COMMITTEE FOR THE STUDY OF
ECONOMIC AND MONETARY UNION

6th February 1989

Please find attached a paper by Prof. Niels Thygesen on "Objectives and instruments of monetary policy at an advanced stage of integration", which is intended to assist the Committee in its discussions of the possibilities for monetary management towards the end of stage two.

Telefaxed to all participants 6.2.89
(not Thygesen)
+ Padoa-Schioppa
Dixon
Mingasson

Dott. Tommaso PADOA-SCHIOPPA
Vice Direttore General
BANCA D'ITALIA, ROMA

PARIS, le 2 février 1989

Dr. Günther BAER
Monetary and Economic Department
BANK FOR INTERNATIONAL SETTLEMENTS, BASLE

Dear Günther and Tommaso,

Enclosed please find some reflections on monetary objectives and instruments at an advanced stage of integration. I realise that they may be too long and technical for circulation to the whole committee, but I would appreciate your advice in this respect. They cover more ground than the reserve requirements and link them up with domestic monetary aggregates. I am sending the note by fax to both of you and a copy to Günther by express mail. Any comments you may have would be welcome. I am in Paris until Sunday, office 45.55.95.12, home 43.29.75.61, and from Monday morning in Copenhague.

I apologize for the long delay which is mainly my responsibility, though I had problems of secretarail assistance. Banque de France has very kindly resolved the latter problems.

Yours sincerely

Niels THYGESEN

Niels

Niels THYGESEN

31 January 1989

OBJECTIVES AND INSTRUMENTS OF MONETARY POLICY AT AN ADVANCED STAGE OF INTEGRATION

Imagine an advanced stade of monetary integration in which the establishment of the internal market in goods and services and a high degree of financial integration have made the design of increasingly common economic and, in particular, monetary policies desirable or even necessary to preserve the results and the degree of convergence achieved. By means of what instruments would the central banks conduct their increasingly common policy and divide responsibility for execution of policy between themselves and a European system of central banks (E.S.C.B.) ? Would intermediate objectives nationally and collectively be helpful in formulating policy and in monitoring implementation ? How could the intermediate objectives be justified in terms of ultimate objectives, notably medium-term price stability ? Would the proposed system entail major risks of tensions in the policy-mix between monetary and non-monetary policies ?

The advanced stage of integration envisaged does not require that exchange rates among the participants have been fully fixed. The proposed system could, in principle, have functioned within the rather tightly managed EMS that has developped over the past six years, and it could be tested without definite commitments in a still decentralised and pre-institutional first stage. It would also be relevant for the stage when exchange rates have become fully fixed, but national currencies continue to dominate, at least in domestic use. Though the system proposed may seem most readily applicable to the institutional stage with residual minor realignments -stage 2 in chapter 3 of the draft report of the rapporteurs- it is also relevant to the subsequent stage 3 which is more fully outlined in chapter 2 of the draft report. Hence the justification for presenting it in the context of the discussion of that chapter in the Committee's February meeting. An overview of the points raised in the next three sections may be found in Table 1.

ULTIMATE OBJECTIVES

As regards the purpose of the system the present draft (as proposed by Governor Duisenberg) states that the mandate should be :

".. To maintain the stability of money as the prime objective of the Community's monetary policy. While fulfilling this task, the system has to support the general economic policy of the Community. Stability of the currency in terms of prices must take precedence over exchange rate stability".

It is suggested, in order to give additional concreteness to this notion, that this be interpreted to imply **approximate medium-term stability of producer prices in the internal market for goods.** The increased competition and specialisation resulting from the completion of the internal market will tend to make prices for internationally traded goods more homogeneos, removing gradually the scope for price discrimination among national markets. In practice, one could look at an index of average wholesale prices for the participating countries, expressed in a common unit such as the ECU, or alternatively, and more narrowly, at a deflator of value added in manufacturing industry. The latter would permit the accomodation of external shocks, such as terms-of-trade changes resulting from swings in the prices of energy or other intermediate imports or of raw materials. Stated in these terms the suggested ultimate objective would not be radically different from the course followed in the Community in the 1980's ; the second oil price shock led to a temporary acceleration of producer prices in Europe, even in Germany, while the 1985-86 decline in import prices, prompted by a simultaneous fall in energy prices and in the dollar, temporarily pushed the rate of change of producer prices below zero in some EC-countries. Making it highly predictable that a value added deflator for European manufacturing industry would stay within a narrow band of, say 0 to 2 per cent increase per year -or that an index of producer prices would stay within a wider band, but similarly centered around a minimal rate of inflation- would give logically appealing content to a stability-oriented monetary policy.

