WORKING PAPERS

CONTROLLING EUROFINANCE MARKETS

by

W.P. Hogan

No. 36 December, 1979

IN ECONOMICS

DEPARTMENT OF ECONOMICS

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This paper owes much to discussions with Dr. Gattfried Haberler, Emeritus Professor of Harvard University and Resident Scholar in the American Enterprise Institute, Washington, D.C., Professor Ivor Pearce, University of Southampton, England, Miss Haruko Fukuda, London and Dr. René Codoni, Institut für Wirtschaftsforschung, ETH, Zurich. The work was initiated in Southampton and pursued in Washington and Zurich. It reflects some part of joint efforts with Ivor Pearce to come to grips with the basic mechanisms in eurofinancing.

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It should be noted that this working paper contains estimates which are subject to revision. The comments and conclusions are subject to amendment in light of further discussion and analysis.

CONTENTS

CONTROLLING EUROFINANCE MARKETS

1. Introduction

Regulation and confusion are the midwives of eurofinance markets. Regulation gave impetus to devising techniques for the financing of trade and capital flows in currencies other than that of the country in which the participating institutions were domiciled. Exchange controls and similar devices have been used to limit the use of national currencies for transactions with non-residents as well as restriciting their use by residents. Controls on interest rates have brought discrimination between different sources of borrowing. Confusion has persistently dogged the aims of policies being served by the various efforts to regulate foreign exchange markets. Attempts to thwart exchange adjustments under the old fixed exchange rate regimes applying up to 1971 only added to the speculative pressures for changes in official exchange rate relativities. Measures for curtailing the use of the United States dollar in some activities, such as the financing of foreign investment, helped the growth of alternative financing techniques. Moreover, so long as the United States dollar remains a major reserve currency, the choice in the use of foreign-held balances in New York must have repercussions for domestic as well as foreign credit. Hence efforts to confine domestic money markets and their interest rates were bound to be checked, if not frustrated. The historical development of eurofinancing well illustrates the many responses to attempts at regulating exchange transactions [13, 14, 21 Ch. 6]. A diversity of experiences in a number of major economies points to the flexibility of international capital markets.

But the confusion is not confined to performances of governments and monetary authorities. Despite the lengthy discussion of the behaviour of these markets over more than a decade there is widespread disagreement about the basis on which they have developed and the connections with national monetary systems. The main problems reflect the treating of international capital transactions, at least in the eurofinance setting, as if they were the same as banking activities within a country. Hence the concern with analysing international credit multipliers. Yet the results of this approach are an array of multipliers not convincing of the stability of credit generation; this provides a stimulus to questioning the usefulness of this analysis [23].

This paper examines the basis for criticising eurofinance markets for their impact on inflation and its transmission to the international economy. This is followed by a simple theoretical segment which seeks to illuminate the functions of eurofinancing. Then in the subsequent four sections the main reasons for criticising eurofinancing activity are analysed. In later sections of the paper proposals for controlling eurofinancing activity are considered and reviewed. The main interest is in recent American schemes though some reference is made to European attitudes.[1]

2. The Basis of Misgivings

Proposals before the United States House of Representatives on controlling the activities of the eurocurrency market, embodied in a bill entitled, "Euro-currency Control Act of 1979, H.R. 3962", aim to impose reserve requirements on participating institutions in eurocurrency transactions in much the same way as now applies to member banks of the Federal Reserve System. To be successful the measure would require the co-operation of other countries. Issues raised in discussions of this proposal before sub-committees of the House of Representatives indicate American thinking on problems of and measures to deal with recent developments in eurofinancing.

The American view on the dimensions of the problem arising from present eurofinancing arrangements reflects the very rapid growth of eurofinancing transactions compared with national banking and financial systems. This emphasis on the rate of growth is well exemplified in testimony by Dr. Henry Wallich, a member of the Board of Governors of the Federal Reserve System,

> "Moreover, Eurocurrency holdings and credits have been growing more rapidly than the domestic monetary and credit aggregates of the United States and of most other countries. For example, from the end of 1974 to the end of 1978, eurocurrency liabilities to nonbanks are estimated to have grown at an average annual rate of about 18½ per cent, compared with growth in M-1 and M-4 in the United States at average annual rates of 6.3 per cent and 8.5 per cent respectively over the same four-year period". [24, pp. 4-5]

Much less certain is the size of eurofinancing in relation to national monetary aggregates. Massive accumulations of assets and liabilities have been generated in eurofinance markets. Although estimates of total international bank lending are somewhat uncertain owing to problems of data collection, amounts outstanding grew from U.S$204 billion at the end of 1972 to about U.S.$903 billion at the end of 1978. A strict interpretation of euro-currency transactions, such as that estimated by the Bank for International Settlements (BIS), would place the amounts outstanding at the end of 1978 at about U.S.$665 billion.[2] In contrast, the amount of domestic credit provided by the American banking system to the market sector was U.S.$394.9 billion at the end of 1972 and U.S.$712 billion at the end of 1978. The bald comparison is fraught with difficulty owing to the complexity of relationships between banks in any one national banking system and those participating in the eurofinancing markets. Even if the net size of the market as it influences real output and trade were smaller, the addition of eurofinance lending to some aggregation of money supplies in those economies whose currencies are commonly used in these markets would be important. Thus it is something more than the rapid pace of expansion; the size of this leading is now very large.

Worries over the workings of eurofinance markets call for explanation and analysis. An indication is given by Representative J. Leach, sponsor of the bill mentioned previously, in testimony before subcommittees of the House of Representatives,

> "Reserve requirements on eurocurrency deposits should have the effect of: (1) raising the cost of funds in the eurocurrency market, thereby removing the competitive advantage this market offers international institutions vis-a-vis the domestic market; and (2) putting a limit on the amount of credit which can be created in the eurocurrency market. As a result, it would be less advantageous for financial institutions to make extensive use of eurocurrencies for both their lending and foreign exchange operations, as well as to circumvent domestic monetary controls. The bill therefore seeks to improve the conduct of monetary policy, help control inflation and make disruptive currency speculation more difficulty". [10, p. 11]

The main themes are the relative uncompetitiveness of American banks because of the locking-up of non-income earning assets in reserves at the Federal Reserve and a belief about the eurocurrency market stimulating inflation and currency instability while diminishing the scope for exercising effective domestic monetary policies.

An authoritative statement by Hon. A.M. Solomon, Under Secretary of the Treasury for Monetary Affairs, summarises the issues disturbing policy-makers in the United States,

> "...., the size of the eurocurrency market and the rate of its growth have led to expressions of concern and to fears that:
>
> --- the eurocurrency market was itself generating or creating excessive amounts of credits,
>
> --- banks were incurring excessive risks,
>
> --- the ready availability of such large sources of credit contributed to destabilizing speculation on the foreign exchange markets,
>
> --- and more recently, that the eurocurrency market was complicating efforts to appraise and manage domestic monetary conditions". [19, p.3]

In subsequent sections these four points will be examined in turn. However, before turning to these features some explanation of the workings of eurofinancing is necessary. This is taken up in the next section.

3. The Market Mechanism

The explanation for the development of these markets lies in the devising of financial techniques permitting countries experiencing balance of payments deficits to continue high levels of imports relative to export earnings. Prior to the rapid expansion of these markets those deficit countries not adjusting their economies so as to reduce trade deficits were likely to experience pressures for devaluation all too often realised in the course of events. Additional costs might be incurred for meeting repayments and interest charges on past borrowings as well as weakening the capacity to borrow in future through having to meet higher premiums associated with risk. This was clearly the position where the central reserve currency is that of a country with a stable international trade and payments position.

