

ESSAYS IN INTERNATIONAL FINANCE

No. 156, December 1984

THE ORDER OF LIBERALIZATION OF
THE EXTERNAL SECTOR IN
DEVELOPING COUNTRIES

SEBASTIAN EDWARDS



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

ESSAYS IN INTERNATIONAL FINANCE

ESSAYS IN INTERNATIONAL FINANCE are published by the International Finance Section of the Department of Economics of Princeton University. The Section sponsors this series of publications, but the opinions expressed are those of the authors. The Section welcomes the submission of manuscripts for publication in this and its other series, PRINCETON STUDIES IN INTERNATIONAL FINANCE and SPECIAL PAPERS IN INTERNATIONAL ECONOMICS. See the Notice to Contributors at the back of this Essay.

The author of this Essay, Sebastian Edwards, is Assistant Professor of Economics at the University of California, Los Angeles, and a Faculty Research Fellow at the National Bureau of Economic Research. He has been a consultant to the International Monetary Fund, the World Bank, and the government of Indonesia. His articles on international economics have appeared in various professional journals.

PETER B. KENEN, *Director*
International Finance Section

ESSAYS IN INTERNATIONAL FINANCE

No. 156, December 1984

THE ORDER OF LIBERALIZATION OF
THE EXTERNAL SECTOR IN
DEVELOPING COUNTRIES

SEBASTIAN EDWARDS



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

INTERNATIONAL FINANCE SECTION
EDITORIAL STAFF

Peter B. Kenen, *Director*

Ellen Seiler, *Editor*

Margaret Keller, *Editorial Aide*

Kaeti Isaila, *Subscriptions and Orders*

Library of Congress Cataloging in Publication Data

Edwards, Sebastian.

The order of liberalization of the external sector in developing countries.

(Essays in international finance, ISSN 0071-142X ; 156 (Dec. 1984))

Bibliography: p.

1. Balance of payments—Developing countries. 2. Investments, Foreign—
Developing countries. 3. Developing countries—Foreign economic relations.
4. Balance of payments—Southern Cone of South America.
5. Investments, Foreign—Southern Cone of South America. 6. Southern
Cone of South America—Foreign economic relations.

I. Title. II. Series: Essays in international finance ; 156.

HG136.P7 no. 156 [HG3890] 332'.042 s [382'.3'098] 85-21

ISBN 0-88165-088-9

*Copyright © 1984 by International Finance Section, Department of Economics,
Princeton University.*

All rights reserved. Except for brief quotations embodied in critical articles and reviews, no part of this publication may be reproduced in any form or by any means, including photocopy, without written permission from the publisher.

Printed in the United States of America by Princeton University Press at Princeton, New Jersey.

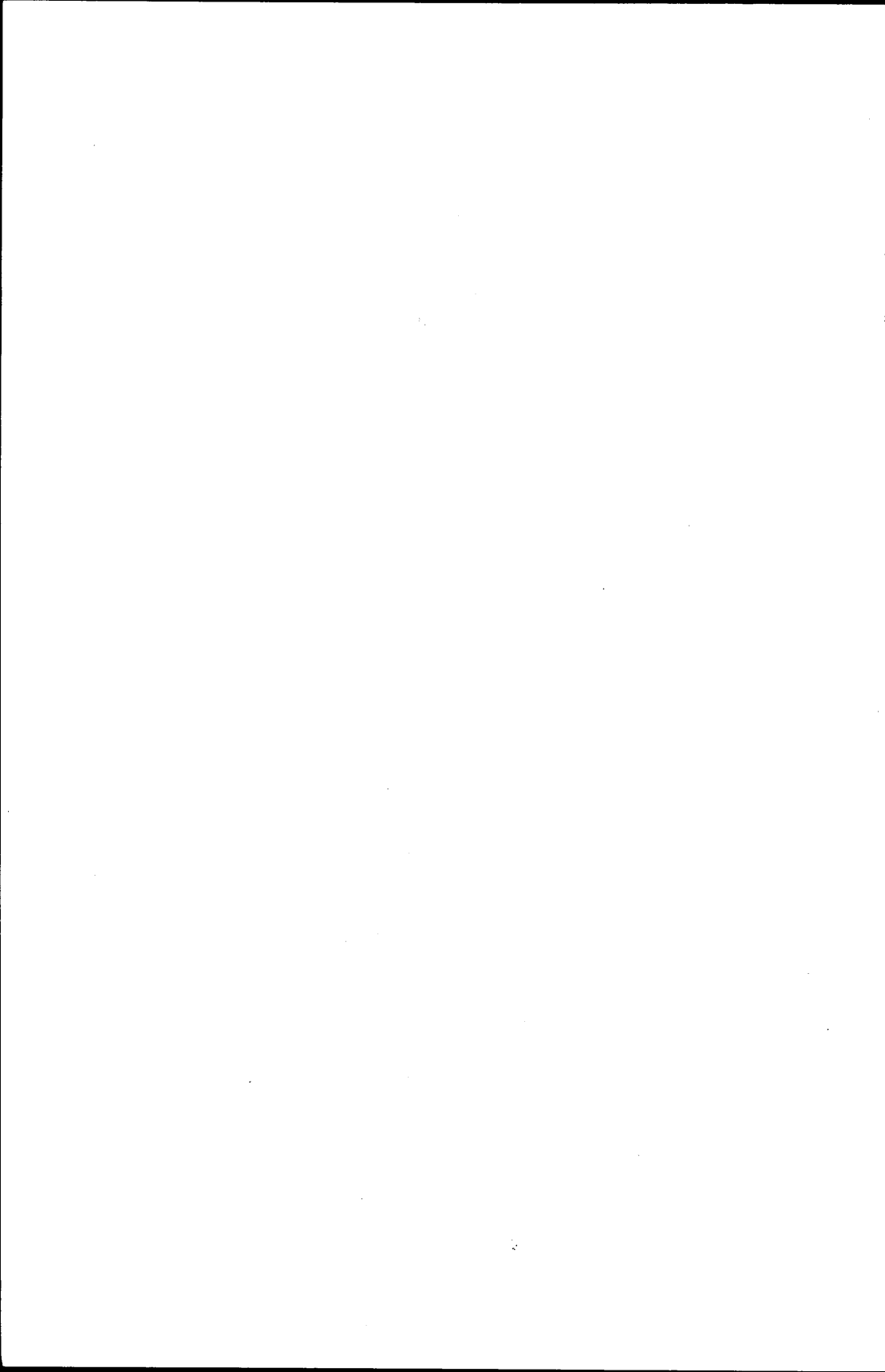
International Standard Serial Number: 0071-142X

International Standard Book Number: 0-88165-088-9

Library of Congress Catalog Card Number: 85-21

CONTENTS

1	INTRODUCTION	1
2	THE ORDER OF LIBERALIZATION, MACROECONOMIC MANAGEMENT, AND THE REAL EXCHANGE RATE	3
3	THE WELFARE EFFECTS OF ALTERNATIVE ORDERS OF LIBERALIZATION OF THE EXTERNAL SECTOR	8
4	THE ORDER OF LIBERALIZATION AND ADJUSTMENT COSTS	13
5	SOME RELATED POLICY ISSUES	16
6	CONCLUDING REMARKS	18
	REFERENCES	20



The Order of Liberalization of the External Sector in Developing Countries

1 Introduction

During the 1970s, a number of developing countries embarked on major attempts to liberalize their economies through reforms aimed at increasing the role of the market mechanism and reducing existing barriers to international trade and capital movements. The more dramatic of these episodes took place in Latin America, where major liberalization reforms were pursued in Argentina, Chile, and Uruguay. These Latin American cases were particularly interesting since, at least on paper, the policies implemented corresponded closely to what many economists have been advocating for a long time: quantitative restrictions on trade were eliminated, tariff levels and dispersion were reduced, domestic capital markets were developed, and restrictions on international capital movements were lifted. The main objective of these reforms was to transform these countries into open export-oriented economies.¹

A decade after these reforms were first implemented, the evidence indicates that they were to a large extent failures. In all three countries the liberalization reforms have been partially reversed. Tariffs have been raised, so that these economies are tending once again to become isolated from the rest of the world. Severe financial crises have resulted in the collapse of virtual nationalization of the banking sectors. There is no clear agreement among the experts on the main causes for the failure of the liberalizations, but it can be argued that it was due to the implementation of inappropriate macroeconomic policies. A particularly serious problem was the timing of the reforms: they took place at the same time as major stabilization programs aimed at reducing rates of inflation of up to 600 percent. Generally speaking, then, the failure of these reforms had more to do with the macroeconomic policies that were being

I have benefited from discussions with Marcelo Selowsky, Deepak Lal, Ronald McKinnon, Liaquat Ahamed, Daniel Gros, Edward Tower, Mohsin Khan, and Jan Tumlir. I am grateful to an anonymous referee for helpful comments. The views expressed here are my own and do not necessarily reflect those of the National Bureau of Economic Research.