For the purpose of linking up with monetary instruments or with national objectives which will continue to be of predominant importance such a general medium-term objective would have to be supplemented by criteria of national performance, consistent with the common inflation objective. One possible way of doing so, broadly in line with trends in national policy-making in a number of industrial countries in the 1980s, would be to formulate **objectives for the rate of increase of nominal income** -or, more precisely, private final demand (private consumption business fixed investment and housing construction) in nominal terms- for each country participating in the monetarily integrated area. Each of these national objectives would be the sum of an unavoidable inflation rate, measured by the appropriate index of prices for private final demand, and a rate of increase of real demand judged feasible in the light of trend capacity growth and the initial situation. Measured in this way, national inflation rates would on average be slightly, higher than the common inflation objective for producer prices, because the broader price indices for final demand would include services and non-traded goods for which productivity increases are typically slower than for the sectors producing internationally-traded goods. National inflation rates in terms of final demand prices might also diverge slightly year by year, as the differentials in productivity between sectors are unlikely to be uniform across countries. Gradually the consolidation of the internal market would impose approximate parallelism on national price levels in this broader sense, as the range of traded goods expands and factor mobility increases.

Nominal income targets have appeared in national policy making at a time when the confidence in monetary aggregates targets was weakening, and a reversal to objectives for the growth of real output was seen as unrealisable and potentially inflationary. Maintaining nominal income close to a steady growth path, while keeping in mind both its price and real components, provides a framework for conducting national macroeconomic policies and for coordinating them internationally. In the present context of discussing possible broad rules for the design and monitoring of an emerging joint monetary policy at a time when many policy instruments remain national, the framework abo provides for a linkage to potential intermediate objectives at the national level and to a still decentralised money creation process. The framework would also be suitable for discussing the coordination of monetary and fiscal policies and the tensions that could arise in the policy-mix, if the two were to develop largely independently with the overall monetary objective of approximate medium-term price stability being pursued by the ESCB, and the participating central banks and national fiscal policies being constrained only by the common monetary objective and by the need to maintain, for each sovereign borrower, credit-worthiness in the integrated European financial market. Like monetary policy, national fiscal policies would be guided by the nominal income objectives.

INTERMEDIATE OBJECTIVES

Some central bankers and economists would argue that monetary instruments can be directly geared to ultimate objectives. If the Community-wide index of producer prices were to accelerate- and information on that would be available with a lag of only a couple of months- average interest rates would be raised and money creation slowed down ; if the growth rate of nominal demand in a particular country were to run well abroad of target that would -with a longer time lag- trigger a country-specific response in terms of higher reserve requirements or a tightening of some other instrument for the country in question. Symmetric responses would be envisaged in case of a deceleration of inflation or a shortfall of nominal demand.

While such rules might be sufficiently stabilising in practice by at least providing simple rules for the direction of response, further attention to the monetary transmission mechanism from instrument changes via intermediate objectives in the form of monetary and/or credit aggregates is warranted for at least two reasons. First, if reserve requirements are to be applied, they have to be seen to work in a broadly similar way in the participating countries, preferably by relating to a monetary (or credit) aggregate which exerts influence on the ultimate objectives, while containing also up-to-date information on the latter. Secondly, formulating policy with respect to a monetary aggregate should improve the understanding and enhance the credibility of policy.

A possible procedure would be to set a **collective target for annual money creation** in the area as a whole in line with the price objective. Abstracting temporarily from interventions in third currencies, total additions to the broad money stock (M2 or M3) would be matched by the domestic counterparts to money creation in each country, purchases of other participating currencies by one country being offset by sales elsewhere within the system. In principle, there would be no sterilisation of interventions in partner currencies. The main operational task of controlling total money creation would then consist in applying instruments to influence, through incentives or obligations, the readiness of each central bank to keep domestic credit expansion (DCE) close to the targeted rate. Setting the latter through a collective decision -making process would constitute the core of the **ex ante** coordination effort of the ESCB. The process would assist in making consistent the national objectives for the growth of nominal demand from which the national DCEs are derived. Deviations between actual and targeted DCE would in turn give some early information on deviations between actual and targeted growth in nominal demand.