Eurofinance markets have changed the direct connection between borrowing and lending countries. The surplus countries, holding balances in New York, are encouraged to place them with eurofinance institutions. Those institutions are, most often, branches or affiliates of established banks in major countries.

The apparent risks of lending to a deficit country, such as reneging or negotiating a roll-over on a debt, are avoided. At the same time the participating institutions assume these risks as intermediaries when lending to the final user of these funds, namely the deficit countries. However, the connection between the initial leader and the final borrower of these funds is diffused by the mass of interbank transactions within the eurofinance markets; these might best be described as "wholesaling" activities.

Participating financial institutions avoid the requirements of most national monetary systems about holding a percentage of their liabilities as reserves of central banks. In short there is some financial incentive to work outside national money markets because higher interest rates can be offered to attract deposits for lending to other financial institutions and finally to borrowing countries. This feature ensures that some capital flows can be induced regardless of balance of payments transactions on current account or with direct foreign investment included.

The mass of interbank transactions in eurofinance markets may help disguise the risks for lenders and borrowers. Each participating institution may aim to limit mismatching between the maturities of its liabilities and assets. But the overall impact may be to have a wide disparity in maturities of the initial non-bank lenders and the final non-bank borrowers.

What transpires with these markets is the creation of foreign debt expressed in terms of the central reserve currency but which in no way represents an obligation of the government issuing that currency. Furthermore, where surplus and deficit countries pursue domestic policies for stabilising domestic costs and prices, the effects of eurofinancing will do little to induce inflation. Only when the eurofinance markets are technically more efficient than national capital markets may the impact be to stretch maturity transformation in ways akin to an increase in the velocity of circulation with national monetary aggregates.

There are many complications to this simple illustration. Foreign exchange rate determinations are well to the fore in any assessment. What has gone before assumes that commitments arising in international financial intermediation are balanced on spot and forward exchange markets. Yet much depends upon the understanding of how the huge accumulations of assets and liabilities, denominated in the central reserve currency, have accrued. Should they be misinterpreted as an obligation of the government issuing that currency, then possibilities for disturbance to exchange relativities must arise. This would occur most easily between the central reserve currency and those of the surplus countries.

The various aspects to this position may best be illustrated in a simple example. A surplus country might become wary of further expanding its holdings of euromarket assets denominated in central reserve currency. The surplus country would start selling that currency on the forward market so depressing the central reserve currency. However, the government of the central reserve currency might wish to avoid that depreciation because of the impact on costs of imports and the stimulus this would eventually bring to exports; both influences would tend to increase domestic prices and costs. An understanding could be reached with the surplus country to exchange credits between their respective central banks. The surplus country would supply its currency to allow the central bank providing the central reserve currency to purchase its own currency in the forward market in exchange for the currency of the surplus country. The effect of this operation is to expand the amount of credit in one or both countries as each increased its assets and liabilities. The domestic impacts of this expansion of credit would have varying consequences depending upon the monetary policies pursued by the respective central banks. But the international financial ramifications would reflect the willingness of the two central banks to either retain their swaps or to deposit their excess holdings in foreign exchange reserves, once exchange relativities had been stabilised, in euromarket intermediaries. These surplus holdings would reflect the swapping of credits between the two central banks as distinct from the foreign exchange position arising from the balance of payments on current account in conjunction with direct foreign investment.

Firms in the surplus country wishing to be rid of central reserve currency balances might choose to deposit funds in euromarket intermediaries denominated in the surplus country currency. In that case, as with holders of the surplus country currency in any location, the central bank concerned cannot influence the euromarket placements unless it has recourse to capital controls or administrative persuasions. In this way the range of denominations in these markets is extended; a position familiar in recent experiences with deutschmark.

The result of this intervention in exchange markets is to maintain the size of balances held in the central reserve currency. Only the ownership of those balances will have shifted towards central banks from private holders. Should central banks place funds, reflecting these holdings of the central reserve currency in eurofinance markets then further expansion of eurofinance loans can take place.

In effect, the additional funds injected into international capital markets enable deficit countries to further increase borrowings thus sustaining demands for goods and services throughout the international economy. In this situation means are then available for financing total international demand for goods and services in excess of the available supply with consequences for world-wide inflation. Recipient countries can avoid adjustments to domestic policies.

Problems with these off-shore markets do not arise through the process of intermediation they perform. Clearly, the stability of the international economic system rests upon the transfer of the savings associated with the surplus countries to the deficit countries lacking the savings to support national spending programmes. Yet such a process is part of a comprehensive inter-relationship involving adaptation of relative prices and costs as well as real inputs and outputs.

Difficulties arise from the failure to perceive the full implications of the eurofinancing mechanisms. All the deposits in euromarkets, whatever the currency they are denominated in, reflect balances held at the central bank or in the commercial banks of the country whose currency is being used. Any transfer into, out of or between eurofinancing intermediaries involves a change in ownership of these balances. Accordingly, the real scale of expansion in eurofinance markets depends upon:

a) the deficit in the balance of payments on current account plus net direct foreign investment of the country or countries providing the central reserve currency and major reserve currencies;

b) the portfolio or financial capital transactions of the country or countries providing the central reserve currencies and major reserve currencies;

c) the swaps, credits and similar devices negotiated between central banks and governments to stabilise currency relativities but which add to balances of reserve currencies held by central banks; and

d) the switching of funds held in balances at central banks or in the banking systems of countries whose currencies are used as reserve currencies, to the eurofinance markets.

All those financial transactions which add to the liquidity of the international economic system, such as extending swaps or shifting assets from national banking systems to eurofinance markets, go further than balancing surpluses (savings) and deficits (dissaving) between national economies.

4. Credit Supply Themes

The first of the four themes causing worry to the American authorities is the potential for excessive supplies of credit to generate inflationary problems and to sustain balance of payments problems. The difficulty with this interpretation is that these markets have provided the means for adapting the international economy to the impact of oil price rises in late 1973 and 1974, the so-called petrodollar recycling. However, the oil price rises initiated by the member countries of the Organisation of Petroleum Exporting Countries (OPEC) came towards the end of the boom in commodity prices during 1972 and 1973. Hence, it is hard to support arguments for the expansion of eurofinancing based upon a "needs of trade" view implied by the petrodollar recycling; international lending grew rapidly between 1970 and 1973.

An examination of the components of international bank lending and other sources of eurofunding is necessary for an understanding of what has taken place. Estimates on lending activity between 1973 and 1978 are shown in Table 1; the information is derived from various annual reports of the Bank for International Settlement [4]. The series in this table are not complete in as much as the sources of international funding on those of European, North American and Japanese banks including the affiliates of United States banks in some "off-shore" locations. Some newer international sources are not included, such as Bahrain, or only partially with respect to United States affiliates, as in the case of Singapore. This set of estimates also suggests the need for care in specifying what aspect of international financing one is analysing.[3]

Interpretation of the two series for lending by United States banks and their off-shore affiliates is more difficult. Off-shore financing by the affiliates is similar to eurofinancing; deposits are attracted from an outside source for lending to borrowers elsewhere. Yet in important respects this parallel presents difficulties. United States authorities, by imposing reserve requirements for which banks do not receive interest, and by pursuing interest rate policies which have the effect of opening obvious differentials on those applying in international capital markets, give incentives for expanding affiliates to use funds outside the national jurisdiction. Lending by these affiliates may be interpreted as a substitute for direct lending by financial institutions in the United States.

This distinction is not certain because funding from national capital markets may have been used in syndicated loans expressed in eurocurrencies [19, p.5]. Some part of this increased lending was used to provide support for forward cover transactions in foreign exchange markets duringthe latter part of 1978. Accordingly, the estimate in Table 1, row 5a, for eurocurrency lending by banks reflects a narrow interpretation of what has taken place. In effect, clear distinctions can no longer be confidently advanced.

