Greece.

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Deposits	-	-
with residents	-	-
with non-residents	-	-
Securities other than shares	-	-
issued by residents	-	-
issued by non-residents	-	-
Shares and other equity	-	-
issued by residents	-	-
issued by non-residents	-	-
Remaining assets	-	-
Total assets	-	-
Liabilities		
Mutual fund shares	82.7	73.8
Remaining liabilities	17.3	26.2
Total liabilities	100	100
Total assets/liabilities as a % of GDP	10.4	17.4
Number of OFIs		
Investment/mutual funds	139	222
Securities and derivatives dealers	0	0
Financial corporations engaged in lending	17	20
Other institutions	16	17
Total	172	259

Source: Bank of Greece.

4 Markets

During the period 1998-2000, Greek households increased their holdings of shares significantly and ran down their stock of government securities, whereas non-residents did the opposite. Thus at the end of 2000, households held €41 billion (36.2% of GDP) worth of equities and €23.2 billion (20.5% of GDP) worth of debt securities, while the portfolio of non-residents was divided more equally between shares (€25.5 billion) and debt securities (€20.6 billion). In general, households hold almost 30% of the equity shares issued by residents, while the non-residents' share is 18% but rising. Financial corporations' holdings of shares amounted to €22 billion, i.e. 16% of total market capitalisation, almost equal to the amount of shares in the capital of public corporations held by the Government.

From an institutional point of view, the main development of the period was the establishment of the Electronic Secondary Market of Securities, which the Bank of Greece put into operation in May 1998. This is a fully automated system for the trading of all the dematerialised securities issued by the Greek Government and ensures transparency and high market liquidity. Between May and December 1998, the daily average value of transactions on the market was €0.1 billion, but in December 2000 it increased to €0.5 billion and in 2001 it exceeded €1.2 billion. As far as the trading of shares is concerned, it should be noted that in mid-2001 the Athens Stock Exchange was upgraded from the category of emerging markets to be classified in the category of developed markets.

4.1 The bond market

The bond market in Greece is dominated by government paper. At the end of 2000 the outstanding amount of all debt securities was €93.3 billion[10] or 77% of GDP, and 99.8% of this total represented issues for the central government. As already noted, the absence of the private sector from the bond market was partly the result of the adverse tax system which has, however, recently been reformed in order to help private companies raise funds by issuing debt securities. Until now very few corporations have issued debt securities, and most of these were convertible to shares.

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	5.9	-3.1	-	-
Households	2.7	-4.5	-	-
Non-financial corporations	2.0	0.0	-	-
General government	0.5	0.0	-	-
Financial corporations	0.7	1.4	-	-
Non-residents	-0.3	5.9	-	-
Total	5.6	2.8	-0.4	-0.5
Holdings (Amounts outstanding, end-2000)				
Resident sectors	100.9	50.7	-	-
Households	36.2	20.5	-	-
Non-financial corporations	26.0	0.0	-	-
General government	19.3	0.0	-	-
Financial corporations	19.4	30.2	-	-
Non-residents	22.5	18.2	-	-
Total	123.4	68.9	-	-

Source: Bank of Greece, national financial accounts statistics.

In 2000, the Greek Government issued €26.7 billion worth of securities, compared with EUR 30.5 billion in 1999 and €29.6 billion in 1998. The maturity structure of the issues has changed impressively over this period. In 1998, 50% of total issues had a maturity of no more than 2 years, whereas in 2000 such short-term paper represented only 12.4% of the total amount issued. The Greek Government has followed a policy of lengthening the maturity of its debt and, as a result, the average maturity of the issues[11] increased to 9.3 years in 2000, compared with 7.9 years in 1999. It should also be mentioned that, following this policy, the Greek Government offered bonds with a 20-year maturity for the first time in January 2000.

10 This amount includes holdings of government paper by public entities, which has been netted out in Table 4.1. Issues of government securities convertible to shares of public enterprises are not included.

11 Excluding issues of treasury bills.

4.2 The stock market

Share prices on the Athens Stock Exchange (ASE) rose significantly during the period 1998-2000, with the ASE General Index increasing from 1,479.6 at end-1997 to 3,388.9 at end-2000. The market reached its peak value of 6,335.0 in September 1999, but then followed a downward trend which has yet to be reversed. The number of listed companies increased from 258 in 1998 to 342 in 2000, as in 1999 and 2000 a large number of new enterprises sought to sell shares to the public. There was strong demand for these new issues from the general public and in particular from individuals who had not previously held any shares. The demand for these issues resulted in considerable oversubscription which fed investor optimism, thus further fueling the rise in share prices. The daily average value of transactions also increased remarkably from €165 million in 1998 to €1,294 million in September 1999, but in 2000 it declined to €402 million.

The amount of capital raised through the sale of new shares in 1999 was €9.7 billion (8.6% of GDP) and in 2000 €8.8 billion (7.2% of GDP), compared with a mere €1.6 billion in 1997 and €2.4 billion in 1998. The market capitalisation of listed shares has increased significantly from 64% of GDP in 1998 to 97% in 2000, while the degree of concentration lessened as the share of the top 10 companies in total market capitalisation fell from 60% in 1998 to 43% in 2000.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies	258	342
Number of non-listed companies	-	-
Market capitalisation of listed shares (as a % of GDP)	63.4	97.2
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	2.3	7.2
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	-	-
Number of stocks belonging to EURO STOXX 50	31	11
Concentration indices (top ten companies' share of total market capitalisation) (%)	59.8	42.8
Number of foreign companies listed	0	1
Number of stock exchanges and other organised exchanges	1	1
Number of participants in these markets	65	90
Share of non-domestic participants (%)	0	0
Number of transactions of traded shares	3,155,827,126	8,263,217,539
Total turnover of traded shares (as a % of GDP)	39.1	83.0

Sources: National statistics and STOXX Limited.

5 Financing

5.1 Non-financial corporations

The analysis of the financing of corporations is incomplete because of a lack of data on non-listed companies and, in particular, on their share capital. Thus in Table 5.1 the data on financing by issuing shares include only public offerings and not the amounts raised by non-listed companies. Moreover, the outstanding amount of shares and other equity refers to listed companies only. However, the amount of loans includes loans to both listed and unlisted companies.

The main characteristic of the period 1998-2000 is that corporations financed their activities by equity and bank credit on an almost equal basis. However, as already pointed out, this was not a typical period since in 1999 and 2000 the amount of funds raised on the stock market was exceptionally high. Indeed, in 2001 the amount of funds raised by non-financial corporations on the stock exchange was only €1 billion compared with €6.3 billion in 2000 and €4.5 billion in 1999. The large amounts of funds raised on the stock market have improved the debt equity ratio of non-financial corporations, which declined to 0.56 at the end of 2000, compared with 0.86 at the end of 1998. At end-2000, loans were equal to 34% of GDP and equity equal to 61% of GDP. It must be taken into account that the market value of equity in 2000 reflects the relatively high level of prices on the stock exchange. In 2001 the market capitalisation of non-financial corporations declined by 10%, and it continued to decline in 2002.

In general, Greek corporations rely on bank lending and in particular on short-term loans which, at the end of 2000, accounted for almost 69% of total loans. Bank credit to enterprises has increased at very high rates in recent years (2001: 18.6%, 2000: 24.9% and 1999: 8.0%), despite the fact that credit institutions have shifted the focus of their attention to households. As already noted, Greek banks have a relatively small portfolio of loans and, as their balance sheet structure converges to the euro area average, it is expected that loans will continue to grow at a relatively high rate.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	3.6	60.8
Securities other than shares incl. financial derivatives	0.0	0.0
of which short-term bonds (<1y)	0.0	0.0
of which long-term bonds (>1y)	0.0	0.0
Loans	4.8	36.1
from resident MFIs	4.3	34.4
of which short term (<1y)	4.0	23.6
of which long term (>1y)	0.3	10.8
from resident OFIs	0.5	1.7
from other resident sources	0.0	0.0
from non-residents	-	-
Trade credits and advances	-	-
Other liabilities	-	-
Total liabilities	-	-
Internal financing		
Gross savings	-	-
Net savings	-	-
Net capital transfers	-	-

Source: Bank of Greece, national financial accounts statistics.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	0.0	0.0
Securities other than shares incl. financial derivatives	3.0	83.2
of which short-term bonds (<1y)	-3.8	1.5
of which long-term bonds (>1y)	6.8	81.7
Loans	0.3	19.5
from resident MFIs	0.3	19.5
of which short-term (<1y)	0.1	6.1
of which long-term (>1y)	0.2	13.4
from resident OFIs	0.0	0.0
from other resident sources	0.0	0.0
from non-residents	-	-
Other liabilities	-	-
Total liabilities	-	-
Internal financing		
Gross savings	1.6	-
Net savings	-1.7	-
Net capital transfers	0.5	-

Source: Bank of Greece, national financial accounts statistics.

5.2 General government

During the period 1998-2000, Greece continued efforts to remedy past imbalances in public finances so that the country could join the euro area on 1 January 2001. The general government deficit was reduced from 13.6% of GDP in 1993 to 1.8% in 1999, meaning that the deficit criterion set out in the Maastricht Treaty was satisfied. Public finances continued to improve in 2000 in accordance with the Stability and Growth Pact. Thus in 2000 the general government deficit was reduced for the fifth consecutive year to 0.8% of GDP, while a surplus has been maintained from 2001 onwards.

The deficit reduction led to a decrease in the ratio of public debt to GDP from 111.3% in 1996 and 105.5% in 1998 to 103.9% in 2000. This debt reduction was achieved because of the significant decline in interest rates, the steadfast maintenance of very high primary surpluses and the high growth rate of GDP. Interest payments declined from over 14% of GDP in 1994 to 9.1% in 1998 and 8.3% in 2000, as interest rates fell significantly[12]. GDP growth has also been strong in recent years – it exceeded 3% throughout the period 1997-2000[13]. As far as the structure of the debt is concerned, it should be pointed out that at the end of 2000, 65.7% of general government liabilities were denominated in drachma and 34.3% in other currencies, mainly US dollars, euro and Japanese yen. Thus the appreciation of the dollar and the euro against the drachma in 2000 added 3 percentage points to the debt-to-GDP ratio.

It is estimated that 80% of general government liabilities are in the form of negotiable instruments and in particular long-term securities. Short-term liabilities, i.e. liabilities with a maturity of less than 12 months, account for only 1.4% of the total.

12 The key interest rate on the 10-year government bond declined from 9.15% in June 1997, when the first issue of a fixed-interest 10-year bond by the Greek Government took place, to 5.54% in December 2000.

13 The annual growth rates of GDP were the following: 1997: 3.5%, 1998: 3.1%, 1999: 3.4%, 2000: 4.1% and 2001: 4.1%.

5.3 Households

The savings ratio of Greek households has declined throughout the period 1995-2000 as in most euro area countries. Thus as a percentage of net disposable income, savings declined from 10.6% in 1995 to 5.3% in 2000, although it is believed that this decline has come to an end. The downward trend in savings is due both to economic factors, such as the sharp reduction in real and nominal interest rates and the increase in the value of household wealth, due mainly to rises in housing prices and share prices, and to non-economic factors, such as the ageing of the population.

As already noted, consumer and housing loans have been increasing at very high rates in the period 1996-2000. Thus, as a percentage of GDP, the outstanding amount of these loans increased from 6% in 1996 to almost 14% in 2000 and to 18% in 2001. High loan growth is due to the liberalisation of consumer and housing credit and the intense competition among banks to capture this segment of the loan market, which has led to a sharp reduction in interest rates.[14]

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	-	-
Loans from resident MFIs	2.9	13.9
of which short term (<1year)	0.8	3.8
of which long term (>1year)	2.1	10.1
Consumer loans	1.1	4.5
original maturity < 1y	0.8	3.8
1y < orig. mat. < 5y	0.3	0.8
5y < orig. mat.	0.0	0.0
Housing loans	1.8	9.2
original maturity < 1 y	0.0	0.0
1y < orig. mat. < 5y	0.1	0.4
5y < orig. mat.	1.7	8.8
Other loans from resident MFIs	0.0	0.2
Other loans from resident lenders	-	-
Loans from non-residents	-	-
Other liabilities	-	-
Total liabilities	-	-
Internal financing		
Gross savings	10.7	-
Net savings	5.7	-
Net capital transfers	5.8	-

Source: Bank of Greece, national financial accounts statistics.

At the end of 2000, more than 65% of total bank loans to households represented housing loans, and in particular loans with a maturity over five years. Consumer loans are mostly short-term, since less than 16% have a maturity of more than one year. It should be pointed out, however, that consumer loans with a maturity between one and five years are becoming

14 In the period 1996-2000 interest rates on consumer loans declined by 13 percentage points in nominal terms and by 8 percentage points in real terms.

increasingly common[15] and, according to the latest available data (March 2002), now account for almost 30% of total consumer loans.

There are no data on the financing of households by non-banks and by non-residents. Financing from these sources is estimated to be negligible.

5.4 Flow of funds abroad

The picture of financing to the rest of the world is incomplete because of data limitations concerning the deposits of Greek residents abroad as well as their holdings of debt securities and shares. Balance of payments data indicate that, apart from significant capital transfers from the EU, Greece is a recipient of private capital inflows that finance its current account deficit. This deficit has grown from €4.8 billion or 3.2% of GDP in 1998, to €8.4 billion or 6.9% of GDP in 2000, but it declined to €8.1 billion or 6.2% of GDP in 2001.

During the period 1999-2000 Greek residents ran down their holdings of foreign debt securities and equities, which is hardly surprising given the relatively high interest rates on Greek government securities and the strong rise in share prices in 1999. Liabilities of non-residents in the form of loans from Greek banks increased by almost €2.5 billion per year, i.e. by 2.1% of GDP. The bulk of these loans represent liabilities of foreign banks to Greek banks. At the end of 2000, interbank business represented 80% of the outstanding amount of loans extended by Greek banks to non-residents.

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	2.3	16.6
Shares	-0.2	21.2
Securities other than shares	5.9	17.0
Other financial assets	0.0	0.0
Total financial assets	8.0	54.8
Liabilities of non-residents		
Deposits	n/a	-
Securities other than shares	-0.5	-
of which short-term (<1 year)	-	-
of which long-term (>1 year)	-	-
Loans	2.1	16.3
of which granted by financial institutions	1.7	13.2
Shares and other equity	-0.5	n/a
of which held by financial institutions	0.2	0.8
Other liabilities	-	-
Total liabilities	-	-

Source: Bank of Greece, national financial accounts statistics.

On the asset side, 1998-2000 was a period during which non-residents purchased significant amounts of Greek government bonds. Nevertheless, although the stock of Greek financial assets held by non-residents is relatively small, it does not exceed 55% of GDP. Almost 40% of these assets were in the form of shares in listed companies, whereas debt securities accounted for 31% and bank deposits for 30%.

15 Mainly to finance car purchases.

Spain

1 Main features of and recent developments in the Spanish financial system

The Spanish financial system has undergone a remarkable transformation in recent decades, driven by the financial liberalisation process of the 1980s and early 1990s, and the creation and consolidation of the single market for financial services. These processes have contributed to the development and opening up of the Spanish financial system, increasing the volume of financial flows between resident sectors and the rest of the world, and bolstering the size and turnover of Spanish capital markets.

The Spanish financial system has traditionally been a bank-oriented system. However, in recent years, non-bank intermediaries have acquired a more prominent role, helping to develop domestic capital markets and to diversify resident savings. The growth of institutional intermediaries has been driven, to a large extent, by regulatory and fiscal reforms and by the strategy of credit institutions which, in a context of increasing competition, have expanded their business to include this sector. The investment funds market has achieved a degree of maturity. However, insurance companies and pension funds are still relatively small compared with other euro area countries, partly due to the strong coverage afforded by the public pension system.

Intermediated assets held by the non-financial sectors were worth nearly 130.6% of GDP in 2000 with MFI liabilities representing 60% of them (deposits and shares of money market funds) (see Table 1). Meanwhile the value of non-intermediated financial assets held by this sector was higher, worth 157.5% of GDP in 2000, of which 47% were unlisted shares. These figures do not contradict the statement that the Spanish financial system follows an intermediary-oriented model, since the value of shares (listed and unlisted) include the substantial effects of revaluation.

To obtain a better understanding of the degree of financial intermediation, each institutional sector needs to be examined separately. Households' investment and financing decisions are mainly channelled through intermediaries, with non-bank intermediaries playing an increasingly important role. Non-financial corporations remain highly dependent on bank financing, while their financial investment is concentrated more on shares and other equity. This has been especially true in recent years, which have seen an intense process of mergers, acquisitions and cross-shareholdings, both at home and abroad. Lastly, debt instruments are the main source of financing for the Government.

Since the mid-1990s the Spanish economy has undergone strong internationalisation, boosted by EMU and investment opportunities arising in less developed markets where Spain had comparative advantages. This process became apparent in the balance sheet for all resident sectors, although for some, such as households, investment abroad was channelled

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments
(as a % of GDP; end-2000)

Amounts outstanding	Financial assets		Liabilities	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	130.6	157.5	120.3	213.9
Households	105.2	67.3	47.4	-
Non-financial corporations	20.9	81.1	61.1	159.3
General government	4.5	9.1	11.7	54.6
Non-residents	39.2	64.4	8.3	62.6
Total	169.8	221.9	128.6	276.5

Source: Banco de España, national financial accounts statistics.

through institutional investors. Consequently, external assets and liabilities have more than doubled since 1995, reaching 131% and 128% of GDP respectively in 2000.

2 Origin of flows [1]

Net financial assets and liabilities across resident sectors followed the standard distribution (see Table 2). While households typically hold positive net financial assets, non-financial corporations and government are net borrowers. In 2000 the net financial assets of these sectors represented 130.9%, -110.6% and -42.9% of GDP respectively.

Financial saving across sectors also follows the classical pattern, although the following should be noted. Households, which are net suppliers of funds, reduced their net financial transactions in the period 1995-2000, with liabilities rising steadily and financial investment generally stable. This trend was broken in 2001. Also during this period, non-financial corporations increased their net borrowing and the volume of their financial transactions, which represented around 20% of GDP on average during 1998-2000. Finally, the Government progressively reduced its liability incurrence and balanced its budget in 2001.

From 1995 to 1998 Spain was a net supplier of funds to the rest of the world. However, the reduction of financial saving by households and non-financial corporations meant that the Spanish economy became dependent on capital inflows from abroad as of 1999. At the same time, the internationalisation of the Spanish economy since the mid-1990s has boosted financial inflows and outflows abroad.

1 A complete analysis of the Spanish Financial Accounts is published in the Banco de España's quarterly Economic Bulletin and in its Annual Report.

Table 2: Financial transactions and position by sector
(as a % of GDP)

Sectors	Financial transactions (average 1998-2000) Financial asset acquisition	Liabilities incurrence	Net financial transactions	Amounts outstanding (end-2000) Financial assets	Liabilities	Net financial position
Resident sectors						
Households	9.4	7.4	2.1	189.2	58.3	130.9
Non-financial corporations	19.8	22.3	-2.5	175.0	285.6	-110.6
General government	1.8	3.1	-1.3	29.5	72.4	-42.9
Financial corporations	22.4	21.6	0.7	279.4	277.3	2.1
Total	53.4	54.4	-1.0	673.1	693.6	-20.6
Non-residents	19.1	18.1	1.0	127.9	107.3	20.6

Source: Banco de España, national financial accounts statistics.

3 Intermediaries

3.1 Channelling of funds through intermediaries

Intermediated assets held by the non-financial sectors totalled 130.6% of GDP in 2000, with households holding more than 80% of them (see Table 3.1).

From the point of view of financial instruments, the largest investment was in MFI deposits. In the case of households this stood at 54% of GDP in 2000, while holdings of non-bank intermediated assets were still relatively small at around 45% of GDP (including money market fund shares).

Since 1995 household saving has been progressively institutionalised. Household investment in insurance products and pension funds increased steadily during 1998-2000, with average annual flows of around 3% of GDP. However, the demand for investment funds had rapidly increased in the period 1996-1998 when this industry underwent strong development, and households invested up to 5-7% of GDP each year. Subsequently, when the industry was consolidated, it became more dependent on developments in capital markets and on the successive changes introduced in the tax regime governing financial assets.

Finally, there has recently been quite significant investment by non-residents in credit institution deposits, in particular from non-euro area countries. This is largely explained by credit institutions resorting to debt issues in international markets through their subsidiaries.

3.2 Monetary financial institutions (MFIs)

3.2.1 Credit institutions

As mentioned above, credit institutions play a prominent role in the Spanish financial system. In 2000, this sector was worth around 185% of GDP in terms of total assets, and 96% and 83% in terms of loans to the other residents sector and deposits respectively.

The Spanish banking system underwent a profound transformation during the 1980s and early 1990s. The deregulation and liberalisation process led, among other things, to the complete elimination of compulsory investment coefficients and restrictions in the setting of interest rates. At the same time, the transformation of the banking system was brought about by the creation of a single market for financial services.

Table 3.1: Acquisitions of financial assets in the form of intermediated instruments by sector

(as a % of GDP)

	Monetary financial institutions (MFIs) (Deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (Investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (Deposits and technical reserves)	**Non-resident intermediaries** (Deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	3.0	2.6	3.5	2.5
Households	3.0	1.1	3.0 [1)]	0.7
Non-financial corporations	0.9	0.3	0.3	0.0
General government	0.4	-	-	-
Financial corporations	-1.3	1.2	0.2	1.9
Non-residents	5.6	0.1	0.0	-
Total	8.6	2.6	3.5	2.5
Memo item				
Market instruments issued by MFIs and bought by the resident non-financial sectors	0.7	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	115.2	24.8	25.0	28.8
Households	59.2	18.8	21.9 [1)]	5.3
Non-financial corporations	14.3	2.1	2.2	2.3
General government	4.5	-	-	-
Financial corporations	37.3	3.9	0.9	21.1
Non-residents	38.7	0.5	0.0	-
Total	154.0	25.3	25.1	
Memo item				
Market instruments issued by MFIs and bought by the resident non-financial sectors	4.4	-	-	-

Sources: Banco de España, national financial accounts statistics.

1) Of which Households' pensions funds 1.1% for net acquisitions and 10% for holdings.

Table 3.2: Number of MFIs excluding the central bank

(end of year)

	1998	**2000**
Incorporated enterprises limited by shares	202	175
of which specialised credit institutions	103	86
Co-operative enterprises	97	92
Saving banks	51	48
Branches and subsidiaries of foreign institutions	53	52
Other credit institutions	1	1
Money market funds	206	201
Total	610	569

Sources: Banco de España and CNMV.

One consequence of this was a progressive consolidation of the banking sector via mergers and acquisitions (see Table 3.2). The sector became more concentrated as can be seen from the development of the Herfindahl index (see Table 3.3). However, instead of being weakened, the level of competition increased notably as a result of the financial liberalisation process. This is reflected, for instance, in the spread of lending and deposit bank interest rates shown in Figure 3.3.1a (see Fuentes and Sastre (1999)). The increasing competition in the banking system and the institutionalisation of savings, among other factors, led banks to expand their business to off-balance sheet activities and to change their income structure to non-interest income (see Fuentes (2002)).

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.049	0.087
Top 5's share of total assets (%)	44.6	54.4
Average size of top 5 (EUR millions)	8,104,685	12,239,412
Average size of all banks (EUR millions)	2,249	3,057

Source: ECB calculations based on Banco de España data.

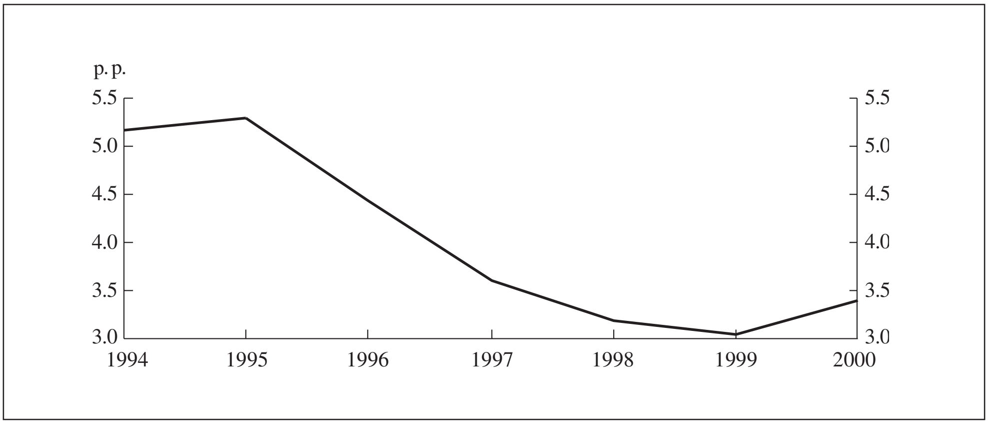
The structure of the banking industry by type of institutions is shown in Table 3.2. Commercial banks accounted for around 46% of total assets of credit institutions in 2000. Large commercial banks are growing as a result of international expansion, while their domestic market share remains more stable. Savings banks accounted for 35% of total assets of credit institutions and are more domestically oriented, as are medium-sized commercial banks. The largest savings banks are pursuing geographical expansion within the domestic market, while their smaller counterparts are more focused on their regional markets. The operational differences between commercial and saving banks have reduced considerably, although commercial banks still retain a certain degree of specialisation in corporate business[2]. Foreign banks, meanwhile, have not gained any significant market share, accounting for 8% of total assets and loans of credit institutions, although their presence has encouraged competition and improved the efficiency of the Spanish banking system. Credit co-operatives, mainly rural savings banks (Cajas Rurales), represent less than 4% of total assets of credit institutions. Finally, "specialised credit institutions", which account for less than 3% of total assets, are a rather heterogeneous group of entities with a high degree of specialisation. Such institutions usually belong to larger banking groups. They obtain most of their financing from other credit institutions because they cannot raise funds through deposits.

Nowadays, the Government has very little influence in the banking system through public guarantee or ownership. All Government-owned banks have been privatised except for the official credit institution (Instituto de Crédito Oficial), which now operates as the financial agency of the Government and as a development bank.

Where the MFI balance sheet structure is concerned, loans represented 74.3% of total assets in 2000, with an increasing proportion being granted to the private sector (96.0% of GDP, see Table 3.4(a)). Moreover, loans to households have risen faster than loans to non-financial firms. Holdings of securities other than shares were around 11% of total assets, with an increasing proportion issued by other euro area countries. Finally, the weight of shares and

2 See, for example, the annex in Banco de España (2000) for a comparison of the development of banks and savings banks.

Chart 3.2.1a: Average spread between lending and deposit bank interest rates



Source: Banco de España.

other equity increased due to the growth of strategic shareholdings in non-financial corporations and international expansion. However, this is not totally captured by the individual balance sheets shown in Table 3.4(a), since these investments are usually made by subsidiaries of banking groups. With regard to the balance sheet for consolidated banking groups, the percentage of business abroad was around 25% of total assets in 2001. International expansion has centred on Western Europe and Latin America (mostly Mexico and Brazil, but also Chile, Argentina, and others). The strategy of Spanish commercial banks in Europe has focused on building alliances with European banks through cross-holdings; no mergers have yet taken place.

On the liability side, the weight of deposits of (non-MFI) residents was one of the highest in the euro area in 2000 (44% of total liabilities), while the weight of debt securities was comparatively lower (4.6% of total liabilities). However it is worth noting that since the mid-1990s, deposits of (non-MFI) residents have declined in importance as a result of competition from mutual funds. This slowdown in deposits, coupled with the strong demand for loans, saw an increase in the use of alternative financing sources such as the interbank market and debt issuance on domestic and international markets. Behaviour patterns vary depending on the type of bank; for example, small banks, characterised by higher liquidity, used liquid assets as a buffer. Hernando and Martinez-Pagés (2001) used the mutual funds episode to reject the existence of a bank-lending channel in Spain during the 1990s and have provided useful information about differences in the structure of the balance sheet across Spanish credit institutions.

Since the start of Stage Three of EMU there has been an increase, albeit still small, of holdings of debt instruments issued by other euro area countries. Interbank financing has also experienced some changes: foreign banks have replaced their traditional debit position on the domestic interbank market with foreign financing, probably from their parent institutions. Meanwhile, Spanish banks have been operating a two-tier system, with the large banks channelling liquidity between countries and then redistributing financing obtained from abroad among the country's institutions.

Finally, the Spanish banking system is felt to be very sound, with capital ratios well above average. During 2000, in its capacity as the country's supervisory authority, the Banco de España introduced a *statistical provision* aimed at reducing the cyclical component of

Table 3.4 (a): Aggregated (non-consolidated) balance sheet of Credit Institutions

(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Cash	0.5	0.5
Loans	75.8	74.3
to domestic MFIs	16.9	12.9
to other domestic residents	49.0	52.5
of which < 1y original maturity [1)]	11.8	11.6
of which 1y < orig. mat. < 5y [1)]	8.8	9.9
of which 5y < orig. mat. [1)]	28.1	30.7
to other euro area residents	4.5	4.3
to non-euro area residents	5.5	4.6
Securities other than shares	13.3	11.5
issued by domestic MFIs		
short-term (< 1y)	0.7	0.1
long-term (> 1y)	0.2	0.4
issued by other domestic residents	10.8	8.9
short-term (< 1y) [1)]	0.1	0.1
long-term (> 1y) [1)]	1.1	1.5
issued by other euro area residents	0.5	1.0
issued by non-euro area residents	1.1	1.2
Shares and other equity	4.3	6.7
issued by domestic MFIs	0.8	0.7
issued by other domestic residents	2.5	3.6
issued by other euro area residents	0.3	0.5
issued by non-euro area residents	0.6	1.9
Fixed assets	2.3	1.8
Remaining assets	3.8	5.2
Total assets	100	100
Liabilities		
Deposits	82.7	80.0
from domestic MFIs	20.3	14.4
from other domestic residents	45.1	44.7
overnight deposits [2)]	12.5	12.2
other deposits [2)]	32.0	31.9
from other euro area residents	5.9	6.9
from non-euro area residents	11.3	14.1
Securities other than shares	3.4	4.6
held by residents	-	-
held by other euro area residents	-	-
held by non-euro area residents	-	-
Capital & reserves	8.5	8.8
Remaining liabilities	5.5	6.7
Total liabilities	100	100
Total assets/liabilities as a % of GDP	172.1	184.8

Sources: ECB and Banco de España.

1) The breakdown by maturity does not add up to the total since central government is not included in the breakdown.

2) The breakdown by instrument does not add up to the total since central government is not included in the breakdown.

provisions, thus improving the resilience of Spanish banks to potentially negative cyclical shocks (see Fernández de Lis et al. (2000)).

3.2.2 Money market funds (MMFs)

Money market funds have developed in parallel with other investment funds (see next section). They receive the same fiscal treatment, and the main holders are households with around 85% of MMF shares in 2000.

Table 3.4 (b): The aggregated balance sheet of money market funds
(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Deposits		
with residents	49.8	36.4
with other euro area residents	1.4	0.0
with non-euro area residents	1.0	0.1
Securities other than shares		
issued by residents	40.7	32.6
issued by other euro area residents	5.0	22.2
issued by non-euro area residents	0.9	7.0
Remaining assets	1.2	1.6
Total assets	100	100
Liabilities		
Money market fund shares/units	99.8	99.8
Remaining liabilities	0.2	0.2
Total liabilities	100	100
Total assets/liabilities as a % of GDP	5.5	5.5

Source: Banco de España.

3.3 Other financial intermediaries (OFIs)

Investment funds and companies are the most important sub-sector within OFIs, both in terms of number and balance sheet size (see Table 3.5). Mutual funds appeared in the early 1970s, but they did not expand until 1991, when their net assets accounted for 3% of GDP. By 2000 this figure had grown to 32.5% (including MMFs). Their expansion was linked to tax reforms (1991 and 1996) and also to the active role played by banks in this industry. Today some 92% of assets in security investment funds (including MMFs) are managed by banking groups. By 1998 this industry had reached a significant degree of maturity, with total assets representing 33% of GDP. Subsequent investment in mutual funds was driven by successive regulatory changes and price movements on financial markets.

The weight of shares in the portfolio of investment funds and companies increased to nearly 32% in 2000, up from 15% in 1998 (see Table 3.5). However, this figure is still relatively small compared with other European countries. At the same time, as of 1999 there was intensive investment in foreign securities with the result that, in 2000, foreign securities accounted for more than 46% of the total portfolio, up from 20.8% in 1998. In particular, securities issued by other euro area countries accounted for more than 25% of total assets in 2000, compared with 14% in 1998. This process has also been observed in MMFs, where foreign assets accounted for almost 30% of total assets in 2000 (see Table 3.4(b)).

The other OFI sector is somewhat smaller. The number and value of financial vehicles is increasing, accounting for 10% of total OFI assets in 2000 compared with 5% in 1998. Until 1998 only mortgages could be securitised, but the rules were subsequently relaxed to accommodate other assets. The value of securitisation funds was more than €15 million in

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Investment funds 1)**	**Other OFIs 2)**	**Investment funds 1)**	**Other OFIs 2)**
Deposits	27.3	29.6	17.8	25.4
with domestic residents	-	-	-	-
with non-residents	-	-	-	-
Securities other than shares	56.3	4.3	48.3	1.0
issued by domestic residents	40.7	-	25.6	-
issued by other euro area residents	11.4	-	14.6	-
issued by non-euro area residents	4.3	-	8.2	-
Shares and other equity	13.5	13.9	31.9	5.3
issued by domestic residents	8.3	-	8.1	-
issued by other euro area residents	2.8	-	12.1	-
issued by non-euro area residents	2.3	-	11.7	-
Remaining assets 3)	2.9	52.2	2.0	68.3
Total assets	100	100	100	100
Liabilities				
Mutual fund shares	95.4		90.4	
Remaining liabilities	4.6	100	9.6	100
Total liabilities	100	100	100	100
Total assets/liabilities as a % of GDP	33.0	3.0	27.0	6.0
Number of OFIs				
Investment funds	2,266		3,936	-
Securities and derivatives dealers	-	47	-	48
Financial corporations engaged in lending	-	28	-	55
Other institutions 4)	-	31	-	63

Sources: Banco de España and Comisión Nacional del Mercado de Valores.
1) Collective investment institutions (IIC) that include capital market mutual funds (FIM), real-estate funds, closed-end investment companies (SIM) and open-end investment companies (SIMCAV).
2) The balance sheet includes securities and derivatives dealers companies and Financial corporations engaged in lending.
3) Includes loans of financial vehicles.
4) Includes venture capital institutions whose balance sheet is not included in the aggregated balance sheet of OFI.

2000 (2.6% of GDP), compared with €1.2 million in 1995. These institutions are helping credit institutions to finance the increasing demand for loans and to develop private debt markets. Nevertheless, the development of securitisation in Spain is still quite limited compared with other European countries (see box in Banco de España (2002a)).

Venture capital[3], meanwhile, is relatively less important than in other European countries, although it has grown since 1997. In 2000 it benefited from the creation of firms in the

3 In financial accounts, venture capital institutions are included with non-financial corporations.

technology and telecommunication sectors and the total managed capital reached €5,029 million[4].

3.4 Insurance corporations and pension funds (ICPFs)

The size of the Spanish private insurance sector is relatively small compared with other European countries. According to the financial accounts, the sector's total assets represented 29% of GDP in 2000, compared with 16% in 1995 (see Table 3.6).

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities, end of year)

Assets	1998	2000
Deposits	18.4	16.5
with residents	12.1	12.6
with non-residents	6.3	3.8
Securities other than shares	48.5	42.2
issued by residents	43.8	31.2
issued by non-residents	4.7	11.0
Shares and other equity	23.2	31.6
issued by residents	21.9	28.1
issued by non-residents	1.3	3.5
Fixed assets	-	-
Remaining assets	9.9	9.7
Total assets	100	100
Liabilities		
Technical reserves	70.1	72.6
Remaining liabilities	29.9	27.4
Total liabilities	100	100
Total assets/liabilities as a % of GDP	26.2	28.9
Number of pension funds and insurance companies		
Pension funds	558	711
Insurance companies [1)]	828	778
Memo item		
Liabilities		
Total liabilities of pension funds	5.2	6.4
Total liabilities of insurance corporations	18.4	21.5

Sources: Dirección General de Seguros y Fondos de Pensiones and Banco de España.
1) Includes private insurance corporations, non-profit insurance entities and the Insurance Compensation.

The mandatory state pension scheme dominates the Spanish pension system, financed on a pay-as-you-go basis and managed by the Social Security (Seguridad Social). This system has traditionally been characterised by its extensive coverage which has hampered the development of complementary schemes. The development of the financial system and more

4 Source: CNMV (2002).

recently the perception that demographic prospects might have implications on the sustainability of the public pension system has led to increasing investment in supplementary and private pension schemes which, in addition, have been favoured by fiscal incentives. Investment in complementary pension schemes (both individual and occupational) is now tax-deductible up to a given amount. Moreover, recent developments in the private insurance sector have also been positively affected by legislation obliging companies to externalise their pension commitments vis-à-vis their employees (transfer of non-autonomous or internal pension funds to an external pension fund or insurance company)[5].

As regards balance sheet structure, more than 40% of total assets were listed as securities other than shares in 2000. The weight of shares increased from 24% in 1998 to 31% in 2000. The portfolio of this sector also became more internationalised, with external assets accounting for 18% of total assets in 2000, against 12% in 1998.

4 Markets

Starting in the 1980s, the development of Spanish capital markets came rather late but has since been intensive, resulting in a significant increase in both size and turnover. This has been driven primarily by the process of deregulation and financial harmonisation among European economies, the globalisation of financial markets, the institutionalisation of private saving and improvements in technology. One of the most important recent consequences of this process took place in 2002 when the trading and settlement systems of the bond, equity and derivative markets were integrated (see Banco de España (2002c)).

Holdings of non-intermediated assets by resident sectors rose strongly to 259% of GDP in 2000, compared with 124% in 1995 (see Table 4.1). These portfolios also became more internationalised, with around 24% of external assets in 2000, up from 10% in 1995. During this period more than 40% of the increase in the value of these holdings was the result of higher prices of both listed and unlisted shares[6].

Households owned the largest proportion of shares issued by residents. The weight of shares in the Spanish households' portfolio is quite high (33% in 2000). 60% of these were unlisted shares. Households' investment flows into non-intermediated assets were largely residual insofar as their investment in market instruments is usually conducted via financial intermediaries.

Non-financial corporations are the main holders of shares, including non-resident issuers. This sector carried out exceptional net acquisitions of shares and other equity issued by non-residents in 1999 and 2000, representing over 6% and 10% of GDP respectively. Investment abroad was mainly carried out by a small number of large companies (including financial companies investing via non-financial holding companies) pursuing an international expansion of their economic activity.

Financial corporations are the main holders of debt instruments, primarily Spanish public debt, although since 1999 they have been considerably increasing their external holdings of fixed-income securities. Debt holdings are then usually re-intermediated via repo operations.

5 See methodological notes in Banco de España (2002b) for a brief explanation of the externalisation process and how it is dealt with in ESA95.

6 The weight of unlisted shares in the non-intermediated holdings of resident sectors is quite large at 53% in 2000. This figure is very dependent on the methodology used in the valuation of these assets (for more details, see Banco de España (2002b)).

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	*of which unlisted shares*	Securities other than shares issued by residents	Shares issued by non-residents	*of which unlisted shares*	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)						
Resident sectors	2.7	0.9	0.7	9.8	3.6	3.3
Households	0.1	*-0.2*	-0.2	0.1	*0.0*	0.4
Non-financial corporations	1.8	*0.1*	0.3	6.5	*3.0*	0.5
General government	-0.4	*0.0*	0.1	0.0	*0.0*	-
Financial corporations	1.3	*0.9*	0.6	3.1	*0.6*	2.4
Non-residents	5.2	*2.7*	4.5			
Total	7.9		5.1	9.8		3.3
Holdings (Amounts outstanding, end-2000)						
Resident sectors	153.9	82.9	42.3	39.7	15.2	22.9
Households	62.6	*37.8*	2.3	1.1	*0.0*	1.3
Non-financial corporations	50.8	*23.4*	2.0	26.8	*12.6*	1.5
General government	8.7	*0.4*	0.3	0.2	*0.0*	-
Financial corporations	31.8	*21.3*	37.7	11.7	*2.5*	20.1
Non-residents	36.8	*6.8*	27.6	-		-
Total	190.7		69.9	39.7		22.9

Source: Banco de España, national financial accounts statistics.

Non-resident investment in domestic market instruments has been increasing strongly since 1999 with regard to both shares and debt instruments, and their holdings rose to more than 60% of GDP in 2000.

4.1 The bond market

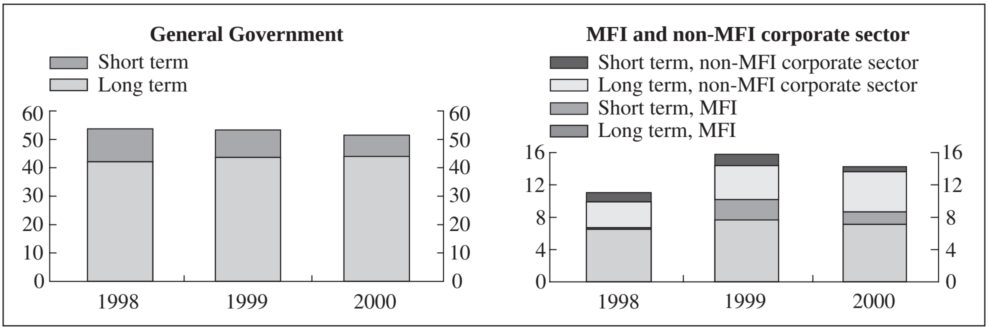
CADE (Central de Anotaciones de Deuda Pública), the organised public debt market, was created in 1987 to finance public deficit and to improve monetary policy transmission through open market operations. Since then, the development of this market has been linked to the financing needs of the government sector and has achieved high levels of liquidity. On the other hand, the development of the private debt market has been much more limited.

4.1.1 The primary market: Issuance

The outstanding volume on the Spanish government bond market was 51% of GDP in 2000, with a smooth decreasing trend owing to fiscal consolidation (see Chart 4.1). The Spanish Treasury issues short-term securities at a discount (Letras del Tesoro) and medium and long-term government bonds with fixed annual coupon payments (Bonos y Obligaciones del Estado). Since July 1997, strippable bonds have been issued. Bonds account for the largest share of the debt market and are issued via regular auctions that are reopened to increase the outstanding amounts. During 2000 the Spanish Treasury conducted an exchange programme to enhance the liquidity of on-the-run bonds.

On the other hand, the size of the private debt market is relatively small, representing 14% of GDP in 2000. In 1999 private debt issuance was encouraged by a number of new measures. Private debt was given the same tax treatment as government debt, it was included in the list of eligible assets for Eurosystem operations, and the process of issuing corporate debt was simplified. The expected positive impact of these structural factors, and others of a more transitory nature, was initially concentrated in the commercial paper market, which experienced rapid growth during 1999 and 2000 in terms of both outstanding volume and turnover. However, the issuance of debt by non-financial corporations on the domestic market continued to be very small, although they are increasing their issuances abroad. The net issuance of debt by subsidiaries of Spanish firms abroad represented 12% of GDP in the period 1998 to 2000.

Chart 4.1: Outstanding nominal amount of debt securities by sector and maturity
(as a % of GDP)

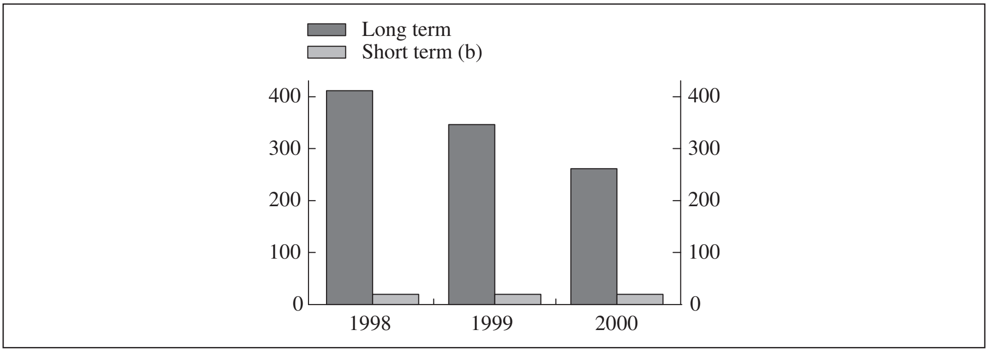


Sources: AIAF and Banco de España.

4.1.2 The secondary market: Organisation and integration

The largest debt market is CADE, the public debt market organised through a book-entry system.[7] Spot market turnover in 2000 amounted to 264% of GDP (see Chart 4.1.2a). The most traded type of transaction was the repo, which had more than seven times the spot market turnover in 2000.

Chart 4.1.2a: Turnover of Spanish fixed income market by maturity
(as a % of GDP)



7 Some government debt is also residually traded on the stock markets.

AIAF (Asociación de Intermediarios de Activos Financieros) is the market for private debt. The turnover of this market is very limited (17% of GDP in 2000), but it is growing, especially for commercial paper (see Chart 4.1.2c). The instruments traded are short-term commercial paper and medium and long-term private debt, including mortgage bonds and asset-backed bonds. Remaining peseta-denominated fixed-income securities issued by non-residents, commonly known as matador bonds, are also traded.

Chart 4.1.2b: Turnover of Spanish fixed income markets
(as a % of GDP)

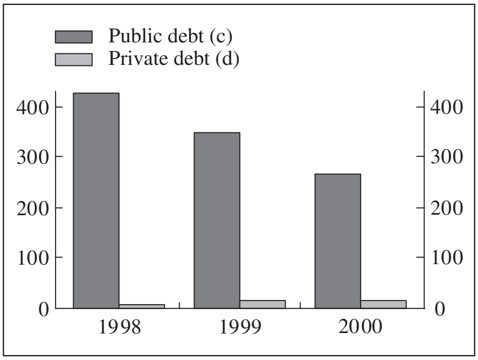
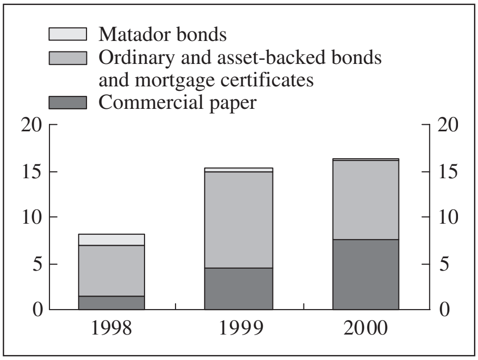


Chart 4.1.2c: Turnover of Spanish private debt market



Sources for charts 4.1.2a-c: AIAF and Banco de España.
Notes: (a) Nominal turnover, spot market; (b) maturity of 18 months; (c) public-debt book-entry market; (d) includes debt of territorial government traded on AIAF.

Debt trading is decentralised in three stages: a blind market, a segment for market members, and a market that conducts transactions between dealers or brokers and other participants. In 1999 non-resident entities were accepted as market-makers on the government debt market, and in 2000 there were 18 non-resident members out of 259.

Clearing and settlement is carried out through CADE in the case of government debt and SCLV (Servicio de Compensación y Liquidación de Valores) for private debt, using a delivery-versus-payment procedure. These two systems recently merged to form IBERCLEAR. In the near future a new trading platform will be established to unify the bond, equity and derivative markets.

4.2 The stock market

There are four stock markets (Madrid, Barcelona, Bilbao and Valencia) linked by the SIBE (Stock Exchange Interlink System). This electronic system guarantees a single price and channels most of the trading, while the traditional ring (open outcry) trading is only of residual importance. There is also a second market for small and medium-sized corporations, with marginal activity, and for special segments, such as Latibex (Latin American securities market) and the Nuevo Mercado (market segment for technology stocks), created in 1999 and 2000 respectively.

4.2.1 The primary market

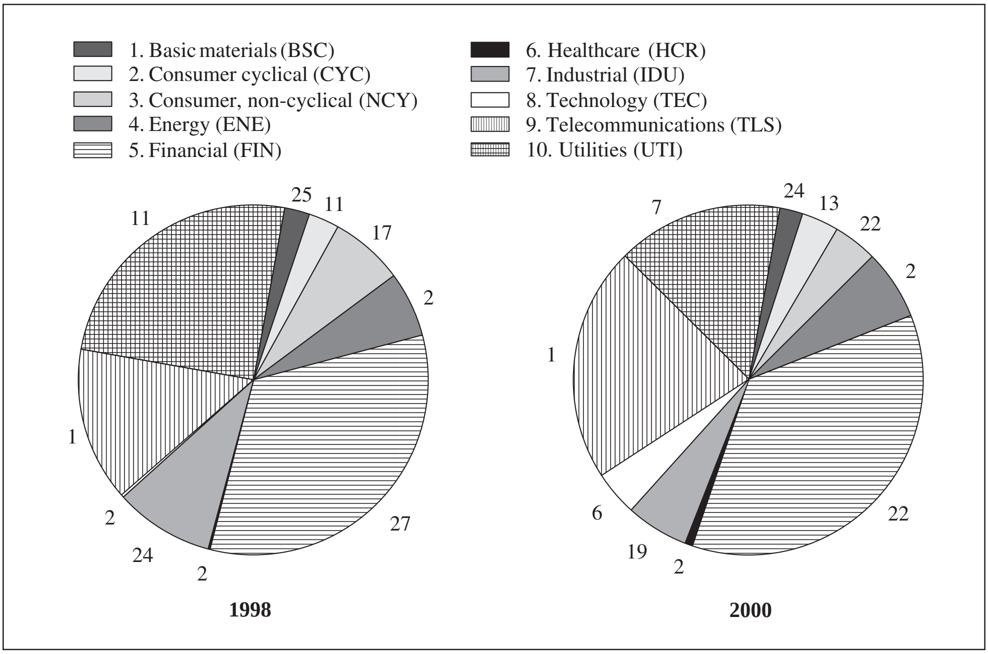
At the end of 2000 there were 1,869 listed companies, of which 155 were trading on the electronic market, 26 on the second market and the rest by open outcry. SIM/SIMCAV represented 89% of the total shares in the outcry segment, but their size is relatively small in terms of capitalisation (8.2%). The distribution of the market by sectors shows a higher share of firms in the financial, energy and telecommunications sectors (see Chart 4.2.2a).

The Spanish stock market has increased significantly in size, from 32% of GDP in 1995 to 95% in 2000. This was the result of higher prices (see Chart 4.2.2b) as well as new listed companies and capital increases (see Table 4.2). Privatisations were important in determining the course of past capitalisation. More recently, there has been a large contribution from newly listed companies on the new second markets (Nuevo Mercado and Latibex), as well as capital increases by some already-listed companies involved in the international expansion process.

4.2.2 The secondary market

Equity market turnover has increased markedly, from 11% of GDP in 1995 to 81% in 2000. Most trading is channelled through the electronic market and is concentrated on a small number of stocks. For instance, in 2000 just ten stocks accounted for 77.9% of total trading. The participation of non-residents has been increasing, and in 2000 their share in total trading was 53.9%.

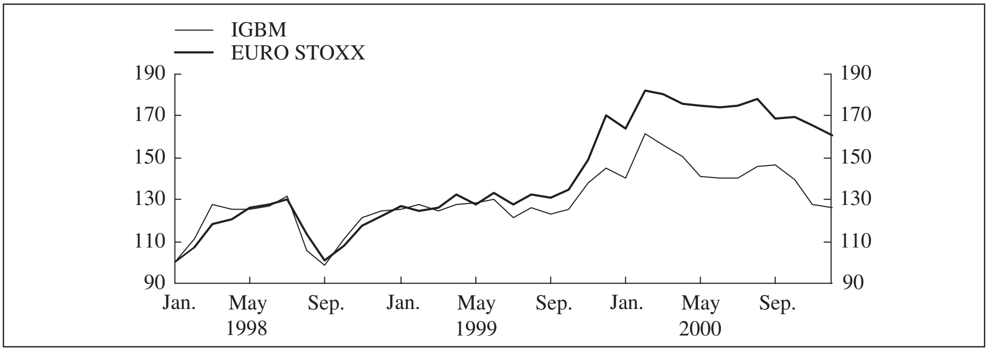
Chart 4.2.2a: Sectoral distribution of national stock index (IGBM, overall Madrid Stock Exchange Index)



Source: Banco de España.
Note: Each area reflects sectoral distribution in terms of market capitalisation. Number of companies shown for each sector.

Chart 4.2: National stock index development relative to EURO STOXX

(31 Jan. 1998 = 100)



Source: Banco de España.
Note: IGBM = Overall Madrid Stock Exchange Index.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies [1)]	872	1,869
Number of non-listed companies	132,538	127,480
Market capitalisation of listed shares (as a % of GDP)	67.4	95.5
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	2.7	12.3
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	1.0	7.4
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	4 / 28	4 / 28
Concentration indices (top ten companies share of total market capitalisation) (%)	56.4	58.3
Number of foreign companies listed	4	17
Number of stock exchanges and other organised exchanges	4	4
Number of participants on these markets	53	58
Share of non-domestic participants (%)	34	42
Number of transactions of traded shares	46,455	66,878
Total turnover of traded shares (as a % of GDP)	49.5	81.0

Sources: CNMV, INE, Sociedad de Bolsas y Sociedades Rectoras de las Bolsas de Valores, STOXX Limited.
1) Listed companies include non-resident companies.

4.3 Derivatives market

MEFF is the official Spanish futures and options market. Since 1998 the activity of derivatives on fixed-income instruments and stock market indices has declined significantly, while trading on contracts on equity has increased. The introduction of the euro and the internationalisation of the financial markets has led MEFF to establish alliances and interconnection agreements with other markets abroad in order to expand the range of products offered. MEFF members channelled 1.4 million derivatives contracts to other European markets in 2000. At the same time there has been some innovation, with the successful introduction of futures on shares in January 2001 (see Martinez-Resano et al (2002)).

5 Financing

5.1 Non-financial corporations

The Spanish corporate sector is characterised by a relatively large number of SMEs (small and medium-sized enterprises). According to the DIRCE (1998)[8], the share of non-financial companies with fewer than 49 employees is 97%, and their average size in terms of employees is 5.4. This could help to explain the relative importance of bank financing and unlisted shares (64% of shares) in the balance sheets of non-financial corporations.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	6.7	155.8
Securities other than shares incl. financial derivatives	0.0	3.5
of which short-term bonds (<1y)	-0.1	0.5
of which long-term bonds (>1y)	0.1	3.0
Loans	8.7	61.1
from resident MFIs	5.4	43.1
of which short-term (<1y)	1.6	15.1
of which long-term (>1y)	3.8	28.0
from resident OFIs	0.4	1.9
from other resident sources	0.2	0.9
from non-residents	2.7	15.2
Trade credits and advances	7.0	59.8
Other liabilities	0.0	5.4
Total liabilities	22.3	285.6
Internal financing		
Gross savings	11.4	-
Net savings	3.9	-
Net capital transfers	1.1	-

Source: Banco de España, national financial accounts statistics.

From 1998 to 2000 the gross saving of non-financial corporations financed around 81% of their non-financial investment. The international expansion process also consumed a large amount of resources: direct investment abroad of the private non-financial sectors totalled around 6.6% of GDP on average over the period. As a result, non-financial firms' recourse to external financing (net acquisition of liabilities) amounted to 179% of their internal finance (gross saving plus capital transfer), one of the highest ratios in the euro area.

External financing mainly took the form of bank borrowing. During 1998-2000 the average financing flow through loans was 8.7% of GDP, of which around a third came from abroad,

8 Central Companies Directory (Directorio Central de Empresas), available from the INE (Instituto Nacional de Estadística).

following a rising trend. On the other hand, average financing through the issuance of shares and other equity during this period represented 6.7% of GDP (more than 60% were unlisted). The resources obtained through debt issuance were residual, but there is evidence that some large corporations are issuing debt abroad and channelling funds through foreign subsidiaries. From 1998 to 2000 net issuance by foreign subsidiaries of Spanish firms was 3.8% of GDP, while the amount outstanding on debt securities issued by resident firms totalled 3.5% in 2000 (see Table 5.1).

As a result, the indebtedness of non-financial firms, measured in terms of loans and securities other than shares, amounted to 64.6% of GDP in 2000 compared with 51.1% in 1998. MFIs granted 70.6% of total loans, with nearly 25% from the rest of the world sector, while less than 2% was securitised.

5.2 General government

In recent years, the financing needs of the general government sector have followed a downward trend and, in 2001, the public budget was balanced, while debt represented 54.6% of GDP (see Table 5.2). The net issuance of public securities has also followed a downward trend and has shifted the term structure towards longer maturities. This was possible thanks to greater price stability in the Spanish economy, allowing the sector to take advantage of lower interest rates.

The main holders of government securities are financial institutions, which had more than 80% of outstanding short-term securities and 48% of bonds in 2000. Non-residents have traditionally been active participants on the Spanish debt market. The start of Stage Three of

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	0.0	0.4
Securities other than shares		
incl. financial derivatives	2.5	54.6
of which short-term bonds (<1y)	-1.5	7.3
of which long-term bonds (>1y)	4.0	47.3
Loans	0.0	11.7
from resident MFIs	-0.2	5.3
of which short-term (<1y)	-0.1	0.8
of which long-term (>1y)	-0.1	4.4
from resident OFIs	-	-
from other resident sources	0.2	4.8
from non-residents	0.1	1.6
Other liabilities	0.6	5.7
Total liabilities	3.1	72.4
Internal financing		
Gross savings	2.5	-
Net savings	1.0	-
Net capital transfers	-0.5	-

Source: Banco de España, national financial accounts statistics.

EMU has encouraged further purchases of Spanish public debt by non-residents, and in 2000 their holdings represented 48% of the total outstanding amount of Spanish government debt, compared with 30% in 1995.

5.3 Households

The decline in households' net financial transactions has been the result of a relative stability in gross saving in GDP terms and of a vigorous accumulation of liabilities. External financing totalled 94% of internal financing (gross saving plus capital transfers) in 2000, a relatively high level compared with other European countries.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
External financing		
Loans		
Loans from resident MFIs	6.4	45.8
of which short-term (<1year)	0.3	3.3
of which long-term (>1year)	6.1	42.5
Consumer loans	1.2	8.0
< 1y original maturity	0.2	1.3
1y < orig. mat. < 5y	0.3	3.2
5y < orig. mat.	0.6	3.5
Housing loans	4.2	29.0
< 1y original maturity	0.0	0.3
1y < orig. mat. < 5y	0.1	0.9
5y < orig. mat.	4.1	27.8
Other loans from resident MFIs	1.0	8.9
Other loans from resident lenders	0.5	1.5
from non-residents	0.0	0.1
Other liabilities	0.5	10.9
Total liabilities	7.4	58.3
Internal financing		
Gross savings	7.2	-
Net savings	3.5	-
Net capital transfers	0.6	-

Source: Banco de España, national financial accounts statistics.

As a result, the outstanding amount of household loans stood at 45.8% of GDP in 2000. MFIs held 97% of these loans, and only 3% were on the balance sheet of OFIs. The higher level of debt, although still slightly below the average euro area level, was the result of greater macroeconomic stability arising from participation in monetary union which had significantly reduced the cost of borrowing, as well as favourable employment trends and the rising price of property assets.

Long-term loans (with an original maturity of more than five years) accounted for 93% of total loans. The reduction of inflation is one important factor supporting the idea of increases in the maximum loan term, although there is no available data verifying this fact. The current ceiling on mortgage loans seems to be 25-30 years.

Financing related to housing investment represented around 60% of total loans. There are important fiscal incentives encouraging investment in a principal dwelling, with interest and principal payments deductible up to certain limits. There are no available data on the loan-to-value (LTV) or loan-to-income ratio applied to mortgages. Banks benefit from a reduction in the provisions requirement when the LTV of secured loans for house purchases is equal to or less than 80%. This is also a requirement for mortgages if they are to be eligible as collateral for mortgage bonds. In spite of this, there is some evidence of LTV of more than 80% in recent years. Finally, variable-rate loans occupy an increasing share (around 57% of secured loans granted by resident institutions to the other resident sectors). The interest rate on this type of loan usually changes in line with a reference rate (EURIBOR).

5.4. Flow of funds abroad

The internationalisation of investment and financing decisions by the resident sectors has been prompted by the liberalisation of capital movements, the participation in Stage Three of EMU and investment opportunities arising in less developed markets where Spain had comparative advantages. As a result, the acquisition of both external assets and liabilities has increased strongly since the mid-1990s.

Financing to the rest of the world through equities has increased markedly as a result of the direct investment process by Spanish firms. The economic sectors most involved in this process are transport and communication, energy and finance. The main destination of funds is the European Union and the countries of Latin America (Brazil, Mexico, Argentina and Chile).

Table 5.4: Investment and financing vis-à-vis non-residents

(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	5.6	38.7
Shares	5.3	37.4
Securities other than shares	4.5	27.6
Other financial assets	3.8	24.1
Total financial assets	19.1	127.9
Liabilities of non-residents		
Deposits	2.5	28.6
Securities other than shares	3.3	22.9
of which short term (< 1 year)	-	-
of which long term (> 1 year)	3.4	22.9
Loans	0.8	8.3
of which granted by financial institutions	0.2	4.4
Shares and other equity	9.8	39.7
held by financial institutions	3.1	11.7
Other liabilities	1.6	7.8
Total liabilities	24.7	146.2

Source: Banco de España, national financial accounts statistics.

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France

1 Main features of and recent developments in the French financial system

During the last two decades, the French financial and banking sector has been deeply affected by a large number of important changes, which have considerably modified its structures and foundations. Between 1980 and 2000, a continuous process of deregulation and liberalisation led to the replacement of a financial system characterised by the prominence of banking intermediation in the financing of the economy, and a high degree of control and regulation. France was a "debt economy" in this period, marked by competition between financial institutions within the limits of very tight controls on credit distribution (credit restriction) and financial transactions abroad (exchange control).

The deregulation and liberalisation that occurred in France in the second half of the 1980s aimed to improve the efficiency of the allocation of financial resources by adapting to the needs of the private and public sectors. Indeed, the reform of the money market in 1984 opened up a new segment to all borrowers and investors, in addition to the interbank market. The launch of new financial instruments, such as commercial paper or derivative products, gave the private sector access to a broader range of financing in an increasingly safe and flexible environment. In the same way, the unification of the credit market following the Banking Law of 1984, the lifting of credit restriction in 1987, and the end of exchange control in 1990 favoured the expansion of the French financial system.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments
(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	156.8	257.5	83.8	345.5
Households	129.5	89.7	35.7	0.0
Non-financial corporations	20.7	150.9	38.9	296.1
General government	6.6	16.9	9.2	49.3
Non-residents	43.3	115.5	31.7	124.4
Total	200.1	373.0	115.6	469.9

Source: Banque de France, national financial accounts statistics.

This movement of deregulation and liberalisation resulted in two discernible trends, the first being the change and expansion of the nature of intermediation, especially in connection with the growing role of investment funds and insurance corporations in the collection of households' savings. The significant development of money market funds thus allowed financial intermediaries to maintain – or even to strengthen – their position within the financial system: the balance sheet total of money market funds increased at an average annual growth rate of 13% between 1997 and 2000. Likewise, the insurance corporation sector has grown considerably over the last decade to become one of the main collectors of households' savings. In 2000, they collected 79% of households' savings flows.

Second, deregulation and financial innovation, continuously encouraged by general government, led to the setting-up and growth of efficient financial markets. As a result, several segments of the French financial market now play a major role both in France and in the euro area. This is particularly true of the debt securities (especially commercial paper and bonds) and derivative instruments markets. The French financial sector has thus considerably increased its significance abroad, both inside and outside the euro area. Over the period 1997-2000, net acquisitions by non-residents of securities issued by French residents multiplied by a factor of 3.6, reaching €114 billion at the end of 2000, compared with €31.6 billion in December 1997. This strong expansion reflects the attractiveness of French securities.

As a consequence, the financial assets of the French non-financial sector (households, non-financial corporations and general government) amounted to 4.1 times GDP, compared with an average of 3.3 in the euro area in 2000. More precisely, non-financial corporations and households held financial assets to the value of 1.7 and 2.2 times GDP respectively, compared with 1.0 and 2.1 in the euro area. The assets of the public sector were less significant, and its proportion of GDP was more or less the same as the average for the euro area. The non-resident sector's assets amounted to 1.6 times GDP: while much more than the average for the euro area taken as a whole, this is equivalent to the average of the euro area countries' ratios. At the same time, financial corporations seemed heavily dependent on external finance (3.4 times GDP compared with a euro area average of 2.3). However, there are still differences between national accounting conventions, mainly concerning the valuation of unquoted shares, which impair such international comparisons to some extent.

The split between market-based and intermediated financing mainly reflects the complementary nature of the two, although they are in competition. Traditional financing (loans granted by credit institutions) remains essential, not least because of the significant proportion of small and medium-sized enterprises (SMEs) in the French economy, which cannot easily access market-based financing on account of the high entry costs (mainly for issue and notation).

However, one major feature of the French financial system has been the increasing development of market assets and liabilities. This seems to have been to the detriment of intermediated instruments: between 1995 and 2000, the proportion of market assets in the total of intermediated and market assets held by the non-financial and non-resident sectors grew from 49.6% to 65.1%, while the share of market liabilities in the total of intermediated and market liabilities increased from 61.1% to 80.3%. These figures were substantially higher in France in 2000 than in the euro area as a whole, where market-based instruments accounted for 51.1% on the asset side and 62.3% on the liability side. The French figure exceeded that of the euro area average in each separate non-financial sector, but the difference was especially large for non-financial corporations.

This development initially resulted from a deliberate public policy. In the early 1980s, the Government started to disengage from bank lending and to rely increasingly on securities issues, either long-term bonds or short-term bills. In this respect, the reform of the money market in 1984 – which led to both the creation of short-term securities such as certificates of deposit and commercial paper and the opening-up of the market to a wider range of operators – was a major step forward. Subsequently, the development of the internal debt market and improved access to international markets increased the competition between intermediated and market-based financing to the advantage of the latter, especially where large firms were involved. With regard to the stock markets, the privatisation of several state-owned companies (especially in the banking and telecommunication sectors) from the mid-1980s increased the direct holding of shares by households.

However, the level of disintermediation is not as high as it first appears from the above data, as financial institutions have adapted to the development of market-based financing, substantially increasing their own market-based financing (especially through the issuance of certificates of deposit) and their holdings of market debt. Moreover, if we take a broader view of financial operations, including direct financing from non-financial sectors to other non-financial sectors, the picture is slightly different. In fact, the development of market-based financing affected direct financing between non-financial sectors more than it did intermediated financing, especially where non-financial corporations were involved. Direct loans from non-financial corporations to non-financial sectors fell from 29.9% of their total liabilities in 1995 to 15.2% in 2000, while their bank financing increased from 8.0% to 9.9% of their total liabilities. The drop in trade credit was especially large (from 19.3% of non-financial corporation liabilities in 1995 to 8.8% in 2000), while loans and deposits between different corporations in the same group remained more or less stable. The development of an international trade relationship has probably reduced the traditional use of trade credit in France.

The roles of the different sectors in the financing of the economy are unsurprising: households were the main lenders, with 38.2% of the total assets of the non-financial sectors, while non-financial corporations were the main borrowers, accounting for 57.2% of the total liabilities of the non-financial sectors (direct financing between non-financial sectors is excluded from the calculation). More precisely, households were by far the largest holders of intermediated assets, accounting for 64.7% of the non-financial sector total, but held only 24.0% of all market assets owned by the non-financial sectors, as compared with 40.5% for non-financial corporations.

The rest of the world's position is almost balanced, at a slightly lower level than the average of euro area countries, with 27.7% of assets and 26.7% of liabilities (excluding direct financing between non-financial sectors). Investments from abroad were more market-oriented (72.7% of the total) owing to the large proportion of public debt owned by foreign investors. The government share of market and intermediated liabilities was only 10.0%, compared with an average ratio of 20.9% in the euro area.

2 Origin of flows

The same picture applies to flows. The main net lender to the national economy was the household sector. The financial sector was more or less neutral, while the rest of the world, the government and non-financial corporations were net borrowers of funds in the 1998-2000 period.

The net lending of households was quite large (5.0% of GDP on average during the period 1998-2000, compared with 4.3% in the euro area), but has been decreasing since 1995 due to their increasing indebtedness. At the same time, the household sector's ratios of lending to GDP and of borrowing to GDP remained quite steady. Furthermore, households' participation in financial transactions was very low: their acquisitions amounted to only 8.4% of the total financial acquisitions and their incurrence to 2.8% of the total incurrence of financial liabilities.

The financial sector, whose net transactions were virtually zero, was the main participant in financial transactions, accounting for 60% on both the assets and the liabilities side.

From 1998 to 2000 the main net borrower was the non-resident sector. In recent years, the net acquisition of foreign shares by non-financial corporations has replaced and exceeded the net acquisition of debt securities by resident investors. The development of M&A activity between French and foreign firms, which began in the early 1990s, culminated in 1999 and 2000 with large operations such as France Telecom/Orange, Vivendi/Seagram, and Cap Gemini/Ernst-Young. Because some of these operations took the form of an exchange of shares, they have resulted in a strong increase in both the acquisition of financial assets and the incurrence of financial liabilities by the non-resident sector as well as the non-financial corporation resident sector. Non-financial corporations have issued more shares in order to buy more shares and, as a result, the participation of this sector in financial flows has increased from 8.4% of the acquisition of financial assets and 7.6% of the incurrence of financial liabilities in 1998 to 14.3% and 15.0% respectively in 2000.

The net borrowing position of the Government decreased sharply, from 5.5% of GDP in 1995 to 1.3% in 2000, owing to an equivalent reduction in the budget deficit. From 1998 to 2000 the net borrowing of the French Government remained slightly higher than the euro area average (1.9% compared with 1.1%). However, the difference is substantially reduced when the Government's income from the sale of UMTS licences is taken into account.

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
Resident sectors						
Households	7.5	2.5	5.0	229.5	46.7	182.8
Non-financial corporations	11.9	12.4	-0.4	235.4	398.9	-163.5
General government	0.4	2.3	-1.9	38.0	72.9	-34.9
Financial corporations	53.2	53.1	0.1	429.1	404.3	24.8
Total	73.0	70.3	2.7	932.0	922.8	9.2
Non-residents	16.2	18.9	-2.7	174.4	183.5	-9.2

Source: Banque de France, national financial accounts statistics.

3 Intermediaries

3.1 Channelling of funds through intermediaries

Financial intermediaries were the main investors in MFIs (37.9% of the amounts outstanding of deposits and money market fund shares in 2000) and OFIs (52.2% of investment fund shares). The average flows in the 1998-2000 period show an even greater share (41.5% of flows in deposits and money market fund shares and 79.2% of flows in investment fund shares). However, the investment policy of financial institutions fluctuated widely with the relative rates of return and it is thus difficult to identify a clear trend.

During the past decade, the development of derivatives and the increase in specialised institutions (which can be either banks, securities and derivatives dealers or investment funds) resulted in an increase in flows of loans and deposits within the financial sector. These flows

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (Deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (Investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (Deposits and technical reserves)	**Non-resident intermediaries** (Deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	5.3	4.0	4.8	0.0
Households	1.4	0.5	4.8	0.0
Non-financial corporations	0.5	0.1	0.0	0.2
General government	0.1	0.1	0.0	0.0
Financial corporations	3.3	3.2	0.0	-0.1
Non-residents	2.6	0.1	0.0	-
Total	7.9	4.0	4.8	0.0
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	139.9	37.8	54.4	32.3
Households	53.8	12.6	53.5	3.0
Non-financial corporations	15.1	3.7	0.8	0.5
General government	2.7	1.3	0.0	0.1
Financial corporations	68.3	20.2	0.0	28.7
Non-residents	40.3	0.9	0.2	-
Total	139.9	37.8	54.4	32.3
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-

Source: Banque de France, national financial accounts statistics.

replaced previous operations within the companies that did not appear in the reported data. For similar reasons, financial intermediaries were the main investors in the intermediaries of the rest of the world (89% of the amounts outstanding in 2000), and the rest of the world – which is widely represented in its financial operations with residents by financial intermediaries – was a significant investor in French MFIs (22.4% of the amounts outstanding in 2000).

Moreover, the development of investment funds created a stacking-up of financial intermediaries and also led to a large increase in flows of funds. In some cases, it could be said that funds were doubly or triply intermediated: life insurance corporations invested heavily in the mutual investment shares that constituted the reference for unit-linked benefits, which was greatly welcomed by households. Money market funds acquired the certificates of deposit issued by bank companies. The development of funds-of-funds made the mutual funds a significant owner of investment fund shares.

The household sector remained a prominent investor in MFIs (29.9% of the amounts outstanding in 2000) and in investment fund shares (32.7%), and was virtually the exclusive investor in insurance corporations (98.1% of the amounts outstanding in 2000). Its assets in foreign intermediaries also represented a significant proportion of the amounts outstanding invested by residents (9.3% in 2000). Non-financial corporations and the government sector play a lesser role as investors in intermediaries because their investments are more market-oriented (see Table 1).

The split of investments between the various intermediaries differed widely from one investing sector to the other, but there was a general decrease in the proportion invested in MFI instruments.

Households' intermediated assets were equally split in 2000 between insurance contracts (43.5% of the amounts outstanding) and broad money invested in MFIs (43.8%, of which 2.2% was invested in money market funds). Their other assets were investment fund shares (10.3%) and, to a small degree, deposits by foreign intermediaries (2.4%). However, this landscape is fast evolving in favour of more insurance contracts and fewer deposits with MFIs and money market fund shares: the average flow of investments in life insurance contracts between 1998 and 2000 amounted to 71.9% of households' acquisitions of financial assets, while the flow of investments in MFIs amounted to 20.3% (of which -1.4% was in money market funds). This movement, which began in the early 1990s, was partly caused by fiscal reductions and continued as a result of the success of unit-linked benefits and growing concern about pension financing. It is one of the main features in the evolution of the French financial landscape.

