



EUROPEAN CENTRAL BANK

EUROSYSTEM

# Financial integration and structure in the euro area (FISEA)

ECB/Commission conference  
on European financial  
integration: An EU financial  
system for the future

Frankfurt am Main  
6 April 2022



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Deputy Director General Research

# Contents of the report

Preface

Key messages

Structure and integration developments in the euro area financial system  
("surveillance chapter")

Box 1: Making euro area equity markets fit for green and digital innovation

Box 2: Measuring market-based and non-bank financing of non-financial corporations in the euro area

Box 3: Frictions in debt issuance procedures and home bias in the euro area

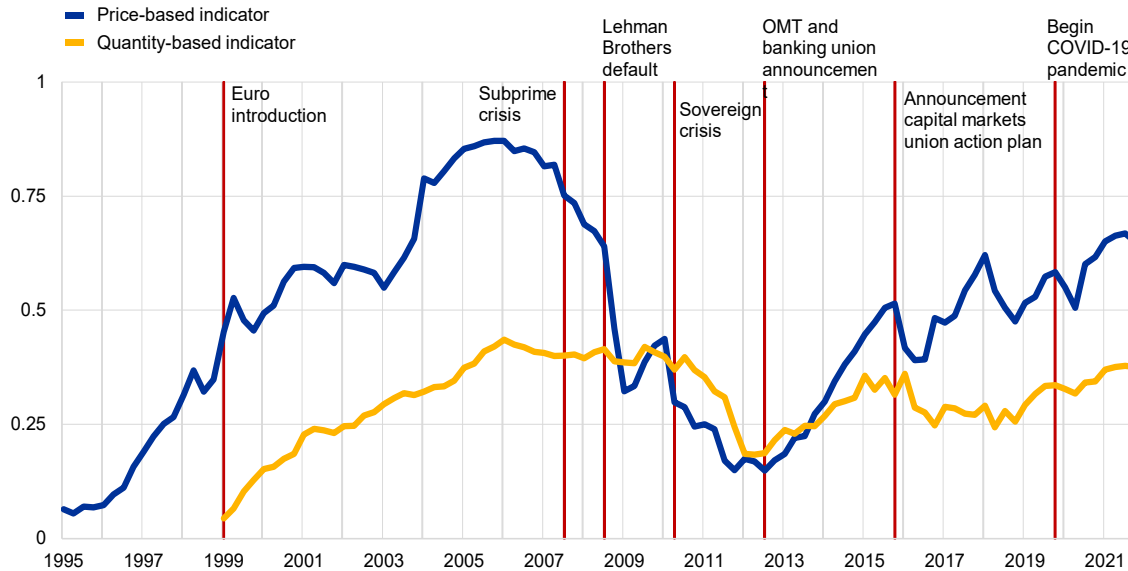
Box 4: Home bias in green bond markets

Box 5: A deep dive into income risk sharing through the capital channel in the euro area

Online statistical annex

# COVID financial integration reduction contained and short-lived

**Price-based and quantity-based financial integration composite indicators**  
(quarterly data; price-based indicator: Q1 1995-Q4 2021; quantity-based indicator: Q1 1999-Q4 2021)

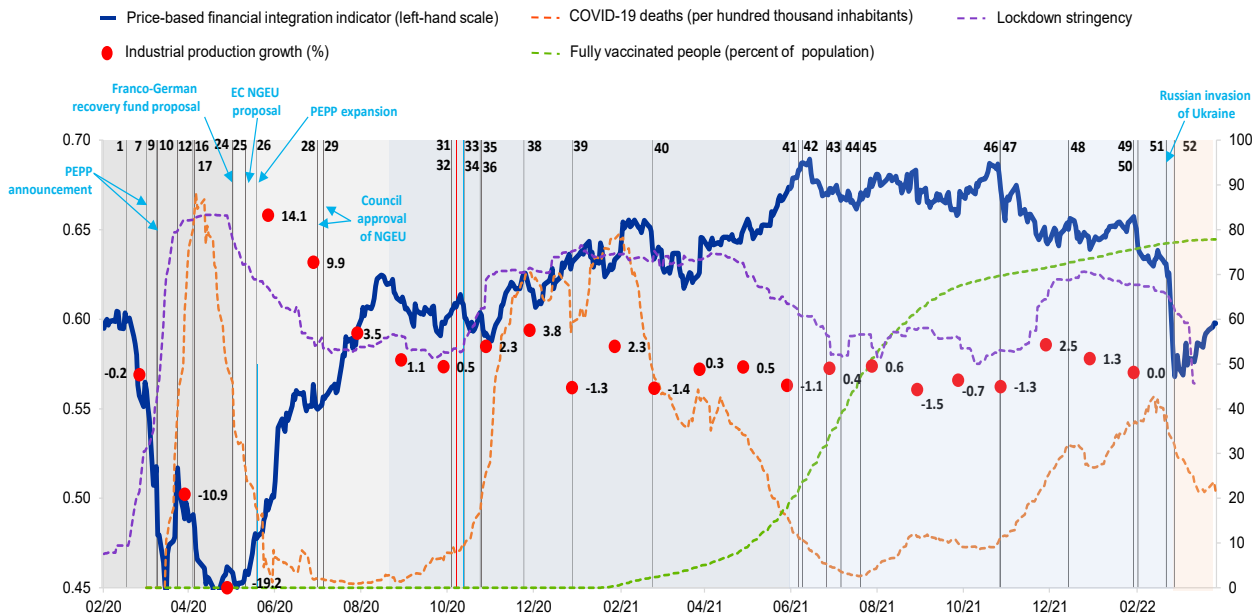


- Thanks to fast and massive policy action at the monetary, fiscal and prudential level
- Initial drop stronger in prices than quantities
- Benefits of lessons from previous crises
  - Crisis management
  - Financial regulatory reforms
- Box 4: integration of euro area green bond markets

# Prompt monetary policy measures and agreement on the EU recovery fund later made the difference

## Euro area price-based financial integration, COVID-19 pandemic developments and events

(daily data, 3 February 2020 – 30 March 2022)



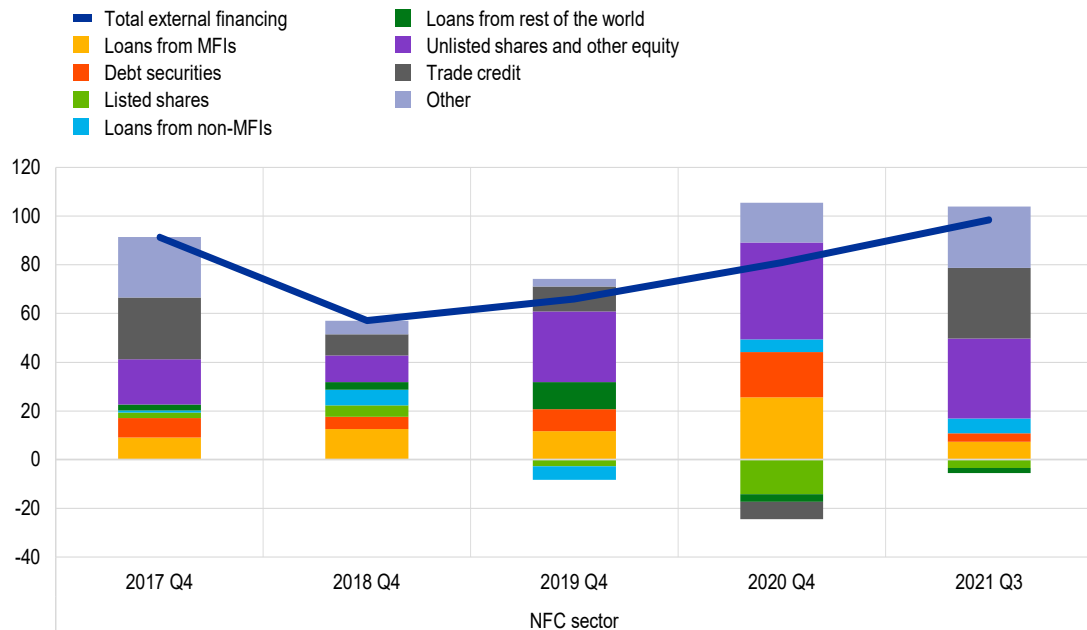
Source: Chart 4 in report.

- Initial sharp fragmentation
- PEPP halted “freefall”
- NGEU initiated turnaround
- Aligned fiscal and monetary policy very powerful!
- Gradual recovery with resilience to further COVID waves (to be monitored)
- Fiscal risk sharing replaced financial: Safety nets, NGEU
- Box 5: risk sharing within and across euro area regions
- Not in report: Ukraine war led to some re-fragmentation, partly reversed by end March

# Non-financial corporations adjusted their financing mix from trade credit and listed shares to bank loans and debt securities

## External financing of euro area NFCs by instrument

(flows; four-quarter sums; EUR billions, Q4 for 2017-2020; Q3 for 2021)



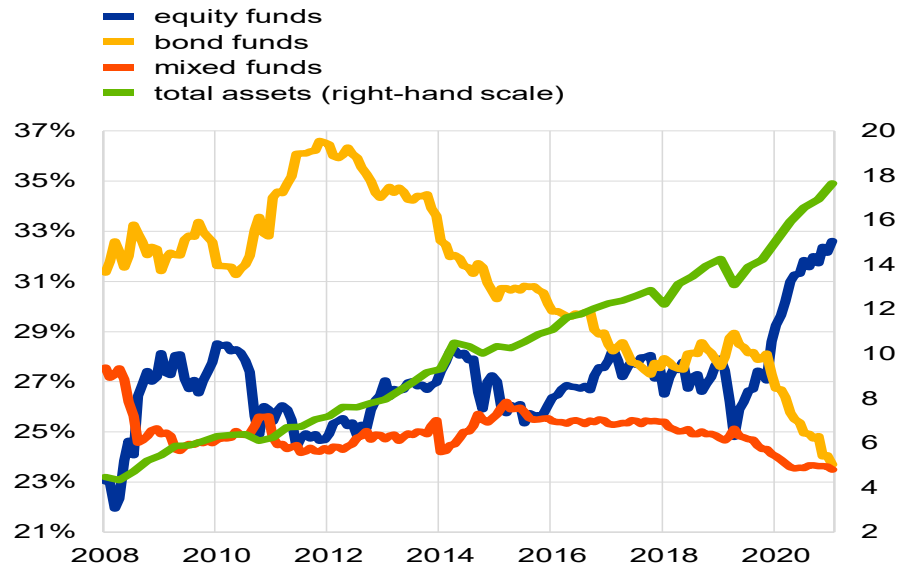
Source: Chart 1 in report.

- Firms' and households' total financing held up
- NFCs economic “epicentre”
- Multiple policy support
  - Fiscal support and guarantees
  - Strengthened banks from regulatory reforms (elastic nodes)
  - Enhanced ECB corporate bond purchases
  - ECB TLTROs (via banks)
- But: more government and corporate debt (resolution?)

# Trend towards non-bank intermediaries continued with strong growth of investment funds, driven largely by equity funds

## Total assets and relative shares of equity, bond and mixed funds

(percentages (left-hand scale); EUR trillions (right-hand scale), monthly data, Dec 2008-Dec 2021 (left-hand scale); quarterly data, Q1 2011-Q4 2021 (right-hand scale))



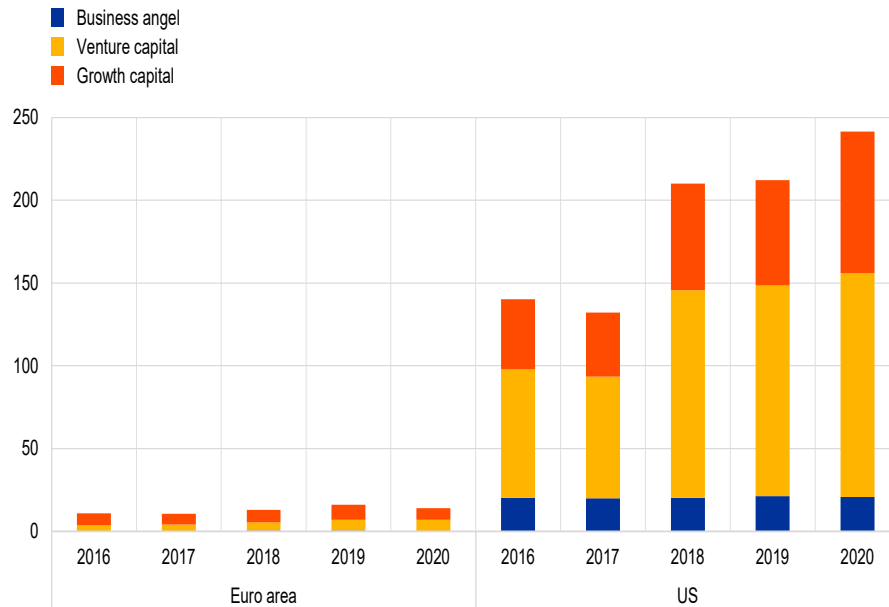
Source: Chart 2 in report.

- Despite stress in some fund segments early in the COVID crisis
- High inflows in equity funds over a number of quarters
- Most equity investment went abroad, benefiting euro area investors but not firms
- Lately, also insurers and pension funds increased equity holdings
- Non-bank credit increased from 15 to 30% of total credit since the Great Financial Crisis (Box 2)

# Next Generation EU provides a historical opportunity to better develop European risk capital markets (Box 1)

## Size and composition of risk capital markets in the euro area and United States

(EUR billions; annual data: 2016-2020)



Source: Chart 5 in report.

