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## Toward an International Capital Market?

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CENTER DISCUSSION PAPER NO. 68

TOWARD AN INTERNATIONAL CAPITAL MARKET?

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Note: Center Discussion Papers are preliminary materials circulated to stimulate discussion and critical comment. References in publications to Discussion Papers should be cleared with the author to protect the tentative character of these papers.

This paper discusses the growth and development of the international capital market during the past decade, considers whether it can be said that a genuine international capital market now exists, and discusses the advantages and disadvantages of one integrated capital market transcending national economies. "Capital markets" involve the mobilization of savings by those who want or are willing to accept financial claims, for investment (or consumption) by others who are willing to accept financial liabilities or share their equity. Capital markets are usually distinguished from "money markets" by the maturity of the claims that are traded there, the capital market referring to transactions in claims with maturities in excess (definitionally) of one year, and usually in excess of five years, although any clear distinction between the two must be arbitrary, for these markets may be, and typically are, closely related. Medium-term bank lending, for example, involves maturities in excess of one year but ordinarily does not give rise to marketable securities.

Several geographically distinct capital markets can be said to be integrated -- that is, effectively one market -- to the extent that a significant number of savers do not distinguish among claims on the basis of the geographical location of the borrower. In the international context, this means that a significant number of savers do not distinguish among borrowers on the basis of nationality. This failure to distinguish must include, of course, both the willingness to accept claims on foreigners and the ability to do so, the latter implying an absence of balance-of-payments and other restrictions against foreign investment.

The extent to which there can be said to be an Atlantic capital market, encompassing Canada, the United States, and many or most of the countries of western Europe, can be approached empirically from two angles. We can ask about the absolute and relative volume of long-term financial transactions crossing national boundaries and about the nationality and other characteristics of the borrowers and lenders. Or we can apply the economically more meaningful test of the extent to which bond yields and share prices have been brought into harmony. One market implies one price for identical goods or claims, and similar prices for similar goods or claims. A genuine Atlantic capital market would therefore imply similar interest rates or yields for financial claims of similar risk and liquidity. The next two sections of this paper offer some sketchy evidence on both of these approaches. Following this evidence, I will draw some implications for economic policy of the tendency toward one market, and offer an assessment of the advantages and disadvantages at the present time of a unified capital market spanning national boundaries.

#### 1. The Size and Growth of International Capital Movements

The rapid growth in foreign bond flotations during the decade of the sixties has been a source of universal astonishment. From barely more than \$200 million in 1958 (close to \$400 million if the United Kingdom is included), foreign bond issues in Europe grew to over \$4.7 billion in 1968, a compound growth rate of nearly 30 percent a year. The growth is far less dramatic, but still dramatic, if the United States market is included: total

foreign bond issues on both sides of the Atlantic rose from \$1.5 billion in 1958 to \$6.3 billion in 1968<sup>1</sup>, a fourfold increase (Table 1). A distinction may be drawn between foreign bonds issued in national markets, denominated in the national currency of the market in which it is floated, and "international" bond issues, which are denominated in a currency (usually U.S. dollars but also German marks, two or more currencies, and units of account) different from that of the country(ies) in which it is floated.<sup>2</sup>

The overwhelming bulk of the long-term foreign borrowing in the United States is by Canadians, although Japan, Israel, the World Bank, and (before the imposition of the interest equalization tax in 1963) several European countries have also been important borrowers. U.S. corporations and their subsidiaries have been the single most important group of borrowers in European markets, accounting for nearly half of all new issues (many of them convertible bonds) in 1968. Non-American corporations accounted for nearly a quarter of the borrowing, and governmental bodies and international institutions for the remainder. Characterizing the lenders is more difficult, since it is not known who ultimately purchases these bonds. In the United States, insurance companies and pension funds provide a steady source of demand for new bond issues. In the European market, individuals and family trusts are relatively

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1. It might be noted in passing that recent levels compare favorably in absolute magnitude to the average annual \$2.0 billion in foreign bonds issued in Europe and the United States during 1924-28, the alleged heyday of the international capital market.

2. Foreign bonds denominated in German marks are considered "international" bonds after March 1964, even when floated on the German market, since they were exempt from the coupon tax levied on interest payments to foreign holders of German bonds and hence had lower yields than German bonds floated on the domestic market.