The intermediated assets of non-financial corporations were mainly invested with MFIs (75.1% of the amounts outstanding, of which 27.4% were in money market funds). Their remaining assets were investment fund shares (18.6%), insurance contracts (4.1%) and deposits by foreign MFIs (2.3%). The split also shifted quickly towards more fund shares, particularly money market fund shares (which represented 40% of the flows of non-financial corporations on average between 1998 and 2000), with fewer deposits. This was due to increasingly active cash management, as the remuneration of overnight deposits remained prohibited. The evolution of relative returns led to very large variations in both directions, which made it difficult to define a trend.

3.2 Monetary financial institutions (MFIs)

At the end of 2000, French MFIs made up 22.4% of the aggregated balance sheet of euro area MFIs (€3,737 billion), and were second in terms of size, just behind Germany. They collected

18% of deposits and granted 17.5% of loans vis-à-vis the euro area private sector, and had issued 54.2% of money market fund shares by the end of that year.

The structure of the aggregated balance sheet of French MFIs illustrates three distinctive features of their activity. First, the share of inter-MFI activities is greater in France than in the euro area as a whole: on the assets side, total financing to the MFI sector (loans and securities held and issued by the latter) amounted to 29.1%, compared with 26.6% in the euro area. In the same way, on the liabilities side, the deposits of euro area MFIs accounted for 26.4% of liabilities, compared with 22% in the euro area. This was due partly to heterogeneous access to financial resources, especially deposits and securities, within the banking sector, but also to the importance of trading activities (see below).

Second, the relative weakness of overnight deposits and deposits with agreed maturity held by non-MFI customers (respectively 7.2% and 9.5% of liabilities, compared with 9.9% and 12.2% in the euro area) can be at least partly explained by the fact that the French Banking Regulation still prohibits any remuneration of the former. Third, short-term marketable instruments, including in particular money market fund shares (which amount to 5.7% of liabilities in 2000, compared with about 2% in the euro area), are more important on account of their no-risk remuneration and their liquidity.

Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Incorporated enterprises limited by shares	306	280
Co-operative enterprises	124	153
Saving banks	34	0
Branches and subsidiaries of foreign institutions	317	328
Other credit institutions	692	593
Money market funds	690	660
Total	2,163	2,014

Source: Eurostat.
Note: The Eurostat definition differs from that of the Eurosystem, notably with respect to conglomerates. The figures in this table do not therefore correspond to those used to compute the ratios in Table 3.3, nor to the reporting population behind Table 3.4 (a and b).

3.2.1 Credit institutions

Within the MFI sector, credit institutions are prominent in terms of both the size of their balance sheets and their number. They account for more than 90% of the aggregated balance sheet of MFIs, although this proportion has declined slightly, standing at 93.7% in 2000, down from 94.4% in 1999 and 95% in 1998.

As shown in Table 3.2, the credit institution sector can be divided into three sub-categories:

Incorporated banks (or "incorporated enterprises"). The largest of these undertake all banking activities through a national network of branches. They are dominant in trading activities and transactions vis-à-vis non-financial corporations.

Co-operative banks (or "co-operative enterprises[1]"). These are composed of local entities owned by their customers and one central body which manages the banks. They are dominant in all banking business linked to households, farming and small businesses.

1 Until 1999, there was a fourth sub-group, "savings banks", but this has now been integrated into the second ("co-operative enterprises").

Specialised credit institutions (or "*sociétés financières*"). These are only allowed to undertake the type of banking activities provided in their licence. They cannot collect short-term deposits and thus have to refund themselves by issuing securities, including money market paper, or long-term deposits. They are very competitive in specific areas, such as consumer loans.

Incorporated and co-operative banks are the dominant players in the banking business and their market share is increasing: the share of incorporated banks in total assets increased from 54.2% in 1998 to 56.9% in 1999 and 57.7% in 2000, while that of co-operative enterprises grew from 28.3% in 1998 to 26.8% in 1999 and 27.7% in 2000. Furthermore, incorporated banks granted more than 49% of the amounts outstanding of loans at the end of 2000, while co-operative banks granted 37% (up from 27% in 1995). Similarly, banks and co-operative enterprises (including savings banks) are the main deposit raisers (with 40.3% and 58.2% of total deposits respectively).

Since the beginning of the 1990s, the French banking sector has been granted a "level playing field" for competition owing to the privatisation of the public banks. In the meantime, competition has increased in connection with the opening-up of national boundaries and with the global trend of disintermediation. Indeed, according to a calculation by the Banque de France, the intermediation rate, defined as the proportion of the outstanding amount of loans in the total indebtedness of non-financial agents, decreased from 52.1% in 1995 to 42.1% in 2000. The structure of the French banking sector has adjusted to this new environment. This is reflected in the fall in the number of credit institutions. With the exception of entities owned by foreign institutions, the numbers of credit institutions in all sub-categories have fallen (see Table 3.2). Since 1989, the number of institutions in the French banking sector has decreased by more than 1000, a decline of 52%. This has particularly affected co-operative enterprises and, to a lesser extent, incorporated banks. It is the result partly of the streamlining of the local structure of co-operative banks but also of important mergers (both domestic and cross-border) within the incorporated bank sector. For instance, in 2000 BNP and Paribas merged and thus became a single entity. The takeover of Crédit Commercial by the HSBC Group gave the French banking sector a more international dimension. In general, foreign banks own significant and growing market shares in France: for example, at the end of 2000 they held 12.9% of loans granted to non-financial customers, up from 6.1% in 1999 and 4.6% at the end of 1997.

A further significant development in the French banking sector is the marked disengagement of the general government, which began in the mid-1980s. This resulted in the privatisation of 73 banks between 1986 and 1988 and 14 banks between 1993 and 1994. Consequently, the number of institutions owned by general government fell considerably during the 1990s (there were five at the end of 2000, down from 59 in 1992).

As a result of all these factors, the concentration of the French banking system has increased since the early 1990s, as reflected by the upward development of the Herfindahl index and the share of total assets of the five largest credit institutions (see Table 3.3). The share of the five largest credit institutions reached 46.9% in 2000, from 38.7% in 1993 and 40.7% in 1998. However, the concentration of the collection of deposits, which is traditionally high in France, has declined somewhat since 1998 (the Herfindahl index for this activity reached 0.1477 in 2000, down from 0.1535 in 1998). Nevertheless, the concentration of the French banking sector seems to be comparable to that of the euro area as a whole.

An analysis of the structure of the credit institutions' aggregated balance sheet shows two significant changes in their activities in the long run: a growing share of market-based financing to the detriment of intermediated financing, and an increasing openness to non-residents, both inside and outside the euro area. With regard to the first development, the growth of securities other than shares issued by non-MFI customers (excluding general government) in the assets of credit institutions has been very strong in recent years (+27.9% between 1998 and 2000). Similarly, shares and other equities held by credit institutions grew very sharply between 1998 and 2000 (+42.8%). At the same time, on the liabilities side, the growth rate of securities issued was higher than that of deposits (+12.3% and +10.6% respectively).

The market activities of credit institutions expanded through off-balance sheet products at the end of 2000, while the amount outstanding of forward market instruments increased by more than 20%, equal to six times the balance sheet total of credit institutions.

As regards the increased openness to non-residents, this affects almost all areas of credit institutions' aggregated balance sheets, especially shares and equities, but also intermediated activities (loans and deposits). At the end of 2000, 8.3% of loans to non-MFIs were granted to non-residents (euro area and non-euro area) and 7.2% of deposits, up from 5.8% and 5.7% respectively in 1996.

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.05	0.06
Top 5's share of total assets (%)	40.7	46.9
Average size of top 5 (EUR millions)	265,792.3	350,494.5
Average size of all banks (EUR millions)	2,790.8	3,453.4

Source: ECB calculations based on data from Banque de France.

3.2.2 Money market funds

Money market funds began to expand in the early 1980s, in connection with the liberalisation of interbank and money markets in the mid-1980s, which allowed them to offer an alternative to the – at that time – largely regulated deposits. Indeed, the remuneration of the latter was either prohibited (overnight deposits) or adjusted to changes in market rates with a long delay (passbook accounts were included in the category "deposits redeemable at notice").

The main holders of money market fund shares are non-financial corporations (44% of the total at the end of 2000), insurance corporations (24% of the total at the same date), and households and NPISHs (30% of the total).

At the end of 2000, money market funds accounted for 6.3% of the aggregated balance sheet of MFIs and 21.6% of their holdings of securities other than shares. Their liabilities consisted almost exclusively of money market fund shares (91.1% at the end of 2000, compared with 96.1% in 1998 and 1996). More than 50% of their assets were securities other than shares (mainly commercial paper), while 25% were money market paper.

Table 3.4a: Aggregated (non-consolidated) balance sheet of credit institutions

(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Cash	0.1	0.1
Loans	70.9	69.4
to domestic MFIs	24.8	23.0
to other domestic residents	32.5	33.3
of which < 1y original maturity	5.4	6.2
of which 1y < orig. mat. < 5y	4.8	4.9
of which 5y < orig. mat.	18.5	18.8
to other euro area residents	3.8	4.2
to non-euro area residents	9.8	8.9
Securities other than shares	14.6	12.6
issued by domestic MFIs	2.7	2.3
short term (< 1y)	0.5	0.4
long term (> 1y)	2.2	1.8
issued by other domestic residents	7.4	5.3
short term (< 1y)	0.1	0.3
long term (> 1y)	0.9	0.9
issued by other euro area residents	2.3	2.5
issued by non-area residents	2.2	2.4
Shares and other equity	5.0	6.3
issued by domestic MFIs	1.4	2.0
issued by other domestic residents	2.6	2.7
issued by other euro area residents	0.4	0.6
issued by non-euro area residents	0.5	0.9
Fixed assets	0.8	0.8
Remaining assets	8.6	10.8
Total assets	100	100
Liabilities		
Deposits	67.8	66.3
from domestic MFIs	25.9	24.1
from other domestic residents	27.9	25.9
overnight deposits	7.0	7.5
other deposits	20.5	18.1
from other euro area residents	4.7	4.6
from non-euro area residents	9.3	11.7
Money market fund shares/units	-	-
Securities other than shares	14.4	14.3
short term (< 1y)	-	-
long term (> 1y)	-	-
Capital & reserves	6.8	7.1
Remaining liabilities	11.0	12.2
Total liabilities	100	100
Total assets/liabilities as a % of GDP	237.5	249.3

Sources: ECB and Banque de France.

Table 3.4b: Aggregated (non-consolidated) balance sheet of money market funds
(as a % of total assets/liabilities; end of year)

Assets	1998	2000
Loans	50.4	42.1
to residents	16.8	14.0
to other euro area residents	-	-
to non-euro area residents	-	-
Securities other than shares	48.9	47.7
issued by residents	37.2	28.7
issued by other euro area residents	5.5	3.3
issued by non-euro area residents	6.3	15.7
Remaining assets	34.3	38.1
Total assets	100	100
Liabilities		
Money market fund shares/units	96.1	91.1
Remaining liabilities	3.9	8.9
Total liabilities	100	100
Total assets/liabilities as a % of GDP	12.5	16.7

Source: Banque de France.

3.3 Other financial intermediaries (OFIs)

In France, OFIs mainly cover general investment funds, but also securities and derivatives dealers and financial corporations engaged in lending. The most important sub-group in both number and size is general investment funds (96.4% of the total number of OFIs and 77.3% of their aggregated balance sheet at the end of 2000).

In 2000, the strong growth of general investment funds continued, with their balance sheet increasing by 14.2% between 1999 and 2000, and by 25% between 1998 and 1999. On the assets side, investment funds mainly hold shares (which represent about half of their assets), securities (30%) and, to a more limited extent, money market paper (4.9%).

Of these, mixed funds are the most important, both in number and in asset size (36.8% at the end of 2000), followed by equity funds (33.4%), bonds funds (23.6%) and guaranteed funds (6.2%). All sub-groups of general investment funds expanded between 1998 and 2000 in terms of both number and size, with the exception of bond funds, whose balance sheet declined over the period. Equity funds grew at the fastest pace, doubling their balance sheet between 1998 and 2000, followed by mixed funds (+64.8%). This growth was linked to the considerable development of the stock markets during that period.

Finally, the assets of investment funds increasingly include securities and shares issued by non-residents, both inside and outside the euro area, as is the case for credit institutions. In 2000, 40% of investment funds' holdings of securities and 36% of their shares were issued by foreign agents, up from 31.5% and 32% respectively in 1998.

The other sub-groups included in OFIs are securities and derivatives dealers and financial corporations engaged in lending. These two categories have not developed the same way. Whereas financial corporations engaged in lending have noticeably declined since 1998 (their balance sheet decreased by 0.7% in 2000 and 9% in 1999), securities and derivatives dealers thrived over the same period, with annual growth above 80% in 1999 and 2000.

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Investment funds**	**Other OFIs**	**Investment funds**	**Other OFIs**
Deposits	6.8	69.2	4.1	43.4
with residents	-	-	-	-
with non-residents	-	-	-	-
Securities other than shares	43.9	19.1	33.0	27.7
issued by residents	30.1	0.0	19.7	0.0
issued by non-residents	13.8	0.0	13.4	0.0
Shares and other equity	31.7	0.4	41.4	0.3
issued by residents	21.6	0.0	26.5	0.0
issued by non-residents	10.2	0.0	14.9	0.0
Remaining assets	17.6	11.3	21.4	28.6
Total assets	100	100	100	100
Liabilities				
Mutual fund shares	91.6	68.6	93.7	62.4
Remaining liabilities	8.4	31.4	6.3	37.6
Total liabilities	100	100	100	100
Total assets/liabilities as a % of GDP	-	-	-	-
Number of OFIs				
Investment/mutual funds	-	9,638	-	10,394
Securities and derivatives dealers	-	159	-	163
Financial corporations engaged in lending	-	273	-	225
Other institutions	-	0	-	0
Total	-	10,070	-	10,782

Source: Banque de France.

3.4 Insurance corporations and pension funds (ICPFs)

In 2000, there were 527 insurance corporations in France, 97 of which were life insurance corporations. The top ten French insurance groups collect 68% of the premiums. The concentration is slightly higher with regard to life insurance. These figures are broadly comparable to the European market.

The development of households' investment in life insurance has been one of the main features of recent years. Technical reserves represented 70.2% of GDP in 2000, compared with 41.4% in 1995. Owing to fiscal reductions and growing concerns about the future of pension financing, life insurance corporations became banks' main competitor in the collection of household savings. In the 1998-2000 period, 64% of households' financial acquisitions were life insurance contracts, compared with 18.7% in MFIs. However, the success of life insurance is quite new, and is partly due to the growth in market assets valuation and low monetary interest rates. Thus, in terms of shares, insurance contracts represent only 23.3% of households' holdings, the same figure as for MFIs.

Insurance corporations have invested primarily in securities. However, the success of unit-linked benefits has led to a recent increase in investment in equity funds, and the assets of insurance corporations have rapidly evolved over the past few years. In 1995 securities other than shares accounted for 57.3% of the balance sheet total, while shares and other equities accounted for 28.0%. The corresponding figures were 45.2% and 46.1% respectively in 2000, partly on account of valuation effects.

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	-	1.9	-	1.6
with residents	-	-	-	-
with non-residents	-	-	-	-
Securities other than shares	-	53.9	-	45.2
issued by residents	-	-	-	-
issued by non-residents	-	-	-	-
Shares and other equity	-	35.3	-	46.1
issued by residents	-	-	-	-
issued by non-residents	-	-	-	-
Fixed assets	-	-	-	-
Remaining assets	-	8.9	-	7.1
Total assets	-	100	-	100
Liabilities				
Technical reserves	-	79.0	-	77.8
Remaining liabilities	-	21.0	-	22.2
Total liabilities	-	100	-	100
Total assets/liabilities as a % of GDP	-	60.0	-	70.0
Number of pension funds and insurance corporations				
Pension funds	-	-	-	-
Insurance corporations	-	-	-	-

Sources: National financial accounts statistics and FFSA Annual Report.

4 Markets

French households held only a few securities other than shares directly (3.3% of the amounts outstanding of securities issued by residents and 0.7% of those issued by non-residents in 2000). In France, securities other than shares were mainly held by financial institutions (61.1% of the amounts outstanding of securities issued by residents and 81.0% of those issued by non-residents in 2000) and the non-resident sector (28.0% of the amounts outstanding of securities issued by residents in 2000 compared with 18.8% in 1995), particularly in the case of public bonds. Transaction figures are less stable, but they point more or less in the same direction. However, they also show that non-financial corporations were very active on the foreign security market, buying in 1999 and selling in 2000.

Greater international integration has affected investment, as resident investors hold increasing amounts of foreign securities other than shares: these represented 1.9% of their market assets in 1995 and 4.6% of GDP; these figures increased to 4.3% and 23.3% respectively in 2000. Financial institutions were the main investors in foreign security markets (80.1% of the amounts outstanding owned by residents) followed by non-financial corporations (19.1%).

Shares and other equities issued by residents were equally split between holding sectors: households, non-financial corporations and the non-resident sector each held around a quarter of the shares and other equities issued by residents. The share of financial corporations was slightly lower (21.7%), leaving 2.8% for the general government sector. At three times GDP, the total amount of shares and other equities issued by residents was larger than the amount of securities other than shares.

Flows in market assets show a large variation in the proportion of transactions initiated by the various sectors. Households initiate only a very small share of the buying or selling of shares and other equities issued by residents (5.2% on average between 1995 and 2000). Their large shareholdings are the result of a lengthy process of accumulation. Financial corporations and the non-resident sector are the main initiators of activity in the markets (accounting for 43.3% and 66.6% respectively of transactions in shares and other equities issued by residents in 2000, while the figures for transactions in securities other than shares issued by residents were 82.9% and 17.6%). However, financial corporations were also active as sellers of shares issued by residents (-12.3% of the transactions between 1995 and 2000) and buyers of shares issued by non-residents (71.6% of the transactions between 1995 and 2000).

The equity market has moved quickly towards greater international integration: shares owned by non-residents represented 22.2% of all shares issued by residents and 23.0% of GDP in 1995; these figures reached 25.8% and 76.5% in 2000. Shares issued by non-residents represented 10.4% of resident holdings in 1995 and 25.4% of GDP, with the figures increasing to 15.1% and 81.6% respectively in 2000. The main holders of foreign shares were non-financial corporations (71.6% of all foreign shares owned by residents and 59.8% of GDP in 2000), generally within the framework of an industrial or market-oriented project. Some large acquisitions made in 1999 and 2000 pushed up these figures (see section 1.2).

4.1 The bond market

During the 1990s, bond market developments reflected the increase in market-oriented financing at the expense of intermediation-oriented financing. The recent evolution of total domestic debt[2] emphasises this phenomenon. The share of financing through debt securities in total domestic debt reached 38.7% in 2000, up from 36.9% in 1997 and 31.9% in 1994. In particular, the "titres de créance négociables" (negotiable debt securities) segment has been marked by considerable growth since its creation in 1985, on account of a deliberate liberalisation policy and the increase in the number of new and very effective instruments. Moreover, the liberalisation of the conditions of issue in 1999 and a contingent rise in the number of foreign holders led to higher growth.

The bond market is characterised by the prominence of the general government as an issuer, although this sector's importance is decreasing slightly as the private sector becomes more significant.

In 2000, the total amount of bonds issued reached €112.9 billion, while the amount outstanding of marketable debt securities was €276.4 billion.

2 Total domestic debt is an aggregation of the total indebtedness of non-financial residents vis-à-vis residents and non-residents in the form of loans or issuance of debt securities on capital markets. This indicator therefore excludes financing through the issuance of shares.

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	2.2	31.6	8.2	5.2
Households	0.2	-0.2	0.2	0.0
Non-financial corporations	-0.8	0.0	5.9	1.3
General government	0.0	0.0	0.0	0.0
Financial corporations	2.9	31.8	2.1	3.9
Non-residents	4.4	6.7	-	-
Total	6.6	38.3	8.2	5.2
Holdings (Amounts outstanding, end-2000)				
Resident sectors	219.7	100.5	81.6	23.3
Households	74.6	4.6	1.6	0.2
Non-financial corporations	73.2	8.6	59.8	4.5
General government	7.6	2.0	0.3	0.0
Financial corporations	64.4	85.3	19.9	18.7
Non-residents	76.5	39.1	-	-
Total	296.2	139.6	81.6	23.3

Source: Banque de France, national financial accounts statistics.

4.1.1 The primary market: issuance

On the primary market, the general government remains the main issuer and even increased its share by the end of the period under review. The amount of debt securities (bonds and short and medium-term marketable instruments) issued by general government reached 52.1% of total issuance in 2000, or €650.7 billion, compared with 52.2% at the end of 1998 and 43.7% in 1994. Whereas the issuance of government bonds decreased in 2000 (net issuance decreased by 24% by comparison with 1999), that of negotiable debt securities grew significantly (+€9 billion by comparison with 1999). In 2000, the structure of debt securities issued by the general government shifted significantly towards treasury bonds *(bons du Trésor à taux fixe* (BTF; fixed-rate Treasury bills) and *bons à terme annualisés).*

The amount of debt securities issued by non-financial corporations expanded considerably over the second half of the 1990s: while non-financial corporations accounted for 15% of total issuance at the end of 1994, by 2000 this proportion had increased to 18.8%, or €235.1 billion. Bond issuance strengthened significantly between 1998 and 2000 (by about 100%), in connection with the sharp increase in the need for financing arising in particular from M&A activity. With regard to short and medium-term marketable instruments, non-financial corporations' issuance was concentrated on commercial paper[3] *(billets de trésorerie):* the total

3 Only non-financial corporations are allowed to issue this kind of instrument.

issuance of such instruments rose by 62% in 2000 by comparison with 1999, and reached €699 billion. This market is one of the most open to non-resident non-financial corporations, which represented 43% of the annual issuance on this market at the end of 2000.

MFI issuance on the debt securities primary market accounted for 29.1% of total issuance at the end of 2000. On the bond primary market, this sector accounted for 28.2% of total issuance (+9% by comparison with 1998). This significant growth mainly reflects the success of *obligations foncières* (Pfandbrief-style products): these were launched in 1999, and are backed by mortgages and public guaranties. These products represented 41.5% of the total issuance of bonds by MFIs.

Debt securities issued on the primary market generally have an original maturity of over one year. For negotiable debt securities, however, the maturity at issue is mainly one year or less, because of the prominence of commercial paper and certificates of deposit. By contrast, the issuance of products with a longer maturity has decreased steadily (this is particularly true of medium-term negotiable bonds).

On the negotiable debt securities market, the main instrument in terms of amounts outstanding is certificates of deposit, which accounted for 49.5% of the total in 2000, increasing slightly by comparison with 1998 (47.7%). The proportion of commercial paper, though lower, increased significantly over the period (accounting for 20.7% of the total in 1998, 21.7% in 1999 and 28.5% in 2000). By contrast, the share of medium-term negotiable bonds declined steadily (from 31.6% in 1998 to 22.3% in 2000).

Generally speaking, MFIs are the largest investor in negotiable debt securities. As regards certificates of deposit, non-financial corporations remain the principal investors. Despite remaining small, the share of non-resident investors has gradually increased, especially with regard to commercial paper.

4.1.2 The secondary market: organisation and integration

Over the period 1998-2000, the secondary market of debt securities in France was characterised by a high level of transactions and an increase in non-resident participants.

Bond market capitalisation decreased between 1998 and 2000 by 7% to stand at €702 billion at the end of 2000. Government bonds *(OAT; Obligations assimilables au Trésor)* make up the largest share of holdings, and represented 57.8% of total holdings at the end of 2000, up from 55% in December 1998 and 53.7% at the end of 1997.

Non-residents' share of French bonds increased significantly. Having stood at 8.6% in December 1997, it reached 20.7% at the end of 2000. Their holdings of government bonds rose from 11.1% in December 1997 to 16.2% at the end of 1998 and 27.9% at the end of 2000. This large increase reflects the opening-up of the French financial market to foreign investors.

On the residents' side, the main investors in French bonds are insurance corporations (40.3% of holdings in 2000, down from 43% at the end of 1998), credit institutions (15.5% from 18.2%) and investment funds (15.0% from 12.7%). The decreases in investments of insurance corporations and credit institutions have been offset by the strong rise in non-residents' holdings.

4.2 The stock market

In September 2000, the Paris stock exchange merged with the Amsterdam and Brussels exchanges to form Euronext. By the end of 2000, the market capitalisation of this entity had reached €2,420 billion (the largest in the euro area and the second largest in the EU). There were 1,653 listed public companies on these three markets, of which 437 were foreign. Within this new entity, the Paris stock exchange accounted for 64% of the market capitalisation and 58% of the number of public companies at the end of 2000.

4.2.1 The primary market

The Paris primary stock market took advantage of the considerable growth that marked financial markets between 1998 and 2000. The gross amount of capital raised by public companies increased by 36.2% over the period, and by 67.4% by comparison with 1996. Issues of quoted shares increased considerably between 1999 and 2000 (+88%) as well as between 1996 and 2000 (+147.7%).

In recent years, the market capitalisation of quoted shares has expanded strongly, increasing by 82.5% between 1998 and 2000, and by 313.3% between 1995 and 2000.

The primary stock market is also characterised by greater concentration: the share of the top ten companies in the total market capitalisation reached 46.2% in 2000, up from 38.8% in 1998.

The launch of the single currency in 1999 resulted in the convergence of European financial markets, which has strengthened the competition between issuers. The amount of capital raised by public companies on the Paris primary market rose considerably in 2000, because the conversion of capital into euro was often combined with an increase in capital.

4.2.2 The secondary market

Over the past few years, the secondary market of Paris has benefited from the considerable boom that affected stock markets in general, in spite of volatility and downward movements of stock indexes. The total turnover of traded shares almost doubled between 1998 and 2000. The Paris secondary market has taken advantage both of the globalisation of transactions in equity and of the large increase in popular ownership, which is a very recent characteristic of French capital markets.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies	962	966
Number of non-listed companies	-	1,100,000
Market capitalisation of listed shares (as a % of GDP)	64.7	108.7
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	3.8	4.7
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	-	-
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	9/80	8/80
Concentration indices (top ten companies' share of total market capitalisation) (%)	38.8	46.2
Number of foreign companies listed	183	158
Number of stock exchanges and other organised exchanges	6	6
Number of participants in these markets	984	966
Share of non-domestic participants (%)	18.50	16.40
Number of transactions of traded shares	44830	49040
Total turnover of traded shares (% of GDP)	932,170	1,176,000

Sources: Euronext Paris, STOXX Limited.

In 2000, market capitalisation developed in every segment: *premier marché* (official quotation), *second marché* (other shares) and *nouveau marché* (new technologies). The latter has expanded particularly strongly over the last few years and has the highest annual growth rate of capitalisation of the three markets: +60% in 2000 (compared to 1999) and +248.8% in 1999. By comparison, the growth rates of the capitalisation of the *premier marché* and the *second marché* were lower in 2000 (+2.3% and +12.5% respectively, down from +79.6% and +23.4% in 1999).

5 Financing

5.1 Non-financial corporations

During the 1998-2000 period, the net savings and net capital transfers of non-financial corporations financed on average 93.3% of their real investments and inventory increases. Their external finance – which was 1.37 times as high as internal finance, close to the euro area average – was largely oriented towards financial investments such as the acquisition of equities in foreign companies. French non-financial corporations can therefore be seen to have widely favoured external growth.

Regarding the type of financial resources, the picture given by the flows is not very different from that given by outstanding amounts. French non-financial corporations mainly relied on market liabilities, either shares (49.4% of their external finance on average in the period 1998-2000, compared with 34.8% in the euro area as a whole) or debt securities

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	6.0	278.5
Securities other than shares incl. financial derivatives	1.2	17.6
of which short-term bonds (<1y)	1.0	6.0
of which long-term bonds (>1y)	0.8	10.3
Loans	3.5	50.3
from resident MFIs	1.9	35.9
of which short-term (<1y)	0.4	11.0
of which long-term (>1y)	1.4	24.9
from resident OFIs	0.1	2.8
from other resident sources	-0.1	2.0
from non-residents	1.6	9.4
Trade credits and advances	1.4	34.7
Other liabilities	-1.0	3.8
Total liabilities	11.1	385.6
Internal financing		
Gross savings	7.5	-
Net savings	7.5	-
Net capital transfers	0.6	-

Source: Banque de France, national financial accounts statistics.

(10.3% of their external finance compared with 5.3% for the euro area average), while loans played a more modest role (28.8% of external finance compared with 49.2% for the euro area average) as a result of the long-term disintermediation process described above. Moreover, the growth of share issuance was constant during the past few years, while debt, intermediated or non-intermediated, fluctuated with the investment rate.

5.2 General government

The average flows of the government sector's external finance in the 1998-2000 period also confirm the picture given by outstanding amounts: its loans decreased sharply as securities and credit granted within the general government sector rose. For outstanding amounts, the proportion of securities other than shares in total liabilities was very close to the euro area average (72.5% compared to 71.4% in the euro area), but it was considerably higher for flows (131% compared to 100% in the euro area), owing to some loan reimbursements. One reason for this was that the Post Office changed the way it manages the deposits it receives from households. They had previously been deposited with the Treasury, but are now managed by two investment funds (one money market fund and one bond fund) of the French Post Office. Reliance on debt securities will probably continue to increase over the next few years, as the French Treasury has decided to manage public debt more actively. In 2001 it created the "Agence France Trésor" for this purpose, which is entitled to use derivatives and swaps.

The maturity of debt securities was fairly long: short-term bills represented 29.4% of the debt, while long-term bonds accounted for 70.6%. The debt securities, both short-term and long-term, issued by the government were largely held by non-residents (see Table 4.1). This was not the case for loans (only 5.6% of total loans were granted by non-resident MFIs).

Table 5.2: Financing and financial balance of general government

(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits		
Securities other than shares incl. financial derivatives	2.5	49.3
of which short-term bonds (<1y)	0.1	14.5
of which long-term bonds (>1y)	2.4	34.8
Loans	-0.8	11.2
from resident MFIs	-0.3	8.2
of which short-term (<1y)	-0.3	0.6
of which long-term (>1y)	0.0	7.6
from resident OFIs	-0.2	0.4
from other resident sources	0.2	6.5
from non-residents	0.0	0.6
Other liabilities	0.1	7.5
Total liabilities	1.9	68.0
Internal financing		
Gross savings	1.8	-
Net savings	1.8	-
Net capital transfers	1.0	-

Source: Banque de France, national financial accounts statistics.

5.3 Households

Households' external finance in the 1998-2000 period was, on average, 21.4% of their savings. This was a typical situation for a sector that financed the whole economy. In fact, during the 1995-2000 period, the financial assets held by households grew by 12%, which is higher than the growth of the total assets held by households, including non-financial assets. In 2000, financial assets represented 52% of their total assets. Another feature of households' assets is the fact that they became increasingly long-term between 1995 and 2000. Among these longer-term assets, shares, general investment fund shares and insurance contracts grew more rapidly than real estate, the traditional longer-term assets of households. This was due partly to strong valuation effects.

Households' liabilities are exclusively made up of loans. These loans, including loans granted by the non-financial sector to own-account workers, amounted to less than 20% of their total financial assets in 2000. Housing loans played a major role (54.7% of their total liabilities), and generally had a maturity of more than five years (97.9% of housing loans). Within that category, subsidised loans became marginal, despite the recent creation of a "0% loan". Consumer loans acquired a significant share (16.5% of households' total liabilities in 2000 and 32.4% of the average flows in 1998-2000). However, they were probably used in part to acquire financial assets.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans		
Loans from resident MFIs	1.7	37.3
of which short-term (<1year)	-	-
of which long-term (>1year)	-	-
Consumer loans	0.7	7.9
< 1y original maturity	0.2	1.2
1y < orig. mat. < 5y	0.3	4.8
5y < orig. mat.	0.2	2.0
Housing loans	1.2	21.3
< 1y original maturity	0.0	0.1
1y < orig. mat. < 5y	0.0	0.6
5y < orig. mat.	1.2	20.5
Other loans from resident MFIs	-0.2	4.4
Other loans from resident lenders	0.3	4.8
From non-residents	-0.1	3.6
Other liabilities	0.5	7.3
Total liabilities	2.5	53.0
Internal financing		
Gross savings	10.0	-
Net savings	10.0	-
Net capital transfers	0.2	-

Source: Banque de France, national financial accounts statistics.

5.4 Flow of funds abroad

Financing to the rest of the world was characterised by the prominence of the acquisition of debt securities (42.7% of the average flows in 1998-2000 compared with 30.6% in the average euro area country), which came close to the acquisition of shares (45.2% compared with 42.9% in the average euro area country). As the acquisition of shares stabilised (at 47.8% of the amounts outstanding in 2000), the acquisition of securities continued to increase (to reach 24.1% of the amounts outstanding in 2000).

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	2.7	41.5
Shares	4.3	77.5
Securities other than shares	6.5	39.1
Other financial assets	2.1	16.3
Total financial assets	15.5	174.4
Liabilities of non-residents		
Deposits	0.0	32.3
Securities other than shares	7.6	42.2
of which short term (<1 year)	3.1	16.1
of which long term (>1 year)	2.6	18.9
Loans	2.1	17.1
of which granted by financial institutions	0.0	0.0
Shares and other equity	8.1	83.9
of which held by financial institutions	0.0	0.0
Other liabilities	0.1	34.4
Total liabilities	18.0	209.9

Source: Banque de France, national financial accounts statistics.

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Ireland

1 Main features of and recent developments in the Irish financial system

The Irish economy has grown at a substantial annual growth rate for several years. This rapid economic growth has been accompanied by sizeable increases in credit to households and firms and in residential property prices. Owing to a lack of financial accounts data, it is difficult to describe, in a holistic manner, the distribution of market versus bank-oriented financial instruments across the various economic sectors. The Central Bank of Ireland has undertaken to compile these data so that future analyses will not be limited by the lack of these data. Nevertheless, the available data from harmonised banking statistics and national statistics permit a reasonable level of analysis.

On the basis of the available data, the main channel through which intermediation takes place is the banking system. In this respect, Ireland has a two-strand banking system: the first strand is made up of a few large domestic credit institutions conducting business mainly with residents; the second strand consists of other domestic banks and branches or subsidiaries of foreign banks with mainly non-domestic business.

Non-bank intermediation is also an important route through which funds are intermediated, though banks remain the principal intermediary. The number and size of money market funds and other investment funds has grown dramatically over a number of years. The majority of investors in these funds are non-domestic. The main focus of non-bank domestic financial intermediation is through pension funds and insurance corporations.

A significant rebalancing of pension funds' investment portfolios has occurred since the start of Stage Three of EMU, from domestic equities and bonds to other euro area and rest of the world assets. This was mainly due to the elimination of exchange rate risk and the ability to diversify portfolios in a larger capital market with a view to eliminating excessive home bias.

The domestic bond market is small in comparison with other euro area countries. Owing to rapid economic growth, budgetary surpluses and the accompanying reduction in the government debt to GDP ratio have been some notable features of the public finances. In this respect, a decline in the total outstanding amount of debt, a consolidation in the number of issues, and a switch to shorter maturities in order to increase liquidity have been salient features of the government bond market. In common with the bond market, the stock market is relatively small in euro area terms and is very highly concentrated. At the end of 2000, the top ten companies accounted for over 85% of the market by capitalisation.

At first glance, it appears that market-based financing (i.e. equity) is more important than bank financing for the corporate sector. However, this is not the complete picture; owing to the very concentrated nature of the equity market two of the largest corporates account for nearly half of the outstanding issuance. If these are excluded, bank loans are more important for the remaining listed firms.

Legislative, fiscal, regulatory and market forces shape the Irish financial system. For instance, Ireland has the only English common law-based legal system in the euro area. The existence of trust structures in legislation has, combined with taxation measures, facilitated the development of securitisation as a balance sheet management tool for banks.

Moreover, the presence of a large number of foreign banks in Ireland appears to have accelerated the process of financial innovation. Similar to the structure of the real economy, the Irish financial system is integrated substantially into the European and global economies, with a relatively large proportion of loans granted to and deposits coming from other euro area countries and the rest of the world.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediation-oriented and market-oriented instruments
(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (deposits, [2] technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (shares and securities other than shares)	**Intermediated** (loans) [3]	**Non-intermediated** (shares [4] and securities other than shares)
Resident non-financial sectors	54.9	.	72.7	69.2
Households	33.1	.	38.9	.
Non-financial corporations	19.2	.	33.5	48.2
General government	2.5	.	0.3	21.1
Non-residents [1]	204.1	.	109.6	.
Total	259.0	.	182.3	.

Source: Central Bank of Ireland.
1) Whereas the assets and liabilities of the resident non-financial sectors are with respect to both residents and non-residents, the assets and liabilities of the non-residents are only vis-à-vis residents.
2) Includes only deposits with resident credit institutions and money market fund shares.
3) Loans vis-à-vis resident credit institutions only.
4) Quoted shares only.

2 Origin of flows

From the available data outlined above, it can be seen that in terms of outstanding amounts, households hold the majority of deposits while also being the most indebted to intermediaries of the three resident non-financial sectors. Non-financial corporations also hold a significant amount of intermediated debt but market-oriented liabilities, in the form of quoted shares, were more important for non-financial corporations at the end of 2000 (see also sub-section 5.1).

3 Intermediaries

3.1 Channelling of funds through intermediaries

Credit institutions are the main entities in terms of balance sheet size through which funds are intermediated. The funds intermediated by these institutions are equivalent to about 340% of GDP. Investment funds are growing in importance in terms of numbers and asset size (see sub-section 3.3). The majority of investors in Irish investment funds are located outside the euro area. The importance of insurance corporations and pension funds is also increasing.

Table 3.1: Acquisitions of financial assets in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (deposits and technical reserves)	**Non-resident intermediaries** (deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	-	-	-	-
Households	-	-	-	-
Non-financial corporations	-	-	-	-
General government	-	-	-	-
Financial corporations	-	-	-	-
Non-residents	-	-	-	-
Total	-	-	-	-
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	108.5	-	-	-
Households	33.1	-	-	-
Non-financial corporations	19.2	-	-	-
General government	2.5	-	-	-
Financial corporations	53.6	-	-	-
Non-residents	204.1	-	-	-
Total	312.6	-	-	-
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	20.3	-	-	-

Source: Central Bank of Ireland.

3.2 Monetary financial institutions (MFIs)

3.2.1 Credit institutions

At the end of 2000, there were 82 credit institutions. There has also been some consolidation since 2000 as the government has sold its shareholdings in some credit institutions.

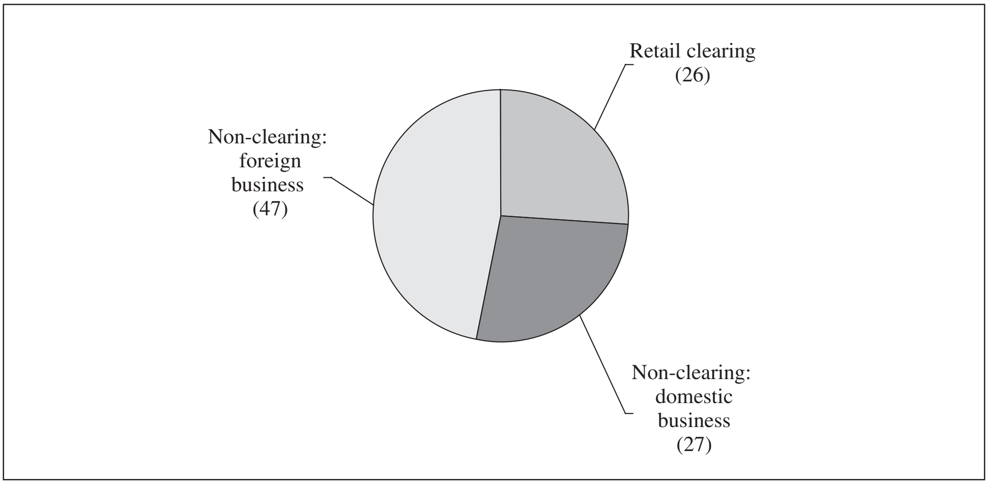
Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Banks limited by shares	.	.
Co-operative banks	.	.
Saving banks	.	.
Branches and subsidiaries of foreign institutions	.	.
Other credit institutions	.	.
Money market funds		133
Total	78	215

Source: Central Bank of Ireland.

The banking system consists of two main categories of institutions: (i) clearing banks plus non-clearing domestic banks with a primarily domestic business orientation; and (ii) branches or subsidiaries of foreign banks with a mainly non-domestic business focus. Clearing banks are banks that have a role in the settlement of non-cash retail payments. Non-clearing banks with a domestic focus are institutions whose main business is conducted domestically, while non-clearing banks with predominantly foreign business concentrate on

Chart 1a: Total assets of credit institutions
(amounts per category as a percentage of total, end-2000)



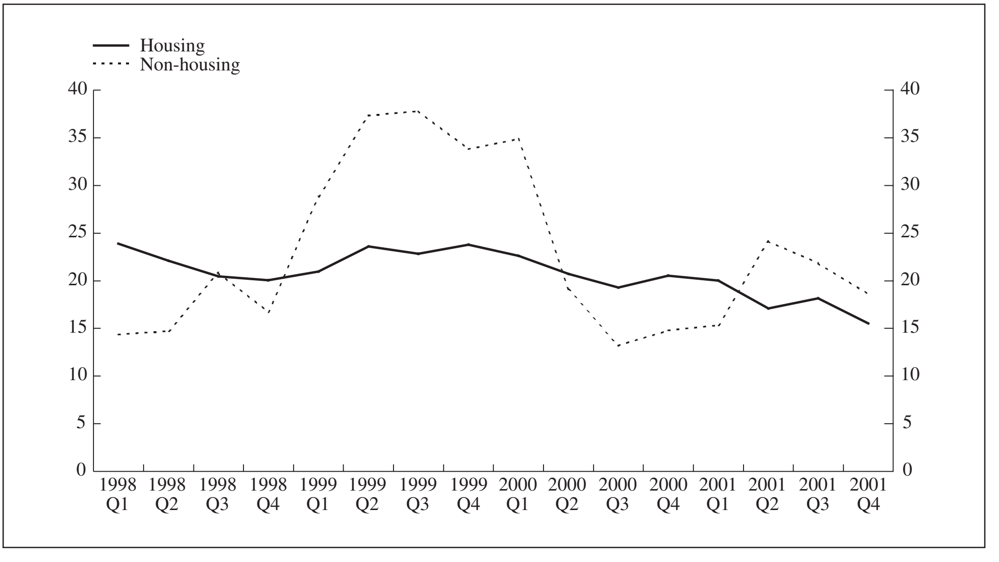
Source: Central Bank of Ireland.

international banking markets both inside and outside the euro area.[1] This international orientation is due to the Dublin-based International Financial Services Centre (IFSC) and also a tradition of foreign bank presence in Ireland. As shown in Chart 1a, at the end of 2000 the split was 53% for domestic clearing banks (26%) and non-clearing banks with mainly domestic business (27%), and 47% for non-clearing banks with predominantly foreign business.

There has been dramatic growth in private sector credit granted by credit institutions in recent years. Over the period 1995-2000, the annual average growth in this aggregate was a little over 20%. The main component of this aggregate was personal sector credit, which includes credit for house purchase and other non-housing credit (see also sub-section 5.3). Both had grown and then moderated by the end of 2000, as can be seen from Chart 2a.

Chart 2a: Housing and non-housing credit

(annual percentage changes, quarterly data)



Source: Central Bank of Ireland.

Irish banks are profitable and well capitalised with a relatively high return on equity. They have become more efficient with operating expenses declining as a percentage of gross income. New entrants into certain markets, such as the mortgage market, have increased competition and reduced margins in these segments. Margins, though declining over the past few years, remain relatively high.

Concentration measures indicate that the banking market is relatively unconcentrated. This is primarily due to the large number of foreign banks and to measurement issues. The Herfindahl index and the top five banks' share of the sector's total assets indicate a relatively unconcentrated banking system compared with other euro area countries such as the Netherlands and Finland. However, measurement issues relating to the structure of the

1 See also the "Ireland" country chapter in the ECB publication "Payment and securities settlement systems in the European Union" ("Blue Book", June 2001).

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.0473	0.0486
Top-five's share of total assets (%)	40.1	41.1
Average size of top-five (EUR millions)	14,819.8	29,216.8
Average size of all banks (EUR millions)	2,369.1	4,333.4

Source: ECB calculations based on Central Bank of Ireland data.

banking sector also partly account for this result. The relatively large number of foreign banks, some with sizeable balance sheets, has the effect of diluting each bank's share of the total for the sector as a whole. The same measures when calculated using loans and deposits indicate a higher degree of concentration. The differing results point to a need to use concentration measures carefully in the Irish context.

On the liabilities side, deposits (excluding interbank deposits) accounted for over 65% of total liabilities, or nearly 230% of GDP. Of this, about 45% came from other euro area countries and the rest of the world. Approximately 8% of liabilities were in the form of securities other than shares. In 2000, credit to residents was about 40% of total assets. Owing to the large number of non-domestic credit institutions, credit to other euro area countries and the rest of the world accounted for 15% and 17% of total assets respectively in 2000. This tends to support the idea that Irish credit institutions have substantial links, on the retail side, to the European and global economies. For the mortgage credit granted by resident credit institutions, no maximum loan-to-value ratio is specified in legislation for mortgages, but the Central Bank of Ireland can give directions to credit institutions regarding valuation and loan-to-value ratios (see also sub-section 5.3).

A little under 25% of credit institutions' total assets are in the form of marketable instruments, the majority of which are securities other than shares issued by other residents and the rest of the world. Irish credit institutions have also diversified their funding sources by using techniques such as securitisation. At the end of 2000, securitisation of mortgages through the issuance of mortgage-backed securities accounted for about 10% of total outstanding mortgages.

Strong economic growth coupled with the introduction of the euro has led to an increase in the demand for and use of over-the-counter (OTC) derivatives by Irish banks, especially interest rate derivatives.[2] About 90% of transactions in these types of derivatives were conducted with other domestic and non-domestic credit institutions, with 9.5% conducted with other financial intermediaries. The rest were conducted with non-financial institutions. In common with some findings in the literature on financial intermediation, credit institutions are the most important users of derivatives in Ireland. This could point to an important risk-sharing function for credit institutions as well as their traditional intermediation function.

Owing to the structure of the banking system, just under 95% of these single-currency interest rate contracts were conducted with non-domestic credit institutions, with only about 5% conducted with resident counterparties. Over half of these contracts were denominated in euro, with the US dollar and the pound sterling accounting for much of the remainder.

2 The following data refer to April 2001.

Table 3.4 (a): Aggregated (non-consolidated) balance sheet of credit institutions excluding the central bank

(as a % of total assets/liabilities; end of year)

Assets	1998	2000
Cash	0.3	0.3
Loans	68.8	70.3
to domestic MFIs	12.8	8.6
to domestic resident non-MFIs	28.4	29.6
of which original maturity < 1y	10.7	12.4
of which 1y < orig. mat. < 5y	5.1	4.9
of which 5y < orig. mat.	12.4	12.3
to other euro area residents	11.3	14.6
to non-euro area residents	16.2	17.4
Securities other than shares	22.4	20.6
issued by resident MFIs	0.4	0.3
short-term (< 1y)	0.2	0.0
long-term (> 1y)	0.2	0.3
issued by other residents	3.0	1.8
short-term (< 1y)	0.4	.
long-term (> 1y)	0.2	.
issued by other euro area residents	9.2	10.2
issued by non-euro area residents	9.7	8.4
Shares and other equity	1.7	2.3
issued by resident MFIs	0.2	0.1
issued by other residents	0.3	1.3
issued by other euro area residents	0.5	0.2
issued by non-euro area residents	0.7	0.8
Fixed assets	0.6	0.5
Other assets	6.3	6.1
Total assets	100	100
Liabilities		
Deposits	78.0	77.4
from domestic MFIs	12.8	10.5
from other domestic residents	24.7	23.6
overnight deposits	3.7	4.2
other deposits	20.8	18.9
from other euro area residents	15.9	15.1
from non-euro area residents	24.6	28.2
Securities other than shares	8.1	7.9
short-term (< 1y)	.	4.2
long-term (> 1y)	.	3.7
Capital and reserves	7.2	7.5
Other liabilities	6.7	7.1
Total liabilities	100	100
Total assets/liabilities as a % of GDP	304.3	343.4

Source: ECB and Central Bank of Ireland.

3.2.2 Money market funds

At the end of 2000, there were 133 money market funds (MMFs) located in Ireland. These are defined as MMFs that are regulated by the Central Bank of Ireland. In relative terms, they amount to a little under 20% of the total assets of the credit institutions' balance sheet or approximately 60% of GDP.

The majority of investors in these funds are non-domestic. Approximately 85% are outside the euro area, 10% are euro area residents, and the rest are resident investors. The main reason for this is the provision of fiscal incentives to non-domestic investors. The bulk of the MMFs' asset portfolio consists of liquid debt securities issued by MFIs with a maturity of less than one year. The majority of this portfolio is non-euro-denominated, typically invested in US dollar or pound sterling denominated assets.

Table 3.4 (b): The aggregated balance sheet of money market funds
(as % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Deposits	.	2.5
with domestic residents	.	.
with other euro area residents	.	.
with non-euro area residents	.	.
Securities other than shares	.	97.0
issued by domestic residents	.	0.4
issued by other euro area residents	.	23.0
issued by non-euro area residents	.	73.6
Other assets	.	0.6
Total assets	.	100
Liabilities		
Money market fund shares/units	.	95.3
Other liabilities	.	4.7
Total liabilities	.	100

Source: Central Bank of Ireland.

3.3 Other financial intermediaries (OFIs)

These comprise investment funds, securities and derivatives dealers, financial corporations engaged in lending, and other OFIs. The most important category in terms of asset size is non-money market funds. In 1998, there were approximately 1,600 non-money market funds. By 2000, this number had grown to over 2,200 with the combined net asset value of these funds totalling just over €145 billion or approximately 140% of GDP.[3] Similar to the MMFs, the majority of the investors in these funds are non-domestic. This is due to the absence of withholding tax on these investments for non-domestic investors.

3 This includes sub-funds.

3.4 Insurance corporations and pension funds (ICPFs)

3.4.1 Pension funds

Pension funds have recorded strong growth over the past few years, increasing in value by over €50 billion and equalling nearly 50% of GDP in 2000. This was due to growth in the number of schemes, flows of new money into existing schemes, and the increase in the market value of assets. Pension funds are about two and a half times the size of the government bond market, approximately two-thirds the size of the equity market, and about 15% of the size of credit institutions' balance sheet in terms of total assets.

There are no restrictions on investment instruments or in terms of geographic area other than the requirement that the pension fund trustee must be "prudent" with the investments made. There has been a marked geographic shift in the composition of the assets portfolio over the past five years accompanied by a switch to international equities from Irish equities and fixed interest instruments. This is mainly due to the introduction of the euro. This eliminated the exchange rate risk of investments in foreign currency-denominated assets, while the liabilities of the funds were denominated in Irish pounds. In addition, over the past

Table 3.6. Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	4.0	13.8	4.5	13.5
with residents	3.7	.	3.4	.
with non-residents	0.4	.	1.1	.
Securities other than shares	31.1	51.5	22.2	49.2
issued by residents	19.9	.	6.8	.
issued by non-residents	11.2	.	15.4	.
Shares and other equity	58.4	28.1	64.4	28.9
issued by residents	25.9	.	18.9	.
issued by non-residents	32.5	.	45.4	.
Fixed assets	5.9	-	6.4	-
Other assets	0.6	6.6	2.5	8.4
Total assets	100	100	100	100
Liabilities				
Technical reserves	-	84.9	-	81.5
Other liabilities	-	15.1	-	18.5
Total liabilities	-	100	-	100
Total assets/liabilities as a % of GDP	50.7	45.1	68.1	69.3
Number of pension funds and insurance companies				
Pension funds [1)]	.	-	86,348	-
Insurance companies	-	.	-	180

Source: Irish Association of Pension Funds (IAPF) and Department of Enterprise, Trade and Employment.
1) Number of schemes.

few years the underperformance of international equities relative to the Irish market was also a factor (see Chart 4.2a in sub-section 4.2).

3.4.2 Insurance corporations

Ireland had approximately 180 insurance corporations at the end of 2000. The majority (130) of these have their head office in Ireland, but there is also a sizeable branch office presence (48) from other European Economic Area (EEA) countries. In terms of relative size, they are equal to about 50% of GDP and 15% of the credit institutions' balance sheet, similar to pension funds. However, these data suffer from the drawback that they only cover Irish registered insurance corporations and exclude the sizeable Irish branch operations of foreign insurance corporations.

4 Markets

Ireland's market-based financing is small relative to the euro area as a whole. However, since the start of Stage Three of EMU in 1999, some interesting developments have taken place due to the fact that the domestic bond and equity markets are now a small part of a much larger capital market.

These changes include efforts by the state's debt management agency, the National Treasury Management Agency (NTMA), to increase the attractiveness of Irish government

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	-	-	-	-
Households	-	-	-	-
Non-financial corporations	-	-	-	-
General government	-	-	-	-
Financial corporations	-	-	-	-
Non-residents	-	-	-	-
Total	-	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors				
Households	.	.	.	.
Non-financial corporations [1]	48.2	.	.	.
General government	.	21.1	.	.
Financial corporations	.	.	.	.
Non-residents	.	.	-	-
Total	.	.	.	.

Source: Central Bank of Ireland.
1) Quoted shares only.

bonds to other European investors and those located outside the euro area. Another change is the linking of the Irish Stock Exchange to the Deutsche Börse Xetra trading platform to increase investor interest in Irish equities.

4.1 Bond market

4.1.1 Government bond market

Government bonds are issued through the NTMA. In the past few years, owing to budgetary surpluses, net issuance declined. The NTMA has engaged in two bond-switching programmes to consolidate the number of outstanding issues across the yield curve and to increase the attractiveness of Irish government bonds relative to those of other euro area countries. As part of this effort to enhance liquidity, the settlement of Irish government bonds was transferred from the Central Bank of Ireland's Securities Settlements Office (CBISSO) to Euroclear. At present, trading takes place through the primary dealer system.

The main benchmark bond is the 10-year bond. The 5 and 10-year benchmark bonds were placed on the EuroMTS platform in June 2002. Recently there has also been a considerable diversification in the location of holders of government bonds. In 1998, 21.8% of the total bonds outstanding were held outside the country. By the end of 2001, this had risen to 60%. This was due to selling by domestic institutional investors driven by the elimination of exchange rate risk and the adoption of euro area-wide benchmark bond indices rather than a domestic government bond index.

4.1.2 Corporate bond market

The bulk of issuance in the corporate market is by financial entities located in the IFSC. The start of Stage Three of EMU saw an increase in mainly floating rate euro-denominated issues by these entities. There is little secondary market activity. It is primarily OTC as only some brokers are mandated to make a market in their client's securities.

The location of many of these entities in the IFSC is due to fiscal incentives and the existence of trust structures for securitisation in legislation, which has facilitated the issue of asset-backed and mortgage-backed securities. This has encouraged issues of these types of securities where the collateral is located in another country. For instance, the issuer of securities collateralised by loans granted by the Finnish government's social housing fund is located in Ireland.

4.2 Stock market

The Irish stock market is small relative to other euro area markets and extremely concentrated. At the end of 2000, there were 75 listed companies, with the top ten companies accounting for over 85% of the total market capitalisation. Two of the three largest stocks by market capitalisation are banks. The market capitalisation of quoted shares at the end of 2000 amounted to nearly 80% of GDP.

There are four markets: the Irish Stock Exchange Official list (ISEQ), the Technology Market of the Irish Stock Exchange (ITEQ), the Developing Companies Market (DCM), and the Exploration Securities Market (ESM). The main market is the ISEQ. At the end of 2000, none of the listed firms were members of the Dow Jones EURO STOXX 50, while ten belonged to the Dow Jones EURO STOXX. Since then, the Irish Stock Exchange has formed a strategic alliance with Deutsche Börse to use its Xetra trading system. Member firms of the exchange can trade equities regardless of where they are based geographically.

Table 4.2: Characteristics and activity of the stock market

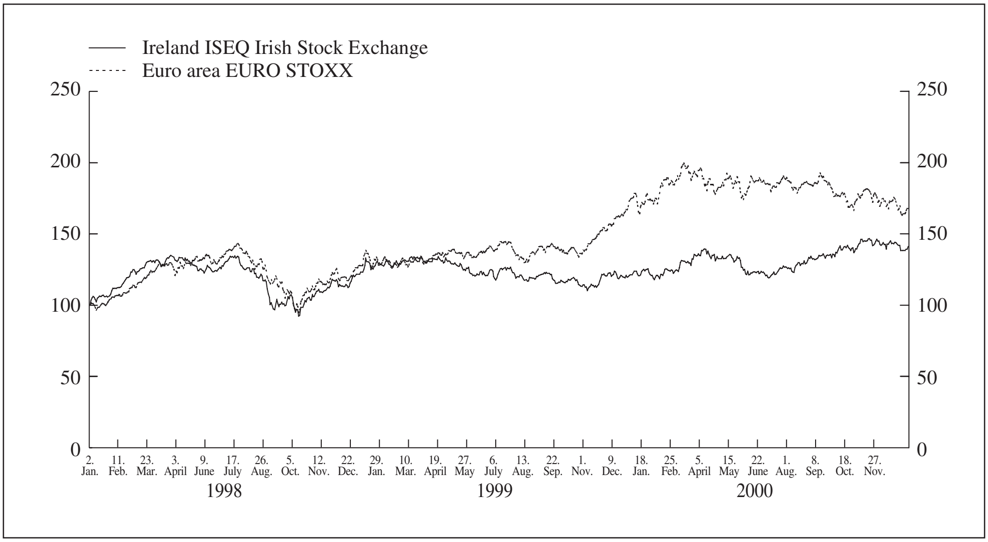
Description	1998	2000
Number of listed companies	80	75
Number of non-listed companies	.	.
Market capitalisation of listed shares (as a % of GDP)	73.3	77.5
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	1.5	5.7
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	.	.
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	.	0 (10)
Concentration indices (top-ten companies share of total market capitalisation) (%)	80.9	86.7
Number of foreign companies listed	9	19
Number of stock exchanges and other organised exchanges	.	3
Number of participants in these markets (FINEX/NYFE)	.	27
Share of non-domestic participants (%)	.	.
Number of transactions of traded shares	.	7,179.8
Total turnover [1] of traded shares (as a % of GDP)	87.4	30.0

Sources: Irish Stock Exchange, STOXX Limited and Central Bank of Ireland.

1) Turnover data for 2000 are calculated using a different methodology to preceding years and therefore are not directly comparable.

Chart 4.2: National stock index development relative to EURO STOXX

(index: 1 January = 100; daily data)



Source: Central Bank of Ireland.

5 Financing

The lack of comprehensive financial accounts data makes it difficult to describe, in a fully detailed fashion, the financing of the corporate, government and rest of the world sectors. However, counterpart data from MFIs and national statistical sources provide some information.

5.1 Non-financial corporations

At the end of 2000, it appeared that market-based finance, in the form of quoted shares, was more important than intermediated finance. This is misleading because of the highly concentrated nature of the Irish stock market and also because of valuation effects associated with the quoted shares data. If these are excluded, bank-based finance through loans is the most important source of funds.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity [1]	.	48.2
Securities other than shares incl. financial derivatives	.	.
of which short-term bonds (<1y)	.	.
of which long-term bonds (>1y)	.	.
Loans	.	.
from resident MFIs	.	33.5
of which short-term (<1y)	.	15.2
of which long-term (>1y)	.	18.3
from resident OFIs	.	.
from other resident sources	.	.
from non-residents	.	.
Trade credits and advances	.	.
Other liabilities	.	.
Total liabilities	.	.
Internal financing		
Gross savings	.	.
Net savings	.	.
Net capital transfers	.	.

Source: Central Bank of Ireland.
1) Quoted shares only.

Available data indicates that short-term finance is most important for corporates. Loans with an original maturity of less than one year are the most important category, though loans with an original maturity of more than five years are growing in importance. No data are available on debt securities issued by the corporate sector, so it is very difficult to get a more complete picture of corporate financing in Ireland.

5.2 General government

Budgetary surpluses resulting from buoyant economic growth has mitigated the need for the public sector to finance itself through issuing a large amount of debt. Bank loans are another source of finance for central and local government, the greater part of them having an original maturity of less than one year. There is a small amount of securitisation to fund social housing that is managed by the Housing Finance Agency.

Legislation was passed in 2000 to enable the prefunding of future pension liabilities through the creation of a social security fund called the National Pension Reserve Fund to which at least 1% of GDP will be allocated per year until 2055.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
External financing		
Currency and deposits	.	.
Securities other than shares incl. financial derivatives	.	21.1
of which short-term bonds (<1y)	.	.
of which long-term bonds (>1y)	.	.
Loans	.	.
from resident MFIs	.	0.3
of which short-term (<1y)	.	0.1
of which long-term (>1y)	.	0.2
from resident OFIs	.	.
from other resident sources	.	.
from non-residents	.	.
Other liabilities	.	.
Total liabilities	.	.
Internal financing		
Gross savings	.	.
Net savings	.	.
Net capital transfers	.	.

Source: Central Bank of Ireland.

5.3 Households

There is a high degree of home ownership in Ireland. This, combined with rising house prices, has led to strong demand for mortgage credit. The taxation system encourages this through the exemption of an individual's primary residence from residential property and capital gains tax. Imputed income from home ownership is also exempt from income tax and interest payments on mortgage credit are also tax deductible up to certain limits. By contrast, taxes are imposed on the income from some savings invested in financial assets and on capital gains from those assets.

Variable rate mortgage lending accounts for about 70% of all mortgage lending, with the remaining 30% of lending being at fixed interest rates. However, fixed rate mortgage lending is becoming more common in a low inflation environment, with most of the interest rate fixation taking place for the 1 to 3 and 3 to 5-year terms.

Loans for consumption purposes are also significant, though of a lesser magnitude than mortgage credit. The amounts are relatively evenly distributed over the maturity bands. As would be expected, consumer credit is more volatile than mortgage credit, as shown previously in Chart 2a in sub-section 3.2.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans		
Loans from resident MFIs	.	37.9
of which short-term (<1 year)	.	.
of which long-term (>1 year)	.	.
Consumer loans	.	8.9
original maturity < 1y	.	3.1
1y < orig. mat. < 5y	.	2.7
5y < orig. mat.	.	3.1
Housing loans	.	29.0
original maturity < 1y	.	4.3
1y < orig. mat. < 5y	.	1.9
5y < orig. mat.	.	22.8
Other loans from resident MFIs	.	.
Other loans from resident lenders	.	.
From non-residents	.	.
Other liabilities	.	.
Total liabilities	.	.
Internal financing		
Gross savings	.	.
Net savings	.	.
Net capital transfers	.	.

Source: Central Bank of Ireland.

5.4 Flow of funds abroad

The presence of the IFSC strongly influences the magnitude and volatility of portfolio flows to and from the rest of the world. These in turn are influenced by conditions in global capital markets.

Irish pension funds have been net sellers of Irish assets since the start of Stage Three of EMU and the creation of the National Pension Reserve Fund has also contributed to increasing claims of Irish residents on the rest of the world.

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
Deposits [1]	.	146.6
Shares	.	.
Securities other than shares	.	.
Other financial assets	.	.
Total financial assets	.	.
Liabilities of non-residents		
Deposits	.	.
Securities other than shares	.	.
of which short-term (<1 year)	.	.
of which long-term (>1 year)	.	.
Loans	.	.
of which granted by financial institutions [1]	.	126.5
Shares and other equity	.	.
of which held by financial institutions	.	.
Other liabilities	.	.
Total liabilities	.	.

Source: Central Bank of Ireland.
1) Resident credit institutions only.

6 Summary

The description and analysis outlined in this chapter suffers from the drawback of not having Monetary Union Financial Account (MUFA) statistics. It is difficult to determine definitively where the Irish financial system lies on the market or bank-based continuum and how it compares with those of other countries. The available data used in this chapter suggest that credit institutions are the most significant intermediary, though other forms of intermediation through, for example, investment funds, insurance corporations and pension funds are increasing in importance. Loans granted by credit institutions to Irish residents has been growing at a rapid rate owing to strong domestic demand and an increase in residential property prices.

Irish credit institutions are integrated to a large extent with other euro area countries and the rest of the world judging by the magnitude of deposits taken from and loans granted to these areas. There is little evidence of marked disintermediation, though credit institutions are using additional market-based funding tools such as securitisation.

Irish capital markets are now a comparatively small segment of a much larger euro area capital market. In this sense, there has been a response from local markets, such as the equity market and the government bond market, to maintain investor interest through enhanced accessibility for non-domestic investors and increased liquidity. This has also served to integrate the Irish capital market with the larger euro area market.

Italy

1 Main features of and recent developments in the Italian financial system

Two issues lie at the centre of the analysis of a financial system. The first concerns the determinants of the overall size of the system or, to put it differently, the conditions that facilitate the provision of external finance to the economy. Empirical research has shown that institutional factors, such as the design of the legal framework and the degree of investor protection, the amount of competition, and the soundness of banks and other intermediaries play a significant role in this respect. The second regards the relative importance of intermediaries and markets in the financial system and how the latter evolves from one configuration to another.

Previous analyses of the Italian financial system showed that during the last 30 years major changes have occurred as regards the overall size of the financial system and its efficiency, the mix of intermediaries and the relevance of the markets.[1] This chapter will briefly recall these changes, while also highlighting the main driving forces behind them.

The growth of the Italian financial system is shown by the increase in the ratio of total outstanding amounts of financial assets to GDP from less than four times in 1980 to seven in 2000. Competition in the banking markets was fostered by the liberalisation measures introduced in the 1980s and 1990s.[2] Though concentration of banks' market shares increased at the national level, the number of banks operating in each Italian province (which can be thought of as local markets) increased strongly and the spread between lending and deposit rates narrowed significantly (Ciocca, 1998). Deregulation progressed further with the privatisation of the banking sector. The process of consolidation in the banking industry accelerated, with the number of banks falling by a third. A new law on financial

1 For a full description and discussion, see Ciocca, 2000; for more details on Italian credit structures in the 1970s and 1980s, see Banca d'Italia, 1984.

2 Among the measures which liberalised the markets and deregulated intermediaries, the most important are: in the 1980s, open-ended investment funds were introduced and credit ceilings on banks were removed. Geographical and maturity restrictions on banking operations were also abolished at the end of the decade. Financial flows with the rest of the world were liberalised between 1987 and 1990 (see Passacantando, 1996). In the 1990s, the despecialisation of the banking sector was completed with the 1993 Banking Law, which allowed the model of the universal bank to be adopted in Italy. The universal bank can operate without maturity constraints and can carry on all the financial activities that are not restricted by law. This resulted in the statutory despecialisation of banks, thereby eliminating the distinction between banks and special credit institutions and the different categories of institutions. An important consequence was the increase in competition among former short-term banks and former special credit institutions. Participation in the capital of banks continued to be regulated in accordance with the principle of separation between banking and commerce.

intermediation set out the conditions for a more efficient provision of financial services. Furthermore, new corporate governance rules ensuring better protection of minority shareholders were introduced.[3]

These changes affected the structure of the financial system. The important role that intermediaries have historically played in Italy, both on the asset and the liability side, permitted researchers to classify the Italian financial system as being intermediation-oriented.[4] Up to the 1970s, banks dominated the allocation of financing, as testified by the high value of the ratio of banks' financial activities to total financial activities. Household assets were largely invested in deposits. On the liability side of the non-financial sectors, bank loans were the main source of finance. As a result of exchange rate controls and tight regulation of financial investment abroad, assets held with the rest of the world were very limited.

A first wave of disintermediation in the banking sector took place in the 1980s with the development of a growing market in government securities. On the asset side, financial accounts show the decline in the importance of deposits in investors' portfolios, paralleled by an increase in the amount of public sector securities directly held by households. Still, high inflation limited investment to short-term maturities.

In the 1990s, the reduction in inflation rates and in government deficits, coupled with the effects of the liberalisation measures implemented at the end of the 1980s described above, further contributed to fostering the reallocation of financial wealth towards market instruments. The process of convergence involved in Monetary Union accelerated this process, insofar as it contributed to the decrease in inflation and in nominal, as well as real, interest rates. The adjustment of public finances implied a reduction in the supply of government securities relative to GDP and prompted the redirection of household wealth towards shares and mutual funds. The rise in the proportion of shares in household portfolios was further accelerated by the privatisation of formerly public firms.

The composition of financial instruments and the relative importance of the various issuers has changed significantly in the last 20 years. At the beginning of the 1980s, deposits and short-term securities represented more than 40% of total financial assets, whereas by 2000 their share had decreased to less than 20%. Over the same period, long-term securities, shares, insurance technical reserves and mutual fund shares almost doubled as a proportion of total financial assets (from 30% to 60%). As regards the issuers, the declining importance of banks was met by a marked increase in the weight of other financial intermediaries and non-resident issuers. Among non-banks, the major issuers are currently the Government (though its importance has declined in the last ten years) and non-financial corporations.

It has to be noted, however, that the importance of banks in the financial landscape has not decreased dramatically. Banks still play a central role in the Italian financial industry, though their intermediation model has evolved. Through their group structure they control a large share of mutual funds, and through the universal banking model they are engaged in the provision of services to firms and in the financing of longer-term investments.

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3 In 1998, the Consolidated Law on Financial Intermediation was enacted. With this law, a new institution was created: the asset management company, which made it possible to overcome the segmentation of activities and allowed banking and financial groups to centralise management functions and separate them from distribution (see Banca d'Italia, Economic Bulletin, No. 26). Moreover, the new corporate governance rules introduced forms of direct protection of minority shareholders inasmuch as they made it easier for shareholders to be heard. In addition, the new regulation on takeover bids aimed to balance the need for the protection of minority shareholders with the efficiency of the market for corporate control.

4 Although with some important qualifications, such as the importance of multiple banking relationships, which reduced the strength of bank-customer relationships (see Garella et al., 2000).

Table 1 shows the composition of financial assets and liabilities.[5] On the asset side, at end-2000, the intermediated assets of the resident non-financial sectors represented 38% of total intermediated and non-intermediated financial assets and were equal to 109% of GDP, compared with 42% and 94% respectively in 1997.[6] Most intermediated assets were held in household portfolios (96% of GDP in 2000, against 82% in 1997).[7] Within intermediated assets, a major shift has taken place from bank deposits to mutual fund shares, the proportion of which has risen significantly. The banks in particular facilitated this spread of mutual fund shares.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Residents non-financial sectors (1)	109.2	180.6	83.9	206.2
Households	95.7	108.0	22.9	-
Non-financial corporations	11.0	61.7	54.8	105.3
General government	2.5	10.9	6.3	100.9
Non-residents (2)	17.5	59.9	11.3	76.1
Total (1+2)	126.7	240.5	95.2	282.3
Total economy	163.8	356.9	118.1	356.9
excluding central bank	160.9	348.8	116.8	356.9

Source: Banca d'Italia, national financial accounts statistics.

In 2000, most of the assets of the resident non-financial sectors were non-intermediated (i.e. 62% of the total or 181% of GDP). Households held 60% of non-intermediated assets of resident non-financial sectors (108% of GDP in 2000, against 90% in 1997). A substantial share of non-intermediated instruments was held by non-financial corporations and non-residents (62% and 60% of GDP, respectively). As a proportion of total assets, non-intermediated instruments represented 53% of the total household portfolio[8] and around 80% for the other resident non-financial sectors and the rest of the world.

5 For illustration purposes, the instruments have been split into those that can be considered as mostly issued by intermediaries (labelled as "intermediated") and those that are mostly directly issued on the market (labelled as "non-intermediated"). In order to apply this distinction, assets such as trade payables and assets issued by the government sector or by firms are not considered and hence the totals of Table 1 are lower than those of Table 2, where all financial assets and liabilities are considered.

6 In 2001, the share of intermediated financial assets in total intermediated and non-intermediated financial assets remained stable around the values recorded in 2000.

7 It has to be considered that, among the intermediated assets, severance payments and casualty insurance technical reserves equalled 13% of GDP in 2000.

8 Guiso and Jappelli (2002), using the Survey of Household Income and Wealth, find that in the second half of the 1990s participation of households in the equity market increased. Moreover, they observe a sharp increase in the share of stocks in households' portfolios (held both directly or through mutual funds) and a decline in less risky assets. Micro data confirm the increase in the degree of diversification of households' portfolios.

On the liability side, intermediated financial liabilities of the resident non-financial sectors are also much less significant than non-intermediated ones (about 84% of GDP compared with 206%). The share of intermediated liabilities in the sum of the two categories was around 30% in 2000, the same as in 1997.

Non-intermediated instruments represented 66% of total intermediated and non-intermediated liabilities of non-financial corporations. By contrast, Table 1 shows that household financial debt is exclusively composed of intermediated liabilities. The liabilities of the rest of the world with residents counterparties are mostly represented by non-intermediated instruments.

The growth in non-intermediated instruments, both on the asset and the liability sides, observed when looking at outstanding amounts was partly due to the increase in the valuation of shares.[9] According to consolidated financial accounts data, the share of non-intermediated instruments for non-financial corporations as a proportion of GDP is much lower owing to the large cross-shareholdings of Italian firms.

In Italy the ratio of non-intermediated assets of the resident non-financial sectors to GDP (181% in 2000) was relatively close to the euro area figure (169%). The corresponding ratio for intermediated assets was, however, much lower (109% against 162% for the euro area), largely reflecting the limited development of private pension funds. The ratio of intermediated liabilities to GDP is lower in Italy than in the euro area, mainly owing to the much lower indebtedness of the household sector (considering intermediated liabilites, it is 23% of GDP in Italy against a euro area average of 51%). The ratio of non-intermediated liabilities of the resident non-financial sectors to GDP is not very different to the euro area figure (206% against 218%), but the sectoral composition differs, with a lower recourse to non-intermediated liabilities for the Italian non-financial corporations and a higher one for the general government.