- NGEU: large public investment in digital and green projects benefiting frontier firms
- But still far from the €650 billion per year until 2030 estimated by European Commission
- Substantial additional private investment needed
- Equity finance suitable for innovation-oriented investment (venture capital, VC)
- But EU risk capital and public equity markets substantially smaller than peers
- And COVID very much enhanced corporate debt: post-crisis debt overhang?
- Particular bottleneck: scale up of successful European firms; small VC funds

# Avenues for developing and integrating European equity and risk capital markets

## September 2020 CMU II action plan could produce tangible progress

- European Single Access Point (ESAP) for harmonised company information, incl. sustainability-related information and open to SMEs
- Ongoing review of EU fund and insurance regulation envisages to facilitate institutional investors' investments in innovative projects
- Proposal for making European Long-term Investment Funds (ELTIFs) more attractive and more accessible for retail investors
- Planned review of EU public listing rules to make it easier for SMEs to list and set up an SME IPO fund
- Expected Commission proposal for making insolvency frameworks more efficient and harmonised (also in the light of the aftermath of the COVID crisis)



# Avenues for developing and integrating European equity and risk capital markets (cont.)

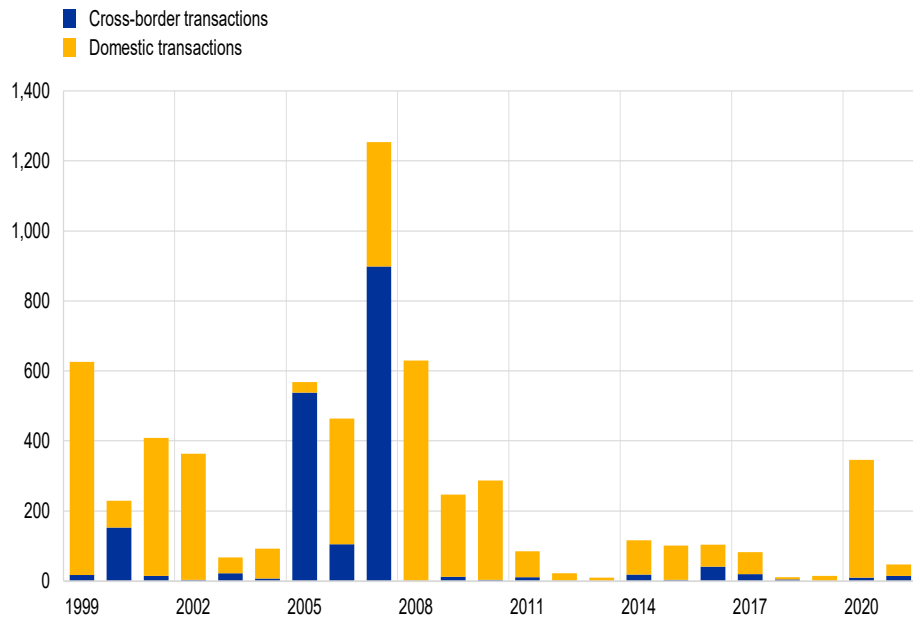
## Yet, further actions are necessary

- Enhance efficiency and harmonisation of equity and venture capital frameworks, incl. reducing the tax advantage of debt over equity
- Incentivise large firms to provide corporate venture capital to start-ups or small innovative firms
- Targeted public support to stimulate private investments in promising innovative projects
- Scale-up Europe initiative of French EU Presidency: large pan-European equity funds for late-stage financing
- 2022 European Court of Auditors report: broaden the cross-border distribution of investment funds and improve data about them (not only equity funds)

Other than equity: better integrated and harmonised debt issuance procedures  
(Box 3)

# It should be considered to remove remaining regulatory obstacles to bank consolidation

**Total assets of target banks in the euro area**  
(EUR billions)



Source: Chart 6 in report.

- Potential advantages of consolidation
  - Address structurally low profitability through excess capacities or cost inefficiencies
  - Foster retail integration (cross-border M&As)
- But limited since beginning of Banking Union, notably cross-border
- Branch-based consolidation more effective than subsidiary-based
- But current Deposit Guarantee Scheme Directive limits transfers of contributions
- Previous reports: use intra-group waivers for capital and liquidity

# Background slides

# Preparation of the report and contributors

The Financial Integration and Structure in the Euro Area report is based on regular surveillance activities, analysis, and findings from discussions with policy makers, market participants and academic researchers.

The preparation of the report was coordinated by Philipp Hartmann (DG-R; Coordinator of the Committee on Financial Integration (CFI)) and Philippe Molitor (DG-MF, CFI Secretary) and benefitted from input, comments and suggestions from the ECB's Directorate General Macroeconomic Policy and Financial Stability, Directorate General Research, Directorate General International and European Relations, Directorate General Statistics, Directorate General Market Operations, Directorate General Horizontal Line Supervision, Directorate General Monetary Policy and Directorate General Economics. Comments from members of the Eurosystem Financial Stability Committee are gratefully acknowledged.

Its contents were prepared by Philipp Hartmann (preface and key messages), Francesco Mongelli (DG-MP; chapter editor "surveillance chapter") and Philippe Molitor ("surveillance chapter") with valuable inputs from:

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# Avenues for developing and integrating European equity and risk capital markets (cont.)

## Yet, further actions necessary (cont.)

- Should the EU move towards large European mission-oriented public-private investment programmes to further accelerate the green, digital and other technological transformations?

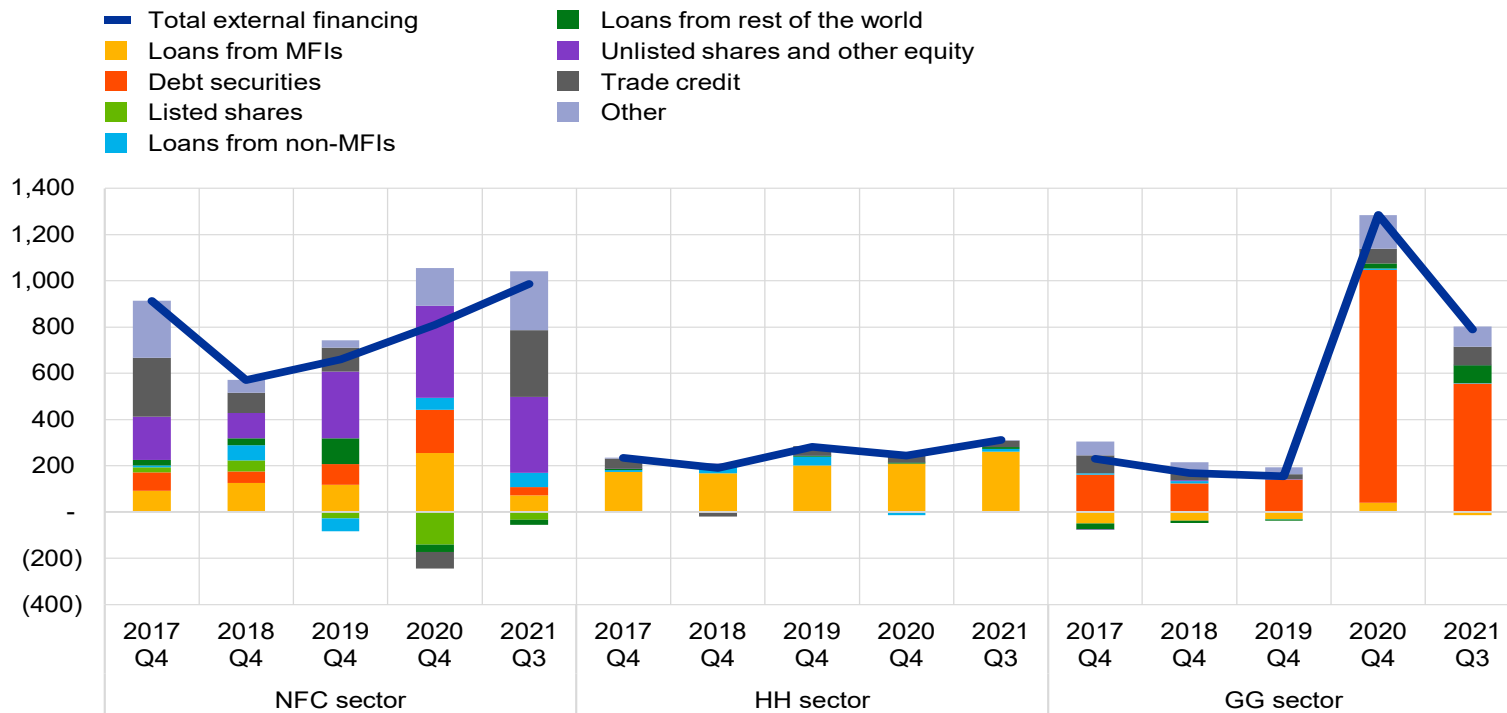
## Dependence on policies outside the financial field

- Education policies
- Business-university clusters
- Competition policy
- Company and labour regulation
- Taxation
- Pension reforms

## Chart 7

### External financing of euro area NFCs, households and general governments by instrument

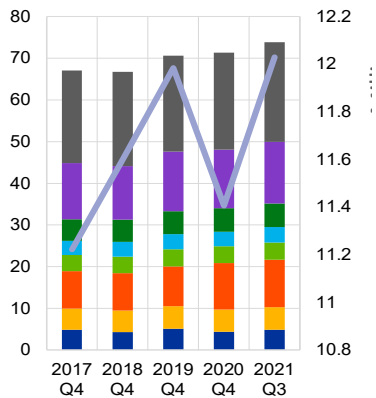
(flows; four-quarter sums; EUR billions, Q4 for 2017-2020; Q3 for 2021)



## Chart 8 External financing of euro area economy

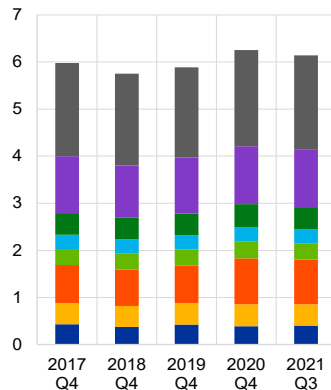
### Panel a

(EUR trillions (both left-hand and right-hand scales); end-of-period stocks, Q4 for 2017 - 2020; Q3 for 2021)



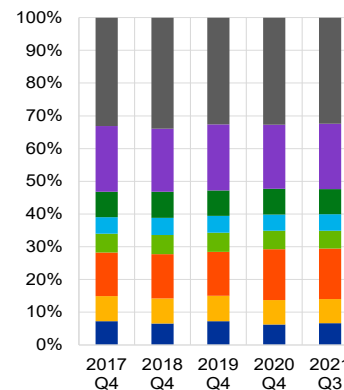
### Panel b

(ratio to nominal GDP; end-of-period stocks, Q4 for 2017-2020; Q3 for 2021)



### Panel c

(percentages; end-of-period stocks, Q4 for 2017-2020; Q3 for 2021)

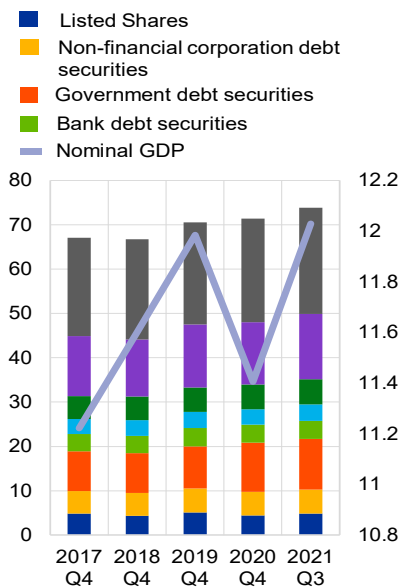


Source: Chart 8 in report.

## Chart 8 External financing of euro area economy

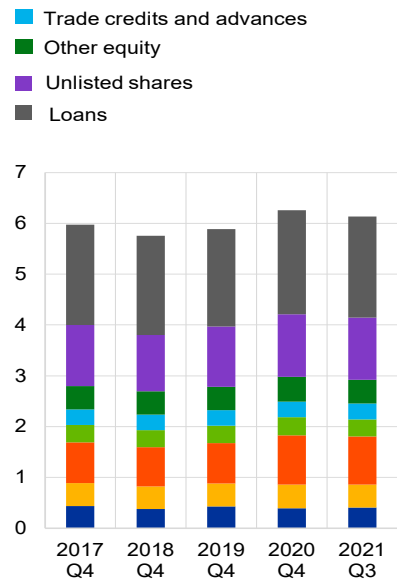
### Panel a

(EUR trillions (both left-hand and right-hand scales); end-of-period stocks, Q4 for 2017 - 2020; Q3 for 2021)



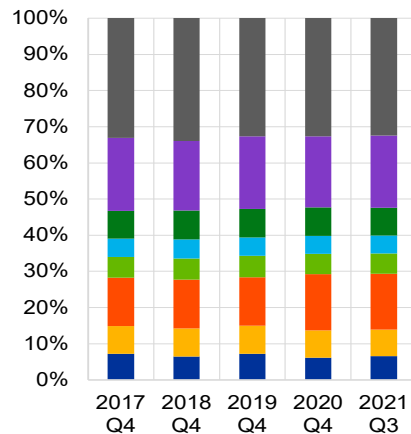
### Panel b

(ratio to nominal GDP; end-of-period stocks, Q4 for 2017-2020; Q3 for 2021)



### Panel c

(percentages; end-of-period stocks, Q4 for 2017-2020; Q3 for 2021)

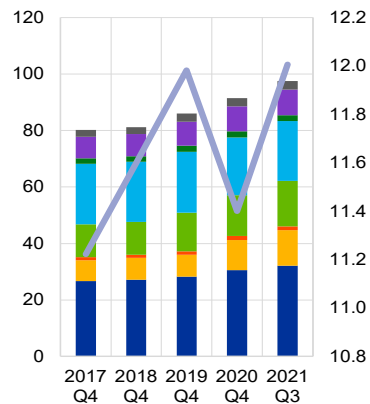




## Chart 9 Total assets of the euro area financial sector

### Panel a

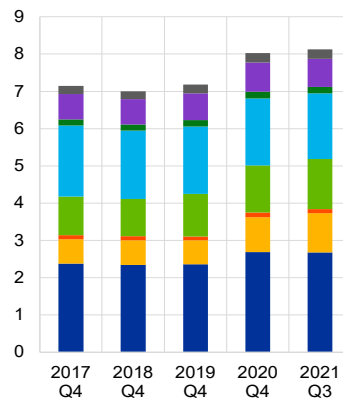
(EUR trillions (both left-hand and right-hand scales); end-of-period stocks, Q4 for 2017 - 2020; Q3 for 2021)



Source: Chart 9 in report.