Table 1  
 Foreign Bond Issues<sup>a</sup>, 1958-1968  
 (\$ million)

	Foreign Issues on Domestic Markets		International Issues <sup>b</sup>	Total
	United States	European <sup>b</sup>		
1958	1138	302	82	1522
1959	802	337	31	1170
1960	636	393	29	1058
1961	558	559	79	1196
1962	1185	430	--	1615
1963	1414	426	119	1958
1964	1191	263	838	2293
1965	1532	264 <sup>c</sup>	1192	2989
1966	1317	550 <sup>c</sup>	1155	3021
1967	1619 <sup>d</sup>	404 <sup>c</sup>	2002	4025
1968	1576 <sup>d</sup>	1185 <sup>c</sup>	3517	6278

a Including private placements and convertible bonds

b Foreign bonds issued in Germany after imposition of the 25 percent coupon tax on German bonds in March 1964 are treated as international issues, since they are exempt from the tax.

c Including the Canadian market

d Excludes portion purchased by foreigners

Sources: 1958-1966: OECD, Capital Markets Study, Vol. III, Functioning of Capital Markets, (Paris, OECD, 1968), p. 717; 1967-1968: Department of Commerce, Survey of Current Business, and Morgan Guaranty Trust Company, World Financial Markets.

more important (leading to correspondingly higher selling costs for the "retail" market). It has been estimated for the mid-sixties that about half the purchases of foreign bonds issued in Europe were by banks and trusts in Switzerland, acting on behalf of customers from all over the world; another 20 percent of the funds came from other continental European countries.<sup>1</sup>

Over three-quarters of the international bond issues, narrowly defined, were denominated in U.S. dollars, and therefore over two-thirds of total foreign bond issues/were so denominated. Like a language, a currency is useful in proportion to the number of people who use it. By using a common currency, the market is widened and the potential liquidity of financial claims is increased -- potential since this liquidity depends on the development of secondary markets where securities are bought and sold after issue and before maturity. (Secondary markets in Europe have developed more slowly than the new issues market.) During 1968 and 1969 use of the German mark became more prominent, as the German monetary authorities deliberately reduced interest rates and took other steps to encourage the export of capital, making DM-denominated bonds less costly to borrowers than dollar-denominated ones.<sup>2</sup>

Foreign and international bond issues have grown rapidly relative to the total activity on the various national capital markets, as well as in absolute volume. Comparable measures are difficult to achieve, but on the

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1. David Williams, "Foreign Currency Issues in European Security Markets," IMF Staff Papers, May 1967, p. 61.

2. Expectations of a future revaluation of the mark also helped lower coupon rates on DM-denominated bonds.

basis of total net new bond issues on the eight major European capital markets plus the United States, as computed by the OECD, the share of foreign and international bond issues rose from five percent in 1960 to <sup>eleven</sup> percent in 1965 and to an estimated fourteen percent in 1968.<sup>1</sup>

Equity shares comprise another part of the capital market. Here one must turn to the secondary market for relevant information, since it is far more important, relative to new issues, than is the case for bonds. Until 1967 and 1968, net movements of funds between countries on account of purchases of stocks (excluding direct investment, aimed at management control) was rather small, Americans added very little to their holdings of foreign stocks during the sixties, while the British engaged in large-scale net liquidation of their foreign share holdings. Net foreign purchases of American stocks rose sharply after the mid-sixties, however, from \$220 million in 1963 to nearly \$2.3 billion in 1968, with purchases from Europe and Canada accounting for the bulk of them. Mutual funds spread rapidly in the late sixties, especially in Germany and Italy, and many of these specialized in the purchase of foreign -- mainly American -- stocks.

From the viewpoint of the integration of capital markets, however, it is gross rather than net transactions that count. These have been substantial, even when net transactions were small. In 1968, for instance, foreigners bought \$13.1 billion in American stocks, and sold \$10.8 billion, over six times the levels of 1960; American purchases of foreign stocks (except for

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1. OECD, Capital Markets Study, op. cit., Statistical Annex, pp. 122-23, and the sources there cited.



dealers, generally subject to the interest equalization tax of 15 percent) amounted to \$1.6 billion in 1968, while sales came to \$1.2 billion, both over double the levels of 1960. These sums are of course small relative to the total gross value of stock sales (\$125 billion on the New York Stock Exchange alone in 1968). But here, as elsewhere in economics, it is the marginal buyer that counts. The question, therefore, is whether international transactions in stocks and bonds were sufficiently large at the margin to influence or even to govern prices in the various national markets.

