International Capital Transactions: Should They Be Restricted?

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Many countries have shifted toward freer markets in recent years. Thus, the question posed in the title may seem rather anachronistic. The shift to competitive markets is far from complete or free from backsliding, however. Moreover, a number of prominent economists contend that government restrictions should be maintained, or at least kept in reserve, for certain categories of transactions, not least international capital movements. In particular, it is sometimes argued that capital controls should be used to buttress the Exchange Rate Mechanism of the European Monetary System, which has been undermined by speculative attacks.[1] It seems timely, then, to consider the desirability of such controls in the light of modern experience. Following a capsule summary of the recent use of international capital restrictions, this article discusses their international acceptance, their theoretical justification, and their efficacy in attaining overall balance-of-payments or exchange rate goals.

I. Recent Use and Acceptance of Restrictions

Notwithstanding the much publicized transition toward freer markets, restrictions over international capital flows have been widespread in recent years. Typically, such restrictions take the form of multiple exchange rate arrangements, or taxes or quantitative limits on international capital movements. These or similar controls were employed at the end of 1992 by no fewer than 140 of the 178 territories and member countries examined by the International Monetary Fund.

Nor is the use of such restrictions confined to developing or formerly communist countries. Of the 22 countries classified as "industrial" by the IMF in 1990, only nine allowed free capital movements, that is, capital account convertibility (Mathieson and Rojas-Suárez 1993, p. 4). Indeed, little more than a year before this writing, during the 1992

turbulence within the European Monetary System, several members of the EMS employed capital account restrictions in an attempt to avert devaluations of their currencies (Goldstein and others 1993, p. 57).

Under prevailing codes of international financial behavior, greater tolerance is extended to restrictions over international capital transactions than to restrictions over international transactions in goods and services. The best known of these financial codes, the *Articles of Agreement* of the International Monetary Fund, declares:

> Members may exercise such controls as are necessary to regulate international capital movements, but no member may exercise these controls in a manner which will restrict payments for *current* transactions or which will unduly delay transfers of funds in settlement of commitments, except as provided in Article VII, Section 3(b) and in Article XIV, Section 2 (Article VI, Section 3; emphasis supplied).

Tolerance does not imply enthusiasm, however. As early as 1961, the Organisation for Economic Cooperation and Development promulgated its *Code of Liberalization of Capital Movements*, which directs that countries subscribing to the code should "progressively abolish between one another . . . restrictions on movements of capital to the extent necessary for effective economic cooperation" (Argy 1987, p. 109). And in 1988 the European Community (EC) Council of Ministers adopted a directive stipulating for most EC countries the complete liberalization of capital movements by July 1, 1990—although restrictions are authorized for periods as long as six months to combat capital surges that seriously disturb a member's foreign exchange market and monetary policy (Ungerer and others 1990, p. 34). Moreover, despite the seemingly greater tolerance for capital than for current account restrictions, the latter, if defined to include all government barriers to trade, may actually constitute the greater obstacle to international economic integration, for national capital markets now seem to be more closely connected than the goods markets (Guitián 1993, p. 3).

II. Theoretical Justification

To justify the use of capital controls, a number of arguments have been advanced. Currently, the most fashionable maintain that such controls can assist a country to attain the following goals: (1) insure that domestic saving is used to fund domestic investment rather than investment abroad (one motivation being that the government can more easily tax the income from investment if such income is earned within the country); (2) limit foreign ownership and control of domestic production facilities; and (3) prevent capital flows from destabilizing the domestic economy or disrupting structural reform efforts (Mathieson and Rojas-Suárez 1993, pp. 4–7).

Conspicuous by its absence from this list is the goal of influencing the international terms of trade—the overall prices (including interest rates among those prices) at which the residents of a country carry out transactions with foreigners. Yet a country with enough economic weight to exercise some monopolistic power could swing the terms of trade in its favor through the judicious use of capital controls. (To put the point in more precise but technical language: from the standpoint of national rather than world welfare, controls over capital movements can be justified by the same optimum tariff argument used to justify controls over commodity movements.) No doubt this terms of trade argument is omitted from the popular justifications partly because publicizing such a stratagem would be impolitic for any country, especially for one that possessed the market power to reap appreciable gains from it, and would invite retaliatory measures from countries that were affected adversely. But governments that adopt controls probably do so primarily for purposes other than manipulating the terms of trade.

A destabilizing capital movement is one that is motivated by an erroneous forecast of a foreign exchange rate.

The argument that controls should be used to prevent capital flows from destabilizing the domestic economy is the one on which this article focuses. The argument has merit only if destabilizing flows can be identified. To begin with, then, a definition of "destabilizing" is needed. Any definition is likely to be highly controversial, in view of the debates that have swirled about the issue of speculation.

At least for purposes of this article, we define a destabilizing capital movement to be one that is

[1] See, for example, Eichengreen and Wyplosz (1993).

motivated by an erroneous forecast of a foreign exchange rate—one that tends to drive the exchange rate away from the equilibrium level that would be supported by the transactions of rational speculators whose foresight was correct (and whose own transactions had no influence on the long-run exchange rate). For example, if the equilibrium exchange rate during the next month would be the same as today's rate, but speculators were to sell the domestic currency on the mistaken belief that it should decline in value, those sales would comprise a destabilizing outflow of capital. By contrast, a speculator who bought the domestic currency upon observing a decline in its value would be engaging in a stabilizing inward capital transaction.[2]

If destabilizing flows could be readily identified, monetary authorities could engage in offsetting capital movements and generally reap a profit while negating the influence of the destabilizing flows.

