

IMF WORKING PAPER

© 1994 International Monetary Fund

This is a Working Paper and the author would welcome any comments on the present text. Citations should refer to a Working Paper of the International Monetary Fund, mentioning the author, and the date of issuance. The views expressed are those of the author and do not necessarily represent those of the Fund.

WP/94/81

INTERNATIONAL MONETARY FUND

Monetary and Exchange Affairs Department

Capital Account Convertibility: A New Model
for Developing Countries*

Prepared by Peter J. Quirk

July 1994

Abstract

This paper analyzes issues for developing countries considering a move to capital account convertibility. It reviews the relevant literature, including arguments for sequencing, and analyses in a series of charts various features of the foreign exchange market impact of removing controls, as against the alternative of foreign exchange intervention. Finally, it examines recent experiences of capital account liberalization by developing countries in the context of multi-pronged stabilization programs.

JEL Classification Numbers:

0530, 1210, 4210, 4314

*Paper prepared for the Central Banking Seminar on Frameworks for Monetary Stability held in Washington, D.C., March 1-10, 1994. It will be published in the proceedings of the seminar. The author is grateful to Virgilio Sandoval for competent research assistance.

	<u>Contents</u>	<u>Page</u>
I.	Introduction	1
II.	Pros and Cons of Convertibility	2
	1. Permanent controls	2
	2. Sequencing	4
III.	Some Key Effects of Capital Controls	7
IV.	Capital Liberalization in Developing Countries	11
	1. Liberalization in Indonesia	12
	2. Liberalization in other developing countries	13
V.	Concluding Remarks	17
Figures		
	1. Capital Controls Without Leakages	8
	2. Partly Effective Capital Controls	9
	3. Foreign Exchange Market Intervention	10
Bibliography		

Summary

Capital convertibility has been embraced by virtually all industrial countries in the 1970s and 1980s, and in the aftermath of the debt crisis by a rapidly growing number of developing countries. Recent experience in which convertibility has been adopted in the context of comprehensive stabilization programs, and with support from market-determined exchange rates, has contrasted sharply with the adverse experience with convertibility in the southern cone of Latin America in the late 1970s.

In earlier years, the main objectives of capital controls had been either to retain savings, or to insulate the domestic economy from external shocks. However, this paper contends that, based on its brief survey of the recent literature, optimality arguments for the long-term retention of controls to affect savings have been widely rejected. What has remained are questions of sequencing, whereby controls are either modulated (in either direction) as an adjunct to monetary policy instruments, or are phased out gradually as certain macroeconomic preconditions are met.

The paper reviews recent experiences in several developing countries (Costa Rica, El Salvador, Guyana, Indonesia, Jamaica, Trinidad and Tobago, and Venezuela) and suggests that controls can be dropped with little consideration of sequencing. Reforms of foreign exchange and domestic money and credit markets to provide sufficient flexibility in interest and exchange rates, can be, and have been, implemented quickly as part of essentially simultaneous "multi-pronged" packages. Success with such packages in this group of countries has been sufficiently pronounced that private capital flight has reversed rapidly. The paper finds that sterilization policies have prevented the inflows from re-igniting inflation, in part because the associated loosening of the external constraint has permitted increased import absorption where it is supported by a sufficiently open trade system.

I. Introduction

Capital account convertibility ^{1/} has now been adopted by all industrial countries other than Iceland. Convertibility came to this group of countries significantly after the 1973 generalized shift to floating exchange rate regimes: e.g., Germany, Switzerland, and the United Kingdom in the late 1970s, Australia and New Zealand in the early 1980s, and most European industrial countries in the late 1980s. In contrast, relatively few developing countries had liberalized capital controls by the late 1980s; about one in four had free or virtually free systems, and those were mainly countries with structurally strong balance of payments positions, or those using foreign currencies as legal tender.

What explains the difference in the rate at which the two groups have been fully integrated into international financial markets? Is it just a perception lag, similar, for example, to the ten-year or so period in which developing countries did not adopt floating exchange rate regimes after the collapse of the Bretton Woods arrangements in industrial countries? Or does it represent genuine differences in the capacity of financial institutions in developing countries, or in the nature of the shocks to which their economies are exposed? Such arguments, of course, make appeals to the experience with industrial countries' liberalization of exchange controls of questionable value.

Although documented for the industrial countries, as recently in Fieleke (1993) and Fischer and Reisen (1992), the experiences in developing countries have gone almost unnoticed, except for the adverse episode in the Southern Cone of Latin America in the late 1970s and early 1980s. Fortunately, there is a wealth of very recent experience--in addition to the long-standing Indonesian case--of capital liberalization by developing countries, many of them with weak external positions. This experience suggests that capital convertibility is beneficial for both industrial and developing countries.

The paper first reviews the literature for arguments and counter-arguments that are relevant to the choice of a capital regime by developing countries. Some simple illustrations of the theoretical effects of capital controls on the foreign exchange market are presented next. The paper then describes the main empirical evidence associated with the long-standing capital convertibility in Indonesia and the more recent liberalization instances involving other developing countries.

^{1/} Capital convertibility is defined as the absence of cross-border controls, or the equivalent taxes and subsidies, on international capital transactions.

II. Pros and Cons of Convertibility

The somewhat casual empirical basis provided by proponents for the permanent or transitional use of capital controls is a theme running through the literature. For example, the seminal article of McKinnon (1982) derives from the limited experience of a small group of countries in the Southern Cone of Latin America in the late 1970s and early 1980s. Edwards (1986) draws upon the same Southern Cone experiences, with some reference also to Korea and Indonesia (for the relative sequencing of trade and capital liberalization).

Interestingly, Cairncross (1973) notes similar problems with justifications for capital controls in the early postwar period:

"It is natural therefore to ask whether there are good and sufficient reasons for these controls, yet it is very difficult to point to any official statement in which they are justified at any length. The need for them tends to be taken for granted. They have been introduced one by one in response to a succession of crises, and although it is not quite true that "old controls never die," they do not usually fade away either and they are removed only with great difficulty."

Justifications advanced for capital controls can be divided into two groups: The first group includes the optimality arguments for the permanent retention of controls, either continuously activated or on a stand-by basis to address recurrent balance of payments crises. The second group has to do with the temporary retention of capital controls in the transition stages of general financial and economic liberalization, and is commonly referred to as the "sequencing" approach.

1. Permanent Controls

Rather than basing his critique on specific incidents, Cairncross generalizes several of the arguments in favor of the optimality of capital controls, which provides a good basis for beginning the discussion.