Before turning to an examination of the evidence on that point, two other important dimensions of international capital movements should be mentioned, for while they are not strictly part of "capital markets" as defined here, both short-term capital movements and direct investments provide potential indirect linkages between capital markets to the extent that there is some substitutability between short- and long-term financial claims, on the one hand, and between long-term financial claims and real assets on the other. Capital markets could be fully integrated in the economically meaningful sense of price equalization for claims of similar quality even with no movement of long-term portfolio capital between countries, for instance, provided that money and capital markets were tightly linked within each country and that national money markets were closely linked internationally.

National money markets are linked these days primarily through Eurodollars, a market in short-term dollar claims located in London and other European financial centers. Where national exchange regulations permit the outward movement of short-term funds, those with such funds to invest will compare their earning opportunities at home with those in Eurodollar deposits,

and will shift funds accordingly. Even where regulations limit the outward movement of funds, credit-worthy borrowers will draw funds from the Euro-dollar market when rates there are more attractive than in their home markets. In this way national money markets tend to be tied together.

The Eurodollar market has grown to substantial proportions. At an estimated \$25 billion of total liabilities by the end of 1968, excluding inter-bank deposits, the Eurodollar market was roughly equivalent in size to the total money supply in Italy, Japan, or the United Kingdom, and was substantially exceeded only by the money supplies in France and the United States. It has shown surprising responsiveness, moreover, to new demands placed on it. Switches of borrowers or lenders between the Eurodollar market and domestic markets can therefore exert a powerful influence on domestic monetary conditions, and for many countries could in principle largely undercut monetary policy as an instrument of economic stabilization. This extreme has not yet been reached, in part because a switch between dollars and local currencies requires either that the switching party take on an exchange risk or that he insure against it, e.g. by selling forward the currency he has purchased. The presence of exchange risk serves to insulate national money markets from one another even when all the technical facilities for one integrated market are present.

Direct investment abroad can also provide a link between capital markets. Recent work on the motivation for direct investment has rightly emphasized the exploitation of quasi-monopoly powers arising from patents or other unique technological or managerial advantages. Many direct investors

borrow in local markets, both to establish credit lines and to hedge against exchange risks, and this practice suggests that direct investment is not primarily in response to national differences in long-term bond yields. Nevertheless, direct investment does usually involve the transfer of funds from one country to another, and since the early sixties such transfers have taken place on a substantial scale.

U.S. takeovers of European firms bid up the price of existing assets, and takeovers for cash shift funds from the U.S. capital market to the capital or money markets of Europe. Investments in new plant and equipment are more ambiguous in their effects, since any flow of funds from the parent company is accompanied by an increased demand for funds that may more than offset it, depending on the extent of local borrowing and the size of multiplier effects. But many international corporations, with access to two or more national capital markets, are influenced in their source of funds by relative costs, and hence tend to bring borrowing conditions in national markets into closer harmony. Direct investment also plays a role in bringing national money markets together, as corporations with temporarily idle funds place them where the yield-risk combination is most attractive, or fill short-term cash needs by borrowing in the money market where costs are lowest. Indeed, international corporations have been among the major participants both in the Eurodollar market and in the Eurobond market.

In passing, it is of interest that both the Eurodollar market and the international bond market were encouraged by the imposition of national controls that inhibited the most advantageously situated national market from

servicing an international role. In 1957 the British commercial banks were circumscribed in their ability to lend sterling outside the United Kingdom, but were left free to carry on in other currencies, so began to accept deposits and lend in dollars. In 1963 the interest equalization tax effectively closed the New York bond market to a large class of foreign borrowers and thereby generated a demand for issues in Europe, a demand that was greatly augmented two years later by the voluntary limitations placed on U.S. financing of direct investment abroad.

## 2. Interest rates and asset prices

The flow of funds across national boundaries unquestionably increased sharply during the sixties, both absolutely and relative to internal financial transactions. Identifiable international money and capital markets appeared. But were <sup>these developments</sup> sufficient to integrate the national financial markets in the sense of bringing together prices of similar financial assets? A perfect market requires a single price for the same commodity prevailing everywhere at <sup>each point in</sup> time. When this condition is not met, markets are to that extent fragmented.