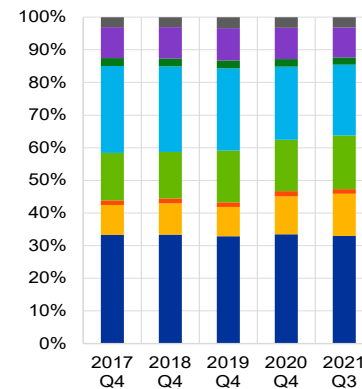
### Panel b

(ratio to nominal GDP; end-of-period stocks, Q4 for 2017 -2020; Q3 for 2021)



### Panel c

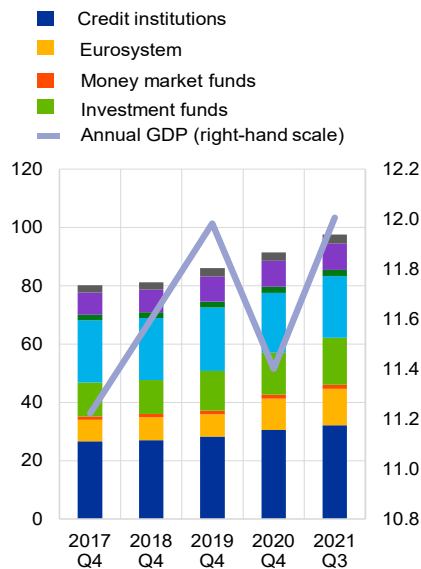
(ratio to nominal GDP; end-of-period stocks, Q4 for 2017 -2020; Q3 for 2021)



## Chart 9 Total assets of the euro area financial sector

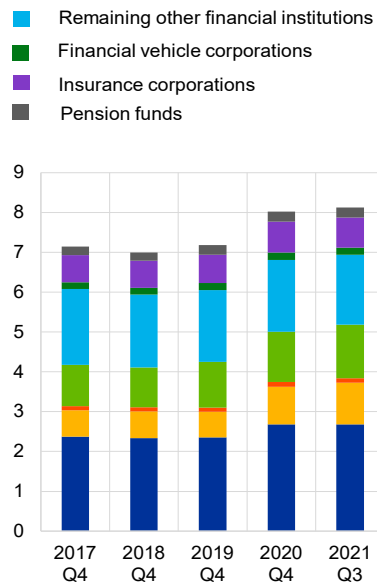
### Panel a

(EUR trillions (both left-hand and right-hand scales); end-of-period stocks, Q4 for 2017 - 2020; Q3 for 2021)



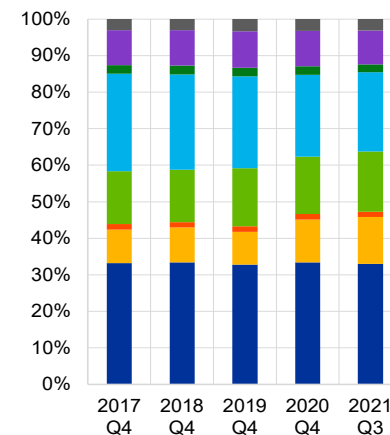
### Panel b

(ratio to nominal GDP; end-of-period stocks, Q4 for 2017 -2020; Q3 for 2021)



### Panel c

(ratio to nominal GDP; end-of-period stocks, Q4 for 2017 -2020; Q3 for 2021)

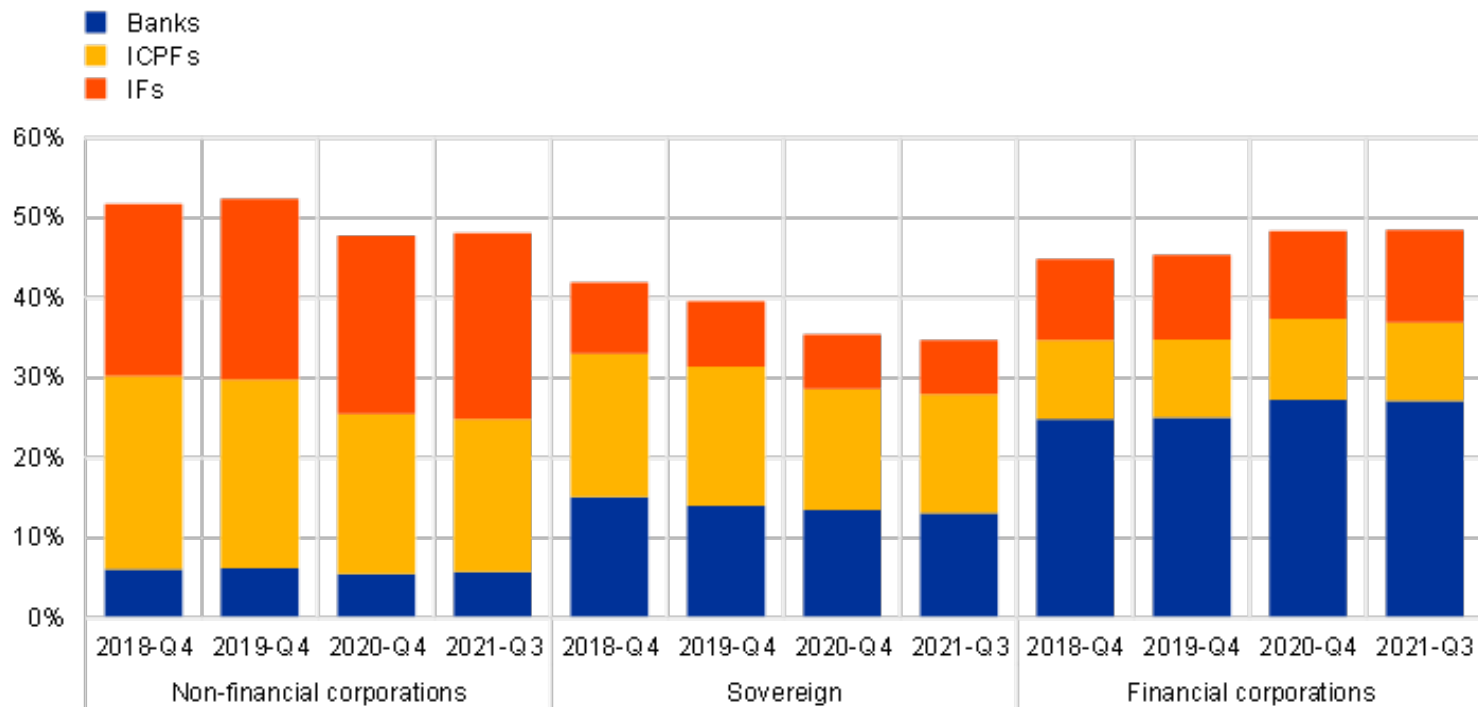


Source: Chart 9 in report.

## Chart 10

### Investor base of debt securities issued by EA issuers

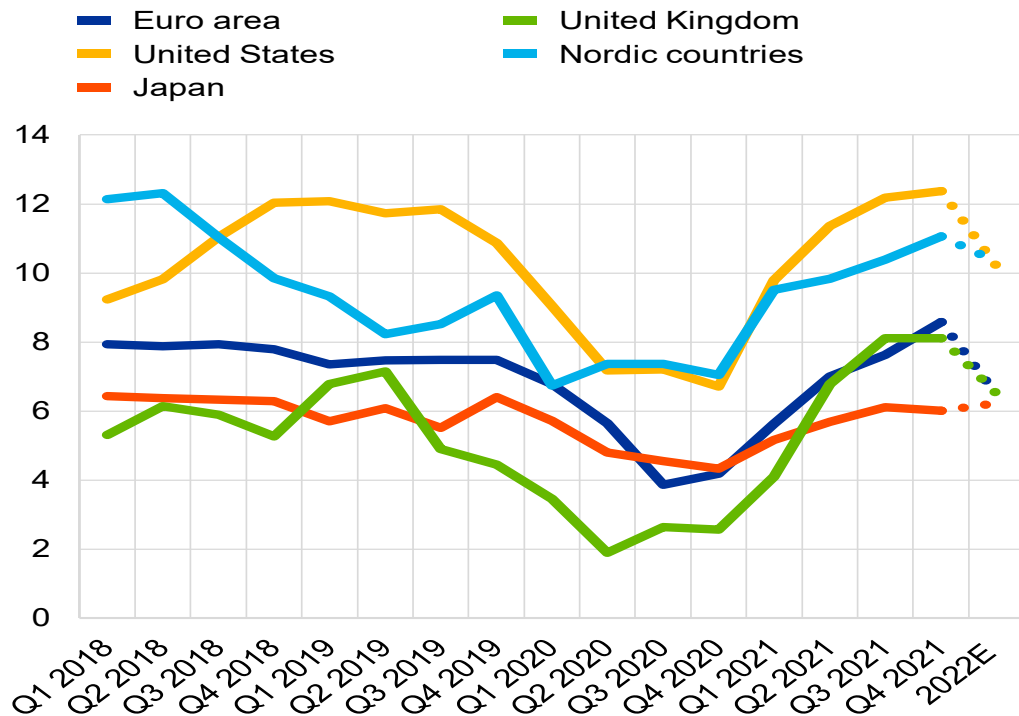
(percentage of amounts outstanding)



## Chart 11

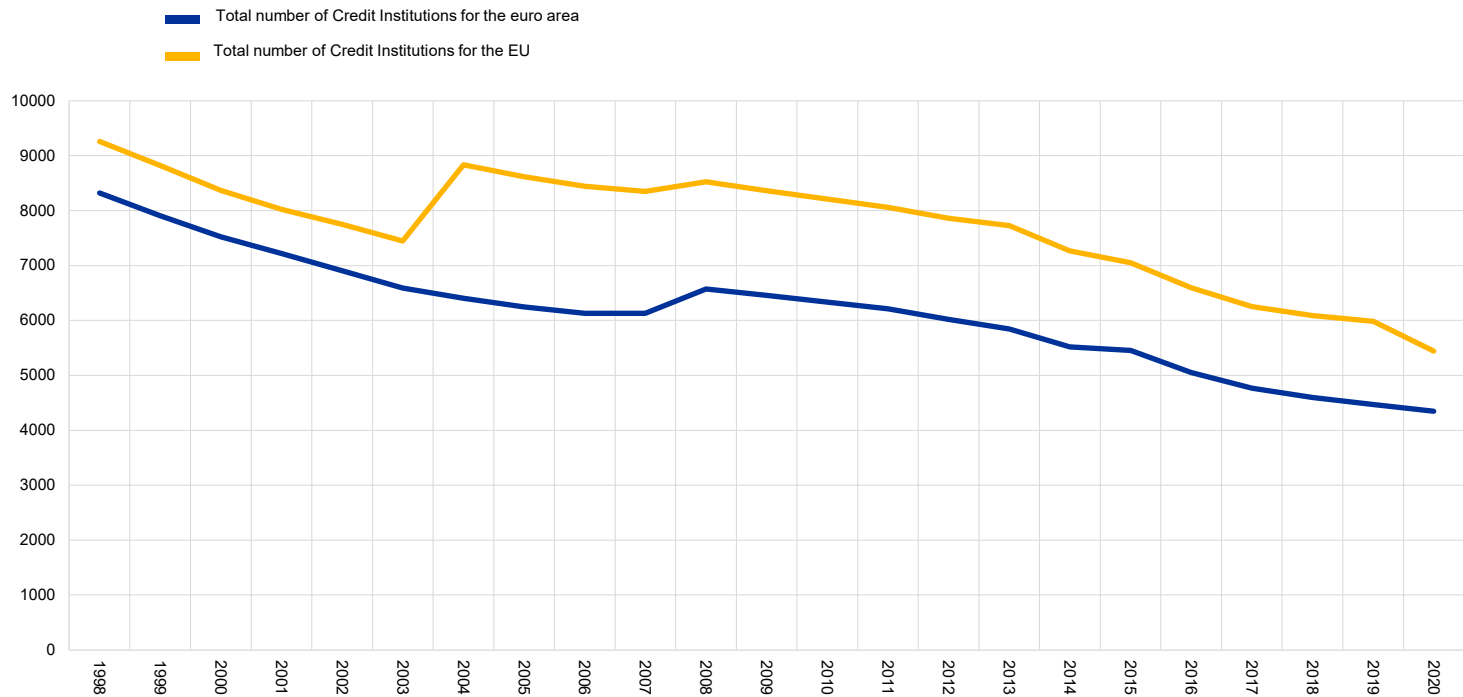
### Return on credit institutions' equity in major advanced economies

(percent, Q1 2018-Q4 2021 for realised; Q1 2022)



Source: Chart 11 in report.

## Chart 12 Number of credit institutions (1998-2020)



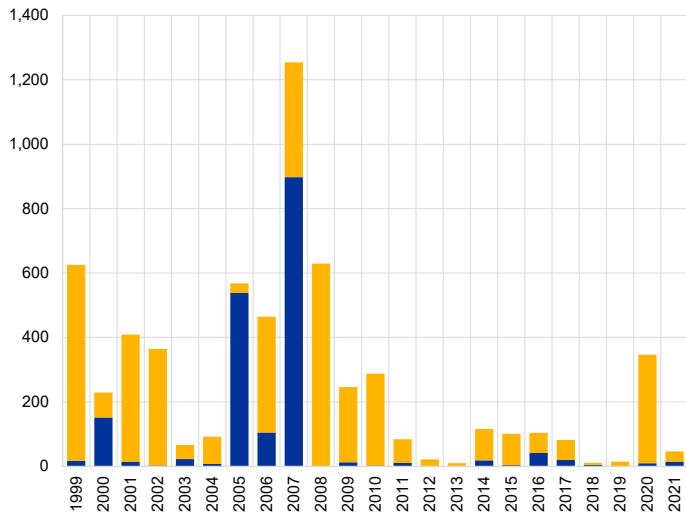
Source: Chart 12 in report.