Misuse of Resources Argument. This is the argument that resources will be lost and misused through capital outflows for several reasons:

(1) because of the importance of domestic investment as an element of economic growth; (2) because exports of capital are associated with adverse movements in the terms of trade when a sharp rise in import prices cuts into real wages and lays most of the burden of the change in the terms of trade on wage earners; (3) because the tax yield from income on investments accrues to the investing country (this is rather an argument for modification of the tax system); and (4) because of overlending effects on the balance of payments. However, apart from (3), Cairncross notes that each argument depends on the inability of exchange rates and interest rates to equilibrate the balance of payments and reward good investments.

Threat to Monetary Policy. Cairncross notes that (even in 1973 when capital controls still prevailed in industrial countries) it was widely agreed that the appropriate brake on speculative short-term movements in the interest of monetary independence would be a wider spread in exchange rates around the declared par value. He observes that far from fluctuating with balance of payments pressure, U.K. capital controls changed remarkably little between one crisis and the next, and they could, therefore, be justified only as a continued considered attempt to safeguard the supply of capital for domestic investment. Guitián (1993) makes the point that monetary independence is illusory in any event, as capital will seek out the highest quality of monetary policy.

There are more recent arguments regarding longer-term capital flows and instruments that question the efficacy of full liberalization. Edwards (1986) notes the existence of a country risk premium faced by countries with borrowing limits that results in a distortion associated with the price of borrowing from abroad. In these circumstances, private firms will borrow more than is socially optimal, since when the domestic firm borrows more, the cost of funds to all borrowers goes up. Edwards therefore suggests the imposition on a permanent basis of a tax on capital inflows as a first best measure, even after liberalization reforms are completed. This argument must be distinguished from those of Tobin (1978) which aim to slow reversible flows of capital across borders by "throwing sand in the wheels" and thus raising the threshold at which the flows take place, rather than by placing a permanent unidirectional impediment to capital inflows.

The idea of buffering the real economy from developments in the capital account with taxes is not a new one. In fact, a major argument for multiple exchange rates in the literature has been that a dual exchange rate for capital (a form of capital control) could insulate the real economy from financial shocks. Belgium in particular had a very long-standing dual exchange rate practice (throughout most of the postwar period) that it finally unified in 1990. However, in the case of Belgium, the exchange rate differential between the two markets was limited and thus the degree of insulation relative to the overall swings in the exchange rate was not a major factor. Belgium's other main consideration in eliminating the dual exchange market was the considerable administrative cost of the system, in part because the system had to be changed frequently, reclassifying transactions from one of the dual markets to the other, to take into account various transactions which had become virtually uncontrollable because of leads, lags, and misinvoicing. Maier (1990) notes that similar considerations could well arise in the case of a tax imposed to "throw sand in the wheels." Evasion of the tax would take place if, for example long-term capital was excluded in view of its nonspeculative nature and investment contribution.

Wyplosz (1986) sees value in capital controls because they impose a ceiling on the potential volume of speculative transactions and permit the maintenance of a particular form of exchange rate regime: i.e., fixed exchange rates. Wyplosz recognizes that the trade-off is the cost of

periodic shortages, and that the ultimate choice of exchange regime and capital tax, or monetary policy uncertainty, depends on welfare considerations. The regime is not an end in itself.

Stockman and Hernandez (1985) conclude that taxes or quantitative controls on foreign currency can be used to improve the terms of trade and reduce imports, but are not effective in shifting demand to domestic goods or improving welfare. The lack of contribution of the controls to welfare is a common theme.

2. Sequencing

Optimality arguments for controls are today taken less seriously, but there is a more recent and increasingly prolific strand of the literature that holds that the order of liberalization is important, and that temporary maintenance of capital must be viewed as part of a sequence of broad actions aimed at opening up the economy and eliminating economic controls, in particular financial "repression."

McKinnon (1982) and Edwards (1985) argue that the experience of the Southern Cone countries in Latin America in the late 1970s and early 1980s suggests strongly that monetary reform and liberalization of trade should occur before the capital account is opened up. Edwards (1986) suggests that not only is it necessary to raise domestic interest rates (to real positive levels), but also the domestic financial market should have been reformed. In these countries, liberalization is said to have led to capital inflows on a scale that undermined stabilization efforts, and ultimately the reforms themselves. In the case of the Taiwan Province of China (a strong surplus country), Belassa and Williamson (1987) argue similarly that there was not a case for liberalizing capital inflows because this would also have precluded any chance of securing adjustment because expected exchange rate appreciation would attract a flood of hot money.

Corbo and de Melo (1987) argue that sustained problems of capital inflows that eventually become destabilizing are related fundamentally to policy inconsistencies, in particular the need to continue to fund a fiscal deficit that leads to high interest rates that stimulate capital inflows. The inflows in turn can undermine macroeconomic stabilization if they prove reversible. The need for sequencing is therefore seen as being rooted in fiscal disequilibrium, with exchange controls on capital account being maintained to offset the effect of the inflation tax. Others point to the sequencing argument being based on unstated assumptions regarding a lack of development of the domestic capital market leading to incorrect interest rate signals. They also question whether the authorities can make better decisions (on the form of the controls) about foreign investment issues than investors who are risking their own money to "pick the winners."

Lal (1987) points to the role of semi-fixed and fixed exchange rate regimes in Chile's adverse experience with capital liberalization in the late 1970s. He suggests that a fully floating exchange rate would have limited the destabilizing inflows. However, as noted above, virtually no developing countries had adopted floating regimes before the early 1980s.

In practice, there may be some room for maneuver between interest rate and exchange rate policy. This can be shown via the covered interest parity condition, which states that the expected rate of depreciation of the spot exchange rate is equal to the forward exchange rate premium which is a function of the foreign/domestic interest differential. Lack of realism in one money price therefore tends to be reflected in an offsetting movement in the other: e.g., if the domestic interest rate is not allowed to rise, the exchange rate will tend to depreciate, or if the exchange rate is not allowed to appreciate, interest rates will tend to fall. ^{1/} Obviously, however, this trade-off cannot be pushed too far, for a very unrealistic interest rate (or exchange rate) will undermine confidence, introducing a very large risk premium into the covered parity condition and creating capital immobility.

Stockman (1982) notes that opponents of sequencing argue that it may be important to have an abrupt change of policy in order to establish credibility, and that gradualism may invite speculation about future policy reversals. McKinnon (1982) nevertheless clarifies that sequencing does not imply gradualism and that sequenced measures may be undertaken quickly through drastic changes in policy. However, this in turn raises an issue of the destabilizing nature of rapid multi-stage systemic change, rather than one-shot liberalization achieved through a single change to the relevant law and regulations. Rapid changes over a short time period can be destabilizing in themselves because they create uncertainty about the prevailing regime. Ultimately, the issues of gradualism and sequencing are therefore closely interconnected.