An important element in the series is that showing the contribution of bond issues to the total flow of new financing. The gross value of bond issues has remained stable over the last three years; this comes at a time when other forms of international lending were rising swiftly. When account is taken of repurchases and redemptions and the possibilities for institutions in the eurofinance markets to take up the bond issues then the net value of new bond issues has declined over the past two years.

As is evident from the estimates, there is a significant proportion of interbank depositing amongst the reporting banks. This activity may be best interpreted as the "wholesale" market amongst all the Eurofinancing activities. Thus the net series is often viewed as the more appropriate one when examining the impact of eurofinancing on prices and output. Yet there are many reasons for treating the net series very cautiously; it reflects deposits already counted in monetary aggregates measured by national authorities and there is confusion about what meaning can be attached to the credit activities of eurofinancing institutions. In this instance questions about "credit multipliers" are much less important than the maturity transformation provided by financial intermediaries.

TABLE 1

International Lending: Currencies and Bonds, 1973 to 1978

(U.S.$ billion)

	Lenders	Amounts Outstanding end of 1972	Changes in each year shown 1973	1974	1975	1976	1977	1978	Amounts Outstanding end of 1978
1.	Banks in European countries	149.6*	62.2	35.0	50.5	55.7	80.6	145.2	611.4
1a.	of which in Eurocurrencies	131.6*	56.8	26.8	42.9	47.2	68.5	117.2	502.0
2.	Banks in Canada and Japan	24.0*	5.4	5.1	-0.3	4.8	0.8	16.3	56.0
3.	Banks in the United States	20.7*	6.0	19.5	13.6	21.3	11.5	36.5	129.3
4.	U.S. Bank branches in "off-shore" centres	9.4*	14.1	12.6	15.0	23.8	16.2	15.4	106.5
5.	Gross New Lending (1to 4)	203.7*	87.7	72.2	78.8	105.6	109.1	213.3	903.2
5a.	of which in Eurocurrencies (1a, 2, 4)	164.0*	76.3	44.5	57.6	75.8	85.5	148.9	664.5
6.	less double-counting: re-depositing amongst reporting banks	83.1*	36.2*	29.7*	38.8	35.6	34.1	103.3	363.2
7.	Net New Lending	120.6*	51.5*	42.5*	40.0	70.0	75.0	110.0	540.0
8.	Eurobond and Foreign Bond Issues	-	9.9	13.3	22.9	34.3	36.1	36.7	-
9.	less redemptions and repurchases	-	2.5*	3.0*	3.3	4.3	5.1	8.2	-
10.	Net New Bonds	-	7.4*	9.3*	19.5	30.0	31.0	28.5	-
11.	Gross New Bank and Bond Financing (5 & 8)	-	97.6	84.5	101.7	139.9	145.2	250.0	-
12.	Total Net New Financing (7 & 10)	-	48.9*	51.8	59.5	100.0	106.0	138.5	-

Source: Bank for International Settlements, Annual Reports, various issues.

Note: * These earlier estimates may be subject to some revision not apparent in recent annual reports.

The participating institutions have a much smaller impact on the "final users" of eurofunds - nonbanks in the terminology of eurocurrency discussions - than the gross estimates would suggest. Much official testimony in the United States suggests a smaller role than shown by these gross estimates [24, pp. 3-4; 19, p.4]. Thus additions to the total world money supply, may be between U.S. $100 and $150 billion. However, the comparable lending estimate would be greater by about U.S. $100 billion over this total.

The eurofinancing markets comprise a series of closely linked activities. First, there is the eurocurrency market based upon financial institutions accepting deposits and making loans in currencies other than that of the country in which they are domiciled. Secondly, the same or similar institutions lend directly in their national currencies but much of their lending is apparently geared to eurocurrency markets. Thirdly, bond issues have been prominent in much recent financing. Fourthly, the eurocurrency market is intimately linked to the determination of foreign exchange rates; transactions in the market establish the basis for interest rates and exchange rates.

These markets have brought many changes in techniques of financing. Loans are offered with flexible arrangements on interest rates and maturities. Similarly deposits are offered on fixed-terms; very few are at call. For example, at the end of 1978 only 20 per cent of deposits in the London eurocurrency market was for a maturity of eight days or less. Thus the proportion of demand deposits in the eurofinance market is small by comparison with national banking systems. Innovation in financial arrangements has become the hallmark of eurofinancing.

The importance of what is now the cornerstone of international markets is in the efficiency with which the process of maturity transformation is conducted. Robert Aliber's work on the behaviour of these markets compared with national capital markets illustrates their relative strength and efficiency [1]. Thus the impact on credit supply has been akin to that of non-bank financial intermediaries within national systems and hence also provide for an expansion in the velocity of circulation. Quite recent work gave a setting for much of this analysis [18]. The strong positive maturity transformation in liabilities during recent years points to that being the expansionary stimulus from *within* eurofinancing.

The actual growth of eurofinancing reflects the workings of the international trade and payments system rather than some elusive "credit multiplier" experience. The four bases for funding the expansion of eurofinance markets were summarised at the end of the previous section. These are the sources for funding the expansion of loans each year by the participating institutions. The illusion of "credit multipliers" stems from the predominantly wholesaling activities between the participating intermediaries as portfolios are adapted to shifts in the maturity structure of assets and liabilities associated with the final use of funds and the influences of foreign exchange markets. Indeed, the lengthy and confusing discussion of multipliers has been a "red herring" for understanding the market mechanisms [8, 23].

The impetus to expansion is well depicted in an alternate series to that offered by the BIS. In Table 2 estimates for the growth of eurofinancing, at least with respect to international lending, are shown for the years from 1970 to 1978. These are estimates developed by the Morgan Guaranty Trust Company with a somewhat wider basis for collection than those for the BIS. What they bring out is the very high rate of growth in these markets well before the onset of the oil price leaps in 1973 and 1974.

TABLE 2

Eurofinance, Bank Lending 1970 to 1978

end of year	Gross Estimates		Net Estimates	
	$ billion	Annual Increase %	$ billion	Annual Increase %
1970	110	-	65	-
1971	145	31.8	85	30.8
1972	200	37.9	110	29.4
1973	305	52.5	160	45.4
1974	375	22.9	215	34.4
1975	460	22.7	250	16.3
1976	565	22.83	310	24.0
1977	695	23.01	380	22.6
1978	890	42.45	475	25.0

Source: Reference [27].

5. Risk Elements

The risk features in eurofinance markets comprise the usual features associated with lending in any market and sovereign or country risk when lending involves transactions across national boundaries [2]. Given the nature of eurofinancing, sovereign risk applies to the great bulk of loans to final users. Commercial risk elements should be familiar: first, the credit risk associated with the ability of borrowers to repay; secondly, the ability of lending institutions to manage assets and liabilities in ways which will avoid liquidity problems; and, thirdly, the risks associated with the potential variability of interest rates and foreign exchange relativities.

In many respects, the markets reflect techniques for containing risk. The comprehensive spot and forward markets in foreign exchange allow financial institutions to hedge their exchange risks. Ronald McKinnon has drawn attention to the intimate links between lending and exchange operations [14]. Similarly, the loans are designed to curtail the risks associated with interest rate changes by providing for periodic adjustments based upon shifts in the London Interbank Offered Rate (LIBOR). Moreover, some loans provide for flexibility in maturity dates thus allowing some further adaptations of the maturity structure of asset portfolios. Thus some aspects of commercial risk are abridged.