**Chart 13**  
**Value and number of bank M&A in the euro area (1999-2021)**

**a) Value of M&A in the euro area**

(EUR billions)

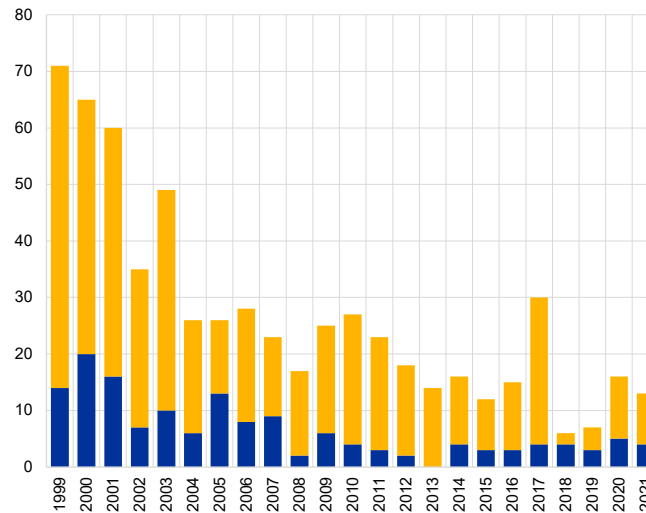
- Cross-border transactions
- Domestic transactions



**b) Number of transactions in the euro area**

(number)

- Cross-border transactions
- Domestic transactions

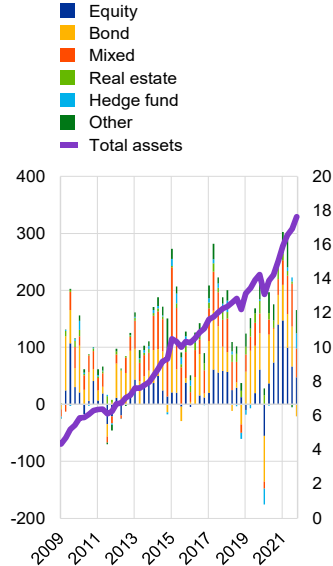


Source: Chart 13 in report.

## Chart 14 Trends in euro area investment funds

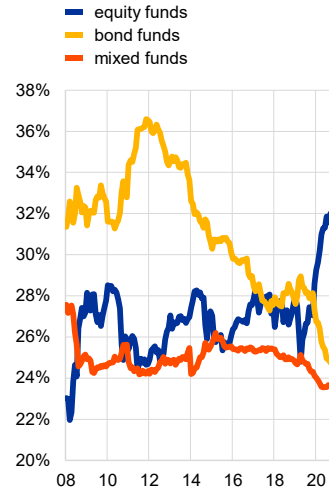
### a) Quarterly net flows and total assets

(EUR billions (left-hand scale); EUR trillions (right-hand scale), quarterly data, Q1 2011-Q4 2021)



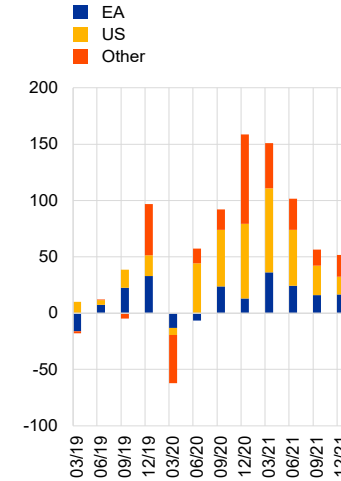
### b) Relative share of equity, bond and mixed funds in the IF sector's total assets

(percentages, monthly data, Dec 2008-Dec 2021)



### c) Equity fund investment flows into equity by geographic area of investment

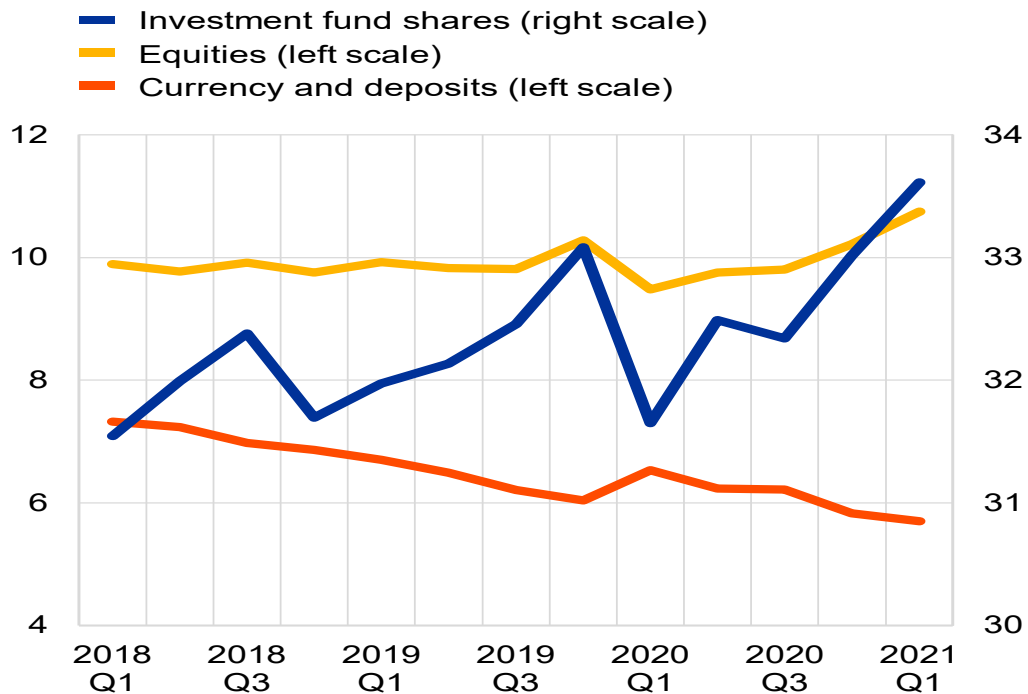
(percentages, monthly data, Dec 2008-Dec 2021)



## Chart 15

### ICPF investments by asset class

(percentages of total assets)

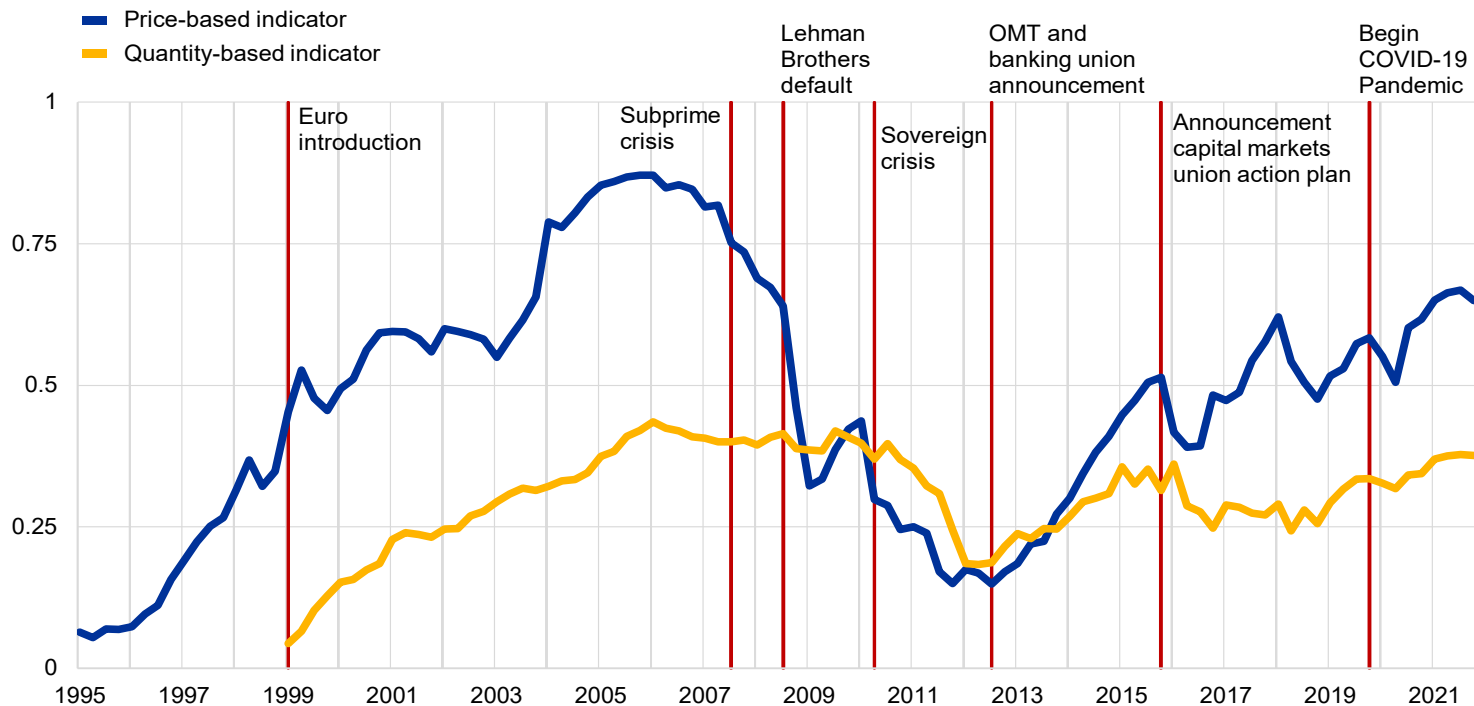




## Chart 16

### Price-based and quantity-based financial integration composite indicators

(quarterly data; price-based indicator: Q1 1995 – Q4 2021; quantity-based indicator: Q1 1999 – Q4 2021)

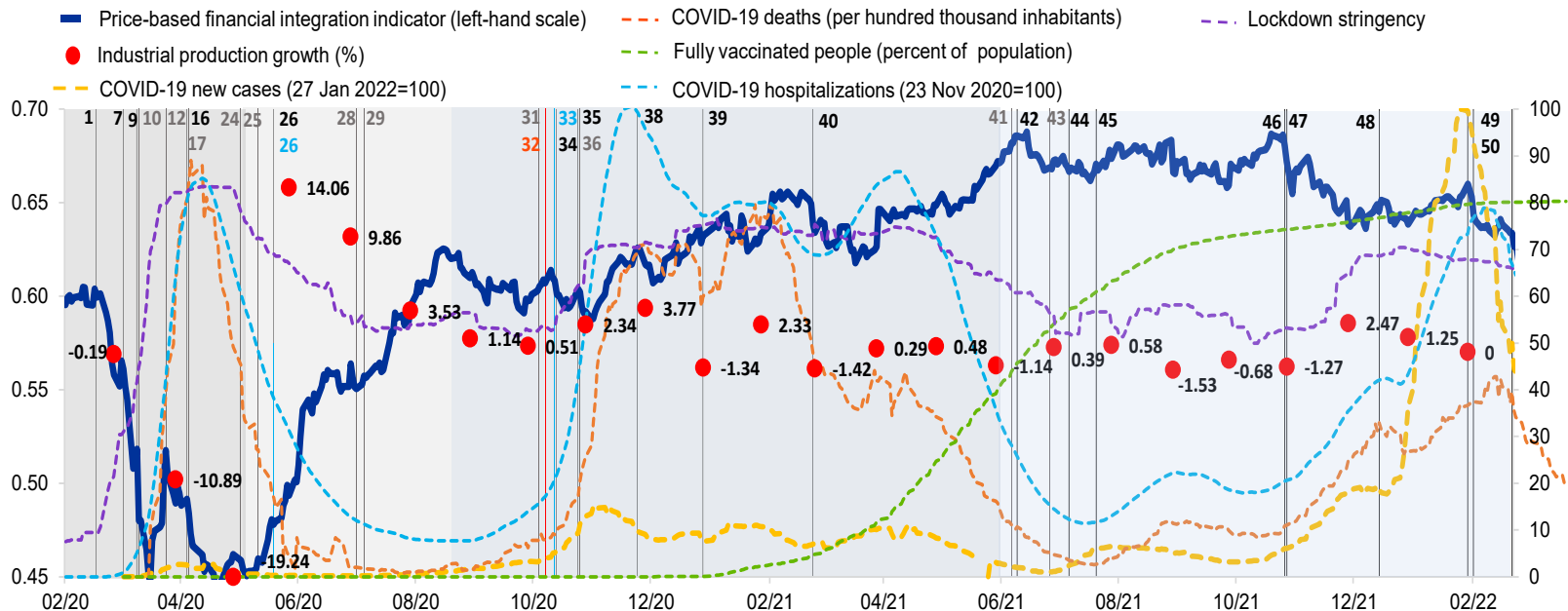


Source: Chart 16 in report.

## Chart 17

### Euro area price-based financial integration, COVID-19 pandemic developments and events

(daily data, 3 February 2020 – 23 February 2022)



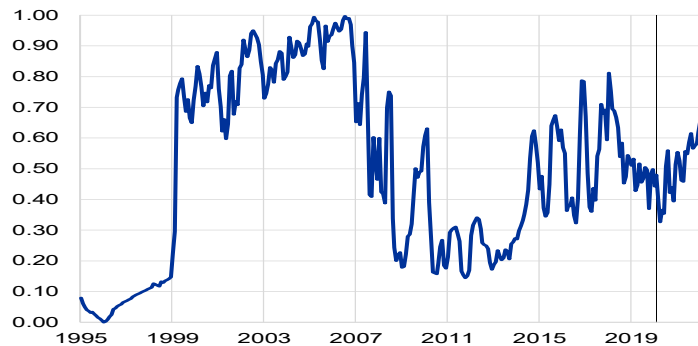
Source: Chart 17 in report.