There is another way of looking at the issues of gradualism and sequencing. Temporal ordering implies that the supporting policies in other areas, such as labor markets and economic stabilization, cannot be embarked upon in the context of a broad program. And yet it is precisely the multi-pronged approach that has characterized Fund-supported stabilization programs. If reform measures are taken across the broad range of macroeconomic issues, then again the issue of sequencing may be irrelevant. Quirk (1990) and Mathieson and Rojas-Suárez (1993) note that massive capital flight has occurred in the face of extensive capital controls in developing countries (e.g., Latin America in the 1980s), underlining the irrelevance of the current and capital account sequencing debate.

^{1/} To the extent that *sustained* exchange rate repression is credible, interest rates will fall below the unintervened level; but to the extent that it is not credible, interest rates will rise above that level.

Frenkel (1982) points especially to the role of indexation, and the need to either insulate or eliminate indexing mechanisms from the effects of adjustments to major prices (wages, exchange and interest rates, and commodity prices), as being very important in supporting a capital liberalization package. In commenting on McKinnon, Frenkel agrees that more rapid adjustment in assets than goods markets would imply liberalizing trade before capital. Moreover, there is growing evidence that it is the commodity convertibility rather than financial convertibility that is of the greatest welfare significance (Mendoza, 1990, and Polak, 1991). Polak points out that the two Eastern European countries that have come forward with the clearest choices on transition, Hungary and Poland, have also liberalized imports, so that in Hungary 90 percent of convertible currency imports are now free of licensing. He notes in particular that a payments union relying heavily on credit to promote discrimination against imports from outside the group would not serve the recently emerging eastern European and former Soviet Union countries. This amounts to an argument for quick and simultaneous liberalization of both trade and capital.

Another, more microeconomic-based, argument adduced for delaying capital liberalization, for example in Fischer and Reisen (1992), ^{1/} is the distorting effects of nonperforming assets in commercial bank portfolios, especially those resulting from rapid monetary reform and sharply increased interest rates. But budgetization of the nonperforming assets undertaken at the same time as capital liberalization can be effective in insulating the new financial market from the old and distorted market. For example, when capital liberalization was undertaken in El Salvador, nonperforming assets of the banking sector were at a very high level. However, the impact of the stabilization program, including a floating exchange rate and capital convertibility, sufficiently restored confidence so that strong capital inflows resulted, providing support for the banking system at a time when the domestic restructuring was underway.

It is important to recognize that the liberalization-induced capital inflows, which appear to form the main basis for the sequencing arguments, can in fact be anti-inflationary, because they permit external absorption. This is in contrast to monetary expansion occurring through increased domestic debt, which feeds into domestic demand without freeing the external financing constraint on imports. This has been reflected in the recent prescription for countries experiencing surges in capital inflows to sterilize their monetary impact specifically through the reduction of the fiscal deficit, reducing the scope for domestic crowding out, rather than through generalized monetary sterilization. For an endorsement of the fiscal approach to sterilization, see Goldstein and Mussa (1993).

^{1/} Fischer and Reisen (1992) also point to an adequate bank supervisory structure as a precondition. However, in a number of countries this would amount to closing the barn door after the horse has bolted.

On the question of sequencing reforms within the capital account itself, Quirk (1989) notes that most developing countries' capital control systems blanket the various forms of asset transfers (i.e., if a country has controls on any one category of capital transfers, then in general it will have controls on all). This is because capital tends to be fungible, and restrictions on one form of instrument but not another would quickly lead to displacement of flows to the uncontrolled instrument ("squeezing on a balloon"). However, the benefits of direct investment for growth and adjustment are readily apparent, and thus if, despite their drawbacks, phasing of capital controls is to be considered, then elimination of restrictions on inward direct investment is most crucial, especially in transition economies seeking rapid technological change.

III. Some Key Effects of Capital Controls

Key features of capital controls and their effects on the foreign exchange market are illustrated in Figures 1-3.

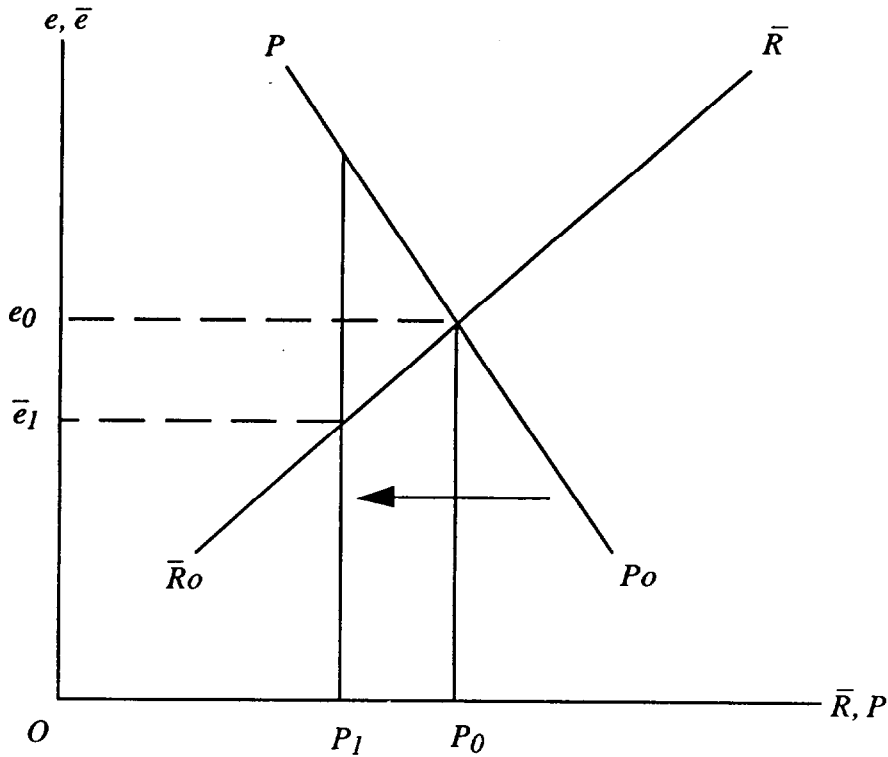
Figure 1 shows the effect of an exchange control regime that is fully effective, i.e., has no leakages, as in Nowak (1984):

Demand for foreign exchange to make current and capital payments abroad is displaced by the comprehensive exchange controls from PP_0 to PP_1 ; and the exchange rate is correspondingly appreciated from its uncontrolled equilibrium e_0 to the controlled level \bar{e}_1 . This serves to illustrate Lal's argument against sequencing, noted above, in that the exchange rate adjustment is always an alternative to controls, and thus serves to also facilitate their liberalization.