Sovereign risk is a quite separate matter. Government guarantees of loans to domestic banks and other borrowing institutions do not bear upon sovereign risk being rather linked to reducing worries about commercial credit-worthiness. Sovereign risk is about national capacities to fund debt service requirements on all loans, official or otherwise, owing to foreign lenders. Additionally, there is the possibility of legislative actions, such as nationalisation, involving inadequate provisions for repayment of loans. Problems arising over compensation for the seizure of equity capital do not bear directly on lending though the repercussions for lending would be clear.

One recent development bears upon sovereign risk. This is the connection between lending activities not confined to eurofinancing institutions, and the role of the International Monetary Fund when reviewing the effectiveness of economic policies in countries receiving assistance as a result of severe disturbances in their balance of payments. What has emerged during the past few years is a closer linking of the provision of eurofinancing to this supervisory role. In a most important way the provision of this supervisory role of an economy experiencing heavy foreign indebtedness, has been treated as a mitigating factor when lenders have been assessing risk. In this way the application of conditions for conducting national economic policies has become an integral feature of conditions for sustaining lending to a number of countries, apart from those in Eastern Europe.

This approach to the handling of questions about sovereign risk has yet to be tested. Lengthening of maturities on loans suggests extensions well beyond the reach of agreements negotiated under the auspices of the International Monetary Fund. Nor is there a basis for judging the impact when conditions laid down are not fully implemented by the particular national government. Yet there seem to be few substitutes for an effective assessment of commercial and sovereign risks. At best negotiations by the International Monetary Fund may provide a modest mitigating influence. Nevertheless the existence of conditional arrangements has sustained a lending flow which might otherwise have been more moderate.

What of eurofinancing behaviour in relation to risk? The market appears to reflect a judgement that LIBOR is akin to a risk-free borrowing (or deposit) provision. This is *implicit* in the frequent citing of the risk-free character of interbank borrowings. This stance must be questioned. The interbank market is not a closed shop; it supplies a net flow of funds to the 'final users' or non-bank borrowers. In this respect LIBOR does not approximate a risk-free rate structure. Thus the capacity to liquify interbank funding depends upon the liquidity and debt servicing capacity in the non-bank sphere. Hence the netting out of interbank assets and liabilities is fraught with difficulty when risk themes are being explored. Accordingly, risk elements in eurofinance markets are real and probably much more significant than individual participating institutions would judge.

One offsetting feature is the extent to which central banks in the main eurofinancing centres are committed to supporting their participating commercial banks. Various arrangements of an informal nature, sometimes described as "Gentlemen's Agreements", seem to abound in this sphere with understandings about the ways participating institutions work in different aspects of the markets [3, 19]. However indirectly, there are arrangements inaugurated in 1974, providing what is tantamount to "lender of last resort" facilities. Again the concerted support by central banks of foreign exchange markets when stabilising currency relativities puts funds into eurofinance markets. In this way liquidity strains bearing upon the liabilities of participating institutions are relieved.

Evidence on risk is scanty. Discussion is hampered by lack of information on the stability of lending activities, even though claims are made that losses in 1976-1977 on foreign lending by commercial banks in the United States were less than those on domestic loans [26, p.4]. Yet this comparison is deceptive in view of the implications of loan failure in the international setting. The rolling over of loans is the accepted device for avoiding the implications of inability to service or repay debts. Reneging on debt obligations would affect all loans to the country concerned with implications for the status of all participating institutions as well as freezing new loan possibilities. In effect all lending institutions, private, public and multilateral, have an interest in forestalling debt failure. However, the apparent stagnation in eurobond financing during 1978 and, perhaps, the latter part of 1977 is indicative of a shift from a financing arrangement subject to regular market tests through offerings on major markets. Instead, there has been greater reliance on various form of direct lending from banks, individually or in some form of syndicate or consortium. The general features exhibited in lending during the past two years have shown a narrowing of margins over the cost of funds.

The limited evidence on general lending arrangements is shown in Table 3 for the final quarter of each calendar year between 1973 and 1978. The spread or margin is the interest rate over the LIBOR base. What is evident is the very easy conditions prevailing in the eurofinance markets during 1973. Loan maturities were long while the average spread was low. This would have reflected a relatively weak demand for funding. A speedy reversal came following the rise in crude oil prices. While the supply of funds to euromarkets expanded, demand for loans accelerated owing to the balance of payments deficits confronting many countries. This tightness was further exaggerated by the failures of two participating institutions, Herstatt and Franklin National; in both cases foreign exchanges misjudgements appear to lie at the heart of their collapse. But since the middle of 1977 market conditions have eased mainly owing to an increasing flow of funds to the markets. The effect was initially to extend average maturities and then reduce average spreads.

TABLE 3

Spreads and Maturities of Eurocurrency Loans

(Fourth Quarter of Year Shown)

Regional Groups	1973	1974	1975	1976	1977	1978
1. Non-Oil Developing Economies						
a. Weighted Mean Spreads (%)	1.21	1.38	1.65	1.87	1.77	1.06
b. Weighted Mean Maturities (years)	10.84	7.53	5.44	5.14	7.31	9.79
2. OPEC						
a. Weighted Mean Spreads (%)	1.29	-	1.67	1.34	1.59	1.11
b. Weighted Mean Maturities (years)	7.27	-	5.66	6.95	5.48	8.59
3. Eastern Europe						
a. Weighted Mean Spreads (%)	0.61	-	1.49	1.29	1.16	0.73
b. Weighted Mean Maturities (years)	8.81	-	5.54	5.50	6.00	6.71
4. Small OECD						
a. Weighted Mean Spreads (%)	0.95	1.31	1.58	1.37	1.09	0.72
b. Weighted Mean Maturities (years)	9.14	5.84	6.52	5.23	6.76	8.48
5. Large OECD						
a. Weighted Mean Spreads (%)	0.67	1.14	1.62	1.29	1.04	0.56
b. Weighted Mean Maturities (years)	8.42	4.93	5.00	5.35	5.36	8.33
6. Total						
a. Weighted Mean Spreads (%)	0.87	1.33	1.63	1.58	1.48	.83
b. Unweighted Mean Spreads (%)	0.97	1.30	1.67	1.56	1.41	.88
c. Weighted Mean Maturities (years)	8.88	7.01	5.63	5.61	6.79	8.88
d. Unweighted Mean Maturities (years)	9.39	6.66	5.57	5.69	6.28	8.66
e. Standard Deviation of Spreads (%)	0.43	0.29	0.21	0.34	0.39	0.26

Source: Federal Reserve Board.

With loans to final users, the market reveals considerable flexibility. This flexibility is seen in both maturity transformation and adaptation of spreads; one not being independent of the other. But the variability of average maturity and average spread also appears to diminish with the tightening of the market; the evidence is not conclusive. A characteristic of the market is for spreads over LIBOR to shift up and down for all borrowers in contrast to what happens in efficient domestic capital markets where increased perceptions of risk lead to a widening of the spread within which loans are concluded. However, the drawing of parallels between domestic and international markets ignores a quite specific additional element amongst the factors bearing upon transactions; namely, the significance of sovereign risk. A justification for the general upward shift of interest rates would be that, in times of heavy need for international funding, there is a general rise in the risk of national default or delay in repayment owing to the rising debt service ratio. This interpretation is not convincing.

This suggests three possibilities. First, the participating financial institutions resort to rationing loans in tight market conditions. Secondly, syndication and consortium arrangements for loans can only be provided by a relatively few firms in relation to the needs of final users. This implies lending activities exhibiting qualities associated with oligopoly in goods markets. This contrasts with the interbank market, and its associated brokers which, with many participants, is an efficient wholesale market. Insofar as this market is intimately linked to foreign exchange transactions the evidence supporting conclusions about market efficiency in international money markets and forward exchanges must be heeded [12, 22]. Thirdly, the eurofinance markets are basically supply oriented so that the participating institutions are systematically committed to finding outlets for funds except in occasional periods of severe uncertainty as arose during 1974 and has occurred again in recent months. This last explanation appears to be the best founded of the three.