Even if this definition is accepted as conceptually defensible, it is not readily operational, not easily usable for singling out destabilizing capital flows in actual experience. Indeed, the difficulty of crafting an operational definition constitutes a major, perhaps overwhelming, objection to the use of capital controls. In particular, how are regulators to discern when the expectations of speculators, or the prevailing exchange rates, are wide of the mark, since the future is inherently uncertain? No one has yet constructed a generally accepted econometric model on which a regulator could rely to explain even the *past* behavior of exchange rates, let alone to forecast future equilibrium rates and the influence, for good or ill, of speculative flows.

Moreover, if destabilizing flows could be truly and readily identified, the monetary authorities could engage in offsetting capital movements, or counterspeculation, and generally reap a profit while negating the influence of the destabilizing flows, without having to alter the course of macroeconomic policy. It is not clear why controls should be preferred to such (sterilized) foreign exchange market intervention in these circumstances.

For example, suppose once again that the equilibrium exchange rate would remain constant but that private speculators have been selling the domestic currency in the mistaken belief that it should depreciate. In this case the domestic monetary authorities could sell foreign currency in exchange for the now undervalued domestic currency, thereby limiting the depreciation of the domestic currency.[3] To prevent their purchases of domestic currency from reducing the domestic money supply, the authorities could buy government securities from domestic residents in exchange for domestic currency. Once the domestic currency had returned to its equilibrium level, they could sell their previous purchases of it in exchange for foreign currency at a profit. This procedure would be much simpler and more efficient than drafting, explaining, and enforcing direct controls over a range of foreign exchange transactions.

However, some advocates of controls surely have in mind a broader definition of "destabilizing" than the one advanced here. Indeed, for many officials, any capital movement that tended to shift the exchange rate away from the *officially preferred* level would be considered destabilizing, or at least undesirable, even if the preferred exchange rate were inconsistent with the course of macroeconomic policy and differed from the equilibrium rate. What is sought is not only the power to employ monetary policy to attain a domestic macroeconomic goal but also the power to influence the exchange rate toward a level not necessarily supported by that monetary policy. If controls over international transactions could be used to regulate the exchange rate, monetary policy could be largely freed from exchange rate considerations and directed toward domestic targets. Economists have long known that policymakers must have as many independent policy tools as independent goals if the goals are to be attained under varying conditions.

The issue then becomes primarily an empirical one. Can controls accomplish the task? And if they can, at what cost? These two seemingly distinct

[2] Strictly speaking, the transactions would have to be between domestic speculators and foreign residents to qualify as international capital movements. International capital movements are commonly associated, directly or indirectly, with speculative dealings of the sort described in the text.

[3] If the authorities lacked foreign currency, they would be justified in borrowing it if their evaluation of the equilibrium exchange rate were correct.

questions are so closely interconnected from the policy standpoint that any rational official would consider them jointly. Certainly in a highly totalitarian regime controls could be fairly effectively enforced,[4] but few societies are prepared to incur the costs of such a regime. Aside from the administrative costs of the bureaucracy required to enforce extensive capital controls, and the associated curtailment of individual freedom, controls that happen to interfere with efficient capital movements impose the added cost of reducing the overall contribution made by capital to total output. The following sections review some instructive experience with capital controls in less authoritarian states.

III. Recent Empirical Studies

A number of studies have examined the efficacy of capital controls in recent years. Nearly all of these studies yield highly similar results. Thus, it may be said of capital controls—unlike many other important issues in economics—that a standard view of their effects is readily discernible: the controls that have been imposed over international capital flows in recent years have generally failed to gain significantly greater independence for domestic monetary policy except, in some cases, for brief periods. In other words, the verdict from recent experience is that controls can sometimes buy time, but not much.

This conclusion clearly emerges from the most comprehensive, up-to-date (at this writing) survey of the use of capital controls. In *Liberalization of the Capital Account: Experiences and Issues*, Mathieson and Rojas-Suárez (1993) issue the following appraisal (pp. 1–2):

> . . . the collapse of the Bretton Woods System in the early 1970s created the expectation of large exchange rate adjustments and was accompanied by large-scale (often illegal) capital flows that overwhelmed even the most comprehensive capital control systems. . . . when macroeconomic and financial conditions created substantial incentives for moving funds abroad, capital controls in many developing countries were often of limited effectiveness in stemming capital flight during the 1970s and 1980s. . . . recent studies suggest that the effectiveness of capital controls eroded more rapidly during the 1980s than during the 1960s and 1970s.

Detailed published examinations of some individual cases shed further light on these issues. Exchange controls imposed by Ireland in December 1978 had only small and transitory success in insulating the key domestic interest rates from rates abroad, according to an analysis by Browne and McNelis (1990, p. 57). In Japan, capital controls used during the 1978–80 period were found by Otani to have only a very minor impact on the exchange rate (1983, p. 330). A singular contrast to this standard view, however, is offered by Galy, who argues that "capital controls were instrumental in reconciling the domestic and external objectives of monetary policy in Spain over the 1980s" (1993, p. 23).