## Chart 18

### Sub-indices by market segment

(monthly data, January 1995–October 2021, vertical line marks the start of the pandemic)

a) money market



b) bond market



c) equity market



d) banking market

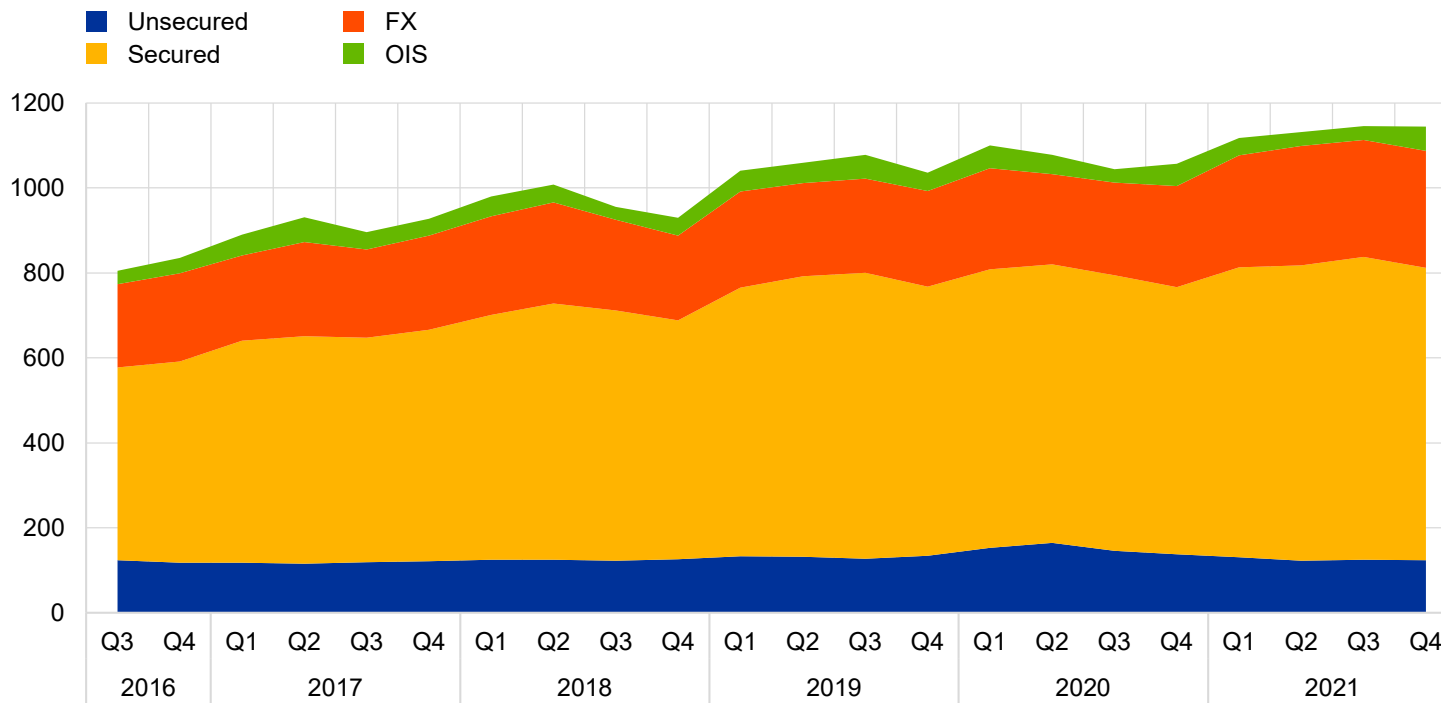


Source: Chart 18 in report.

## Chart 19

### Money market: trading volume

(Daily transactions flows in EUR billion; average over one quarter; 2016 Q3-2021 Q4)

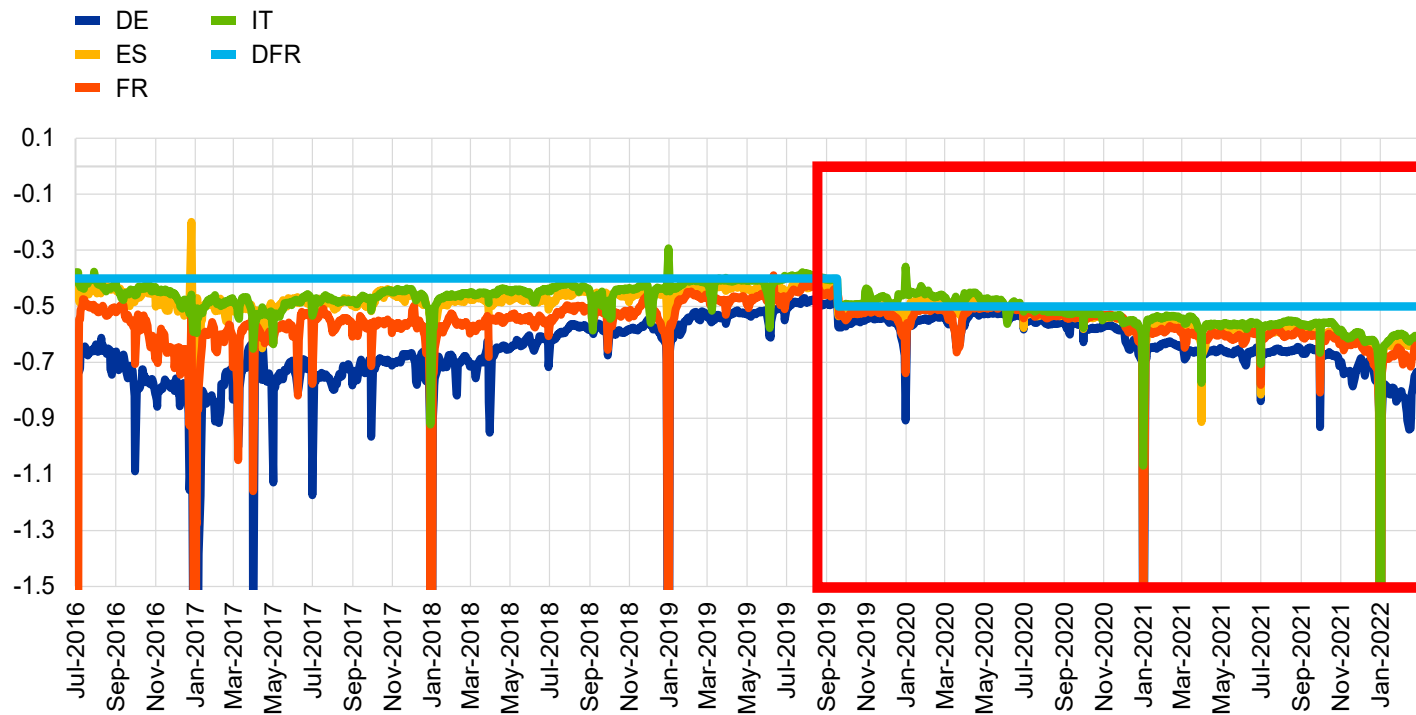


Source: Chart 19 in report.

## Chart 20

### Repo market: secured overnight rates

(Country of collateral issuer; in percentages; daily data; 1 January 2017-28 February 2022)

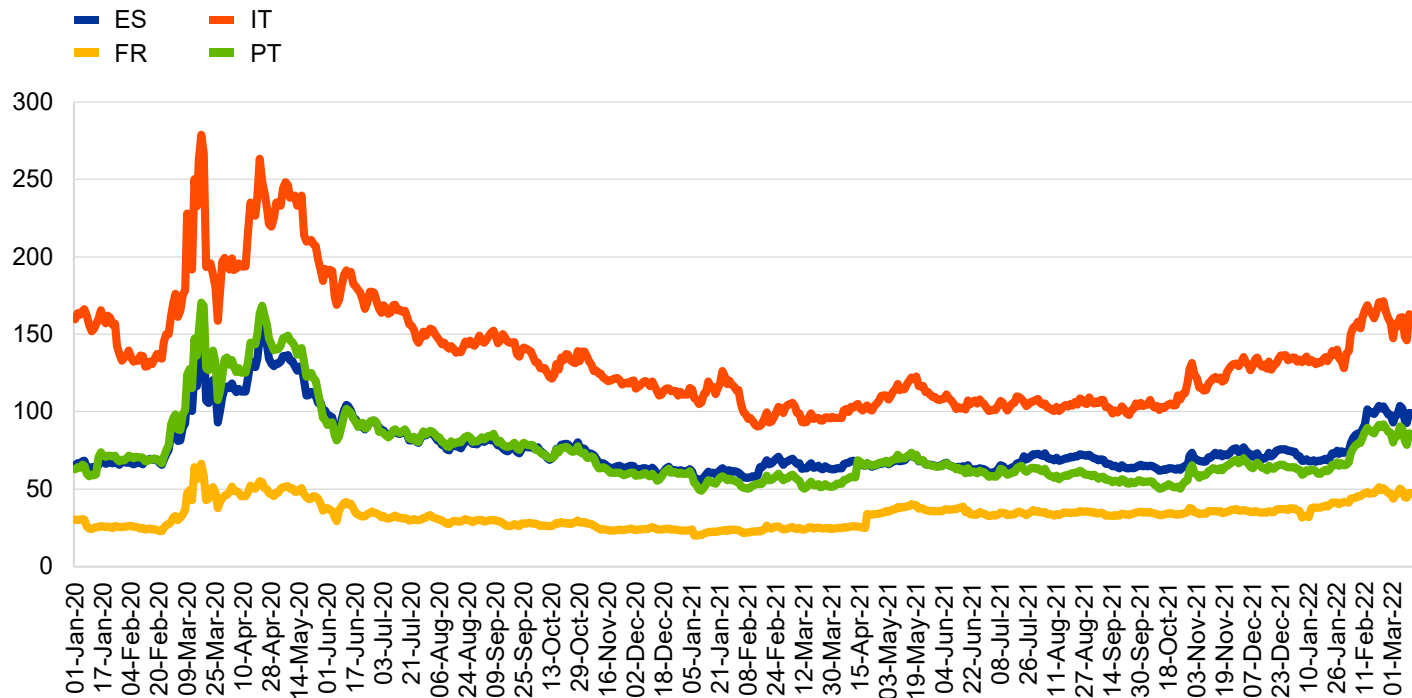


Source: Chart 20 in report.

## Chart 21

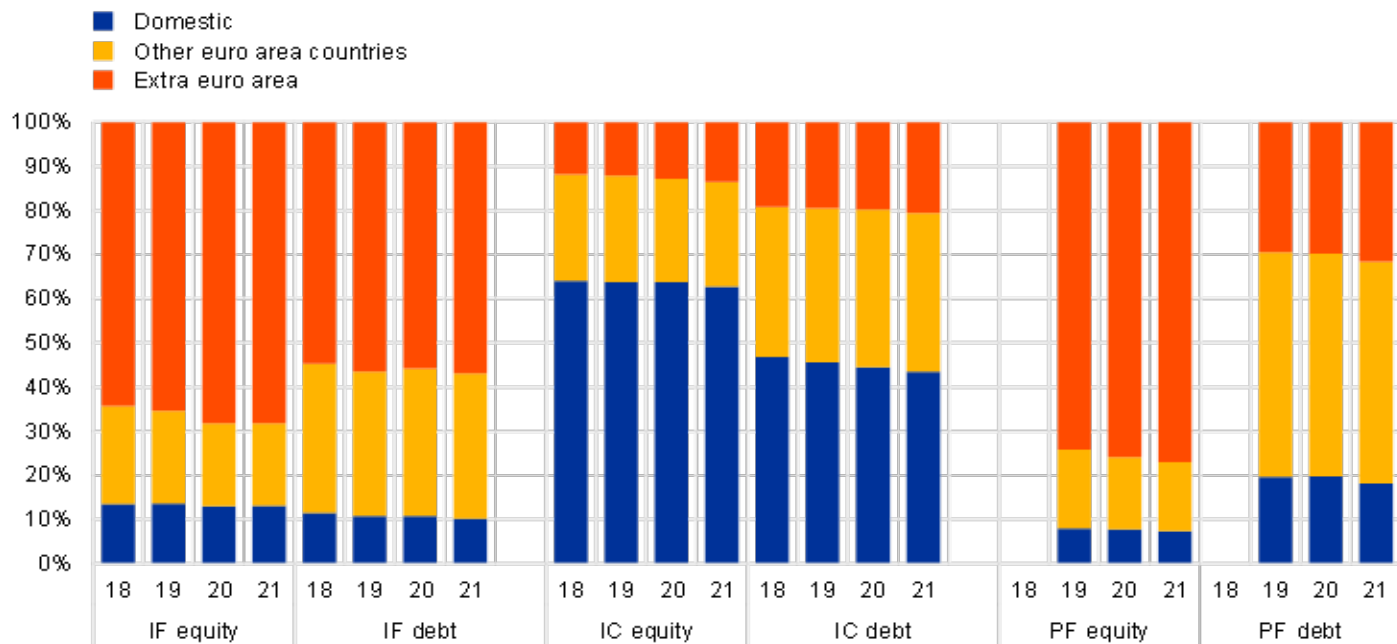
### Sovereign risk premium over Germany

(basis points; daily data; 1 January 2020-11 March 2022)



Source: Chart 21 in report.

**Chart 22**  
**Non-bank asset holdings by asset type and area**  
 (percentages of total asset type holdings; year)

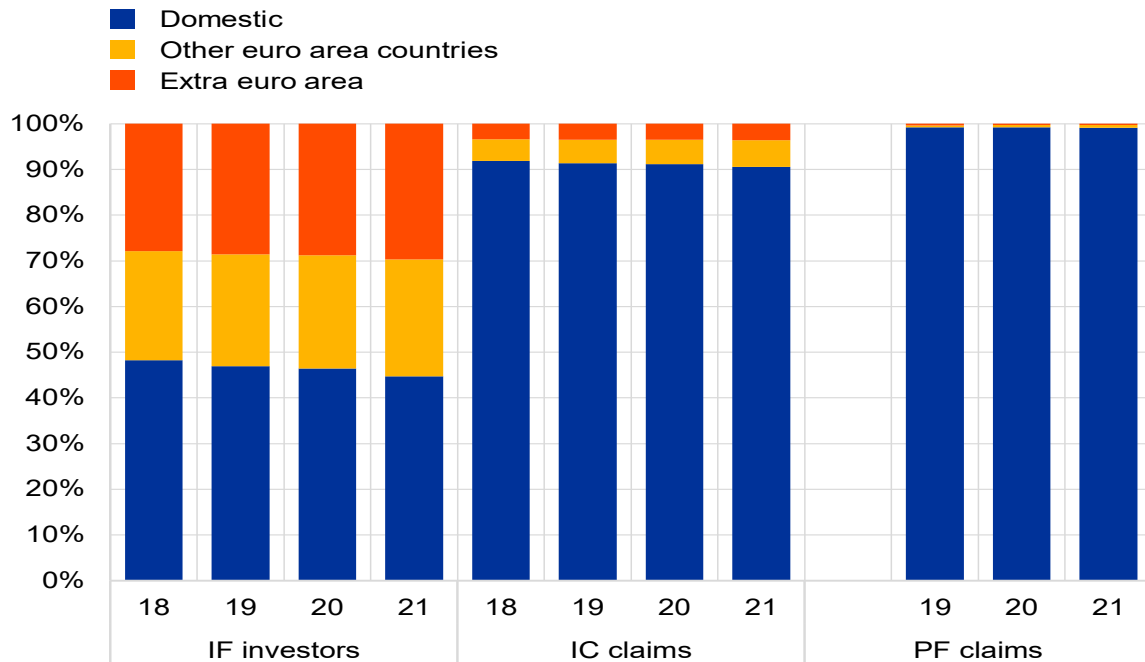


Source: Chart 22 in report.