However, the experience in all industrial and developing countries has been that controls leak, and that demand for foreign exchange, therefore, remains elastic with respect to the exchange rate, as shown in Figure 2 by the movement from PP_0 to a control regime $P'P'_0$:

The difficulty that the elasticity of $P'P'_0$ poses is that shifts in the underlying supply conditions no longer give rise to a simple rule--i.e., fixing P_1 at an absolute level (a "foreign exchange budget"). Instead, any shifts in supply, say from $\bar{R}\bar{R}_0$ to $\bar{R}'\bar{R}'_0$, will require qualitative adjustment of exchange control policy, which will then have to react continually to neutralize such shifts. But because the underlying demand and supply schedules are obscured by the controls themselves, the administration of controls becomes a complex and uncertain task. For example, the shift to $P'P'_0$ could be a result of either a slippage in the control mechanisms, or a shift in the balance of payments. Because of such control problems, exchange restrictions are seldom successful in supporting the targeted fixed or managed exchange rate \bar{e}_1 .

Figure 1. Capital Controls Without Leakages

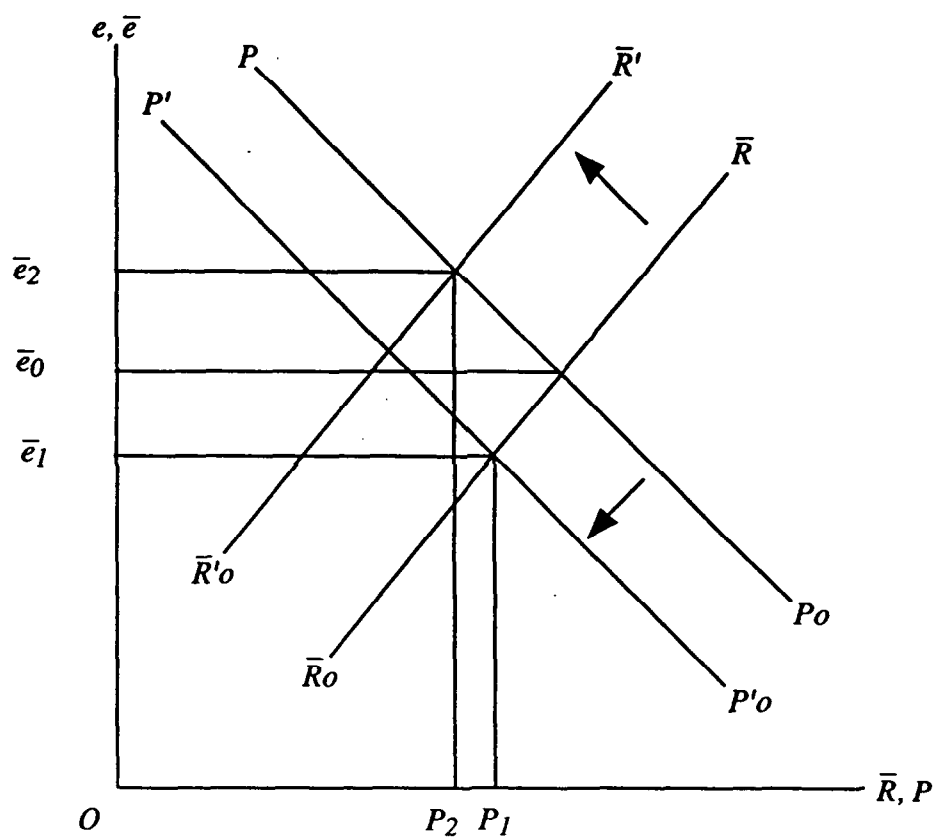


As a consequence, parallel transactions emerge to deal with the policy mismatch (arbitraging \bar{e}_2 and \bar{e}_1). Illegality tends to feed on itself, so that the controls are eroded and continuously increasing effort is necessary to maintain $P'P'_0$, which tends to drift back toward PP_0 , thus illustrating the observations of Quirk (1990) and Mathieson and Rojas-Suárez (1993) regarding the ineffectiveness of controls.

Another key problem associated with capital controls can be illustrated by reference to Figure 2. The downward shift in the supply of foreign exchange can be endogenous to the controls that shifted the demand curve from PP_0 to $P'P'_0$. Quirk (1989) notes that this arises because of the "mousetrap effect"--residents will not repatriate foreign exchange to the domestic economy if by so doing they lose the ability to use it abroad later. As a consequence, the supply schedule shifts to the left in response to the controls, and the exchange rate depreciates to \bar{e}_2 , which can be even more depreciated than the uncontrolled equilibrium e_0 . The controls, therefore, can have the opposite effect to that for which they were intended--

i.e., instead of removing the need for a painful currency devaluation, they actually intensify pressure on the exchange rate. The importance of this counterproductive aspect of the capital controls is borne out by the empirical evidence, because, as discussed in the next section, following the removal of controls and floating, liberalizing developing countries' balance of payments have strengthened and their effective exchange rates have appreciated.

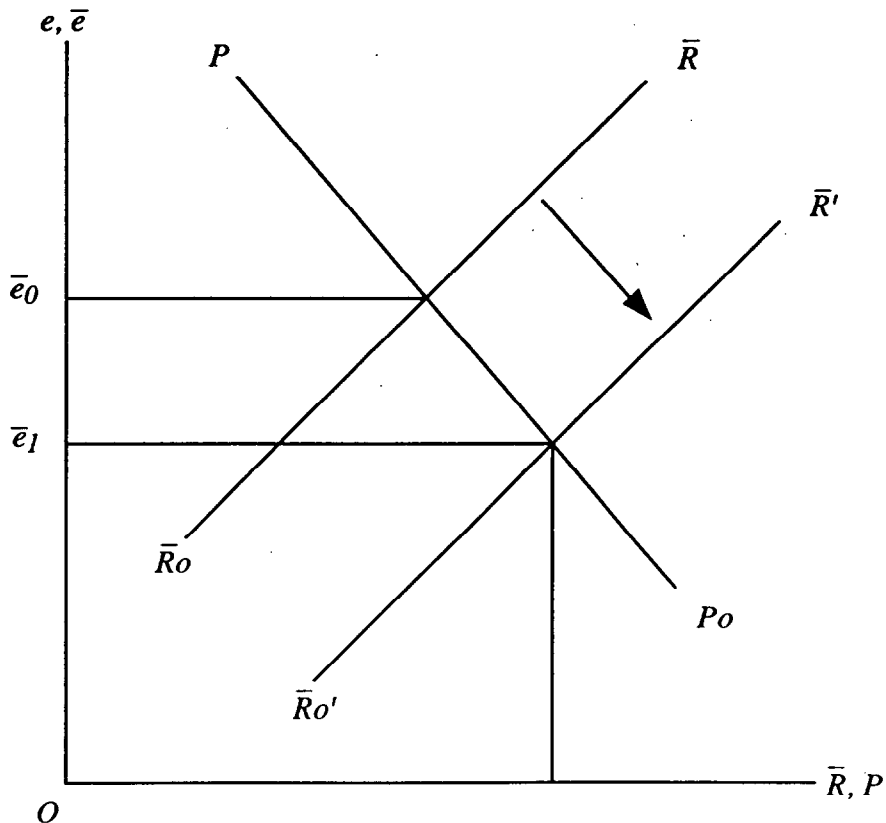
Figure 2. Partly Effective Capital Controls