It cannot be claimed with confidence that (1) national DCEs can be closely controlled or that (2) they are tightly linked to nominal demand over shorter periods of time, two desirable characteristics of intermediate monetary objectives. A recent OECD study shows a fairly weak quarter-to-quarter relationship between DCE (and different monetary aggregates) and changes in nominal demand for the four largest EC economics, but a clearer tendency for both to decelerate in Germany, France and Italy (but not in the UK) since the early 1980s, see Chart 1. Despite the evidently high degree of slack in the relationship of DCE and nominal demand, using the former as intermediate objective is justified by two considerations : (1) it provides the most direct linkage to total money creation in the area ; and (2) it is an extension, in the direction of symmetry, of the present informal practice in the EMS in which most countries, with the significant exception of Germany, look to rates of domestic credit expansion relative to others in the EMS as the consistent underpinning for the main intermediate objective, viz. to maintain stable exchange rates in the EMS. For Germany the shift from the present intermediate objective (target for broad money, M3) to a DCE-target, with in principle no provision for sterilisation, might be acceptable, provided overall money creation in the area were seen to be more directly subjected to collectively agreed decisions and efficient instruments for implementing them.

Total money creation would depart from the sum of national DCEs to the extent that non-sterlised interventions vis-a-vis third currencies were undertaken by the ESCB directly or by one of the participating central banks. There is no presumption that such interventions would be sterilised ; efforts to stem what was considered excessive depreciation of the area's currencies vis-a-vis the dollar through dollar sales might well require some overall tightening of monetary conditions and higher average interest rates in the area, and vice versa in the case of purchases of dollars to stem overly rapid appreciation of the currencies in the area. The degree of sterilisation would be a matter for discretionary decisions arrived at collectively through the ESCB. The latter would also, in consultation with the participating central banks, take a view on which currency or currencies to use in dollar interventions so as to maximise the cohesiveness of the currencies within the system and the degree of correspondance in each country between a central bank's DCE objective and the observed growth in credit including potential effects of sterilisation operations linked to interventions in third currencies assigned to that particular bank.

For the individual central bank the main short-term intermediate objective would continue to be the maintenance of stable exchange rates vis-à-vis other participating currencies. **Ex ante** coordination of DCE objectives should make that task easier on average ; in practice, the DCE objective may, in particular situations, have to be overridden to maintain exchange-rate stability.

INSTRUMENTS AVAILABLE

Even without the attribution of any particular instrument to the ESCB the collective formulation of ultimate and intermediate monetary objectives would in itself constitute a major step towards **ex ante** coordination. Nothing would prevent the EMS central banks from extending their present exchange of information on their respective formulation of domestic monetary policy, prepared in regular reports by the group presided over by M. RAYMOND for the Committee of Central Bank Governors, in this direction. The EC Monetary Committee has also developped procedures for evaluating the consistency of monetary projections or objectives at regular intervals. This emphasis on mutual surveillance instruments would be intensified, if there were to be a high-level monetary policy committe reporting to the Committe of Central Bank Governors in the pre-institutional stage 1 envisaged by the present committee. Closer coordination could begin to replicate the effects of a more advanced stage, even while the policy analysis and recommandations emerging from it remain strictly advisory.

Yet it is unlikely that anything ressembling closely a common monetary policy could be conducted withouth vesting in the ESCB genuine decision-making power and a minimum of instruments with a visible impact on both the overall thrust of monetary policy and the relative positions of countries. In the present note the main emphasis is on the former aspect, i.e. the capacity of the ESCB to induce or oblige individual central banks to stay close to the agreed intermediate objectives and hence to facilitate attainment of the ultimate objectives. The virtue of Governor CIAMPI's paper is that it points to a simple and gradualist method of increasing the collective influence on money creation. By generating a demand for required reserves in each central bank proportional to its contribution to money creation and by controlling the mechanism by which the sole asset which can satisfy the requirements is supplied, the ESCB could exercise a direct influence on the national DCEs and collective money creation. Both the demand and the supply side are essential for the proper working of the mechanism.