The reason that capital controls so commonly fail becomes obvious upon reflection: capital can flow through channels that are extremely difficult to monitor, and the profits from exploiting these channels

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can be sizable. Aside from concealed transactions that, if detected, would readily be identified as pure capital movements, evasive capital movements can occur as counterparts to current account transactions through such artifices as paying for imports before or after the customary or scheduled dates ("leading" or "lagging"), or misstating on invoices the payments that are actually made (under- or over-invoicing). For example, an importer might pay for foreign goods more quickly than usual (or "lead"), out of concern that the domestic currency was about to depreciate and then require a larger (domestic currency) payment than one made immediately. Or the importer might arrange to overstate the true price of the foreign merchandise (or over-invoice) and invest the amount of the overstatement abroad in foreign currency expected to rise in value, an investment that would be disallowed if made known to the foreign-exchange control authorities. Both maneuvers would involve an increase in the current volume of capital outflows and would tend to undermine the foreign exchange value of the domestic currency.

Many other illustrations could be given of how

[4] As, indeed, they were in Nazi Germany and in some communist countries.

capital controls are commonly evaded. To prevent all such circumvention would require a vast, intrusive, and costly enforcement mechanism akin to that found in police states. Thus, it is not surprising that most evaluations of capital controls find them to be largely ineffectual in nontotalitarian societies.

To this general or standard view some fairly sophisticated partial dissents have been registered, however. In particular, it is argued that even though the effectiveness of controls commonly erodes with the passage of time, such an interval is all that should be needed to reverse a speculative assault on a currency. Presumably, by relieving downward pressure on the domestic currency in the foreign exchange markets for even a brief period, capital controls can induce speculators to reconsider underlying conditions (including monetary policy) and to regain their confidence in the domestic currency. Does this argument square with the facts? Something can be learned from some recent experience with capital controls employed by participants in the Exchange Rate Mechanism (ERM).

IV. Recent Episodes in Ireland, Portugal, and Spain

To avert devaluations of their currencies within the ERM, Ireland, Portugal, and Spain imposed or intensified restrictions over capital flows during the latter part of 1992. While they differed in content, all of the restrictions sought to restrain net outflows.[5] Following a very brief description of the controls, this section examines their impact on some major financial markets in an effort to shed some light on their effectiveness.

The Nature of the Controls

On September 23 the Bank of Spain introduced three new restrictions on the foreign exchange transactions of domestic banks. To inhibit their speculation against the peseta, the regulations required the banks to deposit at the Bank of Spain for one year *without interest* an amount equal to the peseta value of any new long positions in foreign currencies (with maturities at or before the spot value date). To discourage speculation by foreign banks, the regulations required that the domestic banks deposit an amount equal to the value of new peseta-denominated loans to nonresidents, except for loans related to commercial activities. Finally, the domestic banks were directed to hold a cash reserve equal to the full amount of new peseta liabilities in branches and subsidiaries of Spanish banks abroad or in domestic branches of foreign banks.

On October 5 these restrictions were rescinded and replaced by a new requirement for non-interest-bearing deposits at the Bank of Spain for the peseta counterpart of (1) same-day or next-day peseta sales to nonresidents and also of (2) new forward short positions in foreign currency contracted with nonresidents. These new restrictions were abolished on November 22.

In Ireland on September 24 the Central Bank began much stricter enforcement of existing capital controls. Non-trade-related credits to nonresident Irish pound-denominated accounts exceeding 250,000 Irish pounds had to be reported to the Central Bank of Ireland. Loans and swaps to nonresidents for periods of less than one year were permitted only with Central Bank permission, and forward foreign exchange transactions of less than 21 days and all non-trade-related forward transactions were prohibited altogether. Capital controls were abolished altogether on January 1, 1993.

As in Ireland, the Central Bank of Portugal introduced no new controls, but intensified those already at its disposal. On September 24 it began strict enforcement of limits on open foreign exchange positions. In addition, it enforced prohibitions against short-term escudo lending to nonresidents and nonresident purchases of domestic money market instruments. On December 16 these controls were eliminated.

The Impact of the Controls

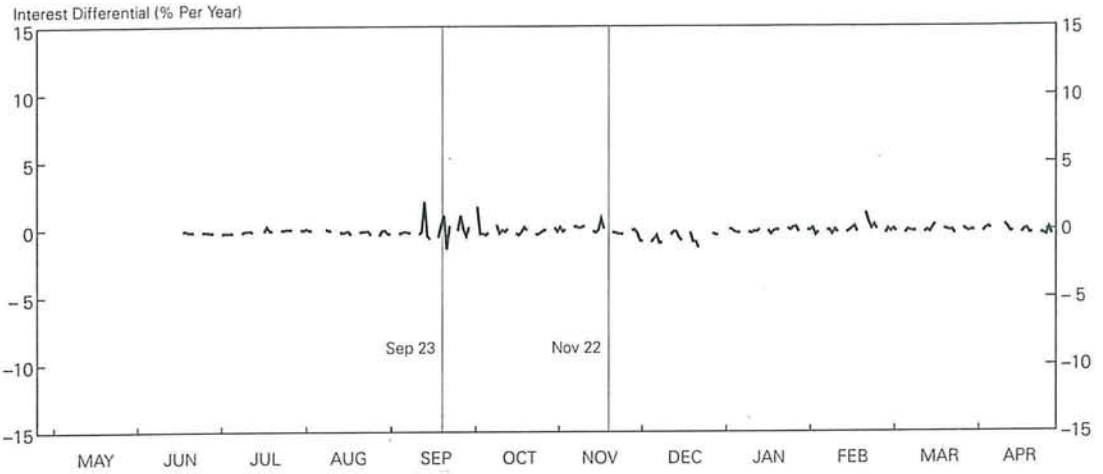
In none of these countries were the controls adequate to prevent devaluations within the ERM. The Spanish peseta and the Portuguese escudo were devalued by 6 percent on November 23, and the Irish pound by 10 percent on January 30, 1993.