There is yet another channel through which controls can have unintended consequences. As noted above, mismatches between quantitative foreign exchange controls and exchange rate targets can push transactions into a growing parallel market. However, there will be some risk of prosecution in transacting in this market. Such risk will be reflected in a premium on supply, and, therefore, a downward shift in supply at each level of the exchange rate. This serves to intensify the "mousetrap" mechanism illustrated by Figure 2.

The alternative of influencing the exchange rate by foreign exchange intervention, in the form of official sales of foreign exchange reserves to the market, is illustrated by Figure 3.

Figure 3. Foreign Exchange Market Intervention



As in the case of the foreign exchange budget (Figure 1) and the capital control reaction function (Figure 2), the exchange rate is displaced to a target level \bar{e}_1 that is overvalued with respect to the uncontrolled and unintervened equilibrium e_0 . Unlike that in Figure 1, the displacement is due to an increase in supply rather than a contraction of demand. However, the role of expectations cannot be ignored; in fact, the schedules in Figure 3 represent discounted present values of flows through the foreign exchange market. If the use of official reserves is heavily discounted by market participants as temporary (owing to a low level of reserves or the central bank's unwillingness to expose itself to significant exchange losses on intervention), then the displacement from $\bar{R}_0\bar{R}$ to $\bar{R}'_0\bar{R}'$ in expected terms, and thus from e_0 to \bar{e}_1 will be small and possibly insignificant.

Chu and others (1986) deal with the interrelationship between exchange rate intervention and controls on capital mobility. They conclude that, notwithstanding the limitations of intervention, in a world where both domestic expenditure and external trade shocks exist, the short-run fine-tuning function of controls is best handled by exchange rate intervention. (This is akin to the second-best argument in the trade literature for tariffs as opposed to quantitative controls.) On the other hand, exchange controls do not have the obviously self-limiting character of intervention from a low reserves level (or unsustainable short-term external borrowing). However, the drawbacks of controls described above are considerable, and sterilized intervention also raises issues of limited effectiveness.

IV. Capital Liberalization in Developing Countries

Experiences with long-standing cases of capital convertibility differ from those of recent adoption of capital convertibility and, except for Indonesia, are limited in their applicability to countries with conventional central banks whose options may be limited owing to weak external positions.

Currency boards offer an interesting combination of convertibility and fixed exchange rates. It has often been argued that, when the exchange rate is fixed and capital is mobile, there is no scope for discretionary monetary policy, and such a strict rule-based approach is the fundamental aim of the currency board. In Argentina, the introduction of the currency board and full convertibility was a successful attempt to stiffen the discipline of domestic monetary policy. The convertibility was also a reaction to previous capital flight that had proved the ineffectiveness of the control system. Other currency boards or quasi-currency boards with full convertibility are those in Estonia, Lithuania and Hong Kong. In only two other groups has capital convertibility existed alongside a fixed or semi-fixed exchange rate regime--namely, in three countries in southeast Asia with closely integrated financial markets (Indonesia, Malaysia, and Singapore), and in oil-surplus countries of the Middle East (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates, and the Yemen Republic).

Even less independent in terms of monetary policy than the currency board is the use of another country's currency. Three Fund members have had the capital convertibility implied by such a currency regime (Kiribati, Liberia, and Panama). Yet another category of countries with full convertibility includes Lebanon, which due to security problems had little alternative administratively, and the smaller and intrinsically open islands such as those in the Eastern Caribbean, Maldives, and the Seychelles.

1. Liberalization in Indonesia

The case of Indonesia's liberalization of capital controls is a particularly interesting one. Indonesia is not in the group of countries that liberalized capital controls when the balance of payments was already structurally strong, as in the case of large oil producers. Instead, Indonesia liberalized capital controls in 1971 following a period of severe balance of payments problems during which the inflation rate peaked at close to 600 percent per year (in 1965). Indonesia instituted a strong Fund-supported stabilization program that included managing interest rates to achieve a positive real interest rate level (almost 5 percent per month in early 1969). The program resulted in rapid re-monetization, following the inflation-induced destruction of approximately one-half of the demand for real cash balances and one-third of quasi-money balances. Remonetization was accompanied by strong capital inflows in 1969 and 1970 and, despite the imposition of higher reserve requirements on these inflows, they continued, and in 1971 Indonesia completely liberalized all capital transactions. It is estimated that the capital inflows played a strong role in the continuing remonetization of the economy after 1971 that occurred mainly in time and savings deposit balances rather than cash, and was accompanied by the virtual elimination of inflation in 1971-72 (Quirk, 1972).

The longer-term experience with Indonesia's decision to liberalize capital at a very early stage certainly has been positive. Since 1971 official international reserves have risen monotonically, except for one significant reversal in 1975 and again in 1982. Moreover, throughout this period Indonesia was almost unique among lower-income developing countries in that it managed to avoid external payments arrears. Relative stability in the overall balance of payments was achieved despite large fluctuations in the trade balance in the 1970s, and in the capital balance in 1975, 1985, and 1988. This may not have been coincidental, in that exposure to the realities of the market, without exchange controls, helped to prompt the right policy adjustments and thus allow Indonesia to remain current in its obligations.