2 Origin of flows

As is usually the case, in Italy the household sector is a net provider of funds, whereas the corporate sector and government are net absorbers (see Table 2).

In the 1990s, the economic downturn in the first half and the improvement in the financial situation of the public sector were associated with a decrease in households' propensity to save. The need to reduce the budget deficit implied a large increase in the tax burden, which led to a deceleration of growth in disposable income. Correspondingly, the net financial surplus shrank (from 9.9% of GDP in 1995 to 7.8% in 2000).[10] On average, in the period 1998-2000, financial savings represented 6% of GDP, against 8% in 1995-97. The decrease in financial savings was associated with both an increase in financial debt and a deceleration of financial asset acquisition. Notwithstanding the decrease in savings, Italian households' net financial position is larger than in the euro area (202% of GDP in 2000, compared with 156% for the euro area).

After the 1992-93 recession, the financial position of firms progressively strengthened. The increase in profits and in self-financing led to a reduction in firms' net financial

9 In 2001, which was a period of decreasing stock prices, the ratio of intermediated assets of the resident non-financial sectors to the sum of intermediated and non-intermediated assets increased to 44%. On the liability side, the growth in the share of intermediated instruments was less pronounced, with a rise to 32%.

10 An increase was observed in 2001.

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	Financial asset acquisition	Liabilities incurrence	Net financial transactions	Financial assets	Liabilities	Net financial position
Households	9.7	3.5	6.2	233.1	30.7	202.3
Non-financial corporations	5.8	8.4	-2.5	102.5	189.7	-87.2
General government	0.4	2.3	-1.9	33.8	133.5	-99.7
Financial corporations	18.7	19.8	-1.1	253.9	257.0	-3.1
excluding central bank	19.1	20.3	-1.2	238.7	246.0	-7.4
Resident sectors	34.7	34.0	0.7	623.2	610.9	12.4
excluding central bank	35.1	34.5	0.6	608.0	599.9	8.1
Non-residents	11.2	11.8	-0.7	100.0	112.3	-12.4

Source: Banca d'Italia, national financial accounts statistics.

indebtedness. As a share of GDP, the net incurrence of liabilities progressively fell during the second half of the 1990s (averaging 2.4% in 1995-97). Subsequently, the increase in both gross fixed investment and M&A activity led to a rise in net financial indebtedness, which averaged 2.5% of GDP in 1998-2000. This rise was particularly sharp in 2000, when the flow of net liabilities was equal to 5.2% of GDP.[11] Looking at amounts outstanding, net financial liabilities of Italian non-financial corporations were equivalent to 87% of GDP in 2000, against a euro area figure of 110%.

In the 1990s, major budgetary adjustment brought government net financial indebtedness closer to balance. While it averaged 6% of GDP in 1995-97, it decreased to 1.9% in the subsequent three years (and to less than 1% in 2000). Government indebtedness is higher in Italy than in the euro area.

The 1990s also featured a major adjustment in the country's external position and the current account of the balance of payments. The rest of the world was a net creditor in the first half of the 1990s, but became a net debtor in the second half. Net financial indebtedness of the rest of the world as a percentage of GDP was substantial in the years 1995-97 (1.6% on average, reflecting a similar figure for the current account deficit), but it then decreased in the subsequent three years (0.7% on average).

3 Intermediaries

3.1 Channelling of funds through intermediaries

In terms of amounts outstanding, most of the intermediated instruments are issued by monetary financial institutions, more specifically banks (see Table 3.1). In 2000, considering the total economy, deposits and money market fund shares were equivalent to 87% of GDP (85% in 1997).[12]

11 In 2001, this ratio declined to 3.0% of GDP.
12 The government sector also intermediates a substantial amount of funds through the deposits collected by the postal system.

Looking at flows, however, the picture is somewhat different. On average over 1998-2000, the increase in financial assets issued by the MFI sector was about half that in those issued by OFIs (specifically investment funds). The decreases in nominal and real interest rates, as well

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions MFIs (Deposits, money market fund shares)	**Monetary financial institutions MFIs** (Technical reserves)	**Other financial inter-mediaries OFIs** (Mutual fund shares)	**Pension funds** (Deposits, technical reserves)	**Insurance companies** (Deposits, technical reserves)	**Non-residents inter-mediaries** (Deposits, market fund shares, mutual fund technical reserves)	***Memo item:*** [1] (Government deposits)
Acquisitions (Average annual financial transactions, 1998-2000)							
Households	-1.5	0.0	7.3	0.1	2.7	1.3	1.1
Non-financial corporations	0.6	-	0.1	-	0.1	0.1	-0.1
General government	0.2	-	0.0	-	0.0	0.1	0.0
Financial corporations	3.6	-	0.1	-	0.0	-1.1	0.0
excluding the central bank	3.3	-	0.1	-	0.0	-0.4	0.0
Resident sectors	2.8	0.0	7.6	0.1	2.8	0.4	0.9
excluding the central bank	2.6	0.0	7.6	0.1	2.8	1.1	0.9
Non-residents	1.1	-	0.0	-	0.0	-	0.0
Total	3.9	0.0	7.6	0.1	2.8	0.4	0.9
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	2.0	-	-	-	-	-	-
Holdings (Amounts outstanding, end-2000)							
Households	37.6	1.2	34.3	1.5	16.8	4.3	13.6
Non-financial corporations	8.3	-	0.5	-	1.4	0.8	0.1
General government	1.9	-	0.1	-	0.1	0.4	1.1
Financial corporations	23.2	-	2.5	-	0.1	6.9	0.1
excluding the central bank	20.9	-	2.5	0.0	0.1	5.5	0.1
Resident sectors	71.0	1.2	37.4	1.5	18.3	12.4	14.9
excluding the central bank	68.7	1.2	37.4	1.5	18.3	11.0	14.9
Non-residents	16.5	-	0.4	-	0.6	-	0.0
Total	87.5	1.2	37.8	1.5	19.0	12.4	14.9
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	17.5	-	-	-	-	-	-

Source: Banca d'Italia, national financial accounts statistics.
1) These instruments are excluded from the definition of intermediated assets in Table 1.

as in inflation, were accompanied by a shift in the composition of financial assets, with investors looking for higher returns. Over the period 1998-2000, investment fund shares increased, reaching 38% of GDP, against 18% in 1997.

This shift did not imply a reduction of the importance of the banking sector. In fact, the vast majority of these financial intermediaries are controlled by the banking sector either directly or through banking groups (see Section 3.2). Moreover, banks' presence in the issuance of non-intermediated instruments increased considerably: the amounts outstanding of bank bonds were equivalent to 17% of GDP in 2000, against 15% in 1997.

Holdings vis-à-vis the insurance sector equalled 19% of GDP in 2000 (12% in 1997) and were mostly in household portfolios. Private pension funds have played a very limited role in Italy so far (1.5% of GDP), the reason being the predominance of public pay-as-you-go pension schemes. This feature has been mentioned as one of the reasons for the Italian financial intermediation ratio being lower than in the other major industrialised countries.

3.2 Monetary financial institutions (MFIs)

The legislative and structural changes affecting the banking system in the 1990s broadened the range of options available to banks when defining their corporate strategies. Therefore, no single model characterises the Italian banking system. Liberalisation of the banking sector has prompted some specialised banks to form groups. Other credit institutions have followed the universal bank model.

The rationalisation of the structure of the Italian banking system and the more intense competition that followed have seen a steady decline in the number of credit institutions in recent years (from 921 to 841 between 1998 and 2000, see Table 3.2). Most of the decrease has been accounted for by mutual banks *(banche di credito cooperativo),* the number of which fell from 563 to 499 (at the end of 2000, their market share in terms of loans was around 5%, compared to 82% for limited company banks).

Money market funds still play a limited role among MFIs. Although the number of these funds increased between 1998 and 2000, they accounted for less than 1% of the total assets of Italian MFIs.

In the 1990s, heightened competition in the loan and deposit markets led to a narrowing of margins (Angelini and Cetorelli, 2002). The Italian banking system thus experienced a sharp drop in net interest income, a feature common to many European countries. However, the

Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Incorporated enterprises limited by shares	237	240
Co-operative enterprises	625	543
of which mutual banks (banche di credito cooperativo)	563	499
Saving banks [1]		
Branches and subsidiaries of foreign institutions	59	58
Total banks	921	841
Other credit institutions		
Money market funds	10	22
Total	931	863

Source: National statistics.
1) Included in incorporated enterprises limited by shares.

economic slowdown and the subsequent increase in loan loss provisions accentuated the decrease in profitability in the second half of the 1990s. Since the end of the 1990s, the increase in income from fees and services, greater cost-efficiency and better economic prospects have resulted in a general growth in profitability: in 2000, Italian banks' return on equity averaged 11.6%, the highest value since the mid-1980s.

As in other countries, Italian banks sought to increase the scope of their activities and to provide new services to customers in order to offset the decline in income from the more traditional activities. The wave of mergers was spurred by the need to achieve a scale of activity consistent with the widened range of banking products and services, such as asset management and corporate services (see Focarelli, Panetta and Salleo, 2002). The process of consolidation was particularly intense between 1996 and 2000 (see Group of Ten, 2001). Bank mergers accounted for 39% of the total value of M&A operations targeted on Italian enterprises, a value higher than that recorded in the euro area in the same period (22%). Since 1990, consolidation in the banking industry has affected banks with total assets representing around 50% of the sector.[13]

As regards market concentration, at the end of 2000 the five biggest banks accounted for 23% of total assets (see Table 3.3). In 2001, the share of the five biggest banks increased to 29% of total assets. When considering the first five banking groups, the degree of concentration (54% of total assets in 2000) was more similar to the other main euro area countries.

The role of government in the Italian banking market steadily declined in the 1990s. The share of total assets held by banks and banking groups controlled by the State fell from 68% in 1992 to 12% in 2000, one of the lowest levels in Europe. The privatisation of the banking sector and the transformation of banking structures led to an increase in the number of banks listed on the stock exchange, which doubled over the decade. On a consolidated basis, at the end of 2000 the 40 banks whose shares were traded on the main stock exchange accounted for 80% of the banking system's total assets.

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.021	0.019
Top five's share of total assets	0.25	0.23
Average size of top five (EUR billions)	77.4	80.9

Source: ECB calculations based on data from Banca d'Italia.

With regard to the participation of banks in the financial industry, cross-shareholdings between banks and insurance companies have increased in recent years, although the sort of integrated bancassurance conglomerates found in other European countries, in which banking and insurance business are equally important, were not formed. At the end of 2000, 68 Italian asset management companies out of a total of 101 were bank-controlled. As in most other European countries, banks in Italy have a large stake in the investment fund industry. At the end of 2000, the market share of asset management companies controlled by Italian banks was equal to 94% of total assets, a value not dissimilar to those observed in other major euro area countries. Foreign banks accounted for 13% of the investment fund market in Italy.

13 Bonaccorsi di Patti and Gobbi (2001) analyse the consequences of bank consolidation on small business lending; Focarelli and Pozzolo (2001) examine the determinants of cross-border bank mergers and acquisitions.

Concerning the internationalisation of the banking industry, at the end of 2000, 58 foreign banks were established in Italy, with 99 branches (59 and 84 respectively in 1998). Italian subsidiaries of foreign groups numbered 13, of which ten belonged to EU groups. The presence of Italian banks abroad was extended, thanks notably to the acquisition of foreign banks. At the end of 2000, 26 Italian banking groups were operating abroad; there were 73 foreign subsidiaries and 94 foreign branches. Branches and subsidiaries located in non-EU countries numbered 44 and 49 respectively.

In 2000, the ratio of banks' total assets to GDP was 153% in Italy (see Table 3.4), against a euro area average of 255%. In particular, there are four balance sheet components that are relatively underdeveloped for Italian banks compared with banks in the other euro area countries: interbank activities, securities portfolio, foreign assets and loans to households (see Gambacorta, Gobbi and Panetta, 2001).

Interbank activities (loans to MFIs resident in the euro area) represented 14% of total assets, compared with 21% for the euro area. The difference basically reflects the existence in Italy from the beginning of the 1990s of an efficient screen-based market for interbank deposits *(Mercato Interbancario dei Depositi, MID),* which led to a reduction in the number of bilateral current accounts between banks.

The ratio between the overall amount of securities and shares with counterparties in the euro area and total assets was one percentage point lower in Italy than the euro area average (16% and 17%, respectively).[14] The foreign assets to total assets ratio was 5%, seven percentage points lower than the euro area average. Loans to households represented slightly more than 13% of total assets, against a euro area average of 18%.[15]

Regarding the maturity structure, the share of medium and long-term loans of Italian banks is lower than in the other euro area countries. Short-term loans to non-financial corporations represent 52% of banks' total assets. The proportion also remains high if loans with an original maturity of less than five years are considered (73% in Italy, against 52% in the euro area). The high share of short-term loans in assets of Italian banks is mainly the result of past high inflation rates. A high proportion of short-term loans may also constitute a monitoring device on borrowers in the presence of inefficiencies in the liquidation of projects in financial difficulty.[16] In 2000, variable interest rate loans represented 63% of the total amount of loans to the non-financial sectors.

On the liability side, Italian banks also have a larger share of short-term instruments. Overnight deposits represented around 67% of total deposits, against 31% in the euro area. Virtually all deposits (98%) have a short-term maturity (overnight, deposits redeemable at notice up to three months, deposits with agreed maturity up to two years). The share of bonds in total domestic funding is similar to the euro area average.[17]

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14 The difference would be 20 percentage points if the ratio were worked out relative to GDP , which reflects the more limited depth of the Italian financial system. It is not attributable to different investment strategies by Italian banks since, as illustrated above, the proportion of securities and shares in total assets is similar to that recorded for the euro area.

15 Loans to the non-financial sector represented slightly more than 50% of total assets and were equal to 81% of GDP in Italy (26 percentage points less than in the euro area). This difference can be largely ascribe to loans to households, which are equal to 20% of GDP, against 46% in the euro area.

16 According to the last survey conducted by the Banca d'Italia on loan recovery procedures by banks (on a sample representing 90.5% of total lending to Italian residents), the time for recovery ranged, for the reference month of December 1999, from a maximum of six or seven years for bankruptcy proceedings or composition agreements between creditors and debtors, to around two years for private settlements, the most frequent recovery procedure. The average recovery rate is estimated to be around 38% of the amounts owed, with a substantial dispersion depending on terms and conditions of loans, such as the presence of collateral (Banca d'Italia, Economic Bulletin, No. 34).

17 96% of bonds have an agreed maturity greater than two years (92% for the euro area).

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank [1)]

(end of year)

	EUR millions	% of balance sheet	EUR millions	% of balance sheet
Assets		**1998**		**2000**
Cash	6,153	0.4	7,013	0.4
Loans to	1,043,884	68.0	1,254,456	70.4
domestic MFIs	135,831	8.8	187,708	10.5
< 1y orig. mat.	-	-	-	-
> 1y orig. mat.	-	-	-	-
other domestic residents	752,063	49.0	922,799	51.8
of which original maturity < 1y [2)]	319,065	20.8	401,308	22.5
of which 1y < orig. mat.< 5y [2)]	172,793	11.3	183,328	10.3
of which 5y < orig. mat. [2)]	222,514	14.5	307,673	17.3
other euro area residents	72,550	4.7	74,641	4.2
of which MFIs	61,721	4.0	58,760	3.3
non-euro area residents	83,440	5.4	69,308	3.9
Securities other than shares	247,629	16.1	226,455	12.7
issued by domestic MFIs	32,794	2.1	43,388	2.4
short-term (< 1y)	74	0.0	319	0.0
long-term (> 1y)	32,720	2.1	43,069	2.4
other domestic residents	191,163	12.4	154,033	8.6
short-term (< 1y) [2)]	47	0.0	22	0.0
long-term (> 1y) [2)]	4,031	0.3	10,160	0.6
other euro area residents	7,055	0.5	13,642	0.8
non-euro area residents	16,617	1.1	15,392	0.9
Shares issued by	56,347	3.7	88,943	5.0
domestic MFIs	28,871	1.9	40,803	2.3
other domestic residents	16,828	1.1	26,636	1.5
other euro area residents	7,630	0.5	14,186	0.8
non-euro area residents	3,018	0.2	7,318	0.4
Fixed assets	44,595	2.9	46,283	2.6
Other assets	136,932	8.9	158,053	8.9
Total assets	1,535,540	100	1,781,203	100
as a % of GDP	143.1	-	152.9	-
Liabilities				
Deposits from	939,087	61.2	1,083,822	60.8
domestic MFIs	138,429	9.0	206,307	11.6
other domestic residents	577,617	37.6	605,134	34.0
of which overnight deposits [2)]	348,735	22.7	407,909	22.9
of which other deposits [2)]	221,702	14.4	190,261	10.7
other euro area residents	96,049	6.3	114,671	6.4
non-euro area residents	126,992	8.3	157,710	8.9
Money market funds shares	4,772	0.3	10,075	0.6
Securities other than shares	251,031	16.3	302,480	17.0
short-term (< 1y)	-	-	1,851	0.1
long-term (> 1 y)	251,031	16.3	300,629	16.9
Capital and reserves	108,545	7.1	123,930	7.0
Other liabilities	232,109	15.1	260,894	14.6
Total liabilities	1,535,544	100	1,781,201	100

Source: ECB and Banca d'Italia.
1) Rounding may cause discrepancies in totals.
2) Excluding central government.

With respect to collateral, 50% of loans are backed by real guarantees (i.e. there are material assets that back the loan) or by personal ones (respectively 29% and 21% of the total value of loans). The share of secured loans shows a high variability across sectors and geographical areas (Pozzolo, 2000). Secured loans range from 12% of total loans for general government to 71% for households, and from 44% in the north-west to 61% in the south. Furthermore, 67% of medium and long-term loans (with a maturity of more than 18 months) are backed by collateral (13% and 54%, respectively, with personal and real guarantees). The percentage of secured short-term loans is 33% (28% being backed by personal guarantees).

3.3 Other financial intermediaries (OFIs)

As a result of rapid growth in the second half of the 1990s, at the end of 2000 the investment fund industry in Italy amounted to €448.9 billion, the equivalent of 38.5% of GDP (see Table 3.5). It was almost twice as large as the insurance industry and much larger than pension

Table 3.5: Aggregated balance sheet of OFIs

(% of balance sheet, unless otherwise indicated; end of year data)

	1998 [1]		2000	
Assets	**Investment funds**	**Other OFIs**	**Investment funds**	**Other OFIs**
Deposits	7.1	83.6	6.1	73.7
with domestic residents	7.1	80.0	6.1	71.7
with non-residents	-	3.6	-	2.0
Securities other than shares	68.3	4.2	51.7	10.5
issued by domestic residents	45.2	-	28.5	-
issued by non-residents	23.1	-	23.2	-
issued by other euro area residents	11.7	-	12.5	-
issued by non-euro area residents	11.4	-	10.8	-
Shares	21.6	1.0	39.7	1.3
issued by domestic residents	9.1	1.0	9.9	0.9
issued by non-residents	12.5	0.0	29.9	0.4
issued by other euro area residents	3.4	-	9.6	-
issued by non-euro area residents	9.1	-	20.3	-
Other assets	3.0	11.2 [2]	2.5	14.4 [2]
Total assets (EUR millions)	374,405	97,848	448,893	140,417
as a % of GDP	34.9	9.1	38.5	12.1
Liabilities				
Mutual fund shares	98.2	-	98.6	-
Other liabilities	1.8	100 [2]	1.4	100 [2]
Total liabilities (EUR millions)	374,405	97,848	448,893	140,417
Number of OFIs				
Investment funds	694 [3]	-	949	-
Securities and derivative dealers	-	68	-	56
Financial corporations engaged in lending	-	177	-	161
Other institutions	-	23	-	24

Source: Banca d'Italia.
1) Data are partially estimated.
2) Other OFIs include data on other institutions.
3) As at 1 January 1999.

funds. While the number of mutual funds has steadily increased since their introduction in 1984, the average size is still quite large by international standards.

The degree of concentration in the asset management industry diminished substantially throughout the 1990s. At the end of 2001, the market share of the five largest asset management companies was 46.0%. According to data collected by Lipper (the global mutual funds research subsidiary of Reuters), this value was lower than in most euro area countries.

In Italy, investment funds are mainly open-ended, publicly offered funds investing in transferable securities (UCITS). In the period 2000-01, asset management companies launched funds of funds, funds reserved for qualified investors and hedge funds. Closed-end funds (specialised either in securities or real estate) still only play a minor role.

By international standards, the Italian mutual fund industry is still characterised by a high proportion of bond funds. At the end of 2000, these represented 34.6% of the total, about eight percentage points more than the euro area average and three times the proportion in the United States. The net assets of equity funds amounted to 34.6% of the total. In the equity segment, the proportion of net assets managed by funds specialising in domestic stock markets was 17.4%, one of the lowest levels in the euro area.

At the end of 2000, securities other than shares constituted 51.7% of the total portfolio of Italian investment funds, compared with 68.3% in 1998. This substantial reduction was mainly attributable to a large fall in these funds' holdings of Italian government securities. Italian shares made up 9.9% of the total portfolio, almost unchanged from 1998. By contrast, the proportion of foreign shares rose considerably in 1999-2000, from 12.5% to 29.9%.

The assets managed by other OFIs amounted to €140.4 billion (equivalent to 12.1% of GDP) at the end of 2000 (compared with 9.1% in 1998). Deposits formed the majority of their assets (73.7% in 2000).

3.4 Insurance corporations and pension funds (ICPFs)

At the end of 2000, 200 national insurance corporations were operating in Italy (see Table 3.6). Of these, 78 were in the life sector, 98 in the casualty sector, 20 in both sectors and 4 in the reinsurance business. In addition, 46 offices of foreign insurance companies were open for business in Italy. Technical reserves of Italian insurance corporations amounted to €216.5 billion, which equalled 7.0% of households' total financial assets, less than in other major euro area countries.

In the second half of the 1990s, total assets managed by Italian insurance corporations grew rapidly. The expansion was almost entirely attributable to the life sector, which at the end of 2000 accounted for more than three-quarters of the total. Policies offering index-linked or unit-linked benefits grew at faster rates than more traditional products. At the end of 2000, such policies represented 29.2% of the life assurance sector's total technical reserves. Life assurance products are mostly sold through banks, which in 2000 collected more than 50% of the total premium income of the life sector.

Insurance corporations' total assets were equivalent to 21.5% of GDP in 2000. Their securities holdings rose to €194 billion in 2000 (77.7% of total assets), with shares accounting for 17.6% of total assets. In the period 1999-2000, insurance corporations' investment behaviour was marked by a sharp reduction in the proportion of government securities held, accompanied by increases in the shares of euro-denominated equities, eurobonds issued by non-residents and investment fund units.

After reforms in 1992, 1995 and 1998, the Italian social security system now consists of a predominant public pay-as-you-go scheme, two types of private pension funds (closed and open) and insurance plans. Closed pension funds are occupational pension funds that are set

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds [1)]
(% of balance sheet, unless otherwise indicated; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	2.0	1.9	5.1	2.5
with residents	n.a.	n.a.	n.a.	n.a.
with non-residents	n.a.	n.a.	n.a.	n.a.
Securities other than shares	56.7	67.6	52.6	60.1
issued by residents	n.a.	55.4	n.a.	44.0
issued by non-residents	n.a.	12.2	n.a.	16.1
Shares	6.2	15.7	8.5	17.6
issued by residents	n.a.	14.9	n.a.	15.9
issued by non-residents	n.a.	0.8	n.a.	1.7
Fixed assets	17.5	4.9	14.3	3.3
Other assets [2)]	17.6	9.9	19.5	16.5
Total assets (EUR million)	12,799	176,639	17,630	250,979
Liabilities				
Other liabilities [3)]	1.9	16.0	2.3	13.7
Total liabilities (EUR millions)	12,799	176,639	17,630	250,979
Total assets/liabilities as a % of GDP	1.2	16.5	1.5	21.5
Number of pension funds and insurance companies				
Pension funds	545	-	558	-
Insurance companies	-	n.a.	-	200

Source: National statistics.
1) Data only include pension funds supervised by COVIP (the Italian supervisory authority of pension funds).
2) For insurance companies, net of liabilities other than technical reserves and net worth.
3) For insurance companies, net worth.

up by an agreement between unions and employers (see Forni and Giordano, 2001). Workers not entitled to participate in a closed pension fund have the opportunity to join an open pension fund, which can be managed by an asset management company, an insurance corporation or a bank. Both occupational pension funds and open pension funds are funded and, at least for employees, have to be defined contribution schemes. There are tax incentives for contributions. Moreover, workers joining an occupational pension fund are required to convert provisions to severance payments schemes into contributions to the fund. In addition to public pension schemes and pension funds, workers can subscribe an insurance policy for pension purposes. Also in this case tax incentives are provided.

So far, the enrolment rate in pension funds has been quite low, in particular among young workers. The slow development of supplementary pension schemes can mainly be ascribed to the high level of compulsory contributions to the public pension system and to the firmly entrenched tradition of severance pay.

At the end of 2000, pension funds held a substantial proportion of their assets in the form of securities other than shares (almost 53.0%). The percentages of shares and deposits were equal to 8.5% and 5.1%, respectively. Real estate continues to be a large item in pension funds' assets (14.3% of the total).

4 Markets

As shown in Table 4.1, in terms of outstanding amounts, most non-intermediated instruments are issued by residents, although the role of those issued by non-residents is rapidly increasing. In 2000, these represented 21% of the total, against 13% in 1997. Moreover, in the period 1998-2000 the instruments issued by non-residents represented 57% of the total flow of non-intermediated instruments. These instruments were in large part held by corporations, accounting for 38% of financial corporations' portfolios and 22% of non-financial corporations' portfolios. Their share in households' portfolios was smaller, although by no means negligible (at 15%).

The deceleration of the issuance of securities by residents is mostly due to the improvement in the financial balance of the Government. At the same time, the increase in issuance by resident non-financial corporations was rather limited. On the whole, the average flow decreased from €76.1 billion per year in 1995-97 to €54.7 billion per year in 1998-2000. The issuance of securities by non-residents accelerated, however, and partially compensated for the deceleration of the resident component.

The amount of shares issued by the resident sectors has increased over time. On average in the period 1998-2000, this flow was €33.6 billion per year (3% of GDP), compared with an

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Households	-0.6	-3.0	0.9	0.5
Non-financial corporations	2.9	-0.1	0.4	0.2
General government	-1.1	0.0	0.1	0.1
Financial corporations	1.3	0.2	5.3	3.2
excluding central bank	1.3	0.7	5.3	2.9
Resident sectors	2.5	-2.8	6.6	4.0
excluding central bank	2.5	-2.4	6.6	3.8
Non-residents	0.5	7.7	-	-
Total	3.0	4.9	6.6	4.0
Holdings (Amounts outstanding, end-2000)				
Households	55.2	37.0	9.2	6.6
Non-financial corporations	44.7	3.3	11.9	1.9
General government	8.1	1.6	0.8	0.3
Financial corporations	23.7	48.1	26.6	18.1
excluding central bank	23.0	42.5	26.5	16.4
Resident sectors	131.7	90.0	48.5	26.8
excluding central bank	131.0	84.4	48.4	25.1
Non-residents	17.6	42.3		
Total	149.3	132.3	48.5	26.8

Source: Banca d'Italia, national financial accounts statistics.

average of €16.5 billion per year in the preceding three years. In terms of amounts outstanding, it increased from 84% of GDP to 149%, the rise being partly due to higher share valuations. The issuance of shares by non-residents also increased in the second half of the 1990s.

Looking at flows, during the period 1998-2000, households actually reduced their holdings of securities and shares issued by residents, whereas they invested more in foreign shares and other securities. Non-residents increased substantially their net acquisition of securities issued by residents.

In the 1980s and the first part of the 1990s, the government sector accounted for the lion's share of the issuance of non-intermediated instruments. The large amount of bonds in circulation led to the creation of large, liquid and efficient secondary markets for the trading in public securities.

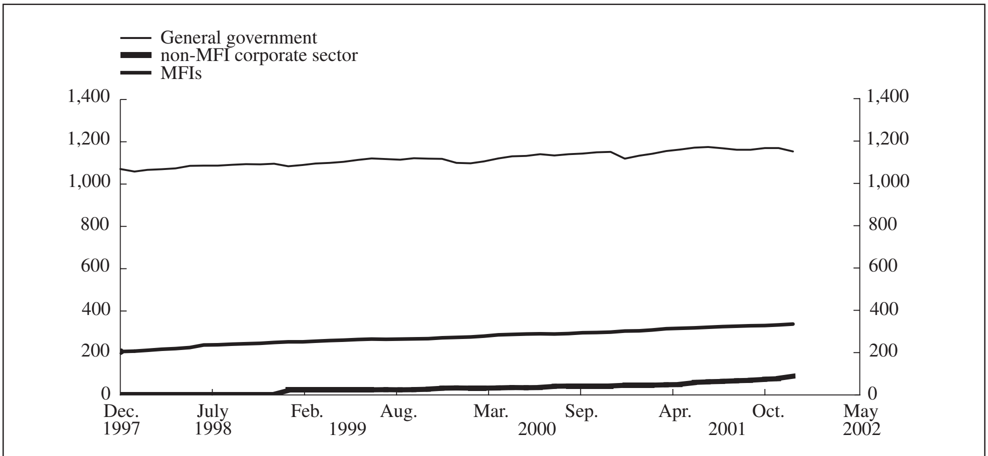
Over the past decade, all Italian markets have developed further, particularly with the creation of new market segments, the privatisation of the stock exchange, and the creation and consolidation of markets for futures and other derivatives. Furthermore, the privatisation of state-controlled corporations contributed to the increase in stock market capitalisation.

4.1 The bond market

4.1.1 The primary market: issuance

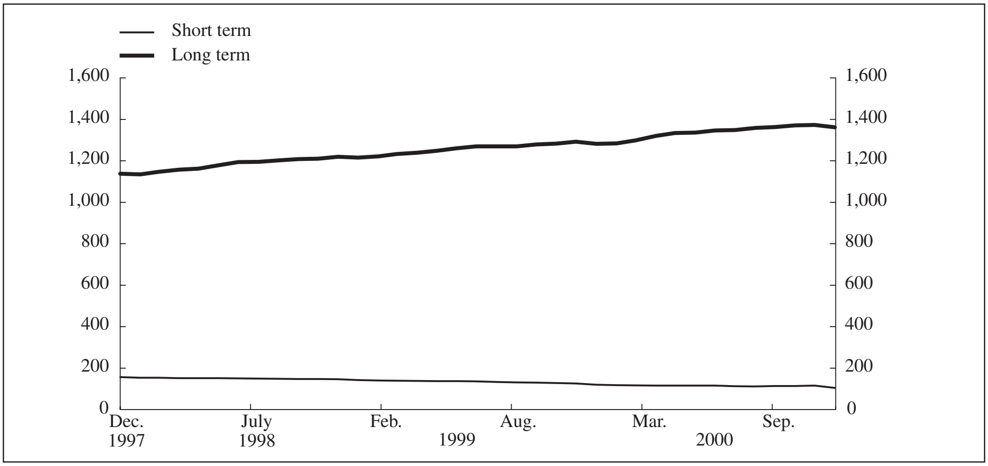
Since the first half of the 1990s, the techniques for allotting government securities have met the most stringent standards. The base price at auctions was abolished for all Treasury securities between 1988 and 1992. The introduction in 1994 of a category of intermediary called "specialist in government securities" has substantially improved the liquidity of the primary market. The reopening of auctions has enabled an increase in the size of each single issue. The Treasury has also increasingly resorted to new financial instruments, such as global bonds, interest rate swaps and currency swaps.

Chart 4.1: Outstanding amounts of debt securities by issuing sector
(EUR billions)



Source: Banca d'Italia.

Chart 4.1.1a: Outstanding amounts of debt securities by original maturity
(EUR billions)



Source: Banca d'Italia.

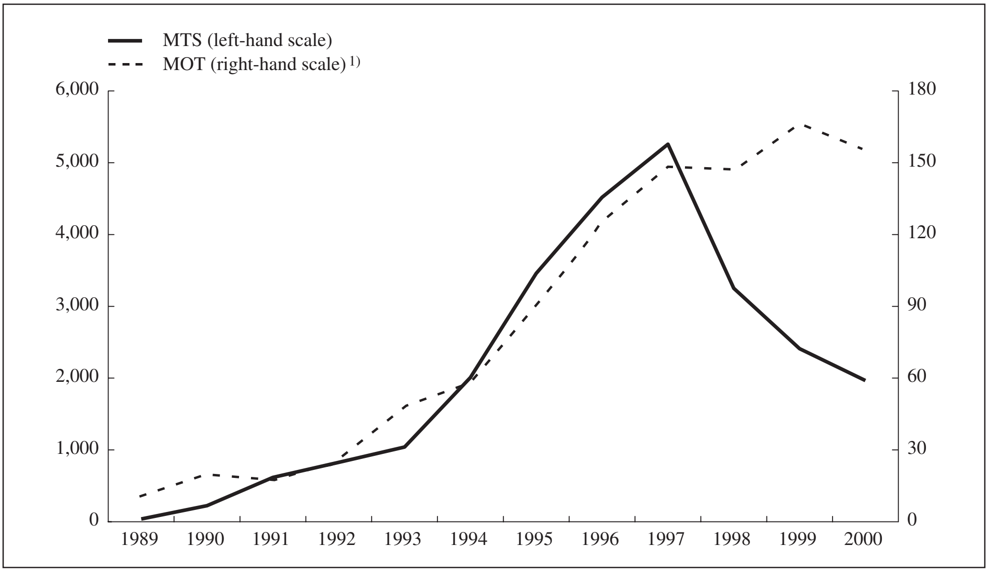
At the end of 2000, the value of outstanding bonds issued by Italian residents (public sector, banks and firms) amounted to some €1,150 billion, or 127% of GDP (see Chart 4.1). Of this amount, 77% had been issued by the public sector, 17.4% by banks and 5.7% by firms. The percentage of medium and long-term bonds was equal to 92% (see Chart 4.1.1a). The average life of government securities, which stood below 36 months at the beginning of the 1990s, rapidly increased to approximately 70 months at the end of the decade. New bonds from banks and firms accounted for a large share of the total amount of new issues and were mainly placed on the international markets.

4.1.2 The secondary market: organisation and integration

Since 1988, Italy has had an electronic wholesale market for trading government securities called MTS. This market has rapidly expanded from an initial average daily trading volume of €150 million to a peak of nearly €21 billion in 1997, stabilising at around €7.9 billion in 2000. The impressive growth in turnover in the middle of the 1990s reflected the exceptionally strong demand for Italian government securities, fuelled by expectations of a rapid convergence of medium and long-term interest rates on lira-denominated assets to the levels prevailing in Germany and France (see Chart 4.1.2a). In 1994, the introduction of the specialists in government securities, which are typically market-makers on MTS, favoured a sharp narrowing of the bid-ask spread, which fell from 36 basis points in 1993 to less than 4 basis points in 1999. In 1997, a segment for repo contracts was also introduced on MTS. At the end of 2000, trading on MTS accounted for almost half of the overall turnover in the secondary market for Italian government securities (for both outright transactions and repo contracts).

Borsa Italiana, the company managing the Milan-based Italian Stock Exchange, also operates a screen-based retail market (MOT) for domestic fixed income instruments, and another screen-based market (EuroMOT) for eurobonds, foreign bonds and asset-backed securities.

Chart 4.1.2a: Yearly turnover
(EUR billions)



Source: National statistics.
1) From 1999 MOT and EuroMOT.

The need to provide market agents with appropriate risk-hedging tools gave rise in 1992 to a market for government bond futures (MIF) and options (MTO). Despite a fast start, both of these segments were outpaced by other European markets, especially LIFFE (for short-term instruments) and, more recently, Eurex (for long-term instruments).

4.2 The stock market

Since the beginning of the 1990s, the pace of innovation on the Italian Stock Exchange has increased substantially. In 1991, a screen-based continuous auction trading system was introduced, together with a market for block trades. The futures and options markets were launched in 1994 and 1995 respectively, while the changeover to rolling settlement was completed in 1996. Liquidity, transparency and speed of execution were further enhanced by the abolition of the stockbrokers' monopoly, the liberalisation of commissions and the requirement to trade on the official market. The laws on takeover bids and insider trading enacted in 1992 and reinforced in 1998 by the Consolidated Law on Financial Intermediation increased the contestability of control of listed companies and the protection afforded to minority shareholders. The *Nuovo Mercato*, established to facilitate the listing of innovative companies with high growth potential, began to operate in June 1999. New screen-based segments for covered warrants and after-hours trading were launched in February and May 2000, respectively. More recently the STAR segment was created, aimed at medium-capitalisation enterprises which meet higher requirements in terms of liquidity, information provided to customers and corporate governance.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of public companies listed [1)]	243/86	297/94
Market capitalisation of listed shares (EUR millions) [2)]	485,187	818,384
Market capitalisation of listed shares (as a % of GDP) [2)]	45.2	70.3
Gross amount of capital raised by domestic companies through listed shares (EUR millions) [3)]	20,960	16,796
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP) [3)]	1.9	1.4
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	5/43	6/87
Concentration index (top-ten companies share of total market capitalisation) (%)	56.2	52.3
Number of foreign companies listed	4	6
Number of stock exchanges and other organised exchanges [4)]	1	1
Number of participants in these markets [5)]	138	152
Share of non-domestic participants [6)]	4.3	9.9
Number of transactions of traded shares [7)]	99,721	232,512
Total turnover of traded shares [8)]	1,680.6/107.5	3,421.8/115.5

Source: Borsa Italiana, STOXX Limited.
1) The first figure refers to the total number of listed enterprises; the second refers to those operating in the financial sector.
2) Capitalisation of domestic firms.
3) Includes IPOs and seasoned equity offerings.
4) In 1995 regional stock exchanges were merged into the Italian Stock Exchange in Milan. Stock trading in Milan is divided into three main segments, although within a single market.
5) Includes SIMs, banks and stockbrokers. The number of stockbrokers has been constantly declining since 1991 because, according to the new leglislation, no new positions will be available for this role.
6) Share of intermediaries operating through a remote system, i.e. from their country of residence.
7) Screen-based market, Nuovo Mercato (since 1999) and Mercato Ristretto; daily average number of transactions.
8) The first figure is the daily turnover in EUR millions; the second is the turnover velocity as a % of market capitalisation.

Despite the organisational improvements, the size of the Italian stock market relative to GDP is smaller than in other major countries.[20]

4.2.1 The primary market

Following the upward trend that began in 1997, the capitalisation of the Italian stock market rose markedly in 1999-2000. At the end of 2000, it stood at €818 billion or 70.3% of GDP, compared with €485 billion and 45.2% of GDP in 1998 (see Table 4.2). In the same period, the number of listed companies rose from 243 to 297. Of these, 242 were listed on the main market (5 foreign), 40 on the *Nuovo Mercato* (1 foreign) and 15 on the *Mercato Ristretto* (a segment for small-capitalisation stocks). The overall capital raised on the stock market decreased slightly between 1998 and 2000, from €21.0 billion in 1998 to €16.8 billion in 2000 (i.e. from 2.0% to 1.4% of GDP). Concentration remains high: ten stocks account for more than 50% of the overall capitalisation.

4.2.2 The secondary market

Since the second half of the 1990s foreign participation, though limited, has been increasing. In 2000 it reached 9.9% (against 4.3% in 1998, see Table 4.2). Market liquidity has moved

20 For an analysis of the reasons behind the reluctance of Italian firms to go public, see Pagano, Panetta and Zingales (1998).

Chart 4.2: National stock index development relative to EURO STOXX

Source: National statistics, STOXX Limited.

into line with that of the other major European stock exchanges. In terms of average capitalisation, turnover increased from 46% in 1995 to 116% in 2000. On the *Nuovo Mercato,* the average daily turnover at the end of 2000 stood at €116.1 million. On the derivatives markets, the notional value of futures contracts on the MIB30 index (the index of the 30 blue chips of the Italian Stock Exchange) totalled €985 billion in 2000, while that of options contracts amounted to €323 billion.

In 1998-2000, the MIB index (the index of all shares listed on the Italian Stock Exchange) gained more than 81%, compared with the 52.6% rise in the Dow Jones Euro STOXX index (see Chart 4.2.2a). The higher return on Italian shares over the period is mainly attributable to the shares of banks (which benefited from the restructuring and consolidation of the banking sector in the second half of the 1990s) and to those of telecoms companies.

5 Financing

5.1 Non-financial corporations

The increase in firms' profitability in the second half of the 1990s was associated with a decrease in firms' indebtedness. The improvement in profitability increased firms' internal sources of finance and also allowed a greater recourse to the markets. From 1996 to 1999, the drop in interest rates made a substantial contribution to reducing interest costs, thereby reinforcing the growth in self-financing. The ratio of external to internal financing (defined as gross savings plus capital transfers) of the sector was around 0.51 in 1998-2000, compared with a figure of 1.34 for the euro area.

Financial debt (loans and bonds) as a percentage of GDP progressively decreased in the 1990s, reaching a low of 50.6% in 1998, against 58.4% in 1993. The improved economic prospects, as well as the development of the stock exchange, prompted financing through the issuance of equity. The ratio of financial debt to the sum of financial debt and equity – a measure of leverage – decreased to 36% in 2000 (from 46% in 1997), partly as a result of the increase in the market value of shares. After 1998, the ratio of financial debt to GDP started to rise again, mostly in connection with the increase in investment spending and M&A activity, reaching 58.1% in 2000 (see Table 5.1). However, leverage remained low by historical standards.

In 2000, loans accounted for about one-third of outstanding liabilities. Shares and other equity accounted for 55%. The majority of loans were granted by resident MFIs and were short-term. Liabilities vis-à-vis the rest of the world represented 13% of total liabilities, while loans from the rest of the world accounted for 14% of total loans.

A feature of the financial structure of Italian firms is that trade credit and advances account for a significant proportion of firms' liabilities (11%). Empirical evidence shows that firms make greater use of trade credit during economic downturns or when monetary policy tightens. Moreover, firms with more limited access to external finance or with less internal funds tend to use this type of liability more frequently.

Bonds issued by firms represent a relatively limited share of their total liabilities. While shares are the most important liability among securities, it must be stressed that a large amount of them (around 50%) are unlisted shares and other equity issued by small and medium-sized firms and not traded on the market.

Considering the average annual flows over 1998-2000, loans represented a higher share of external financing, accounting for 55% of the total increase in liabilities over this period. Unlike the stock analysis which highlighted the shorter-term nature of loans, the flow analysis highlights the dominance of the long-term component, pointing to a progressive lengthening of the maturity of firms' debt in Italy.

In contrast, securities issuance represents a rather limited source of finance. Large firms have mainly used this source of financing up to now. More recently, euro-denominated issues by Italian firms have increased rapidly. This phenomenon was spurred by the introduction of the euro and the associated deepening of the market after the elimination of exchange rate risk. Italian issuers are mainly large in size, even if in the last three years 25 medium-sized firms, which are generally unrated, have issued bonds on the euro-market. The placement of smaller firms' issues was facilitated by the presence of Italian banks in the placement syndicates.

Another recent development in Italian firms' financing is the marked growth of the syndicated loan market. In 2000, syndicated loans accounted for 10% of outstanding bank loans to the corporate sector. Compared with bond issues, syndicated loans (in which one or more lead banks specify the amount, form and terms of a loan to a borrower and invite other intermediaries to provide a share of the funds under the same contractual conditions) allow borrowers to obtain large amounts of funds more quickly. They also allow greater flexibility in the interest rates, terms of use and repayment arrangements. Moreover, intermediaries benefit from a greater diversification of risk.

Historically, intermediaries other than banks have played a limited role in the financing of firms. However, the recent rise in the number of firms going public was met by an increase in the amount of finance supplied by venture capitalists to small and medium-sized firms. While growth in venture capital is significant, the outstanding amounts (equivalent to 0.2% of GDP in 2000) remain limited by international standards.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	2.6	103.3
Securities other than shares incl. financial derivatives	-0.1	2.0
of which short-term bonds (<1y)	0.0	0.2
of which long-term bonds (>1y)	0.0	1.5
Loans	4.6	56.3
from resident MFIs	3.0	41.6
of which short-term (<1y)	1.2	24.1
of which long-term (>1y)	1.8	17.5
from resident OFIs	0.6	5.2
from other residents	0.0	1.6
from non-residents	1.0	7.9
Trade credits and advances	0.6	20.4
Other liabilities	0.6	7.6
Total liabilities	8.4	189.7
Internal financing		
Gross savings	14.3	-
Net savings	0.1	-
Net capital transfers	2.1	-
Memo: Ratio external/internal financing	0.51	-
Financial assets	5.8	102.5
Deposits	0.6	9.3
Shares	3.5	57.9
of which mutual fund shares	0.2	1.3
Securities other than shares	0.2	5.1
Other financial assets	1.5	30.2

Source: Banca d'Italia, national financial accounts statistics.

A comparison with the euro area highlights the following points. The ratio of shares and other equities to total financial liabilities is slightly lower in Italy than in the euro area. In terms of financing flows, in 1998-2000 the share of loans to total liabilities incurrence was higher in Italy than in the euro area. Total financial liabilities were 190% of GDP in 2000, which is lower than in the euro area.

Micro data suggest a high degree of heterogeneity in the financial structure of firms. The financial structure mirrors the peculiar features of Italian industry, notably the strong presence of small firms. The share of employment accounted for by firms with less than 100 employees is estimated to be around 70%. Smaller firms tend to provide less information to their creditors, while also possessing less collateral assets. This is reflected in the high share of short-term debt on the liability side of firms' balance sheets. Small firms also tend to use less internal financing and have a higher interest burden owing to higher external debt.

5.2 General government

During the 1990s, the primary deficit of the general government progressively contracted, turning into a surplus. In the second half of the decade, the net financial indebtedness of general government further improved as a result of the reduction in interest expenditure and the decrease in debt owing to accruals from the privatisation of state-owned enterprises. The maturity structure of general government debt, previously mostly short-term, lengthened. Overall, in the period 1998-2000 external financing through short-term bonds decreased by €17.5 billion, whereas financing from long-term issues increased by €35.6 billion (see Table 5.2).

The process of privatisation of public enterprises is reflected on the asset side in the reduction in shares.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	0.9	15.0
Securities other than shares incl. financial derivatives	1.6	100.9
of which short-term bonds (<1y)	-1.6	8.6
of which long-term bonds (>1y)	3.2	92.3
Loans	-0.1	12.9
from resident MFIs	-0.1	5.3
of which short-term (<1y)	0.0	0.5
of which long-term (>1y)	-0.1	4.8
from resident OFIs	0.0	0.0
from other residents	0.3	6.5
from non-residents	-0.3	1.0
Other liabilities	-0.1	4.7
Total liabilities	2.3	133.5
Internal financing		
Gross savings	2.4	-
Net savings	-0.1	-
Net capital transfers	-1.5	-
Financial assets	0.4	33.8
Deposits	-0.2	4.8
Shares	-0.9	9.3
of which mutual fund shares	0.1	0.3
Securities other than shares	0.1	1.9
Other financial assets	1.4	17.8

Source: Banca d'Italia, national financial accounts statistics.

5.3 Households

Italian household financial indebtedness is low (see Table 5.3). The outstanding amount of financial liabilities was 31% of GDP in 2000. The ratio between external and internal funds (net savings) was also low at 0.16 in 2000, compared with a euro area figure of 0.41.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	2.4	22.9
Loans from resident MFIs	2.2	21.1
original maturity < 1y	0.1	4.5
1y < orig. mat. < 5y	0.5	4.9
5y < orig. mat.	1.7	11.8
other loans from resident MFIs		
other loans from resident lenders	0.1	1.8
loans from non-residents	0.0	0.0
Other liabilities	1.1	7.9
Total liabilities	3.5	30.7
Internal financing		
Gross savings	21.7	-
Net savings	13.7	-
Net capital transfers	0.0	-
Memo: Ratio of external/internal financing	0.16	-
Financial assets	9.7	233.1
Deposits	-0.1	56.0
Shares	8.9	103.5
of which mutual fund shares	8.6	39.1
Securities other than shares	-2.4	43.6
Other financial assets	3.3	30.0

Source: Banca d'Italia, national financial accounts statistics.

However, the ratio of household financial indebtedness to GDP increased rapidly in the second half of the 1990s. A large part of the rise was accounted for by long-term debt (mainly mortgages). In 2000, this form of debt represented 59% of total liabilities of the household sector. Loans with an original maturity over 5 years granted by resident MFIs represented 38% of total liabilities. Of the total amount of liabilities the largest share is loans from the banking sector (69% in 2000).

Consumer credit is not historically widespread in Italy, although it is on the rise. In 2000, it accounted for 14% of total financial debt of the household sector and was equal to 3% of GDP. More than 75% of this consumer credit had a maturity of up to 5 years. Uncollateralised loans represent a small part of the total. The level of collateralisation probably reflects the perceived riskiness of this form of debt, and also the length and costs of recovery procedures for loans.

5.4 Flow of funds abroad

Considering the amounts outstanding, financial liabilities of non-residents held by residents (see Table 5.4) increased from 72% to 112% of GDP between 1997 and 2000 and from 12% to 16% of total financial liabilities of all sectors.

In the period 1998-2000, the rest of the world was a net debtor. Looking at the amounts outstanding, the liabilities of non-residents held by residents were mainly in the form of

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
Deposits	1.6	18.0
Shares	0.5	17.9
Securities other than shares [1]	7.7	42.3
Other financial assets	1.4	21.7
Total financial assets	11.2	100
Liabilities of non-residents		
Deposits	-1.6	6.3
Securities other than shares [1]	4.2	27.7
of which short-term (<1 year)	0.0	1.0
of which long-term (>1 year)	4.2	23.7
Loans	1.4	16.6
of which granted by financial institutions	0.6	11.3
Shares and other equity	7.3	54.6
of which held by financial institutions	4.5	27.5
Other liabilities	0.6	7.1
Total liabilities	11.8	112.3

Source: Banca d'Italia, national financial accounts statistics.
1) Stocks include financial derivatives. For flows, the net position in derivatives is deemed to be on the asset side.

shares and other equities, a large proportion of which were issued by financial institutions. Securities other than shares accounted for 25% of total liabilities of the sector and were mostly long-term in nature.

Total assets of non-residents represented 14% of total gross financial assets in 2000 (compared with 12% in 1997). On the asset side, securities other than shares accounted for 42% of the total. They were mostly Italian government securities held by non-residents.

Direct investment from non-residents was equivalent to 0.7% of GDP in the period 1998-2000, whereas direct investment made abroad by Italian residents averaged 1.0%.

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Luxembourg

1 Introduction

Financial services in Luxembourg play a leading role that contrasts with origins of the national economy in the steel sector. At the end of 2000, the financial sector represented more than 10% of total employment and over 20% of gross value added. Luxembourg's financial services industry grew rapidly by continuously adapting to a changing market. Its initial focus on Euro-currency markets soon broadened to international and syndicated loans, and Luxembourg banks have now turned to investment fund administration and private banking.

Luxembourg's financial centre plays a major role in fund administration. It held second place in Europe in 2000 (first in 2001) and third place worldwide after the United States and France. Private banking and international syndicated loans are other important sources of business. Luxembourg's financial centre ranks fourth in Europe in terms of non-resident deposits from the non-bank sector, and third in terms of non-resident loans to the non-bank sector. Insurance and reinsurance corporations are also very active in Luxembourg. However, despite its increasing efficiency and liquidity, Luxembourg's stock market is still relatively small and underdeveloped, indicating that Luxembourg's financial system remains bank-based. This feature suggests that the traditional channel of monetary policy transmission through the banking balance sheet still maintains a dominant role in Luxembourg.

Unfortunately, this analysis is constrained by the non-availability of Luxembourg financial accounts data, including statistics on the Monetary Union Financial Accounts (MUFA), on the volume of bonds issued by companies, on the capital account of the balance of payments, etc.

2 Main features of and recent developments in the Luxembourg financial system

Credit institutions play a dominant role in Luxembourg. At the end of December 2000, there were 202 banks registered in Luxembourg. Few of these are active on the domestic market and the great majority are subsidiaries or branches of major European institutions, which focus their activities on the international markets. This aspect of the Luxembourg banking sector complicates any comparison with other European countries. Table 2a records the number of banks registered in Luxembourg, their geographical origin and the number of banks per 100,000 residents.

Luxembourg has a very high number of banks per capita – 48 for every 100,000 residents. This number may seem excessive, but it reflects the deep internationalisation of the Luxembourg banking system and its integration into European financial markets. At the end

Table 2a: Number and origin of banks

	1998	1999	2000
Belgium/Luxembourg	27	27	25
Germany	64	65	61
United States	7	7	9
France	18	18	16
Italy	22	23	21
Japan	9	9	5
Scandinavia	11	11	10
Switzerland	15	13	15
Other countries	36	37	40
Total	209	210	202
Banks per 100,000 residents	49	49	48

Source: Banque centrale du Luxembourg.

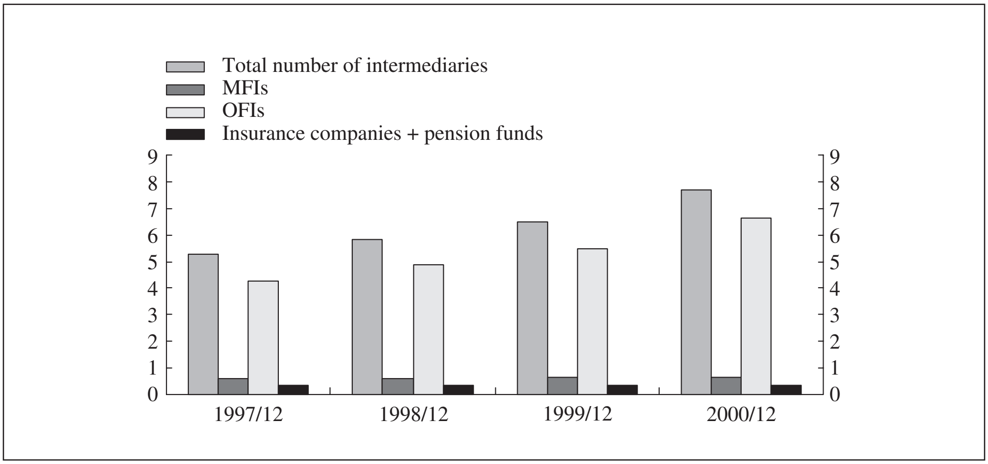
of December 2000, around 84% of inter-bank loans were granted to foreign banks, of which 10% were allocated to subsidiaries or parent companies. Around 80% of loans to non-banks (households, non-financial corporations and public entities) were granted to foreign customers. On the liabilities side, the share of foreign inter-bank debt was around 83%.

Luxembourg is also an important international centre for investment funds. In terms of value of funds under administration, it ranks second in the world after the United States, with a share of the European Union market above 20%. In terms of funds managed and distributed internationally, it is ranked first.

In order to diversify the core activities of the Luxembourg financial system, regulatory reform has sought to encourage new financial activities. The government has recently established a legal basis for international pension funds. At the end of 2000, four pension funds and one pension insurance company were operating in Luxembourg.

Chart 2a: Number of financial intermediaries

(in thousands)



Source: Banque centrale du Luxembourg.

The insurance and reinsurance market is very active in Luxembourg. By the end of 2000, there were 93 insurance corporations and 264 reinsurance corporations established in Luxembourg.

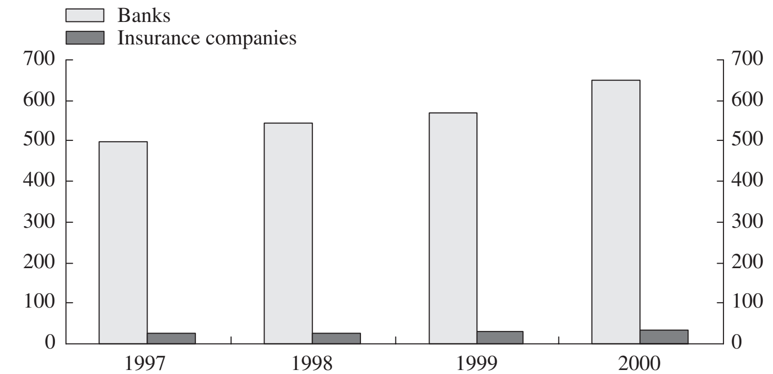
In 2000, trading volumes on the Luxembourg Stock Exchange reached record highs, especially for shares in Luxembourg-based companies and for bonds. However, by international standards trading volumes remained at a relatively low level.

The stock market established a cross-membership and cross-access agreement with Euronext on 16 November 2000. This agreement allowed members of the Luxembourg Stock Exchange to access Euronext securities via the unified NSC architecture through remote membership links. In 2000, international bonds represented 65% of all securities listed on the Luxembourg Stock Exchange.

3 Intermediaries

In 2000, a total of 7,845 financial intermediaries were registered in Luxembourg[1], 654 of which were MFIs, 7,108 were OFIs, four were pension funds and 354 were insurance corporations. Of the insurance corporations, 264 were reinsurance corporations and one was a pension insurance corporation. Although the total number of financial intermediaries has

Chart 3a: Aggregate balances of banks and insurance companies
(EUR billions)



Sources: Banque centrale du Luxembourg and Commissariat aux assurances.

been rising rapidly during the past five years, a closer look at the individual components reveals that the number of credit institutions is actually falling. Between 1998 and 2000, the number of banks dropped from 209 to 202. Mergers and acquisitions are largely responsible for this reduction, as the level of activity in the banking sector grew continually.

1 This number excludes holding corporations and Professionals of the Financial Sector (PFSs).

Financial activities in Luxembourg are mainly based in the banking sector. In the 1970s, a number of European banking groups created subsidiaries in Luxembourg to gain access to the Eurocurrency market, a reaction to regulatory limitations and minimum reserve requirements in their respective home countries. Within a period of less than five years, 15 subsidiaries of major European banking groups, primarily of German origin, began operating in Luxembourg. With the growth of the Eurobond market, the Luxembourg financial system emerged as a major centre for these activities. The Eurocurrency market, which began as a deposit activity, also stimulated the growth of international syndicated loans in Luxembourg.

Chart 3a shows the aggregated end-of-year balance sheets of insurance corporations and banks. Despite the high number of banks and insurance corporations operating in Luxembourg, most of them have a relatively small balance sheet.

3.1 Channelling of funds through intermediaries

The increasing variety of available investment instruments is likely to reduce the share of savings held as deposits with intermediaries. However, the aggregated balance sheet of Luxembourg's credit institutions indicates that the volume of bank deposits has in fact continued to increase, particularly as a result of business with non-euro area countries. From 1999 to 2000 Luxembourg households increased their share of banking liabilities by 22%, while non-financial corporations invested heavily in banking assets (+12.5%). This development seems to run counter to the global trend towards disintermediation of financial services. At the end of 2000, Luxembourg ranked third in Europe (after the United Kingdom

Table 3.1: Holdings of financial assets in the form of intermediation oriented instruments by sector
(as a % of GDP)

Amounts Outstanding	**Monetary financial institutions MFI** deposits, money market fund shares	**Other financial institutions OFI** investment fund shares	**Pension funds and insurance companies** deposits, technical reserves	**Non-resident intermediaries** deposits, money market and investment fund shares, technical reserves
		end-2000		
Households	76.4	-	-	-
Non-financial corporations	65.0	-	-	-
General government	24.7	-	-	-
Financial corporations	707.0	-	-	-
Non-residents	1,931.3	-	-	-
Total	2,805.0	-	-	-
		end-1998		
Households	75.8	-	-	-
Non-financial corporations	41.8	-	-	-
General government	27.3	-	-	-
Financial corporations	649.8	-	-	-
Non-residents	2,029.2	-	-	-
Total	2,824.1	-	-	-

Source: Banque centrale du Luxembourg.

and Germany) in terms of external loans to the non-bank sectors, and fourth (after the United Kingdom, Switzerland and Germany) in non-resident deposits.[2]

3.2 Monetary financial institutions (MFIs)

Luxembourg credit institutions can be divided into three groups: commercial banks, co-operative banks and banks issuing mortgage bonds. Commercial banks are mostly companies limited by shares, often focused on universal banking services. Co-operative banks focus on collecting deposits, mainly from households, and granting loans to households (particularly in the form of mortgage loans) and to small and medium-sized firms. The third group of banks specialise in the issuance of mortgage-based bonds *(lettres de gage)*.

Luxembourg's legal framework for mortgage-based bonds was created at the end of 1997 and is based on the German *Pfandbrief* model. Credit institutions allowed to issue mortgage-based bonds must limit their principal activities to estate and property financing and/or loans granted to or guaranteed by public authorities. However, these banks may also engage in auxiliary banking and financial activities, such as collecting deposits, borrowing external funds and administering and managing clients' accounts.

Table 3.2: Number of MFIs divided into different categories

	1998	2000
Companies limited by shares	139	135
Co-operative enterprises	2	2
Saving banks	0	0
Branches foreign institutions	68	63
Other credit institutions	0	0
Money market funds	409	452
Total	618	654

Source: Banque centrale du Luxembourg.

This structure provides added security to the bearer of the mortgage-based bonds, as the banks involved are not allowed to change their principal activities over time. Furthermore, these banks are only allowed to refinance their principal activities on the market by issuing mortgage-based bonds. Due to the high level of protection, mortgage-based bonds have a lower risk weighting, as imposed by the Capital Adequacy Directives. They are also eligible as collateral in liquidity-providing reverse transactions with the Eurosystem. In fact, mortgage-based bonds in Luxembourg are more flexible than the German *Pfandbrief* in that they provide a greater opportunity to diversify internationally. The underlying public loans may originate from issuers in the OECD area, where 97% of public sector debt is rated AA or higher, whereas collateral for the German *Pfandbrief* can only be located in the EEA or Switzerland.

At the end of 2000, there were three banks in Luxembourg authorised to issue mortgage-based bonds. They accounted for 2.5% of the total assets held by the Luxembourg banking sector.

Among MFIs, banks dominate in terms of balance sheet size, while money market funds dominate in terms of number of entities. However, the total capitalisation of money market

2 BIS Quarterly Review: International banking and financial market developments, March 2002, P. A13.

Table 3.3: Concentration and average size of credit institutions

Index	1998	2000
Herfindahl	0.02	0.02
Top five's share of total assets (%)	24.58	26.27
Average size of top 5 (EUR millions)	25,519	31,420
Average size of all banks (EUR millions)	2,587	3,207

Source: ECB calculations based on Banque centrale du Luxembourg data.

funds has continued to rise faster than bank assets. The amount of capital invested in money market funds increased by more than 77% from 1998 to 2000. The level reached represents slightly more than 10% of bank deposits, while in 1998 it only amounted to about 7%. As illustrated in Table 3.3, Luxembourg's MFI sector has become increasingly concentrated. In 1998, the top five banks held on average just over €25 billion in assets, while in 2000, they held over €31 billion. This development reflected an increasing market share held by the five largest banks and apparently intensifying concentration. Moreover, the number of banking entities fell by 4% over the two-year period, while total assets handled by all banks rose by about 15% in nominal terms. Combining the increase in total banking assets with the smaller number of banks yields a 19% increase in the size of the average bank.

The Herfindahl-Hirschman concentration index[3] suggests a slight increase in concentration during the period under review. However, its level is still low compared with other countries because most of Luxembourg's banking activity is oriented towards the international market for banking services. In reality, Luxembourg's domestic market is served by only a few of the banks present in the country.

The aggregated balance sheet of credit institutions shown in Table 3.4a reveals that Luxembourg banks rely largely on deposits. Indeed, deposits remain the major source of bank funding and account for a stable proportion of liabilities at around 80%, of which 59% is in interbank deposits. However, the share of deposits from non-residents decreased from 59.1% in 1998 to 54% in 2000. This implies a slight increase in the share of deposits from residents from 25.2% to 25.8%.

On the assets side, almost 80% of loans in 2000 were granted to non-residents, of which more than half were allocated to euro area residents. The share of loans granted to the domestic economy remained fairly stable at 19%, while the share granted to non-euro area residents experienced a small decline of almost 3%. This is in line with the level of banks' business denominated in euro. In 2000, 53% of Luxembourg banks' business was carried out in euro, an increase of 3% from 1999. Despite the increasing share of euro-denominated business, this level remained lower than the level observed in the majority of the euro area countries, where it is around 75% or above. However, the euro still remains the most important currency for banks in Luxembourg.

Newly granted mortgage loans for property located in Luxembourg represented only 2.5% of total resident loans in 2000. This share was relatively stable during the period under review. Most of these loans are at a variable interest rate. The average interest rate charged by Luxembourg banks was 5.8% in 2000, while it stood at 5% in 1998 and 1999.

3 The Herfindahl-Hirschman index (HHI) is calculated using total assets as a proxy for overall bank activity. Individual market share per bank is calculated as the ratio of the individual bank's total assets to the sum of all Luxembourg banks' total assets. The HHI calculated on basis of deposits and loans yields similar results. The maximum value of the HHI in the case of monopoly is 1.

Table 3.4a: Aggregated (non-consolidated) balance sheet of MFIs
(as a % of total assets)

Assets	1998	2000
Cash	0.1	0.1
Loans to	70.9	68.9
domestic MFIs	11.3	10.7
other domestic residents	3.0	3.1
of which original maturity < 1y	1.2	1.2
of which 1y< orig. mat.<5y	0.3	0.4
of which 5y< orig. mat.	1.4	1.4
non-residents	56.7	55.1
Securities other than shares issued by	24.2	24.7
domestic MFIs	0.9	0.7
short-term	0.3	0.2
long-term	0.7	0.5
other domestic residents	0.2	0.2
short-term	0.0	0.0
long-term	0.2	0.1
non-residents	23.1	23.8
Shares issued by	1.3	2.0
domestic MFIs	0.1	0.2
other domestic residents	0.3	0.4
non-residents	0.9	1.5
Fixed assets	0.5	0.5
Other assets	3.0	3.8
Total assets as a % of GDP	3,185.4	3,166.2
Liabilities		
Deposits	83.3	80.5
domestic MFIs	12.8	14.7
other domestic residents	11.4	11.1
overnight deposits	4.5	5.3
other deposits	6.2	5.4
non-residents	59.1	54.7
Securities other than shares	8.5	10.3
short-term	3.7	4.4
long-term	4.8	5.8
Capital and reserves	2.5	5.3
Other liabilities	5.7	4.0
Total liabilities as a % of GDP	3,185.4	3,166.2

Source: ECB and Banque centrale du Luxembourg.

The attractiveness of mortgage loans was enhanced by tax deductions, which were €1,500 per year per person living in the household for the first five years of the mortgage. This deduction is progressively reduced to €750 for dwellings occupied for ten years or longer.

The aggregated balance sheet of money market funds, see Table 3.4b, gives a similar picture of the geographical distribution of assets. More than 74% of assets were held by non-residents in 1998 and more than 82% in 2000. Most of these assets were held by euro area residents. A comparison of deposits from euro area residents with loans granted to euro area residents reveals that Luxembourg-based money market funds were a net credit provider to the euro area economy.

Table 3.4b: Aggregated balance sheet of money market funds

(as a % of total assets)

Assets	1998	2000
Cash	0.0	0.0
Deposits	16.6	12.4
with domestic residents	6.7	3.8
with non-domestic residents	9.9	8.6
Securities other than shares	64.9	76.7
issued by domestic residents	0.3	3.1
issued by non-domestic residents	64.7	73.7
Other assets	18.4	10.9
Total assets as a % of GDP	219.0	283.6
Liabilities		
Money market fund shares/units	82.4	93.9
Other liabilities	17.6	6.1
Total liabilities as a % of GDP	219.0	283.6

Source: Banque centrale du Luxembourg.

In economic terms, the activity of money market funds is linked to that of credit institutions. Thus, it seems likely that the development of the money market funds allowed Luxembourg banks to offer products that were more attractive than those of traditional financial intermediation (such as deposits). Several factors have helped in recent years to create an environment that is eminently favourable to short-term collective investments, such as the narrowing gap between long and short-term interest rates.

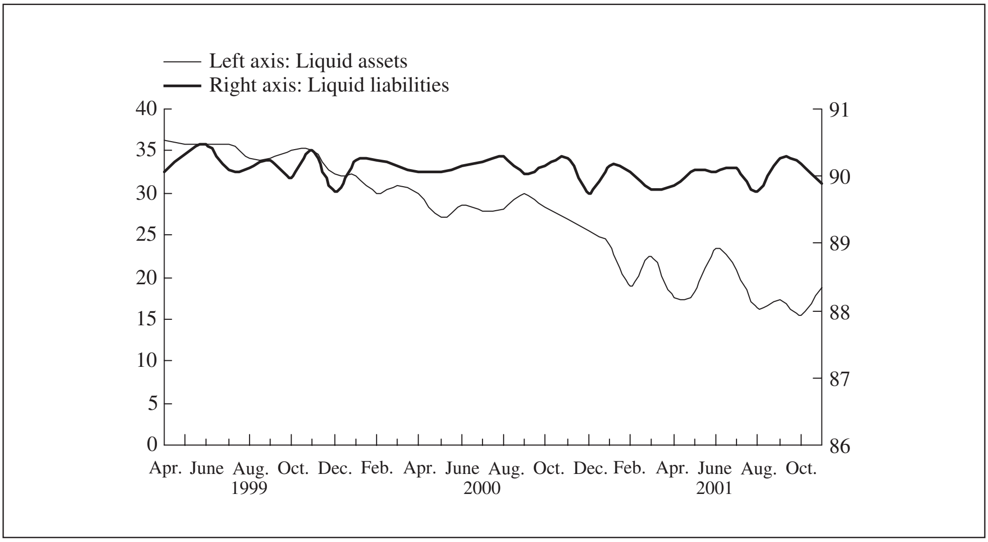
Money market funds are also indirectly present on the interbank market. In fact, 95% of the loans appearing on their balance sheets in 2000 were granted to credit institutions. Money market funds deposited significant amounts with credit institutions (usually their parent corporation), accounting for some 2.5% of money market funds' total assets. The volume of securities other than shares issued by MFIs which were held by money market funds amount to €18.257 billion, which represents around 20% of their total assets.

The ratio of liquid assets to liquid liabilities may be a useful indicator in analysing the transmission of the single monetary policy in Luxembourg. If bank liabilities decline following a tightening of monetary policy, banks may lower total assets by selling liquid assets instead of reducing their lending. Monetary policy tends to have a stronger impact on less liquid banks, because these banks are more likely to restrict lending to avoid an undesirable drop in their ratio of liquid assets to total assets.

Liquid assets include interbank loans and bonds issued by OECD governments and corporations. Liquid liabilities may be either deposits or borrowing. Borrowing includes all debts other than subordinated debt. Monthly balance sheet figures indicate clearly that Luxembourg banks' liquid liabilities displayed a decreasing trend from April 1999 to May 2001, a period of monetary policy tightening. However, liquid assets were characterised by substantial stability over this period. The above findings are in line with those for Italy reported by Gambacorta (2001), who concluded that the degree of liquidity was the main factor enabling banks to contain the effect on lending of a fall in deposits.[4]

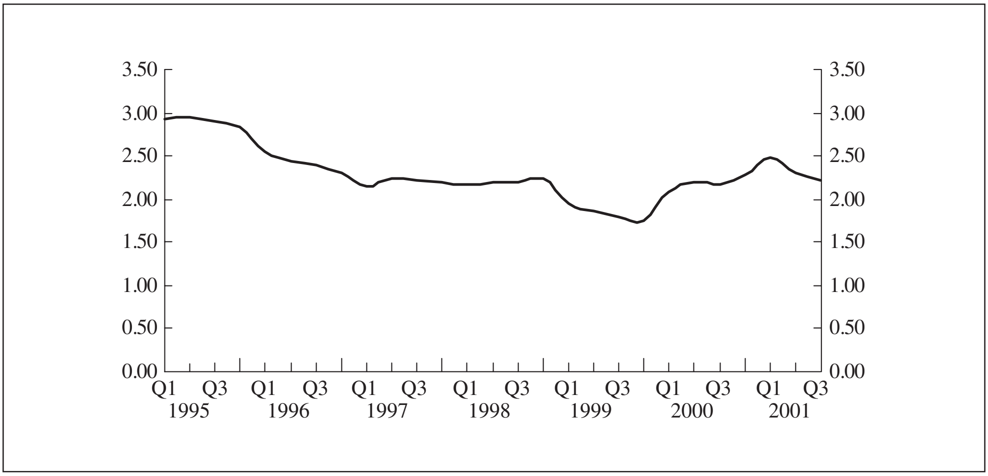
4 Gambacorta, L. (2001), "Bank-specific characteristics and monetary policy transmission: the case of Italy", ECB Working Paper No. 103, December.

Chart 3.2a: Liquid assets and liquid liabilities, 1999-2001
(as a % of total assets and total liabilities)



Source: Banque centrale du Luxembourg.

Chart 3.2b: Luxembourg banks' net interest margin, 1995-2001
(in %)



Source: Banque centrale du Luxembourg.

Another indicator useful for analysing monetary policy transmission is the net interest rate margin of Luxembourg banks (defined as banks' quarterly net interest income divided by the sum of loans and securities other than shares).[5] As appears in Chart 3.2b, this ratio is

5 Data is seasonally adjusted by using an accumulative moving average method.

relatively low by comparison with other European countries (see Huizinga, 2001),[6] possibly reflecting the large share of interbank activity in Luxembourg. At the end of 2000, 59% of total deposits and 71% of loans were vis-à-vis other banks. Other factors explaining low interest margins may include low loan default rates, competitive pressures in the international banking market and good cost management by Luxembourg banks.