It is difficult to test empirically the extent to which we have achieved integrated money and capital markets among the major industrial countries, since assets in different countries continue to be different in one important respect: they are denominated in different currencies. The possibility of changes in exchange rates among the currencies introduces an element of risk which, from the viewpoint of a resident of any particular country, is not

present when all assets are denominated in a single currency. The assets also differ in other, less important respects. A comparison of interest rates on high quality short-term assets and on long-term government bonds nonetheless reveals a marked tendency toward convergence following the move to currency convertibility by the major European countries in late 1958. Table 2 shows that the dispersion around the mean of short-term interest rates for eight countries declined substantially after 1958. The decline in dispersion was less / <sup>marked</sup> for long-term bond rates, and except for 1966 the dispersion <sup>steadily</sup> declined/ relative to the mean bond yield, suggesting some convergence in the long-term capital market as well. The sharp increase in bond rate dispersion in 1966 is attributable solely to a 2 percentage point increase in German bond rates, to 8.4 percent, in a period in which the German state and local authorities were borrowing at an exceptionally heavy rate and the Bundesbank tightened credit to dampen total spending. The increase in absolute and relative dispersion of short-term rates in 1968 is attributable to a combination of high rates in Britain and France, reflecting doubts about the exchange rates of their respective currencies, combined with an exceptionally low rate in Germany designed both to stimulate capital outflow and to promote domestic capital spending in the aftermath of the recession generated by excessively tight monetary conditions in 1966.

In addition to coming closer together over time, interest rates showed a greater tendency to move together through time from 1962 to 1967 than before, indicating a greater influence of one market on another (Chart 1). This tendency was reversed in late 1967 and 1968, when a series of exchange crises disturbed interest rate relationships and induced several countries to impose tight controls on capital movements.

Table 2  
International Convergence of  
Interest Rates<sup>a</sup>, 1958 - 1968

	Short-term <sup>b</sup>			Government Bonds <sup>c</sup>		
	Mean	Standard Deviation	Coefficient of Variation <sup>d</sup>	Mean	Standard Deviation	Coefficient of Variation <sup>d</sup>
1958	2.86	1.22	.43	4.48	.94	.21
1960	3.37	1.21	.36	4.66	.93	.20
1962	2.96	.95	.32	4.80	.89	.19
1964	3.66	.74	.20	5.36	.93	.17
1966	4.80	.83	.17	5.89	1.13	.19
1968	4.74	1.75	.37	5.97	.81	.14

a Average rate for June of indicated year

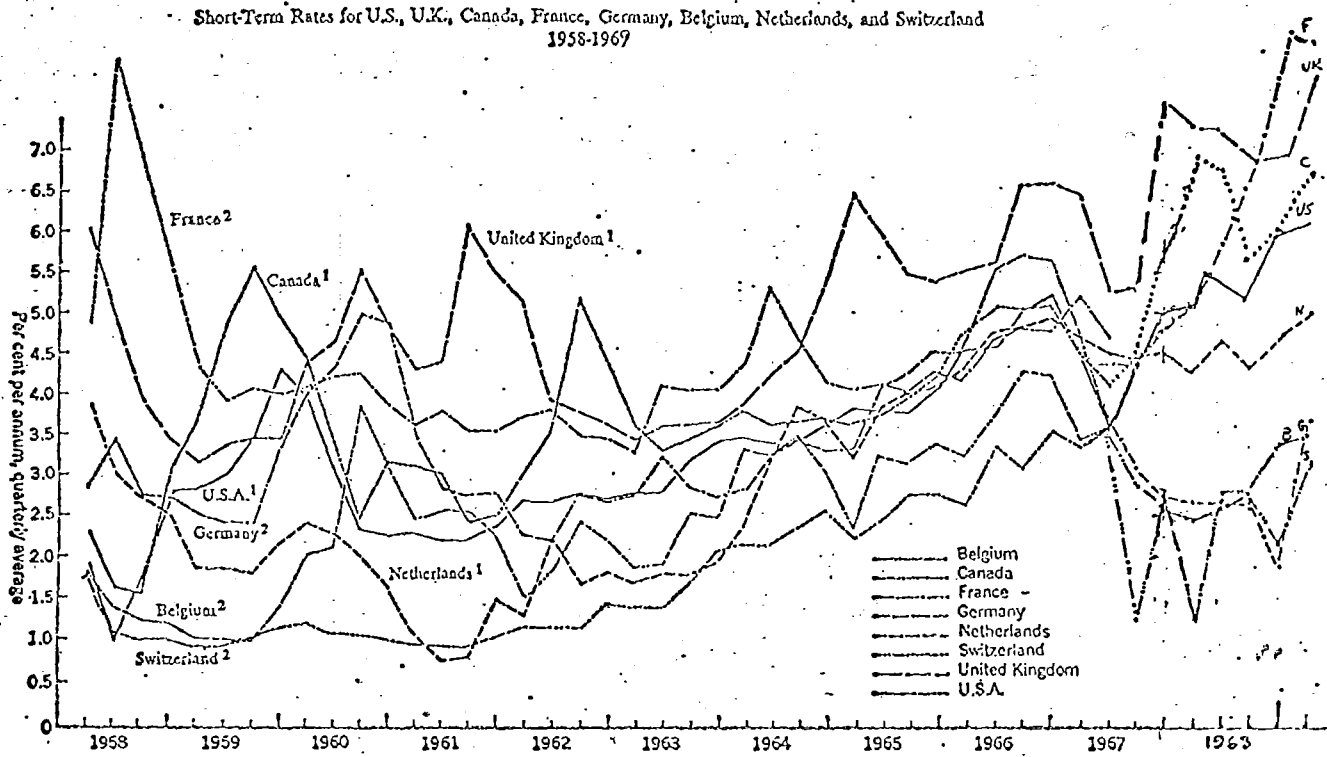
b Unweighted mean and standard deviation of 3-month Treasury bill or call money rates for Belgium, Canada, France, Germany (F.R.), Netherlands, Switzerland, United Kingdom, and United States