Viewing the Indonesian experience against the background of the sequencing debate, it is notable that the capital liberalization preceded the reforms of 1983-85, which abolished credit and interest rate controls and introduced Bank Indonesia's own debt certificates, the Sertifikat Bank Indonesia (SBI), as the tool for absorption of bank reserves. This instrument was complemented by the subsequent creation of a new facility for the discounting of banks' own money market paper, Surat Berhaga Pasar Uang

(SBPU). In the absence of a domestic government securities market, open market operations in SBIs and SBPU became the principal instrument of money control. Twice in the deregulation era (in mid-1987 and again in early 1991) money market instruments in the form of shifts of government-related deposits from commercial banks to the central bank were also used to sterilize the monetary impact of foreign exchange intervention aimed at exchange rate pressures. The pressures were triggered in part by the expansionary effects of large-scale capital inflows responding to subsidized swaps provided by Bank Indonesia and persistent arbitrage opportunities. The Bank has since moved to discontinue the subsidies and to allow greater flexibility of interest rates in the SBI and SBPU auctions in order to dampen the effects of the capital account on domestic monetary policy. These moves are seen as a direct consequence of the policy of avoiding abrupt changes in the U.S. dollar-rupee exchange rate. Complementing the shift in interest rate determination, the Bank Indonesia also widened its bid/offer spread for foreign exchange to give room for wider day-to-day fluctuations, thus reducing its need to intervene and encouraging greater interbank financing.

Overall then, and taking into account the recent fine-tuning of the monetary and exchange system, the Indonesian system of capital convertibility has worked well, even with a relatively managed exchange rate. It offers strong evidence, and the only one of a long-term nature, that developing countries have the capacity to introduce and maintain open capital accounts in the face of balance of payments weakness. It also offers some evidence against the sequencing arguments noted earlier. While some trade liberalization was undertaken at the time of capital liberalization of the early 1970s, it has remained less far-reaching than the financial reforms. Moreover, liberalization of the domestic financial system, in the sense of a freely determined interest rate, followed much later. The Indonesian case, therefore, offers an interesting insight into the role of the preconditions often cited for capital liberalization. It could perhaps be argued that performance might have been even better had the sequence been reversed, but the Indonesian experience suggests that the case for such a view is not a compelling one.

2. Liberalization in other developing countries

Strength in the balance of payments and a comfortable international reserves position permit a country many options--including the abandonment of capital controls without fear of adverse impact. In recent years a number of developing countries have undertaken capital liberalization in the face of severe balance of payments weakness. The background for this was the widespread failure of capital controls to prevent the onset of the debt crisis, or even to alleviate it. The obvious ineffectiveness of capital controls led to questioning of their benefits, and ultimately to their

abandonment by a number of developing countries beginning in the mid-1980s. ^{1/} In recent years Costa Rica, El Salvador, Guyana, Jamaica, Trinidad and Tobago, and Venezuela have fully abandoned exchange controls on international capital transactions. The result in each case, as discussed below, has been a marked strengthening of the balance of payments, particularly on capital account. This strengthening reflected not only the financing available through the catalytic role of the Fund programs in which they were embedded, but also autonomous flows through the private sectors.

Costa Rica. Prior to March 1992, Costa Rica maintained a managed float exchange arrangement whereby the colón was periodically devalued. Since then, the currency has floated independently, with commercial banks and other financial institutions being free to deal in foreign exchange for all current transactions. At the same time that the currency was floated, Costa Rica removed remaining controls on capital transactions, including a limit on private capital receipts. There had been no significant changes to the capital regime for some years before this date. Domestic financial institutions were also freed to raise deposits and extend loans in foreign currency.

Following the very large nominal and, to a lesser extent, real depreciation throughout 1990 and 1991, the colón appreciated significantly in the first half of 1992 as a result of unexpectedly strong private capital inflows. These inflows reflected both domestic commercial borrowings of foreign funds and foreign investment in domestic bonds. In an effort to halt this appreciation, the interest rate on the bonds was reduced by more than 10 percentage points in mid-1992. For 1992/93 as a whole, net private inflows of capital were almost one and a half times as great as in the previous year.

The strong net inflows of financial capital reflected in large part the high level of domestic interest rates in the first half of 1992. However, direct investment in 1992 was also significantly higher than in earlier years. Despite shortfalls in official aid disbursements, the capital account surplus about doubled in 1992. Since the liberalization, the real effective exchange rate has been little changed, and inflation has been brought back under control (to about a 10 percent annual rate toward end-1993).

^{1/} Haque and Montiel (1990) present indirect tests of capital mobility for a group of fifteen developing countries, based on departures from a money-demand function. They find that in ten of the fifteen countries the hypothesis of a completely financially closed economy could be ruled out. There is the caveat that the result could be caused by full or partial controls leading to departures of domestic interest rate from a market-determined level. In one-half of the countries tested there are relatively strong capital control systems, pointing to significant evasion of the control systems. Only in India did the monetary system appear to be closed both formally and informally.

El Salvador. In August 1990 El Salvador commenced an economic program supported by a 12-year stand-by arrangement with the Fund. The program involved the implementation of tight financial policies and structural policies, including unification of the exchange rate and introduction of a floating exchange rate system in which the exchange rate is determined by commercial banks and exchange houses on the basis of supply and demand. In mid-1991 and early 1992 exchange controls were eliminated. The tightening in financial policies and the reforms in the exchange system have contributed to a sustained improvement in the balance of payments. In particular, private remittances of El Salvadoran citizens residing abroad rose by 1.5 percentage points to 6.5 percent of gross domestic product (GDP) in 1990, and a large net inflow of private capital made possible the elimination of external arrears and a substantial increase in net international reserves. These developments in turn led to an appreciation of the nominal exchange rate. Private remittances continued to expand rapidly in 1992 (by 30 percent) and, private capital inflows, including net errors and omissions, have also registered a sustained increase since 1990. Reserves have increased in the period 1990-93, and inflation has been contained within a 10-20 percent annual rate over the period.

Guyana. Since mid-1988 Guyana has implemented a medium-term economic program, with support by the Fund following the restoration of Guyana's eligibility to use Fund resources in mid-1990. In March 1990 a cambio exchange market handling all private sector transactions except fuel imports has functioned successfully and has made an important contribution to the overall success of Guyana's economic program. With the introduction of the cambio market, exchange controls were effectively eliminated. Following the shift in the exchange system and support from the economic program, Guyana's capital account shifted from net outflows in 1990 to net inflows in 1991 and 1992, reflecting mainly larger direct investment inflows (in gold exploration and mining, and financial private capital inflows). Inflation has been brought down over the period, to a single-digit level in 1993.