Reserve requirements could be imposed either on the central bank's creation of its own monetary base as envisaged in Governor CIAMPI's paper or on the domestic counterparts of money creation by the national banking system as a whole (DCE). The former would have the advantages of being easy to monitor at any time -it could be imposed on a current basis- and of avoiding the difficulties of agreeing on similar concepts of DCE in countries with different institutional arrangements and consequent differences in the delimitation of monetary aggregates and their domestic counterparts. It would have the disadvantage of impinging on a concept of money creation further removed from the intermediate objectives, though not necessarily from the ultimate objective of private final demand. Developping some grip on DCE may be important not only as a means of influencing nominal income nationally, but also in itself to control the national components of system-wide money creation and underpin stable exchange rates. In the present note the imposition of reserve requirements on the basis of DCE has been preferred. The requirement could be simply proportional to DCE or it could be levied at a progressive rate for transgressions of a country's targeted objective. (Such a system was used nationally in several countries, e.g. in France in the 1970s).

The requirement could in principle be met by depositing, into a non-remunerated account with the ESCB, international reserve assets denominated in currencies other than the currency of the country in question. If the choice were that wide, the incentive to stay close to the targeted DCE path would consist in cost minimisation. For every unit of required reserves deposited the central bank would forego the earnings on its international currency asset. If it does not want to see its usable pool of reserves diminish, it would borrow to supplement them up to the desired level and incur the corresponding cost. However, as central banks, unlike commercial banks, are not principally motivated by profit considerations, such a mechanism might be inadequate as an incentive, unless the progressivity of the reserve requirements were made steep.

If the ESCB, on the other hand, is in a position to prescribe that the requirements can only be met by depositing an asset for which it fully controls the supply, price incentives would be supplemented by a rationing mechanism. Like a national central bank vis-à-vis its commercial banks the ESCB would become the only ultimate source of liquidity for the individual central bank. Uncertainty whether this lender-of-last resort function would ultimately be filled by the ESCB and at what cost would constitute a major incentive not to deplete any free reserves by condoning excessive rates of DCE.

A simple way of organising the system would be for the ESCB to allocate, say on a quarterly basis, a quantity of the reserve asset corresponding to the required reserve ratio multiplied by the agreed targeted rate of DCE to the account of each participating central bank. Actual required reserves would then be debited to the account. Unused or free reserves would be available for lending to other participating central banks only. The ESCB could affect the balance between demand for and supply of the reserve asset in either of two ways : by modifying the general level or schedule of reserve ratios (possibly in exceptional cases by imposing ratios differentiated by country) or by extending credit through additional allocations generally or individually. It would also administer/ set the interest rate on credit or debit positions in the system in analogy with the management of national Lombard facilities. With those discretionary powers there would be little risk that the system would become an inflexible strait-jacket ; indeed, there may have to be provisions for restricting the scope for discretion -beyond possibly requiring a qualified majority for decisions- to prevent the system from developping too much flexibility.

Three questions about the operations of such a system come to mind : Would the system complicate the efforts of individual countries to defend their currencies within a stable exchange-rate system ? Could the reserve asset be the official ECU as presently defined ? Could the exclusivity of the reserve asset be extended beyond its use in the system of required reserves ?

In normal circumstances the system would reinforce and complement actions that national central banks will wish to take in order to defend parities. It would reinforce the incentives not to allow excessively rapid or slow credit creation at home to build up as a major source of tension. In a crisis situation with large outflows or inflows it would not impede the scope for reacting with effectiveness, as long as the reserve requirement is based on domestic sources of money creation rather than on a monetary aggregate. The system would also have mild features of symmetry by providing an incentive to those central banks who are below their DCE targets to lend free reserves to other central banks. The former would obviously be free not to do so ; no system of monetary control can be made to work fully symmetrically. Other pressures towards symmetry would manifest themselves more fully than to-day at a stage of advanced monetary and financial integration ; residents of other countries would more readily take up any unused lending capacity in a country which was significantly undershooting its DCE path.