Were the controls simply otiose, or did they at least buy a little time? A tentative answer can be gleaned by examining the behavior of differentials between interest rates in the Eurocurrency markets and comparable rates in the domestic money markets of the three countries. This analytical approach is useful because of the nature of the Eurocurrency market.

[5] Descriptions of these measures can be found in Goldstein and others (1993, p. 57), and IMF, *World Economic Outlook: Interim Assessment* (1993, pp. 2–3).

Figure 1

Spanish Peseta: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank.

A Eurocurrency market is one in which depositors hold and trade balances denominated in currencies that are issued in countries other than the country where the balance (or Eurocurrency deposit) and the market are located. The largest such market is in London. One reason such markets attract deposits is that they are generally free of exchange controls and other regulations applied within the countries that issue the currencies concerned, so the interest rates paid in these markets are basically free market rates.

If markets are also free in the countries issuing the currencies, little difference will normally be observed between interest rates in those countries and the Euromarkets (for deposits of the same currency and maturity), because arbitragers will quickly shift funds to take advantage of any appreciable differentials. Consequently, a significant and sustained jump in such a differential upon the imposition of a capital control program would suggest that the controls were at least somewhat successful in impeding net capital movements.

In Figures 1 and 2 the excess of the 3-month Eurocurrency deposit rate over the corresponding domestic interbank rate is plotted for the Spanish peseta and for the Irish pound (insofar as the availability of data would permit) on a daily basis for May, 1992, through April, 1993. As data on the Portuguese escudo were not available for 3-month maturities, Figure 3 relates to overnight transactions.

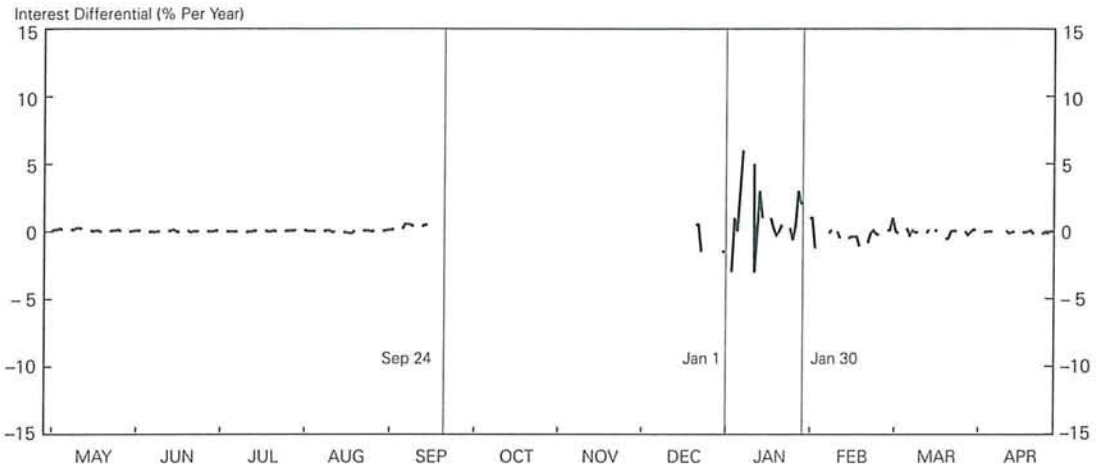
In all three countries controls were used—to some degree in lieu of further tightening of domestic monetary policy—as a means of defending the foreign exchange value of the domestic currency. Thus, if the controls were effective in insulating the domestic money market, while in force they should have permitted domestic interest rates to hover below the comparable (but free-market) Eurorates. By this criterion, the controls were unimpressive, as can be seen in the charts.

This conclusion must be qualified, however. In the case of Ireland, reliable data on which a detailed opinion might be based are not available. Once the pound sterling was withdrawn from the ERM on September 16, 1992, it became virtually impossible to obtain representative quotes for domestic interbank rates in Ireland.[6] This data drought continued throughout the Irish experiment with intensified ex-

[6] DRI, for example, could no longer get what it considered reliable quotations.

Figure 2

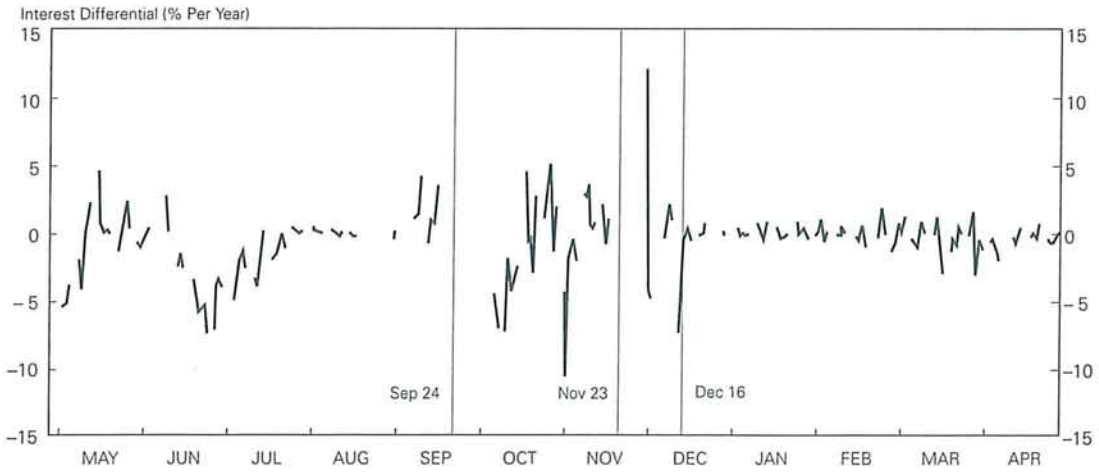
Irish Pound: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank.