c With maturity in excess of 12 years, for countries listed in preceding footnote plus Italy and Sweden

d Standard deviation divided by mean

Source: Underlying data from International Financial Statistics

Chart 1



1. Average tender rate for three-month treasury bills.  
2. Average of daily or weekly call money rates.

Source: IMF, International Financial Statistics.

Equity prices are more difficult to compare, for European firms publish too little financial information to compute price-earnings ratios and other measures of performance from the perspective of the share-holder. This fact not only makes analysis difficult, but it also inhibits the effective integration of the markets for equities. Indices of share prices do show some sympathetic movement from country to country, but the movement is not very close and may in any case reflect broadly sympathetic movements in national economic conditions more than direct buying and selling links between equity markets. Divergences in share price movements reflect differences in national economic developments, such as the German recession in 1966-67, and expected or actual changes in exchange rates. For an industrial economy dependent on trade, over-valuation will weaken profit performance in manufacturing, while devaluation will improve it.

### 3. The Challenge of and Response to Financial Integration

All this evidence points to the conclusion that there has been some integration of money and capital markets during the past decade, but that there is still a substantial way to go before we can speak of unified markets. Even the integration that has taken place so far, however, has important implications for the economies involved. The integration of financial markets limits the scope for the autonomous pursuit of national policy. This is most obviously the case for monetary policy, but it is also true for taxation and regulation of business and for exchange rate policy.



Consider monetary policy first. In a world of high capital mobility, a tightening of monetary conditions, e.g. through open market sales by the central bank or through higher bank reserve requirements, will serve less to dampen domestic spending than to attract an inflow of funds from abroad. Similarly, an attempt to ease domestic monetary conditions to stimulate spending will instead simply stimulate an outflow of funds. Financial integration thus poses a profound threat to the traditional reliance on monetary policy for stabilization of the domestic economy. The effectiveness of monetary policy for this purpose is greatly reduced by high capital mobility across national boundaries, for the rest of the world in effect becomes a residual source of demand for excess domestic liquidity and a residual source of supply of funds.

By the same token, however, monetary policy becomes very effective as an instrument for influencing a country's short-run international payments position. A slight tightening of domestic credit will attract funds from abroad and thus may be used to finance a payments deficit. Monetary policy used for this purpose will be more effective in the short-run than it will in the long, partly because some of the initial inflow of funds in response to tighter monetary conditions will represent stock adjustment of a once-for-all character, partly because, in the absence of perfect capital mobility, higher interest charges on outstanding short-term indebtedness must be set against whatever continuing inflows there are.

An additional implication of increased capital mobility is that fiscal policy will become more effective at influencing domestic demand. The monetarist claim that the impact on aggregate demand of "pure" fiscal action -- changes in

the government budget position with no accommodating change in the money supply -- will be largely if not wholly offset by interest-induced changes if investment demand ceases to be relevant in a world in which the required change in the money supply is provided by capital movements to or from the rest of the world. In the limiting case of perfect capital mobility, the money supply for all but the largest countries will accommodate any change in aggregate demand at unchanged interest rates without intervention by the monetary authorities. Thus while the effectiveness of monetary policy in stabilizing the economy will decline with increased capital mobility, hence generating a need for alternative stabilization measures, the effectiveness of fiscal policy at influencing aggregate demand will increase.