Increased maturities associated with easing of the market are linked to maintaining profitability so long as the conventional relationship of yields rising with lengthening maturities holds. In this way, there is some offsetting to the reduced spreads over LIBOR. However, an easing market accelerates positive maturity transformation. Market circumstances create the basis for extending the liquidity position of borrowers. But this process increases risk for lenders; longer commitments increase the chances of unforeseeable disturbances occurring.

Unlike the position in international money markets, little scope exists for assessing the pattern of risk in the international bond market let alone in direct lending by institutions. Dealers in international bonds arrange trades between major holders rather than operate steadily in a more formal setting with many participants as buyers or sellers. The range of bonds traded by dealers, and changes in that range, go some way to reflect the risks attached to the bonds. Marketability is therefore closely tied to acceptable risk.

Direct lending is even less open to assessment. What can be observed is the narrow spread over LIBOR as shown in Table 3. Certainly these spreads are not the sole consideration when lending. There are management fees, especially for the main participating institutions. There may be longer term features such as maintaining connections with a national government and its agencies. However, it appears difficult to see how a financial institution can work on spreads of less than 1 per cent unless the ratio of capital to total assets is less than 5 per cent.[4] But the lower that ratio the less secure is the basis of working because the financial institution has few assets to draw upon should some loans run into difficulties or the ability to attract or retain deposits be diminished. What this suggests is a progressive weakening of the financial viability of institutions when spreads are narrow. The uncertain risk position inevitably raises questions on the supervision of eurofinancing institutions.

Yet it is reasonable to ask questions about the nature of these risks for the participating institutions. Central banks' support in the markets, negotiations for "roll-over" arrangements, and other measures have limited any impacts on apparent profitability and the stability of assets. In short, risk is being underwritten by national monetary authorities at no apparent cost to the lending institutions.

6. Exchange Rate Speculation

The third element in the argument for controlling directly the workings of the finance markets concerns the possibilities for speculating in exchange rate determinations. Very large sums found in finance markets are seen to be readily available for shifting, with substantial impact on relativities between currencies. There is no question about the role of eurofinancing in extending markets for exchange transactions. Maturity transformation associated with the workings of the eurofinance markets in general has increased the total supply of funds available internationally. But the scale of foreign exchange transactions is not so greatly affected by this phenomenon as the flows of funds into the market, a significant share of which is contributed by central banks and similar authorities. Moreover, it is admitted that some of the smaller central banks have engaged in shifting of funds:

> "...., it is the smaller central banks that may, and recently have, engaged in some switching from one currency to another, especially out of dollars". [25, p.7]

Further, the size of the market affords opportunities for shifting of large sums from one currency to another rather than the actions of the participating institutions:

> " .... the facilities of the Eurocurrency banks can be used by large operators in the exchange market to mobilize large sums in a matter of minutes. The accusations that the banks themselves have engaged in collusive speculative maneuvers are not, however, supported by our data on changes in banks' net positions in specific foreign currencies" [16, p.5].

The real issue is not so much the workings of the market but those circumstances generating the conditions in which speculative shifts against the dollar, or any other currency for that matter, might succeed. Critical in this position is the state of domestic economic policy arrangements. The flow of funds from the United States to eurofinance markets is symptomatic of difficulties rather than a cause of disturbance. Stances on prospective exchange rate relativities reflect appraisals of likely output, trade and price performances as well as interest rate policy.

There is no avoiding analysis of policy measures within the United States or any major economy contributing to the funding of eurofinance markets. Most attention must focus on the United States. Different elements in policy merit examination. Those contributing to the exchange rate imbroglio mainly reflect short-term policy measures related to monetary and fiscal arrangements. Connections between domestic monetary and financial arrangements and international lending markets reflect longstanding institutional and policy techniques. In all cases the issue is the degree to which United States authorities can isolate domestic performances from international transactions. The second feature is the more important for analysing proposals for imposing reserve requirements or some other device for controlling the workings of eurofinance markets.

But before taking up that theme something further should be noted in the foreign exchange rate argument. Exchange rate determinations in the eurocurrency market largely reflect hedging operations in relation to borrowing and lending commitments by the participating institutions as well as those providing, or having access to, funds. Had eurofinance markets not existed in their present form, funds now flowing to that market would have been held somewhere by central banks and similar agencies as well as by commercial banks, firms and individuals. Unless a rigorous system of exchange controls had been implemented, speculative efforts would still occur as holders sought to shift funds from a currency about which there were doubts on the stability of the existing relativity with other currencies. But, as experience with the postwar fixed exchange rate regime showed, even the rigorous application of these mechanisms often failed to prevent major exchange rate adjustments. The liquidity transformation features of eurofinance markets may have added to problems but this would be marginal to the total funds available for shifting. Nevertheless the efficiency of eurofinance markets would have increased the speed with which doubts about existing exchange relativities would be communicated.

What is important to note is that the influence of these markets works both ways. Most, if not all, attention has been given to the devaluation of the United States dollar. But what if the United States improved its trade position and adjusted domestic interest rates relatively to those in other major trading economies? Clearly the shift in policy by the Federal Reserve Board on 6 October 1979 opens up this possibility. From now on the main policy interest is the money supply, however measured, with the interest rate structure reflecting market needs for credit. Previous policies had stressed interest rates and money market conditions with shorter term adjustments to the reserve position of commercial banks to offset any liquidity strains. This possibility is now much more real. Then there would be increased demand for United States dollars with some possible liquidity strains on eurofinancing institutions as deposits were transferred to meet obligations in New York. Central banks would have to sell dollars in order to avoid an illiquid international capital market and a rapidly upvaluing dollar.

The foreign exchange functions of eurofinance markets provide the means for adapting exchange relativities. In this activity the total accumulations held in eurofinance portfolios bear upon the supply and demand for different currencies and determination of their prices. This is not to say that substantial changes in annual dollar outflows do not bear upon the foreign exchange market, especially in the impact on expectations of future possibilities. The highly liquid position of the participating institutions' liabilities ensures that substantial funds can be mobilised for currency switching at any time doubts arise about existing relativities. Changes in relativities can arise from the heavy influx of one denomination or another to these markets.

The actions of participating institutions in matching spot and forward exchange commitments to secure covered positions for their forward transactions can bring in more funds. A partial explanation for the increase in direct lending by American banks during the latter part of 1978 is to be found in the workings of this segment of these markets. At that time the heavy forward sales of dollars brought a large forward premium for strong currencies, such as the DM, so the eurofinancing institutions sold dollars spot for those currencies to match forward commitments. Then to finance those sales they borrowed dollars in the United States. Yet the foreign exchange transactions associated with spot and forward markets would take place regardless of the existence of eurofinancing markets in as much as covered arbitrage, taking into account interest differentials, is essential to international financing. That so much takes place through eurofinance markets is merely a reflection of the efficiency of those markets while the emphasis on the dollar reflects the convenience of a central reserve currency.

The misconception is to associate foreign exchange functions with the basis for expansion of euromarkets. These markets would grow with the accumulation of funds from surplus countries to fund deficits in other countries and for other reasons treated in Section 3. Further, the interest differentials favouring these markets compared with national capital markets encourage the funding in this way. But the interventions by monetary authorities to stabilise currency adjustments add to the funds in the markets as swap arrangements and various credit devices support those currencies undergoing relative declines. It is this injection of new funds, in the sense of money created by central banks, which provides the stimulus to inflationary potential. In short it is not speculation but the efforts to thwart exchange rate movements which generates destabilising money flows with impacts upon prices and costs in national economies. The scale of these interventions have been substantial; in 1978 the gross value of interventions was U.S$50 billion as some fourteen central banks made concerted efforts to support currencies, mainly the United States dollar, which were declining in foreign exchange markets [5, p. 46-47].