## Chart 23

### Non-bank investor base/benefit claims by area and asset type

(percentages of total investment/benefits)



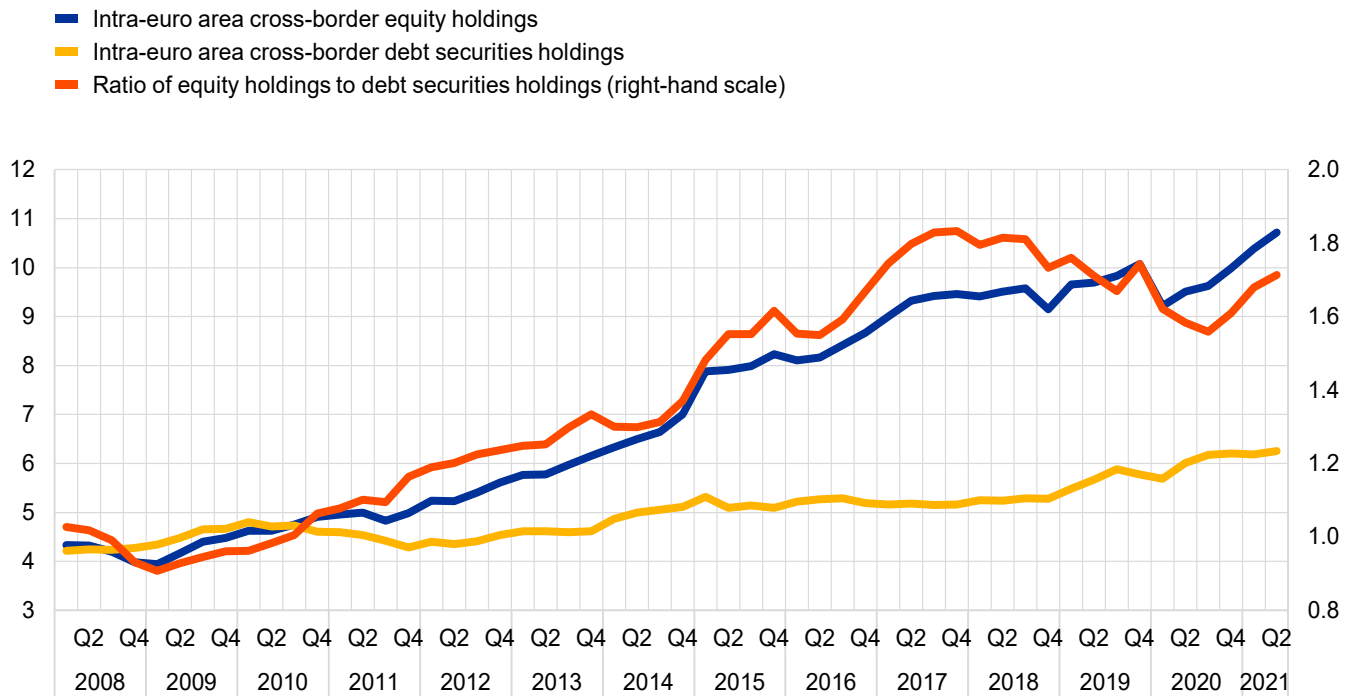
Source: Chart 23 in report.



## Chart 24

### Intra-euro area foreign equity investments relative to intra-euro area foreign debt investments

(left-hand scale: EUR trillions; right-hand scale: ratio; Q1 2008-Q2 2021)



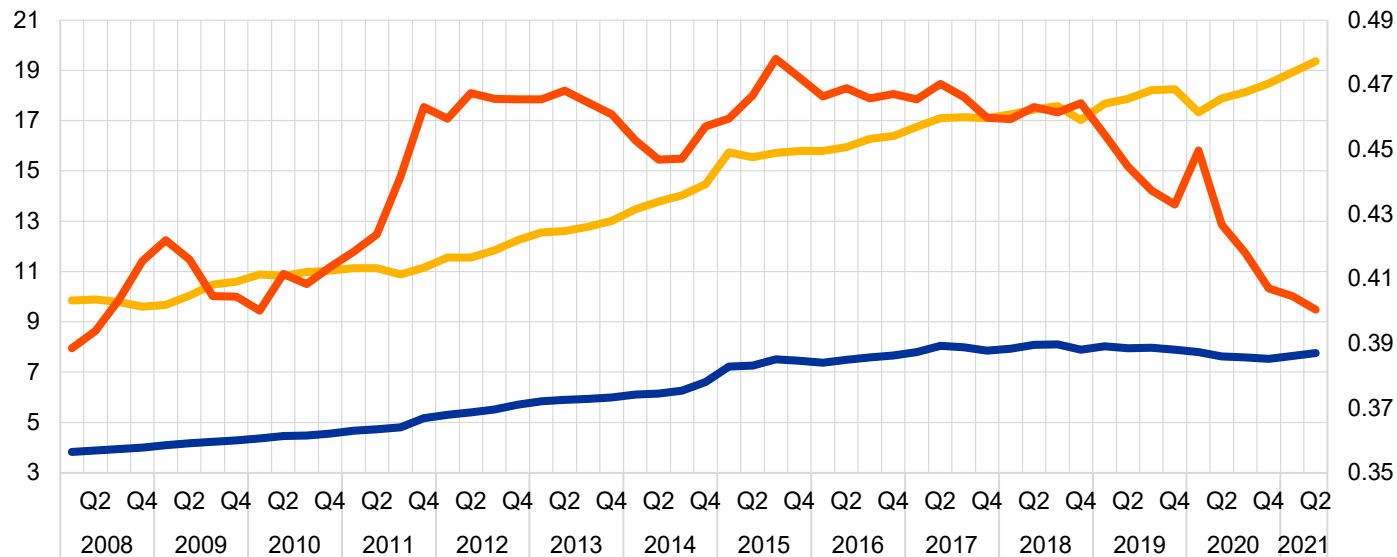
Source: Chart 24 in report.

## Chart 25

### Intra-euro area foreign direct investment

(left hand scale: EUR trillions; right-hand scale: ratio; Q1 2008-Q2 2021)

- Intra-euro area foreign direct investment
- Intra-euro area foreign direct investment and cross-border portfolio investment
- Ratio of foreign direct investment to foreign direct investment and portfolio investment (right-hand scale)



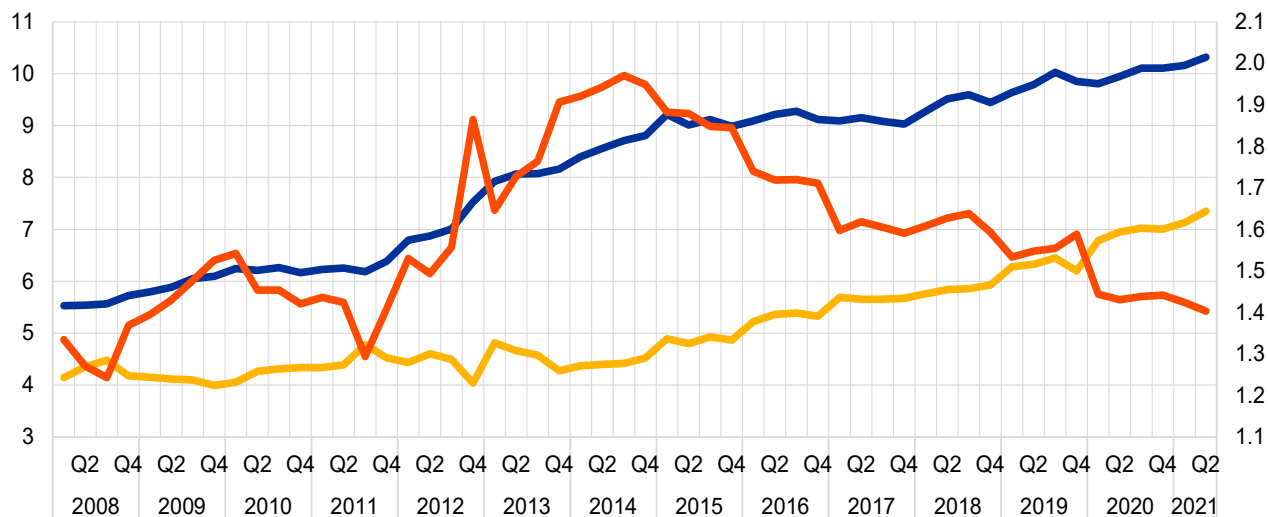
Source: Chart 25 in report.

## Chart 26

### Intra-euro area foreign long-term debt investments relative to intra-euro area foreign short-term debt investments

(left-hand scale: EUR trillions; right-hand scale: ratio; Q1 2008-Q2 2021)

- Intra-euro area cross-border long-term debt securities holdings
- Intra-euro area cross-border short-term debt securities holdings
- Ratio of long-term to short-term debt securities holdings (right-hand scale)

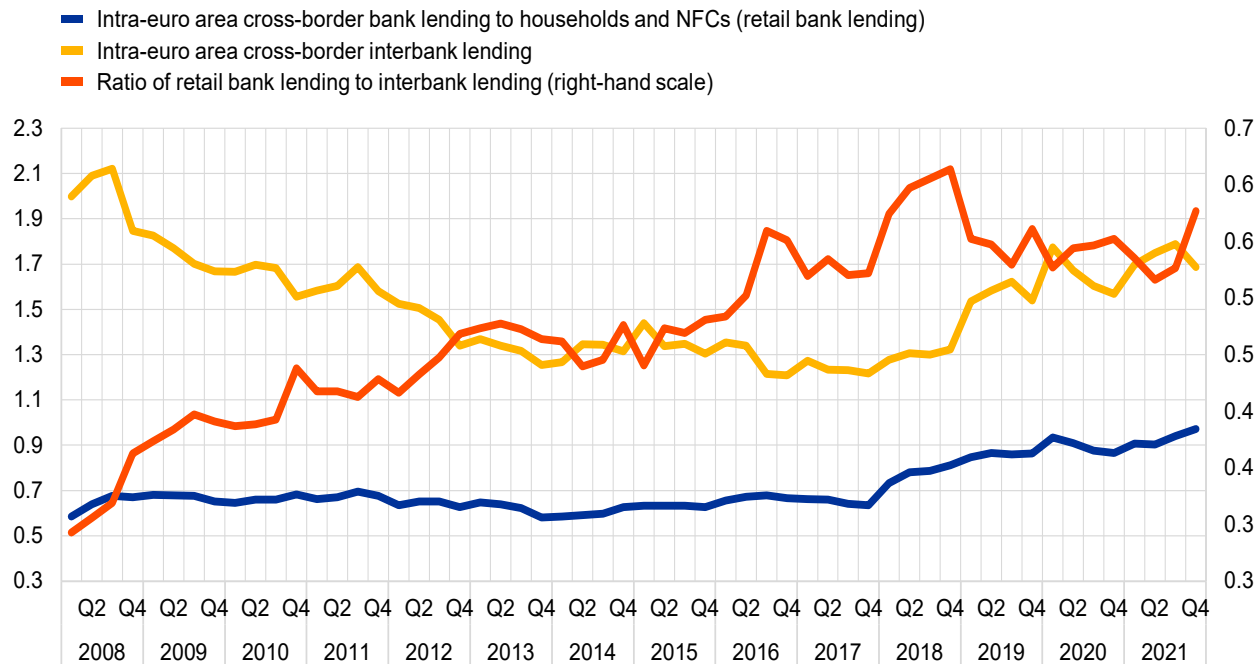


Source: Chart 26 in report.

## Chart 27

### Intra-euro area foreign retail bank lending relative to intra-euro area foreign interbank lending

(left-hand scale: EUR trillions; right-hand scale: ratio; Q1 2008-Q4 2021)

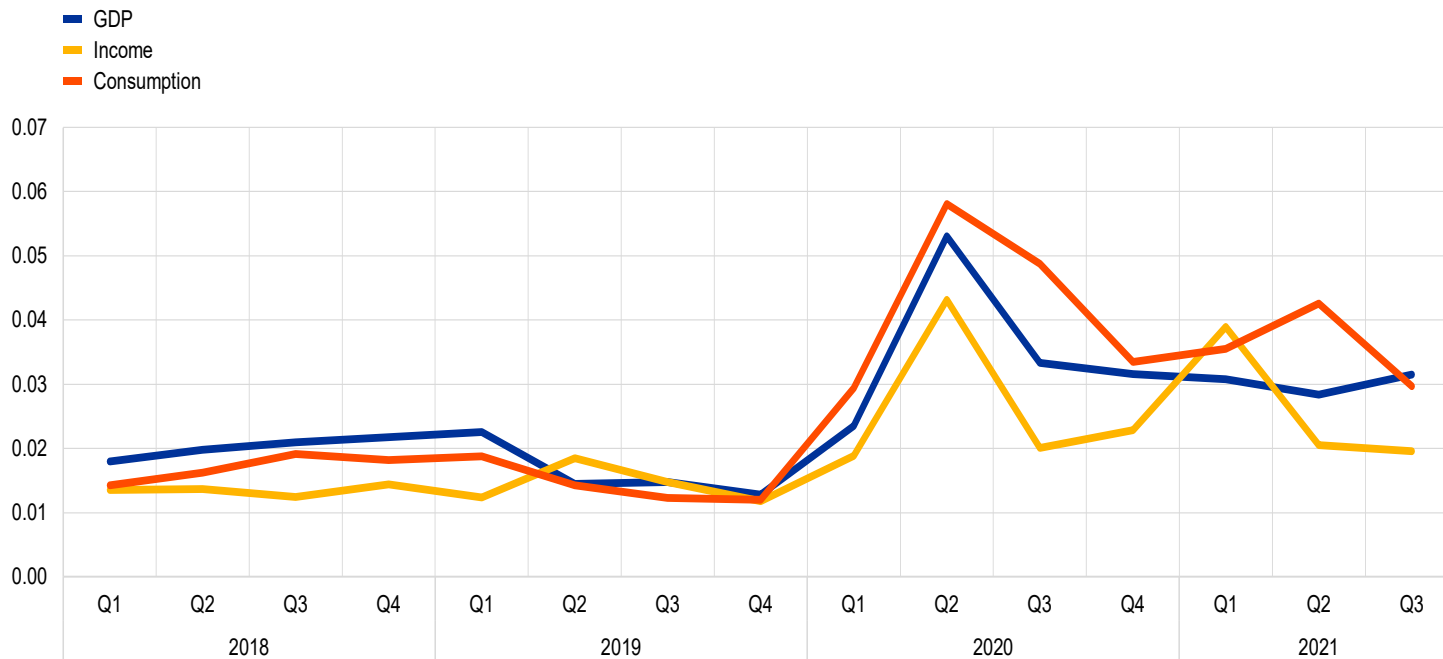


Source: Chart 27 in report.