3.3 Other financial intermediaries (OFIs)

Other financial intermediaries include all financial corporations and quasi-corporations incurring liabilities in forms other than deposits. Luxembourg's investment funds dominate this sector both in number and in size. At the end of 2001 fund assets under management in Luxembourg exceeded €915 billion. Of the 83 fund managers, the top ten accounted for two-thirds of total assets. Investment fund management is more concentrated than that of OFIs. This is because most fund managers concentrate on in-house funds.[7] This is especially true for Swiss banks, which remain the biggest source of Luxembourg-based funds (see Table 3.6 below).

Table 3.5: Number of new funds divided into categories

	1998	1999	2000
Equity funds	544	690	965
Bond funds	523	496	411
Mixed funds	210	159	148
Money funds	420	439	445
Funds of funds	83	147	320
Other funds	12	24	16
Total of new segments	1,403	1,533	1,855
Total of segments	5,178	5,836	6,995
Total mutual funds	1,521	1,630	1,785
Securities and derivatives dealers [1)]	83	90	113

Source: CSSF (Annual Report 2000).
1) No separate data available for securities and derivatives dealers and financial corporations engaged in lending.

As illustrated in Table 3.5, at the end of 2000, the number of funds was slightly below 1,800. They represented a total of 6,995 segments. More than 50% of all segments were equity funds. In part, this success reflects the fact that Luxembourg was the first Member State to implement the 1985 EU Directive on UCITS (undertakings for the collective investment in transferable securities) allowing the cross-border sale of investment funds shares in the European Union using a "single passport". This single licence allows asset management corporations to operate throughout the European Union, and to manage the assets of both private and institutional investors, including pension funds.

Table 3.6 below shows the geographical origin of fund promoters and the respective shares of total assets at the end of 2000.

Luxembourg's UCITS were especially attractive because of (i) the aforementioned swift implementation of the 1985 UCITS Directive, (ii) the rapid decision-making by the relevant

6 Huizinga, H. (2001), "EMU and financial market structure", European Commission, workshop on 'The functioning of EMU: challenges of the early years', March.
7 An institution created to manage and administer funds belonging to other financial institutions.

Table 3.6: Geographical origin of fund promoters at the end of 2000

Origin of fund promoter	Market share (in % of total assets)
Switzerland	14.8
United States	10.6
Germany	15.2
Italy	7.0
Belgium	13.4
United Kingdom	7.6
France	10.8
Japan	3.2
Sweden	2.6
The Netherlands	3.2
Others	11.6

Source: CSSF (Annual Report 2000).

supervisory bodies, (iii) the availability of a wide range of different institutional forms for investment funds, (iv) the diversity of financial instruments allowed for investment, (v) Luxembourg's bank secrecy laws and (vi) the exemption of non-residents from withholding tax, a characteristic which Luxembourg shares with many other EU Member States.

3.4 Insurance corporations and pension funds (ICPFs)

Insurance activities in Luxembourg are dominated by subsidiaries of European insurance groups. EU cross-border business accounts for more than 90% of premium income. Life assurance dominates the sector, with 62% of total premium income and 59% of total assets. Life assurance corporations also dominate direct insurance activities in terms of the numbers of units operating (see Table 3.7). Although reinsurance corporations are more numerous, their total assets are equal to only 50% of total assets of the direct insurance business.

Table 3.8 presents the aggregated balance sheet of insurance corporations in 1998 and 2000. The insurance sector's investment policy was more aggressive in 2000 than in 1998. This is mostly true for reinsurance corporations, whose investment policy concentrated on the equity market. They are primarily exposed to equities (33%), debt securities (24%) and investment in related corporations (19%). Life assurance corporations were more risk averse, preferring EU government securities (64%,) and private sector bonds (19%) to shares (4%). Contractual savings (in pension funds and life assurance corporations) are illiquid assets.

Table 3.7: Number of insurance corporations and pension funds by category

	1997	1998	1999	2000
Direct insurance corporations	91	93	94	96
Life insurance corporations	50	53	56	55
Non-life insurance corporations	21	21	21	23
Pension corporations	1	1	1	1
Foreign branches	19	18	16	14
Pension funds (source: CSSF)	0	0	0	4
Reinsurance corporations	255	255	257	264
Total	346	348	351	357

Sources: Commissariat aux assurances and CSSF.

Table 3.8: Aggregated balance sheet for insurance and re-insurance companies
(as a % of total assets/liabilities)

Assets	1998	2000	Liabilities	1998	2000
Deposits with banks	10.2	8.9	Technical reserves	84.7	88.2
Securities other than shares	51.9	38.8	Other liabilities	15.3	11.8
Shares	19.9	35.8	-	-	-
Loans	2.8	2.2	-	-	-
Other assets	15.1	14.3	-	-	-
Total assets as a % of GDP	169	192	-	-	-

Sources: Commissariat aux assurances, Banque centrale du Luxembourg aggregation.

These funds are usually available to asset holders only upon the occurrence of particular events (e.g. retirement, death or disability). Other institutional investors, such as non-life insurance corporations, mobilise a considerably smaller volume of savings. They represent less than 10% of total assets in the direct insurance balance sheet.

In 1999, the Government created a legal framework for international pension funds. Promoters may choose between two kinds of vehicle, which must be registered and supervised by the *Commission de Surveillance du Secteur Financier* (CSSF).

First, the 1999 law envisaged a new type of co-operative savings/pension institution with variable capital, i.e. SEPCAVs *(Sociétés d'Epargne Pension à Capital Variable)*. This new hybrid institution combines the characteristics of a co-operative entity (variable capital and variable composition of members, as well as non-transferability of shares) with those of a public limited company. However, unlike the public limited company, the new hybrid institution benefits from certain tax exemptions and faces limitations on the scope of its activities.

Second, the law provided for ASSEPs *(Associations d'Epargne-Pension)*. This type of pension fund is a commercial entity with a legal personality. It combines characteristics of non-profit associations with those of commercial organisations. Both members of an ASSEP and beneficiaries hold rights in the form of claims. At the time of retirement, beneficiaries receive either a lump-sum payment or rights under a pension scheme.

SEPCAVs and ASSEPs are subject to different tax regimes. While SEPCAVs are fully liable to corporate income tax, local commercial tax and wealth tax, they are exempt from all taxes on income generated by their securities portfolio. ASSEPs are also subject to corporate tax and local commercial tax, but are required to build up provisions for pension commitments, which are tax-deductible. Thus, ASSEPs do not hold any taxable wealth and can offset any tax liability arising from their financial revenues (in the form of contributions) through their system of tax-deductible provisions.

On 31 August 2000, a third type of pension vehicle was introduced to improve access to contractual savings. Unlike SEPCAVs and ASSEPs, this third vehicle is an insurance instrument and operates under the authority of the *Commissariat aux assurances*. It can take four legal forms: a mutual insurance association, a co-operative society, a co-operative society organised as a limited company or a non-profit-making association.

At the end of 2000, the *Commissariat aux assurances* supervised one pension fund and the CSSF supervised three.

4 Markets

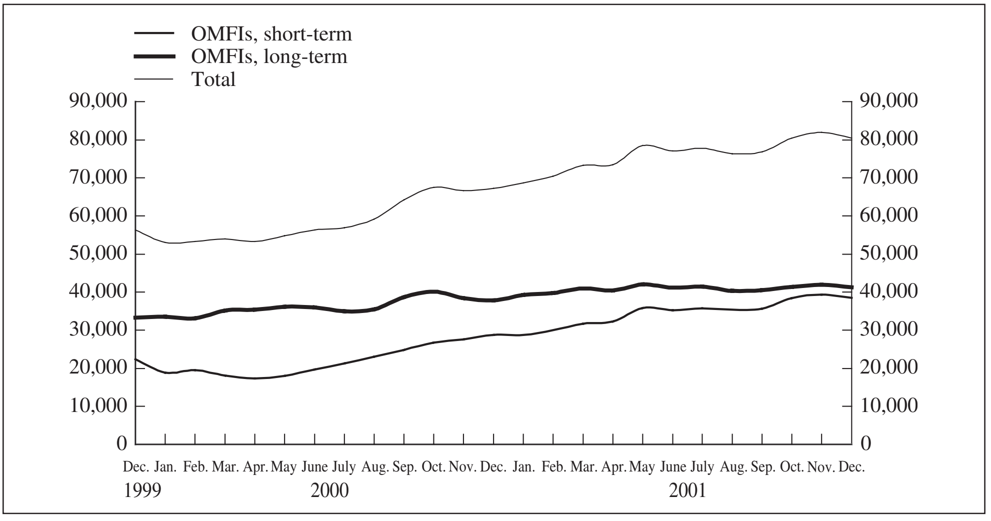
The Luxembourg Stock Exchange was founded in 1928 as a private corporation issuing shares subscribed by local banks. The exchange prospered after 1963 when the United States adopted the interest equalisation tax. This tax aimed to restrict the access of international debt issuers to the US market, where the Federal Reserve limited interest rates. As a result, international bond issuers turned to Europe and the eurodollar bond market started to grow, especially in Luxembourg. During this period the volume of bonds issued in New York fell sharply as US banks organised international syndicates to issue bonds abroad. The regulatory constraints of the largest financial centres in Europe, including London and Zurich, led many US banks to quote and issue in Luxembourg. The abolition of the interest equalisation tax in 1974 did not have the anticipated negative impact on Luxembourg's financial centre, as the issuance of eurodollar bonds continued to grow steadily.

In 1969 Luxembourg saw the first international bond issued in a currency other than the dollar. 1981 saw the first listing of a bond denominated in ECU. The Luxembourg Stock Exchange continued to grow, attracting prestigious bond issuers, such as the World Bank in 1988 (with issuance totalling USD 1.5 billion). Although the development of the Luxembourg Stock Exchange was rapid, it remained relatively small in terms of trade volume and capitalisation. At the end of 1998, the Luxembourg Stock Exchange co-founded the Benelux Stock Exchange alliance and in 2000 it began to co-operate with Euronext.

4.1 The bond market

In 1998, total nominal gross issuances of debt securities amounted to €619.1 billion. In 1999, it strongly increased to €804.3 billion, and in 2000 it reached €979.8 billion, mainly reflecting the large financing requirements of non-resident corporations as a result of the

Chart 4.1a: Outstanding amount of debt securities issued by other MFIs (other than the central bank) by original maturity
(in EUR millions)



Source: Banque centrale du Luxembourg.

sharp increase in mergers and acquisitions, particularly in the banking and telecoms sectors. The US dollar remained the favoured currency of international issuers in Luxembourg during the reference period, accounting for more than 52% of total issuance in 2000, while euro issuance accounted for 37%. The issuance of bonds in other currencies accounted for only 10% of the total.

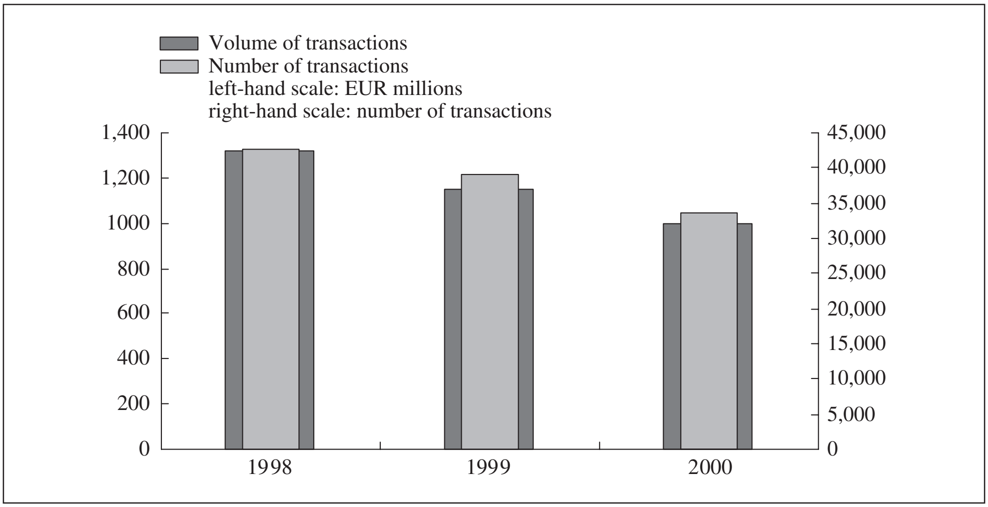
Debt securities issuances by residents accounted for only 7% of the total. Therefore, by far the largest proportion of primary issues came from non-residents. In addition, a new type of credit institution, specialised in the issuance of "mortgage-based bonds", was launched in 1997 and grew more active in the Luxembourg primary market. In 2000, issues of "mortgage-based bonds" reached €6.1 billion. In 2001, the Luxembourg Stock Exchange quoted 25 new issues of mortgage-based bonds in four different currencies (EUR, CHF, JPY and USD), increasing the total nominal value of mortgage-based bonds issued by Luxembourg banks to a total of €9.2 billion.

Chart 4.1a shows the total amount of outstanding debt securities issued by resident MFIs (other than the central bank) on the Luxembourg bond market and the breakdown by original maturity.

The Luxembourg bond market remains attractive for international issuers, although there are few government bond issues and thus no government benchmark bonds or market makers. At the end of 2000, the share of central government bonds in the total stock of bond issues stood at only 0.80%. This percentage has remained more or less stable since the beginning of the 1990s.

The secondary market for debt securities in Luxembourg, although growing, remains rather illiquid. The average annual volume of transactions on the bond market amounted to more than €1 billion during the period under review. The corresponding average number of transactions was 38,475. The secondary bond market experienced a continuous decline in activity between 1998 and 2000. Chart 4.1b, which shows both the annual number and volume of transactions, indicates the downturn in bond activity, particularly in 2000 when the value of transactions reached only 76% of that observed in 1998.

Chart 4.1b: Secondary bond market activity



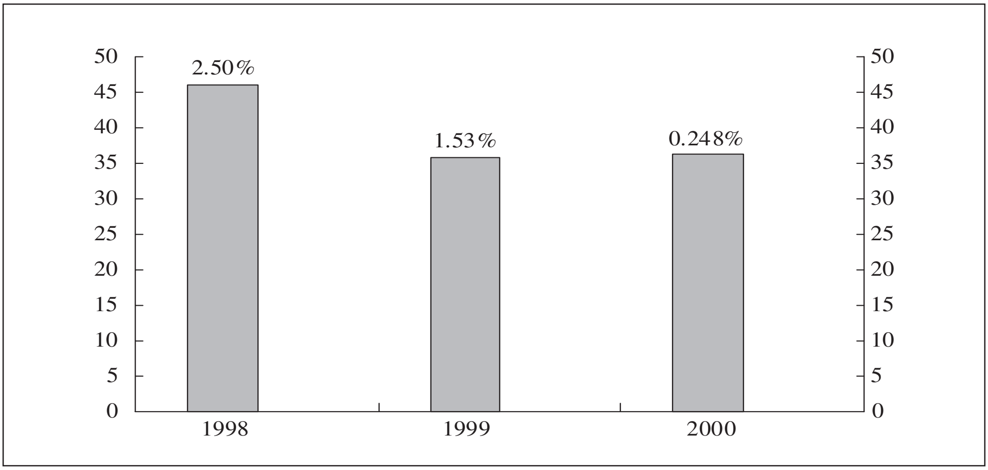
Source: Luxembourg Stock Exchange.

4.2 The stock market

4.2.1 The primary market

The level of equity issuance in Luxembourg in recent years has remained low both by historical standards and by comparison with other developed markets. While in 1998 new issuance accounted for 2.5% of domestic corporations' capitalisation, this fell to about 1.5% in 1999 and less than 0.25% in 2000. These ratios remained low compared with the euro area average, which was 4% in 1999 and 5% in 2000.

Chart 4.2.1a: New capital raised in absolute terms and as a percentage of domestic companies' market capitalisation
(in EUR billions)



Sources: Luxembourg Stock Exchange, Banque centrale du Luxembourg calculations.

Table 4.2.1 summarises some structural characteristics of the stock market in 1998 compared to 2000. In 1998, 276 companies were listed, but by the end of 2000 this number had fallen to 270. This reduction was mostly attributable to mergers affecting foreign-owned companies.

Table 4.2.1: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies	276	270
Number of foreign companies listed	223	216
Number of domestic companies listed	53	54
Market capitalisation (EUR millions)	445,711	559,217
Domestic companies' capitalisation (EUR millions)	46,121	36,231
Gross amount of capital raised	-	1,924
Number of stocks belonging to EURO STOXX 50	0	0
Number of stocks belonging to EURO STOXX	0	0
Sectoral distribution of listed companies	-	-
Concentration index, top-ten companies' share of total market capitalisation (%)	74.50	82.70

Source: Bloomberg.

The above table also presents some information on market capitalisation which can be used to gauge the importance of the national equity market, as measured by the ratio of market capitalisation to GDP. For instance, market capitalisation represented 2,678% of nominal GDP in 1998 and around 2,732% in 2000, after reaching a record high level of 2,960% in 1999. The Economic and Monetary Union, the high number of foreign listed companies and the leap in new technology shares in 1999 contributed to these developments. In fact, the ratio of market capitalisation to GDP falls strongly if foreign listed companies are excluded. The ratio of the market capitalisation of domestic companies to GDP amounted to 191% in 1998, 195% in 1999 and 177% in 2000. Despite this decline, market capitalisation still remains very high in comparison with other European countries. This is due to the quotation of national firms, such as ARBED, RTL Group and Société Européenne des Satellites, which have very high capitalisations as a result of their international activities.

The drop in this ratio during 2000 coincided with the removal of three important domestic companies from the market. Banque Internationale de Luxembourg was absorbed by Dexia, Banque Générale de Luxembourg was taken over by Fortis Bank and Safra Republic Holding was absorbed by HSBC. In addition, the RTL Group decided to list 10.3% of its quoted capital on the London Stock Exchange rather than in Luxembourg. These events affected the concentration index, which rose from 74% in 1998 to 83% in 2000. This is a high rate compared with other European countries, which may be explained by the small size of the country, implying a limited number of listable companies, the large presence of foreign companies whose parent companies are listed abroad, and the relative absence of a domestic investment culture.

In addition, a law on investment incentives to promote economic growth (the Rau law) provided for favourable tax treatment of investments in corporations based in Luxembourg. The tax incentive introduced by this law led to an increase in the demand for domestic shares, further increasing the market concentration index. The gradual removal of the tax incentive is expected to lead to a redistribution of savings and hence to a reduction in the concentration index.

4.2.2 The secondary market

In Table 4.2.2, turnover is measured as the value of stocks traded divided by stockmarket capitalisation. The turnover ratio is not a direct measure of efficiency, as it does not take trading costs into account. Instead, the turnover ratio measures the value of stock transactions relative to the size of the market, and it is frequently used as a measure of market liquidity. In Luxembourg, the trend in this indicator is remarkable compared with the European average. Turnover increased considerably from 1995 to 1999 (by 207% in Luxembourg compared with 38% in the euro area[8]). From 1998 to 2000, however, turnover on the Luxembourg stock market grew by only 25%. A similar trend was visible in the number of transactions. However, the drop in turnover mainly affected domestically traded shares rather than internationally traded securities, reflecting two factors: the Rau law and the illiquidity of shares in foreign corporations listed on the Luxembourg stock market.

To assess the degree of integration of the Luxembourg stock market with the European equity market, Chart 4.2 compares developments in the Luxembourg index Lux X[9] and the EURO STOXX index.

8 H. Huizinga, op. cit., p. 8.

9 The Lux X index is a basket index with a twofold computation, i.e. the Lux X price index and the Lux X return index. The price index has been published since 4 January 1999. The return index is similar to the price index except that it takes into account the stripped net dividends. The return index has been published since 31 March 1999.

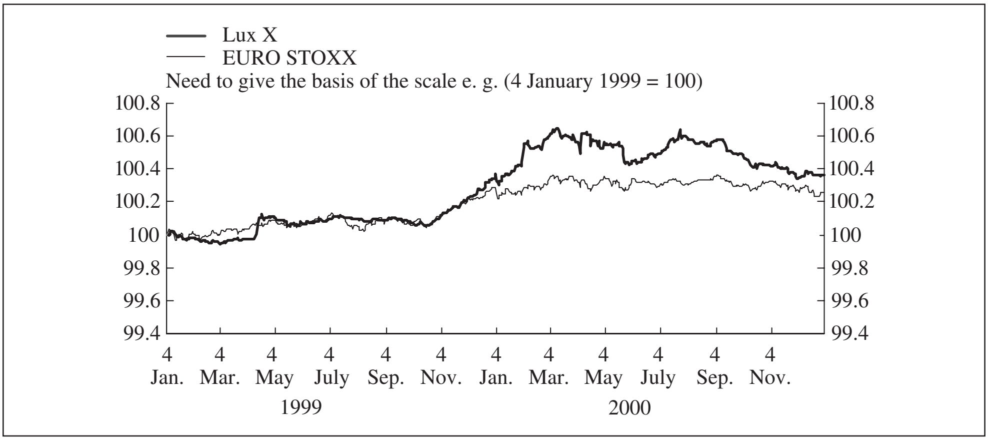
Table 4.2.2: Activity of equity markets

Description	1998	2000
Number of stock exchanges and other organised exchanges	1	1
Participants (members) in these markets	68	119
Of which non-domestic (remote) participants	2	37
Number of transactions of traded shares	41,010	43,938
Total turnover of traded shares (EUR millions)	1,059	1,321
Domestic	1,040	1,309
Foreign	19.7	12.9
Access to trading stock listed on exchanges in other countries	1	1

Source: Luxembourg Stock Exchange.

Both indices were converted to percentage changes (daily changes, relative to 4 January 1999) and two sub-periods were analysed, January 1999 to December 1999, and January 2000 to December 2000. These sub-periods were chosen to reflect the possible structural change in the Luxembourg securities market associated with the adoption of the euro in January 1999 and the Euronext alliance in 2000. The correlation coefficient rose slightly between the two sub-periods, from 0.92 to 0.94. This is in line with the expectation of increasing integration leading to a higher correlation between stock market movements in different countries.

Chart 4.2: National stock index development relative to EURO STOXX



Source: Bloomberg.

As shown in Chart 4.2, the Lux X index has broadly followed the EURO STOXX index, but typically with larger fluctuations. Greater volatility is probably due to the smaller number and possibly higher risk rating attributed to the corporations forming the Lux X index. Since 1999, the Lux X index has surged more strongly than the EURO STOXX, although the gap between the two is now closing.

5 Financing

The financial structure of a country can be analysed using two indicators,[10] namely the ratio of domestic assets of intermediaries (mainly banks) to domestic stock market capitalisation and the ratio of the value of credit granted to the private sector by intermediaries to the value of trades in domestic equities. Both ratios will be larger when banks are actively engaged in financing economic activity.

Table 5a: Bank lending vs. turnover and bank assets vs. market capitalisation

	1998	1999	2000
Bank assets vs. market capitalisation (ratio)	1.13	1.04	1.12
Bank lending vs. turnover (ratio)	94.44	119.88	99.94

Sources: Luxembourg Stock Exchange, calculations by Banque centrale du Luxembourg.

However, these two indicators must be interpreted carefully. While the ratio may provide useful information in comparing the relative size of intermediaries to stock markets, it has obvious limitations. A relatively high ratio of banking assets to stock market capitalisation does not necessarily indicate a well-developed banking system. Similarly, a relatively low ratio of bank assets to stock market capitalisation does not necessarily indicate a well-developed equity market.

5.1 Non-financial corporations

Unfortunately, only partial stock data on financing are available for the Luxembourg corporate sector. This makes it impossible to determine the most important lenders to non-financial corporations.

5.2 General government

Public sector debt in Luxembourg is very low. It represented only 5.3% of GDP at the end of 2000. In addition, gross consolidated debt of the general government may continue to fall as a share of GDP owing to a persistent surplus in the general government budget.

10 Dermiguc-Kunt, A. and R. Levine (1996): Stock market development and financial intermediary growth: stylized facts, World Bank Economic Review, May.

Table 5.1: Financing and financial balance of the non-financial corporations
(as a % of GDP)

External financing	Average financial transactions 1998-2000	Amounts outstanding end-2000
Shares and other equity	3.2	-
Securities other than shares incl. financial derivatives	-	-
of which short-term bonds (<1y)	-	-
of which long-term bonds (>1y)	-	-
Loans		
from resident MFIs	-	29.1
short term (<1y)	-	13.2
long term (>1y)	-	15.9
from resident OFIs	-	-
from other residents	-	-
from non-residents	-	-
Trade credits and advances	-	-
Other liabilities	-	-
Internal financing		
Gross savings	-	-
Net savings	-	-
Net capital transfers	-	-

Sources: Banque centrale du Luxembourg.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

External financing	Average financial transactions 1998-2000 1)	Amounts outstanding 1998	Amounts outstanding 2000
Shares and other equity			
Securities other than shares incl. financial derivatives	0.09	3.28	3.86
of which short-term bonds (<1y)	0.00	0.00	0.00
of which long-term bonds (>1y)	0.09	3.28	3.86
Loans	-	-	-
from resident MFIs	0.21	6.00	3.48
of which short-term (<1y)	- 0.11	0.24	0.24
of which long-term (>1y)	0.30	4.43	1.97
from resident OFIs	-	-	-
from other residents	0.03	0.04	0.12
from non-residents	-	-	-
Internal financing			
Gross savings	9.12	-	-
Net savings 1)	4.04	-	-
Net capital transfers	-	-	-

Sources: Service central de la statistique et des études économiques, Inspection générale des finances, Banque centrale du Luxembourg, MFI statistics. Average gross and net savings are calculated over the period 1997-2000. Other flows are estimated over the period 1998-2000 on the basis of the available stock data. This method disregards potential stock-flow adjustments. However, the latter should be limited in the case of Luxembourg, where the relevant stocks are primarily expressed in domestic currency.

1) The discrepancy between net savings and the sum of the flows related to "securities", "loans" and "other liabilities" is attributable to sustained increases in the asset position of general government.

5.3 Households

The domestic banking sector is the most important lender to the household sector. Housing loans accounted for 73% of the household sector's total bank debt in 2000, compared with 88% in 1998. During the same period, the nominal amount of housing loans increased by 28%. This progression can be attributed in part to the effects of sustained housing price rises in Luxembourg.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

External financing	Average financial transactions (1998-2000)	Amounts outstanding end-2000
Loans	-	36.2
Consumer loans (with maturity breakdown)	-	2.9
up to 1 year	-	0.3
over 1 year & up to 5 years	-	2.3
over 5 years	-	0.3
Housing loans (with maturity breakdown)	-	26.6
up to 1 year	-	0.4
over 1 year & up to 5 years	-	0.5
over 5 years	-	25.6
Other loans	-	6.8
Other liabilities	-	-
Internal financing	-	-
Gross savings	-	-
Net savings	-	-

Sources: Banque centrale du Luxembourg.

The Netherlands

1 Main features of and recent developments in the Dutch financial system

The Dutch financial sector is relatively large in terms of GDP. Financial intermediation is especially well developed, reflecting a high amount of bank lending and the fact that a substantial part of the Dutch pension system is funded. Furthermore, a significant part of financial intermediation takes place within the financial sector, for instance because pension funds invest in investment funds. An important characteristic of the Dutch financial sector is its international orientation, with banks and insurance corporations being very active abroad.[1] Another distinctive feature is the high level of cross-sector consolidation. The last major wave of mergers was at the end of the 1980s and in the early 1990s, leading to the creation of some very large banks and financial conglomerates (e.g. ABN AMRO, ING, Fortis).

In general, the financial structure in the Netherlands is in line with the typical pattern: households are the main net contributors of funds – largely through their pension schemes – while non-financial corporations are the main absorbers (see Table 1). During the second half of the 1990s, there was substantial growth in both intermediated and non-intermediated financial variables. Household and corporate borrowing accelerated, reflecting strong economic growth in combination with low interest rates. For households, another important factor was the booming housing market – both house prices and mortgage loans roughly doubled in five years. The rapid expansion of non-intermediated financial instruments seen in all sectors can be largely explained by a valuation effect resulting from the stockmarket boom.

Broadly in line with the euro area as a whole, three important developments can be seen over the period considered. First, there was a clear shift in residents' portfolios from domestic assets to foreign investments. Residents held more foreign securities, while financial institutions increasingly funded themselves with foreign deposits. At the same time, non-resident holdings of Dutch financial assets increased markedly, indicating greater cross-border financial integration. A second trend was the reduced importance of traditional deposit funding for financial institutions. The non-financial sectors prefer to hold an increasing share of their financial wealth in securities rather than deposits, a fact which can be attributed to the low interest rates on deposits and the booming stock market. A third development, which is directly related to the other two, is the increased exposure to asset prices. Given the growing importance of securities holdings and foreign investments, net wealth positions have become more sensitive to changes in share prices and exchange rates. The combination of fast mortgage credit growth and house price increases implies that households, especially first-time homebuyers, have become more sensitive to housing market sentiment.

1 In this respect, the Dutch financial sector includes more activities than described in this chapter, which primarily focuses on domestic activities.

Table 1: Distribution of financial assets and liabilities of the non-financial sector between intermediated and non-intermediated instruments
(as a % of GDP; end-2000)

Amounts outstanding	Financial assets		Liabilities	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	257.8	128.4	196.8	220.9
Households	220.5	71.6	91.0	0.0
Non-financial corporations	33.8	44.4	94.2	174.9
General government	3.4	12.4	11.7	46.0
Non-residents	74.4	193.4	63.3	177.4
Total	332.2	321.8	260.1	398.3

Source: De Nederlandsche Bank, national financial accounts statistics.

2 Origin of flows

With the exception of general government, financial assets and liabilities of all domestic sectors increased significantly during the second half of the 1990s. This can be attributed both to an increase in the volume of financial transactions and, until early 2000, the unprecedented rise in asset prices. Reflecting the increase in the other sectors' assets and liabilities, balance sheets of financial corporations also expanded substantially.

For households, the increases in financial assets and liabilities were similar in size. On the asset side, more than half of households' financial transactions were due to increases in claims on pension funds and insurance corporations. In addition to the financial transactions presented in Table 2, household wealth increased dramatically through the rise in share prices, although for the most part indirectly via their claims on institutional investors. The increase in

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
Resident sectors						
Households	11.9	10.8	1.1	292.7	86.0	206.8
Non-financial corporations	18.9	18.9	0.0	149.0	307.3	-158.3
General government	1.1	0.3	0.7	34.8	70.0	-35.2
Financial corporations	43.0	41.1	1.8	538.5	566.6	-28.1
Total	74.9	71.2	3.7	1,015.1	1,029.9	-14.8
Non-residents	36.1	39.8	-3.7	315.6	300.9	14.8

Source: De Nederlandsche Bank, national financial accounts statistics.

liabilities was primarily caused by continuous high mortgage lending, reflecting low interest rates and the booming housing market (see Section 5.3).

Non-financial corporations' financial assets and liabilities also increased fast. The increase in financial liabilities reflects an acceleration in corporate borrowing, which can be explained by high investment owing to the prosperous economy and low interest rates. In addition, specific factors such as mergers and acquisitions stimulated borrowing. The financial position of firms was hardly influenced by the stockmarket boom, because most of the shares they held were unlisted.

Public finances improved significantly, as the Government kept to strict spending limits which, in combination with increasing tax receipts, caused the budget to move into surplus. At the same time, the volume of government assets increased only marginally, which can primarily be attributed to the sale of shares in companies (the value of these assets increased, however, because of capital gains; see Section 4).

Financial corporations' net position is almost neutral, in line with their function as intermediaries. The amount of their total assets is substantial (equivalent to more than 500% of GDP), although it should be borne in mind that these data are non-consolidated and some of the financial assets and liabilities are each other's counterpart within the financial sector. Nonetheless, financial intermediation is much more important than in most other euro area countries.

Lastly, non-residents' financial assets and liabilities have also become very substantial (more than 300% of GDP), while the size of their transactions is comparable with those of the financial sector. Interestingly, the net external position of the Netherlands was slightly negative in 2000, despite continuous current account surpluses during recent decades (see Section 5.4 for a further discussion).

3 Intermediaries[2]

3.1 Channelling of funds through intermediaries

Table 3.1 shows that a large share of domestic intermediated assets is held by households and consists of technical reserves, reflecting the largely funded Dutch pension system. In addition, the domestic sectors, in particular domestic financial corporations, held an increasing share of their intermediated assets abroad. At the same time, the share of domestic intermediated assets in foreign hands also rose, implying more international financial integration (see Section 5.4).

3.2 Monetary financial institutions (MFIs)

The Dutch MFI sector consists almost exclusively of credit institutions, as the size of money market funds is negligible (accounting for less than 1% of total MFI assets).[3] The sector is

2 In general, the data presented in this section are based on Dutch national accounts and, for credit institutions, on MFI statistics, in order to be consistent with the rest of the report. De Nederlandsche Bank also publishes balance sheet data of pension funds, insurance corporations and investment funds in its Statistical Bulletin. Although based on different sources, these are very similar to the data presented here, but are more detailed and are published more frequently (i.e. quarterly).

3 Until recently, money market funds were primarily used for fiscal reasons, in order to benefit from the fact that capital gains on them were untaxed (in general, these funds' yields were reinvested in order to maximise capital gains). This situation changed with the introduction of a new income tax system in January 2001, which included a tax on imputed capital income. Anticipating this change, money market funds' balance sheets decreased at the end of 2000 (and further during 2001, to less than €2 billion).

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (Deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (Investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (Deposits and technical reserves)	**Non-resident intermediaries** (Deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	5.1	2.0	7.5	29.5
Households	2.2	-0.1	7.4	0.2
Non-financial corporations	1.1	0.1	0.1	5.1
General government	0.1	0.0	0.0	0.2
Financial corporations	1.6	2.0	0.0	23.9
Non-residents	5.1	2.4	0.0	-
Total	10.2	4.4	7.5	29.5
Memo item				
Market instruments issued by MFIs and bought by resident non-financial sectors	0	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	59.7	27.0	165.6	225.8
Households	34.9	1.5	164.3	11.5
Non-financial corporations	9.5	0.4	1.3	35.7
General government	1.7	0.3	-	1.8
Financial corporations	13.6	24.7	-	176.7
Non-residents	69.1	7.2	0.9	-
Total	128.8	34.1	166.5	225.8
Memo item				
Market instruments issued by MFIs and bought by resident non-financial sectors	5	-	-	-

Source: De Nederlandsche Bank, national financial accounts statistics.

dominated by universal banks. The large group of co-operative banks (see Table 3.2) are legally independent of each other, but in practice present themselves as one single bank (Rabobank). Government ownership is very limited, with the Government holding the majority of shares in only two specialised banks.[4] The strong decrease in the number of savings banks, which dropped from 21 to four in 2000, was due to mergers and acquisitions.[5]

4 These two banks, Bank Nederlandse Gemeenten and Nederlandse Waterschapsbank, mainly lend to local government.

5 A number of previously independent savings banks became part of the SNS Reaal Banking Group, while the VSB savings bank was integrated into Fortis bank.

Table 3.2: Number of MFIs excluding the central bank [1)]
(end of year)

	1998	2000
Universal banks	94	104
Co-operative enterprises [2)]	444	397
Saving banks	24	4
Branches and subsidiaries of foreign institutions	26	35
Other credit institutions	17	16
Money market funds	31	25
Total	636	581

Source: De Nederlandsche Bank.
1) Please note that the definition presented in this table differs from that of the Eurosystem, notably with respect to conglomerates. The figures in this table do not therefore correspond to those used to compute the ratios in Table 3.3, nor to the reporting population behind Tables 3.4 and 3.5.
2) These cooperatives together constitute Rabobank, which usually presents itself as one bank.

The banking system is highly concentrated, with only four banks (ABN AMRO, Rabobank, ING and Fortis) accounting for about 80% of domestic lending (viewing Rabobank as one single bank). ING and Fortis (which is Belgian/Dutch) are broad financial conglomerates, which combine banking, insurance and investment activities. The most recent major wave of mergers was at the end of the 1980s and in the early 1990s, stimulated by the lifting, in 1990, of the prohibition on combining banking and insurance activities in one financial institution. By 2000, ten of the 15 largest banks in the Netherlands had become part of a financial conglomerate (Prast, 2001). During the 1990s, Dutch banks made many acquisitions abroad, mostly outside Europe. For the large banks, more than half of corporate lending is carried out by foreign subsidiaries (in general, these are not included in the statistics in this chapter).

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.18	0.17
Top 5's share of total assets (%)	81.69	81.14
Average size of top 5 (EUR millions)	146,414	186,451
Average size of all banks (EUR millions)	-	-

Source: ECB calculations based on data from De Nederlandsche Bank.

Lending to non-bank residents expanded significantly from the mid-1990s onwards, especially long-term lending.[6] This strong increase took place for both corporate and household loans and can be attributed to both standard explanations – in particular the booming economy in combination with low interest rates – and a number of specific factors (see Section 5). Securities holdings also increased, including those of equity and foreign securities (see DNB, 2002b, for discussion of this issue). Within banks' holdings of securities

6 Lending between MFIs also expanded substantially, as indicated in Table 3.4. However, the jump in 1997 (included only in the data annex) reflects a statistical break because from that year onwards lending between co-operative banks is included. Previously, these banks, which together form Rabobank, were reported on a consolidated basis.

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank

(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Cash	0.2	0.2
Loans	80.2	81.8
to domestic MFIs	10.0	13.9
to other domestic residents	48.9	48.8
of which original maturity < 1y	10.2	10.3
of which 1y < orig. mat. < 5y	3.7	3.7
of which 5y < orig. mat.	34.4	34.7
to other euro area residents	7.6	6.2
to non-euro area residents	13.8	12.9
Securities other than shares	12.7	10.1
issued by domestic MFIs	0.7	0.7
short term (< 1y)	0.1	0.1
long term (> 1y)	0.7	0.6
issued by other domestic residents	4.4	2.9
short term (< 1y)	0.1	0.1
long term (> 1y)	0.3	0.7
issued by other euro area residents	5.6	5.0
issued by non-area residents	1.9	1.6
Shares and other equity	3.6	4.0
issued by domestic MFIs	0.2	0.5
issued by other domestic residents	2.0	2.0
issued by other euro area residents	0.6	0.7
issued by non-euro area residents	0.8	0.9
Fixed assets	0.6	0.5
Other assets	2.7	3.3
Total assets	100	100
Liabilities		
Deposits	74.2	73.1
from domestic MFIs	10.5	14.3
from other domestic residents	36.0	33.7
overnight deposits	11.4	11.2
other deposits	24.4	22.4
from other euro area residents	8.3	5.9
from non-euro area residents	19.4	19.3
Securities other than shares	13.0	15.0
short term (< 1y)	0.8	1.4
long term (> 1y)	12.3	13.7
Capital and reserves	0.7	0.4
Money market fund shares	5.0	5.1
Other liabilities	7.1	6.4
Total liabilities	100	100
Total assets/liabilities as % of GDP	253.0	286.5

Sources: ECB and De Nederlandsche Bank.

other than shares, which is still the most important category, there has been a significant shift from Dutch government bonds to other euro area countries' government bonds. Apparently, in the run-up to the Third Stage of EMU, government bonds of the countries involved were increasingly considered as substitutes.[7] The increase in shares and other equity only partly reflected capital gains, as most equity consists of unlisted shares.

On the liability side of the MFI balance sheet, an important development during the second half of the 1990s was the decreasing share of domestic deposits held by non-banks (see also DNB, 2001b, for a more detailed examination of this issue). Households preferred to hold an increasing part of their financial assets in securities (especially shares), which can largely be attributed to decreasing interest rates and the booming stock market. As a result, banks have shifted to other funding sources, in particular bond issuance and deposit-taking from abroad. Interestingly, a significant part of these foreign deposits came from UK banks, i.e. from outside the euro area, presumably because of the expansion of Dutch banks' activities in London in the 1990s.

What are the consequences of the changing bank balance sheet structure for the transmission of monetary policy? While some recent studies conclude that the bank lending channel was already unimportant in the Netherlands, the developments discussed above are likely to have further weakened this transmission mechanism.[8] After all, the reduced importance of deposit funding makes banks less sensitive to the impact of short-term interest rate changes on monetary aggregates. In addition, the increase in banks' loan portfolios was accompanied by an even larger increase in liquid assets (cash, shares and other securities), which banks may use as a buffer to absorb monetary shocks. Furthermore, Dutch banks have increased their activities outside the euro area, which is also likely to make them less sensitive to the Eurosystem's monetary policy.

3.3 Other financial intermediaries (OFIs)

Investment funds expanded rapidly in the 1990s for various reasons (see also DNB, 2001a). Firstly, capital gains contributed substantially to the increase in assets. Secondly, as indicated in the previous section, the positive sentiment on the stock market during this period, in combination with low interest rates, prompted households to substitute traditional savings instruments and deposits with shares, partly via investment funds.[9] Thirdly, a significant part of these investments were indirectly related to other financial products that were developed during the 1990s. For example, investment mortgages became popular in this decade (see Section 5.3).

As with MFI balance sheets, the share of foreign investments in total assets increased between 1998 and 2000, from 65% to 76% for investment funds and from 9% to 12% for other OFIs. It should be noted that there is some overlap between the activities of investment funds and those of other financial institutions. For instance, several banks and insurance corporations offer similar financial products. In addition, some pension funds and insurance corporations use investment funds to invest part of their assets.

7 The share of Dutch government bonds in total banks' holdings of euro area government bonds dropped from 79% in 1995 to 34% in 2000. During the same period, the proportion of Italian bonds increased from 1% to 22%.

8 Studies based on a larger sample by Garretsen and Swank (1998), Van Ees et al. (1999) and Kakes (2000) conclude that the bank lending channel is ineffective in the Netherlands. One of the explanations is that banks use their liquid assets as a buffer to neutralise monetary shocks. On the other hand, panel studies by De Bondt (2000) and De Haan (2001) based on individual bank data do find some evidence of a bank lending channel in the Netherlands.

9 This pattern cannot be inferred from Table 3.1, according to which households' holdings of investment fund shares are relatively small and not increasing. Note, however, that the bulk of investment fund shares cannot be split into sub-categories of holders, implying that households' investments in investment funds are significantly higher.

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets/liabilities; end of year)

Assets	1998	2000
Deposits	2.4	5.6
with domestic residents	2.2	5.3
with non-domestic residents	0.2	0.3
Securities other than shares	5.8	4.1
issued by domestic residents	3.8	1.6
issued by non-domestic residents	2.0	2.6
Shares and other equity	57.3	58.6
issued by domestic residents	38.0	32.0
issued by non-domestic residents	19.2	26.6
Other assets	34.6	31.7
Total assets	100	100
Liabilities		
Mutual fund shares	69.8	69.2
Other liabilities	30.2	30.8
Total liabilities	100	100
Total assets/liabilities as % of GDP	91.8	108.9
Number of OFIs		
Investment/mutual funds	351	574
Securities and derivatives dealers	390	640
Financial corporations engaged in lending	295	300
Other institutions	12,800	13,455
Total	13,836	14,969

Source: De Nederlandsche Bank, national financial accounts statistics.

"Other OFIs" comprises several sub-categories. The increasing number of securities and derivatives dealers is in line with the expanding trade in shares and other securities during the period considered. "Financial corporations engaged in lending" includes building societies and finance companies; their total assets – mostly consisting of corporate loans, mortgages and private equity – are more than twice those of investment funds. The number of "other institutions" is very large, most of these being small insurance agents.

3.4 Insurance corporations and pension funds (ICPFs)

As already indicated, institutional investors form a substantial part of the Dutch financial sector. During the 1990s, the structure of pension funds' and insurance corporations' investment portfolios changed markedly. Before 1990, these consisted for the most part of long-term loans, mainly in the form of government debt and, to a lesser extent, mortgages.[10] As a result of massive purchases of securities and capital gains due to the booming stock market, however, shares and other securities have become most important (see Table 3.6). This change in balance sheet structure was driven by several factors. First, institutional investors attached more importance to diversification of their portfolios. In this context, asset

10 Prior to the early 1990s, institutional investors mainly invested in government debt through loans. Since 1993, however, the government has only issued bonds, reflecting investors' preference for liquid securities.

and liability management (ALM) techniques are being increasingly applied to take into account the interdependencies between different balance sheet items (e.g. through simulations and stress tests). Second, the pensions and insurance supervisory authority of the Netherlands (PVK) has changed its policy, allowing more risk as long as it is covered by large investment buffers. In practice, institutional investors with substantial additional reserves increased their allocation to corporate assets. Third, restrictions on investment in securities and abroad have been significantly reduced for ABP, the government employees' pension fund, which is by far the largest fund with an investment portfolio of €150 billion in 2000. Fourth, institutional investors increased their foreign securities holdings, partly because the introduction of the euro removed exchange rate risk within the euro area. Pension funds have invested more in foreign securities (almost 80% of the shares that they held at the end of 2000 were foreign) than insurance corporations have, including in currencies other than the euro. Pension funds have more room for manoeuvre in the composition of their investment portfolios than insurance corporations, partly because their clients' premiums can more easily be adjusted. Most of the remaining assets in Table 3.6 are long-term loans to the Government, firms and households (mainly mortgages).

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds

(as a % of total assets/liabilities, end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	1.5	4.3	1.5	5.2
with domestic residents	1.5	4.2	1.5	5.1
with non-domestic residents	0.1	0.0	0.0	0.0
Securities other than shares	34.3	31.1	35.3	28.5
issued by domestic residents	18.2	22.4	11.6	16.3
issued by non-domestic residents	16.2	8.6	23.7	12.2
Shares and other equity	41.8	27.5	50.0	30.6
issued by domestic residents	16.5	20.3	12.7	20.0
issued by non-domestic residents	25.3	7.2	37.3	10.7
Fixed assets				
Other assets	22.3	37.2	13.3	35.7
Total assets	100	100	100	100
Liabilities				
Technical reserves	98.2	75.6	97.9	76.6
Other liabilities	1.8	24.4	2.1	23.4
Total liabilities	100	100	100	100
Total assets/liabilities as % of GDP	97.4	56.9	117.6	65.9
Number of pension funds and insurance companies				
Pension funds	1,044	-	1,019	-
Insurance companies	-	402	-	376

Source: Own calculations by De Nederlandsche Bank, based on financial accounts data from Statistics Netherlands.

Participation in a funded pension scheme is compulsory for most Dutch employees. Contributions to these funds are denoted as "contractual savings", which form a large part of household savings in the Netherlands. Most pension funds are organised by sector (e.g. the steel industry, construction, government employees) or for individual firms. Since 1998, firms are no longer obliged to participate in their own sector's pension fund. Pension funds constitute the "second pillar" of the pension system, the "first pillar" being the standard government retirement benefit to anyone older than 65 (which is financed on a pay-as-you-go basis). Together, these two pillars form the basis of the Dutch pension system. On an individual basis, workers can build up additional "third pillar" investments such as life assurance. Compared to the other euro area countries, Dutch pension funds are very large. In this context, an interesting issue is the extent to which investments through pension funds (i.e. the second pillar) could be offset by lower savings elsewhere (e.g. under the third pillar) or, in anticipation of population ageing-related problems, by the government budget. Obviously, this effect is difficult to measure, but the relatively high level of households' financial assets suggests that pension schemes are not totally crowding out other investments. In addition, there are indications that many Dutch workers are planning to use their third pillar investments for early retirement, i.e. before they reach the age of 65 (see Section 5.3).

4 Markets

Table 4.1 shows that all domestic sectors except the government were net buyers of non-intermediated assets during the period 1998-2000, while at the same time there was a shift from domestic assets to foreign assets. However, there are important cross-sectoral differences. Most securities purchased by households were domestic shares, whereas financial and non-financial corporations mainly bought foreign shares. For non-financial corporations, these were for the most part private equity, reflecting the large number of mergers and acquisitions abroad in these years. Transactions in the financial sector are dominated by pension funds and other OFIs. The Government was the only net seller of financial assets over the period considered; the decrease in domestic shares corresponds to the sale of securities and government shareholdings. Lastly, the purchase of domestic financial assets by non-residents was also substantial. More than half of these were transactions in bonds issued by banks and other financial corporations and, to a lesser extent, government bonds. The surge in resident investment in foreign assets and non-resident investment in Dutch assets is an indication of the increasing integration of national financial systems.

In addition to the transaction volumes, outstanding amounts were also strongly influenced by valuation effects. The relative importance of transaction volumes and value changes for each sector is shown in Chart 4a. For households, which hold most of their securities in the form of listed shares, financial flows were dominated by capital gains. This was also the case for the Government, where capital gains more than compensated for the negative transactions shown in Table 4.1.[11] In absolute terms, capital gains were greatest for the financial sector and non-residents, given the size of their investments. Non-financial corporations benefited only marginally from the stockmarket boom because they mainly held unlisted shares, limiting the scope for capital gains.

11 The Government's capital gains were mainly due to the enormous increase in the share price of KPN, the former state-owned telecoms company in which the Government still has a significant stake. Note, however, that since 2000 KPN share prices have collapsed, wiping out most of the capital gains shown in Table 4.1.

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector

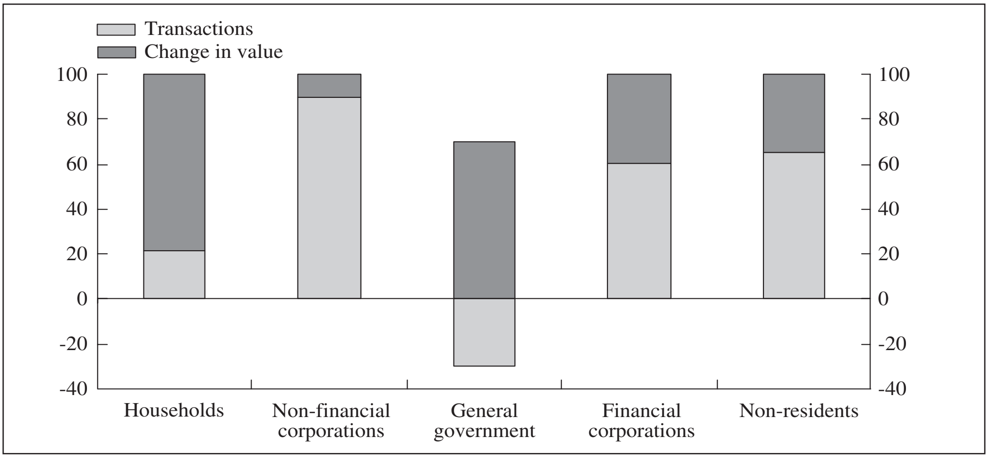
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	-0.5	-2.1	16.1	10.7
Households	1.0	0.3	0.1	0.0
Non-financial corporations	0.0	0.2	4.1	0.1
General government	-0.6	0.0	0.1	0.0
Financial corporations	-0.9	-2.5	11.8	10.6
Non-residents	8.4	14.5	-	-
Total	7.9	12.5	16.1	10.7
Holdings (Amounts outstanding, end-2000)				
Resident sectors	140.2	45.8	115.1	62.3
Households	58.1	6.3	6.6	0.5
Non-financial corporations	9.4	3.1	31.4	0.5
General government	10.8	0.3	1.1	0.2
Financial corporations	61.9	36.1	76.0	61.0
Non-residents	128.6	64.7	-	-
Total	268.8	110.6	115.1	62.3

Source: De Nederlandsche Bank, national financial accounts statistics.

Chart 4a: Transactions versus price effects, 1998-2000

(in %)



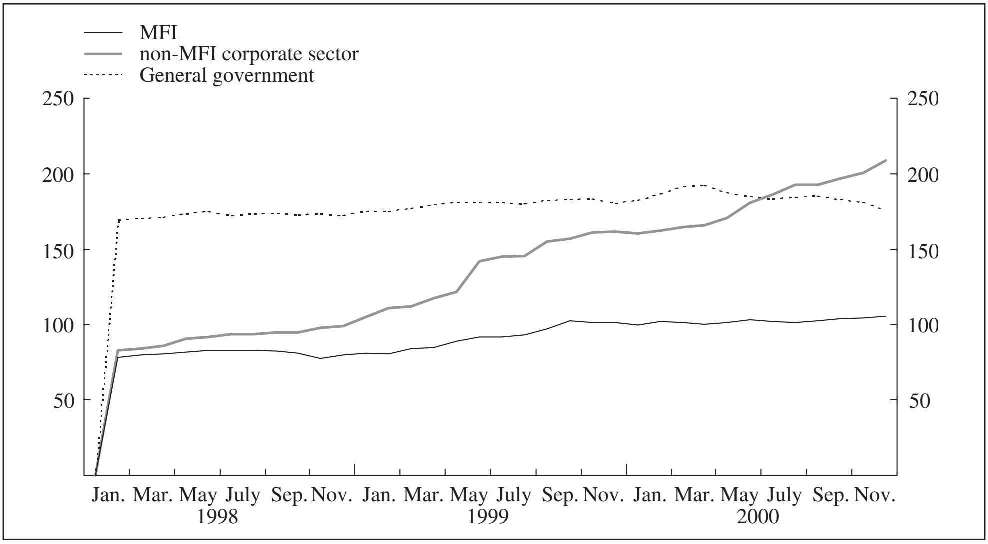
Source: De Nederlandsche Bank, national financial accounts statistics.

4.1 The bond market

In recent years, most bonds have been issued by financial and non-financial corporations, while the relative share of government bonds has been decreasing. Corporate bond issuance in the Netherlands, as indicated in Chart 4.1, has been enormous and accounted for about one-third of total corporate bond issuance in the euro area in 2000. There are various reasons for this. First, a large part of this corporate bond issuance is carried out by special financial institutions in the Netherlands. In general, these are Netherlands-based companies which specialise in group financing and which are usually owned by non-residents (see DNB, 2000a, for more details). In 1999, their total issuance volume increased substantially to about €70 billion (up from €28 billion in 1998). The Netherlands' attractiveness for these special institutions is due to various factors, including tax considerations and the international orientation of the Dutch financial sector. As most of the financial flows that they generate are unrelated to the Dutch economy, however, the issues by these institutions shown in Chart 4.1 are not included in the Dutch national accounts.

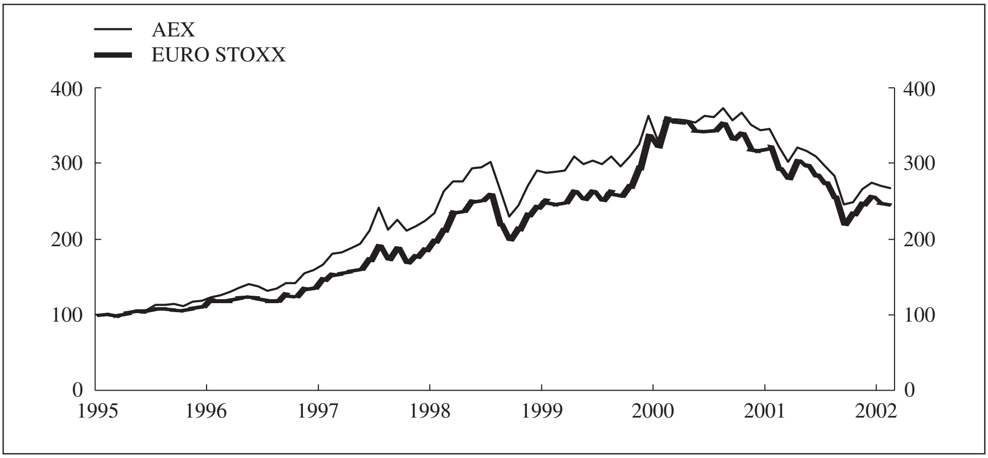
In addition to the specific role of the special financial institutions, several factors more related to the Dutch economy have also stimulated bond issuance. In particular, there have been many issues of asset-backed securities. Securitisation of loans has clearly taken off in the past few years; total issuance by Dutch special purpose vehicles (SPVs) increased from less than €2 billion in 1998 to about €17 billion in 2000 (and €27 billion in 2001). One of the motives for this increased securitisation has been to reduce capital adequacy requirements, which have become a large burden for banks since the mid-1990s, as the amount of mortgage loans outstanding in their portfolios doubled (see also Section 5.3). Furthermore, it reflects an anticipation of increasing demand for low-risk paper, which could serve as an alternative for the declining government debt (e.g. for investment purposes or to serve as collateral in repo transactions). In addition to mortgages, an increasing number of other types of assets are

Chart 4.1: Outstanding amount of debt securities by issuing sector
(EUR billions)



Source: De Nederlandsche Bank.

Chart 4.2: National stock index development relative to EURO STOXX



Source: Datastream.

being securitised (e.g. consumer loans and corporate loans). Although most of these loans come from banks' balance sheets, securitised bonds are usually issued by SPVs, which are officially considered non-MFIs. Lastly, an increasing share of securitisations are "synthetic", i.e. credit risks are transferred through derivatives but the loans remain on the banks' balance sheets. The main buyers of securitised paper are banks and institutional investors.

In 2000, bonds were issued to finance third-generation mobile phone (UMTS) licences. Other reasons for bond issues were the financing of mergers and acquisitions and, since early 2000, the negative sentiment on the stock market. In addition, the surge in corporate bond issuance can be attributed to the start of EMU, which continues to be a driving force behind the integration of European capital markets.

4.2 The stock market

The capitalisation of the Dutch stock market is relatively large in terms of GDP. Foreign companies accounted for more than 40% of the listings in 2000, although their total volume was much smaller because the most active market participants were domestic. The concentration ratio is high: the top ten companies accounted for 72% of the total market capitalisation in 2000, with a similar share in terms of turnover. Major stocks include Royal Dutch/Shell, Philips, Unilever, ING and ABN AMRO. As these represent the main sectors (oil, electronics, consumer goods, financial), the trend in the national AEX index has been very similar to the broad EURO STOXX index (see Chart 4.2) despite the high concentration level. Since September 2000, the Amsterdam Stock Exchange has been part of Euronext, which is the result of a merger between the stock exchanges of Paris, Brussels and Amsterdam (see the chapter on Belgium for a more extensive discussion).

The largest 25 capitalisations are included in the main national share index, AEX, while the next 25 comprise the Amsterdam Midkap Index (AMX). In general, the AMX index is more volatile and includes companies that are more closely related to the Dutch economy. At the end of the 1990s, the AMX significantly underperformed the AEX. This can be partly explained by the increasing international orientation of institutional investors in the Netherlands and other countries (see Section 3.1), reflecting a preference for investing in large capitalisation shares abroad.

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies	399.0	399.0
Number of non-listed companies	-	-
Market capitalisation of listed shares (as a % of GDP)	170.4	199.9
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	12.6	15.2
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	-	-
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	-	-
Concentration ratio (top-ten companies share of total market capitalisation) (%)	-	72.0
Number of foreign companies listed	165.0	176.0
Number of stock exchanges and other organised exchanges	1.0	1.0
Number of participants in these markets	-	166.0
Share of non-domestic participants (%)	-	40.0
Number of transactions of traded shares	-	-
Total turnover of traded shares (as a % of GDP)	207.7	369.9

Source: National statistics, Stoxx Limited.

5 Financing

5.1 Non-financial corporations

In line with the pecking order theory, internal financing has been the most important for non-financial corporations over the period considered, followed by bank loans and then bonds and shares. This financing behaviour of Dutch firms is also found in empirical studies based on non-aggregated data.[12] The importance of share issues increased until 2000, but the vast majority of (small) firms do not have access to the stock market. Although slightly weaker than the growth in internal financing over the review period, the increase in debt financing was substantial. The acceleration in bank lending – to a growth rate of about 20% in 1998 – can be explained by a number of factors (see DNB, 2000b), in particular low interest rates and robust economic growth. Temporary factors also stimulated bank lending: firms used debt to finance mergers, acquisitions and management buyouts. In addition, there are indications that firms increased their borrowing to adjust their debt-to-equity ratios (DNB, 2000b). In this way, firms can boost the return on shareholders' equity through higher leverage.

The Dutch venture capital market is well developed, although its size in terms of GDP is modest compared with total corporate finance (see Table 5.1a). About 50% of venture capital company funding is supplied by banks, which own some of the largest of these companies. The tax environment is relatively favourable to private equity in the Netherlands. Dividends received and capital gains on shares in other companies are exempt from corporate tax if certain criteria are met, in particular if shareholdings are at least 5% of total equity. In addition, the "Tante Agaath-regeling" (Aunt Agatha rule) provides for a tax exemption for interest income on investments in start-up companies, while losses are tax deductible up to a

12 See De Haan et al. (1994), Van Ees et al. (1998) and De Haan and Hinloopen (1999).

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
External financing		
Shares and other equity	4.2	162.7
Securities other than shares incl. financial derivatives	3.1	12.1
of which short-term bonds (<1y)	0.0	0.1
of which long-term bonds (>1y)	3.1	12.0
Loans	8.6	98.5
from resident MFIs	4.3	43.6
of which short-term (<1y)	1.5	14.0
of which long-term (>1y)	2.8	29.6
from resident OFIs	-0.1	5.5
from other residents	4.1	44.9
from non-residents	0.4	4.5
Trade credits and advances	3.0	34.0
Other liabilities	0.0	0.0
Total liabilities	18.9	307.3
Internal financing		
Gross savings	14.5	-
Net savings	3.5	-
Net capital transfers	0.4	-

Source: De Nederlandsche Bank, national financial accounts statistics.

Table 5.1a: Venture capital/private equity
(amounts invested, as a % GDP)

Year	Amount invested
1995	0.15
1996	0.18
1997	0.23
1998	0.30
1999	0.46
2000	0.45

Source: EVCA Yearbook.

certain amount.[13] Finally, the Government plays an active role by creating and co-financing funds for technology start-ups.

5.2 General government

From Table 5.2, it is clear that the general government's additional financing needs have been modest in recent years. This is the result of a strict budget discipline in combination with better than anticipated tax receipts owing to the good performance of the Dutch economy. The central government's budget has been in surplus since 1999, while the total government debt as a percentage of GDP has decreased markedly.

The bulk of securities other than shares are government bonds issued by the central government. A significant part of these bonds was traditionally held by pension funds and

13 The new Dutch Government, which came into office in 2002, has announced that these tax exemptions will be restricted in the near future.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	-	-
Securities other than shares		
incl. financial derivatives	0.7	44.6
of which short-term bonds (<1y)	0.0	1.4
of which long-term bonds (>1y)	0.8	44.6
Loans	-0.9	14.9
from resident MFIs	-0.4	7.7
of which short-term (<1y)	0.1	1.3
of which long-term (>1y)	-0.4	6.4
from resident OFIs	0.0	0.1
from other residents	-0.6	6.5
from non-residents	0.1	0.6
Other liabilities	0.6	8.8
Total liabilities	0.3	68.3
Internal financing		
Gross savings	2.8	-
Net savings	0.7	-
Net capital transfers	-0.3	-

Source: De Nederlandsche Bank, national financial accounts statistics.

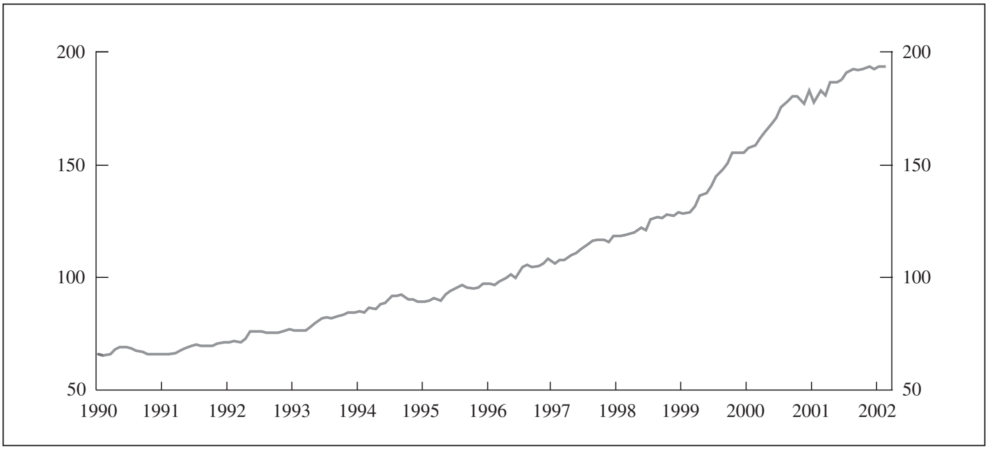
insurance corporations, which have gradually reduced these holdings over the past decade (see Section 3.4). At the same time, the share of government bonds in foreign hands rose from about 25% in 1998 to more than one-third in 2000. Most loans are bank loans to local government.

5.3 Households

The amount of household loans outstanding has roughly doubled since 1995. This is mainly due to mortgages and was accompanied by a similar rise in house prices (see Chart 5.3a). As a result, non-financial wealth (notably residential property, which is not explicitly discussed in this report) increased dramatically and has become the largest wealth component for Dutch households. During this period, interest rates were low while households' real incomes increased. In addition, house price increases were stimulated by a low elasticity of supply for new housing and a loosening of banks' lending criteria.[14] Low interest rates not only enlarged the borrowing capacity of housebuyers, but also encouraged homeowners to refinance and raise their mortgage loans, thereby cashing in the excess value of their home. The impact of home equity withdrawal on spending has been substantial: according to recent estimates, real GDP growth was stimulated by one full percentage point in 1999 and 2000, followed by a

14 During the early 1990s, banks and other lending institutions started to include secondary and temporary incomes when determining borrowing capacity and increased ceilings for the maximum debt service-to-income ratio. Loans granted have also risen in terms of the collateral value, leading to loan-to-value ratios of more than 100% on average for new homebuyers (DNB, 2000b).

Chart 5.3a: Average house price in the Netherlands
(EUR thousands)



Source: De Nederlandsche Bank.

negative contribution of 0.5 percentage point in 2001 owing to saturation effects and the cooling-off of the housing market (see DNB, 2002c). Hence, the housing market had a substantial pro-cyclical effect on the economy.

A more structural factor, which helps explain the high amount of mortgage loans outstanding, is the tax system. As mortgage interest payments are entirely deductible from income at the marginal income tax rate, it is attractive for households not to repay a mortgage but to use it to fund other investments during the maturity of the loan (up to a maximum of 30 years). These arbitrage opportunities were increasingly exploited in the 1990s by the development of investment mortgages. During the life of the mortgage, households accumulate an investment portfolio, which consists of a simple savings account or securities; these are often managed by investment funds or insurance corporations, explaining part of the growth in these sectors' balance sheets (see Section 3).

Altogether, the relatively high debt level of Dutch households is more than compensated for by substantial financial and non-financial assets. In terms of disposable income, total net wealth increased from about 500% in 1990 to more than 850% in 2000 (see Table 5.3a). In addition, the relative proportion of shares and residential property increased substantially, from 36% of total wealth in 1990 to 48% in 2000, implying that households' wealth position has become more exposed to market sentiment. According to a recent survey among households (DNB, 2002c), saving for early retirement is one of the main investment motives for households. In this context, many workers indicate that they are planning to retire before the age of 65, which may become an important issue because the ageing process over the next decades is likely to necessitate greater participation in the labour market by older workers.

Table 5.3: Financing and financial balance of households (Source: Financial and capital accounts)

(as a % of GDP)

Liabilities	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
External financing		
Total loans	11.0	92.0
Loans from resident MFIs	7.9	67.1
Consumer loans	1.4	4.4
original maturity < 1y	-	-
1y < orig. mat. < 5y	-	-
5y < orig. mat.	-	-
Housing loans	9.6	73.3
original maturity < 1y	-	-
1y < orig. mat. < 5y	-	-
5y < orig. mat.	-	-
Other loans from resident lenders	0.0	14.0
Loans from non-residents	0.0	0.3
Other liabilities	-0.2	-6.0
Total liabilities	10.8	86.0
Internal financing		
Gross savings	6.7	-
Net savings	5.5	-
Net capital transfers	-0.5	-

Source: De Nederlandsche Bank, national financial accounts statistics.

Table 5.3a: Household wealth components

(as a % of disposible income)

	1990	**1995**	**2000**
Cash, deposits	105	107	113
Bonds	14	15	13
Shares	35	59	101
Housing	180	235	403
Pensions	190	243	342
Other	69	71	80
Total assets	593	729	1,053
Total debts	95	120	179
Net wealth	498	609	874

Source: Netherlands Bureau for Economic Policy Analysis (CPB).

5.4 Flow of funds abroad

Investments by Dutch residents abroad rose to about 300% of GDP in 2000, which is a high level compared with most countries (see Table 5.4).[15] This is consistent with continuous current account surpluses in the past two decades. At the same time, non-resident investment in the Netherlands has also increased rapidly, to an even larger extent than Dutch claims abroad. As a result, despite the current account surpluses, the Netherlands' net wealth position vis-à-vis the rest of the world has become negative. The main explanation for this remarkable development is that non-residents hold a larger proportion of their wealth in the Netherlands in the form of quoted shares than residents do abroad (see Chart 5.4a). Hence, valuation effects have boosted non-residents' wealth more than residents' wealth. Although counteracted by a depreciating euro following its introduction – a large part of resident investment abroad was denominated in US dollars or pounds sterling – this resulted in a net surplus for non-residents. It should, of course, be borne in mind that valuation effects resulting from the stockmarket boom over the review period were exceptional and that share prices have fallen substantially since 2000. In this respect, the negative net external wealth position in that year is likely to give a distorted picture of the underlying real value of investments.

Table 5.4: Investment and financing vis-à-vis the rest of the world
(as a % of GDP)

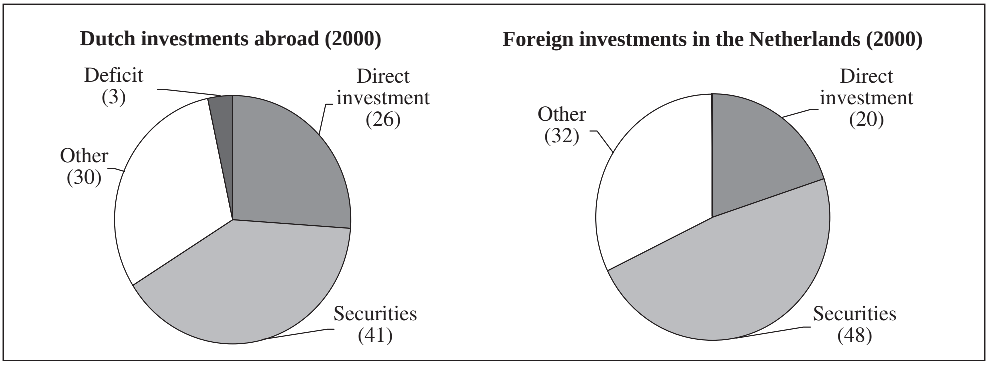
Financial assets of non-residents	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
Deposits	5.6	73.5
Shares	5.1	128.6
Securities other than shares	17.8	64.7
Other financial assets	7.6	48.8
Total financial assets	36.1	315.6
Liabilities of non-residents		
Deposits	2.7	48.1
Securities other than shares	10.7	59.9
of which short-term (<1 year)	-	-
of which long-term (>1 year)	-	-
Loans	9.7	67.0
of which granted by financial institutions	9.8	63.3
Shares and other equity	16.1	115.1
of which held by financial institutions	-	-
Other liabilities	0.9	8.8
Total liabilities	40.1	298.9

Source: De Nederlandsche Bank, national financial accounts statistics.

Most foreign investments by non-financial corporations in 2000 were direct investments. These direct investments abroad accounted for one-quarter of total investments outstanding (see Table 5.2). According to DNB (2002a), the most important destinations for direct investment abroad in 2000 were the United States (26%), Belgium and Luxembourg together

15 See DNB (2002a) for a detailed discussion. This article forms the basis of this sub-section.

Chart 5.4a: Dutch investments abroad and foreign investment in the Netherlands, 2000
(as a % of total)



Source: De Nederlandsche Bank.

(12%), the United Kingdom (11%) and Germany (11%). Traditionally, these were primarily industrial investments by large multinationals (e.g. Royal Dutch/Shell, Unilever, Philips), but during the 1990s services became more important.

As discussed in Section 4, the lion's share of foreign securities purchases was by financial corporations, in particular pension funds. In addition, share prices increased dramatically. According to DNB (2002a), most listed foreign shares held by Dutch residents in 2000 were issued in the United States (36%), the United Kingdom (15%), France (8%) and Germany (6%). For foreign bond holdings, the picture is somewhat different, with Germany, Italy and the United States being the most important issuers with 24%, 17% and 16%, respectively. As indicated in Section 3.2, banks' holdings of Italian (and, to a lesser extent, French and Spanish) government bonds increased rapidly during the 1990s, because these were considered close substitutes for Dutch and German bonds following the start of EMU.

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Austria

1 Main features of and recent developments in the Austrian financial system

Austria's financial system is primarily bank-based. Over the past decade, investors have shifted money from banks to domestic mutual and pension funds and insurance corporations. However, since most of these entities are owned by or related to banks, the role of banks in the intermediation process has shifted rather than decreased as the role of banking as such (taking deposits and granting loans) has diminished.

The capital market has remained rather small, reflecting both a relatively small investor base and the absence of large enterprises. The extent to which the Austrian financial markets continue to be dominated by intermediaries is highlighted in Table 1. Whereas the financial assets of euro area residents are evenly distributed between intermediated and non-intermediated instruments, more than three-quarters of all financial assets held by Austrian residents are intermediated. On the liabilities side, the share of non-intermediated instruments is somewhat larger (but still below the euro area average) owing to the fact that central government has increasingly relied on bond-based funding. Enterprises, on the other hand, continue to finance themselves predominantly via bank and inter-company loans.

Another striking feature of the Austrian financial system is the remarkable internationalisation that occurred in the second half of the 1990s: Austrian banks have increased their foreign assets and liabilities and, most notably, expanded vigorously into neighbouring central and eastern Europe. Similarly, institutional and private investors in Austria have increased their holdings of international assets. At the same time, non-resident investors have greatly stepped up their holdings of Austrian assets, ranging from government bonds to – by the end of the period under review – shares in the largest Austrian bank. In Table 1, the high degree of openness of the Austrian financial sector is emphasised by the fact that almost half of the financial assets and one-third of financial liabilities are held by non-residents. The proportion of non-intermediated financial assets held by non-residents is particularly high at more than two-thirds. Moreover, since the mid-1990s the use of foreign currency loans by households and enterprises has greatly expanded.