The weakening of monetary policy for stabilization purposes nevertheless poses a serious problem for governments, since it is usually the most flexible instrument of policy at hand and for institutional reasons it is also more insulated from short-run political considerations. Not surprisingly, governments are loathe to give up their reliance on monetary policy -- indeed, it is not clear either that they should or that they can, politically speaking -- and they have therefore taken a number of steps to counteract the integrating tendencies evident in money and capital markets. These actions in turn make more difficult analysis of the degree to which money and capital markets have become unified: the potential unification may be far greater than that actually observed, as summarized by the data in the preceding sections, because of deliberate countervailing steps to reduce the integrating pressures in the interests of preserving some degree of national autonomy in the exercise of monetary policy.

Government response to the greater interdependence between national capital markets has been widespread. These responses have often been taken under the guise of balance-of-payments policies, but that is merely the other side of the coin. Special measures to restrain capital outflows serve to protect the balance of payments in periods in which for domestic reasons the monetary authorities desire to maintain a greater degree of monetary ease than prevails abroad. That these measures are not governed principally by balance-of-payments considerations is indicated by the fact that countries in payments surplus have also taken steps to insulate their economies from high international capital mobility, even though balance-of-payments pressures were not so acute as for countries in deficit.

The devices used are well known. Virtually all countries restrict foreign access to their domestic capital markets, usually on the grounds that unlimited access by foreigners could create undue disruption of imperfectly developed national capital markets. Britain and the United States, however, restrict access on balance-of-payments grounds, in the case of the United States through an "interest equalization tax" on U.S. purchases of European and certain other issues, which is to say that the authorities in those countries would not like to be obliged to maintain interest rates at the levels required to limit foreign borrowing. Both countries also limit purchases by their residents of outstanding foreign securities. The interest equalization tax applies in the United States, and Britain in effect imposes a tax by requiring British residents wanting to invest abroad to buy foreign currency at a premium but to

sell a portion of receipts from liquidation of foreign assets to the authorities at the official exchange rate. These and other countries also limit the amount of short-term investment that can be undertaken abroad.

High capital mobility can be as frustrating to countries wanting to tighten domestic monetary conditions as to those wanting to ease them. At various times France, Germany, the Netherlands, and Switzerland have all prohibited interest payments on deposits by foreigners, to inhibit an inflow of short-term funds. Special reserve requirements have been imposed on foreigners' deposits with the same aim. Since 1964 Germany has imposed special withholding taxes on interest paid to foreign holders of domestic bonds, a kind of negative interest equalization tax. (Foreign bonds floated in Germany are exempt from this tax, so they command lower nominal yields and therefore draw funds largely from outside Germany.) Both Germany and Italy, and to a lesser extent the Netherlands and Switzerland, have encouraged their banks to channel short-term funds abroad through directives or attractive forward swap arrangements, thereby regaining some control over domestic monetary conditions. But this technique will work only so long as domestic non-bank borrowers do not have direct access to foreign sources of funds, a condition that has eroded over time.

International transactions in equities do not escape the national restraints. The taxes imposed by Britain and the United States apply to equities as well as to bonds. Several countries limit purchases of foreign equities by their residents to those quoted on the national stock exchange, which in turn are restricted. In the late sixties the growth of mutual funds in Europe

provided a closer link between equity markets, especially in Germany and Italy, for they permitted residents to purchase balanced and diversified packages of foreign securities of which they had little direct knowledge. In 1969, however, the Italian government limited sharply the activities of these mutual funds, despite the fact that Italy was running a large payments surplus at the time, because they were drawing equity funds away from prospective domestic issuers at a time when the Italian authorities wanted to stimulate domestic investment.

In sum, national authorities do not yet seem ready to accept the limitations imposed on their own freedom to influence domestic financial conditions by an integrated capital market spanning national boundaries.

High international mobility of capital also imposes limits on national autonomy in matters of taxation and business regulation, although these limitations are both less obvious and far less evident than is true for monetary policy. There is little question, however, that one of the principal attractions of foreign bonds to investors is that income on them can be more easily concealed from the domestic tax authorities. Foreign bond issues registered on the London market, unlike domestic issues, are not subject to British withholding tax (where tax treaties eliminate British withholding / they also provide for exchange of information between taxing authorities); but they are not generally subject to withholding tax by the United States or by any other country either. High international capital mobility under these circumstances will erode the ability of national authorities to tax interest income except in those countries where the tradition of voluntary tax compliance is strong, for prospective bond-holders can readily invest in international bonds to escape taxation.