## Chart 28

### Dispersion of annual growth rates of real gross domestic product, real gross disposable income and consumption across euro area countries

(quarterly data; Q1 2018-Q3 2021)

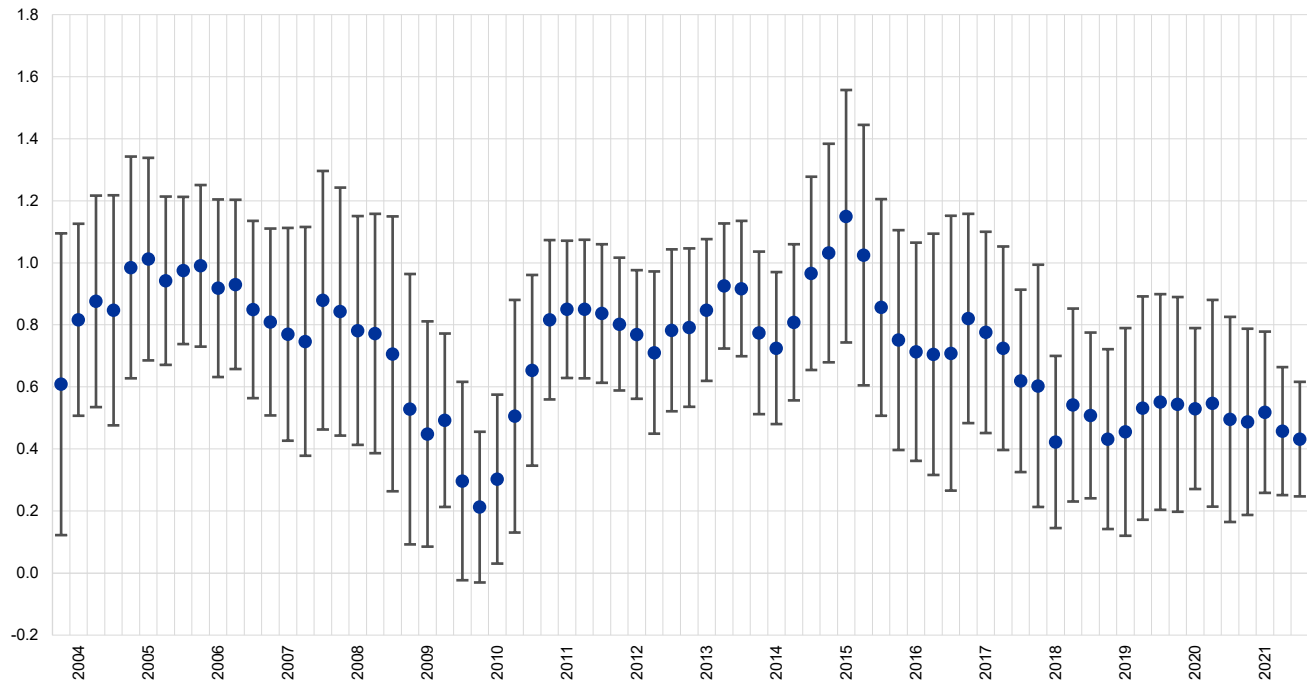


Source: Chart 28 in report.

## Chart 29

### Co-movement of disposable income and output in the euro area

(percentages; quarterly data: Q4 2003-Q3 2021)

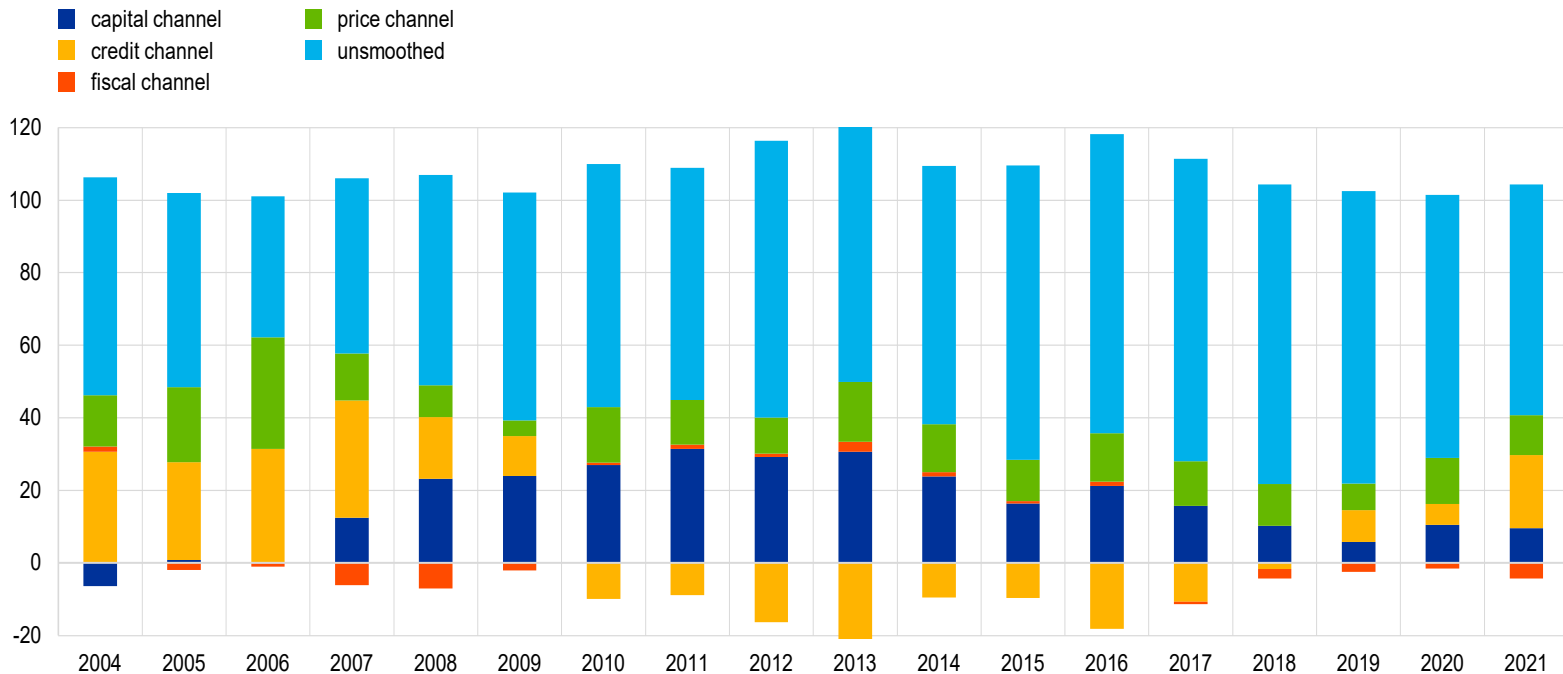


Source: Chart 29 in report.

## Chart 30

### Consumption risk sharing in the EA12 (excluding Ireland) and its channels

(percentages; annual data: 2004-2021)



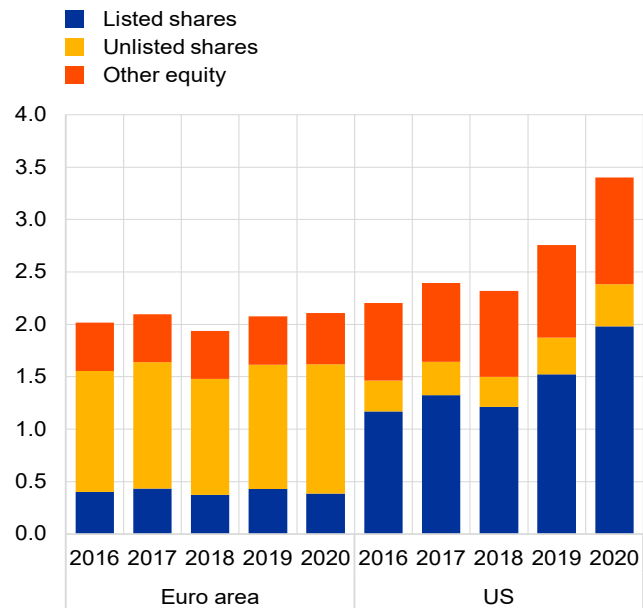
Source: Chart 30 in report.

## Box 1, Chart A

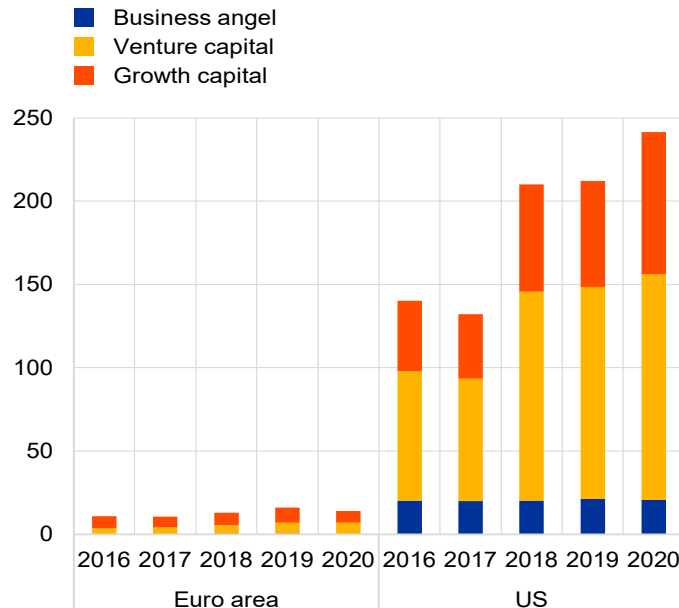
### A comparison of the euro area and the US: equity financing requirements by type of equity

(ratio to nominal GDP (left-panel); EUR billion(right-panel); annual data: 2016-2020)

#### a) Equity financing of the euro area and US economies by type of instrument



#### b) Business angel, venture capital and private equity (growth capital) invested in the euro area and the US



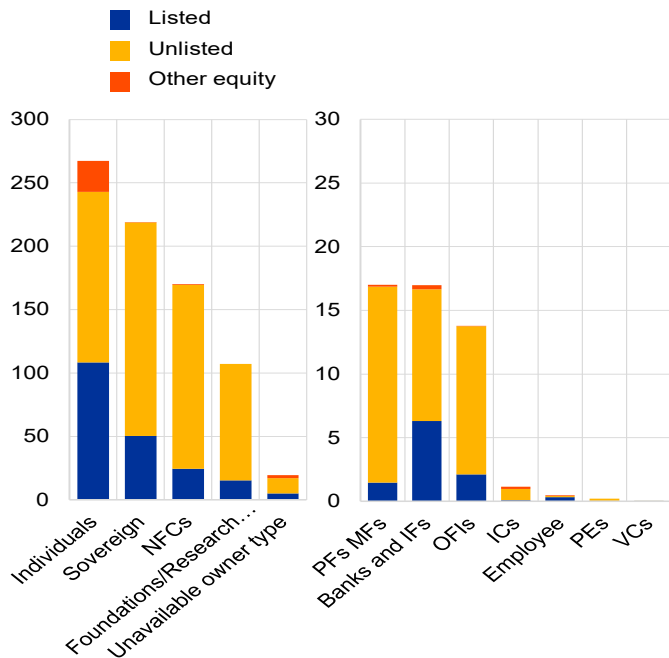


## Box 1, Chart B

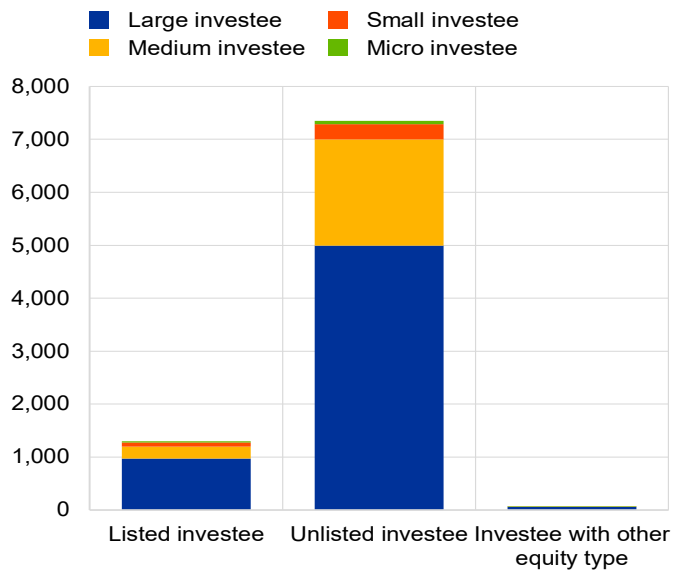
### Equity investments by investor sector and composition of equity investments by investee size

(2020; EUR billions (left-hand panel); number of NFCs (right-hand panel))

a) Investors by size of investment



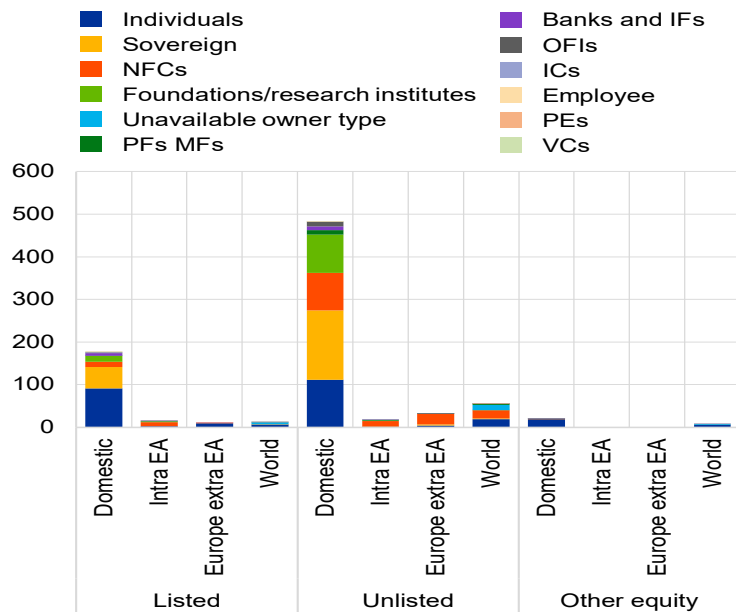
b) Size of investees across equity types