European integration has led to increased efforts by Austrian credit institutions to meet new challenges and to increase their competitiveness. It has thus served as a key catalyst for the consolidation efforts made by Austrian banks in order to become more competitive. In addition, a number of Austrian banks have forged strategic alliances with foreign – particularly German – banks (by way of foreign equity participation), in the hope of benefiting from the ensuing synergy effects.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments
(in % of GDP; end-2000)

Amounts outstanding	Financial assets		Liabilities	
Sectors	**Intermediated** (Deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (Shares and securities other than shares)	**Intermediated** (Loans)	**Non-intermediated** (Shares and securities other than shares)
Resident non-financial sectors	137.0	44.4	118.4	93.5
Households	111.1	16.5	29.2	0.0
Non-financial corporations	20.3	18.2	75.0	32.8
General government	5.6	9.7	14.2	60.8
Non-residents	47.9	94.1	27.7	71.7
Total	185.0	138.5	146.1	165.3

Source: Oesterreichische Nationalbank, national financial accounts statistics.

2 Origin of flows

As in other euro area countries, the household sector in Austria is a net holder of financial assets, while the non-financial corporation and the general government sectors are net borrowers. This overall picture has not changed in recent years. The financial sector has an almost neutral net position but, given the significant role of intermediation, a very large balance sheet.

The financial assets of Austrian households have risen appreciably over the past few decades, although, measured against economic output, they are still somewhat below the levels reported by other European countries. As a larger portfolio offers a greater degree of diversification, the relative importance of “traditional” savings products, such as deposits, in the allocation of financial assets has markedly declined in recent years, in line with euro area-wide developments. Nevertheless, the share of bank deposits remains comparatively large by euro area standards. At the same time, households have been inclined to borrow more readily, with the result that loan growth has significantly surpassed disposable income gains. Since the financial liabilities of households have grown more slowly than their financial assets, their net financial position has improved.

By contrast, businesses have increased their financial liabilities in recent years at a considerably greater rate than their assets, thus raising their net financial liabilities to 67% of GDP at the end of 2000. The principal forms of debt finance were loans from banks and affiliated enterprises and intermediary funding by central government (see Section 4.1.1). Financing through direct issuances of bonds and shares remained low. One reason for this is the relatively low number of larger companies in Austria. The corporate landscape in Austria is characterised by a high proportion of small and medium-sized (largely self-financed and family-owned) enterprises. In July 1999, 986 companies employed 300 or more persons and 167 enterprises had a staff of over 1,000. Firms are therefore generally too small for equity or bond issues (or perceive themselves to be too small). Moreover, in the past, investment and business promotion schemes (including a more favourable tax treatment of debt than of equity) leaned strongly toward bank credit financing.

The general government sector also increased its liabilities at a faster pace than its financial assets in the period under review. By the end of 2000, claims arising from the extension of loans accounted for roughly half of the financial assets of general government. After home loans granted by the provinces, the intermediary funding programmes offered by central government since 1998 have become the second most important asset position in the loan segment.

The financial sector has the greatest share of both financial assets and liabilities. Financial corporations held roughly half of all financial assets and liabilities at the end of 2000. Despite the increase in non-intermediated instruments in recent years, the role of intermediaries in the financial system has thus remained important.

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			**Amounts outstanding (end-2000)**		
Sector	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
Resident sectors						
Households	7.0	2.3	4.7	133.6	40.1	93.5
Non-financial corporations	5.0	10.6	-5.6	48.8	115.9	-67.1
General government	3.6	4.2	-0.6	32.7	76.7	-44.1
Financial corporations	31.8	32.1	-0.3	350.6	351.2	-0.6
Total	47.3	49.2	-1.9	565.6	583.9	-18.3
Non-residents	24.1	22.2	1.9	156.3	138.0	18.3

Source: Oesterreichische Nationalbank, national financial accounts statistics.

Non-residents, who increased their shares in financial transactions and amounts outstanding considerably, were primarily responsible for the growth of both financial assets and liabilities in recent years. This underlines the increasing internationalisation of financial transactions.

Regarding long-term capital flows,[1] there has been an increase in both the net inflow of funds from the euro area and the net outflow to the rest of the world, especially into central and eastern Europe. Reflecting its persistent current account deficit over the previous years, Austria had a considerable negative net position vis-à-vis the rest of the world by the end of 2000.

3 Intermediaries

3.1 Channelling of funds through intermediaries

Disintermediation arrived in Austria later than in many other euro area countries. One reason for this is the size and structure of Austrian enterprises. Moreover, investment and business promotion used to be strongly based on subsidies for bank loans, making the latter very often

1 Foreign direct investments, portfolio investments and long-term loans granted by banks.

cheaper than funds raised on the capital market. However, during Austria's preparations for EU (and EMU) membership, investment rules and tax treatment were largely remodelled to encourage capital investments, and subsidies now target equity rather than debt financing.

Financial intermediation is still significant and continues to be dominated by banks. However, the share of banks in the acquisition of financial assets declined throughout the 1990s. Savings deposits, for decades the favourite savings vehicle in Austria, have shrunk in absolute terms since 1995, net of capitalised interest. By the end of 2000, households still held 60% of their intermediated assets in the form of bank deposits, but in the net change between 1998 and 2000, the share of the latter was only one-quarter. About one-third of their newly formed assets are investments with mutual funds, while another third is invested with pension funds and insurance corporations. At the end of 2000 assets managed by investment companies accounted for about three-quarters of the volume of savings deposits, against about 20% five years previously.

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector

(as a % of GDP)

	Monetary financial institutions (MFIs) (deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (deposits and technical reserves)	**Non-resident intermediaries** (deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	8.3	8.4	2.4	3.0
Households	1.8	2.6	2.4	0.5
Non-financial corporations	0.7	1.4	0.0	0.1
General government	-0.1	0.1	0.0	0.3
Financial corporations	5.8	4.4	0.0	2.2
Non-residents	4.7	0.2	0.0	
Total	12.9	8.6	2.4	3.0
Memo item				
Market instruments issued by MFIs and bought by the resident non-financial sectors	-2.1	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	135.0	40.7	28.0	27.8
Households	68.0	14.5	28.0	1.5
Non-financial corporations	12.2	7.1	0.0	1.0
General government	4.0	0.2	0.0	0.8
Financial corporations	50.7	19.0	0.0	24.5
Non-residents	41.5	3.7	0.0	
Total	176.4	44.5	28.0	27.8
Memo item				
Market instruments issued by MFIs and bought by the resident non-financial sectors	12.0	-	-	-

Source: Oesterreichische Nationalbank, national financial accounts statistics.

As a result of these developments, other financial intermediaries have gained ground. Mutual funds' assets rose from 14% to 45% of GDP between 1995 and 2000, and the assets of insurance corporations and pension funds increased from 20% to 28%.

On account of the universal banking system in Austria, however, the channels of disintermediation are still controlled to a large extent by the banks. They own most of the non-bank financial intermediaries, such as investment and pension fund companies, and ties between banks and insurance corporations have also been strengthened. All major banks have established "strategic partnerships" with insurance corporations in recent years to arrange for mutual cross-selling agreements. In addition, banks play a substantial role in the capital market and on the Vienna Stock Exchange.

3.2 Monetary financial institutions (MFIs)

The MFI sector is dominated by credit institutions, both in number and size. The number of credit institutions in Austria is relatively high by international standards. This is due not least to the sectoral structure of Austrian banking. Money market funds have expanded recently but remain fairly small.

The Austrian banking system is a universal banking system. There is no statutory requirement that commercial banking must be separated from investment banking. However, the universal banking system does not exclude the possibility that individual credit institutions may hold restricted banking licences or specialise in particular lines of business.

The banking system is organised by sectors. Almost 90% of all Austrian credit institutions, including most small and medium-sized banks, are savings banks or co-operative banks[2] and thus affiliated to one of the three "multi-tier sectors" (Sparkassen, Raiffeisenbanken, Volksbanken),[3] which share common facilities in a number of areas such as marketing, data processing, training, etc. Within the sectors, the central or umbrella institution (which is owned by the member banks and, following recent restructurings, "outsiders" as well) assumes the tasks of co-ordination, including sector funding, and serves as the hub for business with the other sectors. In this capacity, the central institutions manage the liquid funds of the associated co-operatives or savings banks, grant loans to them and provide temporary liquidity, organise and operate non-cash payment transfers within the sector, and issue funded bonds for refinancing (by a jointly owned entity set up for this purpose).

The 1979 amendment to the Banking Act was the first of many steps in a gradual process of reducing the differences between individual institutions and groups of institutions. Today, only a few differences remain between the activities of the different sectors, but the sectoral structure is still in place. With the exception of building societies and specialised banks,[4] all banks (and all sectors) now offer a broad range of financial services.

Over the past decade, most of the large Austrian banks have seen fundamental changes in their ownership structure, including mergers. The five largest banks in 1990 have since undergone a complete change of ownership. By contrast with the euro area as a whole, total assets of co-operative and mutual banks are relatively high and their market shares are increasing.

Over the past decade, the total number of Austrian credit institutions has been on the decline. This reduction was especially pronounced in the multi-tier sectors. Since 1996, the

2 The classification of banks by sector is determined by their legal form or by the industry association to which they belong.
3 Savings banks and Volksbanken have a two-tier structure and Raiffeisen banks a three-tier structure.
4 Building societies and specialised banks – like investment companies, leasing and factoring institutions and home loan banks etc. – are usually owned by other Austrian banks, for which they perform special tasks, thereby contributing to a comprehensive range of financial services.

Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Incorporated enterprises limited by shares	56	46
Co-operative enterprises	737	696
Saving banks	72	70
Branches and subsidiaries of foreign institutions	34	37
Other credit institutions	11	3
Money market funds	9	15
Total	919	867

Source: Oesterreichische Nationalbank.
Note: The Eurostat definition differs from that of the Eurosystem, notably with respect to conglomerates. The figures in this table do therefore not correspond to those used to compute the ratios in Table 3.3 nor to the reporting population behind Table 3.4 (a and b).

number of bank branches has also been falling, reflecting the restructuring in the Austrian banking sector.[5] But at the end of 2000, Austria still had one of the densest branch networks in Europe.

The once comparatively large stake held by general government in Austria's banks has been steadily trimmed over the past decade. By the end of 2000, central government ownership of Austrian banks was limited to two specialised institutions which are not classified as MFIs. Furthermore, many of Austria's provinces have been gradually reducing their stakes in state mortgage banks.

Foreign banks played a minor role in Austria until quite recently. The number of foreign EU-based banks operating in the Austrian market started to increase in the run-up to Austria's accession to the EU.[6] But until late 2000, when the largest Austrian bank was acquired by one of the largest German banks, the market share held by foreign banks was still relatively low compared with other European countries, although the increasing presence of foreign shareholders holding strategic stakes in Austrian institutions was noticeable. Foreign institutions mostly concentrated on special market segments and large-volume business.

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.052	0.055
Top five's index share of total assets (%)	41.5	42.8
Average size of top five index (EUR millions)	37,830	44,815
Average size of all banks (EUR millions)	507	618

Source: ECB calculations based on data from Oesterreichische Nationalbank.

Owing to M&A activity, the degree of concentration within the Austrian banking sector has increased in recent years. The market share of the five largest MFIs was 43% in 2000. But as a number of acquisitions did not take the form of outright mergers, the degree of concentration was therefore higher on a consolidated basis (by banking groups).

5 Given the high degree of bank intermediation and the fact that a large proportion of disintermediation is handled via banks, meaning that branch offices therefore also serve as distribution outlets for other financial products, branch offices in Austria tend to cover a wider range of tasks and services than comparable offices in countries which have drawn a clear line between banks and other suppliers of financial services.

6 In 2000, foreign EU-based banks operated 15 branch offices in Austria (compared with just one such branch office a decade earlier).

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank

(as a % of total assets/liabilities; end of year)

Assets	1998	2000
Cash	0.6	0.5
Loans	78.5	76.2
to domestic MFIs	18.5	16.8
to other domestic residents	43.7	41.6
of which original maturity < 1y [1)]	12.1	11.1
of which 1y < orig. mat. < 5y [1)]	4.3	4.1
of which 5y < orig. mat. [1)]	23.8	24.2
to other euro area residents	6.2	6.8
to non-euro area residents	10.1	10.9
Securities other than shares	11.9	12.7
issued by domestic MFIs	2.6	2.6
short term (< 1y)	0.0	0.0
long term (> 1y)	2.5	2.5
issued by other domestic residents	6.2	4.5
short term (< 1y) [1)]	0.1	0.3
long term (> 1y) [1)]	0.7	0.7
issued by other euro area residents	1.7	3.1
issued by non-euro area residents	1.5	2.6
Shares and other equity	5.3	6.4
issued by domestic MFIs	1.8	2.0
issued by other domestic residents	2.9	3.5
issued by other euro area residents	0.2	0.2
issued by non-euro area residents	0.4	0.7
Fixed assets	1.0	0.9
Other assets	2.6	3.3
Total assets	100	100
Liabilities		
Deposits	71.3	68.7
from domestic MFIs	18.8	18.6
from other domestic residents	35.7	32.1
overnight deposits [1)]	8.5	8.1
other deposits [1)]	26.7	23.7
from other euro area residents	7.8	7.8
from non-euro area residents	9.0	10.2
Money market fund shares/units		
Securities other than shares	17.3	21.7
short term (< 1y)	0.6	1.7
long term (> 1y)	16.7	20.0
Capital and reserves	4.9	5.2
Other liabilities	6.5	4.5
Total liabilities	100	100
Total assets/liabilities as a % of GDP	237.9	257.7

Sources: ECB and Oesterreichische Nationalbank.
1) Excluding central government.

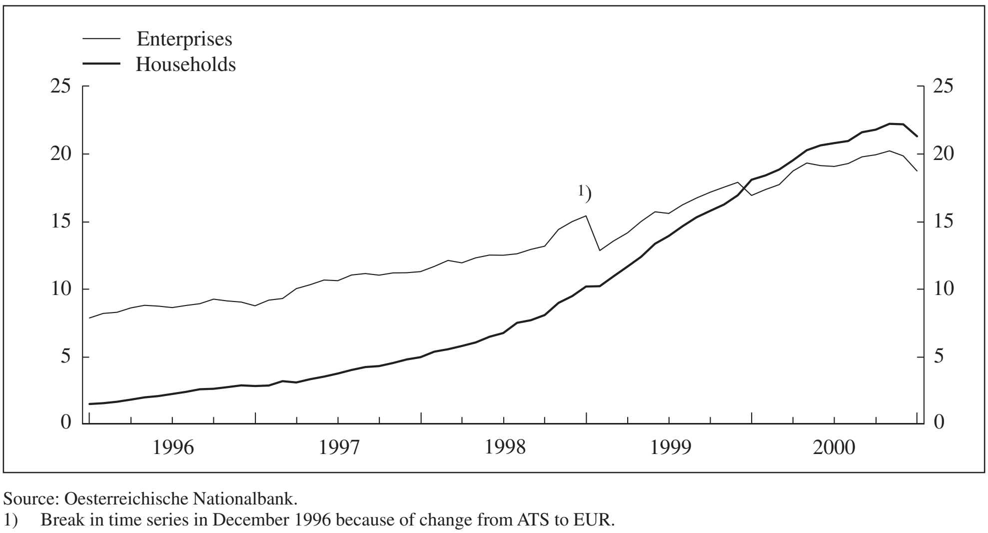
Regarding the structure of MFIs' assets, lending to domestic non-banks has remained a relatively important part of the business of banks. In recent years, the growth rates of bank lending have basically followed the business cycle. The "house bank" principle favouring long-term relations between enterprises and banks ensures that banks continue to provide financial resources also in periods of less favourable economic development. Intense competition in the Austrian banking sector stemming from the low market concentration is another reason why enterprises have generally had access to credit.

But owing to a sharp increase of other types of business, such as international lending and securitisation, the share of loans to non-bank residents on the balance sheets of MFIs has shrunk. Since 1996, lending to businesses has grown at a slower rate than total assets; the ratio of loans to the household sector to total assets has remained fairly stable. Public sector financing has become less important over the past few years. Between 1996 and 2000, banks' claims on general government (in the form of loans and bonds) declined by more than €10 billion, or by approximately one-sixth. Government securities held by domestic banks have also diminished, since government bonds have increasingly been placed with international investors.

The typical bank loan is long-term. More than half of all bank loans to enterprises continued to have a maturity of five years or more. In lending to households, this figure rises to around three-quarters.

1995 marked the beginning of a broadly based boom in foreign currency lending as enterprises and households started to take out foreign currency loans, particularly in Swiss francs and, more recently, Japanese yen. This development was preceded by a substantial widening of the interest differential between borrowing in Austrian schillings and money market rates in Swiss francs. Between the end of 1995 and the end of 2000 foreign currency loans nearly quadrupled. Almost three-quarters of the net expansion of lending by Austrian banks to domestic non-banks between the end of 1995 and the end of 2000 were denominated in foreign currencies. In 2000, some 20% of loans to businesses and households were denominated in foreign currencies.

Chart 3.2 a: Foreign currency loans as a share of total loans
(in %)



Source: Oesterreichische Nationalbank.
1) Break in time series in December 1996 because of change from ATS to EUR.

Given the terms and conditions of foreign currency loans, the task of maturity transformation is increasingly shifting from banks to borrowers. The majority of foreign currency loans are granted with a maturity of up to 20 years, but are rolled over every three or six months; the interest rate is linked to the corresponding LIBOR of the relevant currency.[7] In many cases, the borrower can repay the loan before it is due or switch to another currency (including the euro) on the rollover dates.

The comparatively high proportion of interbank business in the balance sheets of Austrian credit institutions reflects the tiered structure of the savings and co-operative bank sectors, with sector members placing liquidity reserves with their respective umbrella institutions and, in turn, being funded by them.

Table 3.4a: Austrian banks' subsidiaries in Central Europe

(end-2000)

	Total Assets	Market Share	ROE	Branches	Employees
	(EUR billion)	(%)		(Number)	
Poland	7.7	12	15	414	9,839
Slovakia	2.8	16	28	98	2,365
Slovenia	0.7	5	17	12	380
Czech Republic	15.3	21	3	749	17,303
Hungary	3.5	18	26	134	2,813

Source: Oesterreichische Nationalbank.

International business is gaining in importance. One reason has been the growing integration of Austrian banks into the euro area. By the end of 2000, more than 10% of total assets were claims on residents of other euro area countries. Financing of non-residents – through both loans and securitised lending – has also been rising outside the euro area, with flows being concentrated on the industrialised countries (in particular the United Kingdom, the United States and Switzerland) as well as central and eastern European countries.

Since the opening-up of the markets in central and eastern Europe, Austrian banks have been stepping up their cross-border activities and are at present quite well positioned in these markets. Some of them have asserted themselves to become the largest foreign banks in the region. The total assets of these subsidiaries amounted to €30 billion in December 2000, which represents more than 5% of the combined assets of all Austrian banks. In the individual countries, subsidiaries of Austrian banks held 5% to 21% of the local market share in 2000.

Concerning banks' total liabilities, competition from other forms of finance has reduced the share of deposit-taking business since the mid-1990s. Longer-term deposits have declined particularly sharply, as this type of deposit is particularly prone to competition from other forms of investment, such as mutual funds. With the growth of deposits slowing down, the gap between deposits and loans has been declining steadily. While deposits exceeded loans to private non-banks by approximately a quarter in 1995, loans were greater than deposits in 2000.

As a consequence, banks have increasingly turned to other sources of funding. Foreign funds were raised to back a growing volume of foreign currency lending. While external liabilities came to only half the amount of domestic non-banks' deposits in 1995, they had reached almost the same level as deposits at the end of 2000.

7 Banks charge an additional 1.5% to 2%, depending on the loan size, customer relations, collateral provided, etc.

Securities issued by credit institutions have made up a growing part of these external liabilities (see Section 4.1.1). Since the beginning of EMU, bank issues have climbed at double the pace of non-banks' deposits. Since 1996, the ratio of banks' issues to deposits has increased from almost 50% to some 70%.

Money market funds do not play a significant role in Austria. There were a total of 15 money market funds at the end of 2000 and their share in total MFIs' assets was 0.12%. Money market funds are not marketed very aggressively by banks (which are the main distribution channel) and usually have very high entry and management fees. Banks prefer to offer deposits for short-term investments.[8]

Table 3.5: Aggregated balance sheet of OFIs [1)]
(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Deposits	5.0	4.4
with domestic residents	-	-
with non-residents	-	-
Securities other than shares	73.2	59.5
issued by domestic residents	47.4	26.7
issued by non-residents	25.8	32.9
Shares and other equity	17.1	20.0
issued by domestic residents	2.2	1.3
issued by non-residents	14.9	18.6
Other assets	4.6	16.1
Total assets	100	100
Liabilities		
Mutual fund shares	100	100
Other liabilities	-	-
Total liabilities	100	100
Total assets/liabilities as a % of GDP	28.9	44.5
Number of OFIs		
Investment/mutual funds	849	1,492
Securities and derivatives dealers	0	0
Financial corporations engaged in lending	26	29
Other institutions	4	4
Total	879	1,525

Source: Oesterreichische Nationalbank.
1) Assets and liabilities of investment funds only.

3.3 Other financial intermediaries (OFIs)

Among OFIs, mutual funds dominate in number and size. Their number has expanded vigorously over the past decade. Most mutual fund companies are owned by banks, and mutual fund products are marketed mainly via the banks' distribution channels.

8 In Austria, money market funds are not large enough to be subject to reporting requirements for the MFI balance sheet statistics because of the application of the "cutting-off-the-tail" principle. However, some data are available from investment fund statistics.

Austrian mutual funds have experienced dynamic growth over the past few years. Enterprises as well as households increasingly purchased mutual fund shares as an investment vehicle. A growing share of pension fund assets is also administered in the form of mutual funds. Even financial corporations have used mutual funds. This was not attributable to funds-of-funds alone; a considerable number of (especially smaller) banks also invested in mutual funds (mostly instead of holding individual bonds directly). Mutual funds also benefited from the rising volume of fund-based life insurance, as well as from the fact that mutual funds (and life insurance schemes – especially fund-based life insurance plans) are often used as repayment vehicles for foreign currency loans.

Mutual funds particularly strongly increased their investment in stocks, doubling their holdings to 20% of assets between 1995 and 2000. Only a small proportion consisted of Austrian stocks, however. The share of foreign equities in the equity portfolio climbed from 53% in 1990 to 93% in 2000.

3.4 Insurance corporations and pension funds (ICPFs)

Private pension schemes of pension funds and life insurance play a minor role compared with public pension schemes. One reason is that Austria's pension system is structured as a pay-as-you-go system, although the demand for private pension schemes has been steadily increasing in recent years. However, even by comparison with countries in which unfunded systems predominate, the volume of such schemes is low in terms of domestic output.

However, in the past decade pension funds, which were almost non-existent in Austria until 1990, have been growing rapidly, although from a tiny base. At the end of 2000, 31,300 people were receiving pension fund benefits, which corresponds to 3% of all pensioners in Austria. The number of active and retired pension fund members totalled 284,000. Approximately 95% of the assets of pension funds are managed by investment companies, and their asset allocation cannot therefore be detailed.

In the same way, the life insurance premium volume recorded high growth rates in the period under review. Insurance corporations – like mutual funds – have started to shift their investments towards stocks. Domestic debt securities and outstanding loans have declined. As was the case with banks, public sector financing has lost ground. While 42% of the insurance sector's holdings consisted of federal government securities or insurance lending to the public sector in 1995, this share had contracted to less than a quarter by the end of 2000.

To some extent this reorientation reflects the uncertainty about the actual rate of return on life insurance policies. Given the still large share of bonds in insurance corporations' portfolios, profit sharing rates[9] depend largely on bond yields. Owing to the decline of the nominal interest rate level in recent years, the advertised – but not binding – rates of return have become more difficult to realise as higher-yielding issues come up for redemption. But the volatility of stock prices has also affected the financial performance of insurance corporations. As a result of these developments, insurance corporations cut the profit-sharing rates by 0.25 to 0.5 percentage points in 2000, and the maximum guaranteed interest rate on life insurance schemes was cut by the supervision authority from 4% to 3.25% in 2000.

Like Austrian banks, insurance corporations have expanded into central and eastern Europe, albeit at a somewhat slower pace. A sizeable percentage of the premium income of

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9 Agreement on the policyholder's participation in the direct insurer's surplus, provided that the insurer has indeed posted a surplus in the relevant insurance category. In capital-accumulating (life) insurance schemes in particular, the surplus largely depends on the possible return on the financial markets.

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	1.3	2.4	1.2	2.0
with residents	-	2.3	-	1.9
with non-residents	-	0.1	-	0.1
Securities other than shares	5.2	29.6	0.9	30.5
issued by residents	4.3	21.1	0.4	15.2
issued by non-residents	0.9	8.5	0.5	15.3
Shares and other equity	86.1	23.5	95.8	30.3
issued by residents	81.2	20.9	89.7	26.1
issued by non-residents	4.9	2.6	6.1	4.2
Fixed assets	0.4	7.8	0.4	7.0
Other assets	6.9	36.7	1.7	30.2
Total assets	100	100	100	100
Liabilities				
Technical reserves	-	78.0	-	77.8
Other liabilities	-	22.0	-	22.2
Total liabilities	-	100	-	100
Total assets/liabilities as a % of GDP	2.5	24.8	3.8	26.4
Number of pension funds and insurance companies				
Pension funds	17	-	18	-
Insurance companies	-	72	-	68

Source: Oesterreichische Nationalbank.

the largest insurance groups is already accounted for by the central and south-eastern European countries.

4 Markets

With the outstanding volume of bonds and stocks amounting to about 120% of GDP, the Austrian capital market is smaller than that of most other small European countries. Within the domestic sectors, financial institutions dominate both debt financing and the equity markets, underlining their prominent role in the Austrian financial system.

The Austrian capital market is highly integrated into the international markets. More than 40% of shares issued by residents and nearly 60% of domestic bonds are held by non-residents. In the period between 1998 and 2000, foreign investors bought more than the total new issuance of domestic bonds, while Austrian households and enterprises decreased their holdings of domestic securities.

On the other hand, almost half the securities portfolios of Austrian investors consisted of foreign assets. In the case of non-financial corporations, they represented two-thirds of financial non-intermediated assets. The bulk of foreign assets are held by financial and non-financial corporations. Austrian enterprises' large holdings of foreign shares are to a considerable degree attributable to foreign direct investments (FDIs).

4.1 The bond market

4.1.1 The primary market: issuance

The Austrian bond market ranks among the smallest European markets in terms of its size. The outstanding amount of debt securities in 2000 roughly equalled that year's GDP.

The market's biggest issuer is the Republic of Austria. At the end of 2000, central government debt issues accounted for half of the total outstanding volume of bonds, whereas regional governments and municipalities only raised a limited amount of funds on the capital markets.

By far the largest volume of newly issued government bonds is purchased by foreign dealers participating in the tender panel. By the end of 2000, this syndicate consisted of eight domestic and 19 foreign banks. In addition, the Government started to issue bonds using syndication. The lead managers were foreign banks participating in the tender panel.

The surge in Austrian government gross issuance in the past few years may partly be attributed to intermediary funding programmes ("Rechtsträgerfinanzierung") pursuant to Article 65c of the Federal Budget Act under which the Austrian Government has been issuing securities in its own name and re-lending the proceeds on unchanged terms to quasi-public entities, which have also been strongly represented on the bond market since 1998. The beneficiaries are companies in which the Austrian Government either holds a majority or for

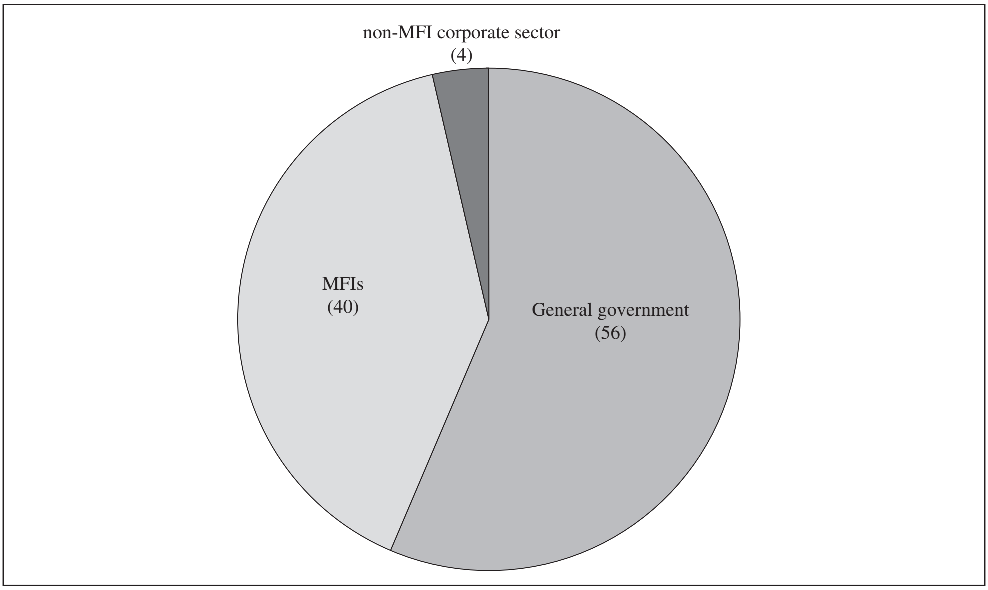
Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	1.2	-2.1	5.0	7.7
Households	0.6	-1.5	0.7	0.0
Non-financial corporations	-0.2	-0.9	1.4	0.1
General government	0.2	0.8	0.0	0.3
Financial corporations	0.7	-0.5	2.8	7.3
Non-residents	2.1	13.2	-	-
Total	3.4	11.1	5.0	7.7
Holdings (Amounts outstanding, end-2000)				
Resident sectors	26.0	51.8	34.1	43.8
Households	3.4	8.5	4.3	1.8
Non-financial corporations	2.5	3.7	11.5	1.2
General government	3.5	5.5	0.6	0.2
Financial corporations	16.7	34.1	17.7	40.6
Non-residents	19.9	74.2	-	-
Total	45.9	126.0	34.1	43.8

Source: Oesterreichische Nationalbank, national financial accounts statistics.

Chart 4.1: Outstanding amounts of debt securities by sector [1)]

(end-2000; as a % of total)



Source: Oesterreichische Nationalbank

1) Euro-denominated issues only.

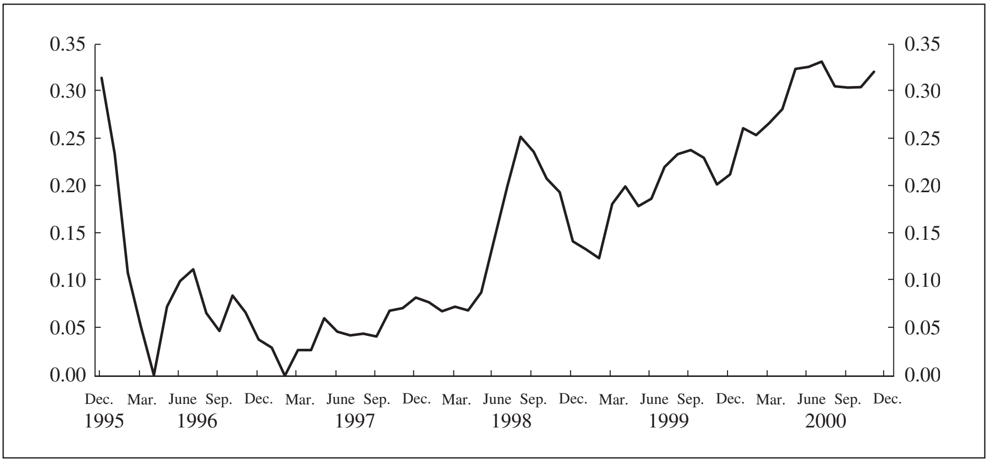
which it assumes guarantor responsibilities. In 2000, cumulative liabilities outstanding within this funding framework amounted to €8 billion.

Bank bonds account for 40% of the market's total outstanding volume. Financing on the bond market has been expanded to make up for slow growth in other forms of financing, especially deposit-taking. EMU considerably advanced this trend by both eliminating exchange rate risks and broadening the range of institutional investors. Between 1998 and 2000, the growth rate of the outstanding volume of bank bonds increased at more than double the rate of the previous three years. This development was mainly due to the expansion in the volume of foreign issues (see Fritzer/Rumler, 2001).

Banks tap the market as issuers of regular and irregular one-off bonds. The volume of the latter, especially medium-term fixed-rate notes, expanded rapidly after being exempted from prospectus liability in 1993 (see Mader, 1994). Mortgage and communal bonds represent a special category. Mortgage bonds ("Pfandbriefe") are collateralised by means of mortgage loans, while communal bonds are collateralised by means of loans to regional public entities. Mortgage and communal bonds may only be issued by a limited number of banks. In recent years, they have been increasingly replaced by housing construction bonds in the refinancing of domestic banks.

The corporate segment is rather small. Corporate bonds and other non-government and non-bank bonds account for about 4% of the market. Even if the intermediary funding programme by the Austrian Government is included, Austrian corporate bonds only amount to 8% of the total volume outstanding in 2000.

Chart 4.1a: Yield spreads vis-à-vis German ten-year government bonds
(in %)



Source: Oesterreichische Kontrollbank (OeKB), BIS.

4.1.2 The secondary market: organisation and integration

Most bond trading takes place on the interbank market or involves institutional investors. Government bonds are usually traded over-the-counter, with only a small proportion being traded on the Vienna Stock Exchange.

The first two years of EMU saw the yield spreads vis-à-vis Germany widen substantially, which was largely attributable to credit risk and liquidity (see Fritzer/Rumler, 2001). Perceptions of the Austrian Government's credit risk may have had short-lived repercussions, while international investors placed increased emphasis on liquidity.

The integration of the euro area capital markets has stepped up the competitive pressure on smaller issuers such as the Republic of Austria. With its borrowing requirements low by EMU standards, Austria is unlikely to issue volumes large enough for a major-league market. Only by amalgamating new central government bond issues into a single euro issue has it been possible to meet the demand for large issues prevailing on the euro bond market. New tranches of numerous issues of central government bonds were sold on unchanged terms (coupon, coupon dates and redemption dates) in order to both secure a steady foothold in the market and provide for high volumes of bonds outstanding. As a result of these measures, eight Austrian Government bonds each had an outstanding volume of €5 billion or more at the end of 2000.

These measures helped total market turnover to increase noticeably, although exchange-traded turnover has continued to fall in recent years. As a result of the increase in volume, the most liquid government bonds are also eligible for trading on Euro-MTS.

4.2 The stock market

4.2.1 The primary market

In December 2000, 97 Austrian stock corporations were listed on the Vienna Stock Exchange and another 20 on exchanges abroad. The number of Austrian companies listed in Vienna in

Table 4.2: Characteristics and activity of the stock market

Description	1998	2000
Number of listed companies	96	97
Number of non-listed companies	713	-
Market capitalisation of listed shares (as a % of GDP)	15.3	15.2
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	0.3	1.2
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	-	-
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	0/19	0/3
Concentration indices (top-ten companies share of total market capitalisation) (%)	59.8	59.6
Number of foreign companies listed	32	14
Number of stock exchanges and other organised exchanges	1	1
Number of participants in these markets	74	65
Share of non-domestic participants (%)	0.1	0.2
Number of transactions in traded shares	2,973,090	1,715,502
Total turnover of traded shares (as a % of GDP)	16.4	10.4

Source: Vienna Stock Exchange, Datastream, STOXX Limited.

2000 thus more or less equalled the figure recorded a decade earlier. Following takeovers, many Austrian companies withdrew from the stock market.

The exceptionally low number of domestic listed companies in Austria seems to be due to the ownership structure prevalent among Austrian companies (see Section 2). In addition, the low number of listed companies basically reflects the bank-oriented financial structure of the economy.

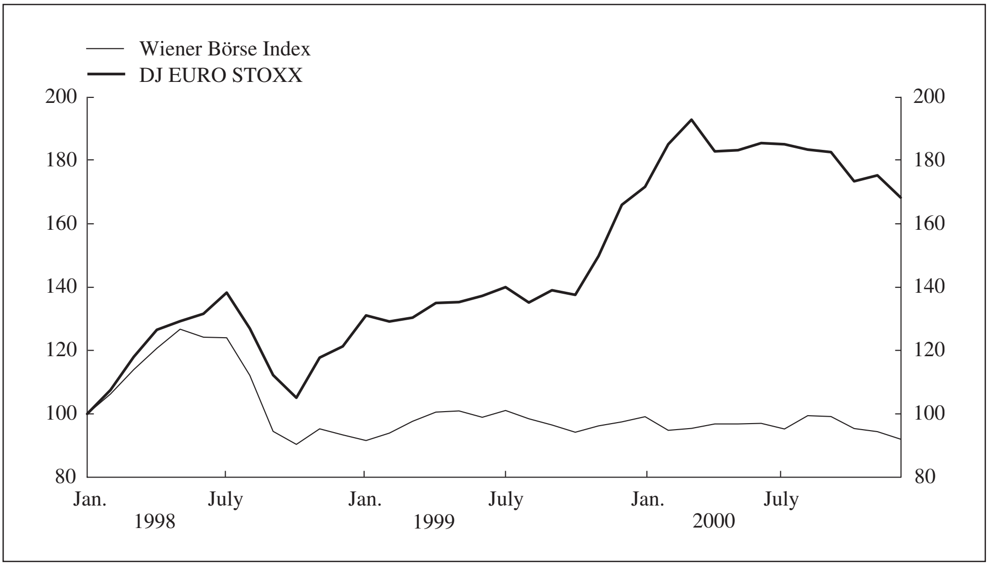
The ratio of listed to non-listed companies was 1:7.5 in 1998. The listings on the Vienna Stock Exchange predominantly comprise Austria's major stock corporations.[10] From 1990 to 2000 companies raised €19 billion on the stock market via capital increases and initial public offerings, which corresponded to approximately 4% of gross fixed capital formation. However, this ratio fluctuated widely, between 1% and 7%, during the period. Issuing activity on foreign exchanges (EASDAQ, Neuer Markt Frankfurt, Switzerland) contributed an additional 0.5 percentage point to gross fixed capital formation between 1996 and 2000.[11]

The market value of the domestic enterprises listed on the Vienna Stock Exchange of €31.2 billion at the end of 2000 accounted for about 15% of GDP. The average market capitalisation of a listed company was just a quarter of the western European average. By the end of 2000, more than 50 European stocks grouped in the DJ-STOXX index each had a market capitalisation larger than that of the entire Austrian stock market (see Waschiczek/Fritzer, 2000).

10 In 1998, the capital stock of listed corporations was on average almost four times as high as that of unquoted corporations. The share which companies listed on the Vienna Stock Exchange held in the capital stock of all Austrian stock corporations was about three times as high as their share in the number of stock corporations. (Waschiczek/Fritzer, 2000)

11 Excluding capital raised by financial intermediaries (banks, insurance companies and real estate firms), the proportion of flotations on exchanges outside Austria was one-third.

Chart 4.2: National stock index development relative to EURO STOXX
(1998 = 100)



Source: Datastream.

4.2.2 The secondary market

In recent years, the Vienna Stock Exchange has implemented a number of measures, including merging the domestic cash market with the futures and options exchange and changing the legal form to that of a stock corporation operating under private law. The amendment of the Stock Exchange Act which took effect in August 1999 opened up membership to credit institutions and recognised investment firms and enterprises both from EEA member states and from third countries. In November 1999, Vienna's cash market was linked to Frankfurt's Xetra electronic trading platform. This common platform means that the securities traded on the two stock exchanges can be bought on either exchange.

As a result of the Vienna Stock Exchange joining an international network with over 400 active participants worldwide, stocks listed on it have gained Europe-wide exposure. However, market liquidity on the Vienna Stock Exchange has remained very low and even declined further in recent years. More than half of all trading in Vienna is concentrated on the five largest stocks.

Austria's stock market is Europe's worst performer and has been in decline for most of the last decade. At the end of 2000, the Vienna stock market index had dipped below the 1990 figure, a development not seen in any other European country.

The Vienna Stock Exchange's poor performance reflects the sluggish demand for Austrian stocks. As Austrian institutional investors do not favour domestic stocks as an investment vehicle, and the share of private investors' purchases has also remained quite small, non-resident investors are a major force on the Austrian market. As balance of payments figures show, at the end of 1999 foreign investors' portfolios of Austrian equities corresponded to roughly a quarter of the entire market value in Vienna. However, foreign pension and mutual funds account for a much higher float ownership of some stocks listed on the Vienna Stock Exchange.

5 Financing

5.1 Non-financial corporations

The financing pattern of the Austrian corporate sector differs in a number of respects from corporate financial structures in other euro area countries. Bank-intermediated debt continues to be the preferred instrument of corporate finance, especially for small and medium-sized enterprises. At end-2000, bank liabilities accounted for 28.5% of the total liabilities of small manufacturing companies and 19% of those of larger enterprises.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	2.6	24.7
Securities other than shares incl. financial derivatives	0.9	8.1
of which short-term bonds (<1y)	0.0	0.1
of which long-term bonds (>1y)	0.9	8.0
Loans	7.0	80.3
from resident MFIs	4.2	68.0
of which short-term (<1y)	1.0	20.8
of which long-term (>1y)	3.2	47.3
from resident OFIs	0.1	0.7
from other residents	1.4	5.9
from non-residents	1.2	5.8
Trade credits and advances	0.2	2.0
Other liabilities	-0.1	0.9
Total liabilities	7.8	115.9
Internal financing		
Gross savings	10.4	-
Net savings	1.2	-
Net capital transfers	1.1	-

Source: Oesterreichische Nationalbank, national financial accounts statistics.

Despite a decline in recent years, the importance of bank loans relative to other sources of finance is still considerably higher than the euro area average. Loans from non-residents have gained somewhat in significance recently, pointing to an enhanced financial integration of the corporate sector, although liabilities to non-residents still consist to a large extent of inward direct investments in Austrian companies. Loans extended by the public sector have become more importent lately.[12]

12 The majority of public sector loans to businesses are extended under intermediary funding programmes of the central government (see Section 4.1.1).

Table 5.1a: Venture capital market in Austria
(as a % of GDP)

	Amounts raised	Invested
1995	0.0	0.0
1996	0.0	0.0
1997	0.0	0.0
1998	0.1	0.0
1999	0.1	0.0
2000	0.1	0.1

Source: EVCA Yearbook, various years.

In 2000, external financing slightly exceeded GDP and amounted to 40% of gross fixed investment in the period from 1998 to 2000. By contrast with the euro area as a whole, internal is finance more significant than external finance in Austria. This reluctance of corporations to use external sources of finance and their strong preference to use retained earnings instead implies that the pecking order assumption holds for Austria.

Direct finance via organised capital markets still plays a minor role, compared with the euro area average. Corporate financing has been slowly shifting towards shares and other forms of equity since the mid-1990s, owing to the diminished importance of subsidised loans over the past decade. The strategic orientation of business changed too when Austria's economy was integrated into the single European market and internationalisation increased – as reflected by rising foreign direct investment (FDI).

The issuance of bonds has risen noticeably since the mid-1990s, albeit from a very low level. The outstanding volume of corporate bonds doubled between 1995 and 2000. Foreign demand was strikingly high, with non-resident holdings tripling.[13] On an international scale, however, the bond market is still of relatively little importance for Austrian corporate financing.

The Austrian venture capital market is still rather small by international standards and accounts for a minor share of investments, but it has been gaining considerable momentum since 1995[14] – not least because the focus of assistance schemes has shifted from debt financing towards equity capital (see Section 2). In 2000, there were 84 venture capital companies (against 21 in 1997). The average size of a venture capital investment more than doubled between 1998 and 2000, indicating the growing maturity of the venture capital market in Austria (see Waschiczek/Mauerhofer, 2000).

5.2 General government

Having risen by more than 50% in the first half of the 1990s, consolidated gross government debt expanded by less than 10% between 1995 and 2000, owing to a considerable reduction in the general government's annual net borrowing.

Over the past decade the structure of the outstanding stock of government gross debt has shifted towards long-term securities. This is primarily due to debt issued by the central government, which has increasingly switched to bond-based funding. The share of securities in central government debt rose from 60% to 80% in the course of the 1990s, whereas the

13 According to balance of payments data, this increase in foreign bond holdings was partly attributable to changes unrelated to transactions, such as market valuation gains.

14 Until the mid-1990s, venture capital for companies was largely provided in the form of soft loans from (mostly publicly owned) banks or via tax-driven silent partnership schemes based on loss participation.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	-	-
Securities other than shares incl. financial derivatives	6.0	59.9
of which short-term bonds (<1y)	-0.9	2.1
of which long-term bonds (>1y)	6.8	58.6
Loans	-1.8	15.3
from resident MFIs	-1.5	7.8
of which short-term (<1y)	0.1	1.6
of which long-term (>1y)	-1.6	6.2
from resident OFIs	0.0	0.0
from other resident sources	-0.5	5.9
from non-residents	0.2	1.6
Other liabilities	-	1.5
Total liabilities	4.2	76.7
Internal financing		
Gross savings	1.8	-
Net savings	0.3	-
Net capital transfers	-2.1	-

Source: Oesterreichische Nationalbank, national financial accounts statistics.

share of bank loans shrank from 30% to 8%. The average maturity of central government debt was 5.8 years at the end of 2000 (see Staatsschuldenausschuss, 2001).

Central government debt is issued to a considerable degree in foreign currency. Initially, foreign currency markets were used primarily as a way around the limited financial resources available on the Austrian market and to avoid over-extending the domestic market through the government's funding needs. At the same time, before 1999 it was difficult for a relatively small debtor like Austria to place larger volumes of Austrian schilling-denominated bonds on international markets. Since the introduction of the euro, however, foreign currency debt has been incurred mainly for (expected) cost reasons. In 2000, it amounted to 14% of total debt outstanding (after swap transactions) and was made up exclusively of Japanese yen and Swiss francs.

Sales of securities issued by the central government on international markets have increased considerably over the past decade. The sale of both euro-denominated government bonds (by way of syndication and tender procedures) and short-term Treasury bills – together with the international high demand for short maturities – have pushed up foreign debt. In 2000, between 54% and 99% of government bonds issued under the tender procedure (excluding the Government's own stock) were acquired by non-resident participants. By end-2000, 47.6% of all central government liabilities were held by non-residents (see Staatsschuldenausschuss, 2001).

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	2.6	40.0
Loans from resident MFIs	2.7	28.7
of which short-term (<1 year)	0.0	3.7
of which long-term (>1 year)	2.7	25.0
Consumer loans	2.3	12.3
original maturity < 1y	0.5	2.4
1y < orig. mat. < 5y	0.1	1.5
5y < orig. mat.	1.7	8.4
Housing loans	1.0	13.4
original maturity < 1y	0.0	0.3
1y < orig. mat. < 5y	0.3	1.1
5y < orig. mat.	0.7	12.0
Other loans from resident MFIs	-0.7	3.1
Other loans from resident lenders	0.0	11.2
Loans from non-residents	-0.1	0.1
Other liabilities	0.0	0.1
Total liabilities	2.6	40.1
Internal financing		
Gross savings	7.8	-
Net savings	4.6	-
Net capital transfers	1.0	-

Source: Oesterreichische Nationalbank, national financial accounts statistics.

5.3 Households

Indebtedness of households is comparatively low in Austria. Households finance themselves primarily internally, with internal financing exceeding external financing by 3:1 in the period from 1998 to 2000. External financing consisted mainly of loans from banks, predominantly from Austrian MFIs. The main use of bank loans was still housing financing, which accounted for 47% of the outstanding volume of loans from resident MFIs at the end of 2000. In the period from 1998 to 2000, however, consumer loans accounted for close to 90% of the net increase in household bank debt.

Demand for bank loans was particularly strong in 1999 and 2000, exceeding euro area average growth rates. The vigorous loan growth has also exceeded disposable income growth in recent years, with the ratio of bank loans to disposable income rising from 38% in 1995 to 47% in 2000. New bank loans were predominantly denominated in foreign currency (Swiss francs, Japanese yen). At the end of 2000 foreign currency loans accounted for approximately 20% of the outstanding loan volume (see Section 3.2).

A considerable proportion of housing finance is subsidised. Subsidies consist of public loans, loan and interest subsidies and bonus interest payments on contracts with building societies. The bulk of housing promotion is the responsibility of the provinces. With its housing loan schemes, the public sector is the second most important source of financing of households.

Housing loans are predominantly long-term, with 90% of the outstanding volume in 2000 and some 70% of the net change from 1998 to 2000 having an original maturity of more than five years. More than two-thirds of all private loans granted by Austrian banks have variable interest rates.

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
Deposits	5.0	43.9
Shares	2.9	19.9
Securities other than shares	13.6	74.2
Other financial assets	2.6	18.2
Total financial assets	24.1	156.3
Liabilities of non-residents		
Deposits	0.6	21.7
Securities other than shares	8.2	43.8
of which short-term (<1 year)	0.2	1.8
of which long-term (>1 year)	7.9	42.0
Loans	5.4	33.6
of which granted by financial institutions	4.1	27.7
Shares and other equity	7.9	34.1
of which held by financial institutions	4.8	17.7
Other liabilities	0.0	4.8
Total liabilities	22.2	138.0

Source: Oesterreichische Nationalbank, national financial accounts statistics.

5.4 Flow of funds abroad

Austria's internationalisation ratio – external assets and liabilities expressed as a percentage of GDP – has risen substantially in recent years on both the assets and the liabilities side. By end-2000, these ratios came to 135% of GDP for non-residents' liabilities and 152% for their assets, resulting in a negative international investment position equivalent to some 16% of GDP.

The momentum of cross-border financial investment points to the increasing economic integration of Austria into the euro area. The share of the latter in Austria's external assets rose from roughly 36% at the end of 1998 to 45% at the end of 2000. Financial integration is particularly pronounced in the category of portfolio investment (equity and debt securities), where the euro area accounted for 59% of residents' external portfolio investment. However, bank deposits decreased in relative terms.

Likewise, the rise of foreign liabilities was largely attributable to investment in securities. Foreign investors' interest in Austrian bonds – both government and bank bonds – has increased significantly in recent years. The majority of interest-bearing securities were euro-denominated. Banks also sold issues in Swiss francs to refinance domestic loans in this currency.

Both inward and outward FDIs increased in number. Eastern Europe accounted for about one-third of outward FDIs in 2000, whereas the largest share of inward FDIs came from euro area countries, in particular Germany.

Broken down by economic sector, banks accounted for roughly 53% of Austria's gross external liabilities, the public sector for 25% and corporate debt for 17%. The remainder was accounted for by the central bank, financial institutions (other than banks) and the household sector. In net terms, the public sector, banks and enterprises were debtors. Both the banks and general government increased their net external debt considerably in the second half of the 1990s.

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Portugal

1 Main features of and recent developments in the Portuguese financial system

Over the past 15 years, the competitive environment, the structure and performance of financial institutions and the size and scope of the capital market in Portugal have changed dramatically. At the beginning of the 1980s, the Portuguese financial system was still being affected by the consequences of the 1974 revolution and by the direct controls that had been introduced to deal with the two payment crises of the 1970s and early 1980s.

The recognition of the fact that integration of the goods market within Europe[1] could not be completed without a gradual dismantling of the constraints on financial markets gave rise to a gradual process of liberalisation. In Portugal this process began in 1983 with the reopening of the banking and insurance sectors to private enterprise. Later in the decade, the first steps were taken towards the gradual elimination of administrative limits on interest rates and credit growth. The explicit restrictions on the composition of banks' assets, namely the compulsory investment in government debt, were also removed and the legally imposed segmentation of banking activities was gradually eliminated, with universal banking being established from late 1992 onwards.

The privatisation process that began in 1989 also had important consequences. Privatisations enhanced competition in the banking sector. Moreover, they contributed to the increase in the depth of the capital market and stimulated investors' portfolio diversification, particularly in the case of households.

The prospect of participating in the European Single Market in 1992 accelerated the reforms during the period 1990-92. The process of interest rate liberalisation was completed and credit ceilings were totally abolished. In April 1992, the Portuguese escudo joined the European exchange rate mechanism and in December of the same year the remaining restrictions on international capital flows were lifted. Since 1993, the main structural changes have been directed towards the harmonisation of procedures and regulations within the European Union. The implementation of the EU Capital Adequacy Directive was one of the important measures taken in this period.

A process of nominal convergence also started, increasing the prospects of EMU participation, which in turn facilitated exchange rate stability and the convergence of interest rates to the levels prevailing in the other participating economies. These developments have been reflected in a substantial decrease in the foreign exchange risk premium of the escudo since mid-1995.[2]

1 Portugal joined the EEC in 1986.
2 For details of the Portuguese convergence process, see Abreu (2001).

The development of the Portuguese financial market is likely to have affected the composition of the portfolios of the non-financial sectors. At the end of 2000, Portuguese households held one-third of their assets in non-intermediated forms (shares and other securities excluding investment fund shares), which is similar to the euro area average. The other two-thirds consisted of holdings of intermediated assets (bank deposits, investment fund shares and investments in insurance), which amounted to 122% of GDP at end-2000 (see Table 1). In the context of declining interest rates, loans granted to households increased sharply from 28% of GDP in 1995 to 64% in 2000, clearly above the euro area average, which stood at around 50%.

Non-financial corporations' holdings of shares and other securities increased significantly to 41% of GDP in 2000 (up from 14% in 1995), reflecting the development of the capital market and the increased importance of mergers and acquisitions. Between 1996 and 2000, their investments in deposits, investment fund shares and insurance increased by four percentage points to 29% of GDP. As in the case of households, their financing through bank loans rose significantly (from 55% of GDP in 1995 to 85% in 2000), while their funding through share and bond issuance increased from 104% to 118% of GDP. In Portugal, the share of loans in the financing of corporations came to 85%, as mentioned above, which was greater than the euro area average of 64% of GDP, whereas the importance of the capital market remained lower (at 118% of GDP, which compares with 156% in the case of the euro area).

General government holdings of financial assets have been relatively stable. The declining trend in securities' holdings was mainly due to the privatisation process, the proceeds of which have been partly used for the early redemption of government debt.

The convergence of interest rates to the euro area level and the elimination of exchange risk as a consequence of EMU participation enhanced the international integration of the Portuguese financial market, in particular with European markets. Accordingly, non-residents' financial assets and liabilities have become increasingly important in the Portuguese financial system.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non residents between intermediated and non-intermediated instruments

(as a % of GDP; end-2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (shares and securities other than shares)	**Intermediated** (loans)	**Non-intermediated** (shares and securities other than shares)
Resident non-financial sectors	158.7	117.5	165.3	163.4
Households	121.9	57.3	64.0	0.0
Non-financial corporations	29.1	41.3	85.0	118.1
General government	7.8	18.9	16.2	45.3
Non-residents	70.3	70.1	20.7	58.7
Total	229.0	187.6	186.0	222.1

Source: Banco de Portugal, national financial accounts statistics.

2 Origin of flows

In Portugal, the household sector was a net lender, as is usually the case. However, households' net financial assets declined from 147% to 118% of GDP between 1995 and 2000 mainly owing to the strong growth in their indebtedness (see Table 2). Furthermore, non-financial corporations were the main net borrowing sector of the economy. Indebtedness of corporations has also increased significantly, but their net financial assets have remained relatively stable as a percentage of GDP. In the context of the favourable equity price developments until 2000, this relative stability partly reflected the revaluation of the shares included in the portfolios of corporations.[3]

Table 2: Financial transactions and position by sector

(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
Sectors	Financial asset acquisition	Liabilities incurrence	Net financial transactions	Financial assets	Liabilities	Net financial position
Resident sectors						
Households	12.6	12.4	0.2	197.5	79.5	118.0
Non-financial corporations	20.3	25.4	-5.1	135.0	256.7	-121.7
General government	0.2	2.8	-2.6	40.6	65.0	-24.3
Financial corporations	38.1	37.0	1.1	333.2	342.7	-9.4
Total	71.1	77.6	-6.5	706.4	743.8	-37.4
Non-residents	22.2	15.8	6.5	168.0	125.5	42.4

Source: Banco de Portugal, national financial accounts statistics.

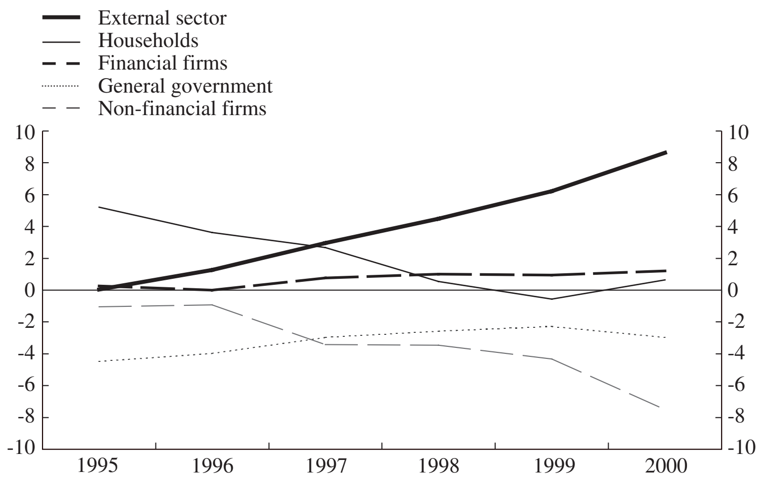
Despite the strong growth in public consumption and transfers to households, the borrowing needs of general government continued to decline between 1995 and 1999.

The net financial assets of non-residents increased from nearly 10% of GDP in 1995 to more than 40% in 2000. As a result of a progressively wider gap between domestic investment and domestic savings, the net incurrence of liabilities in the economy rapidly rose, peaking at a level of 8.6% of GDP in 2000 (see Chart 2a).

Such imbalances cannot persist forever since each economic agent faces an intertemporal budget constraint. As adjustment via the depreciation of the nominal exchange rate is impossible in a monetary union, the persistence of external imbalances necessarily leads to a reaction among domestic economic agents which cut back their expenditure and borrowing growth. This adjustment process began in 2000, with a slowdown in domestic demand and bank credit and a recovery of the household savings ratio. These developments continued in 2001 and are also expected to continue in the coming years.

3 Revaluation accounted for around 80% of the increase in the value of the shares issued by non-financial corporations in the period 1996-1999.

Chart 2a: Net lending/borrowing: breakdown by institutional sector (1995-2000)
(as a % of GDP)



Source: Banco de Portugal, national financial accounts statistics.
Note: Statistical break between 1999 and 2000.

3 Intermediaries

3.1 Channelling of funds through intermediaries

The decline in interest rates, which was perceived as permanent by economic agents, is likely to have led to shifts in the composition of the financial wealth of non-financial agents, in particular households, away from bank deposits towards other financial assets. Nevertheless, the largest proportion of households' financial wealth is still held in the form of bank deposits. Households' deposits with resident MFIs amounted to 72% of GDP in 2000, which was 5 percentage points less than in 1995 (see Table 3.1).

The wealth invested by households in investment fund shares peaked at 17% of GDP in 1998 and slightly declined afterwards to a level of 13% in 2000. However, this declining trend is likely to have reversed in 2001.

Households' deposits with non-resident MFIs have been growing at high rates, but the weight of these deposits in household portfolios is relatively low (4% of GDP in 2000).

To sum up, no clear trend can be discerned in the behaviour of the components of households' financial wealth during the review period, except in the case of pension funds and insurance investments, whose importance has been steadily increasing.

The structure of non-financial corporations' portfolios has also changed. In 1995, deposits with resident MFIs were still the main component of non-financial corporations' portfolios, amounting to 13% of GDP. In 2000, deposits with resident MFIs stood at 17% of GDP. Nevertheless, between 1995 and 2000, non-financial corporations' holdings of shares increased from 12% to 20% of GDP.[4] Deposits with non-resident MFIs amounted to 9% of GDP in 2000, which was only slightly higher than five years before.

4 The holdings of non-intermediated assets are analysed in more detail in Section 4.

The portfolio of the financial sector shows a more balanced composition between assets issued by residents and non-residents. This sector's holdings of assets issued by non-resident intermediaries stood at 27% of GDP in 2000, which compares with 37% in the case of holdings of assets issued by residents. Table 3.1 also shows that non-residents' deposits in resident MFIs was equal to almost 70% of GDP in 2000, compared to 28% in 1995 and 49% in 1998. In recent years, the strong growth in credit granted by banks, namely loans to the private non-financial sector, outpaced growth in domestic deposits, leading to increasing recourse to the international money markets.[5]

Table 3.1: Financial assets (aquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (deposits and technical reserves)	**Non-resident intermediaries** (deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	10.9	0.8	3.7	1.3
Households	4.1	0.4	3.6	0.9
Non-financial corporations	1.8	0.1	0.1	0.7
General government	0.3	0.0	0.0	0.0
Financial corporations	4.8	0.3	0.0	-0.3
Non-residents	11.6	0.0	0.0	-
Total	22.5	0.8	3.7	1.3
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	128.6	21.3	33.9	39.6
Households	72.2	13.3	32.7	3.8
Non-financial corporations	16.5	2.7	1.2	8.7
General government	7.6	0.1	0.0	0.0
Financial corporations	32.3	5.1	0.1	27.1
Non-residents	69.8	0.4	0.5	-
Total	198.3	21.7	34.4	39.6
Memo item Market instruments issued by MFIs and bought by the resident non-financial sectors	-	-	-	-

Source: Banco de Portugal, national financial accounts statistics.

5 These developments will be analysed in greater detail in Section 3.2.

3.2 Monetary financial institutions (MFIs)

With the reopening of the banking sector to private enterprise in 1983, the number of MFIs increased significantly. Between 1984 and 1994, the number of banks (excluding savings and co-operative institutions) rose from 14 to 45. As a consequence of international competition, several waves of takeovers subsequently took place, especially after 1994. Since many of the institutions involved in these operations did not actually merge, but rather formed banking conglomerates, only a few banks disappeared completely as a consequence of the takeovers (see Table 3.2). In fact, the number of banks continued to increase, with entries being largely dominated by foreign MFIs. The number of foreign MFIs has been continuously increasing, but they still only account for a relatively small share of the Portuguese banking market (4.3% of total assets of MFIs at the end of 2000). This probably reflects the effectiveness of non-legal barriers to entry such as the branch networks of incumbent domestic banks (Leite and Ribeiro, 1997).

The number of co-operative institutions is large compared with the number of universal banks, representing almost 70% of the total number of MFIs. However, their share of the total assets of MFIs was less than 4% in 2000 (see Table 3.2a). These institutions are mainly designed to support agricultural activities and are local in nature.

Only three institutions were classified in the money market funds category in 2000, with a combined balance sheet equivalent to 0.1% of GDP.

During the 1990s, despite the increase in the number of MFIs, business concentration in the banking sector was relatively high. In the first half of the decade, the market share of the five largest individual banks remained above 50%, which is not very different from the values for other small EU economies. In the second half of the 1990s, the number of banks continued to

Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Universal banks	41	39
Co-operative enterprises	160	144
Saving banks	6	5
Branches and subsidiaries of foreign institutions	18	25
Other credit institutions	-	-
Money market funds	-	3
Total	225	216

Source: Banco de Portugal.

Table 3.2a: Relative size of different categories of MFI
(as a % of total assets of MFIs, end of year)

Category	1998	2000
Incorporated enterprises limited by shares	92.6	92.1
Co-operative enterprises	3.1	3.4
Saving banks	0.1	0.1
Branches of foreign institutions	4.2	4.3
Money market funds	-	0.0

Source: Banco de Portugal.

increase, but market concentration rose as a consequence of the intensification of merger and acquisition activity (see Table 3.3). As mentioned above, in many cases the banks involved in the takeovers did not actually merge, but rather formed conglomerates. Therefore, the appropriate measure of concentration should take into account data on banking groups instead of individual bank data. The share of the five largest banking groups in the total assets of the banking sector rose from 80% in 1998 to 84.9% in 2000.[6] Nevertheless, in 1998 and 1999, when entry by foreign banks increased competition, concentration declined. This increase in competition probably led to a decrease in the market share of some of the largest groups. In 2000, the consolidation of banking activity resulting from the merging of several institutions led again to a significant increase in the level of concentration in the banking sector.

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.1	0.1
Top five's share of total assets (%)	44.8	59.2
Average size of top-five (EUR millions)	25,672	37,334
Average size of all banks (EUR millions)	1,273	1,460
Memo:		
Share of top-five bank groups (%)	80.0	84.9
Average size of top-five bank groups (EUR millions)	45,854	53,559

Source: ECB calculations based on Banco de Portugal data.

In recent years, fuelled by the credit expansion, total assets of MFIs have been growing faster than nominal GDP. However, in 2000 the growth rate of banks' total assets declined as a result of the offsetting of interbank positions following mergers and, in particular, the slowdown in loans granted to households. Throughout 2001 both total assets and credit maintained the same trends. These developments were interpreted as being part of the adjustment process of the Portuguese economy as referred to in Section 2.

Against the background of nominal convergence and participation in the euro area, important changes have also taken place in the structure of the balance sheet of MFIs (see Table 3.4). The integration process and the substantial decline in interest rates stimulated private consumption and investment, which were reflected in high credit growth rates. Between 1997 and 2000, loans granted to the private non-financial sectors increased at rates persistently above 20%. Consequently, during this period the share of this lending on the balance sheet of MFIs increased by 14 percentage points to 46% and exceeded the euro area average, which has remained stable at around 41%.

Securitisation allows credit institutions to gradually change the structure of their balance sheets to make them more appropriate in terms of risk/yield, liquidity and capital cost. Since 1997, Portuguese MFIs have been undertaking securitisation operations, mainly in the segment of household credit. The first operations were undertaken on international markets more familiar with these kinds of operations, but in 1999 a legal framework was approved which authorised the creation in Portugal of institutions specialising in the acquisition/transformation of credits. The amounts involved in these securitisation operations are still small, but are likely to increase in the future. Of the credit granted to households at the end of 2001, 2.8% had been securitised, compared with 1.5% in 2000.

6 Excluding co-operative institutions.

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank
(as a % of total assets/liabilities; end of year)

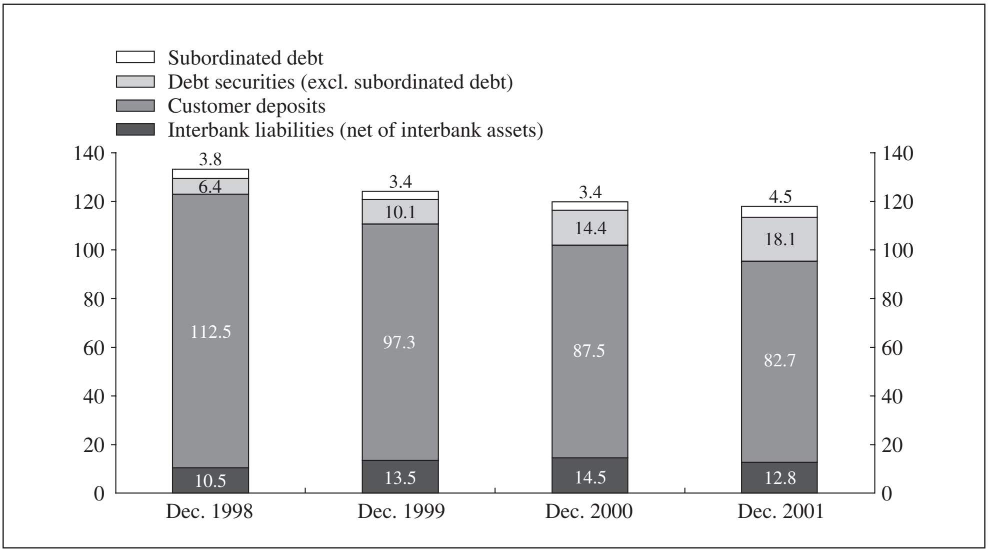
Assets	**1998**	**2000**
Cash	0.3	0.5
Loans	54.0	69.3
to domestic MFIs	9.1	8.1
to other domestic residents	31.7	45.9
of which original maturity < 1y	11.6	15.6
of which 1y < orig. mat. < 5y	5.2	8.3
of which 5y < orig. mat.	14.8	21.9
to other euro area residents	6.4	6.5
to non-euro area residents	6.8	8.8
Securities other than shares	11.6	8.7
issued by domestic MFIs	3.4	2.6
short-term (< 1y)	0.5	0.0
long-term (> 1y)	2.9	2.6
issued by other domestic residents	6.0	4.5
short-term (< 1y)	0.4	0.9
long-term (> 1y)	2.0	1.8
issued by other euro area residents	0.8	0.6
issued by non-euro area residents	1.4	1.0
Shares and other equity	4.3	4.8
issued by domestic MFIs	1.0	0.5
issued by other domestic residents	2.3	3.2
issued by other euro area residents	0.7	0.7
issued by non-euro area residents	0.3	0.4
Fixed assets	1.2	1.0
Other assets	28.5	15.8
Total assets	100	100
Liabilities		
Deposits	61.2	70.9
from domestic MFIs	9.1	7.9
from other domestic residents	35.1	38.1
overnight deposits	11.6	13.4
other deposits	22.2	22.7
from other euro area residents	7.1	8.7
from non-euro area residents	9.9	16.2
Money market fund shares/units	0.0	0.0
Securities other than shares	4.8	7.0
short-term (< 1y)	0.1	0.5
long-term (> 1y)	4.7	6.5
Capital and reserves	5.6	7.3
Other liabilities	28.4	14.8
Total liabilities	100	100
Total assets/liabilities as a % of GDP	282.8	273.7

Sources: ECB and Banco de Portugal.

The share of deposits from other residents in total liabilities declined from 52% in 1995 to 35% in 1998, thereafter slightly recovering to 38% in 2000. This figure is higher than the euro area average.

Chart 3.2a: Funding structure of the Portuguese banking system

(in %; consolidated data)



Sources: Capital Data Bondware and Bloomberg.

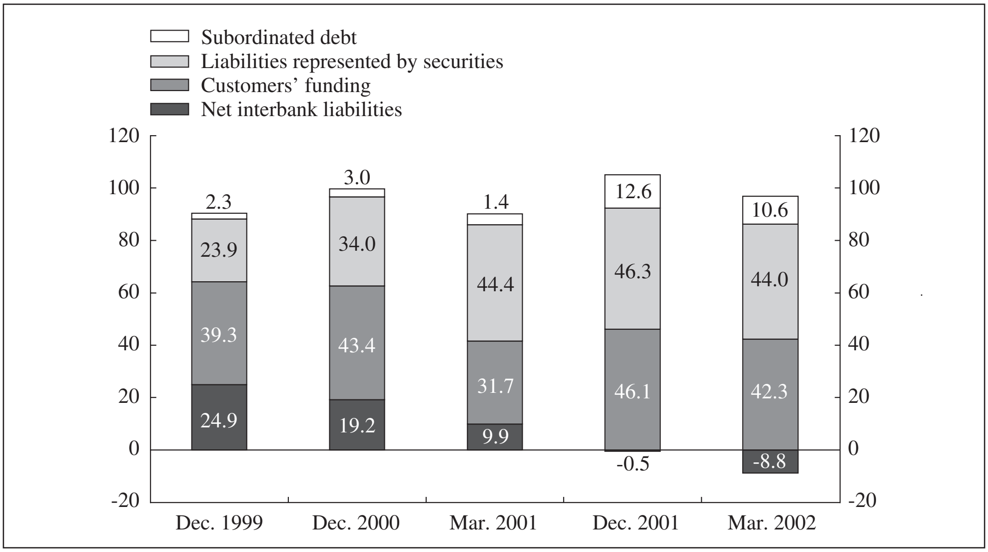
In the second half of the 1990s, the strong growth in bank credit was not matched by growth in customer deposits. Between 1995 and 2000, deposits from other residents increased by 7.5% per year on average, while average growth in loans to other residents stood at 23.5%. These divergent developments in credit and deposit aggregates translated into an increasing recourse to international financial markets. Indeed, even before the arrival of EMU – with the elimination of capital controls and a significant reduction in the exchange risk of the escudo – Portuguese banks had access to these markets. Therefore, they resorted to international financing, mainly by selling government bonds from their portfolios, the share of which in total assets declined from 13.3% in 1995 to 1.8% in 2000, and by borrowing on money and bond markets.[7]

Until 1998, banks borrowed chiefly from money markets, typically with short maturities and almost exclusively in currencies that later formed the euro. In 1999, the issuance of debt securities in international markets started to account for an increasing share of the financing of Portuguese banking groups. These bond issues, mostly at floating rates and with long maturities, have been carried out mainly by subsidiaries abroad, which are only taken into consideration in consolidated accounts. When data are taken on the basis of individual banks, as is the case for MFI statistics, the bond issuance by foreign affiliates of Portuguese banks is considered as intra-group operations and recorded as interbank financing (see Charts 3.2a, 3.2b and 3.2c).

7 These changes in the balance sheet structure of banks are likely to have affected the transmission of monetary policy, namely the incidence of the bank lending channel. Moreover, they seem to be responsible for a structural break in the long-run relationship between credit supply and monetary policy as shown in Farinha and Marques (2001).