Figure 3

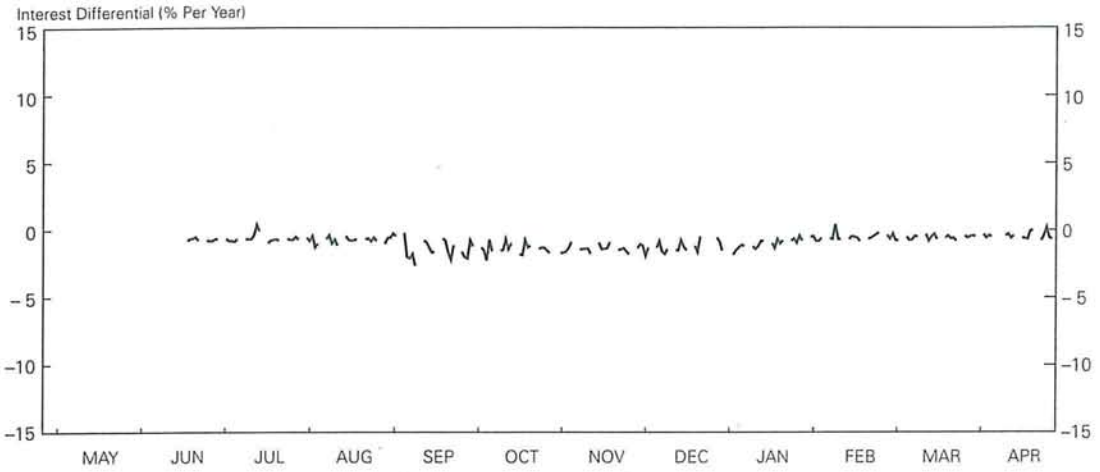
Portugese Escudo: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank and Bank of Portugal, *Monthly Bulletin*, various issues.

Figure 4

Finnish Markka: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank.

change controls. While the absence of data makes it hard to form a judgment about the *degree* to which financial market stringency in Ireland might have differed from that in the Euromarket, it seems most unlikely that the unavailability of readily obtainable interest rate quotations would signify greater ease in the Irish market than in the Euromarket, where rates were readily quoted.[7]

But perhaps the negative conclusion on the efficacy of the controls must be qualified on another ground. As can be seen in Figures 4 to 6, the domestic interest rate often exceeded, sometimes significantly, the comparable Eurodeposit rate for certain other European currencies—specifically, those of Finland, Norway, and Sweden—that came under intense downward pressure in the foreign exchanges during this period. The governments of these countries strove to defend their currencies without the aid of exchange controls, although the Finnish markka was allowed to float relatively freely on September 8, the Swedish krona on November 19, and the Norwegian krone on December 10. (Again, the U.K. pound, to which Figure 7 applies, was withdrawn from the ERM on September 16.)

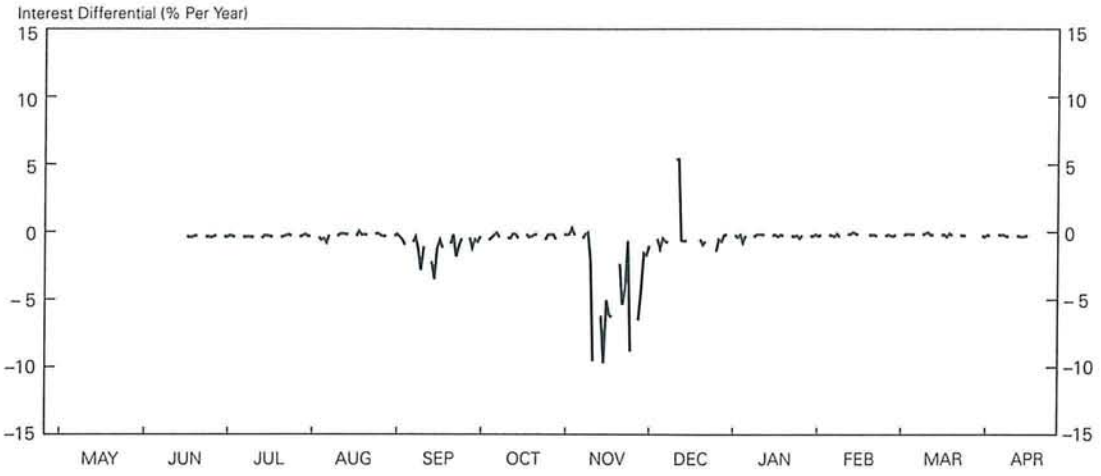
The fact that domestic interest rates frequently exceeded the Eurorates for these three Scandinavian currencies during this tumultuous period inspires the question whether controls might, at least temporarily, have permitted greater ease in the domestic markets relative to the Euromarkets. In other words, since the same phenomenon was not observed, at least to the same degree, for the peseta and the escudo, should the restrictions in Spain and Portugal be given good marks? Another, related, question also arises: if controls were not being employed in the Scandinavian countries, why were significant interest differentials observed between the domestic markets and the Euromarkets?