Jamaica. Throughout the 1980s Jamaica undertook a series of exchange system reforms in the context of economic programs supported by the Fund that culminated in 1991 with the adoption of an interbank exchange market and the full liberalization of exchange controls. Substantial private capital inflows following the liberalization of capital restrictions, together with a current account surplus, resulted in a pronounced improvement in net international reserves of the Bank of Jamaica in 1992/93. Consumer price inflation surged in 1992, leading to a sharp depreciation of the exchange rate, but control was re-established through mid-1993 and again in early-1994.

Trinidad and Tobago. On April 12, 1993, Trinidad abolished exchange control regulations and floated the exchange rate of the Trinidad dollar. Although it is too early to assess the outcome of these measures, the Trinidadian authorities have noted a sharp increase in inflows into the interbank system and in net foreign reserves in the course of 1993.

Simultaneously, Trinidad and Tobago undertook measures to tighten fiscal policies and to ensure further structural development of the money and credit markets.

Venezuela: On June 23, 1989 the Fund approved a three-year extended arrangement for Venezuela. Immediately prior to this program Venezuela had unified and floated the exchange rate of the bolivar, eliminating large fiscal subsidies effected through the external sector. In 1990 a significant surplus was registered in the overall balance of payments that permitted a reconstitution of gross official reserves to the level of over four months of imports. With the adoption of a unified free market, freedom for payments of transfers for current and capital transactions through that market was generalized (the only remaining restriction being on invisibles and capital transfers associated with the debt/equity conversion scheme, implemented outside the exchange system). With the resurgence of confidence in the balance of payments under the new exchange system, massive outflows that had been occurring in years prior to the liberalization leveled out in the subsequent year, and were sharply reversed in 1992. Inflows on the direct investment account also took place in 1991 and subsequent years.

Immediately following the liberalization and float by Venezuela, interest rates were managed, and were kept somewhat below market levels. When it soon became apparent that this was reflected in exchange rate weakness, interest rates were allowed to find their own level. On balance, the exchange rate has changed little in real effective terms since the liberalization, and inflation decelerated and output recovered rapidly after the initial year of adjustment. However, a banking crisis in early-1994 has led to severe exchange market pressures, and renewed experimentation with controls.

Many aspects of the episodes of liberalization described above are notable. The liberalizations took place in the context of floating exchange rates in all cases (except with the currency boards of Argentina and Estonia). This accords with the traditional paradigm by which capital control liberalization results in abandonment of monetary independence, and floating the exchange rate regains it. Under the strategies for the debt crisis (the so-called Baker and Brady Plans), a major thrust of policies was to stem the capital flight, which had approached some US\$200 billion in developing countries, and then, with some time lag, to induce capital inflows. In this respect, the policies can be said to have been spectacularly successful, to the point that some countries have now become concerned with such issues as so-called Dutch disease effects on competitiveness and short-term monetary instability reflecting the unexpectedly large size of the capital inflows. However, these problems appear thus far to have been manageable in an environment of market-clearing exchange rates and interest rates.

As a general resurgence of confidence in the economy takes place with the right policies, on which the authorities should certainly plan, the improvements are sustained and the capital inflows therefore represent a

permanent reconstitution of demand for domestic money. The experience in the 1970s with Indonesia suggests that this phenomenon could be sustained over a number of years, with an initially very strong reconstitution over one or two years followed by a tapering-off over a subsequent five-year period. If indeed the capital inflows represent restoration of confidence in the domestic currency, then the usual policies for dealing with temporary developments in the balance of payment, such as short-term capital controls or heavy foreign exchange intervention, would not be appropriate. Instead, foreign exchange market intervention, if any, should be aimed at short-term smoothing. The chief offset for the increased provision of credit through the balance of payments is reduced use of credit by the public sector, in order to avoid crowding out and to take the opportunity to achieve a desired structural change toward an increased role for the private sector.

V. Concluding Remarks

What do all of these experiences mean for the future of capital controls? They suggest that the policies adopted by the industrial countries of freeing up their financial systems and integrating them internationally offer the best approach for developing countries. Rather than, as the traditional literature and Fund jurisdiction would have it, being a source of weakening in the balance of payments, the reverse has been true when the capital liberalization policies have been backed up by stabilization programs embodying market interest and exchange rates. This rethinking parallels the similar rethinking by developing countries following adoption of floating exchange rates by industrial countries from the mid-1970s. Initially, fixed or managed exchange rates were seen as inevitable for developing countries because of their lack of financial depth, but this has proven not to be the case. Similar arguments have been made for capital controls--i.e., that there are a number of preconditions for the liberalization of capital controls, including improving the depth of the financial system. But the very recent experience with capital liberalization, as with floating rates, suggests that those preconditions are minimal and that the necessary freeing of exchange and interest rates can be undertaken simultaneously in order to have the maximum impact in terms of restored confidence and irreversibility of the reforms.

The above considerations suggest an optimal strategy for capital liberalization that would deal with the main objections of the sequencing genre, and also would incorporate the experience of developing countries to date. Fiscal policy is crucial; capital liberalization should be undertaken at a time when a credible turnaround in fiscal policies is announced. This suggests making the liberalization either a prior action or part of a Fund program. Also simultaneously, the interest rate would be freed. While it has been argued in the literature that incorrect signals can be provided if the monetary system is not fully reformed, this has not been the experience of technical assistance provided by the Fund. Where the banking system is not in a position to fully clear the market, auctions of official paper (either central bank paper or treasury bills) can be quickly instituted.

The interest rate set at these auctions then becomes the benchmark for pricing other interest rates in the system, such as commercial bank lending and deposit rates. The auctions can be introduced quickly along with the fiscal measures. And it should be noted that there is some tolerance in setting the level of the interest rate, providing that the exchange rate is floated. Finally, the exchange rate floating has been necessary because of the large uncertainties that surround most adjustment packages, making initial calculation of a sustainable equilibrium for a fixed exchange rate very difficult. The exchange rate then acts as the main shock absorber for the program. Again the Fund's technical assistance experience is clear, in that interbank foreign exchange markets can be introduced very quickly, building on existing transactions in parallel markets. The main ingredients of the economic package are therefore a credible budgetary correction coupled with introduction of market interest rates and exchange rates.

A simple trade liberalization is best introduced into the package at the same time, although this may not be crucial. The basic approach to trade liberalization would be to replace quantitative restrictions by a uniform or near-uniform tariff level. The advantage of the trade liberalization is that it opens up import demand to respond to the capital inflow, thus helping to relieve the inflationary pressures generated by the inflow. The replacement of quantitative controls by tariffs also transfers the rents accruing to imports from the unofficial to the official system, and therefore helps to support fiscal performance at a crucial juncture when credibility in the newly reforming economy is being established. As noted above, if there are severe difficulties of nonperforming assets in the banking system, these can be put aside in the government budget and worked upon subsequently for restructuring. (Not that this adds to the deficit in any real sense because the credibility of the banking system ultimately rests on the authorities and the transfer will be seen as a normalization of the situation, rather than as a crude increase in the fiscal deficit.) If the nonperforming assets portfolio is very large, costs of the restructuring will have to spread over several years and this phasing will be taken into account in the fiscal/tariff package.