No mention has so far been made of the definition of the unit used in the system of required reserves. Governor CIAMPI's paper suggests that the present official ECU, defined as a basket of currencies, and still confined to use among official holders, would be appropriate. This is indeed a logical choice in view of the intention to give to the common currency which will emerge in a final stage of Economic and Monetary Union, after exchange rates have been fully fixed, the name of the ECU, hence preparing market participants gradually for a unit with characteristics similar to those of the present official and private ECU. But three complications arise from the envisaged new use of the official ECU, none of them insoluble.

First, the interest rate on the required reserves ECU (RRECU for short) will no longer be an average of market interest rates for the component currencies as is the case with the present official ECU or -through imperfect arbitrage- the private ECU. At times of rapid monetary growth the demand for RRECU will run ahead of supply and push up its interest rate ; the ESCB may push it up even higher than the automatic scarcity in the inter-central bank market would suggest. At times of slow monetary growth the RRECU rate may fall well below a European average. This divergence of interest rates may be confusing to participants in the private ECU market, through it is in principle no different from what can be observed in national markets where central bank lending rates, or inter-bank rates, are only weakly linked to rates that apply to private lenders and borrowers. It raises no problems are long as markets are separated.

Secondly, the RRECU will also be different from the existing official ECU and no substitution of the latter for the former is envisaged in the system. In particular, a country about to fall short on its reserve requirements will not be able to met them by borrowing "normal" official ECU, because the quantity of the latter is not subject to any money supply rule. Two separate, closed circuits will have come into existence ; that raises the question whether the same name can be used for both. If the traditional official ECU is to be reduced in volume, as suggested in Governor CIAMPI's paper, this problem will fade away.

Thirdly, if a realignement occurs, the system will leave more scope for credit expansion in countries that have devalued in terms of the ECU (and the RRECU) and less in countries that have revalued, because the volume of DCE that can be sustained by a given volume of RRECU will have changed in proportion to the realignement. These unintended effects can be avoided more directly (than by retaining the original exchange rates in the RRECU system) by adjusting either the required reserves ratios in proportion to the realignment or by modifying the intermediate DCE objectives to sustain the desired effects of the realignment.

On balance, therefore, the three complications referred to do not invalidate the use of the present basket definition of the ECU for the new unit in its fonction in the system of required reserves. On the contrary this use would be seen as a confirmation of the intention to ultimately move to a common currency and it could open up other uses for the unit as an exclusive or preferred means of official settlements among participating central banks, as the mechanism of supplying official ECUs is changed from the present mechanical system to a process of monetary control.

The introduction of the proposed system of management by the ESCB of the required reserves system would leave the national central bank with the main responsibility for defending their currencies within the band permitted for fluctuations through the mixture of intramarginal interventions, movements in the band and adjustments of relative interest rates which has provided effective mechanisms of defense since the Basle-Nyborg Accords of September 1987, as described in chapter 1 of the report. The ESCB would typically monitor, but not intervene in these national decisions ; the existence of the reserve requirements system makes any powers for the ESCB to intervene directly in national money markets less necessary. At times of tensions when bilateral or multilateral disagreements appear between the participating countries as to how a change in relative interest rates is to be brought about, the ESCB might exert its influence in the light of the relative position of countries in the required reserves system. There would be a presumption, for example, that a country which has accumulated borrowings at the ESCB directly or from other central banks in relation to meeting its reserve requirement is a candidate for an increase in the national short-term interest rate.

Possibly the main virtue of the system is that it provides for a relatively clear division of responsibilities between the ESCB and the participating national central banks in the difficult phase when monetary authority has to be to some extent divided, and at the same time the attribution of an important instrument to the centre, enabling it to exercise a relatively growing influence, if experience with the system warrants such a development.