¹ On the advantages of liberalized export-oriented economies see, for example, Krueger (1978, 1980, 1983), Bhagwati (1978), Bhagwati and Srinivasan (1979), McKinnon (1973, 1982), Little, Scitovsky, and Scott (1970), and Balassa (1982). On the recent experiences of the Southern Cone countries see, for example, Dornbusch (1983b, 1984), Harberger (1982, 1984), Edwards (1985a, 1985b), and Hanson and de Melo (1983).

pursued alongside them than with the type of liberalization itself (see Edwards, 1985b, and Sjaastad, 1983, for detailed analyses of the Southern Cone experiments).

These recent experiences also indicate that a number of issues related to the *dynamics* of the liberalization are not well understood (see Krueger, 1983, for a discussion of these issues). The most important of these pertain to the speed and the order of economic liberalization. In a textbook world without externalities or distortions, the problems of speed and order would be simple. All markets should be liberalized immediately and simultaneously. In the real world, however, these questions are important and complex. With respect to the speed at which an economy should be liberalized, considerations related to efficiency gains, income distribution, and the credibility and feasibility of the reforms should be taken into account (see Leamer, 1980; Mussa, 1983). With respect to the order of liberalization, the main question is which markets should be liberalized first. This question has both microeconomic and macroeconomic implications. At the microeconomic or welfare level typical second-best problems are present, while at the macroeconomic level different orders of liberalization will imply different paths for the critical variables, including the real exchange rate, aggregate output and unemployment.

This Essay deals with a particular aspect of the order of economic liberalization: the order of liberalizing the current and capital accounts of the balance of payments. Until recently, very little effort had been devoted to analyzing this problem. Attention has been drawn to it, however, by the experience in the Southern Cone. Argentina and Uruguay opened the capital account first; Chile opened the current account first. McKinnon (1982) has compared the Argentinian and Chilean experiences, and Kahn and Zahler (1983, 1984) have conducted simulation studies on alternative orders and speed of economic liberalization. (See also Frenkel, 1982; Lal, 1984; and Edwards, 1983, for discussion of the subject.) Typically, these studies attempt to answer the following question: If for some reason—political or economic—the current and capital accounts cannot be liberalized simultaneously, which account should be liberalized first? This Essay reviews and critically analyzes three aspects of this problem: the relationship among the order of liberalization, macroeconomic management, and the real exchange rate (section 2); the welfare effects of alternative orders (section 3); and the order of liberalization and adjustment costs (section 4). Insights from several models are integrated as these issues are discussed. A problem with this approach, however, is that in some instances the assumptions on which the models are based may not be entirely consistent. Whenever this is the case, I have

tried to point out possible sources of inconsistency. Throughout the discussion, reference is made to the recent experiences of the Southern Cone countries.

2 The Order of Liberalization, Macroeconomic Management, and the Real Exchange Rate

Some of the major liberalization episodes during the last decade, such as those in Argentina, Chile, and Uruguay, took place in highly unstable macroeconomic environments that eventually contributed to their failure. There is a growing belief that this macroeconomic instability was not completely exogenous but was in some sense related to the liberalization strategies followed in these countries. In particular, the effect that opening the capital account had on the real exchange rate has been cited as a major reason for the failure of these liberalizations. Harberger (1983, 1984), Rodriguez (1983), Dornbusch (1983b, 1984), and Edwards (1983, 1985b) have analyzed these experiences.

A number of authors have suggested that opening the capital account will result in large destabilizing capital flows in the short run (see, e.g., McKinnon, 1973, 1982; Dornbusch 1983b, 1984). If the capital account is opened when the domestic capital market is still repressed and interest rates are fixed at artificially low levels, massive capital outflows will take place. For this reason, most, if not all, authors who have discussed this issue have indicated that the capital account should be opened only after the domestic capital market has been liberalized and domestic interest rates have been raised.

It is also generally accepted that in an inflationary environment the domestic financial market should be liberalized only after the fiscal deficit has been controlled. As McKinnon and Mathieson (1981) emphasize, if there is a large fiscal deficit that is financed by an inflation tax, reserve requirements must be kept high and interest payments on deposits kept low to prevent erosion of the base on which the inflation tax is collected—the stock of high-powered money. In fact, Rodriguez (1983) and Sjaastad (1983) have suggested that Argentina's inability to control its fiscal deficit was one of the major causes for the failure of its recent liberalization and stabilization attempt. Also, Dornbusch (1984) has pointed out that capital flights played a key role toward the latter part of the Argentinian experience of 1978-82.

If, on the other hand, the fiscal deficit has been controlled and the domestic financial market liberalized, the opening of the capital account may result in large inflows of foreign capital, triggered by substantial interest-rate differentials (see McKinnon, 1973). Under a fixed exchange

rate, these inflows will be monetized and will result in inflation and a real appreciation of the domestic currency (see Diaz-Alejandro, 1981; Harberger, 1984; and Harberger and Edwards, 1982). Under a floating exchange rate, the inflows will result in an appreciation of the nominal and real exchange rates. Since financial markets adjust much faster than goods markets, this real appreciation will be quite abrupt, as Frenkel (1982, 1983) points out.

While the opening of the capital account may generate a *real appreciation* of the domestic currency, Balassa (1982), among others, has argued that a successful liberalization of the trade account will require a *real depreciation*, in order to help the exportables sector to expand as the new structure of relative prices replaces the old protective structure. If this devaluation is precluded by the opening of the capital account, the transition in the goods sector from a protective to a freer environment will become more difficult. The appreciation generated by the opening of the capital account will tend to squeeze profitability in the tradable-goods sector at a moment when this sector (or that part of it involved in import substitution) is going through a costly readjustment. Consequently, it has been suggested that the capital and current accounts should *not* be opened simultaneously, and that capital inflows should be tightly controlled during the transition period after trade has been liberalized. For example, as early as 1973, McKinnon (p. 160) wrote:

... unusually large inflows of foreign capital . . . inhibit the exchange rate to depreciate sufficiently. . . . Previously protected competing industries, which face a significant adjustment problem, could have their difficulties magnified. . . . Hence the capital inflow could trigger a decline in overall domestic output. . . .

McKinnon went on to recommend that an economy that liberalizes its foreign trade should "*deliberately avoid an unusual or extraordinary injection of foreign capital*" (1973, p. 161, emphasis added). More recently, this line of reasoning has been followed by Dornbusch (1983b) and sustained by McKinnon (1982). As Dornbusch (1983b, p. 176) put it, "The worst thing to do is to liberalize the capital account . . . before the required real depreciation has been achieved."

A critical question regarding this argument is the extent to which freeing the capital account will result in an "extraordinary" injection of foreign capital, in McKinnon's sense. If it results in large capital inflows that are sustainable in the long-run, the resulting equilibrium appreciation should be viewed as a long-run equilibrium phenomenon. Under those circumstances, it is not clear that the opening should be delayed for fear of its effect on the real exchange rate. It turns out, however, that it is not difficult to build simple models of an economy that restricts capital

inflows in which an opening of the capital account will result in short-term overshooting of the long-run level of capital inflows.