In response, it may be that Spain and Portugal did acquire some temporary insulation. Indeed, the interest differentials observed for the three Scandinavian currencies may be attributable largely to the marked increases in interest rates required to maintain the foreign exchange values of these currencies during this period, for those increases may have exacerbated concerns about the creditworthiness of the domestic banks (that is, about their ability to pay

[7] This judgment is shared by analysts of both the Euromarket and the Irish market who were contacted by the author.

Figure 5

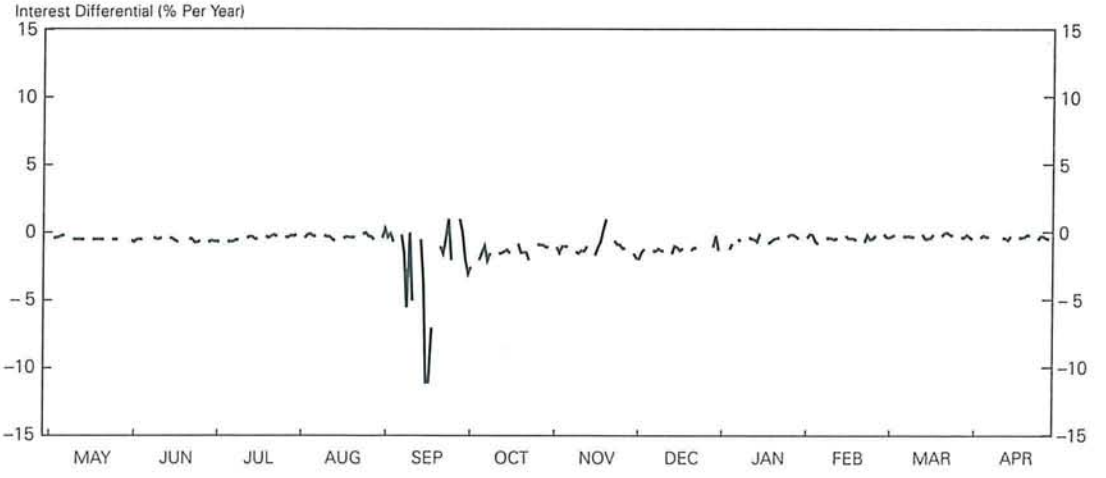
Norwegian Krone: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank.

Figure 6

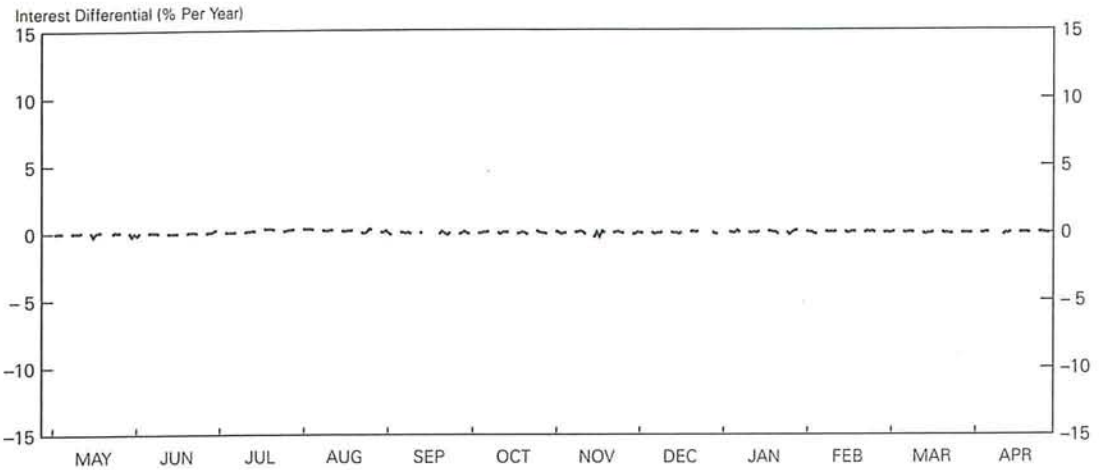
Swedish Krona: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank.

Figure 7

British Pound: 3-Month Eurodeposit Rate minus 3-Month Domestic Interbank Rate, May 1992 to April 1993, Daily



Note: Rates are closing bids.
Source: DRIFACS data bank.

such increases)[8] and thus may have generated a credit risk premium within the domestic interest rates that was absent from the Eurorates prevailing among foreign transactors deemed more creditworthy. Insofar as controls can substitute for higher interest rates, they reduce the likelihood of such differentials. Whatever success the controls may have had in this respect seems to have eluded Ireland, however. And even in Spain and Portugal any such success seems to have been very limited, since domestic interest rates did not remain consistently or appreciably below the comparable Eurodeposit rates while the controls were in effect, and both nations devalued their currencies only two months after imposing or intensifying controls.