High capital mobility also weakens national regulation of securities markets and corporate financial activity. In early 1969 a Swiss company subverted a Swiss requirement that existing stockholders be given preference on new stock issues, for example, by establishing a financial subsidiary in the Netherlands Antilles to raise desired funds through a convertible bond issue. This kind of escape from regulation through migration was a familiar phenomenon in the United States around the turn of the century, where business regulation by the constituent states was gradually eroded as the railroad and the telegraph transformed local markets into a national one. Those states most aggressive in the competition for business location set a tone for lax business regulation, and as a result regulatory responsibilities were gradually taken over by the Federal government.

Pressures for supra-national action in the field of business regulation and taxation have not yet reached an advanced stage, but the beginnings of such pressure can be seen both in the desire for increased inter-governmental consultation on such matters and in the attempts, largely so far by the United States, to tax "foreign" income and to extend its national regulations beyond national boundaries. The Revenue Act of 1962 levied U.S. taxes on the income of U.S.-owned corporations operating from tax haven countries; and the Kennedy Administration had asked for a much broader extension of the U.S. tax than that finally passed by Congress. Similarly, in 1965 the Securities and Exchange Commission instructed a number of foreign (mostly Canadian) companies to submit information reports because their securities were being traded in the over-the-counter market in the United States. The foreign companies regarded this as an

unwarranted intrusion into their business affairs, and they were supported by their governments; but the SEC was merely carrying out its Congressional mandate to protect American investors from/<sup>possible</sup> exploitation by unscrupulous corporate management. The problem of national jurisdiction arose because securities markets transcend national boundaries.

A third area in which high international mobility of capital has important implications is exchange rate policy. A technically well-developed international money market, among other things, facilitates the movement of funds into or out of different currencies in anticipation of exchange rate changes, so the volume of currency speculation is greatly enlarged during periods of uncertainty about exchange parities. The presence of exchange risk might be expected to inhibit the development of an international capital market.<sup>1</sup> When foreign loans are involved, either the borrower or the lender (or both) run an exchange risk. If the borrower's home currency is devalued, the burden of a foreign-currency debt will be increased in terms of his own currency. (Whether the real burden on the borrower is increased by devaluation depends on a host of other factors as well, such as whether devaluation raises the profitability of his local investment.) Nevertheless, financial integration may proceed rapidly when exchange risk is perceived to be low. The subsequent emergence of exchange rate uncertainty will induce many lenders to insure

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1. Canadians floated fixed interest bonds in New York (in U.S. dollars) on a large scale during the 1950s, when the Canadian dollar was on a floating rate. But expectations (and Canadian monetary policy) kept the Canadian dollar close to parity with the U.S. dollar. Moreover, Canadian borrowing in New York increased sharply in the 1960s, after Canada switched to a fixed exchange rate. How much of the dramatic increase in foreign borrowing was due to factors other than the change in exchange rate regime is difficult to say.

against parity changes either by borrowing or by selling forward. As the volume of outstanding international indebtedness increases, the volume of hedging activity in periods of uncertainty will also increase, resulting in corresponding pressure on national reserves. These large and sudden movements of funds in turn may force reserve-short countries into unnecessary parity changes, or, on the contrary, delay needed changes because of the reduction in national wealth (in the form of loss of reserves, implied by a change in exchange rate when there is a large but temporary short (for devaluation) or long (for revaluation) foreign position in the currency.

#### 4. The Pros and Cons of an International Capital Market

Turning now from the analytical and empirical to the normative side, we may ask whether such financial integration as has taken place is a good thing or a bad thing. Or to cast the question into policy terms, are the defensive reactions by governments desirable or undesirable? These questions cannot not be answered sensibly without a point of comparison. What are the alternatives? On the standard competitive model, a reduction of artificial barriers to capital movements, whether by reducing ignorance or by removing policy restrictions, will lead to a more efficient use of the world's scarce resources and hence would generally be regarded as desirable. The economic theorist's presumption in favor of free markets is applicable to capital as well as to goods and services. Under competitive conditions, capital will seek higher rates of return, moving from regions of relative scarcity. Total output will rise. In addition, free movement of funds permits individuals and institutions to



diversify their risks, and this too is desirable to the extent that individuals deem high risks to be undesirable. Thus there is a diversification as well as an efficiency argument for international capital mobility.