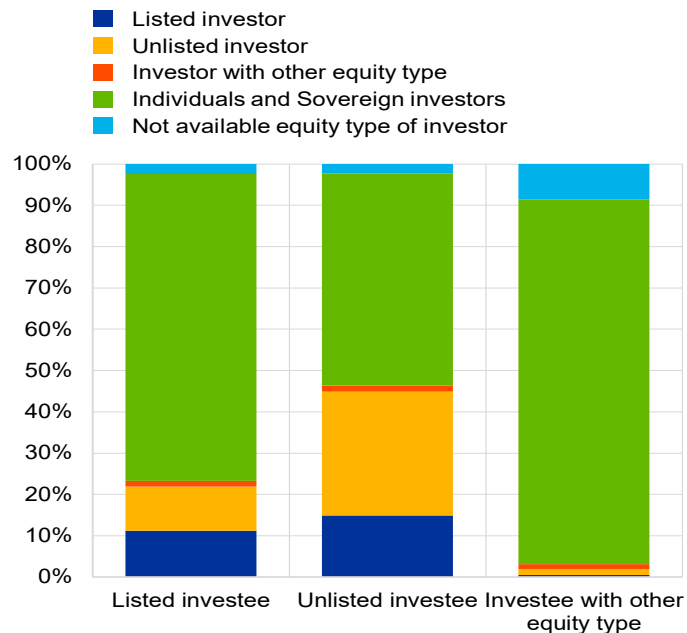
## Box 1, Chart C

### Equity financing funnelled across jurisdictions and equity types (2020; EUR billions (left-hand panel); percentages (right-hand panel))

#### a) Across jurisdictions.



#### b) Across equity types.

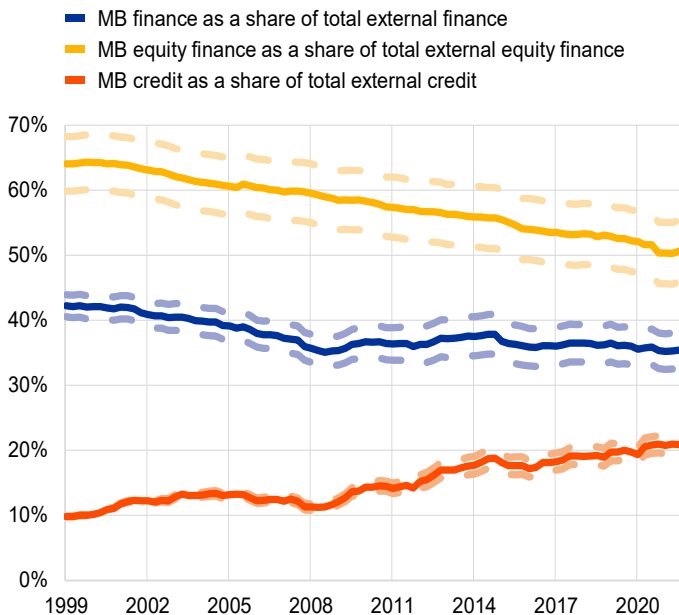


## Box 2, Chart A

### Market-based and non-bank financing of euro area NFCs, including their decomposition into credit and equity components

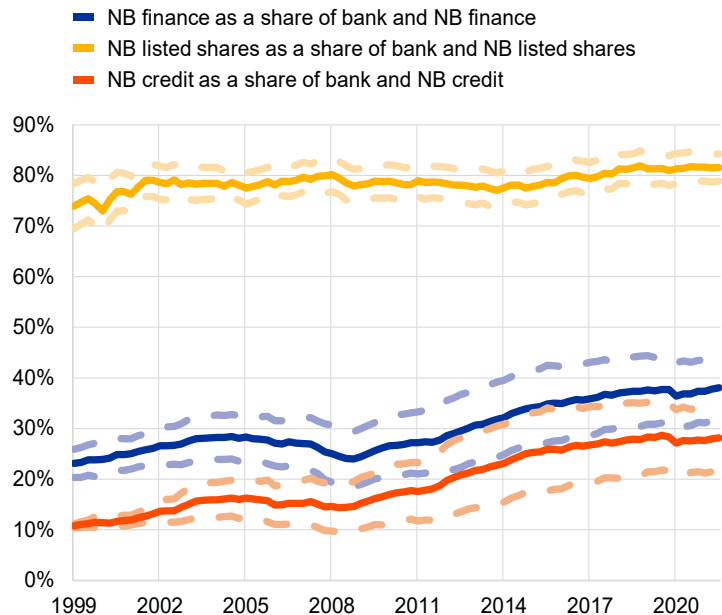
#### a) Market-based finance

(percentages; quarterly data; Q1 1999 – Q3 2021)



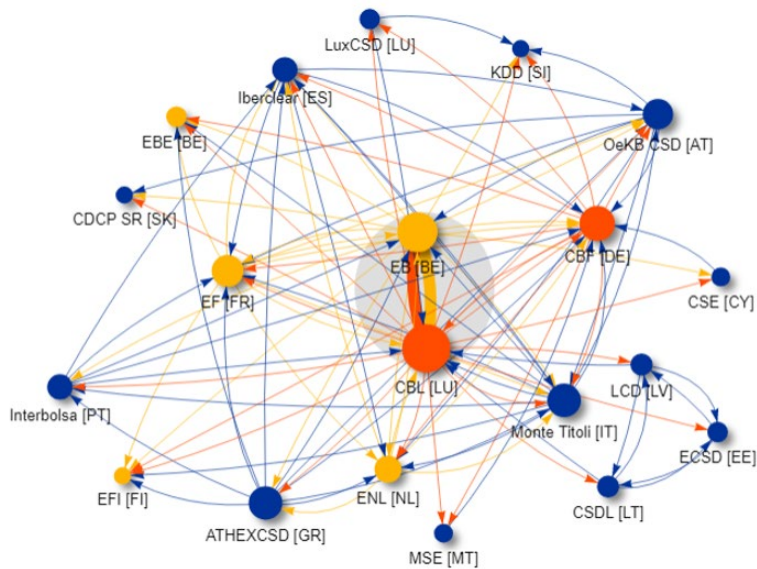
#### b) Non-bank finance

(percentages; quarterly data; Q1 1999-Q3 2021)



## Box 3, Chart A Stylised euro area central securities depositories network

Outbound links in 2016



Source: Box 3, Chart A in report.

### Box 3, Table A

#### Effect of CSD outbound links on bilateral home bias, per bond market segment and year

(basis points)

	2014	2015	2016	2017	2018	2019	2020
<b>All bonds</b>	-0.133*	-0.138*	-0.151**	-0.147**	-0.179***	-0.157**	-0.153**
<b>Non-government bonds</b>	-0.042	-0.084	-0.110	-0.197***	-0.245***	-0.249***	-0.221***
<b>Government bonds</b>	-0.063	-0.058	-0.048	-0.043	-0.033	-0.052	-0.109

## Box 4, Table A

### Home Bias in green bonds versus the non-green bond market

(total for the period Q1 2014-Q3 2021)

		All euro area investors	Banking sector
Green home bias	Mean	0.16	0.24
	Standard deviation	0.22	0.28
Non-green home bias	Mean	0.49	0.59
	Standard deviation	0.24	0.25
	Comparison test	0	0

## Box 4, Table B

### Green bond home bias and supply constraints for all euro area sectors

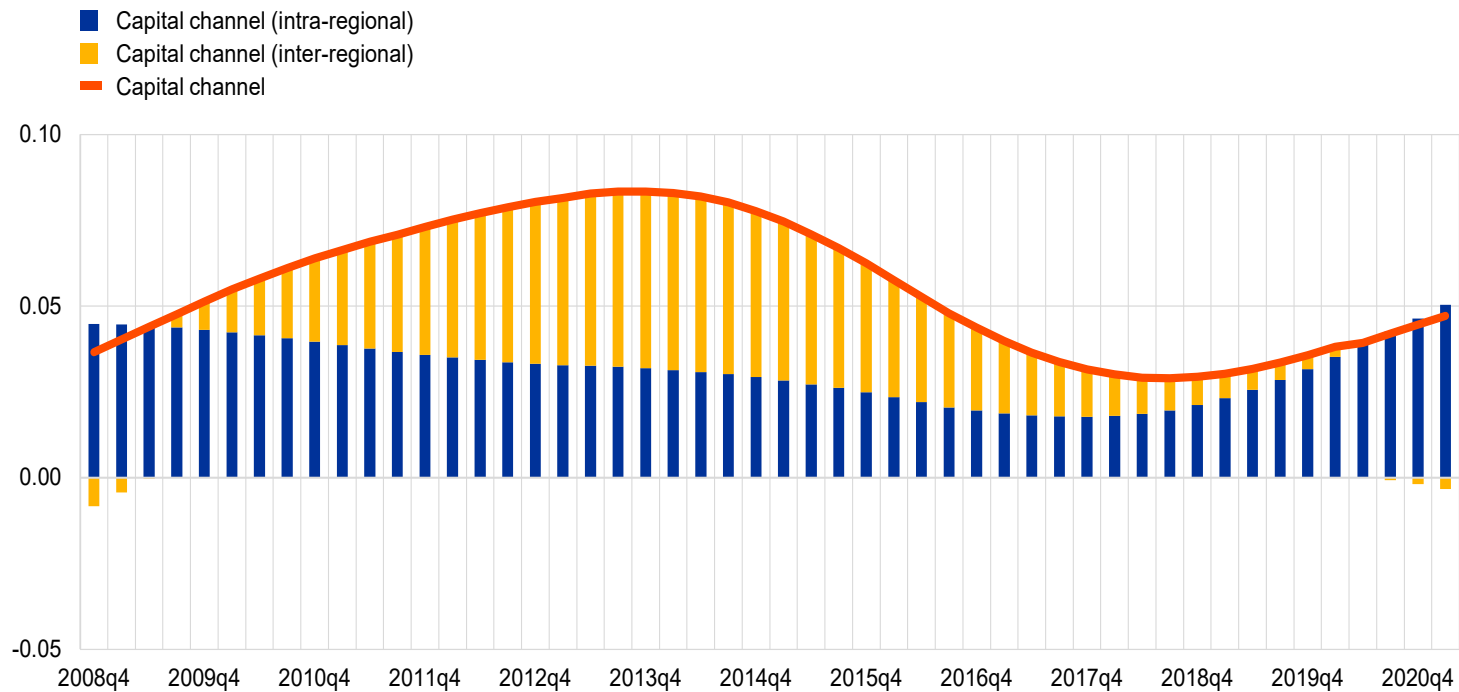
(Q4 2013-Q3 2021)

	(1)	(2)
Domestic development (1)	0.078** (0.036)	-0.187* (0.093)
Domestic development(squared) (2)	-0.003 (0.006)	0.018* (0.009)
Constant	0.119* (0.058)	0.703*** (0.030)
Observations	576	346
Adjusted R-squared	0.678	0.890

## Box 5, Chart A

### Risk sharing via the capital channel

(share of total idiosyncratic shock)



Source: Box 5, Chart A in report.

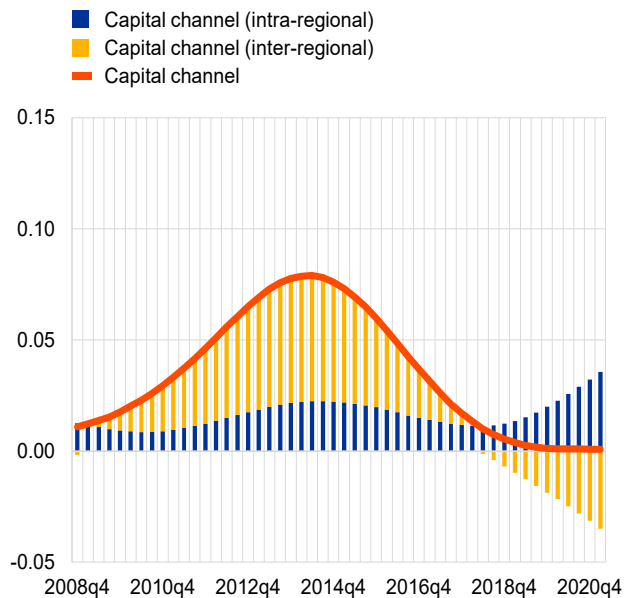


## Box 5, Chart B

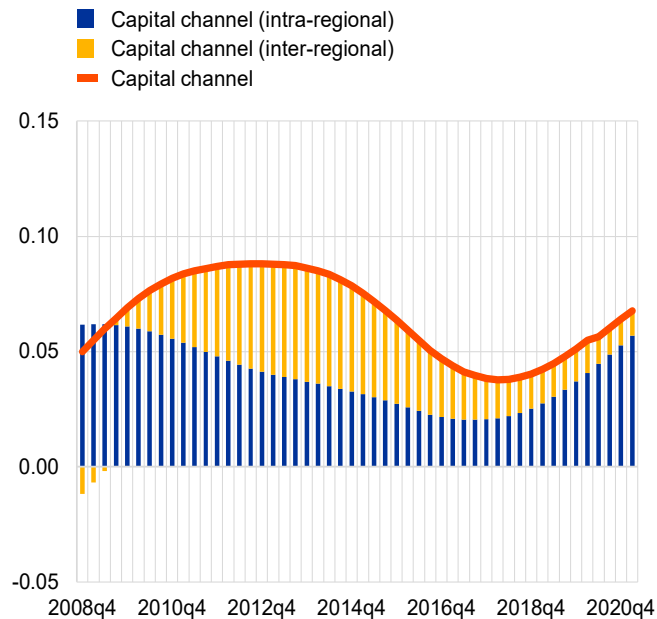
### Risk sharing via the capital channel by country group

(share of total idiosyncratic shock)

#### a) Southern region (IT, ES, GR, PT)



#### b) Northern region (AT, BE, DE, FI, FR, NL)



## Box 5, Chart C

### Comparison of cross-border intra- and inter-regional financial portfolios in the euro area

(EUR millions)