Possibly, one of the simpler ways of modeling this behavior is to assume that capital inflows (ΔK) respond to the following equation:

$$\Delta K = \min[\Theta(D^* - D_{-1}), \overline{\Delta K}], \quad *$$

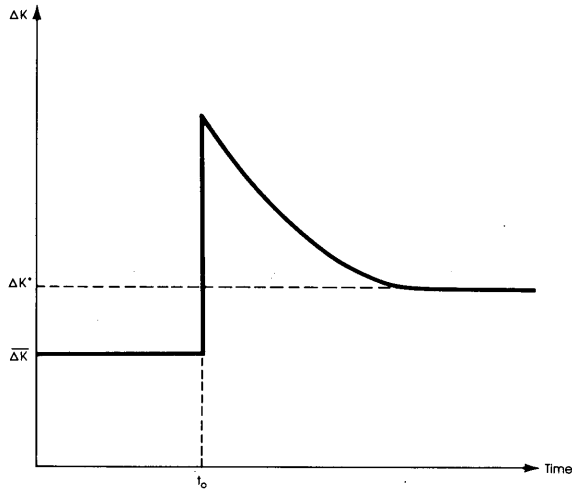
where D^* is the desired or sustainable level of external debt, which will depend on the level of world interest rates, real income, and real wealth, among other things. D_{-1} is the actual stock of external debt in the previous period, Θ is a partial-adjustment coefficient, and $\overline{\Delta K}$ is the maximum (possibly zero) amount of net capital inflow allowed by the economic authority in every period. The term $\Theta(D^* - D_{-1})$ embodies the idea advanced by Harberger (1982, 1984) and Edwards (1983), among others, that there is a *long-run* equilibrium ratio of foreign debt to GDP. If GDP grows at g percent per annum, so will the desired stock of debt. If the real interest rate on the external debt is r , *net* capital inflows will then grow at a rate of $(g - r)$. Notice that this formulation looks only at the phase during which foreign debt is accumulated and does not explicitly incorporate the existence of an intertemporal budget constraint. (On the different phases of the balance-of-payments accounts, see Fischer and Frenkel, 1972.)

Clearly, if $\overline{\Delta K} < \Theta(D^* - D_{-1})$, the gap between desired and actual debt will increase through time. Once restrictions on capital inflows are lifted, actual inflows will become equal to $\Theta(D^* - D_{-1})$. That means that, immediately following the opening of the capital account, capital flows will jump to a fraction Θ of the accumulated gap between the desired and actual debt. As this gap is closed, the level of capital inflows will slowly fall until it reaches a new equilibrium level. For the case of a simple economy, the behavior through time of capital flows that emerges from this formulation is represented in Figure 1. Alternatively, it is possible to assume that once the capital account is liberalized, the perceived profitability of domestic investment will dramatically increase. This will result in a substantially higher D^* and the same sort of jump in the level of capital inflows shown in Figure 1.²

The sudden increase (i.e., overshooting) of capital inflows will produce a large current-account deficit, as was the case in Chile from 1979 to 1981. As has been pointed out by McKinnon (1976) and Harberger (1982, 1984), whenever a fraction of these additional foreign funds is

² In the present (post-1982) circumstances, this capital-inflows equation may not be adequate for those countries that face credit rationing by foreign financial institutions. Under more normal circumstances, however, this equation will capture the behavior of capital flows reasonably well.

FIGURE 1
 BEHAVIOR OF CAPITAL FLOWS FOLLOWING
 A CAPITAL-ACCOUNT LIBERALIZATION



spent on nontradable goods, their absorption will require an increase in the relative price of nontradables and a real appreciation of the domestic currency. Harberger (1982) actually calculated that the increase in capital inflows into Chile is capable of "explaining" a real appreciation of the peso of up to 25 percent between 1979 and 1981. Once the gap between desired and actual debt begins to close, the relative price of nontradables will decline toward its new long-run equilibrium. If the nominal price of nontradables is inflexible downward, however, the country will run into difficulties under a fixed exchange rate. If real wages are inflexible downward, as was the case in Chile during the late 1970s, there will be problems with the adjustment process even under a flexible exchange rate. (See Dornbusch, 1984, and Edwards, 1985, for a discussion of the role of real-wage-rate inflexibility in the Chilean case.) In general, it is possible to say that overshooting in the rate of capital inflows will cause adjustment difficulties with either exchange-rate regime. As Harberger (1984, pp. 2-3) has pointed out, "High rates of capital inflow drive the real exchange rate down (i.e., cause it to be highly appreciated), a situation that then has to be sharply reversed when the rate of capital inflow is curtailed."

The dynamic effect of capital-account liberalization resembles that of

the so-called "Dutch Disease": in order to adjust to a large increase in absorption, a real appreciation of the domestic currency will have to take place.³ There are other possible reasons besides a jump in the level of capital inflows why opening the capital account could result in a short-run appreciation of the domestic currency that exceeds the long-run appreciation. One such reason is related to the differences between short- and long-run elasticities of supply in the nontradables-goods sector.

The conflicting movements of the real exchange rate that result from opening the capital account (appreciation) and opening the current account (depreciation) capture the fact that these policies will exert pressures for resources to move in opposite directions. At least in the short run, opening the capital account will generate an expansion of the nontradables sector and a contraction of the importables and exportables sectors. This actually happened when Argentina, Chile, and Uruguay opened their capital accounts. After the capital account was opened in Chile in 1979, an important fraction of the massive capital inflow was used to finance the expansion of the construction sector. This was also the case in Argentina (see Nogues, 1983) and Uruguay (see Hanson and de Melo, 1983). Opening the current account, on the other hand, will result in an expansion of the exportables sector, a contraction in the production of importables, and either an expansion or a contraction of the nontradables sector. (See Edwards, 1983, for a detailed analysis of the direction of resource movements under alternative orders of liberalization.)

Consider, for example, the case where the capital and current accounts are opened simultaneously. Since financial markets adjust faster than goods markets (see Frenkel, 1982; Khan and Zahler, 1983, 1984), we will observe an immediate flow of capital, as in Figure 1. In the goods-market sphere, however, little or nothing in the way of commodity arbitrage will happen in the very short run. As a result, the capital-account effect will dominate at this early stage, with the real exchange rate appreciating and capital and labor tending to move into the nontradable-goods sector. As time passes, the goods market will begin to adjust, while the capital account, after the initial overshooting, will enter the phase where capital inflows slowly decline toward their new long-run equilibrium (see Figure 1). At this point, the effect of the trade liberalization will begin to be felt and resource movements will be reversed, with capital and labor now moving out of the nontradables sector.

If there are adjustment costs associated with resource movements be-

³ On Dutch Disease, see, for example, Corden (1982), Edwards and Aoki (1983), and Van Winjbergen (1984).

tween sectors, it could be advisable to implement policies that would avoid these reversible resource switches.⁴ Frenkel (1982, 1983) has suggested *synchronizing* the effects of opening the capital and current accounts. Given the differential speeds at which the goods and capital markets adjust, he has proposed opening the current account first and only after some time opening the capital account.

Lal (1984) has presented an alternative view. Since the behavior of the exchange rate is critical during the transition from a protected to a liberalized trade account, Lal believes that is better *not* to let the government manipulate the nominal exchange rate during this transition. In many cases, he argues, exchange-rate management has been inappropriate and has resulted in the ultimate collapse of the trade reform, as recently happened in Argentina.⁵ For this reason, Lal has proposed that a floating-exchange-rate system with full currency convertibility be implemented before the trade reform takes place. This means, of course, that the capital account should be liberalized before the trade account. But Lal does not explain how to handle the real-appreciation problem that will result from opening the capital account (although, admittedly, its effects will be less severe if the trade side has not yet been reformed), nor does he specify how much in advance the capital account should be opened. Furthermore, he does not describe the institutional setting that would be required for a floating-exchange-rate system to succeed in a developing country. This is a critical problem, since a number of authors (e.g., McKinnon, 1979a,b) have indicated that the lack of certain basic institutional requirements precludes freely floating exchange-rate systems in developing countries.

3 The Welfare Effects of Alternative Orders of Liberalization of the External Sector

Welfare considerations are at the center of the discussion of the order of economic liberalization in developing countries. McKinnon (1973),

⁴ See Friedman (1953) for an early discussion of the costs associated with reversals in the direction of resource movements during the adjustment process. A critical question at this stage is why the private sector wouldn't take these costs into account when making their decisions about production and resource movements. Surprisingly, most authors who have analyzed the ordering problem have not even mentioned this question.