An assessment of the desirability of international capital mobility becomes more complicated when competitive conditions are not fulfilled, for example because of the presence of import tariffs or income taxes. International capital movements may either mitigate or aggravate the efficiency losses arising from the tariffs, depending on whether the tariffs raise the return to capital more in capital-poor countries than in capital-rich ones. Similarly, different national tax rates may either foster or inhibit the efficient allocation of capital among countries. Tax treaties strive for tax neutrality in the location of capital. But lower tax rates combined with tax deferral or other tax avoidance devices presumably contribute to better allocation when they draw American capital to Belgium than when they draw French or Italian capital to Switzerland, perhaps to be relent to the United States.

Arguments based on allocative efficiency assume that economies have adjusted fully to prevailing conditions. In particular, they assume that balance-of-payments equilibrium is assured, so that real capital movements correspond to non-compensatory private and official movements of funds across boundaries, and they also assume that the various domestic economies respond quickly and properly to changes in the pattern and level of demand. Neither condition is met in practice. The failure of balance-of-payments adjustment to take place promptly and appropriately, in the short- or even medium-run, may lead to no more than opposing movements of private and official capital.

In this case the increased mobility of capital implies a need for additional international liquidity. But it may instead lead to the imposition of restrictions on other transactions, introducing resource misallocations or aggravating those already present; or it may lead to unwanted unemployment or inflation, the former entailing obvious resource costs and the latter involving costs of a more subtle sort. Although international capital movements are not ordinarily the source of unwanted deflation or inflation, they may inhibit the prompt correction of excessive deflationary or inflationary tendencies by constraining the use of monetary policy. Fiscal policy can in principle fill the breach left by monetary policy for stabilizing the domestic economy, though not without occasional help from changes in exchange rates if balance-of-payments equilibrium is also to be maintained. But if for political or other reasons fiscal policy is not in fact readily available for this role, the costs of international capital mobility are correspondingly higher. The United States during the period 1960-64 perhaps offers the clearest, and certainly the most costly, case in which high capital mobility inhibited the use of monetary policy to stimulate a sluggish economy in a period in which fiscal policy could not be brought rapidly into play.

Finally, the increased international mobility of capital will affect the distribution of income. Real capital movements will raise the marginal product of labor in capital-importing countries and will lower the marginal product of labor (relative to what it would otherwise have been, except where the foreign investment has come entirely from increased savings) in capital-exporting countries. Under competitive conditions, labor will be made relatively better off in the former countries, capital better off in the latter. Even

imperfect adjustment of real to financial capital flows will produce these effects, although to a lesser degree. In principle, of course, we can separate efficiency from equity, allow flows to take place on principles of efficiency, and correct for equity through the tax system. In practice, we have found great difficulty in levying incentive-free taxes, so a clear separation between the two considerations is not possible. Furthermore, redistributive taxation cannot be laid with impunity on internationally mobile factors, for they can escape taxation through migration or through evasion permitted by high mobility. Redistributive taxation relies on fragmented factor markets to be effective.

A second distributional effect of high capital mobility arises during the transition to a fully integrated capital market. Only the best known (and generally largest) firms and banks can borrow in the major international markets, and by shopping around such firms can lower the total cost of their borrowed funds -- not least because of the lower international bond rates occasioned by tax evasion. Thus the growing international capital market may foster the concentration of industry. (A countervailing tendency, at least during the transitional phase to full integration, is the invasion of national markets by new foreign competitors.)

How does one weigh these conflicting considerations in assessing the pros and cons of an evolution toward an Atlantic capital market? I conclude such an evolution is desirable, provided we can coordinate monetary policies effectively among countries and obtain more active fiscal policies within countries, and provided we can assure that real capital movements correspond

closely to net financial flows. An international capital market is no substitute for changes in exchange rate parities, and in fact its presence greatly aggravates the currency speculation that can take place in anticipation of changes in parities. It thus suggests the need for smaller and more continuous changes in exchange rates, which in turn may reduce somewhat the high mobility of capital. If balance-of-payments equilibrium is not assured through coordinated monetary policies and provision for more frequent changes in exchange rates, however, high capital mobility will exert pressures for trade controls and/or unwanted domestic inflation or deflation. Under these circumstances high international mobility of capital may well leave us with a third or fourth best world, and governments may be wise to restrict international flows in the interests of attaining at least a second best one.