7. Thwarting Domestic Monetary Policies

Worries about activities in eurofinance markets abridging the capacity of domestic monetary authorities to implement effective policies rests upon the independent expansion of credit sufficient to undermine national targets for money supply growth. On this interpretation authorities might have to consider incorporating an assessment of the likely growth in eurolending, and its expenditure implications for the economy concerned, in any analysis of the growth of the money supply appropriate to the prevailing economic circumstances. This problem arises for those economies whose currencies are widely held in the eurofinance markets. Hence the concern of the administrative and legislative branches of government in the United States.

The issues have been put succinctly by Henry Wallich:

> "While the Eurocurrency market is linked to domestic markets and subject to control through the impact of domestic monetary policy on interest rates, it does pose problems for monetary policy. My judgement is that these problems have been of only moderate significance to date, but they are increasing. Moreover, the Eurocurrency market adds to inflationary pressures because liabilities to nonbanks in this market are rising faster than domestic money supplies. In the present inflationary environment we must look closely at every source of inflationary pressure". [24, p.8]

The emphasis is on the rate of growth of these markets rather than their size. However, size must bear upon this issue because a high rate of growth from a negligible base would have little relevance to the conduct of policy.

It is hard to put flesh on the bare bones of this analysis. Dollar-donominated liabilities comprise some two-third or more of the total liabilities in the participating institutions' portfolios. This does not mean that such a proportion is devoted to spending in the United States. This proportion tends to reflect the role of the dollar as the central reserve currency despite its waning influence as other currencies, especially the Deutsch mark, come to be held as reserves [6, p.50]. Moreover, as noted in earlier sections, the dollar is the currency for convenience in hedging operations in the eurofinance markets; a feature thoroughly documented in Ronald McKinnon's work [14].

Supposing an estimate can be made of the domestic spending component of eurofinancing activities, it must still be asked what this means for domestic policy. If borrowings are drawn by domestic banks or firms to fund spending within the country, then this may add to inflationary pressures at times when there are supply restraints arising from full utilisation of capacity.

However, dollar-denominated eurofunding might be used for foreigners for the purchase of domestic goods. In circumstances of trade deficits, it is not obvious that this feature is incompatible with the aims of domestic economic policy. Rather it tests the familiar problem of reconciling domestic and external balance. In this case the monetary authorities in the United States should encompass the possibilities for growth in exports in their original money supply forecasts. Only if the growth in exports is unexpected will this expand the money base to a greater extent than initially anticipated. In a situation where there is external imbalance -- the trade deficit -- then the adjustment to demand for goods should fall on the domestic market; thus the requirement should be for flexibility in domestic monetary arrangements.

A more important question about the linkages between domestic monetary policies and eurofinance markets concerns the circumstances giving rise to the participation of American institutions. This deals with institutional arrangements and policy techniques of which the former seem the more significant at present. Most prominent is the imposing of reserve requirements on member banks of the Federal Reserve System. This device, based upon the traditional banking concept of maintaining some proportion of commercial bank assets in liquid form, imposes a cost on member banks. Assets locked in reserve requirements do not earn income. Thus, by comparison with the income-earning potential of other financial intermediaries to which these reserve requirements do not apply, the member banks must seek higher returns from the remainder of their asset portfolios if earnings ratios are to be competitive with other firms in the capital market. Membership may offer possibilities of attracting liabilities at lower cost but, given deposit insurance arrangements, this is a doubtful point, at best.

There is an incentive for commercial banks that are members of the Federal Reserve System, to seek higher returns from foreign lending in order to compensate for the domestic impost stemming from reserve requirements. This situation has been reinforced by the relatively declining share of the larger banks in the total banking activity of the United States [26, p.9].

But the attractions of possible higher earnings abroad are not confined to major member banks. Restraints on some interest rates, and the absence of interest payments on short-term deposits of less than thirty days, encourage companies with deposit balances to shift into money markets with possibilities for enhanced earnings. Eurofinancing institutions, often the affiliates or subsidiaries of American banks, can offer these opportunities because they do not have to meet the cost of holding non-income earning assets in the United States. There is an institutional bias in present American banking provisions encouraging shifts to eurofinancing whether for assets or liabilities. The competitive handicap to the major banks is recognised by the congressional sponsor of proposals for controlling the eurocurrency markets in the second quotation of this paper.

These matters are not exclusively a concern about connections between the domestic banking system and international capital markets. A similar explanation is to be found for the steady decline in the proportion of domestic banks who are members of the Federal Reserve System. Further, the non-bank financial intermediaries not facing reserve requirements, such as money market mutual funds, are able to attract business by offering income earning possibilities not matched by commercial banks.

Prime focus should be on the institutional arrangements under which the banking system operates. Declining bank membership of the Federal Reserve System undermines the capacity to establish the desired monetary policies. This has been clearly spelt out by the then Chairman of the Board of Governors of the Federal Reserve System, Mr. G. William Miller, in testimony to the Committee on Banking, Housing and Urban Affairs,

> "As a larger fraction of the deposits at banks becomes subject to the diverse reserve requirements set by the 50 states rather than by the Federal Reserve, and as more transactions balances reside at thrift institutions, the relationship between the money supply and reserves controlled by the Federal Reserve will become less and less predictable, and the instruments of monetary policy will become less precise in their application". [17, p.2]

Since 1970 member banks' share of total commercial banks' deposits has fallen from about 81 per cent to 72 per cent. This downward drift has increased the unpredictability of short-term estimates of the growth of monetary aggregates by about 50 per cent [13, Chart 1]. This deterioration in capacity to achieve effective monetary management is impressive. Hence any problems arising from the workings of eurofinance markets cannot be blamed for the shortcomings in monetary performance. Indeed the very institutional arrangements encouraging participation in eurofinancing have brought this flight from membership of the Federal Reserve System.

8. Proposals for Reserve Requirements

Measures of control presently being reviewed by two sub-committees of the Committee on Banking, Finance and Urban Affairs of the House of Representatives amount to imposing reserve requirements on those finacial institutions participating in the eurocurrency markets.[5] Reserve requirements would be set on a basis comparable to those applying to member banks of the Federal Reserve System. In recognition of the interdependency of interests amongst national governments permitting substantial eurocurrency dealings within their borders, the measure would only be implemented when agreement was reached on the reserve ratios to be applied amongst countries having 75 per cent of the total business.

The aim of this proposal is two-fold: to make the member banks competitive with the participating institutions in the eurocurrency market and to bring that market under the direct policy jurisdiction of national monetary authorities. The proposals presume that each national government has the power to reach all the subsidiaries and affiliates associated with the financial institutions registered within its borders. The United States authorities extend their claims for sovereignty, and hence supervision, of activities in branches and the like wherever they are domiciled. Other governments may not accept the same role, or subscribe to the same notions of sovereignty, as those advanced by the United States Government. Therefore the basis of co-operation may rest more uneasily than is assumed in the proposal.

This aspect aside, the complications for implementing the proposal should be spelt out. The means of operating the scheme are not clear in view of the interests of host governments in the workings of these markets. Some of the issues have been listed in documents supporting official testimony [7]. But central to the discussion is the means for implementing any application of reserve requirements. This concerns the method of determining the application and supervision of reserve requirements and the ways in which reserve deposits will be held by monetary authorities in participating countries.