Chart 3.2b: Funding structure of the Portuguese banking system – flows

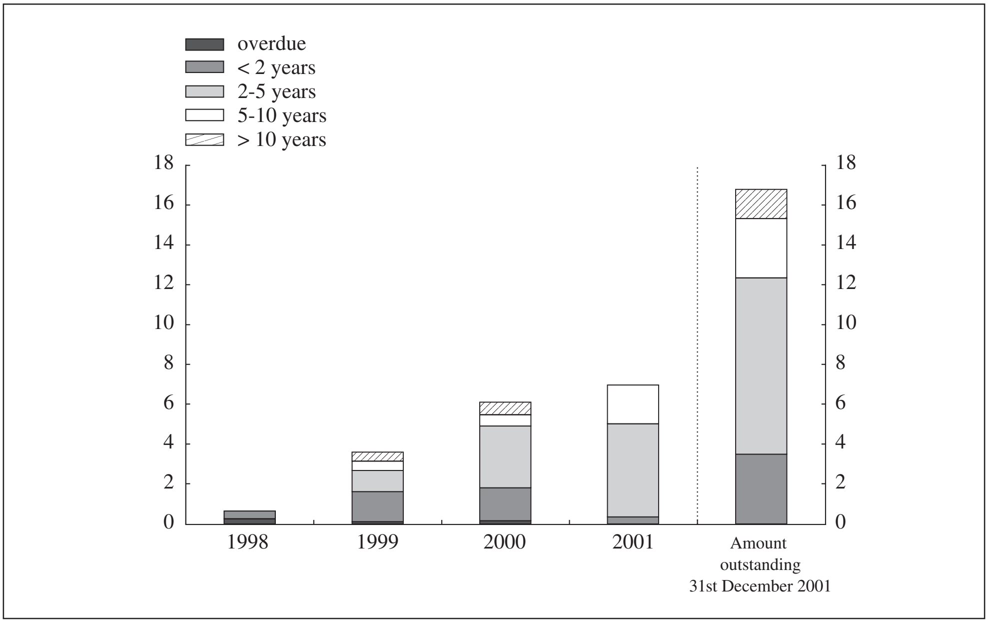
(in %, consolidated data)



Sources: Capital Data Bondware and Bloomberg.

Chart 3.2c: Issuance of bonds on international markets by foreign affiliates of Portuguese banks by period to maturity

(EUR billions)



Sources: Capital Data Bondware and Bloomberg.

3.3 Other financial intermediaries (OFIs)

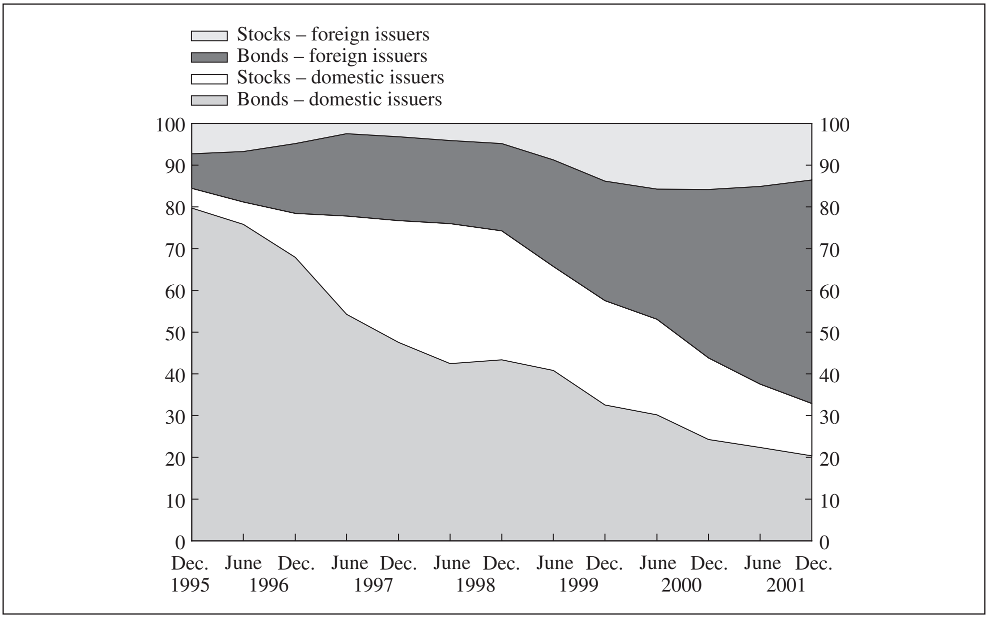
In the early 1980s, with the reintroduction of private enterprise to the financial sector, leasing companies, investment banks and other financial intermediaries started to operate in Portugal. With the introduction of the legal framework regulating the establishment and functioning of OFIs, their importance in the financial market gradually increased. Investment funds, the establishment of which was not authorised before 1985, have been crucial to the development of the Portuguese capital market. The investment funds' portfolio of bonds and shares represented around 30% of the stock market capitalisation in December 2000.

OFIs' total assets were equivalent to around 40% of GDP in 2000 (see Table 3.5), which was much lower than the corresponding figure for credit institutions (274%). Among the OFIs, investment funds dominate both in number and balance sheet size. Total assets of investment funds were equal to 22% of GDP in 2000, while the corresponding figure for financial corporations engaged in lending was 10% of GDP.

The number of investment funds increased steadily between 1995 and 1999, but this trend was interrupted in 2000. In this year the value of their total assets decreased both in absolute terms and as a percentage of GDP, partly owing to the behaviour of prices on capital markets. These developments are also likely to have reflected weaker demand for savings instruments in line with the greater indebtedness of households.

The proportion of debt instruments in the total assets of investment funds is larger than the proportion of shares (49% versus 27% in 2000). These proportions were relatively stable between 1998 and 2000, but the share of non-resident securities clearly increased, especially in the bond segment (see Chart 3.3a). Upon participation in the euro area and the resulting elimination of exchange rate risk, the demand for bonds and shares in European markets

Chart 3.3a: Asset composition of investment funds
(in %)



Source: Datastream.

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets; end of year)

Assets	**1998**	**2000**
Deposits	9.4	6.1
with domestic residents	-	-
with non-residents	-	-
Securities other than shares	32.5	27.3
issued by domestic residents	21.5	10.0
issued by other euro area residents	5.4	10.2
issued by non-euro area residents	5.5	7.0
Shares	18.2	15.4
issued by domestic residents	14.6	8.5
issued by other euro area residents	2.3	3.7
issued by non-euro area residents	1.0	3.0
Other assets	39.9	51.2
Total	100	100
Liabilities		
Mutual fund shares	64.2	54.2
Other liabilities	35.8	45.8
Total	100	100
Total assets as a % of GDP	40.9	39.7
of which:		
Investment funds	26.5	22.1
Securities and derivatives dealers	0.2	0.3
Financial corporations engaged in lending	7.9	9.7
Other institutions	6.2	7.7
Number of OFIs		
Investment funds	246	257
Securities and derivatives dealers	12	10
Financial corporations engaged in lending	65	57
Other institutions	46	49
Total	369	373

Source: Banco de Portugal.

strengthened. The declining trend in resident debt securities is partly explained by the contraction of the domestic corporate bond market.

3.4 Insurance corporations and pension funds (ICPFs)

The importance of insurance corporations and pension funds, as measured by the ratio of their total financial assets to GDP, increased from 19% in 1995 to 33% in 2000 (see Table 3.6)[8].

The number of insurance corporations has declined as a result of a takeover process similar to that which affected banks. Life assurance companies have the largest share of the market. In recent years, growth in life assurance has been related to the growth in credit for housing

8 Since data on insurance corporations and pension funds come from the annual financial accounts, only financial assets are reported. Comparisons with MFIs and OFIs should take into account the fact that data on these sectors, which are taken from MFI and OFI statistics, also cover non-financial assets.

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities, end of year)

	1998	2000
Assets of pension funds and insurance corporations		
Deposits with	7.4	10.6
residents	7.1	10.6
non-residents	0.2	0.0
Securities other than shares issued by	55.1	50.0
residents	40.6	25.0
non-residents	14.5	25.0
Shares issued by	19.3	17.8
residents	16.5	13.6
non-residents	2.8	4.2
Other financial assets	18.2	21.6
Total financial assets	100	100
Liabilities		
Technical reserves	84.6	85.6
Other financial liabilities	15.4	14.4
Total liabilities	100	100
Total assets/liabilities as a % of GDP	28.9	33.3
Number of pension funds and insurance companies		
Pension funds	233	244
Insurance companies [1)]	98	93
Memo:		
Net equity of households		
in life insurance reserves (as a % of GDP)	10.7	13.9
in pension funds reserves (as a % of GDP)	11.4	11.9

Sources: Banco de Portugal, national financial accounts statistics.
1) Excluding FPS (free to provide services) entities.

purposes. According to the financial accounts, net equity of households in life assurance reserves was equivalent to 14% of GDP in 2000 (5% in 1995).

In Portugal, the relatively low importance of pension funds has been a consequence of the dominance of the compulsory public pension system. This has been run as a pay-as-you-go (PAYG) system, pensions being paid out from the contributions of employers and employees as a fixed proportion of wages. However, the potential future solvency problems in the social security system have contributed to the increased importance of pension funds in terms of both number and balance sheet value. In 2000, almost 85% of the 244 pension funds were closed pension funds established by a firm or groups of firms or by agreement between unions and employers' associations. Net equity of households in pension fund reserves was equivalent to 12% of GDP in 2000 (9% in 1995).

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	5.4	0.9	5.6	5.0
Households	0.8	2.5	0.1	0.1
Non-financial corporations	3.2	1.7	4.0	0.4
General government	-1.5	0.6	0.0	0.1
Financial corporations	2.8	-4.0	1.5	4.4
Non-residents	3.7	4.3	-	-
Total	9.0	5.2	5.6	5.0
Holdings (Amounts outstanding, end-2000)				
Resident sectors	105.7	49.6	21.6	37.1
Households	47.4	7.7	0.7	1.5
Non-financial corporations	20.0	5.9	13.6	1.8
General government	15.2	2.8	0.1	0.8
Financial corporations	23.1	33.1	7.2	33.1
Non-residents	39.6	30.5	-	-
Total	145.3	80.1	21.6	37.1

Source: Banco de Portugal, national financial accounts statistics.

4 Markets

In 2000 households' direct investment in shares amounted to around 48% of GDP (see Table 4.1). This represented 25% of their total financial assets. Bonds are less important than shares in households' portfolios, but increased from less than 1% of GDP in 1995 to 8% in 2000. Investment in securities issued by non-residents accounted for a small but slightly increasing share of households' financial wealth, equal to around 2% of GDP in 2000. The importance of securities in non-financial corporations' portfolios has shown an increasing trend, equal to 41% of GDP in 2000, compared with 14% in 1995 and around 24% in 1998. These trends largely reflect the recent behaviour of stock market prices, particularly in the case of shares.

In recent years, investment by the Portuguese financial sector has shifted from domestic securities to foreign securities, reflecting the ongoing process of international financial market integration.

As mentioned above, Portuguese banks have largely financed credit expansion by selling securities from their portfolios in the international markets. This fact has also contributed to the increase in non-residents' investment in domestic securities.

As a consequence of the major changes affecting financial structures referred to in Section 1, the Portuguese capital market has evolved from an inefficient and highly regulated market at the beginning of the 1980s to an open and more developed system.

Recently, the Portuguese capital market also benefited from more specific changes, such as its inclusion in the international indices for developed markets in 1997.

In 1999, the agreements signed by the Portuguese equity market (Bolsa de Valores de Lisboa, BVL) and the São Paulo and Paris stock exchanges enabled the cross-access of market participants and the common listing of securities. Furthermore, an agreement between the Portuguese derivatives market (Bolsa de Derivados do Porto, BDP, created in 1996) and the derivatives markets of France, Spain and Italy created Euroglobex for simultaneous listing on these markets. In 1999, BVL merged with BDP to form BVLP (Bolsa Valores de Lisboa e Porto).

After January 2002, BVLP became a subsidiary of Euronext just like Euronext Paris, Euronext Amsterdam and Euronext Brussels. Consequently, it gained access to additional markets and distribution networks. Since the corporations included in the Euronext indices are larger than those in the national PSI20 index, stockmarket integration may further induce concentration on a shorter list of stocks. The costs associated with the participation of relatively small local companies and traders in the enlarged systems are likely to provide incentives for the creation of local exchanges.

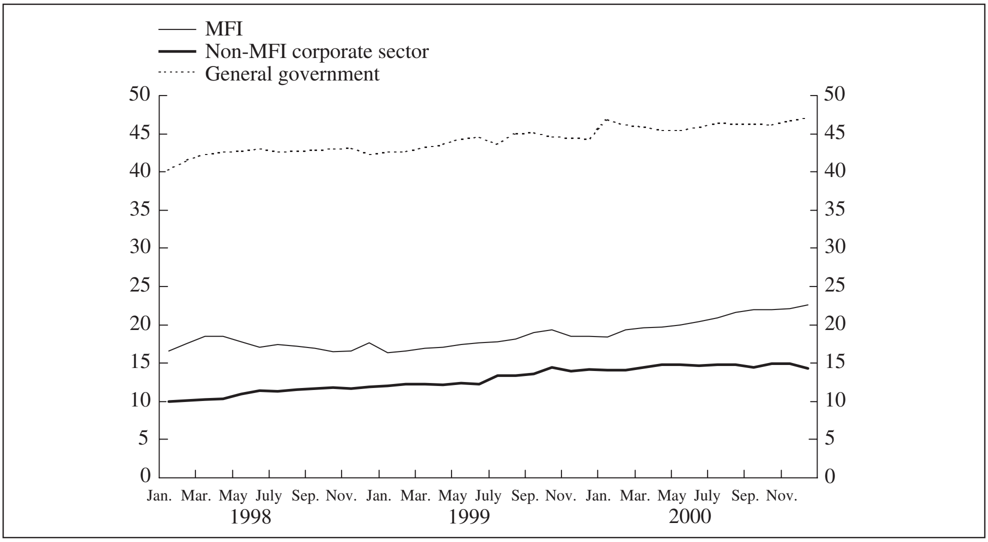
4.1 The bond market

At the end of 2000, the size of the Portuguese bond market, as measured by the ratio of the outstanding amount of debt securities to GDP, stood at 73%. The share of government bonds was 56% (60% at the end of 1998) (see Chart 4.1). Long-term securities dominate, accounting for 90% of the total amount outstanding (see Chart 4.1a).

4.1.1 The primary market: issuance

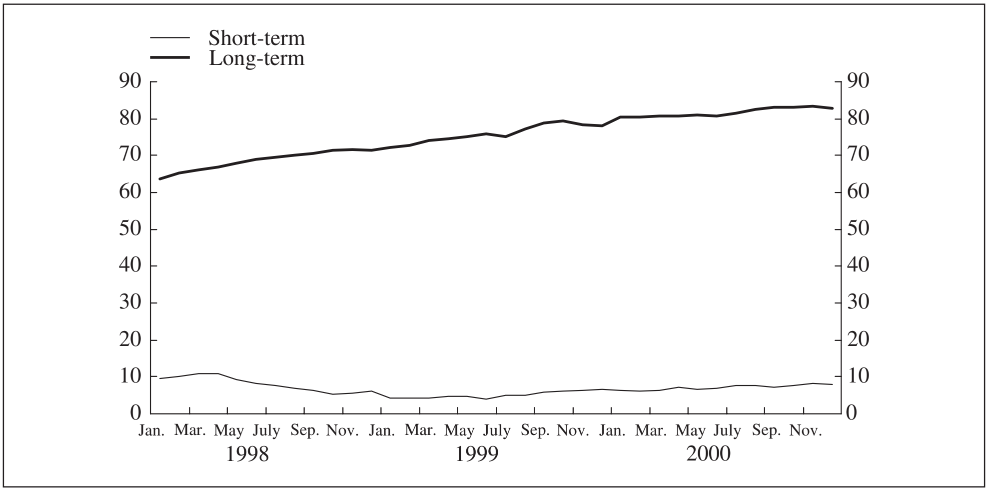
The issuance of bonds on the primary debt market has been almost exclusively dominated by general government, with MFIs engaged in only limited activity. In 2000, the share of government securities in total gross issuance was 64% (51% in 1998). Debt issues on the

Chart 4.1: Outstanding amount of debt securities by issuing sector
(EUR billions)



Source: Banco de Portugal.

Chart 4.1a: Outstanding amount of debt securities by original maturity
(EUR millions)



Source: Banco de Portugal.

domestic market by the corporate sector declined and were partly redirected to foreign debt markets, which only large firms can tap because only they can meet the conditions, namely the need for a rating and a minimum issue size.

The opportunity to trade Portuguese government debt on the EuroMTS platform, access to which requires a certain issue size, led to a concentration of government debt issuance in the five and ten-year maturities.

The share of fixed rate bond issuance by general government has been increasing. In 2000, this sector financed itself exclusively at fixed rates (in 1995, the share of fixed rate financing was only around 50%). The private resident sector has been mainly issuing at floating rates, but the share of fixed rate financing also increased significantly (from 2% in 1995 to more than 30% in 2000). In 1996, when activity began on the derivatives market, the negotiation of futures contracts on the PSI20[10] started. Consequently, an increasing number of bond issues were also linked to the PSI20 index.

4.1.2 The secondary market: organisation and integration

Domestic government debt has been responsible for most of the total market liquidity, accounting for nearly 80% of the total turnover in 2000. Since 1995, transactions in government securities have greatly benefited from the expansion of the special market for wholesale transactions (MEOG). In November 1999, a new secondary market segment for wholesale transactions in government securities, called MEDIP, was legally approved. This segment operates as an electronic trading platform, which has improved the functioning and enhanced the liquidity of the secondary market. At the same time, the liquidity of Portuguese securities has also benefited from the opportunity to trade them on EuroMTS.

10 The Portuguese stockmarket index.

The Portuguese bond market has also enjoyed additional international recognition, with the inclusion of Portuguese public debt in the JP Morgan index since March 1997, and the announcement in November of the same year that Portugal had fulfilled the criteria for admission to Solomon Brothers' World Government Bond Index (WGBI).

In consequence, the Portuguese government debt market is viewed as highly integrated. Indeed, foreign entities hold a very high proportion of Portuguese marketable government securities (62% in 2000, somewhat above the corresponding levels in most euro area countries).

4.2 The stock market

4.2.1 The primary market

The size of the Portuguese stock market as measured by market capitalisation increased from less than 20% of GDP in 1995 to more than 60% in 1999 (56% in 2000)[11] (see Table 4.2). The Portuguese stockmarket capitalisation followed the same pattern as euro area market capitalisation, but remained lower than the euro area average, which stood at 88% of GDP in 2000. As in most European markets, capitalisation declined again in 2001, reflecting mainly the behaviour of stock prices throughout the year. The downturn in prices adversely affected equity issuance. The decline in capitalisation also reflected the lower level of privatisation operations.

Table 4.2: Characteristics and activity of the stock market

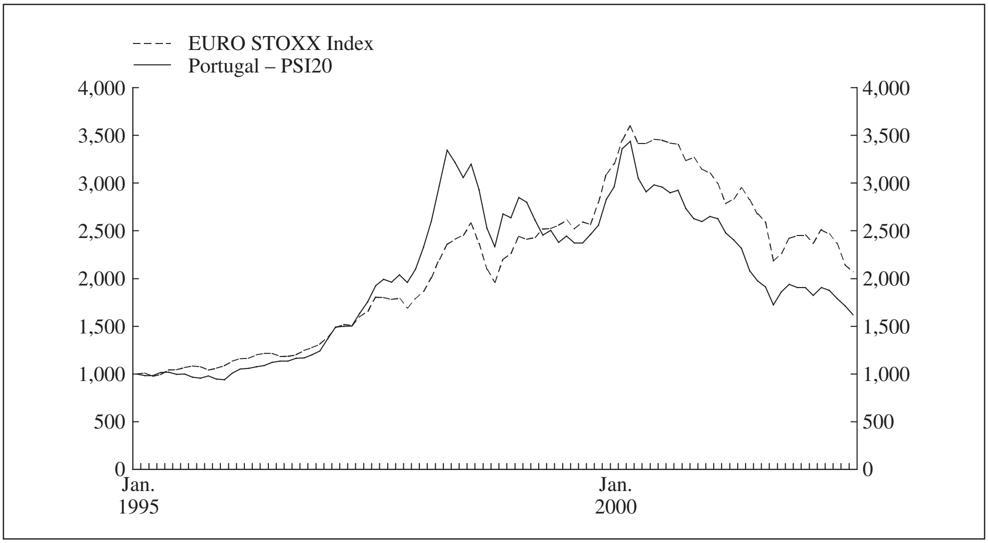
Description	1998	2000
Number of listed companies	135	110
Number of non-listed companies	228,000	-
Market capitalisation of listed shares (as a % of GDP)	52.9	56.1
Gross amount of capital raised by domestic companies through listed shares (as a % of GDP)	2.1	0.0
Gross amount of capital raised by domestic companies through non-listed shares (as a % of GDP)	4.4	10.7
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	1/14	0/10
Concentration (top-ten companies' share of total market capitalisation) (%)	64.5	74.6
Number of foreign companies listed	0	1
Number of stock exchanges and other organised exchanges	2	1
Number of participants in these markets	-	63
Share of non-domestic participants (%)	-	1.5
Number of transactions in traded shares	2,368,900	4,017,300
Total turnover of traded shares (as a % of GDP)	42.4	51.6

Sources: BVLP, Ministério do Trabalho e Solidariedade, Stoxx Limited.

The number of listed companies has followed a declining trend. The reduction in the number of listed companies (from nearly 200 in 1994 to 110 in 2000) was mainly the result of mergers and increasing concentration in the Portuguese corporate sector.

11 These figures relate to the market capitalisation of shares in domestic companies. In 2000, the listing of a Spanish financial group (the only foreign company listed on the Portuguese stock market) caused a substantial increase in the stockmarket capitalisation to 113% of GDP.

Chart 4.2: National stock index development relative to EURO STOXX
(index: Jan. 1995 = 1,000)



Source: Reuters.

The Portuguese stock market is highly concentrated. The top ten companies' share of total market capitalisation was almost 75% in 2000 (and 81% of turnover). The sectoral composition of the Portuguese stock market is partly responsible for this. It has been traditionally concentrated in the telecommunications and financial sectors. The increase in international competition in the context of market integration has stimulated mergers that resulted in further concentration.

4.2.2 The secondary market

Market turnover, which is sensitive to the general economic climate, also increased dramatically from nearly 4% of GDP in 1995 to 52% in 2000 (see Table 4.3). The behaviour of stock prices throughout 2001 was the main factor behind the contraction in the value of traded shares in this year.

The performance of the Portuguese stock market has become increasingly related to the performance of international markets, in particular the European markets, through propagation and contagion effects between markets (see Chart 4.2.2a). For example, the correlation between the weekly returns of the national PSI20 index and the Dow Jones EURO STOXX 50 increased from 0.30 in the period 1993-96 to 0.68 in 1997-2000.[12] A similar rise in correlations has also been observed between the various European markets and between these and the US market. The increased international integration of markets has stimulated portfolio investment inflows and outflows in response to changes in market yields.

12 See Box II.7.1 entitled "The Portuguese stock market integration" in the Banco de Portugal Annual Report 2000.

5 Financing

5.1 Non-financial corporations

The impact of European integration and, in particular, the prospects of EMU participation translated both into a positive shock to potential output growth and a sharp decline of nominal and real interest rates. These factors stimulated current investment expenditure by the corporate sector.

In a context of declining interest rates and strong bank competition, corporations financed investment mainly through recourse to bank credit, which has grown steadily since 1995 at rates above 25% (33% in 2000). As a result, credit granted to non-financial corporations by resident MFIs increased from 31% of GDP in 1995 to 53% in 2000, mainly owing to the growth of long-term credit (see Table 5.1).

The increase in credit also reflected, particularly in 1999 and 2000, the need to acquire financial assets in relation to mergers and acquisitions and foreign direct investment operations in the context of the restructuring of some Portuguese corporate groups. Private sector involvement in the construction and management of infrastructure projects (the so-called "shadow toll concessions"), which used to be undertaken by the government, has also contributed to the growth of credit. These two aspects were very important factors in explaining the expansion of international syndicated loans in the financing of non-financial corporations.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	6.4	107.7
Securities other than shares incl. financial derivatives	1.2	10.4
of which short-term bonds (<1y)	1.0	4.6
of which long-term bonds (>1y)	0.2	5.7
Loans	14.7	85.0
from resident MFIs	9.0	53.2
of which short-term (<1y)	4.1	28.4
of which long-term (>1y)	4.9	24.8
from resident OFIs	0.9	6.5
from other residents	4.4	15.4
from non-residents	0.3	9.9
Trade credits and advances	2.6	36.7
Other liabilities	0.6	16.9
Total liabilities	25.4	256.7
Internal financing		
Gross savings	9.5	-
Net savings	-	-
Net capital transfers	1.2	-
Memo:		
Ratio of external financing to internal financing (%)	236.8	-

Source: Banco de Portugal, national financial accounts statistics.

At the end of 2000, signs that macroeconomic imbalances were being redressed also extended to the financial behaviour of the corporate sector. Bank credit granted to non-financial corporations began to slow down. This trend continued throughout 2001 and into the beginning of 2002.

The growth in shares and other equity has been less impressive than the growth in credit, but this remained the most important financing source of non-financial corporations, representing 108% of GDP in 2000 (against 96% in 1995). It should be stressed that, on average, in the period 1996-1999 almost 80% of the increase in the value of shares was due to the revaluation of listed shares (in 1999 the value of listed shares represented around 67% of the sum of the value of listed and non-listed shares issued by the non-financial corporate sector). This effect was partly corrected in 2000 and 2001.

The importance of securities other than shares in the financing of corporations slightly increased from 8% to 10% of GDP between 1995 and 2000.

5.2 General government

The fulfilment of the Maastricht Treaty public deficit and debt criteria was agreed as a necessary condition for participation in Stage Three of EMU. In the Portuguese economy, the efforts towards fiscal consolidation, benefiting from a relatively favourable cyclical environment and the sharp decline in interest rates, translated into a reduction of the government deficit from 5% of GDP in 1995 to 3% in 2000.

Total liabilities of general government declined from 74% to 65% of GDP between 1995 and 2000 (see Table 5.2).[13] The proceeds of the privatisation programme in place since 1989 have partly been used for the early redemption of government debt.

Loans represent a minor part of general government financing. The market for public debt has become a modern and efficient one. In contrast to the corporate sector, general government has been issuing fixed rate bonds almost exclusively. Government debt is concentrated at the longer maturities.

5.3 Households

In recent years, the increase in households' permanent income in a context of declining interest rates, both in real and nominal terms, has stimulated consumption and investment expenditure and increased the demand for credit. At the same time, the strong competition between banks increased the availability, sophistication and diversification of financial products, particularly in the segment of household credit.

Consequently, household indebtedness, as measured by the ratio of total household liabilities to GDP, increased by more than 35 percentage points from 1995 to peak at 79% in 2000 (see Table 5.3). Loans by resident MFIs were responsible for most of this growth. Between 1995 and 1999, these loans increased by an annual average rate of 27.5%. This trend could not persist indefinitely since each economic agent faces an intertemporal budget constraint. Therefore, the slowdown in bank credit started in 2000 and continued throughout 2001 and at the beginning of 2002.

The most important component of household credit is banks' mortgage lending, representing 74% of total bank loans to this sector in 2000. In Portugal, the level of house

13 The value of total liabilities on the non-consolidated balance sheet of general government (taken from the annual national financial statistics accounts) is higher than the value of debt computed according to the Maastricht criteria mainly because of: (i) capitalisation of saving certificates; (ii) the inclusion of trade credit; and (iii) valuation and consolidation issues.

Table 5.2: Financing and financial balance of general government
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	0.7	12.8
Securities other than shares incl. financial derivatives	1.8	45.3
of which short-term bonds (<1y)	-1.5	0.8
of which long-term bonds (>1y)	3.3	44.6
Loans	0.1	3.7
from resident MFIs	0.3	1.9
of which short-term (<1y)	-	-
of which long-term (>1y)	-	-
from resident OFIs	0.0	0.0
from other residents	-0.1	0.0
from non-residents	-0.1	1.8
Other liabilities	0.2	3.1
Total liabilities	2.8	65.0
Internal financing		
Gross savings	1.4	-
Net savings	-	-
Net capital transfers	-0.1	-

Source: Banco de Portugal, national financial accounts statistics.

ownership is traditionally high, with around two-thirds of households living in houses of their own. This is the result of a typically highly regulated rental market combined with several policy measures favouring house purchasing (namely subsidised loans[14]).

The decline in interest rates during the 1990s facilitated households' access to housing credit. Later in the decade, the increase in bank competition further stimulated this credit segment. For example, loan-to-value ratios on new contracts increased to 85%, which compares with an average ratio in the range of 70-80% for both old and new contracts. As to the other characteristics of the contracts, almost all these loans are long-term loans (with a maturity longer than five years) but at variable interest rates. Fixed interest rate MFI loans for housing purposes have recently emerged, but they still only represent a small part of the new contracts. Renegotiating of contracts became easier in the period of rising interest rates (1999-2000), thereby giving households the possibility of obtaining more competitive interest rates and longer maturities.

In the second half of the 1990s, stimulated by demand and the lower level of interest rates, there was also an increase in the supply of housing. Therefore, the strong increase in demand in the second half of the 1990s did not result in a surge in housing prices of the same magnitude as in some other euro area economies (see Chart 5.3a).

14 Subsidised loans, which represented the majority of loans for housing purchasing until 1999, were restricted in that year and abolished for new loans in 2002.

Table 5.3: Financing and financial balance of households
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	11.0	64.0
Loans from resident MFIs	11.0	59.7
of which short-term (<1 year)	0.8	6.5
of which long-term (>1 year)	10.2	53.2
Consumer loans	1.0	7.1
original maturity < 1y	0.0	2.1
1y < orig. mat. < 5y	0.6	3.3
5y < orig. mat.	0.4	1.7
Housing loans	8.2	44.0
original maturity < 1y	0.1	0.4
1y < orig. mat. < 5y	0.2	1.0
5y < orig. mat.	7.9	42.6
Other loans from resident MFIs	1.8	8.6
Other loans from resident lenders[1]	0.0	2.2
Loans from non-residents	0.1	2.1
Other liabilities	1.3	15.5
Total liabilities	12.4	79.5
Internal Financing		
Gross savings	6.9	-
Net savings	-	-
Net capital transfers	0.9	-
Memo:		
Ratio of external financing to internal financing (%)	160.0	-

Source: Banco de Portugal, national financial accounts statistics.
1) Only includes loans from OFIs.

Chart 5.3a: House prices in Portugal
(year-on-year growth rates in %)

Source: Confidencial Imobiliario Newsletter, last observation December 2001.

5.4 Flow of funds abroad

As a result of the trend towards greater international market integration in recent years, there was substantial growth in non-residents' financial assets and liabilities vis-à-vis the domestic sectors at higher rates than growth in nominal GDP. Nevertheless, non-residents' assets increased much more rapidly than their liabilities, so the net wealth position of the rest of the world vis-à-vis the Portuguese economy increased from 10% to 42% of GDP between 1995 and 2000 (see Table 5.4). This result is consistent with the accumulation of the external deficits[15] registered in Portugal since 1996. These deficits were a consequence of the widening gap between investment and savings by the domestic institutional sectors of the economy. The redressal of the main macroeconomic imbalances started in 2000 with a slowdown in domestic demand and the recovery of the household savings ratio. These developments were reflected only in 2001 in the narrowing of the external deficit.

All the major foreign investment components have increased significantly. Deposits account for the largest share, partly reflecting operations between Portuguese banks and their subsidiaries abroad. Bond issuance by foreign subsidiaries of Portuguese banks started to increase in 1999. However, these subsidiaries are only taken into consideration in consolidated accounts. As balance of payments statistics take individual bank data into account, bond issuance by subsidiaries abroad is recorded as deposits/credit operations between resident and non-resident banks.

Concerning the liabilities of non-residents, securities other than shares account for the largest share, primarily owing to the increasing weight of foreign bonds in domestic investment fund portfolios.

Table 5.4: Investment and financing vis-à-vis non-residents

(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	11.6	69.8
Shares	3.6	39.9
Securities other than shares	4.3	30.5
Other financial assets	2.6	27.7
Total financial assets	22.2	168.0
Liabilities of non-residents		
Deposits	1.2	37.2
Securities other than shares[1]	5.0	37.1
of which short-term (<1 year)[2]	1.2	7.4
of which long-term (>1 year)[2]	4.0	28.9
Loans	2.7	20.7
of which granted by financial institutions	2.5	19.6
Shares and other equity	5.7	23.5
of which held by financial institutions	1.6	8.5
Other liabilities	1.2	7.1
Total liabilities	15.8	125.5

Source: Banco de Portugal, national financial accounts statistics.
1) Including financial derivatives.
2) Excluding financial derivatives.

15 According to balance of payments terminology, this is the sum of the current and capital accounts balances.

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Finland

1 Main features of and recent developments in the Finnish financial system

The Finnish financial system has changed rapidly over the last decade. Deregulation and financial and technical innovation from the mid-1980s onwards were followed by a significant broadening of the range of financial intermediaries and assets and a strong rise in financial market turnover. At the turn of the millennium, securities accounted for the lion's share of outstanding financial assets rather than bank deposits, the traditionally dominant financial asset. In comparison with the rest of Europe, a notable feature of the Finnish financial system was its high degree of securitisation, as measured by the ratio of marketable assets to GDP. In addition, the degree of openness, as expressed in non-residents' share in the ownership of total financial assets, was very high.

As regards financial intermediation, insurance corporations and pension funds grew in relative importance during the 1990s and their combined balance sheets in 2000 amounted to more than two-thirds of banks' balance sheets. Even after these developments, however, banks were still the largest intermediary group, which underscores the dependency of monetary policy transmission on the operation of the banking system.

Finland experienced a severe banking crisis in the early 1990s, but the current outlook for systemic stability is good. During the late 1990s, banks managed to consolidate and improve their efficiency. The Finnish banking system is linked by ownership and operationally to other Nordic countries. Developments in retail payment methods and a number of institutional trends, such as the increasing role of investment funds and certain insurance/savings products, have contributed to destabilising developments in monetary aggregates.

The relative importance of insurance corporations and pension funds in the financial system reflects the fact that the Finnish pension system is partly funded. While pension funds are operated by private companies, both the depositing of funds in the pension system and the distribution of these funds among financial assets are tightly regulated. In the late 1990s, a change in the regulation of pension fund assets allowed pension funds to diversify their portfolios abroad and pension funds have exploited this opportunity to a large extent.

Finland has liquid markets for government paper, certificates of deposit, shares and various types of derivatives. Much of the trading on these markets is done remotely by non-resident institutions. The market for private paper remains illiquid, meaning that firms are reliant on financial intermediaries for loanable funds. After the remarkable growth in telecommunications in the late 1990s, stockmarket turnover and capitalisation are now dominated by a single company, Nokia Corporation, and fluctuations in the telecommunications sector have had a pronounced effect on the stockmarket index. Much of the market capitalisation of technology stocks is in foreign hands, which dampens the effects of volatility in the stockmarket index on household consumption in Finland.

All in all, the Finnish financial system has been undergoing a very profound transformation from a closed or domestic financial system to an internationally integrated one. The Finnish financial system is integrated with other euro area countries by the single monetary policy, with other Nordic countries by the ownership and operation of banks, and with the rest of the world by remote market participation. This development has been accompanied by a major rationalisation effort in the banking sector to increase efficiency. The downside is that the monitoring and control of the system have become more challenging. From a monetary policy standpoint, the stability of monetary aggregates and the efficiency of the credit channel for firms are major concerns.

Table 1: Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(as a % of GDP; end 2000)

Amounts outstanding	**Financial assets**		**Liabilities**	
Sectors	**Intermediated** (deposits, technical reserves, money market funds and mutual fund shares)	**Non-intermediated** (shares and securities other than shares)	**Intermediated** (loans)	**Non-intermediated** (shares and securities other than shares)
Resident non-financial sectors	76.8	257.6	136.1	448.4
Households	59.5	100.7	33.4	0.0
Non-financial corporations	11.6	70.8	95.1	391.7
General government	5.7	86.1	7.5	56.7
Non-residents	15.3	251.6	19.6	83.1
Total	92.1	509.3	155.7	531.5

Source: Statistics Finland, national financial accounts statistics.

The distribution of the financial assets of the non-financial sector in 2000, as presented in Table 1, reflects the significant role played in the financial system by securities as compared with bank deposits and other instruments more closely related to financial intermediation. The statistical methods used to compile the table explain part, but not all, of the phenomenon. As regards households, much home ownership in Finland is "securitised": rather than buying an apartment, a household in fact buys shares in a housing corporation. Discounting these securities, the aggregate amount of securities drops to approximately 37% of household assets in 2000, the bulk of which were shares. For the corporate sector, shares in unquoted companies were the dominant form of security, as was also the case for general government. Assets held by the statutory occupational pension schemes, which amount to €35 billion, are classified as government securities in Table 1.

A significant observation as regards the distribution of liabilities is that the corporate sector became more robust in the latter part of the 1990s. It is remarkable that 46% of the value of liabilities issued in the form of securities by the non-financial sector in 2000 originated from one company, Nokia Corporation. However, even when Nokia is excluded, corporate balance sheets were significantly strengthened after the severe recession in the early 1990s.

2 Origin of flows

In 2000, the Finnish financial system conformed to the typical pattern whereby the household sector was a net holder of financial assets and the non-financial corporate sector had a net liability. However, the financial flows in the latter part of the 1990s were exceptional in that the non-financial corporate sector in fact acquired more financial assets than it incurred liabilities. This phenomenon took place in the aftermath of the economic crisis in the early 1990s, after which firms generally tended to strengthen their balance sheets. At the same time, Finland has also become a net source of funds for the rest of the world.[1] Nokia shares accounted for over half of the value of the non-resident holdings of Finnish financial assets.

The Finnish general government had more financial assets than liabilities on aggregate, even after subtracting the €35 billion of financial assets held by the statutory pension funds and classified as government assets in Table 2. While the central government was a net borrower, the municipalities had a positive net financial position. The debt burden of the central government originated from the recession in the early 1990s, but in 2000 the central government budget was in surplus.

Table 2: Financial transactions and position by sector
(as a % of GDP)

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
	Financial asset acquisition	Liabilities incurrence	Net financial transactions	Financial assets	Liabilities	Net financial position
Resident sectors	41.9	34.8	7.1	620.5	786.8	-166.3
Households	5.8	2.5	3.3	161.7	34.9	126.8
Non-financial corporations	19.9	19.7	0.2	159.4	509.4	-350.0
General government	1.8	-2.1	3.9	118.2	70.6	47.6
Financial corporations	14.4	14.8	-0.4	181.2	171.9	9.3
Total	41.9	34.8	7.1	620.5	786.8	-166.3
Non-residents	21.9	29.0	-7.1	299.8	133.5	166.3

Source: Statistics Finland, national financial accounts statistics.

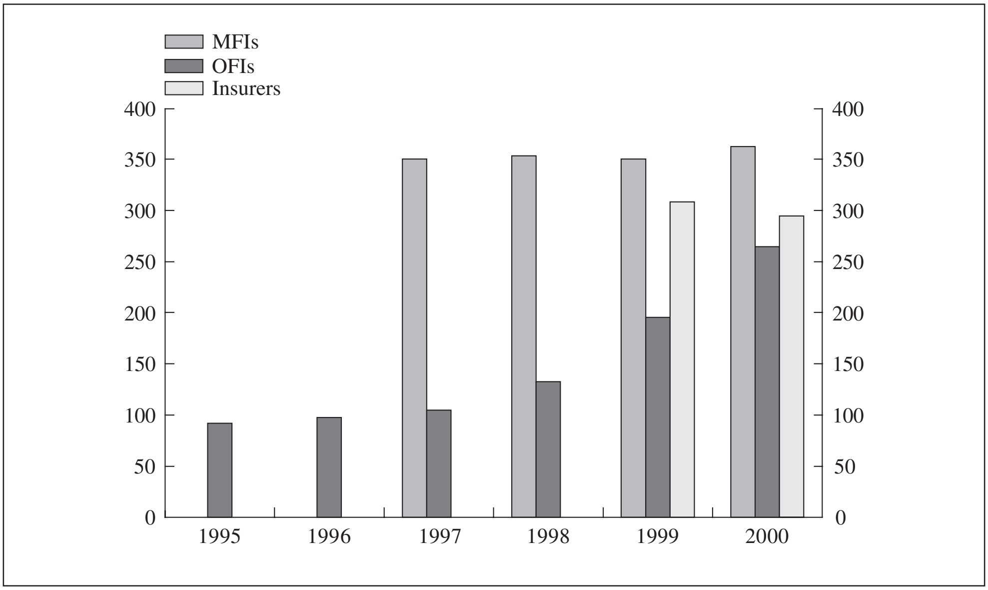
3 Intermediaries

3.1 Channelling of funds through intermediaries

In addition to monetary financial institutions (MFIs), other financial institutions (OFIs), and pension funds and insurance corporations, important institutions in the Finnish financial system include HEX (a private company that operates the securities and derivatives exchange and the securities depository) and various government institutions. The state treasury and various government funds, such as the Housing Fund of Finland, handle government

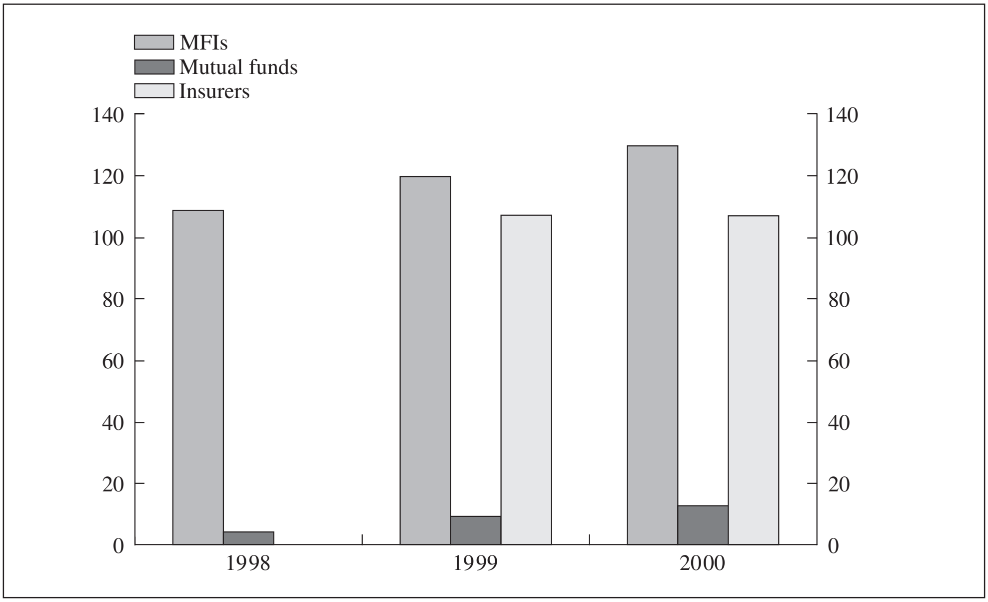
1 In "Changes in Finland's international investment position 1985-1998", Bank of Finland Discussion Paper 18/99, Hilpinen and Hella quantify the components of Finland's international investment position. They show that non-resident holdings of Finnish equities have risen to become the most significant item in Finland's international investment position.

Chart 3.1a: Total number of intermediaries with breakdown into individual categories (MFIs, OFIs and insurers)



Sources: Soumen Pankki, Statistics Finland and Insurance Supervision Authority.

Chart 3.1b: Aggregate balances of intermediaries
(EUR billions)



Sources: Soumen Pankki, Statistics Finland and Insurance Supervision Authority.

finances. The central government also grants credits through its special credit institution, Finnvera. Municipalities have a mutually owned bond-issuing credit institution called Municipality Finance. Of these institutions, banks, the state treasury and HEX hold accounts with Suomen Pankki.

While the role of credit institutions diminished during the last decade, banks still play an important role in the financial system: more than half of all intermediated assets were held by credit institutions at the end of 2000. Over the last decade, insurance corporations and pension funds gained importance in relation to banks and were the second largest group of intermediaries in 2000. Credit institutions, insurance corporations and pension funds together accounted for as much as 90% of Finnish intermediated assets.

The fastest growing (in relative terms), yet still small, group of financial intermediaries is formed by investment funds. Other kinds of financial institution, such as finance companies, mortgage banks, credit card companies, investment companies and life assurance companies,

Table 3.1: Financial assets (acquisitions and holdings) in the form of intermediated instruments by sector
(as a % of GDP)

	Monetary financial institutions (MFIs) (deposits, money market fund shares)	**Other financial intermediaries (OFIs)** (investment fund shares)	**Insurance corporations and pension funds (ICPFs)** (deposits and technical reserves)	**Non-resident intermediaries** (deposits, money market fund shares, investment fund shares and technical reserves)
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	4.7	2.7	2.2	-
Households	1.3	1.6	2.2	-
Non-financial corporations	0.0	0.5	-	-
General government	3.1	0.5	-	-
Financial corporations	0.4	0.1	-	-
Non-residents	2.5	0.5	-	-
Total	7.2	3.2	-	-
Memo item				
Market instruments issued by MFIs and bought by the resident non-financial sectors	0.0	-	-	-
Holdings (Amounts outstanding, end-2000)				
Resident sectors	54.1	9.3	18.1	14.3
Households	35.6	5.5	16.4	-
Non-financial corporations	8.2	1.4	1.3	0.3
General government	4.8	0.6	0.1	0.2
Financial corporations	5.4	1.7	0.3	13.8
Non-residents	11.9	0.9	2.1	-
Total	66.0	10.1	20.2	14.3
Memo item				
Market instruments issued by MFIs and bought by the resident non-financial sectors	0.0	-	-	-

Source: Statistics Finland, national financial accounts statistics.

often belong to the same groups as credit institutions. As a result of this consolidation trend, most major banking groups offer all the main financial services over the counter.

During the past years, investment funds and life assurance firms have been attracting a growing share of savings, especially from the household sector. Such funds and firms have been established by the major banking groups. Non-euro area countries attract more intermediated funds from Finland than euro area countries, reflecting the fact that Finnish financial institutions have close ties with other Nordic countries (see below).

3.2 Monetary financial institutions (MFIs)

Among the MFIs, credit institutions were dominant in terms of their number and balance sheet size in 2000. Money market funds have grown in relative size but their assets under management were still small, equivalent to only about 2% of bank deposits. Universal banking is the dominant mode of banking and there are hardly any mortgage banks. The new Mortgage Bank Act came into force at the beginning of 2000, after which banks set up two mortgage banks, but the business is still in its infancy.

After the liberalisation of the Finnish financial markets in the late 1980s and the banking crisis of the early 1990s,[2] the structure of the Finnish banking sector changed fundamentally. There have been mergers between banks (both domestic and cross-border) and mergers between banks and insurance corporations. This trend has been accompanied by significant

Table 3.2: Number of MFIs excluding the central bank
(end of year)

	1998	2000
Incorporated enterprises limited by shares	8	7
Co-operative enterprises	294	290
Saving banks	40	40
Branches and subsidiaries of foreign institutions	6	5
Other credit institutions	1	1
Money market funds	5	20
Total	354	363

Source: Eurostat.
Note: The Eurostat definition differs from that of the Eurosystem, notably with respect to conglomerates. The figures in this table do not therefore correspond to those used to compute the ratios in Table 3.3 or to the reporting population behind Table 3.4 (a and b).

cost-cutting (the number of bank personnel and branches fell by 30-40% in the late 1990s) and the adoption of new technologies. In early 2001, more than 50% of customer contacts took place over the internet.[3] The balance sheet structure of Finnish banks is broadly in line with the European average, with domestic deposits being the dominant liability and domestic loans being the dominant asset in banks' balance sheets.

2 See Nyberg and Vihriälä, "The Finnish banking crisis and its handling", Bank of Finland Discussion Paper 8/93 (updated by discussion paper 7/94) and Koskenkylä and Vesala, "Finnish deposit banks 1980-1993: years of rapid growth and crisis", Bank of Finland Discussion Paper 16/94.

3 See Lahdenperä, "Payment and financial innovation, reserve demand and implementation of monetary policy", Bank of Finland Discussion Paper 26/2001, for a discussion about the effects of payment innovation on monetary policy. Andersen, Hyytinen and Snellman, "Recent developments in the Finnish banking sector", Bank of Finland Discussion Paper 15/2000, provides an overview of banking sector trends in Finland compared with other European countries. They claim that the Finnish banks are trendsetters in consolidation.

Banking profitability is currently good, both compared with the past and relative to non-financial corporations. In 2000, the return on equity stood at 22%. Furthermore, the outlook for systemic stability is good.[4]

The number of banks, at 342, may appear large for a small economy, but this figure masks the extensive integration of and co-operation between the co-operative banks and savings banks. Currently, around 80% of the loan and deposit markets is shared by the three banking groups, Nordea, Sampo and the OKOBANK group (an amalgamation of co-operative banks).

Table 3.3: Concentration and average size of credit institutions
(end of year)

	1998	2000
Herfindahl	0.2	0.2
Top-five's share of total assets (%)	86.4	87.0
Average size of top-five (EUR millions)	1,867,537	2,256,263
Average size of all banks (EUR millions)	305.3	357.3

Source: ECB calculations based on Suomen Pankki data.

The banking system is linked by ownership and operationally to the other Nordic countries. The largest bank, Nordea, was created when a Finnish-Swedish banking group and a Danish financial conglomerate merged at the holding company level. Swedish banks have a strong presence in Finland. The Government is a majority shareholder in one financial conglomerate, Sampo.

While the entry of foreign banks has contributed to increasing competition in the corporate banking market and in urban areas, the degree of competition is still low in much of rural Finland. This is likely to cause some variation in interest rates and credit availability across the country. The fact that local co-operative banks and savings banks, in contrast to the other banks, are not direct participants in central bank operations, but rather participate indirectly in these operations via their central financial institutions, may accentuate these regional differences.

3.3 Other financial intermediaries (OFIs)

Among the other financial intermediaries, investment funds dominate in number and balance sheet size. In Finland, the legislation concerning these funds was harmonised with the relevant EU directives in the late 1980s, which laid the ground for the emergence of these funds. Progress was slow at first. However, investment funds have expanded rapidly in recent years. During the 1990s, the amount invested by households in these funds increased by over 850%. Investment fund shares have also been popular among non-financial corporations. More than half of the funds are equity funds. The largest funds are linked by ownership to banks. Although the number of funds is relatively large for a small market, 74% of the assets are held by the five largest funds.

3.4 Insurance corporations and pension funds (ICPFs)

The Finnish financial accounts give a breakdown between non-statutory (voluntary) insurance and pension funds and statutory (occupational) pension funds. The statutory

4 See, for example, "Financial stability report", Bank of Finland Bulletin 4/2001, and Morttinen and Andersen, "Systemic risks in the Finnish financial markets", Bank of Finland Bulletin 1/2001.

Table 3.4: Aggregated (non-consolidated) balance sheet of MFIs excluding the central bank

(as a % of total assets/liabilities; end of year)

Assets	**1998**	**2000**
Cash	0.5	0.4
Loans	72.2	77.3
to domestic MFIs	6.8	6.1
to other domestic residents	52.0	51.9
of which original maturity < 1y	7.6	6.8
of which 1y < orig. mat. < 5y	5.1	7.6
of which 5y < orig. mat.	39.2	37.4
to other euro area residents	3.6	4.2
to non-euro area residents	9.8	15.1
Securities other than shares	16.8	14.8
issued by domestic MFIs	4.8	4.2
short-term (< 1y)	4.6	3.9
long-term (> 1y)	0.2	0.3
issued by other domestic residents	10.3	6.7
short-term (< 1y)	0.5	0.4
long-term (> 1y)	2.6	1.3
issued by other euro area residents	0.5	2.7
issued by non-euro area residents	1.2	1.3
Shares and other equity	2.0	1.7
issued by domestic MFIs	0.2	0.1
issued by other domestic residents	1.7	1.4
issued by other euro area residents	0.0	0.0
issued by non-euro area residents	0.1	0.1
Fixed assets	2.3	1.6
Remaining assets	6.1	4.2
Total assets	100,	100,
Liabilities		
Deposits	68.2	69.0
from domestic MFIs	4.2	4.3
from other domestic residents	53.6	50.3
overnight deposits	33.8	28.5
other deposits	18.2	18.4
from other euro area residents	2.8	1.6
from non-euro area residents	7.6	12.7
Money market fund shares/units	0.2	1.3
Securities other than shares	21.1	18.3
short-term (< 1y)	16.4	11.0
long-term (> 1y)	4.7	7.3
Capital and reserves	5.9	6.3
Remaining liabilities	4.6	5.2
Total liabilities	100,	100,
Total assets/liabilities as a % of GDP	97.8	106.2

Source: ECB and Suomen Pankki.

Table 3.5: Aggregated balance sheet of OFIs
(as a % of total assets/liabilities; end of year)

Assets	1998	2000
Deposits	2.0	6.1
with residents	-	-
with non-residents	-	-
Securities other than shares	18.8	16.1
issued by residents	18.2	9.2
issued by non-residents	0.5	6.9
Shares and other equity	53.0	59.4
issued by residents	38.8	22.3
issued by non-residents	14.1	37.1
Other assets	26.3	18.4
Total assets	100,	100,
Liabilities		
Mutual fund shares	22.7	43.6
Other liabilities	77.4	56.4
Total liabilities	100,	100,
Total assets/liabilities as a % of GDP	16.6	23.3
Number of OFIs		
Investment/mutual funds	98	225
Securities and derivatives dealers	0	0
Financial corporations engaged in lending	35	40
Other institutions	-	-
Total	133	265

Source: Suomen Pankki.

pension institutions are private companies, even though the funds held by these institutions are considered to be government funds in the financial accounts.

The assets of insurance corporations and pension funds amount to approximately 40% of all intermediated assets, making these institutions important institutional investors. The explanation for the relatively large size of this sector is that the Finnish employee pension scheme is a partly funded, defined-benefit scheme, for which the statutory pension fund assets act as cover. The statutory earnings-related pension schemes encompass nearly all employees and self-employed persons, and their total assets amount to approximately €35 billion. In addition, non-statutory (voluntary) pensions are provided by private insurance corporations.

Until recently, pension insurance corporations' and pension funds' investments were concentrated in so-called TEL re-lending and promissory note loans to enterprises. TEL re-lending, which comprises loans granted by pension insurers under the statutory earnings-related pension scheme to contributing employers, have declined markedly in both absolute and relative terms. In practice, re-lending means that the pension premiums that a company pays to a pension insurance company are returned (up to a maximum of 65%) to the same company as a loan. In 1992, this re-lending accounted for over 50% of Finnish pension insurers' investments. Today, these loans represent about 10% of Finnish pension insurers' assets. At the end of 1992, this re-lending accounted for 20% of the Finnish corporate sector's credit stock and at the end of 2000 for 10%.

Table 3.6: Aggregated balance sheet for insurance corporations and pension funds
(as a % of total assets/liabilities; end of year)

	1998		2000	
Assets	**Pension funds**	**Insurance corporations**	**Pension funds**	**Insurance corporations**
Deposits	0.8	1.9	1.1	1.5
with residents	-	1.6	0.9	1.2
with non-residents	-	-	0.2	0.3
Securities other than shares	53.3	35.2	48.2	37.0
issued by residents	-	28.9	22.1	21.5
issued by non-residents	-	-	26.1	15.5
Shares and other equity	24.9	53.8	34.2	52.2
issued by residents	-	47.2	22.9	39.0
issued by non-residents	-	-	11.4	13.2
Fixed assets	-	-	-	-
Other assets	21.0	9.0	16.5	9.3
Total assets	100,	100,	100,	100,
Liabilities				
Technical reserves	-	71.5	-	70.2
Other liabilities	-	28.5	-	29.8
Total liabilities	-	100,	-	100,
Total assets/liabilities as a % of GDP	50.8	25.6	54.4	33.1
Number of pension funds and insurance corporations				
Pension funds	154	-	127	-
Insurance corporations	-	54	-	55

Source: National statistics.

Changes in the operating environment of Finnish pension insurance corporations are reflected in many ways in the structure of their investment activities. In particular, the share of bonds in pension insurance corporations' portfolios grew rapidly at the expense of re-lending. In addition, the relative share of equities has increased during recent years. Since January 1999, opportunities to invest abroad have improved. The most visible single trend in Finnish insurers' and pension funds' investment in recent years has been the growth of foreign assets. Pension insurers have diversified their assets abroad to such an extent that the share of foreign assets has risen to more than 40% of the total. For example, in 2000 nearly 70% of the assets bought during the year were foreign assets, with the main focus being on bonds and shares.

4 Markets

Finland has liquid markets in government securities, shares and various types of derivatives. Much of the technical infrastructure of these markets is provided by HEX. The commercial paper market is illiquid, with outstanding paper amounting to approximately €2 billion. Much of the technical operations and financial flows on these markets take place by remote access from other countries.

Table 4.1: Financial assets (acquisitions and holdings) in the form of non-intermediated instruments by sector
(as a % of GDP)

	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Acquisitions (Average annual financial transactions, 1998-2000)				
Resident sectors	10.8	0.8	15.5	6.9
Households	2.4	-0.1	1.0	0.0
Non-financial corporations	8.9	-0.2	7.7	0.0
General government	-0.6	0.7	1.6	4.2
Financial corporations	0.2	0.4	5.3	2.7
Non-residents	13.5	1.0	0.0	0.0
Total	24.3	1.7	15.5	6.9
Holdings (Amounts outstanding, end-2000)				
Resident sectors	206.6	46.9	53.2	29.7
Households	102.8	1.4	2.6	0.5
Non-financial corporations	35.3	8.5	28.4	0.6
General government	48.5	15.8	7.8	14.9
Financial corporations	20.0	21.2	14.5	13.7
Non-residents	206.4	46.5	0.0	0.0
Total	413.0	93.4	53.2	29.7

Source: Statistics Finland, national financial accounts statistics.

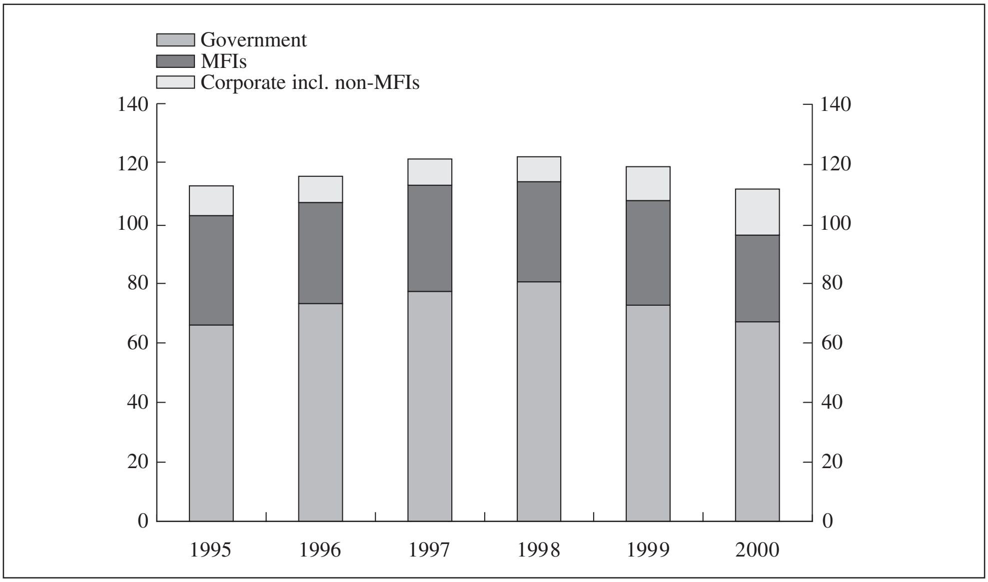
Since 1993, non-residents have been allowed to invest freely in Finnish securities and in recent years their holdings have grown rapidly. At present, about two-thirds of Finnish listed shares are held by non-residents. In recent years, the household sector and especially the Government have been net sellers of shares. The Government has privatised some state-owned enterprises.

4.1 The bond market

The Finnish domestic bond markets are small relative to the size of the economy and also by international standards. At the end of 2000, the nominal value of publicly issued bonds outstanding amounted to 39% of GDP. Central government bonds dominate the domestic bond markets. The share of these bonds in the total stock of bonds grew rapidly in the 1990s. The central government ran up its debt rapidly during the recession years and placed its new debt in the domestic market. In the past three years, central government bond issuance has accounted for over 80% of domestic gross bond issuance.

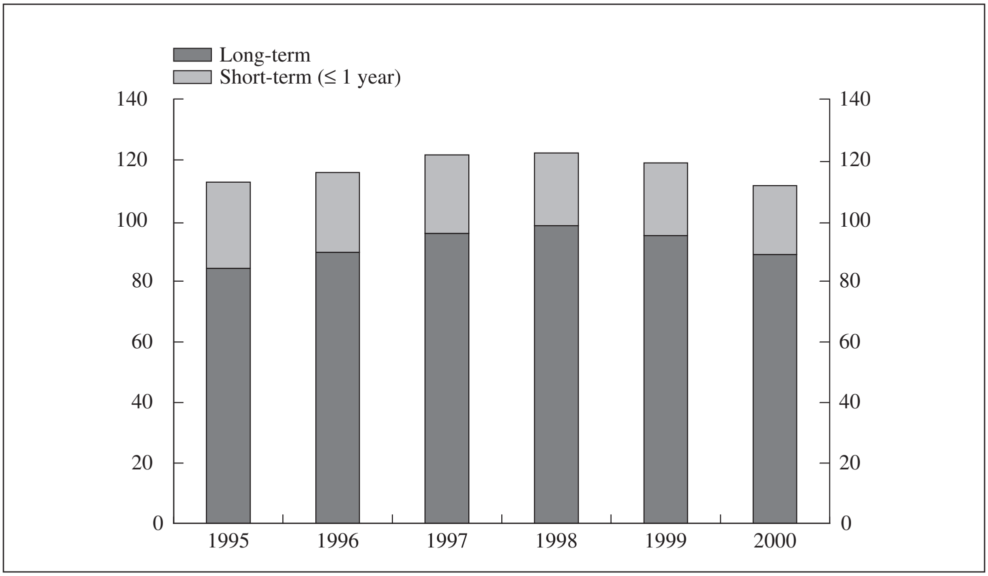
4.1.1 The primary market: issuance

Chart 4.1.1a: Outstanding amount of debt securities by issuing sector
(EUR billions)



Source: Statistics Finland.

Chart 4.1.1b: Outstanding amount of debt securities by original maturity
(EUR billions)



Source: Soumen Pankki.

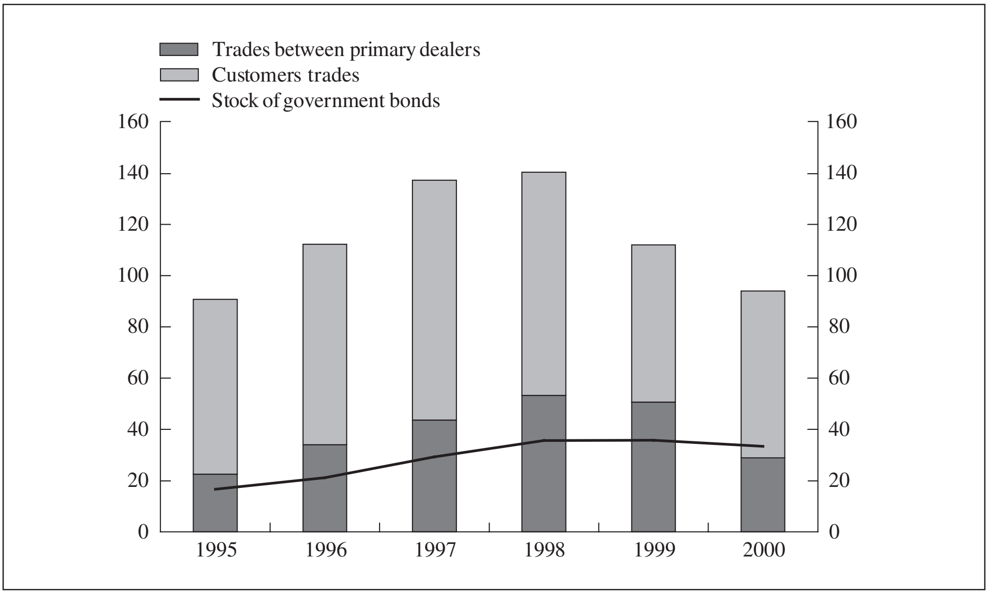
The government benchmark bond system with market-makers was launched in 1992. Today, an increasing number of these market-makers are located abroad and the role of the EuroMTS system will increase. Government benchmark bonds are fixed-rate bonds, as to a large extent are the private sector bonds. Floating-rate notes are uncommon.

Government benchmark bonds are the only liquid bonds in Finland. Private sector bond issuance volumes have been very low in recent years. Small issuance volumes have so far constrained the emergence of a liquid secondary market for bank and corporate issues. Major Finnish companies, for example forestry and telecoms companies, issue euro-denominated bonds mainly internationally. Foreign investors and domestic insurance corporations and pension funds are the major investor groups in Finnish bond markets. Households' bond investments have decreased in recent years. Most Finnish bonds, for example government bonds, are targeted at institutional investors. Therefore, private investors have not been particularly active in the bond market in recent years.

4.1.2 The secondary market: organisation and integration

In Finland, government benchmark bonds dominate the secondary markets. At present, there are ten primary dealers, who have the exclusive right to participate in benchmark bond auctions. The duties of these dealers include the obligation to maintain active secondary markets for benchmark bonds. Currently, there are only two domestic primary dealers and the others are foreign banks. Most Finnish publicly issued private sector bonds are listed on the stock exchange, but the turnover of private sector bonds in the secondary markets is low.

Chart 4.1.2a: Turnover of Finnish government benchmark bonds
(EUR billions)



Sources: HEX and State Treasury.

4.2 The stock market

The Finnish stock market evolved rapidly in the 1990s. The lifting of restrictions on foreign ownership of Finnish shares led to greater market liquidity and a larger presence of Finnish stocks in foreign portfolios. Partly for this reason, daily movements in the HEX All-share index have become more dependent on the stock markets of other countries.

The Finnish stock market is one of the most concentrated markets in the world. As mentioned earlier, one company, Nokia Corporation, dominates the market. In December 2000, the market capitalisation of all listed companies stood at €349 billion. Nokia accounted for more than 70% and the five biggest companies for 83%. In 2000, Nokia's share of the total turnover on HEX was 66% and the share of the five most traded companies was 86%. In December 2000, foreign owners accounted for 70% of the stockmarket capitalisation.

Remote access by brokers has become commonplace and the number of remote members has increased rapidly. At the end of 2000, there were 12 remote members and 31 trading members.

HEX co-operates closely with the Tallinn Stock Exchange (of which HEX is the main owner). Last year, HEX and Euronext signed a cross-membership and cross-access agreement on cash trading. No ownership arrangements were included in the agreement. HEX also co-operates with other exchanges (e.g. Eurex and Euronext). Co-operation with Euronext has meant that almost all stock options and futures based on Finnish shares are traded on Eurex. The cross-membership agreement signed by HEX and Euronext will allow the members of both exchanges technical access to trading systems.[5]

4.2.1 The primary market

Table 4.2: Characteristics and activity of the stock market

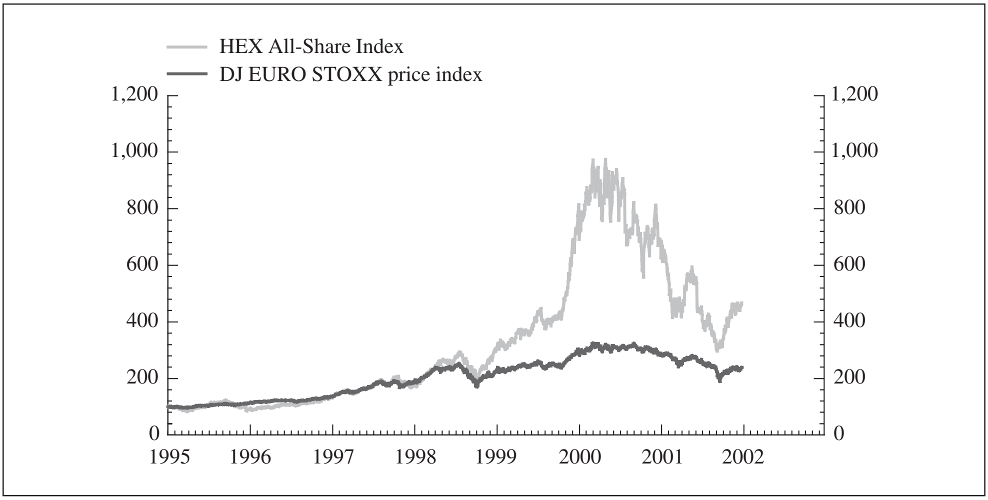
Description	1998	2000
Number of listed companies	131	157
Number of non-listed companies	-	-
Market capitalisation of listed shares (% of GDP)	119.2	260.5
Gross amount of capital raised by domestic companies through listed shares (% of GDP)	0.7	9.8
Gross amount of capital raised by domestic companies through non-listed shares (% of GDP)	-	-
Number of stocks belonging to EURO STOXX 50 and EURO STOXX	1/12	1/11
Concentration (top-ten companies share of total market capitalisation) (%)	79.0	91.0
Number of foreign companies listed	2	3
Number of stock exchanges and other organised exchanges	1	1
Number of participants in these markets	24	31
Share of non-domestic participants (%)	4	12
Number of transactions of traded shares	2,380,360	6,346,246
Total turnover of traded shares (% of GDP)	48.2	186.1

Source: National Statistics.

5 Schmiedel, "Technological development and concentration of stock exchanges in Europe", Bank of Finland Discussion Paper 21/2001, ranks the Finnish stock exchange eleventh in terms of efficiency based on data from 1985 to 1999. He also presents a comprehensive view of the linkages between major stock exchanges. Hyytinen, "Stock return volatility on Scandinavian stock markets and the banking industry", Bank of Finland Discussion Paper 19/99, finds empirical evidence of stockmarket volatility across Scandinavian borders.

4.2.2 The secondary market

Chart 4.2: National stock index development relative to EURO STOXX
(index: 2 Jan. 1995 = 100)



Sources: Hex and Bloomberg.

Nokia and other technology companies have dominated the Finnish stock markets in recent years. At the end of 2000, Nokia accounted for approximately 65% of the HEX All-Share Index, while the telecommunications and electronics sectors represented over 70%.

5 Financing

5.1 Non-financial corporations

The good profitability of firms in recent years has been associated with strengthened balance sheets across the corporate sector. Companies have used their strong cash flow to discharge their debts.[6] As a result, gross debt as a percentage of GDP and debt-to-equity ratios are modest in comparison with the levels in the early 1990s.

Large corporations seldom rely only on domestic banks for their financing needs. At the end of 2000, foreign loans accounted for nearly 50% of total corporate sector lending. While the outstanding domestic credit of the corporate sector has been stable since the late 1990s, growth in foreign liabilities (bank loans and bonds) was rapid in 1999 and 2000.

In the domestic financial markets, banks are still the most important lenders to the non-financial corporate sector. Despite the recent decrease in relation to other creditors, banks still accounted for some 60% of the non-financial corporate sector's outstanding domestic credit. Venture capital financing has increased rapidly in recent years. Venture capitalists in Finland can be divided into five groups: publicly financed, private, regional, bank-affiliated and those affiliated with large corporations (e.g. Nokia Corporation). At the end of 2000, the volume of

6 See Kajanoja, "Aggregate investment and corporate indebtedness: some empirical evidence from Finland", Bank of Finland Discussion Paper 10/95.

Table 5.1: Financing and financial balance of non-financial corporations
(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Shares and other equity	8.7	379.5
Securities other than shares incl. financial derivatives	1.2	11.6
of which short-term bonds (<1y)	0.3	1.7
of which long-term bonds (>1y)	0.9	9.9
Loans	7.9	95.1
from resident MFIs	-	24.1
of which short-term (<1y)	-	3.6
of which long-term (>1y)	-	20.5
from resident OFIs	-	2.3
from other resident sources	-	44.8
from non-residents	-	23.9
Trade credits and advances	-	17.0
Other liabilities	1.9	6.1
Total liabilities	19.7	509.4
Internal financing		
Gross savings	15.8	-
Net savings	4.9	-
Net capital transfers	0.1	-

Sources: Statistics Finland, national financial accounts statistics.

assets under management amounted to €2.3 billion. In 2000, €550 million worth of new venture capital was raised. This new capital came from insurance corporations (34%), pension insurance corporations (18%), special government institutions (16%), funds of funds (9%), capital markets (6%), corporations (5%) and banks (5%). Over 85% of the funds raised came from domestic sources.

5.2 General government

Central government debt has fallen substantially in recent years, but remains high from a historical perspective. Central government debt is issued predominantly in euro and the share of outstanding foreign currency-denominated debt is only 15%. On a residual maturity basis, short-term liabilities accounted for approximately 10% of total debt at the end of 2000. Central government's liquid assets were mainly invested in short-term money market instruments, e.g. certificates of deposit and commercial paper.

Municipalities' financial standing is good, the total debt of this sub-sector being only €4 billion. Securities issuance by municipalities was rare. The municipal sector has created a scheme through which local authorities are able to borrow their funded pension liabilities.

5.3 Households

The domestic banking sector is the most important lender to the household sector. Deposit banks accounted for some 90% of outstanding household credit in 2000. Housing loans made up 65% of the household sector's total credit. Housing finance comes from the deposit banks

Table 5.2: Financing and financial balance of general government

(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Currency and deposits	0.0	0.3
Securities other than shares		
incl. financial derivatives	-2.5	54.7
of which short-term bonds (<1y)	0.0	4.3
of which long-term bonds (>1y)	-2.5	50.5
Loans	0.2	7.5
from resident MFIs		2.3
of which short-term (<1y)	-	-
of which long-term (>1y)	-	-
from resident OFIs	-	1.2
from other residents	-	3.9
from non-residents	-	0.0
Other liabilities	0.2	6.4
Total liabilities	-2.1	70.6
Internal financing		
Gross savings	6.6	-
Net savings	4.1	-
Net capital transfers	0.0	-

Sources: Statistics Finland, national financial accounts statistics.