V. Some Further Evidence for Portugal

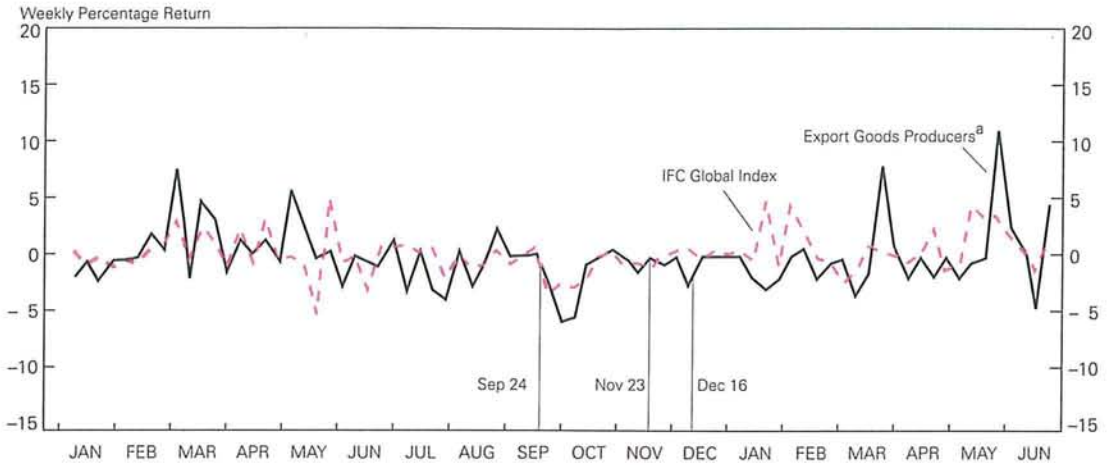
Another perspective from which to evaluate capital controls is the response of the equity markets. Just before controls are introduced, market participants, as evidenced by their behavior, typically expect a depreciation of the domestic currency in the foreign exchange markets. Other things equal, such a depreciation would foster an improvement in the relative profitability of firms dealing in internationally traded goods, since depreciation tends to raise the relative prices (in domestic currency) of export goods and of goods that compete with imports. Therefore, disregarding other influences, if market participants believe that the controls will *avert* the depreciation, the advent of the controls should raise the relative valuation of the equities of firms dealing chiefly in *non-traded* goods.

The evaluation of any such effect on the equities markets is hampered by the lack of suitable data, but enough data may be available for Portugal to permit at least a rough, preliminary evaluation for that country. In Figures 8 to 10 are plotted the weekly percentage returns (including market price changes) for the stocks of Portuguese firms that could be identified as concentrating in the production of exports, of import-competing goods, and of non-traded goods, along with the total return to all stocks included in the market index compiled for Portugal by the International Finance Corporation.

[8] Some of these banks had experienced some diminution in their perceived creditworthiness even before the sharp increases in interest rates.

Figure 8

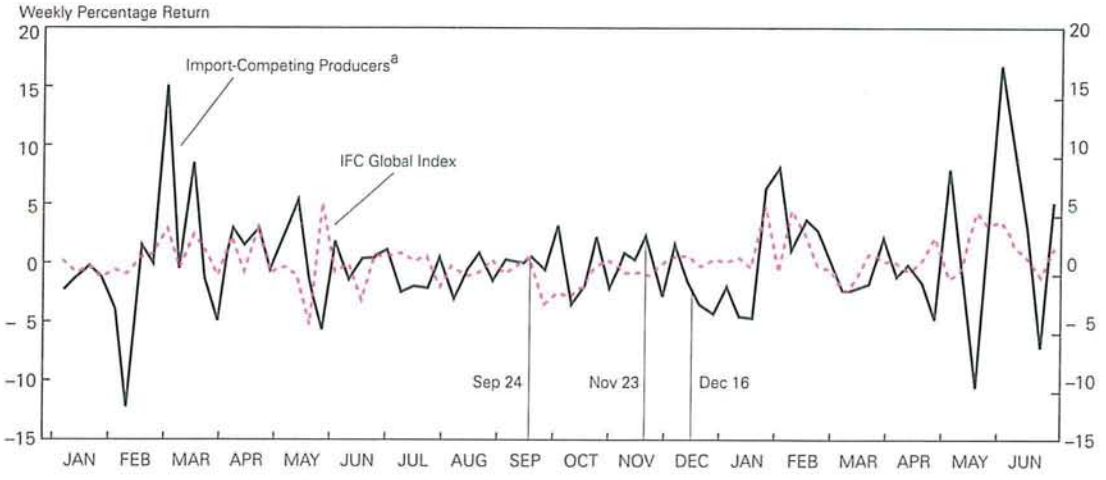
Weekly Percentage Returns on Stocks of Selected Portugese Firms
January 1992 to June 1993



[a]Median for 5 firms.
Source: International Finance Corporation.