Reserve requirements could be imposed in a variety of ways: by the central bank in the country to which the head office of the banking network belongs; by the central bank in the host country in which the activities take place; and, by the central bank in which the currencies of the eurofinancing markets are denominated. Added complications would arise with consortium banks having partners from different countries of origin. The first and last of these schemes would place a substantial part of the responsibility with the Federal Reserve Board while the influences on the market would be much more widely dispersed under the second arrangement. The first scheme is tantamount to seeking the cooperation of the monetary authorities in other countries to supervise their branches, subsidiaries and affiliates in the same way as the American authorities now proceed with supervision of banking activity. An added complication is that some important countries do not apply reserve requirements and may not have the power to initiate their application.

Yet the method chosen cannot be independent of the ways in which the reserves will be held. Under the first and third schemes the American authorities would stand to gain from the earnings on the reserves accruing to them as the funds were placed in government bonds or notes. Hence some device would have to be found for distributing these earnings amongst the participating central banks or governments. The host governments would stand to lose tax and employment possibilities with the imposition of reserve requirements in as much as the purpose of the scheme is to reverse the competitive handicaps to the American banking system, or at least the member banks in the Federal Reserve System. In short, to control relatively, or absolutely, the eurocurrency market. Should the scheme not achieve this aim, the whole venture would be fruitless.

Placing reserves in the central bank or in government paper of the country in which the liabilities are denominated while under the supervision of the central bank of the home country would not provide relief. A more acceptable proposition might rest with the supervision of the central bank in the host country so that the earnings would be identified with the existing location of the market and the economic benefits which have accrued. Attempts at more complicated arrangements would be fraught with difficulty. They would require the creation of more and more extensive exchange controls to halt leakages from the participating area of supervision; a feature well recognised in official commentaries [7, pp. 9-10].

Hence the reserve requirements would have to be common to all the articipating central banks. Otherwise some centres would be able to encourage the expansion of the eurofinancing market at the expense of other centres. It is conceivable that some centres would wish to do this but this could only be for those countries whose currencies were prominent in the eurocurrency market. Yet such a step would be fruitless given the flexibility of the markets in whatever centre they are located.

What level of reserve requirement would be applied in such a market? Where the aim is to compensate for the existing lack of competitiveness of the member banks, the setting of reserve requirements would be oriented to those applicable in the United States. Yet the current American scene bears witness to extensive debate about the level and need for reserve requirements on the various types of deposit at member banks. The main focus of current debate in the United States is about the requirements on transactions or current deposits. In the testimony by the then Chairman of the Federal Reserve Board, referred to in an earlier paragraph, estimates are given for the level of reserve requirements in various proposals before the Senate and the House as well as suggestions from the Board. These are summarised in Table 4. Whatever the proposal, transactions deposits attract the highest requirements.

TABLE 4

Proposals for Reserve Requirements

Deposit Category	Senate (S.85)		House of Representatives (H.R.7)		Federal Reserve Board	
	Range	Initial	Range	Initial	Range	Initial
Transactions Deposits	12-14	13	8-10	9.5	8-10	9.5
Short-term time	4-8	6	3-9	8	3-8	8
Savings	1-5	3	1-3	3	1-3	3
Long-term time	0.5-2	1	1-3	1	1-3	1

Source: Reference [17].

While these alternatives were presented in terms of debate about the domestic banking situation, they are indicative of thinking about a revised structure with which the eurocurrency workings would be competing. Suggestions for the scheme applicable to the eurocurrency markets provide for a range of 2 to 5 per cent on the following grounds:

> "If the reserve requirement were set much above this level it might have an undesired impact on the profitability of Euro-currency banking and encourage large immediate shifts of funds to other Euro-markets, including Euro-security markets and offices of banks of nonparticipating countries located outside participating countries, as well as shifts to national banking systems. If the reserve requirement were set below this level it would be virtually meaningless". [7, p.13]

However, there is a remarkable footnote to the first sentence in this quotation set against the word profitability. It reads,

> "Unless a market rate of interest were paid on the reserves held at central banks. It is not all clear that all central banks have the authority to do so. Moreover, payment of a market rate on Euro-currency reserves, but not on domestic reserves, would tend to offset the restraining effect on Euro-markets of any reserve requirement". [7, p.13].

In most respects this quotation and its footnote goes to the nub of the debate. The problems of the American banking system, both in relation to eurofinancing and the decline of membership in the Federal Reserve System, could be resolved within the domestic institutional arrangements by adopting interest payments on the presently sterile reserve deposits.

The plain truth is that the suggestion of 2-5 per cent range for reserve requirements in the eurocurrency markets begs the question of the differing maturities to be found there. The mere suggestion of a single range admits the small proportion of those deposits comparable to the transactions deposits of the American banking system. The existence of substitution possibilities is paramount because the eurocurrency market is but one part of the overall eurofinancing scene.

9. Implications of the Proposals

There are two basic planks or assumptions in the American proposals for inaugurating reserve requirements. They are the conception of sovereignty and the belief in the exclusiveness of the United States dollar. Each is flawed.

The conception of sovereignty supposes that the basis of the supervising authority in the country of origin has explicit, if not dominant, rights to review and change the basis on which business is conducted by a branch, affiliate or subsidiary. Yet other countries are less certain of their reach beyond national boundaries, especially where subsidiaries and affiliates are incorporated as separate legal entities. Thus the manifest efforts to restore the relative competitiveness of the American banking system at the cost of other economies, by curtailing the workings of these international capital markets and the particular interpretation of sovereignty invites retaliation. This risks the basis for cooperation in the needed supervision of aspects of eurofinance markets, it raises the possibility of having legislative stimulus to "arm's length" relationships between overseas branches, subsidiaries and affiliates and the monetary authorities in home countries as well as the head offices of participating institutions. The official American position would be challenged. However, the strength of opposition would be subdued were the United States dollar the pre-eminent currency for international transactions. But this feature, characterising the two decades following the end of World War II, has been whittled away. Other currencies have come to have an increasing prominence in trade and capital transactions. Thus the leverage enjoyed by an exclusive role of the United States dollar has been whittled down. Similarly, the skills developed in a few financial centres have become increasingly diffused through the international community. Moreover this process has been accompanied by a capacity to develop new financial instruments appropriate to the time and setting.

So long as substantial dollar balances are held by non-residents, the United States authorities are not in a position to dictate their use. Hence efforts to restrain the development of new centres and alternative uses of these balances risks the acceptability of the United States dollar as a numeraire in international transactions. This prospect might further stimulate speculation against that currency; an outcome having the opposite effect to that sought by the proponents of reserve requirements. The scheme seeks to restrict the earnings of holders of dollar balances.

The proposal has paid little attention to the substitution possibilities in the international capital market. This comes in two guises; the development of new international financial centres and the availability of alternative instruments.

Judgement about the effectiveness of legislative cooperation with countries undertaking 75 per cent of existing business rests upon the control of the banking companies now participating in the market and the unlikely development of major new banking and finance groups to handle the diversion of business. The lesson of the rapid growth in the eurofinancing activities over this past decade is that new firms can develop. Moreover, new partnerships could emerge combining major existing firms and newer banks in centres outside the reach of countries participating in the supervisory agreement.

But this possibility soon blends with the alternative approach on substitution. The eurocurrency market is one major component in eurofinancing. Existing firms, especially the merchant banks in the British terminology, could shift their activities towards management and agency rather than deposit and lending functions. They could encourage firms in new locations by acting as agents while supervising asset management on behalf of depositing clients. Activities could also be developed in what is already a substantial market for commercial paper while negotiating foreign exchange and hedging through third parties in non-participating centres.