⁵ Other authors who have discussed how to handle the exchange rate during the transition period after a trade reform include McKinnon (1982), Kapur (1983), Michaely (1982), and Balassa (1982). One way to deal with the exchange-rate problem during the transition is to adopt a dual system with a fixed or managed rate for trade transactions and a floating rate for financial transactions. Such a system, however, becomes very cumbersome and difficult to manage. On dual-exchange-rate systems, see, for example, Flood (1978) and Lanyi (1975).

Krueger (1983), and Frenkel (1982, 1983), among others, have argued, for example, that when all markets cannot be liberalized simultaneously, there might be negative welfare implications in reducing or eliminating one distortion while others are kept in place. These authors have generally concluded, on the basis of welfare considerations, that the current account should be liberalized first. Only after tariffs have been reduced and the adjustment process completed should the capital account be opened. This policy recommendation is based on the belief that the negative welfare effect of opening the capital account in the presence of trade distortions will exceed the negative effects arising from the opposite sequence. McKinnon (1973, p. 157), argues that the liberalization of capital inflows increases the distortion in the economy. Krueger (1983, p. 19) notes:

Since exchanges of assets are exchanges of capitalized values of income streams, income streams generated by distorted prices are probably the inappropriate ones at which to trade. It would then follow that capital account liberalization should not be undertaken unless both current account and domestic financial transaction are already liberalized.

According to Frenkel (1983, p. 167):

When the trade account is opened first the cost of the remaining distortion (i.e., the closed capital account) . . . is likely to be relatively small. On the other hand, when the capital account is opened up first the cost of the remaining distortion (i.e., the closed trade account) . . . is likely to be very large. Thus a comparison of the costs of distortions . . . supports the proposition that the trade account should be opened first.

Such reasoning, which focuses on the welfare effects of opening the capital account in the presence of trade distortions, is related to the argument about immiserizing capital accumulation originally advanced by Johnson (1967). He showed that if there are tariffs and the importable good is capital intensive, capital accumulation may reduce welfare. When capital is accumulated, production of the capital-intensive (importable) sector will increase (Rybczynski, 1955), and the negative welfare effect of the pre-existing distortion will be reinforced. This effect can be strong enough for the accumulation of capital to result in a reduction of welfare (Johnson, 1967). If this is the case, why would the recipients of capital flows from abroad use them to accumulate capital? The answer is that the private domestic real return to capital will exceed the world's real interest rate when importables are capital intensive. Therefore, the accumulation of capital will be beneficial from a private perspective but will be less desirable from a social perspective—and could even be immiserizing.

The welfare effects of foreign investment in the presence of tariffs have been analyzed by Brecher and Bhagwati (1982) and Brecher and Diaz-Alejandro (1977), among others. Their work is also relevant to the order of liberalization. Brecher and Diaz-Alejandro (1977) have shown that a small amount of foreign investment will always reduce welfare if foreign capital is paid its marginal product and the import-competing good is capital intensive. This will happen even if the conditions required for the Johnson (1967) immiserization do not hold.⁶

This discussion and the arguments of McKinnon (1973), Frenkel (1982, 1983), and Krueger (1983) focus exclusively on the case where the additional borrowing induced by the liberalization of the capital account is used to increase investment. This need not be the case, of course. A fraction of the new borrowing could be used to increase present consumption. Indeed, that will happen as long as the domestic rate of time preference exceeded the world interest rate prior to the liberalization. It is easy to show that under these circumstances and according to the traditional trade model, welfare will not deteriorate even if there are tariffs and even if all the new foreign borrowing is used for additional present consumption. This suggests that, contrary to the conventional wisdom, capital flows used to finance investments should be taxed but those used to finance consumption should not be. There will be no need to tax these capital inflows, however, if the investment decisions are made using shadow prices rather than tariff-distorted market prices (see Edwards and Van Wijnbergen, 1983).

It is also possible to think of the borrowing process as a positive transfer from abroad taking place today—when the loan is obtained—plus a larger negative transfer taking place at a future date—when the loan plus interest must be repaid. It is well known from the work of Brecher and Bhagwati (1982) that in a small country and in the absence of induced distortions, welfare cannot be reduced by tariffs when a positive transfer from abroad is fully used to increase consumption. On the contrary, to the extent that part of the loan is used to increase consumption of the importable good, a *positive* welfare effect will emerge. Consequently, as long as the social domestic rate of time preference exceeds the world interest rate, foreign borrowing used to finance increases in current consumption will improve welfare (in a present-value

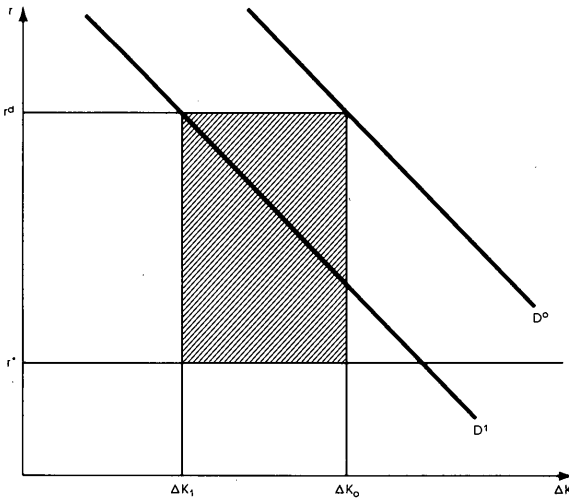
⁶ The welfare effects of additional investment resulting from the liberalization of the capital account can also be analyzed within the context of the emerging literature on factor trade developed by Grossman (1983), Bhagwati and Srinivasan (1983b), and Brecher and Findlay (1983). If the private domestic rate of return to capital exceeds the world rate of return before the liberalization process begins, liberalizing the capital account will result in some of these funds being used for the importation of machines. This is formally equivalent to allowing trade in machines today, and thus it can be analyzed within the factor-trade framework.

sense) even in the presence of trade restrictions.⁷ This suggests that the welfare effect of opening the capital account in the presence of trade restrictions will depend critically on whether the foreign funds obtained once the capital account is liberalized are used to accumulate capital or to increase present consumption.

What are the welfare effects of liberalizing trade when capital flows are restricted? In principle, this order of liberalization could conceivably result in some negative welfare effects under certain circumstances: (1) if the restrictions on the capital account take the form of a tax on foreign borrowing that introduces a wedge between foreign and domestic interest rates, and (2) if the liberalization of the current account results in a reduction in the demand for foreign borrowing. This case is illustrated in Figure 2, where the shaded rectangle represents the welfare cost.

In practice, however, this case is implausible. First, it is unlikely that lowering tariffs will reduce the demand for foreign borrowing. On the contrary, once tariffs are reduced there will be a tendency for the demand for importables to increase, and part of this increase in consumption will be financed by additional foreign borrowing.⁸ Second, very

FIGURE 2
INDIRECT WELFARE EFFECTS OF TRADE LIBERALIZATION



⁷ Assuming that there is no uncertainty and that agents are rational and not myopic.

⁸ There is an important problem, however, related to the speed of tariff reductions. If a slow tariff reform is announced today, borrowing may decrease as the public postpones consumption until tariffs are lower (see Edwards and Van Wijnbergen, 1983).

often the distortions associated with the capital account take the form of quantitative restrictions on the amount of foreign borrowing allowed. In such cases, there is no indirect welfare cost, i.e., welfare rectangle, in the capital market associated with the reduction of trade distortions. These considerations tend to support the presumption that trade liberalization improves welfare even if distortions in the capital account remain (on this, see Krueger, 1983; Michaely, 1982).

An important problem related to the welfare effects of economic liberalization in developing countries is whether the external sector should be fully or only partially liberalized. From a theoretical perspective, the answer is clear. Unless the country can alter world prices, and in the absence of other distortions, the first-best solution is to liberalize the economy completely, eliminating tariffs, quotas, and all restrictions on capital movements. If, on the other hand, the country has a monopoly or monopsony position and can thus affect world prices, there is a first-best argument for the imposition of some restrictions. This case has been extensively discussed in the trade literature on optimal import tariffs and optimal export taxes (see Bhagwati and Srinivasan, 1983a). From a practical point of view, however, there may be a number of reasons why all restrictions on external transactions should not or cannot be removed. For example, there may be no better ways to deal with other domestic distortions. Even though trade and capital controls are clearly third-best options, they may be the only ones available (see Johnson, 1965). In order to simplify the discussion, however, this problem will be ignored here.