Figure 9

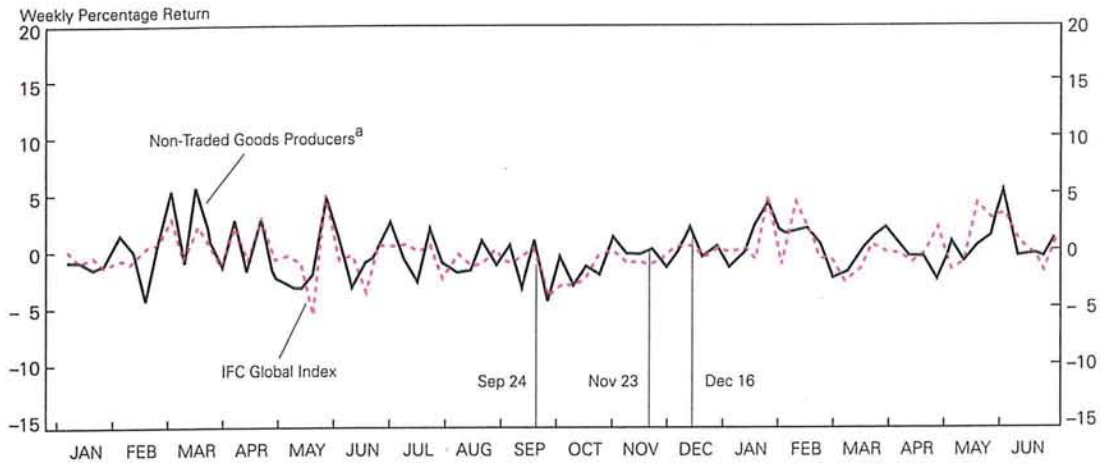
Weekly Percentage Returns on Stocks of Selected Portugese Firms
January 1992 to June 1993



[a]Mean for 2 firms.
Source: International Finance Corporation.

Figure 10

Weekly Percentage Returns on Stocks of Selected Portugese Firms
January 1992 to June 1993



[a]Median for 4 firms.
Source: International Finance Corporation.

As can be seen, immediately after the enforcement of controls on September 24 the returns on the equities of export-goods producers did decline relative to the overall market return, and relative to the return for non-traded-goods producers. But for the equities of import-competing firms, the weekly percentage returns rose, rather than declined, in relation to returns both for the overall market and for the non-traded-goods producers. Finally, returns on the equities of non-traded-goods producers did not rise appreciably relative to returns for the overall market. While hardly conclusive—partly because of the small sample size—these statistics in and of themselves would lend little support to any claim that market participants had much confidence in the efficacy of the controls.

VI. Summary and Conclusion

Despite the heralded progress toward freer markets, controls over international capital movements remain the rule rather than the exception, even among the industrial countries, and such controls are tolerated, although not welcomed, by the prevailing codes of international financial behavior, not least the *Articles of Agreement* of the International Monetary Fund. Among the various justifications offered for the controls, the claim that they can be used to prevent capital flows from destabilizing the domestic economy is perhaps of greatest interest to policymakers at this time.

The successful use of capital controls encounters major obstacles. "Destabilizing" capital flows must be defined and then identified, and efficacious enforcement mechanisms must be deployed. Empirical studies typically find that governments have had no more than fleeting and minor success in overcoming these obstacles in recent years.

The conclusion of this paper is similar. Controls employed by Ireland, Portugal, and Spain during the autumn of 1992 did not allow those countries to enjoy lower interest rates domestically than the rates prevailing for Eurodeposits in their currencies. Nor did the relative returns to the equities of traded and non-traded goods producers in Portugal clearly respond to that country's controls in a manner implying confidence that the controls would avert a depreciation of the escudo. Spain and Portugal may have achieved some temporary insulation, but the effect

was limited and short-lived. All three countries were obliged to devalue within months after imposing or intensifying controls.

It is unlikely that capital controls can rigorously monitor the many channels through which capital can flow without the aid of techniques approaching those of the police state. At least in principle, a more acceptable alternative might be to engage in sterilized intervention, which should succeed—and reap profits for the intervenors—if undertaken in sufficient volume to offset truly destabilizing capital movements. The continued resort to controls despite their inadequacy poses a long-standing challenge to the educational role of economists.

References

Argy, Victor. 1987. "International Financial Liberalisation—The Australian and Japanese Experiences Compared." *Bank of Japan Monetary and Economic Studies*, vol. 5 (May), pp. 105–167.

Browne, Francis X. and Paul D. McNelis. 1990. "Exchange Controls and Interest Rate Determination with Traded and Non-Traded Assets: the Irish-United Kingdom Experience." *Journal of International Money and Finance*, vol. 9 (March), pp. 41–59.

Eichengreen, Barry and Charles Wyplosz. 1993. "Mending Europe's Currency System. " *The Economist*, vol. 327 (June 5–11), p. 89.

Galy, Michael. 1993. "External Constraints on Monetary Management." In Galy, Michael, Gonzalo Pastor, and Thierry Pujol, *Spain: Converging with the European Community*. Occasional Paper No. 101, February. Washington: International Monetary Fund.

Goldstein, Morris and others. 1993. *International Capital Markets: Part 1. Exchange Rate Management and International Capital Flows*. World Economic and Financial Surveys, April. Washington: International Monetary Fund.

Guitián, Manuel. 1993. "Capital Account Liberalization: Bringing Policy in Line with Reality." Unpublished manuscript, International Monetary Fund.

International Monetary Fund. 1993. *World Economic Outlook: Interim Assessment*. World Economic and Financial Surveys, January. Washington: International Monetary Fund.

Mathieson, Donald J. and Liliana Rojas-Suárez. 1993. *Liberalization of the Capital Account: Experiences and Issues*. Occasional Paper No. 103, March. Washington: International Monetary Fund.

Otani, Ichiro. 1983. "Exchange Rate Instability and Capital Controls: the Japanese Experience, 1978–1981." In Bigman, David and Teizo Taya, eds., *Exchange Rate and Trade Instability: Causes, Consequences, and Remedies*. Cambridge, Massachusetts: Ballinger.

Ungerer, Horst and others. 1990. *The European Monetary System: Developments and Perspectives*. Occasional Paper 73, November. Washington: International Monetary Fund.