Most important, the eurobond market stands alongside the existing eurocurrency market with all the possibilities for switching in denominations and maturities now available in the deposit and lending markets. Indeed, the resulting stimulus to bond issues would strengthen that market by providing an ever greater range of maturities and qualities of paper for improved management of portfolios.

Any review of eurofinancing must be impressive for the innovative skills exhibited by participants. The evidence is well-known [21]. Efforts to improve legislative provisions involving reserve requirements would stimulate changes not necessarily enhancing the stability of international capital markets. They are inoperable in anything outside the initial period of hiatus following their introduction. And if the stability of eurofinancing markets is a genuine concern then could not specified liquidity and liabilities to capital ratios suffice?

10. Some Final Comments

This review of the workings of eurofinance markets in relation to proposals for controlling lending has concentrated on the American view. However, worries about the implications of these markets for national monetary policies have been expressed in Europe. The German view has not changed much from the position expressed in the Bundesbank's Annual Report for 1971:

> "According to suggestions any undesirable inflation of funds in the Euro-money markets should be absorbed by open market operations or by limiting the money-creating capacity of these markets through minimum reserve requirements and other regulations. The first of these methods was applied by the U.S. authorities .... Although this helped to maintain interest rates on the Euro-money market .... , it hardly had a lasting effect .... The introduction of liquidity rules and minimum reserve requirements for Euro-money banks would be the responsibility of those countries in which banks specialising in such business are mainly located. Logical and desirable though such a step may be, it would give rise to problems as long as there was a likelihood that Euro-money business would move to other countries owing to lack of solidarity among the monetary authorities" [6, p.37].

The emphasis on co-operation is reiterated in the Swiss interpretation of policy needs in the international financial setting:

> "In the recent past, a tendency has emerged to push the solution of economic and foreign exchange policy problems from the national scene - where they appear to be unsolvable - on to the international arena. Salvation was often expected of summit meetings or of other international conferences. This has been true above all of international monetary arrangements; unfortunately experiences have been particularly disappointing.
>
> Certainly, international cooperation is indispensable in monetary and currency matters, and the present situation is - to put it mildly - capable of improvement. The success of such efforts, however, stands or falls in direct relation to how well certain norms of behavior are observed". [11, p.11]

Despite the tendency to interpret much of the problem in terms of foreign exchange policies, the Bundesbank has for a long time correctly judged the major source of disturbance as the injection of funds into eurofinance markets from balances held in New York. This has been done by central banks as well as private holders. American deficits, however measured, have increased the size of those balances open to transfer. All this was seen, at least in German eyes, well before the onset of the oil price rises in 1973-74. Thus from early in 1971 co-operation amongst the major industrial economies has ensured that their central banks would not place dollar balances in the eurofinance markets.[5]

The European view, especially as expressed in the Bundesbank's reports, would not give much credence to the American arguments for controlling eurofinance activities. In part this reflects the misgivings about the strength of purpose behind domestic and foreign economic policies in the United States, nowhere expressed more bluntly than in the 1978 Annual Report of the Bundesbank:

> "The expansion of the international financial markets could more easily be kept within limits that are acceptable in terms of external monetary policy if the major countries were to agree jointly on an acceptable framework of conditions for these markets. This would of course be no substitute for stability-oriented fiscal and above all monetary policies in these countries. Given the continuing predominant role of the U.S. dollar as a financing and reserve currency and the sizable deficits on the U.S. current and capital accounts, the United States bears a particular responsibility in this connection". [6, pp. 52-53]

In this respect the new monetary strategy announced on 6 October, 1979 is more in keeping with the requirements of policy for the holder of the central reserve currency.

The one element in the American interpretation on which there is a common view, is risk [15]. The narrowing of the margins over LIBOR and the indiscriminate closing of these margins without much heed of the creditworthiness of borrowers is a source of worry. But this is not an argument for imposing reserve requirements as sought by some American legislators and members of the United States administration. Rather it is an argument for closer supervision of the participating financial institutions.

The inadequacies of the proposals for imposing reserve requirements on financial intermediaries participating in eurofinance markets does not eliminate questions about what supervision should be exercised by national governments and their central banks. Yet it would be a misunderstanding of what is taking place in these markets if the provision of effective supervision was thought to be sufficient for removing the destabilising impact of these markets on the international economy. So long as there is an interaction between these markets and national monetary authorities to preclude the workings of exchange rate adjustments, then the further expansion of these markets will have inflationary potential.

One measure of supervision would be to require participating banks to consolidate all their operations with branches, subsidiaries and affiliates in single financial statements subject to review by central banks in the country of domicile of the parent bank. But the review would require the co-operation of the central banks in the countries in which eurofinancing activities were important. This approach would indicate the extent of the total lending exposure in relation to the capital and reserves of the parent company. This device would encompass the problems associated with risk in as much as the distribution of lending activity amongst various borrowers could be assessed. At the same time this consolidation would permit national authorities to establish effective minimum capital to total asset ratios. Furthermore, the extent to which mismatching of maturities between assets and liabilities had taken place, would be clear.

This supervision could extend to the prescribing of liquidity requirements including the extent of asset holdings in any one economy. In this way the degree of total risk exposure would be subject to review. Such information would improve the assessment of total risk were it publicly disseminated with benefits not only to lending institutions but also for the workings of the bond market.

However the main challenge to international co-operation lies in the willingness of individual governments to act with restraint in the conduct of domestic and foreign economic policies commensurate with adjustments to stabilising their balance of payments. Shorter term disturbances such as those arising now with the further real increases in price of crude oil and natural gas will open further opportunities, as in the immediate past, for further stimulus to the expansion of eurofinancing. Failure to recognise the longer term implications of shifting dollar balances will mean a perpetuation of maladjustments internationally and sustain an inflationary potential which in all likelihood will be realised. However, some optimism is to be found from the shift in monetary strategy by the United States early in October.

FOOTNOTES

1. A study providing a greater emphasis on the European contribution to the debate on eurofinancing is being undertaken in conjunction with Dr. René Codoni, Institut für Wirtschaftsforschung, Eidgenossische Technische Hochschule, Zurich.

2. The many complications in the use and interpretation of the data on eurofinancing are treated at length in a separate paper, "Eurofinancing: Currencies, Loans and Bonds" (Working Paper No.33, December 1979; Department of Economics, University of Sydney). That paper attempts, at some length, to offer interpretations of the expansionary elements in lending eurofinance markets. However, the third section provides a reconsidered interpretation in light of the policy issues treated in this paper.

3. The many complications in the use and interpretation of the data on eurofinancing are treated at length in a separate paper "Eurofinancing: Currencies, Loans and Bonds" (Working Paper No.33, Department of Economics, University of Sydney). The most comprehensive analyses of eurofinance markets are provided in the annual reports of the Bank for International Settlements.

4. Suppose the capital/total assets ratio is 5 per cent. Then with a company tax rate of 50 per cent the financial institution has to earn 20 per cent on its capital to earn a 10 per cent net profit. This modest return may be disguised should the equity capital be a small proportion of total capital owing to the accumulation of reserves in the past. However, that would be an admission of declining capacity to accumulate reserves. A gross return of 20 per cent on 5 per cent of the loan is 1 per cent. This is then the entire spread without taking into account any questions of risk. In these circumstances much depends upon tax policies on financial institutions in the country of domicile and the supervision of capital/assets ratios.

5. The countries initially were the so-called G-10 group comprising Belgium-Luxembourg, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, United Kingdom and the United States. Switzerland has always

been associated with this group. Co-ordination on policy approaches has been achieved through the Bank for International Settlements in Basel. Co-operation has been further extended in recent years to include Austria, Denmark and Ireland. This extended group provides the basis for concerted action on foreign exchange issues and interventions.

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