Although a number of developing countries have a monopoly position in the production of certain commodities, most are small in the world financial market. Moreover, these countries face borrowing limits and are charged a premium interest rate that is positively related to the degree of perceived country risk (on credit limits in the international capital market, see Eaton and Gersovitz, 1980, 1981; Harberger, 1983; Sachs and Cohen, 1982). The existence of the country-risk premium implies that even very small countries face an upward-sloping supply curve for foreign funds, where the interest rate at which they can borrow will increase as the level of indebtedness rises (see Harberger, 1983; Edwards, 1984b). Some recent empirical studies have found a significant and robust positive relation between the spread charged over the London interbank offered rate (LIBOR) on foreign loans to developing countries and the level of their foreign indebtedness.⁹ This evidence suggests that there is a negative externality associated with the process of borrow-

⁹ For example, using pooled data for 1976-80 for nineteen developing countries, Edwards (1984b) found the following relationship between the spread charged over LIBOR

ing from abroad that stems from the divergence between the average and marginal costs of foreign borrowing. From a policy perspective, the best way to deal with this problem is to impose a tax on capital imports.¹⁰ In this case, there is a genuine first-best argument for not fully liberalizing the capital account. As Harberger (1982, p. 13) puts it:

The corrective for any such externality [the difference between the marginal cost of international credit and its average cost] is something that will lead economic agents to internalize it. In the present case, a tax would be the obvious instrument for accomplishing this task.

4 The Order of Liberalization and Adjustment Costs

When trade barriers are reduced, domestic relative prices will change and resources will be reallocated across sectors. Any process of economic liberalization will require an often costly adjustment period during which firms must retool and labor must acquire new skills. To enhance the probability of success for the trade reform, Michaely (1982) and others have urged that adjustment costs such as unemployment that are associated with the reduction of tariffs be kept as low as possible. To accomplish this, these authors recommend that liberalization of trade be carried out slowly and that assistance—usually in the form of foreign funds—be provided to finance a smoother adjustment by the import-competing industries. Some authors talk in terms of obtaining foreign aid, but the argument can easily be extended to foreign loans.

According to Little, Scitovsky, and Scott (1970, Chap. 10) and Michaely (1982, p. 17), the capital account should be opened first or at the same time as the trade account. Krueger (1983, p. 11), while not agreeing with the “capital account first and trade account second” sequence, also recognizes the possibly important role of foreign funds:

One of the important contributions international lending can make to a country when its leaders are genuinely committed to full liberalization [is to] . . .

and a set of explanatory variables (the numbers in parentheses are *t*-statistics, and SEE is the standard error of estimate of the regression):

$$\begin{aligned} \text{Spread} = & 0.314 + 0.633 [\text{debt/GNP}] - 1.152 [\text{international reserves/GNP}] \\ & (1.424) \quad (2.453) \quad (-2.142) \\ & + 0.353 [\text{debt service/exports}] - 1.186 [\text{investment/GNP}] \\ & (1.458) \quad (-2.266) \end{aligned}$$

SEE = 0.167

¹⁰ There is an important qualification to this argument for imposing a first-best optimum tax on capital imports. If borrowers and lenders make the same assessment of the probability of default, the country-risk premium is not a real part of the cost of borrowing and no tax should be imposed on these grounds. But if, as Harberger (1976, 1980) argues, lenders perceive a larger probability of default than borrowers, there is a first-best reason for imposing such a tax.

permit higher levels of imports than would otherwise be feasible. . . . Not only does this reduce the economic and political strains associated with liberalization, it also reduces uncertainty of business as to the likelihood that liberalization will persist.

Clark (1982, p. 2) attributes the successful 1970s liberalization of the Egyptian economy in large part to the adjustment assistance provided by foreign sources.

Arguments for using foreign funds to smooth the adjustment process during a trade-liberalization episode are related to arguments for providing adjustment assistance to industries that are negatively affected by exogenous changes in the terms of trade.¹¹ A recent *National Bureau of Economic Research* study edited by Bhagwati (1982) contains a number of interesting papers on the subject. As Bhagwati puts it in the introduction to that volume, in order to analyze the adjustment-assistance issue it is necessary to know the path the economy will take following a change in relative prices that reflects a change in the terms of trade, tariff reductions, or both. In a simple textbook case, resources will immediately move out of the sector whose relative price had declined and into the expanding sector. In more complex models, however, there will be adjustment costs, so that resource reallocation will take place more slowly, possibly resulting in a short-run loss of output.¹² It is important, in any case, to specify clearly the nature of these adjustment costs before making inferences regarding the desirability of intervention. If the costs are related to the activity of moving resources between sectors, as in Mussa's (1978) model, and there are no externalities, there is no welfare-related reason to provide adjustment assistance. If adjustment costs arise from market imperfections, such as minimum wages, there is some room for intervention. The first-best policy, of course, is to try to eliminate the source of these distortions. If this first-best policy is not feasible, second-best solutions should be sought. Even in the absence of distortions, however, adjustment assistance might be called for for other reasons, such as income-distribution considerations, as Leamer (1980) has argued.

McKinnon (1973, 1982) has strongly opposed the idea of using foreign capital flows to assist the trade-reform transition process. In fact, in his 1973 book he states that if capital inflows are allowed, the liberalization

¹¹ An important issue is how these foreign funds are made available. One possibility is that the capital account is fully opened and free international borrowing and lending are allowed. Alternatively, the capital account is partially opened and only some sectors are allowed to obtain funds from abroad.

¹² The most popular models with adjustment costs are of the Ricardo-Viner type. See, for example, Mussa (1974, 1978, 1982) and Neary (1978, 1982).

episodes will generally be aborted. He refers to these cases as "partial liberalization with foreign capital" (1973, p. 155). This view, of course, is consistent with his position that capital inflows should be tightly controlled throughout the trade liberalization, and it is based on the idea that short-term capital movements provide incorrect signals to the private sector. As he has recently stated (1982, p. 163):

Trade liberalization should proceed *without* relying on unusual short-term inflows of private capital. . . . Such capital inflows are simply not sustainable in the long-run; and during the liberalization process itself they throw out incorrect market signals.

There are two problems with this view. First, it is not clear what McKinnon means by "unusual" inflows of capital. Second, there is no theoretical *a priori* reason to believe that these "unusual" capital inflows will send the wrong signals. For this argument to make sense, it is necessary to specify why the private sector will not realize that these inflows are temporary and "unusual" (as the government presumably does in McKinnon's model). If the private sector does recognize the temporary nature of the inflows, the inflows will not send incorrect signals and there is no reason, at least on these grounds, to restrict capital movements.

The *credibility* of the trade reform is critical to the analysis of the order of liberalization. If it looks as if the reform is likely to be reversed in the future, owners of capital in the import-competing industries might use foreign funds obtained through the opening of the capital account to keep their firms functioning, hoping that their losses will be temporary because the liberalization will be reversed. This is what happened in Argentina. According to Rodriguez's (1983, p. 28) evaluation of the Argentinian experience of 1978-82, "As a consequence of the *lack of credibility* of the continuity of the economic program, many firms—which would have disappeared due to the tariff reductions—decided to go into debt in order to keep operating while waiting for a change in economic strategy" (emphasis added). Alternatively, these foreign funds might be used to finance lobbying activities in an attempt to convince government officials of the desirability of reversing the trade reform.

Furthermore, if people believe that the trade reform will be reversed in the future, they will tend to borrow heavily today in order to finance higher present consumption. This is a rational strategy if they expect importable goods to be more expensive in the future because tariffs will be hiked. Although this may be optimal behavior from a private perspective, it may result in excessive, or nonoptimal, borrowing from the social point of view.