Table 5.3: Financing and financial balance of households

(as a % of GDP)

Liabilities	Average financial transactions, 1998-2000	Amounts outstanding, end-2000
External financing		
Loans	2.5	33.4
Loans from resident MFIs		
of which short-term (<1 year)	-	0.5
of which long-term (>1 year)	-	21.9
Consumer loans	-	2.5
original maturity < 1y	-	0.1
1y < orig. mat. < 5y	-	0.7
5y < orig. mat.	-	1.6
Housing loans	-	19.9
original maturity < 1y	-	0.4
1y < orig. mat. < 5y	-	0.6
5y < orig. mat.	-	18.9
Other loans from resident MFIs	-	5.9
Other loans from resident lenders	-	5.1
From non-residents		-
Other liabilities	-0.1	0.4
Total liabilities	2.4	33.8
Internal financing		
Gross savings	4.4	-
Net savings	1.5	-
Net capital transfers	-0.2	-

Sources: Statistics Finland, national financial accounts statistics.

and is mostly unsubsidised. In December 2000, loans granted by deposit banks represented 94% of household housing loans and 72% of total housing credit. Interest rates on housing loans are determined on the basis of a reference rate, such as the Euribor or a bank's prime rate plus a customer-specific margin.

5.4 Flow of funds abroad

Finland's current account posted a surplus of €9.7 billion in 2000. The current account surplus was reflected in an €10.8 billion net capital outflow in 2000. The corporate sector has acquired foreign assets via foreign direct investments. In 2000, there was a net direct investment outflow of €16.5 billion. Outward direct investment totalled €26.1 billion and inward direct investment €9.6 billion. At the end of 2000, the book value of the stocks of outward and inward direct investment came to €56 billion and €26 billion, respectively. The Finnish forestry industries, in particular, have increased their shareholdings abroad.

EMU has altered the investment policies of both domestic institutional investors and households. For example, pension insurance and life assurance corporations have increased their diversification across the euro area, as currency matching rules ceased to be binding. At the end of 2000, foreign investment accounted for approximately 40% of pension and life assurance corporations' total investment.

Table 5.4: Investment and financing vis-à-vis non-residents
(as a % of GDP)

Financial assets of non-residents	**Average financial transactions, 1998-2000**	**Amounts outstanding, end-2000**
Deposits	2.5	12.2
Shares	13.5	206.4
Securities other than shares	1.0	44.9
Other financial assets	5.0	36.3
Total financial assets	21.9	299.8
Liabilities of non-residents		
Deposits	2.1	21.2
Securities other than shares	7.4	27.4
of which short-term (<1 year)	0.2	1.2
of which long-term (>1 year)	7.1	26.2
Loans	3.1	19.6
of which granted by financial institutions	-	7.2
Shares and other equity	15.5	53.8
of which held by financial institutions	-	14.5
Other liabilities	0.9	11.3
Total liabilities	36.4	182.6

Sources: Statistics Finland, national financial accounts statistics.

Annexes

1 Statistical notes

The data used in this report have been compiled from various sources, including harmonised ECB statistics, e.g. money and banking statistics, financial account statistics, national statistics and other external sources. To a wide extent the data in the report are methodologically consistent across the euro area countries as well as consistent with data published elsewhere on the issues dealt with in the report, e.g. in the ECB Monthly Bulletin.

The aim of these statistical notes is to provide an overview of the methods and sources used in the report and to explain how some of the tables are constructed, how the tables correspond to each other, and how they are consistent (or not) with other publications, such as the ECB Monthly Bulletin. The annex also points to specific characteristics/limitations in some of the national data sources, as well as explaining how some of the measures presented in the report are calculated.

1 General aspects

- Since the report covers the period 1998-2000, i.e. before Greece joined the euro area, Greek data are not included in the euro area aggregates, as reported in the euro area chapter.
- In the euro area chapter, financial accounts statistics are typically presented as percentages of GDP. These figures are calculated leaving out GDP figures for Ireland, Luxembourg (and Greece). For the period 1998-2000 no financial accounts statistics are available for these countries (see also Section 2.2). Hence percentages of GDP are calculated as a ratio to GDP for only nine countries (Belgium, Germany, Spain, France, Italy, the Netherlands, Austria, Portugal and Finland).
- In the euro area chapter, non-weighted averages are used to calculate euro area averages unless otherwise specified. That is, no corrections have been made to account for differences in country size, level of GDP, etc. Only in Table 3.3, where bank concentration indices are reported, have weighted averages been used (see also the relevant footnote to the table).
- All stock data used in the report are end-of-year data.
- In the country chapters, “domestic” is used to indicate economic entities resident in the specific country. Residents in “Other MUMS” indicate residents in other Monetary Union Member States (apart from the “domestic” residents) and residents in “ROW” indicate residents in the rest of the world, i.e. non-euro area countries.
- In the euro area chapter, “residents” is used to indicate economic entities resident in the entire euro area (defined as not including Greece). “Non-residents” is consequently used to indicate economic entities resident outside the euro area (i.e. equal to “ROW” in the country chapters).

- The cut-off date concerning the data used in the report is 31 July 2002. Revisions of data that may have taken place after this date are therefore not reflected in the figures reported in this publication[1].
- Occasionally the term “corporations” is used. Unless otherwise indicated, this term is equivalent to “non-financial corporations”.

2 Statistics

The primary data sources in the report are harmonised ECB statistics, including Money and Banking Statistics (MBS), Monetary Union Financial Accounts (MUFA) statistics and Securities Issues Statistics (SIS). These data have also been published in other ECB publications as well as in publications from the national central banks. A secondary source, used for example in the case of other financial intermediaries (OFIs), is non-harmonised national data. In the following, a brief methodological description of the harmonised statistics is provided. For a more thorough and detailed description please refer to the sources cited below.

2.1 Money and Banking Statistics

The Money and Banking Statistics (MBS) are used to derive Tables 3.2, 3.3, 3.4, 3.5 and part of 5.3.

Table 3.2, which displays the number of monetary financial institutions (MFIs), and Table 3.4, which reports the aggregated balance sheet of MFIs excluding the Eurosystem, are derived from the statistical information compiled and collected on the basis of the ECB Regulation concerning the consolidated balance sheet of the Monetary Financial Institutions sector (ECB/1998/16, as amended).

The definition of MFIs follows Community Law and is described in the aforementioned ECB Regulation (ECB/1998/16).

- ***Monetary Financial Institutions (MFIs)*** “comprise resident credit institutions as defined in Community Law and other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credits and/or make investments in securities”.
- ***Central banks*** “comprise the national central banks of the EU Member States and the European Central Bank”.
- ***Credit institutions*** “are defined as any institution falling under the definition contained in the Banking Co-ordination Directive 2000/12/EC of 20 March 2000, as amended by Directive 2000/28/EC of 18 September 2000 (including the exempt credit institutions), whereby credit institution shall mean “(a) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account;

1 Exceptionally, in the case of Portugal, financial accounts data were revised after 31 July 2002. These data incorporated the revisions of the Portuguese General Government Accounts that were reported to Eurostat under the Excessive Deficit Procedure at the end of August. These revisions also affected the accounts of the other institutional sectors.

or (b) an electronic money institution within the meaning of directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit and prudential supervision of the business of electronic money institutions".

- ***Money market funds*** "are defined as those collective investment undertakings of which the issued units are, in terms of liquidity, close substitutes for deposits and which primarily invest in money market instruments and/or in other transferable debt instruments with a residual maturity up to and including one year, and/or in bank deposits, and/or which pursue a rate of return that approaches the interest rates on money market instruments".
- ***Other institutions*** "comprise other resident financial institutions which fulfil the definition of an MFI, irrespective of the nature of their business".

Table 3.2 for the euro area shows the list of MFIs as published on the ECB's website (www.ecb.int). The list of MFIs dates back to 1 January 1999. In the individual country chapters and in the statistical annex, Table 3.2 is based on the Community Law definition of credit institutions for the period 1995 to 1998, while information for the period 1999 to 2000 is based on the MFI definition. The two definitions are not compatible.

Data reported in Table 3.3 are built on the basis of the "Structural Statistical Indicators" data collection, used by the European System of Central Banks (ESCB) to carry out analysis of banking structures in the EU on a regular basis. This data collection follows a short-term approach and is based on the data currently available. Structural statistical indicators cover structural characteristics of the banking industry configuration (number of employees, number of branches and subsidiaries, market concentration indices), as well as the relevance of other intermediaries in the different national financial systems (total assets of insurance companies, pension funds).

Structural Statistical Indicators data consist of three groups. A first group of indicators is calculated using information already available at ECB level. A second group of 14 indicators are reported annually by NCBs to the ECB and consist of stocks, absolute numbers or ratios. In addition to stocks, there is also a requirement for flows adjustments. Data should in principle cover the whole population of institutions classified as credit institutions. However, where the actual reporting coverage is less than 100%, data are grossed up to ensure global coverage of the sector. Finally, a third group of indicators is compiled using non-harmonised information stemming from local supervisory authorities.

In a forthcoming update of the Guideline ECB/2002/5, a new annex will be added in order to lay down the conceptual and methodological guiding principles of the Structural Statistical Indicators statistics. The overall aim of the exercise is to adhere as much as possible to the statistical principles adopted for the compilation of Money and Banking Statistics data. For instance, data should be aggregated, not consolidated; the residency principle should follow the so-called "host country approach"; balance sheet data should be reported on a gross basis, etc.

With special references to the concentration indices of banking business, it must be pointed out that the indices are built on the basis of an "unconsolidated aggregated" approach, meaning that the inter-MFIs positions are not netted out and that different institutions belonging to the same financial group are considered separate entities.

Table 3.4 on the aggregated balance sheet of MFIs excluding the Eurosystem is derived from statistical information collected and compiled on the basis of the above-mentioned

Regulation (ECB/1998/16), also following the guidance provided to NCBs in the "Money and Banking Statistics Compilation Guide" (EMI, April 1998) and its two addenda. The sector definitions used in the table follow the "Money and Banking Statistics Sector Manual: Guidance for the Statistical Classification of Customers" (ECB, November 1999), see also Table A2 below. For the period 1995 to 1998 the national money and banking statistics were compiled according to national law and classifications, thus on a non-harmonised basis. However, the national MBS data covering this period have been reconstructed in accordance with the compilation rules as set out in Regulation (ECB/1998/16) in order to achieve the greatest possible degree of harmonisation.

Table 3.5 on the aggregated balance sheet of investment funds for the euro area chapter is derived from data reported by the national central banks (NCBs). The regular reporting by NCBs commenced as from the 4th quarter of 1999 on a quarterly basis. Investment funds (other than money market funds) belong to the sector "other financial intermediaries" (OFIs), which according to ESA 95 is defined as "all financial corporations and quasi-corporations which are principally engaged in financial intermediation by incurring liabilities in forms other than currency, deposits and/or close substitutes for deposits from institutional units other than MFIs, or insurance technical reserves". In this report, data on OFIs are based on non-harmonised NCB sources and are presented in Table 3.5 of the individual country chapter. Euro area aggregates are derived as a simple sum of the available national data and may not necessarily reflect accurately the dimension and structure of the OFI sector throughout the euro area.

2.2 Monetary Union Financial Account statistics

Monetary Union Financial Accounts (MUFA) statistics are used to derive Tables 1, 2, 3.1, 4.1 and 5.1-5.4 of the euro area chapter. Table 5.3 in the euro area chapter is, however, partly derived using MBS. In the individual country chapters, national MUFA statistics are used and the description following below hence also applies to the national data, unless otherwise indicated in Section 4 below.

There are essentially three conceptual elements in the design of the MUFA statistics: its articulation in the set of national accounts, the selection of financial assets and liabilities and the breakdown of the economy into institutional sectors.

The European System of Accounts (ESA 95) records flows and stocks (balance sheets) in an ordered set of accounts describing the economic cycle from the generation of income, through its distribution and redistribution and finally to its accumulation in the form of assets. Flows are described as events that "create, transform, exchange, transfer or extinguish economic value". The flows of generation, distribution and redistribution of income as well as its use in the form of final consumption are shown in the "current accounts".

A second group of flow accounts, the "accumulation accounts", records the various causes of changes in the assets and liabilities of institutional units and the change in their net worth (the difference between assets and liabilities), which are the elements constituting the "balance sheet accounts". The accumulation accounts comprise the "capital account", the "financial account", the "other changes in volume of assets account" and the "revaluation account".

Flows (or changes in stocks) are also described in the ESA 95 as involving "changes in the volume, composition or value of an institutional unit's assets or liabilities". They comprise the components "transactions", "other changes in the volume of assets", and "revaluations" (Table A1).

Table A1: Components of the system of accounts

Flows	(Changes in assets and liabilities owing to transactions and other flows)
	Transactions
	Other changes in the volume of assets
	Revaluations
Stocks	(Outstanding amounts of assets and liabilities in balance sheets)

A transaction is defined as “an economic flow that is an interaction between institutional units by mutual agreement or an action within an institutional unit that is analytically useful to treat like a transaction, often because the unit is operating in two different capacities.” While the current account flows are all transactions, among the accumulation accounts, transactions are recorded in the “capital account” (those of non-financial nature) and the “financial account” (those of financial nature). So defined, transactions are distinguished from “other economic flows”, which are events other than transactions. These include the depletion of natural resources, write-offs, natural growth of resources, etc, events included in the “other changes in the volume of assets account.” Finally, there are the asset value changes due to changes to the asset price and the resulting revaluation; these effects are shown in the “revaluation account”. In the tables of the report, only the annual average transactions and the outstanding amounts at the end of the year (stocks) are shown. That is, changes due to revaluations, reclassifications, write-offs, etc. have been left out.

Assets and liabilities

Seven categories of financial assets/liabilities or instruments are distinguished in the ESA 95; these are classified according to liquidity factors and legal characteristics (ESA 95 codes in brackets):

- Monetary gold and special drawing rights (F.1);
- Currency and deposits (F.2);
- Securities other than shares (F.3);
- Loans (F.4);
- Shares and other equity (F.5);
- Insurance technical reserves (F.6); and
- Other accounts receivable/payable (F.7).

However, this listing of financial assets only gives a rough presentation of the financial instruments which are gathered together in the various categories. Provision is made for a further diversification of the list of financial assets, in particular according to maturity and market capacity. Thus, transferable deposits, term deposits, savings deposits and other deposits are included under the deposit category. With regard to securities other than shares and loans, a distinction is made between short and long-term maturities. The financial derivatives, which were not previously included in the accounts, also have to be taken into account. Shares and other equity are broken down into quoted and unquoted shares, mutual fund shares and other equity. Insurance technical reserves is divided into net equity of households in life insurance reserves and in pension funds reserves, and prepayments of insurance premiums and reserves for outstanding claims. Finally, other accounts receivable and payable are broken down further into trade credits and advances, and other items.

Institutional sectors

The ESA 95 groups the institutional units of a national economy into five sectors according to their type of economic behaviour: non-financial corporations, financial corporations, general government, households and non-profit institutions serving households (Table A2). Most of the sectors may be further broken down by sub-sector. For instance, financial corporations can be classified into the central bank; other monetary financial institutions; other financial intermediaries, except insurance corporations and pension funds; financial auxiliaries; and insurance corporations and pension funds.

Table A2: Classification by institutional sector and sub-sector according to the ESA 95

Non-financial corporations (S.11)

Financial corporations (S.12)

- Central bank (S.121)
- Other monetary financial institutions (S.122)
- Other financial intermediaries, except insurance corporations and pension funds (S.123)
- Financial auxiliaries (S.124)
- Insurance corporations and pension funds (S.125)

General government (S.13)

- Central government (S.1311)
- State government (S.1312)
- Local government (S.1313)
- Social security funds (S.1314)

Households (S.14)

Non-profit institutions serving households (S.15)

Rest of the world (S.2)

- The European Union (S.21)
- Third countries and international organisations (S.22)

Note: The abbreviations given in brackets are the sectors as they are numbered in the ESA 95. In the report, general government and non-financial corporations are referred to as “government” and “corporations”/”firms”.

Valuation principles, time of recording, consolidation and maturity breakdown

- Following ESA 95 principles, flows and stocks should be recorded at exchange value, i.e. the value at which the financial assets and/or liabilities involved are or can be created, liquidated, exchanged or assumed between institutional units. Thus and especially when the exchange is made or can be made through a market, the ESA 95 recommends market prices as a general reference for valuation. Flows and stocks are recorded as a general rule when the value is created, liquidated, exchanged or assumed, and not when the payments are made, i.e. the accrual principle is followed. The elements of the balance sheets and their associated flows are to be shown in gross terms, without netting out liabilities from assets and/or inter-sector positions.
- The original maturity split – short versus long-term – is normally based on a one-year cut-off and in exceptional cases on a two-year cut-off. Therefore, short-term financial assets are those with an original maturity up to one year and – in exceptional cases – up to two years at maximum, while long-term financial assets are those with an original maturity of more than one year and, in exceptional cases, of more than two years at minimum.

Publication of the MUFA statistics

- Based on the conceptual background outlined, a simplified version of quarterly MUFAs, the Table on Financing and Investment (TFI) of the euro area non-financial sectors has been derived and presented in Table 6.1 of the “Euro area statistics” section of the ECB’s Monthly Bulletin.
- The TFI shows (non-seasonally adjusted) quarterly data for the non-financial sectors. They cover balance sheets (levels outstanding) and transactions for the main financial assets (financial investment) and liabilities (financing) of the non-financial sectors. On the financing side (liabilities), the data presented are broken down by sector and original maturity. On the assets side, the information is currently less detailed than that on financing, especially since a breakdown by sector is not yet possible. On both investment and financing sides, the data vis-à-vis MFIs is presented separately as far as possible.
- Most of the financial asset and liability categories defined in ESA 95 are covered in the TFI. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included. Of these, unquoted shares, other equity and trade credits and advances are significant. In essence, the instruments currently covered are those which are either mediated through financial corporations to non-financial sectors or traded on capital markets.
- In addition, annual financial account statistics are applied, in conjunction with capital account data, to Table 6.2 in the ECB Monthly Bulletin, which illustrates “saving, investment and financing” in the euro area.

Other issues

- National financial account statistics are currently not available for Ireland, Greece and Luxembourg for the period 1995 to 2000. For this reason, these three countries are not included in the euro area aggregates reported in the euro area chapter.
- In the euro area chapter, reference is occasionally made to the flow of funds data of the United States and of Japan. Flow of funds data for the United States are obtainable from the website of the Board of Governors of the Federal Reserve System (www.federalreserve.gov). The flow of funds data for Japan are obtainable from the website of The Bank of Japan (www.boj.or.jp). A methodological description of the US flow of funds data is available in the Board of Governors of the Federal Reserve System (2000) "Guide to the Flow of Funds Accounts". A methodological description of the Japanese flow of funds data is available in The Bank of Japan (2002) "Guide to Japan's Flow of Funds Accounts". For a detailed description and comparison of the MUFA statistics and the flow of funds data of the United States and Japan, please refer to the above-mentioned publications. When comparing the data for the three economic regions, the euro area, United States and Japan, it is however worth noting that:
  - In the US financial accounts statistics, sole proprietorships are placed under "non-financial corporations", while in the euro area and Japanese financial accounts these are placed under "households".
  - The valuation of marketable assets follows the principles of SNA 93, which means that generally marketable assets and liabilities are valued according to their market value. In cases where a market value is not available, assets and liabilities are valued according to book value, notional value or some other best estimate of the market value. These principles hold for the financial account statistics of the euro area, the US as well as for Japan. One exception is that for the US securities other than shares (i.e. bonds, etc.) are valued according to their notional value including accrued interest, thus not according to the market value principle.

2.3 Securities Issues Statistics

Chart 4.1 in the individual country chapters and the euro area chapter is based on harmonised Securities Issues Statistics (SIS). The ECB methodological guidelines for the SIS are specified in Annex 11 of the ECB Guideline (ECB/2000/13). The data used in Chart 4.1 include the outstanding amounts of euro-denominated issues of securities other than shares.[2] The valuation of the stocks of issued securities other than shares is reported at nominal (face) value.[3]

The definition of sectors in the SIS is in accordance with ESA 95 (see also Table 2). In Chart 4.1 the issuing sectors are grouped into "MFIs", including central banks (S.121) and other MFIs (S.122)[4], "general government", including central government (S.1311), state and local government (S.1312 and S.1313) and social security funds (S.1314), and "non-MFI corporate sector", including non-financial corporations (S.11) and non-monetary financial corporations (i.e. insurance corporations and pension funds (S.125) and other financial intermediaries (S.123 and S.124)).

2 The definition of "securities other than shares" is in accordance with ESA 95, paragraphs 5.50-5.55.

3 An exception is made in respect of deep-discounted and zero-coupon bonds, where the issues are recorded at the effective amount paid, i.e. the discounted price at the time of purchase, and the redemptions are recorded at maturity at nominal value.

4 The definition of MFIs is in accordance with Regulation ECB/1998/16 of 1 December 1998 concerning the consolidated balance sheet of the monetary financial institutions sector as amended by Regulation ECB/2000/8 and Regulation ECB/2001/13.

3 Notes on specific tables

The tables in the report address various aspects of financial stocks and flows of the euro area economy. Often the tables make use of the same data sources (primarily Money and Banking Statistics and Financial Accounts Statistics), albeit from different "angles"; the definitions and breakdowns of instruments, sectors, etc. may therefore sometimes differ. The following paragraphs aim to provide the reader with an overview of the methodological differences and links between the various tables.

- **Table 1 and Table 2:** Table 1 covers financial assets and liabilities of the economic sectors that flow through either intermediaries or through markets. Table 2 covers all financial assets and liabilities of the economic sectors both those flowing through intermediaries and markets and those flowing through other channels, e.g. company-to-company. Table 2 thus also includes financial assets and liabilities that can neither be categorised as intermediated or non-intermediated (see the Introduction for a thorough description of these terms). Hence, financial assets in Table 2 are likely to be larger than the sum of intermediated and non-intermediated (i.e. market-based) financial assets in Table 1. Likewise, financial liabilities should in general surpass the sum of intermediated and non-intermediated (market-based) liabilities.
- **Table 1 and Table 3.1:** Table 3.1 covers the intermediated financial assets held by the economic sectors. Hence in Table 3.1, the total intermediated financial assets of each sector (including assets held with MFIs, OFIs, ICPFs and intermediaries in the Rest of the World) should sum to the sectors' holdings of intermediated assets indicated in Table 1[5]. It should be noted that the "Total" in Table 1 will not in general equal the "Total" in Table 3.1, since the financial sector is not included in the former.
- **Table 1 and Table 4.1:** Table 4.1 covers the non-intermediated financial assets held by the economic sectors. Hence in Table 4.1, the total non-intermediated financial assets of each sector (incl. assets held with MFIs, OFIs, ICPFs and ROW) should sum to the sectors' holdings of non-intermediated assets indicated in Table 1. It should be noted that the "Total" in Table 1 will not in general equal the "Total" in Table 4.1, since the financial sector is not included in the former.
- **Table 1 and Table 5.1:** Table 5.1 covers the financing of non-financial corporations. Non-intermediated liabilities of the non-financial corporations in Table 1 equal the sum of outstanding amounts of "shares and other equity" and "securities other than shares" in Table 5.1. Intermediated liabilities in Table 1 should generally equal "loans" in Table 5.1. However, "loans" in Table 5.1 might include loans which have been granted by non-intermediaries, such as inter-company loans that are not included in the intermediated liabilities of Table 1. In addition, "trade credits" and "other liabilities" (e.g. other amounts payable) are not included in Table 1, implying that "total liabilities" (the sum of intermediated and non-intermediated liabilities) in Table 1 is not likely to equal "total liabilities" in Table 5.1, since the latter includes liabilities that are neither classified as intermediated nor non-intermediated (market-based) liabilities.
- **Table 1 and Table 5.2:** Table 5.2 covers the financing of the general government sector. Non-intermediated liabilities of the general government in Table 1 equal the sum of

5 There could however be some minor discrepancies due to the fact that assets vis-à-vis national central banks may be included in Table 1 but not in Table 3.1.

outstanding amounts of "securities other than shares" in Table 5.2. Intermediated liabilities in Table 1 should generally equal "loans" in Table 5.2. However, "loans" in Table 5.2 might include loans which have been granted by non-intermediaries. In addition, "other liabilities" (e.g. other amounts payable) are not included in Table 1. Hence, "total liabilities" (the sum of intermediated and non-intermediated liabilities) in Table 1 is generally not likely to equal "total liabilities" in Table 5.2, since the latter includes liabilities that are neither classified as intermediated nor as non-intermediated (market-based) liabilities.

- **Table 1 and Table 5.3:** Table 5.3 covers the financing of households. In principle, intermediated liabilities of households in Table 1 should equal "loans" in Table 5.3. However, "loans" in Table 5.3 might include loans which have been granted by non-intermediaries. In addition, "other liabilities" (e.g. other amounts payable) are not included in the intermediated liabilities of Table 1. Hence, "total liabilities" (the sum of intermediated and non-intermediated) in Table 1 is generally not likely to equal "total liabilities" in Table 5.3, since the latter includes liabilities that are neither classified as intermediated nor non-intermediated (market-based) liabilities.
- **Table 2 and Table 3.1 and 4.1:** As Table 3.1 and Table 4.1 are broadly the sum of the asset side of the outstanding amounts of Table 1, these only include financial assets that can either be categorised as intermediated or non-intermediated (marked-based). Hence, financial assets in Table 2 are likely to be larger than the sum of financial assets of Table 3.1 and Table 4.1.
- **Table 2 and Table 5.1:** Financial liabilities of non-financial corporations in Table 2 equal "total liabilities" in Table 5.1.
- **Table 2 and Table 5.2:** Financial liabilities of the general government in Table 2 equal "total liabilities" in Table 5.2.
- **Table 2 and Table 5.3:** Financial liabilities of households in Table 2 equal "total liabilities" in Table 5.3.
- **Table 3.2:** A harmonised euro area-wide assessment of the number of MFIs started with the beginning of the Third Phase of the EMU on 1 January 1999. Thus, in the country chapters the number of MFIs by the end of 1998 is assessed according to the definition of credit institutions in Community Law, which differs somewhat from the definition of MFIs used by the Eurosystem. Hence, the number of MFIs in the euro area at the end of 1998 calculated as the sum of the number of MFIs in each country does not equal the number of MFIs at 1 January 1999 stated in the euro area chapter (see also Section 2.1 above).
- **Table 3.3:** The Herfindahl indicator (HI) is calculated as the sum of squared market shares (using total assets) of the entire MFI population and, by thus emphasising the weight of the larger institutions, is a measure of concentration in the MFI sector. For a discussion of concentration measures, see also ECB (2000) "Mergers and acquisitions involving the EU banking industry – facts and implications". Since there is no aggregate euro area HI available to the ECB, the euro area HI (as well as the measure of the 5 largest credit institutions) is based on a weighted average of the HI for the individual countries. The country weights used are the number of MFIs in each country.

- **Table 4.2:** Table 4.2 contains indicators for the structure and volume of the euro area stock market. Since there are no harmonised Eurosystem statistics on these issues, the data used in this table have been produced by the national central banks (NCBs), so-called group II data. As regards Table 4.2 in the euro area chapter, this has mainly been constructed on the basis of NCB data. External data sources (primarily The World Federation of Exchanges, FIBV) have only been used in cases where NCBs have reported data that do not conform with the majority of NCBs or where NCBs have not reported any data, see also footnotes to Table 4.2 in the euro area chapter.

4 Issues related to national data sources

Belgium

To present the overall picture of financial relations in Belgium, non-financial corporations in Table 2 include some sub-sectors of the financial corporations sector (S12) for which data are missing in the Belgian financial accounts (e.g. financial holding corporations), while for some instruments the available information allows non-financial corporations to be defined in a more restrictive way. Hence, “financial liabilities” in Table 2 do not equal “total liabilities” in Table 5.1.

Ireland

No annual financial account data have been published in Ireland. As a result, the data included in the Irish country chapter tables are derived from Money and Banking statistics, securities issues statistics, and national statistical sources where relevant.

Table 3.2. Number of MFIs (of which government-owned): the Central Bank of Ireland does not currently compile statistics on the basis of breakdowns included in the table. The table therefore only includes data on money market funds. The total figure for 1998 refers to the total number of credit institutions. The total figure for the year 2000 is the sum of the 82 resident credit institutions operating in the state and 133 resident money market funds.

Tables 3.4 MFI Balance Sheet, 3.4(a) Credit Institutions Balance Sheet, 3.4(b) Money Market Funds Balance Sheet: the Central Bank of Ireland only began collecting data on Money Market Funds in 2000. Therefore an aggregated MFI balance sheet (credit institutions plus money market funds) could only be compiled for that year.

Austria

At the cut-off date regarding the data used in the report, flow data from the MUFA statistics for Austria were only available for 2000. For the sake of consistency and comparability, all flow data from the MUFA statistics therefore represent net changes of stocks for the whole time span covered in this report.

Spain

The methodological notes for Financial Accounts of the Spanish Economy can be found under www.bde.es.

2 Glossary

Accountability: the principle that an institution with decision-making authority is held responsible for its actions.

Active fund: a fund that has an active strategy for choosing which shares or assets to invest in and when to buy or sell them, rather than a strategy of following an index.

AEX (Amsterdam Exchanges): stock index of the most actively traded companies listed on the Amsterdam Stock Exchange.

Alternative trading systems (ATSs): systems that offer additional means of trading compared to established exchanges. They operate electronically (lowering transaction costs) and focus on services that established exchanges do not always provide (e.g. central limit order book, after hours trading or direct access for institutional investors).

Arbitrage: profiting from differences in prices when the same security, currency or commodity is traded on two or more markets.

Asset allocation: the process of deciding in which assets to make investments and what proportion of total capital available should be allocated to each choice.

Asset-backed securities: securities issued on the basis of the cashflows associated with a pool of financial and/or non-financial assets.

ATM: Automated Teller Machine.

Bank certificates of deposit (CDs): short-term securities issued by banks. CDs are classified as securities only if they are negotiable. Otherwise they are classified as deposits.

Benchmark: value used as a reference or means of comparison for measuring the performance of an investment.

Benchmarking: basing the investment allocation on an industry standard and/or on a fixed securities index.

Bid-ask spread: differential prevailing in the market between the bid price and the offered price.

BIS: Bank for International Settlements.

Block trade: large, potentially market-moving trade.

Blue chip: term for the most prestigious industrial shares.

Bon à taux fixe (BTF): French Treasury bill.

Bond market: the market where longer-term debt securities are issued and traded. See debt securities market.

Bonos del Estado (Bonos): Spanish Treasury bonds with original maturity between two and five years.

Bons du Trésor à taux fixe: French Treasury bills, with a maturity on issue ranging from 13 to 52 weeks.

Bons du Trésor à taux fixe et à intérêt annuel (BTAN): negotiable fixed-rate medium-term French Treasury notes with annual interest. On issue their maturity is either two or five years.

Broker: firm which operates on a market on behalf of other participants to arrange transactions without being a party to the transactions itself.

Bubill (Unverzinsliche Schatzanweisungen des Bundes): German Treasury bill.

Buoni Ordinari del Tesoro (BOT): Italian Treasury bill.

Buoni Poliennali del Tesoro (BTP): Italian Treasury bonds with original maturity of three to thirty years.

CAC 40: stock index of the 40 largest and most actively traded companies listed on the Paris Stock Exchange.

Capitalisation: see Market capitalisation.

Capital requirement: the minimum capital a credit institution is required to hold in order to safeguard it from unexpected losses.

Central counterparty: an intermediary which takes over the obligation of either side in respect of a trade. After clearing with a central counterparty, the two trading parties no longer have an obligation towards each other, but rather towards the central counterparty, which thereby assumes any replacement cost risk resulting from market moves between the time of trade and the time of settlement.

Centralisation: tendency for trading activity, price determination and information generation to be concentrated in a single market.

Certificati del Tesoro zero coupon (CTZ): Italian government debt instrument issued at discount with an original maturity of up to two years.

Certificati di Credito del Tesoro (CCT): Italian Treasury floating rate securities with a seven-year original maturity.

Clearing: the process of transmitting, reconciling and, in some cases, confirming the payment order and the securities transfer prior to settlement. In the context of repos, this can have three separate aspects: confirmation/matching, netting and clearing with the central counterparty.

Collateral: assets pledged as a guarantee for the repayment of loans (e.g. which credit institutions receive from the central banks), as well as assets sold (e.g. to central banks by credit institutions) as part of repurchase operations.

Collective investment funds: funds where assets are purchased and managed on behalf of all the participants in the fund, and the benefits of the fund are shared out in proportion to participants' holdings. Investors buy units, or alternatively shares, in the funds. In an open-ended collective investment fund, managers can create new units or cancel existing ones, as supply and demand dictate. In a close-ended collective investment fund, the supply of units is fixed, and those entering or leaving the fund have to buy or sell existing units.

Commercial paper (CP): short-term obligations with maturities ranging from 2 to 270 days issued by banks, corporations and other borrowers. Such instruments are unsecured and usually discounted, although some are interest-bearing.

Convertible bond: bond exchangeable for equity at a set price.

Co-operative bank: credit institution which is owned by its depositors and whose profits are shared out in proportion to depositors' contributions.

Counterparty: the opposite party in a financial transaction.

Credit derivative: a tradable financial contract on which the payoff is dependent on a defined credit event. The most common credit derivative instruments are Credit Risk Options (CRO), Credit Default Swaps (CDS) and forward contracts involving corporate bonds.

Credit institution: an institution covered by the definition in Article 1 (1) of Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions. According to this definition, a credit institution is (a) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account, or (b) an electronic money institution within the meaning of Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit and prudential supervision of the business of electronic money institutions.

Credit risk: the risk that a counterparty will not settle an obligation for full values, either when due or at any time thereafter.

Currency risk: the risk that the operations of a business or the value of an investment will be affected by changes in exchange rates.

DAX (Deutscher Aktienindex): stock index that tracks the price movements of the 30 largest and most actively traded German stocks.

Dealer: firm whose primary business is entering into transactions on both sides of wholesale financial markets and seeking profits by taking risks in these markets.

Debt securities market: the market on which debt instruments are issued and traded. A debt security represents a promise to make regular payments periodically for a specified period of time.

Defined benefit insurance policies: policies for which the benefits are defined ex ante.

Delisting: when a company is no longer included among the listed companies on the exchange.

Derivatives market: the issuing and trading market for financial contracts whose value is related to underlying securities prices, interest rates, foreign exchange rates, market indices or commodity prices. The basic classes of derivatives are futures contracts, options, swaps and forward rate agreements.

DJ STOXX indexes: the Dow Jones STOXX SM indexes are published by STOXX Limited, a partnership of Deutsche Börse AG, Dow Jones and Company, Euronext Paris SA and SWX Swiss Exchange. They are a family of investable and tradable European equity indexes that are fully integrated with the Dow Jones Global Indexes. The best known DJ STOXX indexes are the DJ EURO STOXX 50, focused on the euro area, and the DJ STOXX 50, which is Pan-European.

EASDAQ (European Association of Securities Dealers Automated Quotation System): a pan-European market for trading shares in growth companies, which opened in 1986 and is based in Brussels.

Economic and Monetary Union (EMU): The Treaty describes the process of achieving Economic and Monetary Union in the European Union in three stages. Stage One of EMU started in July 1990 and ended on 31 December 1993. It was mainly characterised by the dismantling of all internal barriers to the free movement of capital within the European Union. Stage Two of EMU began on 1 January 1994. It provided for, inter alia, the establishment of the European Monetary Institute (EMI), the prohibition of financing of the public sector by the central banks, the prohibition of privileged access to financial institutions by the public sector and the avoidance of excessive government deficits. Stage Three started on 1 January 1999 with the transfer of monetary competence to the Eurosystem and the introduction of the euro.

ECU (European Currency Unit): prior to Stage Three of EMU, the ECU was a basket currency made up of the sum of fixed amounts of 12 out of the 15 currencies of the EU Member States. The value of the ECU was calculated as a weighted average of the value of its component currencies. The official ECU served as the numeraire of the ERM and as a reserve asset for central banks.

EEA (European Economic Area): consists of the members of the European Union and three non-EU countries, namely Norway, Liechtenstein and Iceland. The agreement, which entered into force on 1 January 1994, allows the three countries to participate in the Single Market while not assuming full responsibilities of membership of the EU. The agreement is principally concerned with the so-called "four freedoms": freedom of movement of goods, of persons, of services and of capital.

Effective exchange rates (nominal/real): nominal effective exchange rates consist of a weighted average of selected bilateral exchange rates. The nominal effective exchange rate of the euro calculated by the ECB is a geometric weighted average of the exchange rate of the euro against the currencies of 13 trading partners of the euro area. The weights reflect the trade shares of the respective countries. Real effective exchange rates are nominal effective exchange rates adjusted for differences between foreign and domestic prices and costs. They are thus measures of price and cost competitiveness. The real effective exchange rate for the euro is calculated using consumer price indices (e.g. the Harmonised Index of Consumer Prices (HICP) for the euro area and other Member States).

Electronic trading: in broad terms, this refers to any use of electronic means of sending orders (bids and offers) to the market.

EMU: see Economic and Monetary Union.

Equity market: the market where equities are issued and traded. Equities are claims to a share in the ownership of a business. A major difference between equity and debt is that the former does not have to be repaid by the issuer.

Equity swaps: a transaction that allows an investor to exchange the rate of return (or a component thereof) on an equity investment (an individual share, a basket or index) for the rate of return on another non-equity or equity investment.

Euro: the name of the European currency adopted by the European Council at its meeting in Madrid on 15 and 16 December 1995 and used instead of the term ECU (European Currency Unit) employed in the Treaty.

Euro area: the area encompassing those Member States in which the euro has been adopted as the single currency in accordance with the Treaty and in which a single monetary policy is conducted under the responsibility of the Governing Council of the European Central Bank (ECB).

Euronext: company born from the merger of the exchanges of Amsterdam, Brussels and Paris on 22 September 2000. Since then, Euronext has also taken over LIFFE (see definition below) and the Lisbon and Oporto exchanges.

European Central Bank (ECB): The ECB lies at the centre of the ESCB and the Eurosystem and has legal personality under Community law. It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either by its own activities pursuant to the Statute of the ESCB or through the national central banks.

European Commission (Commission of the European Communities): the institution of the European Community which ensures the application of the provisions of the Treaty. The Commission develops Community policies, proposes Community legislation and exercises powers in specific areas. In the area of economic policy, the Commission recommends broad guidelines for economic policies in the Community and reports to the EU Council on economic developments and policies. It monitors public finances within the framework of multilateral surveillance and submits reports to the Council.

European System of Accounts 1995 (ESA 95): a system of uniform statistical definitions and classifications aimed at achieving a harmonised quantitative description of the economies of the Member States. The ESA is the Community's version of the United Nation's System of National Accounts. The ESA 95 is the latest version of the European system, and its implementation began in the course of 1999 in accordance with Council Regulation (EC) No. 2223/96.

Eurostat: the Statistical Office of the European Communities. Eurostat is part of the European Commission and is responsible for the production of Community statistics. It collects and systematically processes data, produced mainly by the national authorities, within the framework of comprehensive five-yearly Community statistical programmes.

Eurosystem: comprises the European Central Bank (ECB) and the national central banks of the Member States which have adopted the euro in Stage Three of Economic and Monetary Union (EMU) (see also euro area). There are currently 12 national central banks in the Eurosystem. The Eurosystem is governed by the Governing Council and the Executive Board of the ECB.

FIBV (Fédération Internationale des Bourses de Valeur/World Federation of Exchanges): International Federation of Stock Exchanges. This is the trade organisation for regulated securities and derivative markets, and related clearing houses worldwide.

Financial markets: markets in which those who have a surplus of funds lend to those who have a shortage.

Financial Vehicle Corporations (FVC): see Special-purpose vehicles.

Foreign currency swap: an agreement between two parties to exchange future payments in one currency for payment in another currency. These agreements are used to transform the currency denomination of assets or liabilities.

Forward rate agreement (FRA): an agreement whereby one party undertakes to pay another party a certain interest rate on a certain principal amount for a certain period of time at some point in the future.

Foreign exchange swap: simultaneous spot and forward transactions of one currency against another. The Eurosystem may execute open market monetary policy operations in the form of foreign exchange swaps where the national central banks (or the European Central Bank (ECB)) buy or sell euro spot against a foreign currency and at the same time sell or buy it back in a forward transaction.

Forwards: purchase or sale of a specific quantity of a commodity at the current price, with delivery and settlement at a specified future date.

Futures contract: a contract to buy or sell securities or commodities at a predetermined price during a specified future period.

General government: as defined in the European System of Accounts 1995 (ESA 95), consists of central, state and local government and social security funds.

Hedge fund: private investment partnership whose offering memorandum allows the fund to take both long and short positions, use leverage and derivatives, and invest in many markets.

Hedging: strategy to offset investment risk.

IBEX: Stock index for the 35 largest companies listed on the Madrid Stock Exchange.

IGBM: overall Madrid Stock Exchange Index.

Investment: gross fixed capital formation as defined in the European System of Accounts 1995 (ESA 95).

Investment funds: (see Collective investment funds).

IPO: Initial public offering. A company's first offering of stock to the public.

Large capitalisation: stock with a large market capitalisation, usually at least USD 5 billion.

Leverage: company debt expressed as a percentage of equity capital (or alternatively expressed as a percentage of the sum of debt and equity). High leverage means that debts are high in relation to assets. The equivalent UK term is gearing.

Letras del Tesoro: Spanish treasury bills.

LIFFE: London International Financial Futures and Options Exchange.

Liquid (market): three aspects of liquidity are tightness in bid-ask spreads, depth and resiliency. It is characterised by the ability to transact in a market without significantly moving prices.

M&A: mergers and acquisitions.

Market capitalisation: the value of a corporation as determined by the market price of its issued and outstanding common stock.

Maastricht Treaty: see Treaty.

MATIF: Marché à Terme International de France (French international futures and options exchange).

MDAX: index comprising the 70 German companies that rank behind the 30 DAX stocks in terms of size.

MEFF: official Spanish futures and options market.

Member State: a country which is a member of the European Union.

Mercato Interbancario dei Depositi (MID): Italian screen-based market for interbank deposits.

MIB (Milano Indice Borsa): index of shares listed on the Italian stock exchange.

Mibor: interbank offered rate in Madrid for unsecured transactions.

Monetary financial institutions (MFIs): financial institutions which form the money-issuing sector of the euro area. These include central banks, resident credit institutions as defined in Community law and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities. The latter group consists predominantly of money market funds.

Monetary transmission mechanism: process through which monetary policy decisions affect the economy in general and price levels in particular. It includes a variety of complex and often interlinked transmission channels.

Money market fund (MMF): collective investment fund that issues securities which, in terms of liquidity, are close substitutes for deposits and which primarily invests in short-term securities with a residual maturity up to and including one year.

Mortgage bond: bond issue secured by a mortgage on the issuer’s property, the lien on which is conveyed to the bondholders by a deed of trust.

MTS (Mercato telematico dei titoli di Stato): electronic inter-dealer market for trading Italian government securities. MTS markets are also active on other European national bond markets.

Mutual fund: an investment company that raises money from shareholders and invests the proceeds (see also investment funds).

NEMAX: index of the 50 largest growth stocks listed on the Frankfurt Neuer Markt (terminated in 2003).

NM markets: new markets set up in Europe in the second half of the nineties to meet the needs of fast-growing young companies seeking capital to finance expansion. The 7 NM markets are: Amsterdam NM, Brussels NM, Helsinki NM, Neuer Markt, Nouveau Marché, Nuovo Mercato and Nuevo Mercado.

Obligaciones del Estado: Spanish Treasury bonds, with an initial maturity of more than five years.

Obligations Assimilables du Trésor (OAT): French fungible Treasury bonds with original maturities from seven to thirty years.

Obligations Linéaires-Lineaire Obligaties (OLO): Belgian fungible medium and long-term Treasury bonds with an original maturity up to thirty years.

Option: an option is a financial instrument which gives the owner the right, without obligation, to buy or sell specific underlying assets (e.g. bonds or shares) at a predetermined price (the strike price or exercise price) at or up to a certain future date (the exercise or maturity date). A call option gives the holder the right to purchase the underlying assets at an agreed exercise price, whereas a put option gives the holder the right to sell them at an agreed exercise price.

OTC (over-the-counter): over-the-counter, bilateral transactions not conducted on an organised exchange.

Other equity: see Private equity.

Overnight deposits: deposits with next-day maturity. This instrument category comprises mainly those sight/demand deposits which are fully transferable (by cheque or similar instrument). It also includes non-transferable deposits that are convertible on demand or by close of business the following day. Overnight deposits are included in M1 (and hence in M3).

Pfandbriefe: Bank debt securities backed indirectly by private sector mortgages or public sector loans.

Primary dealer: selected credit institution authorised to buy and sell original issuance of government securities in direct dealing with the Treasury.

Primary market: market for new issues of securities.

Private equity: shares that are not quoted on a stock exchange. Private equity may also refer to "other equity", which according to ESA 95 consists of the following: all forms of equity in corporations that are not shares (e.g. incorporated partnerships, co-operative societies); investments by general government in the capital of public enterprises, whose capital is not divided into shares; government investments in the capital of international organisations and supranational organisations, with the sole exception of the IMF, even if these are legally constituted as companies with share capital; the financial resources of the ESCB provided out of contributions from NCBs; capital invested in financial and non-financial quasi-corporations; the financial assets that non-resident units have against notional resident units, and vice versa (see ESA 95 for a more detailed description).

Privatisation: process of converting a publicly operated enterprise into a privately owned and operated entity.

Repo: financial instrument which serves to exchange cash temporarily for securities for a predetermined period. Various legal arrangements exist to perform this basic economic function (repurchase agreements, reverse repurchase agreements, sell/buybacks and securities lending). All forms of repos entail a change in ownership.

Repurchase agreement: an arrangement whereby an asset is sold while the seller simultaneously has a right and an obligation to repurchase it at a specific price on a future date or on demand.

Reserve base: the sum of the balance sheet items (in particular liabilities) which constitute the basis for calculating the reserve requirement of a credit institution.

Reserve ratio: the ratio defined by the central bank for each category of eligible balance sheet items included in the reserve base. The ratios are used to calculate reserve requirements.

Reserve requirement: the requirement for institutions to hold minimum reserves with the central bank. In the minimum reserve framework of the Eurosystem, the reserve requirement of a credit institution is calculated by multiplying the reserve ratio for each category of items in the reserve base with the amount of those items on the institution's balance sheet. In addition, institutions are allowed to deduct a lump-sum allowance from their reserve requirement.

Retail investor: investor who buys securities and commodities on his/her own behalf, not for an organisation.

Return on equity (ROE): amount, expressed as a percentage, earned on a company's common stock investment for a given period.

Secondary market: exchanges and over-the-counter markets where securities are bought and sold subsequent to the original issuance, which took place on the primary market.

Securitisation: the conversion of pools of loans (or other financial assets) into marketable securities.

Settlement: completion of a transaction by exchange of instruments and funds.

Small and medium-sized enterprises (SME): enterprises with less than 250 employees.

Small capitalisations: small capitalisation stocks usually have a market capitalisation equivalent to USD 500 million or less.

Special collateral: collateral other than general collateral.

Special-purpose vehicle (SPV): undertaking that specialises in acquiring loans from banks, other credit institutions and/or non-financial corporations. The acquired loans are transformed and issued as tradable securities.

Stability and Growth Pact: consists of two EU Council Regulations on the strengthening of the surveillance of budgetary positions and the surveillance and co-ordination of economic policies, and on speeding up and clarifying the implementation of the excessive deficit procedure and of a European Council Resolution on the Stability and Growth Pact adopted at the Amsterdam summit on 17 June 1997. It is intended to serve as a means of safeguarding sound government finances in Stage Three of Economic and Monetary Union (EMU) in order to strengthen the conditions for price stability and for strong sustainable growth conducive to employment creation. More specifically, budgetary positions close to balance or in surplus are required as the medium-term objective for Member States, which would allow them to deal with normal cyclical fluctuations while keeping the government deficit below the reference value of 3% of GDP. In accordance with the Stability and Growth Pact, countries participating in EMU will report stability programmes, while non-participating countries will continue to provide convergence programmes.

Stage One, Stage Two, Stage Three: see Economic and Monetary Union (EMU).

Stock market: see equity market.

Swap: an agreement for an exchange of payments between two counterparties at some point(s) in the future and according to a specified formula.

Technical reserves: policyholders' holdings of savings-type insurance reserves and/or pension reserves.

TMT: Technology, Media, Telecoms.

Treasury bill: short-term government debt instrument issued at a discount with a maturity of one year or less.

Treaty: refers to the Treaty establishing the European Community. The Treaty was signed in Rome on 25 March 1957 and entered into force on 1 January 1958. It established the European Economic Community (EEC), which is now the European Community (EC), and is often referred to as the "Treaty of Rome". The Treaty on European Union (which is often referred to as the "Maastricht Treaty") was signed on 7 February 1992 and entered into force on 1 November 1993. The Treaty on European Union amended the Treaty establishing the European Community and established European Union. The "Treaty of Amsterdam", which was signed in Amsterdam on 2 October 1997 and entered into force on 1 May 1999, amended both the Treaty establishing the European Community and the Treaty on European Union. Equally, the "Treaty of Nice", which concluded the 2000 Intergovernmental Conference and was signed on 26 February 2001, will further amend the Treaty establishing the European Community and the Treaty on European Union, once it is ratified and enters into force.

UCITS: undertakings for collective investment in transferable securities.

Unit-linked insurance policies: policies in which the policyholder's premiums are used to buy units in a fund run by the insurer. The value of the policyholder's units fluctuates and is directly linked to the value of the underlying assets.

Venture capital: an investment in a start-up business that is perceived to have excellent growth prospects, but does not have access to capital markets. This type of financing is sought by early-stage companies seeking to grow rapidly.

Zero coupon bond: a security issued at discount, or one which delivers a single coupon at maturity.

3 Comparative ratios and tables

Note: All euro area figures in this annex are non-weighted averages of national figures and refer to countries for which data are available.

Comparative ratios, end-2000

		Austria	Belgium	Germany	France
Table 1	**Non-intermediated assets as a ratio of GDP**	1.25	4.13	1.75	3.76
	Households	0.14	1.39	0.46	0.9
	Non-financial corporations	0.15	1.42	0.59	1.52
	Intermediated assets as a ratio of GDP	1.85	2.81	1.96	2.01
	Households	1.12	1.56	1.18	1.3
	Non-financial corporations	0.2	0.22	0.18	0.21
	Non-intermediated liabilities as a ratio of GDP	1.61	4.98	1.95	4.7
	Non-financial corporations	0.31	2.26	0.85	2.96
	Intermediated liabilities as a ratio of GDP	1.51	1.16	1.81	1.16
	Households	0.29	0.4	0.73	0.36
	Non-financial corporations	0.74	0.48	0.62	0.39
Table 2	Assets of non-residents as a ratio of total	0.21	0.23	0.17	0.15
	Assets of non-residents as a ratio of GDP	1.52	2.71	1.34	1.74
	Liabilities of non-residents as a ratio of total	0.19	0.23	0.17	0.17
	Liabilities of non-residents as a ratio of GDP	1.35	3.33	1.36	1.84
	Net financial assets of households as a ratio of GDP	0.95	2.6	1.06	1.83
	Net financial assets of non-financial corp. as a ratio of GDP	-0.67	-0.96	-0.66	-1.64
	Net financial assets of government as a ratio of GDP	-0.43	-1.02	-0.41	-0.35
	Total financial assets/GDP	7.11	11.7	7.95	10.07
Table 3.1	Assets to MFIs as a ratio GDP	1.77	2.09	1.7	1.66
	Assets to OFIs as a ratio GDP	0.44	0.33	0.46	n.a.
	Assets to ICPFs as a ratio GDP	0.28	0.37	0.45	0.55
	Assets to ROW as a ratio GDP	0.28	1.04	n.a.	0.32
	Total intermediated assets as a ratio of GDP	2.77	3.84	2.6	n.a.
	Flows into MFIs/total flows into intermediaries	0.48	0.09	0.55	0.47
	Flows into OFIs/total flows into intermediaries	0.32	0.45	0.27	0.24
	Flows into ICPFs/total flows into intermediaries	0.09	0.26	0.17	0.29
Table 3.3	Herfindahl	0.06	0.15	0.02	0.1
	Top 5's share of total assets	0.45	0.75	0.2	0.47
Table 3.4*	(Shares plus other securities)/total assets	0.19	0.32	0.22	0.2
	Deposits/total liabilities	0.69	0.74	0.66	0.66
	Loans/total assets	0.76	0.6	0.74	0.69
	Loans to resident non-MFIs/total assets	0.42	0.3	0.44	0.33
	Deposits from resident non-MFIs/total liabilities	0.32	0.3	0.32	0.25
	Loans to non-residents/total assets**	0.18	0.25	0.12	0.13
	Deposits from non-residents/total liabilities**	0.18	0.38	0.15	0.17
	Debt securities issued/total liabilities	0.22	0.12	0.24	0.14
	Total assets/GDP	2.78	2.81	3	2.49
	Capital & reserves/total liabilities	0.051	0.048	0.043	0.07

* *Data refer to Table 3.4 in the country chapters or to Table 3.4a when applicable.*

** *Non-residents include residents from other MUMS and ROW.*

Greece	Ireland	Italy	Luxembourg	Netherlands	Spain	Finland	Portugal	
1.33	n.a.	2.40	n.a.	3.22	2.21	4.73	1.88	**Table 1**
0.52	n.a.	1.08	n.a.	0.72	0.67	0.93	0.57	
0.24	n.a.	0.62	n.a.	0.44	0.8	0.65	0.41	
1.39	2.59	1.27	n.a.	3.32	1.76	0.85	2.29	
0.97	0.33	0.96	n.a.	2.21	1.06	0.55	1.22	
0.2	0.19	0.11	n.a.	0.34	0.21	0.1	0.29	
1.44	n.a.	2.82	n.a.	3.98	2.76	4.94	2.22	
0.61	n.a.	1.05	n.a.	1.75	1.59	3.64	1.18	
0.84	1.82	0.95	n.a.	2.60	1.29	1.45	1.86	
0.14	0.39	0.23	n.a.	0.91	0.47	0.31	0.64	
0.34	0.34	0.55	n.a.	0.94	0.61	0.88	0.85	

0.17	n.a.	0.14	n.a.	0.31	0.16	0.32	0.24	**Table 2**
0.55	n.a.	1.00	n.a.	3.16	1.28	2.79	1.68	
n.a.	n.a.	0.16	n.a.	0.29	0.13	0.15	0.17	
n.a.	n.a.	1.12	n.a.	3.01	1.07	1.24	1.26	
1.36	n.a.	2.02	n.a.	2.07	1.31	1.18	1.18	
-0.51	n.a.	-0.87	n.a.	-1.58	-1.11	-3.26	-1.22	
-0.8	n.a.	-0.99	n.a.	-0.35	-0.43	0.44	-0.24	
3.19	n.a.	7.04	n.a.	10.15	8.01	8.56	8.74	

1.16	3.13	0.87	28.05	1.29	1.53	0.61	1.98	**Table 3.1**
0.12	n.a.	0.38	n.a.	0.34	0.25	0.09	0.22	
n.a.	n.a.	0.21	n.a.	1.67	0.25	0.62	0.34	
n.a.	n.a.	0.12	n.a.	2.26	0.28	0.011	0.40	
n.a.	n.a.	1.58	n.a.	5.55	2.33	1.35	2.94	
0.98	n.a.	0.26	n.a.	0.10	0.51	0.46	0.80	
0.02	n.a.	0.51	n.a.	0.04	0.14	0.07	0.03	
-	n.a.	0.2	n.a.	0.75	0.2	0.47	0.13	

1125	0.05	0.02	2.42	0.17	0.09	0.24	0.1	**Table 3.3**
0.65	0.41	0.23	0.26	0.81	0.54	0.87	0.59	

0.33	0.23	0.18	0.26	0.15	0.18	0.15	0.13	**Table 3.4***
0.76	0.77	0.61	0.83	0.73	0.8	0.7	0.71	
0.51	0.7	0.7	0.69	0.82	0.74	0.79	0.69	
n.a.	0.3	0.52	0.03	0.49	0.52	n.a.	0.46	
n.a.	0.24	0.34	0.11	0.34	0.45	n.a.	0.38	
0.12	0.18	0.08	0.55	0.19	0.09	0.19	0.15	
0.11	0.43	0.15	0.57	0.25	0.21	0.15	0.25	
0	0.08	0.17	0.07	0.15	0.05	0.19	0.07	
1.58	3.43	1.53	34.33	2.86	1.85	0.99	2.74	
0.1	0.07	0.07	0.05	0.05	0.09	0.06	0.07	

Comparative ratios, end-2000 (cont.)

		Austria	Belgium	Germany	France
Table 3.5	Investment funds assets/total OFIs assets	0.95	0.39	0.98	0.77
	Securities/total assets (investment funds)	0.60	0.22	0.40	0.33
	Shares/total assets (investment funds)	0.20	0.55	0.46	0.41
	Assets issued by non-residents/total assets	n.a.	0.49	0.48	0.28
	Total OFIs assets/GDP	0.47	0.85	0.40	0.61
Table 3.6	Securities/total assets	0.27	0.45	0.07	0.45
	Shares/total assets	0.38	0.31	0.41	0.46
	Assets issued by ROW/total assets	0.17	n.a.	n.a.	n.a.
	Total ICPFs assets/GDP	0.30	0.49	0.64	0.71
Table 4.1	(Shares issued by residents)/by ROW	1.59	2.64	n.a.	n.a.
	(Other securities by residents)/by ROW	2.84	1.82	n.a.	n.a.
	(Shares/total assets) held by households***	0.42	0.54	0.61	0.94
	(Shares/total assets) held by non-financial corp.***	0.72	0.98	0.87	0.91
	(Shares/total assets) held by government***	0.42	0	0.9	0.79
	(Shares/total assets) of ROW	0.20	0.61	0.4	0.66
Table 4.2	Market capitalisation/GDP	0.15	0.79	0.68	1.09
	Foreign companies with shares listed/ all companies listed****	0.13	0.39	0.84	0.16
	Turnover/GDP	0.10	0.19	2.24	0.88
	Foreign participants/total	0.25	0.41	0.40	0.26
Table 5.1	(External/Internal) financing of non-financial corp.	0.82	1.04	1.31	1.2
	Shares/total liabilities	0.21	0.73	0.32	0.79
	Securities other than shares/total external financing	0.06	0.03	0.01	0.05
	MFIs loans/total loans	0.85	0.56	0.61	0.71
	Short-term/total loans from MFIs	0.31	0.44	0.29	0.31
	Loans/total liabilities	0.70	0.21	0.59	0.15
	Level of indebtedness of non-financial corporations	0.88	0.71	0.66	0.69
Table 5.2	(Securities/Total liabilities) of public sector	0.80	0.87	0.63	0.75
Table 5.3	(Housing Loans)/loans to households from domestic MFIs	0.46	0.66	0.60	0.63
	(External/internal financing) of households	0.29	0.21	0.28	0.24
	Level of indebtedness of households	0.40	0.34	0.73	0.41
	Consumer loans/loans from domestic MFIs	0.43	0.10	0.14	0.21
	Short term loans/total MFI loans	0.13	0.09	0.08	n.a.
Table 5.4	(total assets-total liabilities)/GDP	0.16	-0.62	0	0.67

*** *Issued by residents and non-residents.*
**** *Based on stock market data from the World Federation of Exchanges and national statistics.*

Greece	Ireland	Italy	Luxembourg	Netherlands	Spain	Finland	Portugal	
0.74	n.a.	n.a.	n.a.	0.24	0.83	0.44	0.69	**Table 3.5**
n.a.	n.a.	0.52	n.a.	0.15	0.48	0.26	0.27	
n.a.	n.a.	0.40	n.a.	0.72	0.32	0.66	0.15	
n.a.	n.a.	0.53	n.a.	0.76	0.47	0.6	0.24	
0.17	n.a.	n.a.	n.a.	1.09	0.33	0.22	0.40	
n.a.	0.36	0.60	0.39	0.33	0.42	0.44	0.5	**Table 3.6**
n.a.	0.47	0.17	0.36	0.42	0.32	0.41	0.18	
n.a.	n.a.	n.a.	n.a.	0.48	0.07	0.34	n.a.	
n.a.	1.02	0.23	1.92	1.84	0.29	0.81	0.33	
n.a.	n.a.	3.08	n.a.	1.22	4.8	68.91	6.73	**Table 4.1**
n.a.	n.a.	4.93	n.a.	0.74	3.05	18.25	2.16	
0.74	n.a.	0.51	n.a.	0.90	0.95	0.98	0.84	
1.00	n.a.	0.72	n.a.	0.92	0.96	0.89	0.81	
1.00	n.a.	0.75	n.a.	0.97	0.97	0.74	0.81	
0.56	n.a.	0.29	n.a.	0.67	0.57	0.82	0.56	
0.97	0.77	0.70	27.19	2.00	0.95	2.42	0.56	**Table 4.2**
0	0.21	0.02	0.8	0.44	0.02	0.03	0.01	
0.83	0.3	2.94	0.06	3.70	0.81	1.73	0.52	
0	n.a.	0.10	n.a.	0.40	0.42	0.12	0.015	
n.a.	n.a.	0.51	n.a.	1.27	1.82	1.23	2.37	**Table 5.1**
0.63	n.a.	0.54	n.a.	0.54	0.55	0.75	0.42	
0	n.a.	0.01	n.a.	0.04	0.01	0.02	0.04	
n.a.	n.a.	0.74	n.a.	0.45	0.71	0.25	0.63	
n.a.	n.a.	0.58	n.a.	0.32	0.35	n.a.	0.53	
0.37	n.a.	0.30	n.a.	0.32	0.21	0.19	0.33	
n.a.	n.a.	0.56	n.a.	1.11	0.65	1.07	0.96	
0.68*	n.a.	0.76	n.a.	0.65	0.74	0.77	0.7	**Table 5.2**
0.66	0.76	n.a.	0.73	0.94	0.63	0.7	0.74	**Table 5.3**
n.a.	n.a.	0.16	n.a.	1.74	0.96	0.57	1.60	
n.a.	n.a.	0.23	n.a.	0.92	0.46	0.33	0.64	
n.a.	n.a.	n.a.	n.a.	0.06	0.17	0.09	0.12	
n.a.	n.a.	n.a.	n.a.	n.a.	0.07	0.02	0.11	
n.a.	n.a.	-0.12	n.a.	0.17	0.21	1.55	0.43	**Table 5.4**

Table 1

Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(Amounts outstanding, end-2000)

End-2000	Financial Assets		Liabilities	
% of GDP	[a]	[b]	[c]	[d]
Sectors	Intermediated assets (Deposits, technical reserves, money market funds and mutual fund shares)	Non-intermediated assets (Shares and securities other than shares)	Intermediated liabilities (Loans)	Non-intermediated liabilities (Shares and securities other than shares)
		Average of euro area countries		
Households	124.2	77.9	48.5	0.0
Non-financial corporations	20.9	74.4	68.3	176.9
General government	5.6	19.2	12.3	61.3
Resident non-financial sectors	**150.7**	**171.6**	**129.1**	**238.2**
Non-residents	**50.7**	**115.7**	**24.7**	**99.4**
Total	**202.0**	**301.2**	**150.5**	**355.5**
		Austria		
Households	111.1	16.5	29.2	0.0
Non-financial corporations	20.3	18.2	75.0	32.8
General government	5.6	9.7	14.2	60.8
Resident non-financial sectors	**137.0**	**44.4**	**118.4**	**93.5**
Non-residents	**47.9**	**94.1**	**27.7**	**71.7**
Total	**185.0**	**138.5**	**146.1**	**165.3**
		Belgium		
Households	155.9	144.0	39.8	0.0
Non-financial corporations	22.6	142.3	48.5	229.5
General government	2.5	3.5	12.1	99.2
Resident non-financial sectors	**181.0**	**289.9**	**100.4**	**328.7**
Non-residents	**99.8**	**127.3**	**16.2**	**169.2**
Total	**280.8**	**417.2**	**116.5**	**497.9**
		Germany		
Households	118.4	46.3	73.4	0.0
Non-financial corporations	18.4	59.0	61.7	84.5
General government	11.3	5.3	21.5	38.9
Resident non-financial sectors	**148.1**	**110.6**	**156.6**	**123.4**
Non-residents	**48.4**	**65.0**	**23.9**	**71.5**
Total	**196.5**	**175.7**	**180.5**	**194.9**
		Spain		
Households	105.2	67.3	47.4	0.0
Non-financial corporations	20.9	81.1	61.1	159.3
General government	4.5	9.1	11.7	54.6
Resident non-financial sectors	**130.6**	**157.5**	**120.3**	**213.9**
Non-residents	**39.2**	**64.4**	**8.3**	**62.6**
Total	**169.8**	**221.9**	**128.6**	**276.5**

End-2000	**Financial Assets**		**Liabilities**	
% of GDP	**[a]**	**[b]**	**[c]**	**[d]**
Sectors	Intermediated assets (Deposits, technical reserves, money market funds and mutual fund shares)	Non-intermediated assets (Shares and securities other than shares)	Intermediated liabilities (Loans)	Non-intermediated liabilities (Shares and securities other than shares)
		Finland		
Households	59.5	100.7	33.4	0.0
Non-financial corporations	11.6	70.8	95.1	391.7
General government	5.7	86.1	7.5	56.7
Resident non-financial sectors	**76.8**	**257.6**	**136.1**	**448.4**
Non-residents	**15.3**	**251.6**	**19.6**	**83.1**
Total	**92.1**	**509.3**	**155.7**	**531.5**
		France		
Households	129.5	89.7	35.7	0.0
Non-financial corporations	20.7	150.9	38.9	296.1
General government	6.6	16.9	9.2	49.3
Resident non-financial sectors	**156.8**	**257.5**	**83.8**	**345.5**
Non-residents	**43.3**	**115.5**	**31.7**	**124.4**
Total	**200.1**	**373.0**	**115.6**	**469.9**
		Italy		
Households	95.7	108.0	22.9	0.0
Non-financial corporations	11.0	61.7	54.8	105.3
General government	2.5	10.9	6.3	100.9
Resident non-financial sectors	**109.2**	**180.6**	**84.0**	**206.2**
Non-residents	**17.5**	**59.9**	**11.2**	**76.1**
Total	**126.7**	**240.5**	**95.2**	**282.3**
		Netherlands		
Households	220.5	71.6	91.0	0.0
Non-financial corporations	33.8	44.4	94.2	174.9
General government	3.4	12.4	11.7	46.0
Resident non-financial sectors	**257.8**	**128.4**	**196.8**	**220.9**
Non-residents	**74.4**	**193.4**	**63.3**	**177.4**
Total	**332.2**	**321.8**	**260.1**	**398.3**
		Portugal		
Households	121.9	57.3	64.0	0.0
Non-financial corporations	29.1	41.3	85.0	118.1
General government	7.8	18.9	16.2	45.3
Resident non-financial sectors	**158.7**	**117.5**	**165.3**	**163.4**
Non-residents	**70.3**	**70.1**	**20.7**	**58.7**
Total	**229.0**	**187.6**	**186.0**	**222.1**

Table 1

Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(Amounts outstanding, end-2000)

End-2000	Financial Assets		Liabilities	
% of total (column)	[a]	[b]	[c]	[d]
Sectors	Intermediated assets (Deposits, technical reserves, money market funds and mutual fund shares)	Non-intermediated assets (Shares and securities other than shares)	Intermediated liabilities (Loans)	Non-intermediated liabilities (Shares and securities other than shares)
Average of euro area countries				
Households	62.5	27.2	30.8	0.0
Non-financial corporations	10.6	25.9	45.4	48.7
General government	3.1	6.1	8.2	20.6
Resident non-financial sectors	**76.2**	**59.2**	**84.5**	**69.2**
Non-residents	**23.8**	**40.8**	**15.5**	**30.8**
Total	**100**	**100**	**100**	**100**
Austria				
Households	60.1	11.9	20.0	0.0
Non-financial corporations	11.0	13.1	51.3	19.8
General government	3.0	7.0	9.7	36.8
Resident non-financial sectors	**74.1**	**32.1**	**81.1**	**56.6**
Non-residents	**25.9**	**67.9**	**18.9**	**43.4**
Total	**100**	**100**	**100**	**100**
Belgium				
Households	55.5	34.5	34.1	-
Non-financial corporations	8.1	34.1	41.6	46.1
General government	0.9	0.8	10.4	19.9
Resident non-financial sectors	**64.5**	**69.5**	**86.1**	**66.0**
Non-residents	**35.5**	**30.5**	**13.9**	**34.0**
Total	**100**	**100**	**100**	**100**
Germany				
Households	60.3	26.4	40.7	0.0
Non-financial corporations	9.4	33.6	34.2	43.4
General government	5.8	3.0	11.9	20.0
Resident non-financial sectors	**75.4**	**62.9**	**86.8**	**63.3**
Non-residents	**24.6**	**37.0**	**13.2**	**36.7**
Total	**100**	**100**	**100**	**100**
Spain				
Households	61.9	30.3	36.9	-
Non-financial corporations	12.3	36.5	47.5	57.6
General government	2.6	4.1	9.1	19.7
Resident non-financial sectors	**76.9**	**71.0**	**93.5**	**77.4**
Non-residents	**23.1**	**29.0**	**6.5**	**22.6**
Total	**100**	**100**	**100**	**100**

End-2000	Financial Assets		Liabilities	
% of total (column)	[a]	[b]	[c]	[d]
Sectors	Intermediated assets (Deposits, technical reserves, money market funds and mutual fund shares)	Non-intermediated assets (Shares and securities other than shares)	Intermediated liabilities (Loans)	Non-intermediated liabilities (Shares and securities other than shares)
		Finland		
Households	64.6	19.8	21.5	0.0
Non-financial corporations	12.6	13.9	61.1	73.7
General government	6.2	16.9	4.8	10.7
Resident non-financial sectors	**83.4**	**50.6**	**87.4**	**84.4**
Non-residents	**16.6**	**49.4**	**12.6**	**15.6**
Total	**100**	**100**	**100**	**100**
		France		
Households	64.7	24.0	30.9	0.0
Non-financial corporations	10.3	40.5	33.7	63.0
General government	3.3	4.5	7.9	10.5
Resident non-financial sectors	**78.3**	**69.0**	**72.5**	**73.5**
Non-residents	**21.7**	**31.0**	**27.5**	**26.5**
Total	**100**	**100**	**100**	**100**
		Italy		
Households	75.5	44.9	24.1	0.0
Non-financial corporations	8.7	25.7	57.6	37.3
General government	2.0	4.5	6.6	35.7
Resident non-financial sectors	**86.2**	**75.1**	**88.2**	**73.0**
Non-residents	**13.8**	**24.9**	**11.8**	**27.0**
Total	**100**	**100**	**100**	**100**
		Netherlands		
Households	66.4	22.2	35.0	0.0
Non-financial corporations	10.2	13.8	36.2	43.9
General government	1.0	3.9	4.5	11.6
Resident non-financial sectors	**77.6**	**39.9**	**75.7**	**55.5**
Non-residents	**22.4**	**60.1**	**24.3**	**44.5**
Total	**100**	**100**	**100**	**100**
		Portugal		
Households	53.2	30.5	34.4	0.0
Non-financial corporations	12.7	22.0	45.7	53.2
General government	3.4	10.1	8.7	20.4
Resident non-financial sectors	**69.3**	**62.6**	**88.9**	**73.6**
Non-residents	**30.7**	**37.4**	**11.1**	**26.4**
Total	**100**	**100**	**100**	**100**

Table 1

Distribution of financial assets and liabilities of the resident non-financial sectors and non-residents between intermediated and non-intermediated instruments

(Amounts outstanding, end-2000)

End-2000	**Financial Assets**		**Liabilities**	
% of total (row)	**[a]**	**[b]**	**[c]**	**[d]**
Sectors	Intermediated assets (Deposits, technical reserves, money market funds and mutual fund shares)	Non-intermediated assets (Shares and securities other than shares)	Intermediated liabilities (Loans)	Non-intermediated liabilities (Shares and securities other than shares)
Average of euro area countries				
Households	62.1	37.9	100.0	0.0
Non-financial corporations	26.3	73.7	33.2	66.8
General government	31.5	68.5	18.1	81.9
Resident non-financial sectors	**48.8**	**51.2**	**37.8**	**62.2**
Non-residents	**32.4**	**67.6**	**19.8**	**80.2**
Total	**42.7**	**57.3**	**33.2**	**66.8**
Austria				
Households	87.1	12.9	100.0	0.0
Non-financial corporations	52.8	47.2	69.6	30.4
General government	36.6	63.4	18.9	81.1
Resident non-financial sectors	**75.5**	**24.5**	**55.9**	**44.1**
Non-residents	**33.7**	**66.3**	**27.8**	**72.2**
Total	**57.2**	**42.8**	**46.9**	**53.1**
Belgium				
Households	52.0	48.0	100.0	0.0
Non-financial corporations	13.7	86.3	17.5	82.5
General government	41.8	58.2	10.9	89.1
Resident non-financial sectors	**38.4**	**61.6**	**23.4**	**76.6**
Non-residents	**43.9**	**56.1**	**8.7**	**91.3**
Total	**40.2**	**59.8**	**19.0**	**81.0**
Germany				
Households	71.9	28.1	100.0	0.0
Non-financial corporations	23.8	76.2	42.2	57.8
General government	68.1	31.9	35.6	64.4
Resident non-financial sectors	**57.2**	**42.8**	**55.9**	**44.1**
Non-residents	**42.7**	**57.3**	**25.1**	**74.9**
Total	**52.8**	**47.2**	**48.1**	**51.9**
Spain				
Households	61.0	39.0	100.0	0.0
Non-financial corporations	20.5	79.5	27.7	72.3
General government	33.0	67.0	17.7	82.3
Resident non-financial sectors	**45.3**	**54.7**	**36.0**	**64.0**
Non-residents	**37.8**	**62.2**	**11.7**	**88.3**
Total	**43.3**	**56.7**	**31.7**	**68.3**