It should be emphasized that a package like this is not a hypothetical one; in fact it is very similar to the package that was introduced by Venezuela. As noted above, after an initial contraction in output and surge in inflation, Venezuela's economy adjusted quickly and inflation soon came down while growth was restored abruptly in the year following the adjustment package.

Encouraging members to liberalize their financial systems is not new for the Fund; it has formed a basis for many recommendations by Fund missions, both to developed and developing countries, over the years. But it has not been reflected in the official rubric of the Fund, in that Article VI, Section 3, of the Fund's Articles of Agreement permits members to maintain capital controls that are necessary. What the recent experience suggests is that the definition of "necessary" requires re-examination.

Indeed, this is presaged by the relevant sections of the Fund's surveillance decision, which contains provisions for monitoring abnormal movements in capital and changes in capital regulations.

Bibliography

- Belassa, Bela, and John Williamson, Adjusting to Success: Balance of Payments Policy in East Asian NICs (Washington: Institute for International Economics, June 1987).
- Cairncross, A. K., Control of Long-Term International Capital Movements (Washington: The Brookings Institution, 1973).
- Chu, Yun-peng, and others, "Exchange Rate Intervention and Capital Mobility Control: Comparisons and Simultaneous Optimization," Journal of Development Economics, Vol. 23 (September 1986), pp. 119-34.
- Corbo, Vittorio and Jaime de Melo, "Lessons from the Southern Cone Policy Reforms," World Bank Research Observer, Vol. 2 (July 1987), pp. 111-42.
- Edwards, Sebastian, "The Order of Liberalization of Current and Capital Accounts," in Economic Liberalization in Developing Countries, ed. by A. M. Choksi and Demitris Papageorgiou (Oxford and New York: Blackwell, 1986).
- _____, "The Sequencing of Economic Liberalization in Developing Countries," World Bank Economic Policy Notes, Country Policy Department, No. CPDI (Washington: World Bank, November 1985).
- Fieleke, Norman S., "International Capital Transactions: Should They be Restricted?," IMF Paper on Policy Analysis and Assessment, No. 93 (Washington: International Monetary Fund, December 1993).
- Fischer, Bernhard, and Helmut Reisen, "Towards Capital Account Convertibility," OECD Policy Brief, No. 4 (Paris: Organization for Economic Cooperation and Development, 1992), pp. 1-33.
- Frenkel, Jacob A., "The Order of Economic Liberalization: Lessons from Chile and Argentina: A Comment," in Carnegie Rochester Conference Series on Public Policy, Vol. 17 (Autumn 1982), pp. 199-202.
- Goldstein, Morris and Michael Mussa, "The Integration of World Capital Markets," IMF Working Paper, No. 93/95 (Washington: International Monetary Fund, December 1993).
- Greene, Joshua E. and Peter Isard, Currency Convertibility and Transformation of Centrally Planned Economies, Occasional Paper, No. 81 (Washington: International Monetary Fund, June 1991).
- Guitián, Manuel, "Capital Account Liberalization: Bringing Policy in Line with Reality," (unpublished, Washington: International Monetary Fund, Mimeo, (March 1993).

- Haque, Nadeem U. and Peter Montiel, "Capital Mobility in Developing Countries--Some Empirical Tests," IMF Working Paper, No. 90/117 (Washington: International Monetary Fund, December 1990).
- Lal, Deepak, "The Political Economy of Economic Liberalization," World Bank Economic Review, Vol. 1 (January 1987), pp. 273-99.
- Maier, Gerhard, "International Financial Markets: Control or Liberalization?", Intereconomics: Review of International Trade and Development, Vol. 25 (September/October 1990), pp. 238-41.
- Mathieson, Donald J., and Liliana Rojas-Suárez, Liberalization of the Capital Account: Experiences and Issues, Occasional Paper No. 103 (Washington: International Monetary Fund, March 1993).
- McKinnon, Ronald I., "The Order of Economic Liberalization: Lessons from Chile and Argentina," in Carnegie Rochester Conference Series on Public Policy, Vol. 17 (Autumn 1982), pp. 159-86.
- Mendoza, Enrique G., "Capital Controls and the Gains from Trade in a Business Cycle, Model of a Small Open Economy," Staff Papers, International Monetary Fund, Vol. 38 (September 1991), pp. 480-504.
- Nowak, Michael, "Quantitative Controls and Unofficial Markets in Foreign Exchange: A Theoretical Framework," Staff Papers, International Monetary Fund, Vol. 31, No. 2 (June 1984), pp. 404-31.
- Polak, Jacques J., "Currency Convertibility in Eastern Europe: An Indispensable Element in the Transition Process," in Currency Convertibility in Eastern Europe, ed. by John Williamson (Washington: Institute for International Economics, 1991).
- Quirk, Peter J., "Indonesia: Some Evidence on Demand for Money and Quasi-money," (unpublished, Washington: International Monetary Fund, July 1972).
- _____, "Issues of Openness and Flexibility for Foreign Exchange Systems," IMF Working Paper No. 89/3 (Washington: International Monetary Fund, January 1989).
- _____, "Exchange Rate Policies and Management: Model for Successful Structural Adjustment," in Strategies for Structural Adjustment: The Experience of South Asia, paper presented at a seminar held in Kuala Lumpur, Malaysia: moderator Ungku A. Aziz (Washington: International Monetary Fund and Bank Negara Malaysia, 1990).
- Stockman, Alan C., "The Order of Economic Liberalization: Lessons from Chile and Argentina: Comment," in Carnegie Rochester Conference Series on Public Policy, Vol. 17 (Autumn 1982), pp. 187-92.

_____, and Alejandro Hernandez, "Exchange Controls, Capital Controls, and International Financial Markets," NBER Working Paper, No. 1755 (Cambridge, Massachusetts: National Bureau of Economic Research, October 1985).

Tobin, James, "A Proposal for International Monetary Reform," Cowles Foundation for Research in Economics Discussion Paper, No. 506, Yale University (October 1978).

Wyplosz, Charles, "Capital Controls and Balance of Payments Crises", Journal of International Money and Finance, Vol. 5 (June 1986), pp. 167-79.