Thus, the credibility of the reform will dictate whether an increase in the availability of foreign funds will help the adjustment process by making it politically more palatable, as Krueger suggests, or frustrate the reform. The degree of credibility should not be viewed as a completely exogenous variable, because it is affected by the strategy followed during the liberalization. The internal consistency of the policies being pursued is fundamental and critical to establishing credibility. In Argentina, for example, the inconsistency of fiscal policy, which maintained a very large fiscal deficit, and the preannounced exchange-rate policy severely undermined the credibility of the reform process.

5 Some Related Policy Issues

The recent Chilean experience presents an interesting policy question concerning the "current-account first" order of liberalization advocated by McKinnon, Frenkel, and Krueger. Chile followed the McKinnon-Frenkel order almost exactly, liberalizing the trade account first and partially opening the capital account only after tariffs had reached their final goal of 10 percent (see Harberger, 1982; Edwards, 1985a, 1985b; Sjaastad, 1983). In a book published in 1982, McKinnon stated: "The correct order of liberalization . . . approximates the successful Chilean experience after 1975. Chile is to be treated as a norm or standard of reference" (p. 159). Soon after the liberalization process entered its final stage, however, the Chilean economy experienced the worst recession in its history, with real output declining by 15 percent in 1982 and by 3 percent in 1983. Moreover, the recovery from this recession has been only partial, and the future of the tariff reform seems to be in serious jeopardy. In fact, import tariffs were increased in 1983 and 1984.

While a complete analysis of the Chilean experience is beyond the scope of this Essay, it is possible to point out some of the major causes of the failure of the Chilean experiment. First, it was a serious mistake to peg the exchange rate to the dollar in June 1979 while real wages were fully indexed (see Dornbusch, 1984). The massive inflows of capital in 1980 and 1981 generated a large real appreciation that resulted in an important loss of competitiveness in the tradable-goods sector. This situation was aggravated by extremely high real interest rates (partially attributable to generalized expectations of a large devaluation), by the world recession, and by the decline in Chile's terms of trade. The failure to take timely corrective measures also aggravated the situation, generating speculation against the peso and a consequent loss of international reserves. (Edwards, forthcoming, 1985b, discusses the Chilean case in detail.)

Does the Chilean failure mean that the order of liberalization advocated by McKinnon, Frenkel, and others is incorrect? I think the answer is no. What it tells us is that macroeconomic management following a liberalization attempt is much more difficult than had been thought. In fact, the Chilean and Argentinian cases suggest that macroeconomic management could be the most critical policy problem that countries face following a liberalization attempt. They also confirm the central role of expectations and credibility in any major economic reform. If credibility is low and there are expectations of policy reversal, it will be very difficult for the reform to succeed. Therefore, when reform policy is being formulated, the speed and order of the liberalization should be set in such a way that expectations of reversal will be low.

Another policy problem that has not received the attention it deserves concerns the level of foreign indebtedness resulting from opening the capital account. To what extent can a liberalization of the capital account result in a foreign-debt crisis by inducing the private sector to overborrow?¹³ Theoretically, overborrowing is unlikely, since the private sector, which now faces the "correct" signals, will borrow only if the marginal return obtained from those funds exceeds the cost of the loans, and free interaction between the private domestic sector and the foreign banks will result in an optimal borrowing and lending strategy. But in practice and in sophisticated models, there are several reasons to believe that this will not be the case.

First, as the recent experience of some Latin American countries has shown, the distinction between private and public foreign debt is highly artificial. Once a country's private sector runs into debt problems, the government takes over the private debt (or is forced to take it over) (see Diaz-Alejandro, 1983, 1984; Edwards, 1984a). To the extent that the private sector knows that it will be bailed out by the government, moral-hazard-type behavior becomes highly likely. Under these circumstances, there will be an important difference between socially and privately optimal borrowing strategies, with a tendency on the part of the private sector to overborrow.

Second, as noted in section 3 and contrary to the textbook case, even small countries cannot borrow infinite amounts at "the" given world interest rate. Up to a certain point, even small countries face upward-sloping supplies of foreign funds where the interest rate charged is an increasing function of the amount borrowed. This fact will also induce

¹³ Overborrowing is defined as an amount of private-sector borrowing that exceeds the socially optimal level. McKinnon (1973) briefly deals with the desired level of foreign indebtedness in his taxonomy of successful and unsuccessful liberalization attempts. On optimal external borrowing, see Dornbusch (1983a).

the private sector to overborrow once the capital account is opened. Specifically, there is an argument for imposing an *optimal* tax on borrowing. (The tax rate should be $1/\epsilon$, where ϵ is the elasticity of supply of foreign funds.)¹⁴

Third, if the private sector expects tariffs to be raised in the future, it will perceive a very low consumption interest rate (measured as the rate at which it can exchange traded goods between today and tomorrow) and will thus tend to increase its foreign borrowing. While this is an optimal strategy from the private point of view it may not be so from a social perspective.

These considerations suggest that the relationship between liberalization and optimal borrowing strategies is an important area for future research.

6 Concluding Remarks

In a textbook economy free of imperfections, the question of the appropriate order of liberalization of the current and capital accounts is trivial. The two accounts should be liberalized immediately and simultaneously. But in a world with adjustment costs, market imperfections, and externalities, there are a number of reasons, both economic and political, why an immediate and simultaneous liberalization may be neither feasible nor desirable. In this context, the appropriate order of liberalization has recently attracted considerable attention in both academic and policy-oriented circles.

In this Essay, I have discussed some of the most important issues related to the order of liberalization. But there are three other important issues regarding a broadly defined liberalization process that I have not examined closely. First, if a liberalization does not completely eliminate all distortions, the welfare effects of partial reforms become critical. From a second-best perspective, almost anything can happen in terms of welfare as a consequence of a partial reform, but, as Krueger (1983) has pointed out, there are well-founded conjectures that liberalizing only some markets will improve welfare. Second, the speed of liberalization is important. If there are market imperfections or externalities and first-best policies are not available to deal with them, a gradual rather than

¹⁴ See McDonald (1982) for an exhaustive review of issues related to country risk. See also Edwards (1984a, 1984b) and Harberger (1976, 1980). On the optimal tax, recall the distinction drawn in section 3 between the borrower's and the lender's perceptions of the probability of default.

an immediate liberalization may be called for (on this, see Mussa, 1983). Finally, the relationship between liberalization and stabilization is crucial to an understanding of the success or failure of liberalization reforms, since most liberalization attempts have been undertaken in conjunction with major stabilization programs (see Krueger, 1978; Little, 1982). One of the important aspects of this relationship that deserves further attention is the desirability of implementing a major, almost full liberalization while a major stabilization program is underway.

While my analysis has not yielded a strong *theorem* regarding the appropriate order for liberalizing the current and capital accounts, both the historical evidence and the theoretical considerations discussed here suggest that the more *prudent* strategy is to liberalize the current account first. The strongest case for this sequence is based on the relationships among macroeconomic stability, capital flows, and the real exchange rate. Experiences with capital flows immediately following a capital-account liberalization have generally been destabilizing—consider, for example, Korea in 1964, Argentina in 1978, Chile in 1980—and have jeopardized other aspects of the reform package. Some of these experiences suggest that the capital account should be opened slowly so that any subsequent increase in the stock of foreign debt will be spread through time, reducing the degree of real appreciation, as Harberger (1983) has recommended. Also, to the extent that country risk causes these countries to face an upward-sloping supply curve of foreign funds, there is an argument for imposing an optimal tax on foreign indebtedness.

Most of the discussion presented here has assumed that once the capital account is opened, domestic agents will be able to borrow from abroad. This is what would be expected in a normal situation, because real interest rates should be substantially higher in developing countries than in developed countries (see McKinnon, 1973). However, since 1982, in the wake of the international debt crisis, many countries have faced temporary credit rationing imposed in international capital markets. Under these circumstances, opening the capital account will probably not result in additional capital inflows. Moreover, depending on the approach the country is taking to solve its debt problems, capital may even flow out if capital restrictions are relaxed. These considerations reinforce the advisability of delaying the opening of the capital account. Only after the initial steps toward stabilization and external adjustment have been taken and the trade account has been opened should capital restrictions be slowly relaxed.