End-2000	**Financial Assets**		**Liabilities**	
% of total (row)	**[a]**	**[b]**	**[c]**	**[d]**
Sectors	Intermediated assets (Deposits, technical reserves, money market funds and mutual fund shares)	Non-intermediated assets (Shares and securities other than shares)	Intermediated liabilities (Loans)	Non-intermediated liabilities (Shares and securities other than shares)
		Finland		
Households	37.1	62.9	100.0	0.0
Non-financial corporations	14.1	85.9	19.5	80.5
General government	6.2	93.8	11.7	88.3
Resident non-financial sectors	**23.0**	**77.0**	**23.3**	**76.7**
Non-residents	**5.7**	**94.3**	**19.1**	**80.9**
Total	**15.3**	**84.7**	**22.7**	**77.3**
		France		
Households	59.1	40.9	99.9	0.1
Non-financial corporations	12.0	88.0	11.6	88.4
General government	28.1	71.9	15.7	84.3
Resident non-financial sectors	**37.8**	**62.2**	**19.5**	**80.5**
Non-residents	**27.3**	**72.7**	**20.3**	**79.7**
Total	**34.9**	**65.1**	**19.7**	**80.3**
		Italy		
Households	47.0	53.0	100.0	0.0
Non-financial corporations	15.1	84.9	34.2	65.8
General government	18.7	81.3	5.9	94.1
Resident non-financial sectors	**37.7**	**62.3**	**28.9**	**71.1**
Non-residents	**22.6**	**77.4**	**12.8**	**87.2**
Total	**34.5**	**65.5**	**25.2**	**74.8**
		Netherlands		
Households	75.5	24.5	100.0	0.0
Non-financial corporations	43.2	56.8	35.0	65.0
General government	21.6	78.4	20.3	79.7
Resident non-financial sectors	**66.7**	**33.3**	**47.1**	**52.9**
Non-residents	**27.8**	**72.2**	**26.3**	**73.7**
Total	**50.8**	**49.2**	**39.5**	**60.5**
		Portugal		
Households	68.0	32.0	100.0	0.0
Non-financial corporations	41.3	58.7	41.9	58.1
General government	29.1	70.9	26.4	73.6
Resident non-financial sectors	**57.5**	**42.5**	**50.3**	**49.7**
Non-residents	**50.1**	**49.9**	**26.0**	**74.0**
Total	**55.0**	**45.0**	**45.6**	**54.4**

Table 2

Financial transactions and position by sector

% of GDP	Financial transactions (average 1998-2000) Financial asset acquisition	Liabilities incurrence	Net financial transactions	Amounts outstanding (end-2000) Financial assets	Liabilities	Net financial position
Average of euro area countries						
Households	9.0	5.2	3.8	213.9	55.0	159.0
Non-financial corporations	13.6	16.0	-2.4	147.0	283.0	-136.0
General government	1.2	1.7	-0.5	39.9	81.8	-41.9
Financial corporations	28.9	28.7	0.2	343.5	343.7	-0.2
Total	**52.7**	**51.6**	**1.1**	**744.3**	**763.5**	**-19.2**
Non-residents	**21.4**	**22.6**	**-1.2**	**201.6**	**179.3**	**22.4**
Austria						
Households	7.0	2.3	4.7	133.6	40.1	93.5
Non-financial corporations	5.0	10.6	-5.6	48.8	115.9	-67.1
General government	3.6	4.2	-0.6	32.7	76.7	-44.1
Financial corporations	31.8	32.1	-0.3	350.6	351.2	-0.6
Total	**47.3**	**49.2**	**-1.9**	**565.6**	**583.9**	**-18.3**
Non-residents	**24.1**	**22.2**	**1.9**	**156.3**	**138.0**	**18.3**
Belgium						
Households	10.2	2.1	8.1	308.2	44.4	263.8
Non-financial corporations	12.7	15.5	-2.8	215.9	315.4	-99.4
General government	0.1	0.6	-0.4	12.1	114.3	-102.2
Financial corporations	12.4	12.4	...	366.3	366.3	...
Total	**35.4**	**30.5**	**4.9**	**902.5**	**840.4**	**62.1**
Non-residents	**20.7**	**25.6**	**-4.9**	**271.3**	**333.3**	**-62.1**
Germany						
Households	6.7	3.2	3.5	179.8	74.1	105.8
Non-financial corporations	8.1	11.3	-3.2	102.1	168.5	-66.4
General government	1.0	1.7	-0.6	19.3	60.8	-41.5
Financial corporations	26.6	26.5	0.1	359.3	355.8	3.5
Total	**42.4**	**42.7**	**-0.2**	**660.5**	**659.2**	**1.4**
Non-residents	**18.4**	**18.1**	**0.2**	**134.4**	**135.7**	**-1.3**
Spain						
Households	9.4	7.4	2.1	189.2	58.3	130.9
Non-financial corporations	19.8	22.3	-2.5	175.0	285.6	-110.6
General government	1.8	3.1	-1.3	29.5	72.4	-42.9
Financial corporations	22.4	21.6	0.7	279.4	277.3	2.1
Total	**53.4**	**54.4**	**-1.0**	**673.1**	**693.6**	**-20.6**
Non-residents	**19.1**	**18.1**	**1.0**	**127.9**	**107.3**	**20.6**

% of GDP	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
	Financial asset acquisition	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
			Finland			
Households	5.8	2.5	3.3	161.7	34.9	126.8
Non-financial corporations	19.9	19.7	0.2	159.4	509.4	-350.0
General government	1.8	-2.1	3.9	118.2	70.6	47.6
Financial corporations	14.4	14.8	-0.4	181.2	171.9	9.3
Total	**41.9**	**34.8**	**7.1**	**620.5**	**786.8**	**-166.3**
Non-residents	**21.9**	**29.0**	**-7.1**	**299.8**	**133.5**	**166.3**
			France			
Households	7.5	2.5	5.0	229.5	46.7	182.8
Non-financial corporations	11.9	12.4	-0.4	235.4	398.9	-163.5
General government	0.4	2.3	-1.9	38.0	72.9	-34.9
Financial corporations	53.2	53.1	0.1	429.1	404.3	24.8
Total	**73.0**	**70.3**	**2.7**	**932.0**	**922.8**	**9.2**
Non-residents	**16.2**	**18.9**	**-2.7**	**174.4**	**183.5**	**-9.2**
			Italy			
Households	9.7	3.5	6.2	233.1	30.7	202.3
Non-financial corporations	5.8	8.4	-2.5	102.5	189.7	-87.2
General government	0.4	2.3	-1.9	33.8	133.5	-99.7
Financial corporations	18.7	19.8	-1.1	253.9	257.0	-3.1
Total	**34.7**	**34.0**	**0.7**	**623.2**	**610.9**	**12.4**
Non-residents	**11.2**	**11.8**	**-0.7**	**100.0**	**112.3**	**-12.4**
			Netherlands			
Households	11.9	10.8	1.1	292.7	86.0	206.8
Non-financial corporations	18.9	18.9	0.0	149.0	307.3	-158.3
General government	1.1	0.3	0.7	34.8	70.0	-35.2
Financial corporations	43.0	41.1	1.8	538.5	566.6	-28.1
Total	**74.9**	**71.2**	**3.7**	**1,015.1**	**1,029.9**	**-14.8**
Non-residents	**36.1**	**39.8**	**-3.7**	**315.6**	**300.9**	**14.8**
			Portugal			
Households	12.6	12.4	0.2	197.5	79.5	118.0
Non-financial corporations	20.3	25.4	-5.1	135.0	256.7	-121.7
General government	0.2	2.8	-2.6	40.6	65.0	-24.3
Financial corporations	38.1	37.0	1.1	333.2	342.7	-9.4
Total	**71.1**	**77.6**	**-6.5**	**706.4**	**743.8**	**-37.4**
Non-residents	**22.2**	**15.8**	**6.5**	**168.0**	**125.5**	**42.4**

Table 2

Financial transactions and position by sector

	Average of euro area countries					
	Financial transactions (average 1998-2000)			**Amounts outstanding (end-2000)**		
% of total (column)	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
Households	18.1	9.4	-	28.7	7.3	-
Non-financial corporations	26.3	33.1	-	19.5	36.4	-
General government	2.4	3.1	-	5.8	11.2	-
Financial corporations	53.2	54.4	-	46.1	45.2	-
Total	**100**	**100**	**-**	**100**	**100**	**-**
Non-residents	**-**	**-**	**-**	**-**	**-**	**-**
	Austria					
Households	14.7	4.6	-250.9	23.6	6.9	-510.7
Non-financial corporations	10.5	21.5	300.5	8.6	19.9	366.5
General government	7.6	8.5	32.6	5.8	13.1	240.9
Financial corporations	67.2	65.4	17.9	62.0	60.1	3.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	**-**	**-**	**-**	**-**	**-**	**-**
	Belgium					
Households	28.9	6.8	164.8	34.1	5.3	424.9
Non-financial corporations	35.8	50.7	-56.2	23.9	37.5	-160.2
General government	0.4	1.9	-8.6	1.3	13.6	-164.7
Financial corporations	34.9	40.6	-	40.6	43.6	-
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	**-**	**-**	**-**	**-**	**-**	**-**
	Germany					
Households	15.8	7.5	-1750.0	27.2	11.2	7557.1
Non-financial corporations	19.1	26.5	1600.0	15.5	25.6	-4742.9
General government	2.4	4.0	300.0	2.9	9.2	-2964.3
Financial corporations	62.7	62.1	-50.0	54.4	54.0	250.0
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	**-**	**-**	**-**	**-**	**-**	**-**
	Spain					
Households	17.6	13.5	-196.9	28.1	8.4	-636.1
Non-financial corporations	37.1	41.0	238.4	26.0	41.2	537.7
General government	3.3	5.7	126.7	4.4	10.4	208.4
Financial corporations	41.9	39.8	-68.2	41.5	40.0	-10.1
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	**-**	**-**	**-**	**-**	**-**	**-**

	Financial transactions (average 1998-2000)			Amounts outstanding (end-2000)		
% of total (column)	**Financial asset acquisition**	**Liabilities incurrence**	**Net financial transactions**	**Financial assets**	**Liabilities**	**Net financial position**
			Finland			
Households	13.8	7.1	46.9	26.1	4.4	-76.2
Non-financial corporations	47.4	56.5	2.7	25.7	64.7	210.4
General government	4.4	-6.0	55.6	19.0	9.0	-28.6
Financial corporations	34.4	42.4	-5.2	29.2	21.9	-5.6
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	-	-	-	-	-	-
			France			
Households	10.2	3.6	182.7	24.6	5.1	1987.8
Non-financial corporations	16.3	17.6	-16.4	25.3	43.2	-1777.5
General government	0.6	3.2	-68.5	4.1	7.9	-379.6
Financial corporations	72.9	75.6	2.2	46.0	43.8	269.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	-	-	-	-	-	-
			Italy			
Households	28.0	10.3	923.8	37.4	5.0	1637.5
Non-financial corporations	16.8	24.6	-375.5	16.4	31.1	-705.7
General government	1.2	6.8	-285.0	5.4	21.8	-806.6
Financial corporations	54.0	58.3	-163.4	40.7	42.1	-25.2
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	-	-	-	-	-	-
			Netherlands			
Households	15.9	15.2	30.1	28.8	8.3	-1397.9
Non-financial corporations	25.3	26.6	-0.7	14.7	29.8	1070.0
General government	1.4	0.5	20.2	3.4	6.8	238.1
Financial corporations	57.4	57.7	50.4	53.1	55.0	189.8
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	-	-	-	-	-	-
			Portugal			
Households	17.7	16.0	-3.2	28.0	10.7	-315.2
Non-financial corporations	28.5	32.7	79.1	19.1	34.5	325.1
General government	0.3	3.6	40.5	5.8	8.7	65.0
Financial corporations	53.5	47.7	-16.3	47.2	46.1	25.2
Total	**100**	**100**	**100**	**100**	**100**	**100**
Non-residents	-	-	-	-	-	-

Table 3.1

Acquisitions of financial assets in the form of intermediation-oriented instruments by sector

Average financial transactions, 1998-2000 *(as a % of GDP)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
Average of euro area countries				
Households	1.6	2.3	3.6	0.7
Non-financial corporations	0.7	0.3	0.1	1.1
General government	0.6	0.1	0.0	0.1
Financial corporations	2.1	1.7	0.0	3.6
Resident sectors	**5.0**	**4.4**	**3.7**	**5.5**
Non-residents	**4.1**	**0.4**	**0.1**	**-**
Total	**9.1**	**4.8**	**4.0**	**5.5**
Austria				
Households	1.8	2.6	2.4	0.5
Non-financial corporations	0.7	1.4	0.0	0.1
General government	-0.1	0.1	0.0	0.3
Financial corporations	5.8	4.4	0.0	2.2
Resident sectors	**8.3**	**8.4**	**2.4**	**3.0**
Non-residents	**4.7**	**0.2**	**0.0**	**-**
Total	**12.9**	**8.6**	**2.4**	**3.0**
Belgium				
Households	1.5	5.0	3.4	1.6
Non-financial corporations	0.6	0.0	0.1	1.4
General government	0.1	0.0	0.0	0.2
Financial corporations	-1.8	1.0	0.0	-1.3
Resident sectors	**0.4**	**6.1**	**3.5**	**1.8**
Non-residents	**-2.5**	**0.3**	**-**	**-**
Total	**-2.1**	**6.4**	**3.5**	**1.8**
Germany				
Households	0.5	2.2	3.1	-
Non-financial corporations	0.3	0.4	0.1	-
General government	1.0	0.0	0.0	-
Financial corporations	3.0	2.6	0.0	-
Resident sectors	**4.8**	**5.2**	**3.2**	**-**
Non-residents	**6.0**	**0.2**	**0.3**	**-**
Total	**10.8**	**5.4**	**3.4**	**-**
Spain				
Households	3.0	1.1	3.0	0.7
Non-financial corporations	0.9	0.3	0.3	0.0
General government	0.4	0.0	0.0	0.0
Financial corporations	-1.3	1.2	0.2	1.9
Resident sectors	**3.0**	**2.6**	**3.5**	**2.5**
Non-residents	**5.6**	**0.1**	**0.0**	**-**
Total	**8.6**	**2.6**	**3.5**	**2.5**

Average financial transactions, 1998-2000 *(as a % of GDP)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
		Finland		
Households	1.3	1.6	2.2	-
Non-financial corporations	0.0	0.5	-	-
General government	3.1	0.5	-	-
Financial corporations	0.4	0.1	-	-
Resident sectors	**4.7**	**2.7**	**2.2**	**-**
Non-residents	**2.5**	**0.5**	**-**	**-**
Total	**7.2**	**3.2**	**-**	**-**
		France		
Households	1.4	0.5	4.8	0.0
Non-financial corporations	0.5	0.1	0.0	0.2
General government	0.1	0.1	0.0	0.0
Financial corporations	3.3	3.2	0.0	-0.1
Resident sectors	**5.3**	**4.0**	**4.8**	**0.0**
Non-residents	**2.6**	**0.1**	**0.0**	**-**
Total	**7.9**	**4.0**	**4.8**	**0.0**
		Italy		
Households	-1.5	7.3	2.8	1.3
Non-financial corporations	0.6	0.1	0.1	0.1
General government	0.2	0.0	0.0	0.1
Financial corporations	3.6	0.1	0.0	-1.1
Resident sectors	**2.8**	**7.6**	**2.9**	**0.4**
Non-residents	**1.1**	**0.0**	**0.0**	**-**
Total	**3.9**	**7.6**	**2.9**	**0.4**
		Netherlands		
Households	2.2	-0.1	7.4	0.2
Non-financial corporations	1.1	0.1	0.1	5.1
General government	0.1	0.0	0.0	0.2
Financial corporations	1.6	2.0	0.0	23.9
Resident sectors	**5.1**	**2.0**	**7.5**	**29.5**
Non-residents	**5.1**	**2.4**	**0.0**	**-**
Total	**10.2**	**4.4**	**7.5**	**29.5**
		Portugal		
Households	4.1	0.4	3.6	0.9
Non-financial corporations	1.8	0.1	0.1	0.7
General government	0.3	0.0	0.0	0.0
Financial corporations	4.8	0.3	0.0	-0.3
Resident sectors	**10.9**	**0.8**	**3.7**	**1.3**
Non-residents	**11.6**	**0.0**	**0.0**	**-**
Total	**22.5**	**0.8**	**3.7**	**1.3**

Table 3.1

Acquisitions of financial assets in the form of intermediation-oriented instruments by sector

Average financial transactions, 1998-2000 *(% of total, column)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
		Average of euro area countries		
Households	1.7	44.5	96.0	62.5
Non-financial corporations	3.7	7.8	2.4	88.4
General government	6.4	2.3	0.0	6.1
Financial corporations	35.5	36.2	0.6	-57.0
Resident sectors	**47.2**	**90.8**	**99.0**	**100**
Non-residents	**52.8**	**9.2**	**1.5**	**-**
Total	**100**	**100**	**100**	**100**
		Austria		
Households	14.2	30.0	100	15.4
Non-financial corporations	5.8	16.0	0.0	2.1
General government	-0.5	0.6	0.0	8.7
Financial corporations	44.5	50.6	0.0	73.9
Resident sectors	**63.9**	**97.3**	**100**	**100**
Non-residents	**36.1**	**2.7**	**0.0**	**-**
Total	**100**	**100**	**100**	**100**
		Belgium		
Households	-73.3	78.6	98.1	90.2
Non-financial corporations	-27.9	0.0	1.9	75.5
General government	-7.1	0.0	0.0	9.1
Financial corporations	86.8	16.4	0.0	-74.8
Resident sectors	**-21.6**	**95.0**	**100**	**100**
Non-residents	**121.6**	**4.7**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Germany		
Households	4.6	40.7	91.2	-
Non-financial corporations	2.8	7.4	2.9	-
General government	9.3	0.0	0.0	-
Financial corporations	27.8	48.1	0.0	-
Resident sectors	**44.4**	**96.3**	**94.1**	**-**
Non-residents	**55.6**	**3.7**	**8.8**	**-**
Total	**100**	**100**	**100**	**100**
		Spain		
Households	34.7	42.3	87.6	25.7
Non-financial corporations	10.3	10.8	7.9	-0.2
General government	5.0	0.0	0.0	0.0
Financial corporations	-15.3	44.1	4.9	74.5
Resident sectors	**34.7**	**97.3**	**100.4**	**100**
Non-residents	**65.3**	**2.7**	**-0.4**	**-**
Total	**100**	**100**	**100**	**100**

Average financial transactions, 1998-2000 *(% of total, column)*	Monetary financial institutions (MFIs)	Other financial intermediaries (OFIs)	Insurance corporations and pension funds (ICPFs)	Non-resident intermediaries
		Finland		
Households	17.7	51.3	-	-
Non-financial corporations	0.6	14.3	-	-
General government	42.6	15.7	-	-
Financial corporations	4.9	3.4	-	-
Resident sectors	**65.7**	**84.6**	**-**	**-**
Non-residents	**34.3**	**15.4**	**-**	**-**
Total	**100**	**100**	**-**	**-**
		France		
Households	17.2	13.6	99.7	-93.6
Non-financial corporations	6.6	3.1	-0.5	440.8
General government	1.6	2.3	0.1	-1.1
Financial corporations	41.5	79.2	0.0	-246.1
Resident sectors	**66.9**	**98.1**	**99.3**	**100**
Non-residents	**33.1**	**1.9**	**0.7**	**-**
Total	**100**	**100**	**100**	**100**
		Italy		
Households	-39.8	96.5	95.4	329.6
Non-financial corporations	16.1	1.3	2.9	32.9
General government	4.0	0.3	0.2	24.7
Financial corporations	92.0	1.8	0.1	-287.3
Resident sectors	**72.4**	**99.9**	**98.6**	**100**
Non-residents	**27.6**	**0.1**	**1.4**	**-**
Total	**100**	**100**	**100**	**100**
		Netherlands		
Households	21.6	-2.1	99.0	0.8
Non-financial corporations	11.3	1.5	1.2	17.4
General government	1.0	-1.1	0.0	0.6
Financial corporations	15.9	46.5	0.0	81.2
Resident sectors	**49.9**	**44.8**	**100.2**	**100**
Non-residents	**50.1**	**55.2**	**-0.2**	**-**
Total	**100**	**100**	**100**	**100**
		Portugal		
Households	18.1	49.2	97.1	69.3
Non-financial corporations	7.8	15.6	2.4	50.1
General government	1.4	2.9	0.0	1.0
Financial corporations	21.2	35.8	0.2	-20.3
Resident sectors	**48.5**	**103.4**	**99.7**	**100**
Non-residents	**51.5**	**-3.4**	**0.3**	**-**
Total	**100**	**100**	**100**	**100**

Table 3.1

Holdings of financial assets in the form of intermediated instruments by sector

Outstanding amounts, end-2000 *(as a % of GDP)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
		Average of euro area countries		
Households	53.0	16.3	45.7	9.6
Non-financial corporations	12.4	2.8	1.3	6.8
General government	4.4	0.4	0.1	0.6
Financial corporations	33.5	11.5	0.2	44.8
Resident sectors	**103.4**	**31.0**	**47.2**	**61.8**
Non-residents	**47.7**	**1.7**	**0.8**	**-**
Total	**143.6**	**30.6**	**48.3**	**60.5**
		Austria		
Households	68.0	14.5	28.0	1.5
Non-financial corporations	12.2	7.1	0.0	1.0
General government	4.0	0.2	0.0	0.8
Financial corporations	50.7	19.0	0.0	24.5
Resident sectors	**135.0**	**40.8**	**28.0**	**27.9**
Non-residents	**41.5**	**3.7**	**0.0**	**-**
Total	**176.4**	**44.5**	**28.0**	**27.9**
		Belgium		
Households	55.8	27.1	35.1	37.9
Non-financial corporations	15.6	-	2.1	4.9
General government	1.8	0.1	-	0.6
Financial corporations	27.3	5.3	-	59.5
Resident sectors	**100.5**	**32.5**	**37.2**	**102.9**
Non-residents	**96.0**	**0.7**	**-**	**-**
Total	**196.5**	**33.2**	**37.2**	**102.9**
		Germany		
Households	58.7	19.0	40.7	-
Non-financial corporations	12.3	4.5	1.6	-
General government	10.4	0.7	0.2	-
Financial corporations	43.9	20.6	0.0	-
Resident sectors	**125.3**	**44.8**	**42.5**	**-**
Non-residents	**45.2**	**0.9**	**2.3**	**-**
Total	**170.5**	**45.8**	**44.7**	**-**
		Spain		
Households	59.2	18.8	21.9	5.3
Non-financial corporations	14.3	2.1	2.2	2.3
General government	4.5	-	-	-
Financial corporations	37.3	3.9	0.9	21.1
Resident sectors	**115.2**	**24.8**	**25.0**	**28.8**
Non-residents	**38.7**	**0.5**	**0.0**	**-**
Total	**154.0**	**25.3**	**25.1**	**28.8**

Outstanding amounts, end-2000 *(as a % of GDP)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
		Finland		
Households	35.6	5.5	16.4	-
Non-financial corporations	8.2	1.4	1.3	0.3
General government	4.8	0.6	0.1	0.2
Financial corporations	5.4	1.7	0.3	13.8
Resident sectors	**54.1**	**9.3**	**18.1**	**14.3**
Non-residents	**11.9**	**0.9**	**2.1**	**-**
Total	**66.0**	**10.1**	**20.2**	**14.3**
		France		
Households	53.8	12.6	53.5	3.0
Non-financial corporations	15.1	3.7	0.8	0.5
General government	2.7	1.3	0.0	0.1
Financial corporations	68.3	20.2	0.0	28.7
Resident sectors	**139.9**	**37.8**	**54.4**	**32.3**
Non-residents	**40.3**	**0.9**	**0.2**	**-**
Total	**139.9**	**37.8**	**54.4**	**32.3**
		Italy		
Households	38.8	34.3	18.2	4.3
Non-financial corporations	8.3	0.5	1.4	0.8
General government	1.9	0.1	0.1	0.4
Financial corporations	23.2	2.5	0.1	6.9
Resident sectors	**72.2**	**37.4**	**19.8**	**12.4**
Non-residents	**16.5**	**0.4**	**0.6**	**-**
Total	**88.7**	**37.8**	**20.5**	**12.4**
		Netherlands		
Households	34.9	1.5	164.3	11.5
Non-financial corporations	9.5	0.4	1.3	35.7
General government	1.7	0.3	-	1.8
Financial corporations	13.6	24.7	-	176.7
Resident sectors	**59.7**	**27.0**	**165.6**	**225.8**
Non-residents	**69.1**	**7.2**	**0.9**	**-**
Total	**128.8**	**34.1**	**166.5**	**225.8**
		Portugal		
Households	72.2	13.3	32.7	3.8
Non-financial corporations	16.5	2.7	1.2	8.7
General government	7.6	0.1	0.0	0.0
Financial corporations	32.3	5.1	0.1	27.1
Resident sectors	**128.6**	**21.3**	**33.9**	**39.6**
Non-residents	**69.8**	**0.4**	**0.5**	**-**
Total	**198.3**	**21.7**	**34.4**	**39.6**

Table 3.1

Holdings of financial assets in the form of intermediated instruments by sector

Outstanding amounts, end-2000 *(% of total, column)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
		Average of euro area countries		
Households	37.7	52.8	92.8	14.9
Non-financial corporations	8.9	8.1	4.1	8.0
General government	3.2	1.4	0.1	1.2
Financial corporations	22.5	32.5	0.6	75.9
Resident sectors	**72.3**	**94.8**	**97.7**	**100**
Non-residents	**30.9**	**5.4**	**2.4**	**-**
Total	**100**	**100**	**100**	**100**
		Austria		
Households	38.6	32.6	100.0	5.5
Non-financial corporations	6.9	16.0	0.0	3.6
General government	2.3	0.4	0.0	2.9
Financial corporations	28.7	42.7	0.0	88.0
Resident sectors	**76.5**	**91.7**	**100**	**100**
Non-residents	**23.5**	**8.3**	**0.0**	**-**
Total	**100**	**100**	**100**	**100**
		Belgium		
Households	28.4	81.7	94.4	36.8
Non-financial corporations	7.9	0.0	5.6	4.8
General government	0.9	0.2	0.0	0.6
Financial corporations	13.9	16.1	0.0	57.8
Resident sectors	**51.1**	**98.0**	**100**	**100**
Non-residents	**48.9**	**2.0**	**0.0**	**-**
Total	**100**	**100**	**100**	**100**
		Germany		
Households	34.4	41.5	91.1	-
Non-financial corporations	7.2	9.8	3.6	-
General government	6.1	1.5	0.4	-
Financial corporations	25.7	45.0	0.0	-
Resident sectors	**73.5**	**97.8**	**95.1**	**-**
Non-residents	**26.5**	**2.0**	**5.1**	**-**
Total	**100**	**100**	**100**	**-**
		Spain		
Households	38.4	74.3	87.4	18.5
Non-financial corporations	9.3	8.3	8.7	8.0
General government	2.9	-	-	0.0
Financial corporations	24.2	15.5	3.7	73.4
Resident sectors	**74.9**	**98.1**	**99.9**	**99.9**
Non-residents	**25.1**	**1.9**	**0.1**	**-**
Total	**100**	**100**	**100**	**100**

Outstanding amounts, end-2000 *(% of total, column)*	**Monetary financial institutions (MFIs)**	**Other financial intermediaries (OFIs)**	**Insurance corporations and pension funds (ICPFs)**	**Non-resident intermediaries**
		Finland		
Households	54.0	54.6	81.2	-
Non-financial corporations	12.5	14.1	6.6	1.8
General government	7.3	5.8	0.3	1.6
Financial corporations	8.1	17.1	1.4	96.6
Resident sectors	**81.9**	**91.6**	**89.5**	**100**
Non-residents	**18.1**	**8.4**	**10.5**	**-**
Total	**100**	**100**	**100**	**100**
		France		
Households	38.5	33.4	98.4	9.3
Non-financial corporations	10.8	9.9	1.5	1.4
General government	1.9	3.4	0.1	0.3
Financial corporations	48.8	53.4	0.0	89.0
Resident sectors	**100**	**100**	**100**	**100**
Non-residents	**28.8**	**2.3**	**0.3**	**-**
Total	**100**	**100**	**100**	**100**
		Italy		
Households	43.8	90.9	89.1	34.6
Non-financial corporations	9.3	1.3	6.9	6.7
General government	2.2	0.3	0.4	3.2
Financial corporations	26.2	6.6	0.4	55.5
Resident sectors	**81.4**	**99.1**	**96.8**	**100**
Non-residents	**18.6**	**0.9**	**3.2**	**-**
Total	**100**	**100**	**100**	**100**
		Netherlands		
Households	27.1	4.4	98.7	5.1
Non-financial corporations	7.4	1.3	0.8	15.8
General government	1.3	1.0	0.0	0.8
Financial corporations	10.6	72.3	0.0	78.3
Resident sectors	**46.4**	**79.0**	**99.5**	**100**
Non-residents	**53.6**	**21.0**	**0.5**	**-**
Total	**100**	**100**	**100**	**100**
		Portugal		
Households	36.4	61.5	95.0	9.5
Non-financial corporations	8.3	12.4	3.4	22.0
General government	3.8	0.4	0.0	0.1
Financial corporations	16.3	23.7	0.2	68.4
Resident sectors	**64.8**	**98.0**	**98.6**	**100**
Non-residents	**35.2**	**2.0**	**1.4**	**-**
Total	**100**	**100**	**100**	**100**

Table 3.1

Holdings of financial assets in the form of intermediated instruments by sector

Outstanding amounts, end-2000 *(% of total, row)*	Monetary financial institutions (MFIs)	Other financial intermediaries (OFIs)	Insurance corporations and pension funds (ICPFs)	Non-resident intermediaries
Average of euro area countries				
Households	47.1	14.6	33.1	5.8
Non-financial corporations	62.8	12.8	7.1	19.5
General government	79.4	7.5	0.8	13.8
Financial corporations	46.8	12.9	0.4	44.9
Resident sectors	**236.1**	**47.9**	**41.4**	**83.9**
Non-residents	**93.7**	**3.5**	**2.8**	**-**
Total	**56.3**	**12.7**	**15.7**	**17.2**
Austria				
Households	60.7	12.9	25.0	1.4
Non-financial corporations	60.1	35.0	0.0	4.9
General government	79.9	4.0	0.0	16.2
Financial corporations	53.8	20.2	0.0	26.0
Resident sectors	**58.3**	**17.6**	**12.1**	**12.0**
Non-residents	**91.8**	**8.2**	**0.0**	**-**
Total	**63.7**	**16.1**	**10.1**	**10.1**
Belgium				
Households	35.8	17.4	22.5	24.3
Non-financial corporations	69.0	0.0	9.3	21.7
General government	74.0	2.3	0.0	23.7
Financial corporations	29.6	5.8	0.0	64.6
Resident sectors	**36.8**	**11.9**	**13.6**	**37.7**
Non-residents	**99.3**	**0.7**	**0.0**	**-**
Total	**53.1**	**9.0**	**10.1**	**27.8**
Germany				
Households	49.6	16.0	34.4	-
Non-financial corporations	66.8	24.5	8.7	-
General government	92.0	6.2	1.8	-
Financial corporations	68.1	31.9	0.0	-
Resident sectors	**58.9**	**21.1**	**20.0**	**-**
Non-residents	**93.4**	**1.9**	**4.8**	**-**
Total	**65.3**	**17.5**	**17.1**	**-**
Spain				
Households	56.2	17.9	20.8	5.1
Non-financial corporations	68.4	10.1	10.5	11.1
General government	100.0	0.0	0.0	0.0
Financial corporations	58.9	6.2	1.5	33.4
Resident sectors	**59.4**	**12.8**	**12.9**	**14.8**
Non-residents	**98.7**	**1.2**	**0.1**	**-**
Total	**66.1**	**10.8**	**10.8**	**12.4**

Outstanding amounts, end-2000 *(% of total, row)*	Monetary financial institutions (MFIs)	Other financial intermediaries (OFIs)	Insurance corporations and pension funds (ICPFs)	Non-resident intermediaries
		Finland		
Households	61.9	9.6	28.5	-
Non-financial corporations	73.2	12.7	11.8	2.3
General government	84.9	10.2	0.9	4.0
Financial corporations	25.3	8.2	1.4	65.2
Resident sectors	**56.5**	**9.7**	**18.9**	**14.9**
Non-residents	**80.0**	**5.7**	**14.3**	**-**
Total	**59.7**	**9.1**	**18.3**	**12.9**
		France		
Households	43.8	10.3	43.5	2.4
Non-financial corporations	75.1	18.6	4.1	2.3
General government	65.4	31.1	1.0	2.5
Financial corporations	58.2	17.2	0.0	24.5
Resident sectors	**52.9**	**14.3**	**20.6**	**12.2**
Non-residents	**97.5**	**2.1**	**0.4**	**-**
Total	**52.9**	**14.3**	**20.6**	**12.2**
		Italy		
Households	40.6	35.9	19.1	4.5
Non-financial corporations	75.3	4.3	12.8	7.6
General government	76.7	4.1	3.4	15.8
Financial corporations	71.0	7.6	0.2	21.1
Resident sectors	**50.9**	**26.4**	**14.0**	**8.8**
Non-residents	**94.3**	**2.0**	**3.7**	**-**
Total	**55.7**	**23.7**	**12.8**	**7.8**
		Netherlands		
Households	16.5	0.7	77.4	5.4
Non-financial corporations	20.3	0.9	2.7	76.1
General government	43.7	8.7	0.0	47.6
Financial corporations	6.3	11.5	0.0	82.2
Resident sectors	**12.5**	**5.6**	**34.6**	**47.2**
Non-residents	**89.5**	**9.3**	**1.2**	**-**
Total	**23.2**	**6.1**	**30.0**	**40.7**
		Portugal		
Households	59.2	10.9	26.8	3.1
Non-financial corporations	56.8	9.3	4.0	30.0
General government	98.2	1.1	0.1	0.6
Financial corporations	50.0	8.0	0.1	41.9
Resident sectors	**57.6**	**9.5**	**15.2**	**17.7**
Non-residents	**98.7**	**0.6**	**0.7**	**-**
Total	**67.5**	**7.4**	**11.7**	**13.5**

Table 4.1

Acquisitions of financial assets in the form of non-intermediated instruments by sector

(Average financial transactions, 1998-2000)

(as a % of GDP)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
	Average of euro area countries			
Households	0.5	-0.4	0.7	0.2
Non-financial corporations	2.1	0.3	4.2	0.3
General government	-0.6	0.3	0.3	0.8
Financial corporations	1.5	3.2	4.5	5.2
Resident sectors	**3.5**	**3.4**	**9.6**	**6.3**
Non-residents	**5.9**	**7.3**	**-**	**-**
Total	**8.7**	**10.1**	**9.7**	**6.3**
	Austria			
Households	0.6	-1.5	0.7	0.0
Non-financial corporations	-0.2	-0.9	1.4	0.1
General government	0.2	0.8	0.0	0.3
Financial corporations	0.7	-0.5	2.8	7.3
Resident sectors	**1.2**	**-2.1**	**5.0**	**7.7**
Non-residents	**2.1**	**13.2**	**-**	**-**
Total	**3.4**	**11.1**	**5.0**	**7.7**
	Belgium			
Households	-0.7	-0.8	2.6	0.5
Non-financial corporations	-1.0	0.1	3.4	0.1
General government	-0.5	0.2	-	-
Financial corporations	0.3	-4.0	4.4	7.2
Resident sectors	**-1.9**	**-4.4**	**10.4**	**7.8**
Non-residents	**9.6**	**6.5**	**-**	**-**
Total	**7.7**	**2.1**	**10.4**	**7.8**
	Germany			
Households	0.7	-0.1	-	-
Non-financial corporations	4.4	1.4	-	-
General government	-0.5	0.0	-	-
Financial corporations	4.7	6.7	-	-
Resident sectors	**9.3**	**8.0**	**-**	**-**
Non-residents	**2.8**	**5.1**	**-**	**-**
Total	**11.9**	**13.1**	**-**	**-**
	Spain			
Households	0.1	-0.2	0.1	0.4
Non-financial corporations	1.8	0.3	6.5	0.5
General government	-0.4	0.1	0.0	-
Financial corporations	1.3	0.6	3.1	2.4
Resident sectors	**2.7**	**0.7**	**9.8**	**3.3**
Non-residents	**5.2**	**4.5**	**-**	**-**
Total	**7.9**	**5.1**	**9.8**	**3.3**

(as a % of GDP)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
		Finland		
Households	2.4	-0.1	1.0	0.0
Non-financial corporations	8.9	-0.2	7.7	0.0
General government	-0.6	0.7	1.6	4.2
Financial corporations	0.2	0.4	5.3	2.7
Resident sectors	**10.8**	**0.8**	**15.5**	**6.9**
Non-residents	**13.5**	**1.0**	**-**	**-**
Total	**24.3**	**1.7**	**15.5**	**6.9**
		France		
Households	0.2	-0.2	0.2	0.0
Non-financial corporations	-0.8	0.0	5.9	1.3
General government	0.0	0.0	0.0	0.0
Financial corporations	2.9	31.8	2.1	3.9
Resident sectors	**2.2**	**31.6**	**8.2**	**5.2**
Non-residents	**4.4**	**6.7**	**-**	**-**
Total	**6.6**	**38.3**	**8.2**	**5.2**
		Italy		
Households	-0.6	-3.0	0.9	0.5
Non-financial corporations	2.9	-0.1	0.4	0.2
General government	-1.1	0.0	0.1	0.1
Financial corporations	1.3	0.2	5.3	3.2
Resident sectors	**2.5**	**-2.8**	**6.6**	**4.0**
Non-residents	**0.5**	**7.7**	**-**	**-**
Total	**3.0**	**4.9**	**6.6**	**4.0**
		Netherlands		
Households	1.0	0.3	0.1	0.0
Non-financial corporations	0.0	0.2	4.1	0.1
General government	-0.6	0.0	0.1	0.0
Financial corporations	-0.9	-2.5	11.8	10.6
Resident sectors	**-0.5**	**-2.1**	**16.1**	**10.7**
Non-residents	**8.4**	**14.5**	**-**	**-**
Total	**7.9**	**12.5**	**16.1**	**10.7**
		Portugal		
Households	0.8	2.5	0.1	0.1
Non-financial corporations	3.2	1.7	4.0	0.4
General government	-1.5	0.6	0.0	0.1
Financial corporations	2.8	-4.0	1.5	4.4
Resident sectors	**5.4**	**0.9**	**5.6**	**5.0**
Non-residents	**3.7**	**4.3**	**-**	**-**
Total	**9.0**	**5.2**	**5.6**	**5.0**

Table 4.1

Acquisitions of financial assets in the form of non-intermediated instruments by sector

(Average financial transactions, 1998-2000)

(as a % of total, column)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
	Average of euro area countries			
Households	3.5	-8.4	8.2	4.4
Non-financial corporations	21.8	3.9	43.7	7.2
General government	-8.1	7.9	1.8	8.5
Financial corporations	20.7	-13.0	46.3	80.0
Resident sectors	**37.8**	**-9.6**	**99.9**	**100.1**
Non-residents	**62.4**	**109.8**	**-**	**-**
Total	**100**	**100**	**100**	**100**
	Austria			
Households	17.5	-13.3	14.6	0.5
Non-financial corporations	-7.3	-8.5	28.2	1.1
General government	6.3	7.1	1.0	3.6
Financial corporations	19.5	-4.5	56.3	94.9
Resident sectors	**36.1**	**-19.2**	**100**	**100**
Non-residents	**63.9**	**119.2**	**-**	**-**
Total	**100**	**100**	**100**	**100**
	Belgium			
Households	-8.5	-37.4	25.2	6.3
Non-financial corporations	-13.0	6.7	32.7	1.1
General government	-6.8	8.3	0.0	0.0
Financial corporations	3.7	-188.6	41.8	92.7
Resident sectors	**-24.5**	**-211.0**	**99.7**	**100**
Non-residents	**124.5**	**311.0**	**-**	**-**
Total	**100**	**100**	**100**	**100**
	Germany			
Households	5.9	-0.8	-	-
Non-financial corporations	37.0	10.7	-	-
General government	-4.2	0.0	-	-
Financial corporations	39.5	51.1	-	-
Resident sectors	**78.2**	**61.1**	**-**	**-**
Non-residents	**23.5**	**38.9**	**-**	**-**
Total	**100**	**100**	**-**	**-**
	Spain			
Households	1.0	-4.6	1.4	11.7
Non-financial corporations	22.4	4.9	66.4	15.6
General government	-5.1	1.3	0.0	0.0
Financial corporations	16.0	11.7	31.9	73.7
Resident sectors	**34.3**	**13.3**	**99.6**	**101.0**
Non-residents	**65.8**	**88.2**	**-**	**-**
Total	**100**	**100**	**100**	**100**

(as a % of total, column)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
		Finland		
Households	9.7	-8.3	6.2	0.1
Non-financial corporations	36.5	-12.2	49.3	0.3
General government	-2.7	42.1	10.4	60.1
Financial corporations	0.9	22.2	34.1	39.5
Resident sectors	**44.5**	**43.8**	**100**	**100**
Non-residents	**55.5**	**56.2**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		France		
Households	2.7	-0.6	2.5	0.6
Non-financial corporations	-12.3	0.0	71.6	25.5
General government	-0.2	0.1	0.2	0.1
Financial corporations	43.3	82.9	25.8	73.8
Resident sectors	**33.4**	**82.4**	**100**	**100**
Non-residents	**66.6**	**17.6**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Italy		
Households	-19.6	-60.4	13.6	13.6
Non-financial corporations	97.4	-1.1	5.3	5.9
General government	-36.1	0.1	1.2	2.1
Financial corporations	42.7	3.8	79.8	78.4
Resident sectors	**84.4**	**-57.6**	**100**	**100**
Non-residents	**15.6**	**157.6**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Netherlands		
Households	13.2	2.1	0.8	0.0
Non-financial corporations	-0.1	1.5	25.3	0.8
General government	-8.1	0.4	0.5	0.4
Financial corporations	-11.0	-20.4	73.4	98.8
Resident sectors	**-6.1**	**-16.4**	**100**	**100**
Non-residents	**106.1**	**116.4**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Portugal		
Households	9.1	48.0	1.2	2.8
Non-financial corporations	35.5	33.1	71.0	7.3
General government	-16.5	11.6	0.7	1.7
Financial corporations	31.3	-75.4	27.1	88.2
Resident sectors	**59.4**	**17.3**	**100**	**100**
Non-residents	**40.6**	**82.7**	**-**	**-**
Total	**100**	**100**	**100**	**100**

Table 4.1

Holdings of financial assets in the form of non-intermediated instruments by sector

(Amounts outstanding, end-2000)

(as a % of GDP)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
		Average of euro area countries		
Households	54.6	13.4	5.8	5.2
Non-financial corporations	42.4	5.0	28.5	1.6
General government	13.4	3.6	1.6	2.7
Financial corporations	33.9	47.5	24.7	32.3
Resident sectors	**142.9**	**69.5**	**60.5**	**41.1**
Non-residents	**69.8**	**46.0**	**-**	**-**
Total	**212.7**	**118.5**	**60.5**	**41.1**
		Austria		
Households	3.4	8.5	4.3	1.8
Non-financial corporations	2.5	3.7	11.5	1.2
General government	3.5	5.5	0.6	0.2
Financial corporations	16.7	34.1	17.7	40.6
Resident sectors	**26.0**	**51.8**	**34.1**	**43.8**
Non-residents	**19.9**	**74.2**	**-**	**-**
Total	**45.9**	**126.0**	**34.1**	**43.8**
		Belgium		
Households	59.6	34.9	20.6	29.0
Non-financial corporations	94.5	2.4	44.7	0.7
General government	-	3.5	-	-
Financial corporations	9.5	59.9	24.6	53.3
Resident sectors	**163.5**	**100.7**	**89.9**	**83.0**
Non-residents	**77.2**	**50.2**	**-**	**-**
Total	**240.7**	**150.8**	**89.9**	**83.0**
		Germany		
Households	28.1	18.3	-	-
Non-financial corporations	51.1	7.9	-	-
General government	4.7	0.5	-	-
Financial corporations	54.3	71.6	-	-
Resident sectors	**138.2**	**98.3**	**-**	**-**
Non-residents	**25.9**	**39.1**	**-**	**-**
Total	**164.1**	**137.4**	**-**	**-**
		Spain		
Households	62.6	2.3	1.1	1.3
Non-financial corporations	50.8	2.0	26.8	1.5
General government	8.7	0.3	0.2	-
Financial corporations	31.8	37.7	11.7	20.1
Resident sectors	**153.9**	**42.3**	**39.7**	**22.9**
Non-residents	**36.8**	**27.6**	**-**	**-**
Total	**190.7**	**69.9**	**39.7**	**22.9**

(as a % of GDP)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
		Finland		
Households	102.8	1.4	2.6	0.5
Non-financial corporations	35.3	8.5	28.4	0.6
General government	48.5	15.8	7.8	14.9
Financial corporations	20.0	21.2	14.5	13.7
Resident sectors	**206.6**	**46.9**	**53.2**	**29.7**
Non-residents	**206.4**	**46.5**	**-**	**-**
Total	**413.0**	**93.4**	**53.2**	**29.7**
		France		
Households	74.6	4.6	1.6	0.2
Non-financial corporations	73.2	8.6	59.8	4.5
General government	7.6	2.0	0.3	0.0
Financial corporations	64.4	85.3	19.9	18.7
Resident sectors	**219.7**	**100.5**	**81.6**	**23.3**
Non-residents	**76.5**	**39.1**	**-**	**-**
Total	**296.2**	**139.6**	**81.6**	**23.3**
		Italy		
Households	55.2	37.0	9.2	6.6
Non-financial corporations	44.7	3.3	11.9	1.9
General government	8.1	1.6	0.8	0.3
Financial corporations	23.7	48.1	26.6	18.1
Resident sectors	**131.7**	**90.0**	**48.5**	**26.8**
Non-residents	**17.6**	**42.3**	**-**	**-**
Total	**149.3**	**132.3**	**48.5**	**26.8**
		Netherlands		
Households	58.1	6.3	6.6	0.5
Non-financial corporations	9.4	3.1	31.4	0.5
General government	10.8	0.3	1.1	0.2
Financial corporations	61.9	36.1	76.0	61.0
Resident sectors	**140.2**	**45.8**	**115.1**	**62.3**
Non-residents	**128.6**	**64.7**	**-**	**-**
Total	**268.8**	**110.6**	**115.1**	**62.3**
		Portugal		
Households	47.4	7.7	0.7	1.5
Non-financial corporations	20.0	5.9	13.6	1.8
General government	15.2	2.8	0.1	0.8
Financial corporations	23.1	33.1	7.2	33.1
Resident sectors	**105.7**	**49.6**	**21.6**	**37.1**
Non-residents	**39.6**	**30.5**	**-**	**-**
Total	**145.3**	**80.1**	**21.6**	**37.1**

Table 4.1

Holdings of financial assets in the form of non-intermediated instruments by sector

(Amounts outstanding, end-2000)

(as a % of total, column)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
Average of euro area countries				
Households	24.8	10.3	9.1	9.5
Non-financial corporations	20.3	4.5	49.1	5.5
General government	5.5	3.4	2.5	6.8
Financial corporations	19.0	39.8	39.3	78.2
Resident sectors	**69.7**	**58.0**	**100**	**100**
Non-residents	**30.3**	**40.2**	**-**	**-**
Total	**100**	**100**	**100**	**100**
Austria				
Households	7.4	6.7	12.5	4.1
Non-financial corporations	5.4	2.9	33.8	2.7
General government	7.5	4.4	1.8	0.4
Financial corporations	36.3	27.1	51.9	92.7
Resident sectors	**56.7**	**41.1**	**100**	**100**
Non-residents	**43.3**	**58.9**	**-**	**-**
Total	**100**	**100**	**100**	**100**
Belgium				
Households	24.7	23.1	22.9	34.9
Non-financial corporations	39.3	1.6	49.8	0.9
General government	0.0	2.3	0.0	0.0
Financial corporations	3.9	39.7	27.3	64.2
Resident sectors	**67.9**	**66.7**	**100**	**100**
Non-residents	**32.1**	**33.3**	**-**	**-**
Total	**100**	**100**	**100**	**100**
Germany				
Households	17.1	11.2	-	-
Non-financial corporations	31.1	4.8	-	-
General government	2.9	0.3	-	-
Financial corporations	33.1	43.6	-	-
Resident sectors	**84.2**	**59.9**	**-**	**-**
Non-residents	**15.8**	**23.8**	**-**	**-**
Total	**100**	**100**	**-**	**-**
Spain				
Households	32.8	3.3	2.7	5.6
Non-financial corporations	26.7	2.8	67.4	6.5
General government	4.5	0.4	0.4	0.0
Financial corporations	16.7	53.9	29.4	87.9
Resident sectors	**80.7**	**60.5**	**100**	**100**
Non-residents	**19.3**	**39.5**	**-**	**-**
Total	**100**	**100**	**100**	**100**

(as a % of total, column)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
		Finland		
Households	24.9	1.5	4.8	1.6
Non-financial corporations	8.5	9.1	53.3	2.0
General government	11.7	16.9	14.7	50.2
Financial corporations	4.8	22.7	27.2	46.2
Resident sectors	**50.0**	**50.2**	**100**	**100**
Non-residents	**50.0**	**49.8**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		France		
Households	25.2	3.3	2.0	0.7
Non-financial corporations	24.7	6.2	73.3	19.1
General government	2.6	1.5	0.4	0.1
Financial corporations	21.7	61.1	24.3	80.1
Resident sectors	**74.2**	**72.0**	**100**	**100**
Non-residents	**25.8**	**28.0**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Italy		
Households	37.0	28.0	18.9	24.4
Non-financial corporations	29.9	2.5	24.6	7.0
General government	5.5	1.2	1.7	1.2
Financial corporations	15.8	36.4	54.8	67.4
Resident sectors	**88.2**	**68.0**	**100**	**100**
Non-residents	**11.8**	**32.0**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Netherlands		
Households	21.6	5.7	5.8	0.9
Non-financial corporations	3.5	2.8	27.3	0.8
General government	4.0	0.3	1.0	0.3
Financial corporations	23.0	32.7	66.0	98.0
Resident sectors	**52.2**	**41.4**	**100**	**100**
Non-residents	**47.8**	**58.6**	**-**	**-**
Total	**100**	**100**	**100**	**100**
		Portugal		
Households	32.6	9.6	3.4	4.0
Non-financial corporations	13.8	7.4	63.0	4.7
General government	10.5	3.5	0.5	2.1
Financial corporations	15.9	41.4	33.2	89.1
Resident sectors	**72.8**	**61.9**	**100**	**100**
Non-residents	**27.2**	**38.1**	**-**	**-**
Total	**100**	**100**	**100**	**100**

Table 4.1

Holdings of financial assets in the form of non-intermediated instruments by sector

(Amounts outstanding, end-2000)

(as a % of total, row)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
	Average of euro area countries			
Households	68.6	19.7	7.9	5.3
Non-financial corporations	52.2	9.0	41.0	2.6
General government	66.1	26.6	4.7	3.5
Financial corporations	25.5	37.0	17.3	24.8
Resident sectors	**46.4**	**24.2**	**18.9**	**14.2**
Non-residents	**53.2**	**46.8**	**-**	**-**
Total	**49.0**	**30.1**	**13.5**	**10.1**
	Austria			
Households	19.0	47.1	23.8	10.1
Non-financial corporations	13.2	19.4	61.1	6.3
General government	35.4	56.4	6.2	2.0
Financial corporations	15.3	31.3	16.2	37.2
Resident sectors	**16.7**	**33.2**	**21.9**	**28.1**
Non-residents	**21.1**	**78.9**	**-**	**-**
Total	**18.4**	**50.4**	**13.6**	**17.5**
	Belgium			
Households	41.4	24.2	14.3	20.1
Non-financial corporations	66.4	1.7	31.4	0.5
General government	0.0	100.0	0.0	0.0
Financial corporations	6.4	40.7	16.7	36.2
Resident sectors	**37.4**	**23.0**	**20.6**	**19.0**
Non-residents	**60.6**	**39.4**	**-**	**-**
Total	**42.6**	**26.7**	**15.9**	**14.7**
	Germany			
Households	60.6	39.4	-	-
Non-financial corporations	86.6	13.4	-	-
General government	90.4	9.6	-	-
Financial corporations	43.1	56.9	-	-
Resident sectors	**58.4**	**41.6**	**-**	**-**
Non-residents	**39.8**	**60.2**	**-**	**-**
Total	**54.4**	**45.6**	**-**	**-**
	Spain			
Households	93.0	3.5	1.6	1.9
Non-financial corporations	62.7	2.4	33.0	1.8
General government	95.0	3.1	1.9	0.0
Financial corporations	31.4	37.2	11.5	19.9
Resident sectors	**59.5**	**16.3**	**15.3**	**8.8**
Non-residents	**57.1**	**42.9**	**-**	**-**
Total	**59.0**	**21.6**	**12.3**	**7.1**

(as a % of total, row)	Shares issued by residents	Securities other than shares issued by residents	Shares issued by non-residents	Securities other than shares issued by non-residents
		Finland		
Households	95.9	1.3	2.4	0.4
Non-financial corporations	48.5	11.6	39.0	0.8
General government	55.8	18.1	9.0	17.1
Financial corporations	28.8	30.6	20.8	19.8
Resident sectors	**61.4**	**13.9**	**15.8**	**8.8**
Non-residents	**81.6**	**18.4**	**-**	**-**
Total	**70.1**	**15.9**	**9.0**	**5.0**
		France		
Households	92.1	5.6	2.0	0.2
Non-financial corporations	50.1	5.9	41.0	3.1
General government	76.2	20.5	3.1	0.1
Financial corporations	34.2	45.3	10.6	9.9
Resident sectors	**51.7**	**23.6**	**19.2**	**5.5**
Non-residents	**66.2**	**33.8**	**-**	**-**
Total	**54.8**	**25.8**	**15.1**	**4.3**
		Italy		
Households	51.2	34.3	8.5	6.1
Non-financial corporations	72.4	5.3	19.3	3.0
General government	75.0	14.6	7.5	3.0
Financial corporations	20.3	41.3	22.8	15.5
Resident sectors	**44.3**	**30.3**	**16.3**	**9.0**
Non-residents	**29.3**	**70.7**	**-**	**-**
Total	**41.8**	**37.1**	**13.6**	**7.5**
		Netherlands		
Households	81.2	8.8	9.3	0.8
Non-financial corporations	21.2	7.0	70.6	1.1
General government	86.8	2.7	9.1	1.4
Financial corporations	26.3	15.4	32.3	26.0
Resident sectors	**38.6**	**12.6**	**31.7**	**17.1**
Non-residents	**66.5**	**33.5**	**-**	**-**
Total	**48.3**	**19.9**	**20.7**	**11.2**
		Portugal		
Households	82.7	13.4	1.3	2.6
Non-financial corporations	48.5	14.4	32.9	4.3
General government	80.6	14.7	0.5	4.1
Financial corporations	23.9	34.4	7.4	34.3
Resident sectors	**49.4**	**23.2**	**10.1**	**17.3**
Non-residents	**56.4**	**43.6**	**-**	**-**
Total	**51.1**	**28.2**	**7.6**	**13.1**

Table 5.1

Financing and financial balance of the non-financial corporations

(Amounts outstanding, end-2000)

% of GDP

External financing	Average of euro area countries	Austria	Belgium
Shares and other equity	**179.2**	**24.7**	**221.6**
Securities other than shares incl. financial derivatives	**9.2**	**8.1**	**7.9**
of which short-term bonds	1.9	0.1	2.0
of which long-term bonds	7.0	8.0	5.9
Loans	**73.8**	**80.3**	**63.4**
from domestic MFIs	43.2	68.0	35.6
– short-term (<1y)	16.6	20.8	15.6
– long-term (>1y)	26.6	47.3	20.0
from domestic OFIs	3.4	0.7	2.1
from other domestic sources	14.6	5.9	0.2
from non-domestic residents	12.8	5.8	25.5
Trade credits and advances	**29.2**	**2.0**	**-**
Other liabilities	**6.0**	**0.9**	**7.5**
Total liabilities	**306.7**	**115.9**	**300.4**

as a % of total (column)

External financing	Average of euro area countries	Austria	Belgium
Shares and other equity	**53.2**	**21.3**	**73.8**
Securities other than shares incl. financial derivatives	**3.0**	**7.0**	**2.6**
of which short-term bonds	0.5	0.1	0.7
of which long-term bonds	2.4	6.9	2.0
Loans	**30.4**	**69.3**	**21.1**
from domestic MFIs	19.7	58.7	11.9
– short-term (<1y)	7.4	17.9	5.2
– long-term (>1y)	12.4	40.8	6.7
from domestic OFIs	1.3	0.6	0.7
from other domestic sources	4.2	5.1	0.1
from non-domestic residents	5.3	5.0	8.5
Trade credits and advances	**9.9**	**1.7**	**-**
Other liabilities	**3.3**	**0.7**	**2.5**
Total liabilities	**100**	**100**	**100**

	Germany	Spain	Finland	France	Italy	Netherlands	Portugal
	81.9	**155.8**	**379.5**	**278.5**	**103.3**	**162.7**	**107.7**
	2.6	**3.5**	**11.6**	**17.6**	**2.0**	**12.1**	**10.4**
	0.7	0.5	1.7	6.0	0.2	0.1	4.6
	1.9	3.0	9.9	10.3	1.5	12.0	5.7
	63.3	**61.1**	**95.1**	**50.9**	**56.3**	**98.5**	**85.0**
	38.6	43.1	24.1	35.9	41.6	43.6	53.2
	11.2	15.1	3.6	11.0	24.1	14.0	28.4
	27.4	28.0	20.5	24.9	17.5	29.6	24.8
	-	1.9	2.3	2.8	5.2	5.5	6.5
	3.0	0.9	44.8	2.9	1.6	44.9	15.4
	21.7	15.2	23.9	9.4	7.9	4.5	9.9
	-	**59.8**	**17.0**	**34.7**	**20.4**	**34.0**	**36.7**
	20.7	**5.4**	**6.1**	**3.8**	**7.6**	**0.0**	**16.9**
	168.5	**285.6**	**509.4**	**385.6**	**189.7**	**307.3**	**256.7**

	Germany	Spain	Finland	France	Italy	Netherlands	Portugal
	48.6	**54.6**	**74.5**	**57.0**	**54.5**	**53.0**	**42.0**
	1.5	**1.2**	**2.3**	**3.6**	**1.1**	**3.9**	**4.0**
	0.4	0.2	0.3	1.2	0.1	0.0	1.8
	1.1	1.0	1.9	2.1	0.8	3.9	2.2
	37.6	**21.4**	**18.7**	**10.4**	**29.7**	**32.0**	**33.1**
	22.9	15.1	4.7	7.3	22.0	14.2	20.7
	6.6	5.3	0.7	2.2	12.7	4.6	11.1
	16.3	9.8	4.0	5.1	9.3	9.6	9.7
	-	0.7	0.4	0.6	2.8	1.8	2.5
	1.8	0.3	8.8	0.6	0.8	14.6	6.0
	12.9	5.3	4.7	1.9	4.2	1.5	3.8
	-	**20.9**	**3.3**	**7.1**	**10.8**	**11.1**	**14.3**
	12.3	**1.9**	**1.2**	**0.8**	**4.0**	**0.0**	**6.6**
	100	**100**	**100**	**100**	**100**	**100**	**100**

Table 5.1

Financing and financial balance of the non-financial corporations

(Average financial transactions, 1998-2000)

% of GDP			
External financing	**Average of euro area countries**	**Austria**	**Belgium**
Shares and other equity	**5.6**	**2.6**	**7.8**
Securities other than shares	**1.1**	**0.9**	**1.0**
of which short-term bonds	0.3	0.0	0.5
of which long-term bonds	0.8	0.9	0.5
Loans	**7.4**	**7.0**	**4.4**
from domestic MFIs	4.2	4.2	1.6
– short-term (<1y)	1.5	1.0	0.2
– long-term (>1y)	2.7	3.2	1.4
from domestic OFIs	0.3	0.1	-
from other domestic sources	1.7	1.4	-
from non-domestic residents	1.5	1.2	2.8
Trade credits and advances	**2.5**	**0.2**	**-**
Other liabilities	**0.3**	**-0.1**	**0.5**
Total liabilities	**16.8**	**7.8**	**13.7**
Internal financing			
Gross savings	11.8	10.4	12.5
Net savings	3.6	1.2	4.1
Net capital transfers	0.9	1.1	0.8
External/internal financing	**1.32**	**0.68**	**1.03**

as a % of total (column)			
External financing	**Average of euro area countries**	**Austria**	**Belgium**
Shares and other equity	**34.2**	**33.0**	**56.9**
Securities other than shares	**5.9**	**11.8**	**7.1**
of which short-term bonds	1.8	0.0	3.8
of which long-term bonds	4.6	11.8	3.3
Loans	48.6	**89.5**	**32.0**
from domestic MFIs	27.2	54.0	11.5
– short-term (<1y)	8.4	12.8	1.1
– long-term (>1y)	18.7	41.1	10.3
from domestic OFIs	2.2	1.6	-
from other domestic sources	8.8	17.9	-
from non-domestic residents	13.2	16.0	20.7
Trade credits and advances	**12.4**	**2.8**	**-**
Other liabilities	**2.6**	**-1.6**	**4.0**
Total liabilities	**100**	**100**	**100**

Germany	Spain	Finland	France	Italy	Netherlands	Portugal
3.6	**6.7**	**8.7**	**6.0**	**2.6**	**4.2**	**6.4**
0.1	**0.0**	**1.2**	**1.2**	**-0.1**	**3.1**	**1.2**
0.2	-0.1	0.3	1.0	0.0	0.0	1.0
0.0	0.1	0.9	0.8	0.0	3.1	0.2
6.7	**8.7**	**7.9**	**3.5**	**4.6**	**8.6**	**14.7**
2.6	5.4	-	1.9	3.0	4.3	9.0
0.5	1.6	-	0.4	1.2	1.5	4.1
2.1	3.8	-	1.4	1.8	2.8	4.9
-	0.4	-	-0.1	0.6	-0.1	0.9
0.6	0.2	-	-0.1	0.0	4.1	4.4
3.5	2.7	-	1.8	1.0	0.4	0.3
-	**7.0**	**-**	**1.4**	**0.6**	**3.0**	**2.6**
0.9	**0.0**	**1.9**	**-1.0**	**0.6**	**0.0**	**0.6**
11.3	**22.3**	**19.7**	**11.1**	**8.4**	**18.9**	**25.4**
8.6	11.4	15.8	7.5	14.3	12.6	9.5
0.1	3.9	4.9	7.5	0.1	3.5	-
0.6	1.1	0.1	0.6	2.1	0.4	1.2
1.23	**1.79**	**1.23**	**2.25**	**0.51**	**1.45**	**2.37**

Germany	Spain	Finland	France	Italy	Netherlands	Portugal
31.9	**30.0**	**44.3**	**32.7**	**31.3**	**22.1**	**25.2**
0.9	**-0.2**	**6.2**	**6.8**	**-0.6**	**16.4**	**4.7**
1.8	-0.6	1.6	5.7	0.0	-0.1	4.0
0.0	0.4	4.5	4.2	-0.1	16.5	0.7
59.3	**39.0**	**40.0**	**19.1**	**55.4**	**45.7**	**57.7**
23.0	24.2	-	10.2	36.1	22.6	35.6
4.4	7.4	-	2.5	14.8	8.1	16.3
18.6	16.9	-	7.8	21.3	14.6	19.3
-	1.7	-	-0.6	7.6	-0.6	3.6
5.3	0.8	-	-0.3	-0.5	21.4	17.2
31.0	12.3	-	9.8	12.2	2.3	1.3
-	**31.2**	**-**	**7.6**	**6.6**	**15.8**	**10.2**
8.0	**0.0**	**9.5**	**-5.5**	**7.3**	**0.0**	**2.2**
100	**100**	**100**	**100**	**100**	**100**	**100**

Table 5.3

Financing and financial balance of households

(Amounts outstanding, end-2000)

% of GDP

External financing	Average of euro area countries	Austria	Belgium
F4 Loans	**48.2**	**40.0**	**39.8**
Loans from domestic MFIs	40.2	28.7	33.7
– short-term (<1 year)	3.4	3.7	3.1
– long-term (>1 year)	34.7	25.0	30.6
– Consumer loans	6.5	12.3	3.5
– <1y original maturity	1.7	2.4	0.3
– 1y< orig. mat. <5y	3.0	1.5	2.7
– 5y< orig. mat.	4.2	8.4	0.5
– housing loans	31.9	13.4	22.6
– < 1y original maturity	0.3	0.3	-
– 1y< orig. mat. <5y	0.8	1.1	0.3
– 5y< orig. mat.	24.0	12.0	22.3
– other loans from domestic MFIs	6.4	3.1	7.4
other loans from domestic lenders	5.8	11.2	6.1
from non-domestic residents	1.0	0.1	
Other liabilities	**5.1**	**0.1**	**4.6**
Total liabilities	**53.2**	**40.1**	**44.4**

as a % of total (column)

External financing	Average of euro area countries	Austria	Belgium
F4 Loans	**90.8**	**99.8**	**89.7**
Loans from domestic MFIs	77.4	71.6	76.0
– short-term (<1 year)	6.5	9.2	7.0
– long-term (>1 year)	70.5	62.4	69.0
– Consumer loans	12.7	30.6	7.9
– < 1y original maturity	3.9	5.9	0.6
– 1y< orig. mat. <5y	6.1	3.7	6.1
– 5y< orig. mat.	10.6	20.9	1.2
– housing loans	54.0	33.4	50.9
– < 1y original maturity	0.6	0.7	-
– 1y< orig. mat. <5y	1.7	2.7	0.6
– 5y< orig. mat.	47.3	30.0	50.3
– other loans from domestic MFIs	14.2	7.6	16.8
other loans from domestic lenders	10.9	27.9	13.7
from non-domestic residents	1.3	0.3	0.0
Other liabilities	**9.2**	**0.2**	**10.3**
Total liabilities	**100**	**100**	**100**

* *Consumer loans and housing loans refer to shares of total loans.*

Germany	Spain	Finland	France	Italy	Netherlands*	Portugal
73.4	**47.4**	**33.4**	**45.7**	**22.9**	**92.0**	**64.0**
69.9	45.8	28.3	37.3	21.1	67.1	59.7
5.6	3.3	0.5	-	-	-	6.5
64.3	42.5	21.9	-	-	-	53.2
9.6	8.0	2.5	7.9	-	4.4	7.1
2.0	1.3	0.1	1.2	4.5	-	2.1
1.9	3.2	0.7	4.8	4.9	-	3.3
5.7	3.5	1.6	2.0	11.8	-	1.7
43.2	29.0	19.9	21.3	-	73.3	44.0
0.4	0.3	0.4	0.1	-	-	0.4
1.7	0.9	0.6	0.6	-	-	1.0
41.0	27.8	18.9	20.5	-	-	42.6
17.1	8.9	5.9	4.4	-	-	8.6
3.6	1.5	5.1	4.8	1.8	14.0	2.2
0.0	0.1	-	3.6	0.0	0.3	2.1
0.7	**10.9**	**0.4**	**7.3**	**7.9**	**-6.0**	**15.5**
74.1	**58.3**	**33.8**	**53.0**	**30.8**	**86.0**	**79.5**

Germany	Spain	Finland	France	Italy	Netherlands*	Portugal
99.1	**81.3**	**98.9**	**86.2**	**74.3**	**107.0**	**80.6**
94.3	78.6	83.8	70.3	68.6	78.0	75.1
7.6	5.7	1.6	-	-	-	8.1
86.8	72.9	64.7	-	-	-	67.0
13.0	13.7	7.4	15.0	-	5.1	8.9
2.7	2.2	0.4	2.3	14.5	-	2.6
2.6	5.5	2.2	9.0	15.8	-	4.2
7.7	5.9	4.8	3.7	38.3	-	2.1
58.3	49.8	58.9	40.1	-	85.3	55.4
0.5	0.6	1.2	0.1	-	-	0.5
2.3	1.6	1.9	1.2	-	-	1.3
55.3	47.6	55.8	38.8	-	-	53.6
23.1	15.2	17.5	8.4	-	-	10.8
4.9	2.6	15.1	9.1	5.8	16.3	2.8
0.0	0.1	-	6.8	0.0	0.3	2.7
0.9	**18.7**	**1.1**	**13.8**	**25.7**	**-7.0**	**19.4**
100	**100**	**100**	**100**	**100**	**100**	**100**

Table 5.3

Financing and financial balance of households

(Average financial transactions, 1998-2000)

% of GDP			
External financing	**Average of euro area countries**	**Austria**	**Belgium**
F4 Loans	**5.0**	**2.6**	**1.8**
Loans from domestic MFIs	4.8	2.7	1.7
– short-term (<1 year)	0.3	0.0	0.1
– long-term (>1 year)	5.1	2.7	1.6
– Consumer loans	1.1	2.3	0.1
– < 1y original maturity	0.2	0.5	-
– 1y< orig. mat. <5y	0.3	0.1	0.1
– 5y< orig. mat.	0.9	1.7	-
– housing loans	4.3	1.0	1.5
– < 1y original maturity	0.0	0.0	-
– 1y< orig. mat. <5y	0.2	0.3	-
– 5y< orig. mat.	3.1	0.7	1.5
– other loans from domestic MFIs	0.3	-0.7	-0.3
other loans from domestic lenders	0.2	0.0	0.1
from non-domestic residents	0.0	-0.1	-
Other liabilities	**0.4**	**0.0**	**0.3**
Total liabilities	**5.5**	**2.6**	**2.1**
Internal financing			
Gross savings	9.3	7.8	9.9
Net savings	6.5	4.6	6.6
Net capital transfers	0.2	1.0	-0.1

as a % of total (column)			
External financing	**Average of euro area countries**	**Austria**	**Belgium**
F4 Loans	**91.0**	**97.6**	**84.5**
Loans from domestic MFIs	73.2	100.8	79.4
– short-term (<1 year)	3.5	0.2	4.9
– long-term (>1 year)	53.1	100.5	74.5
– Consumer loans	18.7	88.0	5.7
– < 1y original maturity	4.4	20.3	0.0
– 1y< orig. mat. <5y	6.8	5.0	5.4
– 5y< orig. mat.	16.1	62.8	0.0
– housing loans	48.5	39.1	74.1
– < 1y original maturity	0.3	0.8	0.0
– 1y< orig. mat. <5y	2.3	11.3	0.0
– 5y< orig. mat.	40.7	27.0	72.7
– other loans from domestic MFIs	1.1	-26.4	-14.7
other loans from domestic lenders	3.1	-0.9	5.1
from non-domestic residents	-0.4	-2.2	0.0
Other liabilities	**9.1**	**-0.8**	**15.5**
Total liabilities	**100**	**100**	**100**

* *Consumer loans and housing loans refer to shares of total loans.*

Germany	Spain	Finland	France	Italy	Netherlands*	Portugal
3.2	**6.9**	**2.5**	**2.0**	**2.4**	**11.0**	**11.0**
3.1	6.4	-	1.7	2.2	7.9	11.0
0.4	0.3	-	-	-	-	0.8
2.7	6.1	-	-	-	-	10.2
0.3	1.2	-	0.7	-	1.4	1.0
0.1	0.2	-	0.2	0.1	-	0.0
0.3	0.3	-	0.3	0.5	-	0.6
-0.1	0.6	-	0.2	1.7	-	0.4
2.0	4.2	-	1.2	-	9.6	8.2
0.0	0.0	-	0.0	-	-	0.1
0.1	0.1	-	0.0	-	-	0.2
1.9	4.1	-	1.2	-	-	7.9
0.9	1.0	-	-0.2	-	-	1.8
0.1	0.5	-	0.3	0.1	-	0.0
0.0	0.0	-	-0.1	0.0	0.0	0.1
0.1	**0.5**	**-0.1**	**0.5**	**1.1**	**-0.2**	**1.3**
3.2	**7.4**	**2.4**	**2.5**	**3.5**	**10.8**	**12.4**

166.5	7.2	4.4	10.0	21.7	6.7	6.9
6.4	3.5	1.5	10.0	13.7	5.5	-
12.0	0.6	-0.2	0.2	0.0	-0.5	0.9

Germany	Spain	Finland	France	Italy	Netherlands*	Portugal
100.0	**93.2**	**104.2**	**79.2**	**69.7**	**101.6**	**89.1**
96.9	86.9	0.0	69.7	63.8	72.8	88.8
12.5	3.9	0.0	0.0	0.0	-	6.7
84.4	83.1	0.0	0.0	0.0	-	82.2
9.4	15.7	0.0	28.5	0.0	12.9	7.8
3.1	2.9	0.0	7.0	2.0	-	0.1
9.4	4.3	0.0	12.2	13.5	-	4.5
-3.1	8.6	0.0	9.3	48.3	-	3.2
62.5	57.5	0.0	48.1	0.0	88.6	66.3
0.0	0.6	0.0	0.4	0.0	-	0.7
3.1	1.4	0.0	0.6	0.0	-	1.7
59.4	55.6	0.0	47.1	0.0	-	64.0
28.1	13.7	0.0	-6.8	0.0	-	14.7
3.1	6.3	0.0	12.1	2.9	0.0	-0.2
0.0	0.0	0.0	-2.6	0.0	0.5	0.5
3.1	**6.8**	**-4.2**	**20.8**	**31.4**	**-1.9**	**10.9**
100	**100**	**100**	**100**	**100**	**100**	**100**