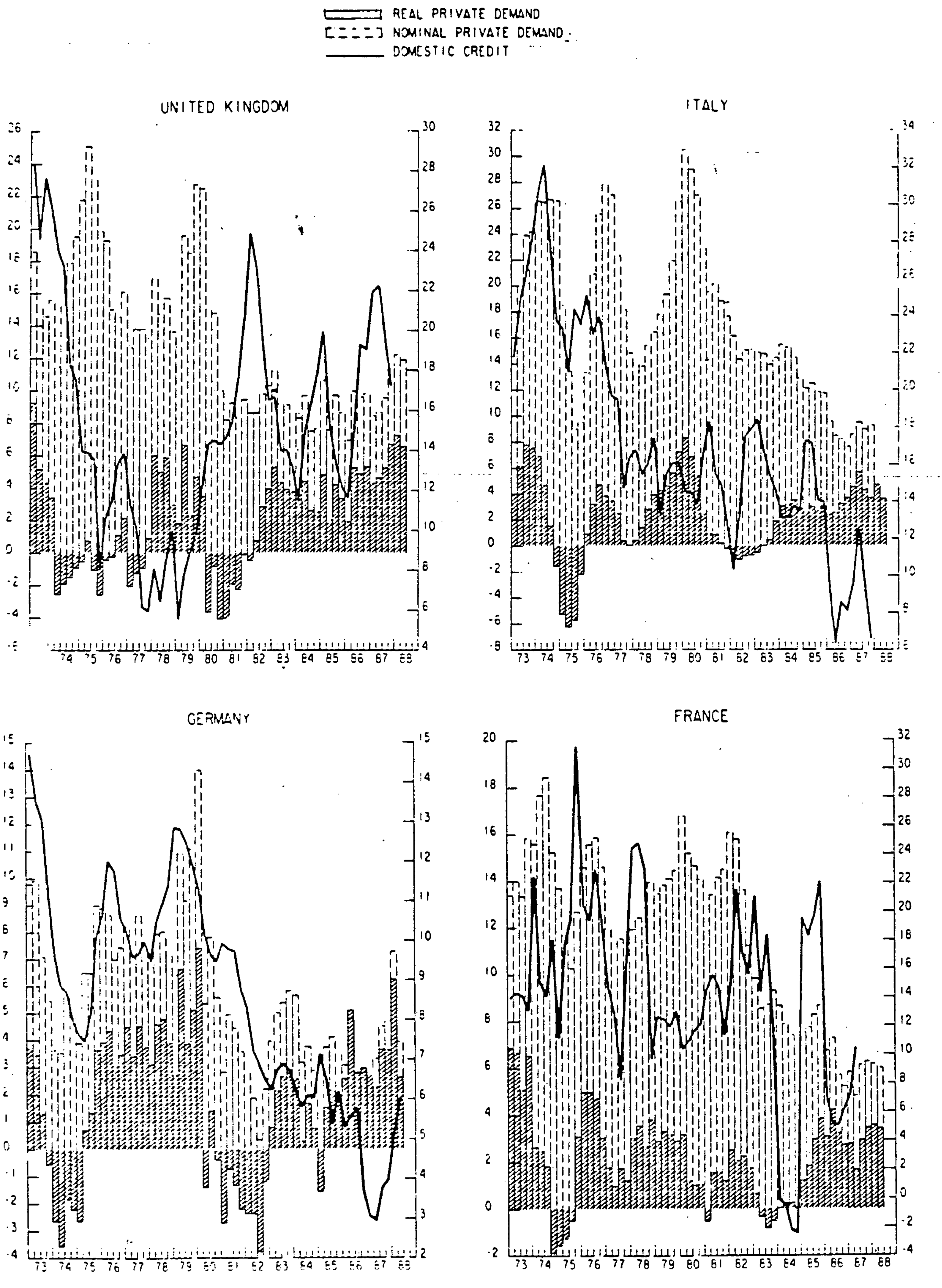
TABLE 1

ULTIMATE AND INTERMEDIATE OBJECTIVES

INSTRUMENTS OF MONETARY POLICY

	Collective	National/relative
Ultimate objectives	Maintain approximate medium-term stability of producer prices in the internal market.	Keep growth in nominal private final demand close to targeted path in each country.
Intermediate objectives	Keep growth of monetary aggregate for area as a whole within targeted interval.	Keep growth in domestic credit (DCE) within targeted interval in each country.
	Maintain sustainable current account position for area vis-à-vis rest of the world.	Keep stable exchange rates vis-à-vis other currencies within the area.
Instruments available	General (and differentiated) reserve requirements against national DCEs. Lending rate of ESCB Intervention policy vis-à-vis third currencies.	Intervention rates and policy in intra-area currency band. Interest-rate differentials within area.

DOMESTIC CREDIT EXPANSION AND GROWTH RATES IN NOMINAL AND REAL PRIVATE FINAL DEMAND



Source : OECD