Finally, a central aspect of any reform package is the degree of confidence it inspires. If the reform has no credibility, the public will not

make the decisions required for the new policy to have an effect on the economic structure. Furthermore, a lack of credibility can cause investors to use foreign funds to increase investments in the "wrong" sector, as happened in Argentina. The degree of credibility of a reform package is not an exogenous variable but will depend on a number of factors, of which one of the most important is the perceived *consistency* of the proposed policies. If the public perceives the policies to be inconsistent, it will expect the reform attempt to be discontinued or reversed. In that sense, even more important than determining the correct order of liberalization may be defining a consistent and credible policy package that will support whichever order is chosen.

References

- Balassa, Bela, *Development Strategies in Semi-Industrial Economies*, Oxford, England, Oxford University Press, 1982.
- Bhagwati, Jagdish N., *Anatomy and Consequences of Exchange Control Regimes*, Cambridge, Mass., Ballinger, 1978.
- Bhagwati, Jagdish N., ed., *Import Competition and Response*, Chicago, University of Chicago Press, 1982.
- Bhagwati, Jagdish N., and T. N. Srinivasan, "Trade Policy and Development," in R. Dornbusch and J. A. Frenkel, eds., *International Economic Policy: Theory and Evidence*, Baltimore, Johns Hopkins University Press, 1979.
- , *Lectures in International Trade*, Cambridge, Mass., MIT Press, 1983a.
- , "On the Choice between Capital and Labor Mobility," *Journal of International Economics*, 14 (May 1983b), pp. 209-222.
- Brecher, Richard, and Jagdish Bhagwati, "Immiserizing Transfers from Abroad," *Journal of International Economics*, 13 (August 1982), pp. 353-364.
- Brecher, Richard, and Carlos Diaz-Alejandro, "Tariffs, Foreign Capital and Immiserizing Growth," *Journal of International Economics*, 7 (November 1977), pp. 317-322.
- Brecher, Richard, and Ronald Findlay, "Tariffs, Foreign Capital and National Welfare with Sector Specific Factors," *Journal of International Economics*, 14 (May 1983), pp. 277-288.
- Clark, Paul, "Step-by-Step Liberalization of a Controlled Economy: Experience in Egypt," 1982, unpublished paper.
- Corden, W. Max, "Booming Sector and Dutch Disease Economics: A Survey," Canberra, Australian National University Working Paper No. 079, 1982.
- Diaz-Alejandro, Carlos F., "Southern Cone Stabilization Plans," in William R. Cline and Sidney Weintraub, eds., *Economic Stabilization in Developing Countries*, Washington, The Brookings Institution, 1981.

- , "Good-Bye Financial Repression, Hello Financial Crash," unpublished paper, 1983.
- , "In Toto, I Don't Think We Are in Kansas Anymore," paper presented at the Brookings Panel on Economic Activity, September 1984.
- Dornbusch, Rudiger, "Real Interest Rates, Home Goods and Optimal External Borrowing," *Journal of Political Economy*, 91 (February 1983a), pp. 141-153.
- , "Remarks on the Southern Cone," *IMF Staff Papers*, 30 March 1983b, pp. 173-176.
- , "External Debt, Budget Deficits, and Disequilibrium Exchange Rates," Cambridge, Mass., NBER Working Paper No. 1336, 1984.
- Eaton, Jonathan, and Mark Gersovitz, "LDC Participation in International Financial Markets: Debt and Reserves," *Journal of Development Economics*, 7 (March 1980), pp. 3-21.
- Edwards, Sebastian, "The Order of Liberalization of the Current and Capital Accounts: A Survey of the Major Issues," paper presented at World Bank Conference, 1983.
- , "The Role of International Reserves and Foreign Debt in the External Adjustment Process," in J. Muns, ed., *Adjustment, Conditionality and International Financing*, Washington, International Monetary Fund, 1984a.
- , "LDC Foreign Borrowing and Default Risk: An Empirical Investigation 1976-80," *American Economic Review*, 74 (September 1984b), pp. 726-734.
- , "Economic Policy and Growth in Chile: 1973-1982," in G. Walton, ed., *National Economic Policies in Chile*, forthcoming 1985a.
- , "Stabilization with Liberalization: An Evaluation of Ten Years of Chile's Experience with Free Market Policies, 1973-1983," *Economic Development and Cultural Change*, forthcoming 1985b.
- Edwards, Sebastian, and Masanao Aoki, "Oil Export Boom and Dutch Disease," *Resources and Energy*, 5 (September 1983), pp. 219-242.
- Edwards, Sebastian, and Sweder Van Wijnbergen, "The Welfare Effects of Trade and Capital Market Liberalization: Consequences of Different Sequencing Scenarios," Cambridge, Mass., NBER Working Paper No. 1245, 1983.
- Fischer, Stanley, and Jacob Frenkel, "Investment, the Two-Sector Model, and Trade in Debt and Capital Goods," *Journal of International Economics*, 2 (August 1972), pp. 211-233.
- Flood, Robert, "Exchange Rate Expectations in Dual Exchange Markets," *Journal of International Economics*, 8 (February 1978), pp. 65-77.
- Frenkel, Jacob, "The Order of Economic Liberalization: Discussion," in K. Brunner and A. H. Meltzer, eds., *Economic Policy in a World of Change*, Amsterdam, North-Holland, 1982.
- , "Remarks on the Southern Cone," *IMF Staff Papers*, 30 (March 1983), pp. 164-173.
- Friedman, Milton, "The Case for Flexible Exchange Rates," in his *Essays in Positive Economics*, Chicago, University of Chicago Press, 1953.

Grossman, Gene, "The Gains from International Factor Movements," May 1983, unpublished manuscript.

Hanson, James, and Jaime de Melo, "The Uruguayan Experience with Liberalization and Stabilization," *Journal of Inter-American and World Affairs*, 25 (November 1983), pp. 563-581.

Harberger, Arnold C., "On Country Risk and the Social Cost of Foreign Borrowing by Developing Countries," Chicago, University of Chicago, 1976, unpublished manuscript.

———, "Vignettes on the World Capital Market," *American Economic Review Papers and Proceedings*, 70 (May 1980), pp. 331-337.

———, "The Chilean Economy in the 1970s: Crisis, Stabilization, Liberalization, Reform," in K. Brunner and A. H. Meltzer, eds., *Economic Policy in a World of Change*, Amsterdam, North-Holland, 1982.

———, "Welfare Consequences of Capital Inflows," paper presented at World Bank Conference, 1983.

———, "Lessons for Debtor Country Managers and Policy Workers," paper presented at World Bank Conference, 1984.

Harberger, Arnold C., and Sebastian Edwards, "International Sources of Inflation: Some New Results," University of California, Los Angeles, Working Paper, 1982.

Johnson, Harry G., "Optimal Trade Intervention in the Presence of Domestic Distortions," in R. Caves *et al.*, eds., *Trade Growth and Balance of Payments*, Chicago, Rand-McNally, 1965.

———, "The Possibility of Income Losses from Increased Efficiency or Factor Accumulation in the Presence of Tariffs," *Economic Journal*, 77 (March 1967), pp. 151-154.

Kapur, Basant, "Optimal Financial and Foreign Exchange Liberalization of Less-Developed Economies," *Quarterly Journal of Economics*, 98 (February 1983), pp. 41-62.

Khan, Mohsin, and Roberto Zahler, "The Macroeconomic Effects of Changes in Barriers to Trade and Capital Flows: A Simulation Analysis," *IMF Staff Papers*, 30 (June 1983), pp. 223-282.

———, "Trade and Financial Liberalization in the Context of External Shocks and Inconsistent Domestic Policies," Washington, International Monetary Fund, 1984, unpublished manuscript.

Krueger, Anne O., *Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences*, Cambridge, Mass., Ballinger, 1978.

———, "Trade Policy as an Input to Development," *American Economic Review*, 70 (May 1980), pp. 124-130.

———, "The Problems of Liberalization," Washington, World Bank, 1983, unpublished paper.

- Lal, Deepak, "The Real Aspects of Stabilization and Structural Adjustment Policies—An Extension of the Australian Adjustment Model," World Bank Staff Working Paper No. 636, March 1984.
- Lanyi, Anthony, "Separate Exchange Rate Markets for Current and Capital Transactions," *IMF Staff Papers*, 22 (October 1975), pp. 714-739.
- Leamer, Edward E., "Welfare Computations and the Optimal Staging of Tariff Reductions in Models with Adjustment Costs," *Journal of International Economics*, 10 (February 1980), pp. 21-36.
- Little, Ian M. D., *Economic Development*, New York, Basic Books, 1982.
- Little, Ian M. D., Tibor Scitovsky, and Maurice Scott, *Industry and Trade in Some Developing Countries*, Oxford, England, Oxford University Press, 1970.
- McDonald, Donogh C., "Debt Capacity and Developing Country Borrowing," *IMF Staff Papers*, 29 (December 1982), pp. 603-646.
- McKinnon, Ronald I., *Money and Capital in Economic Development*, Washington, The Brookings Institution, 1973.
- , "International Transfers and Non-Traded Commodities: The Adjustment Problem," in D. M. Leipziger, ed., *The International Monetary System and the Developing Nations*, Washington, Agency for International Development, 1976.
- , "Foreign Exchange Rate Policy and Economic Liberalization in LDC's," 1979a, unpublished paper.
- , *Money in International Exchange: The Convertible Currency System*, Oxford, England, Oxford University Press, 1979b.
- , "The Order of Economic Liberalization: Lessons from Chile and Argentina," in K. Brunner and A. Meltzer, eds., *Economic Policy in a World of Change*, Amsterdam, North-Holland, 1982.
- McKinnon, Ronald I., and D. J. Mathieson, *How to Manage a Repressed Economy*, Essays in International Finance No. 145, Princeton, N.J., Princeton University, International Finance Section, 1981.
- Michaely, Michael, "The Sequencing of a Liberalization Policy: A Preliminary Statement of Issues," 1982, unpublished paper.
- Mussa, Michael L., "Tariffs and the Distribution of Income: The Importance of Factor Specificity," *Journal of Political Economy*, 82 (November 1974), pp. 1191-1203.
- , "Dynamic Adjustment in the Heckscher-Ohlin-Samuelson Model," *Journal of Political Economy*, 86 (October 1978), pp. 775-791.
- , "Government Policy and the Adjustment Process," in J. Bhagwati, ed., *Import Competition and Response*, Chicago, University of Chicago Press, 1982.
- , "The Adjustment Process and the Timing of Trade Liberalization," paper presented at World Bank Conference, 1983.
- Neary, Peter, "Short-Run Capital Specificity and the Pure Theory of International Trade," *Economic Journal*, 88 (September 1978), pp. 448-510.

- Neary, Peter, "Capital Mobility, Wage Stickiness and the Case for Adjustment Assistance," in J. Bhagwati, ed., *Import Competition and Response*, Chicago, University of Chicago Press, 1982.
- Nogues, Julio, "Politica Comercial y Cambiaria: Una Interpretacion de la Experiencia Argentina 1976-1981," Buenos Aires, Banco Central de Argentina, 1983, unpublished paper.
- Rodriguez, Carlos A., "Políticas de Estabilización en la Economía Argentina 1978-1982," *Cuadernos de Economía*, 19 (April 1983), pp. 322-340.
- Rybczynski, T. M., "Factor Endowments and Relative Commodity Prices," *Economica*, 22 (November 1955), pp. 336-341.
- Sachs, Jeffrey, and David Cohen, "LDC Borrowing with Default Risk," Cambridge, Mass., NBER Working Paper No. 925, July 1982.
- Sjaastad, Larry, "Failure of Economic Liberalism in the Cone of Latin America," *World Economy*, 6 (March 1983), pp. 5-26.
- Van Wijnbergen, Sweder, "The Dutch Disease: A Disease After All?" *Economic Journal*, 94 (March 1984), pp. 41-55.

PUBLICATIONS OF THE INTERNATIONAL FINANCE SECTION

Notice to Contributors

The International Finance Section publishes at irregular intervals papers in four series: **ESSAYS IN INTERNATIONAL FINANCE**, **PRINCETON STUDIES IN INTERNATIONAL FINANCE**, **SPECIAL PAPERS IN INTERNATIONAL ECONOMICS**, and **REPRINTS IN INTERNATIONAL FINANCE**. **ESSAYS** and **STUDIES** are confined to subjects in international finance. **SPECIAL PAPERS** are surveys of the literature suitable for courses in colleges and universities.

An **ESSAY** should be a lucid exposition of a theme, accessible not only to the professional economist but to other interested readers. It should therefore avoid technical terms, should eschew mathematics and statistical tables (except when essential for an understanding of the text), and should rarely have footnotes.

A **STUDY** or **SPECIAL PAPER** may be more technical. It may include statistics and algebra and may have many footnotes. **STUDIES** and **SPECIAL PAPERS** may also be longer than **ESSAYS**; indeed, these two series are meant to accommodate manuscripts too long for journal articles and too short for books.

To facilitate prompt evaluation, please submit three copies of your manuscript. Retain one for your files. The manuscript should be typed on one side of 8½ by 11 strong white paper. All material should be double-spaced—text, excerpts, footnotes, tables, references, and figure legends. For more complete guidance, prospective contributors should send for the Section's style guide before preparing their manuscripts.

How to Obtain Publications

A mailing list is maintained for free distribution of all new publications to college, university, and public libraries and nongovernmental, nonprofit research institutions.

Individuals and organizations not qualifying for free distribution can obtain **ESSAYS** and **REPRINTS** as issued and announcements of new **STUDIES** and **SPECIAL PAPERS** by paying a fee of \$10 (within U.S.) or \$12 (outside U.S.) to cover the period January 1 through December 31, 1985. Alternatively, for \$30 they can receive all publications automatically—**SPECIAL PAPERS** and **STUDIES** as well as **ESSAYS** and **REPRINTS**.

ESSAYS and **REPRINTS** can also be ordered from the Section at \$2.50 per copy, and **STUDIES** and **SPECIAL PAPERS** at \$4.50. Payment **MUST** be included with the order and **MUST** be made in U.S. dollars. **PLEASE INCLUDE \$.80 FOR POSTAGE AND HANDLING.** (These charges are waived on orders from persons or organizations in countries whose foreign-exchange regulations prohibit such remittances.) For air-mail delivery outside U.S., Canada, and Mexico, there is an additional charge of \$1.

All manuscripts, correspondence, and orders should be addressed to:

International Finance Section
Department of Economics, Dickinson Hall
Princeton University
Princeton, New Jersey 08544

Subscribers should notify the Section promptly of a change of address, giving the old address as well as the new one.

List of Recent Publications

Some earlier issues are still in print. Write the Section for information.

ESSAYS IN INTERNATIONAL FINANCE

130. Franco Modigliani and Tommaso Padoa-Schioppa, *The Management of an Open Economy with "100% Plus" Wage Indexation*. (Dec. 1978)
131. H. Robert Heller and Malcolm Knight, *Reserve-Currency Preferences of Central Banks*. (Dec. 1978)
132. Robert Triffin, *Gold and the Dollar Crisis: Yesterday and Tomorrow*. (Dec. 1978)
133. Herbert G. Grubel, *A Proposal for the Establishment of an International Deposit Insurance Corporation*. (July 1979)
134. Bertil Ohlin, *Some Insufficiencies in the Theories of International Economic Relations*. (Sept. 1979)
135. Frank A. Southard, Jr., *The Evolution of the International Monetary Fund*. (Dec. 1979)
136. Niels Thygesen, *Exchange-Rate Experiences and Policies of Small Countries: Some European Examples in the 1970s*. (Dec. 1979)
137. Robert M. Dunn, Jr., *Exchange Rates, Payments Adjustments, and OPEC: Why Oil Deficits Persist*. (Dec. 1979)
138. Tom de Vries, *On the Meaning and Future of the European Monetary System*. (Sept. 1980)
139. Deepak Lal, *A Liberal International Economic Order: The International Monetary System and Economic Development*. (Oct. 1980)
140. Pieter Korteweg, *Exchange-Rate Policy, Monetary Policy, and Real Exchange-Rate Variability*. (Dec. 1980)
141. Bela Balassa, *The Process of Industrial Development and Alternative Development Strategies*. (Dec. 1980)
142. Benjamin J. Cohen, *The European Monetary System: An Outsider's View*. (June 1981)
143. Marina v. N. Whitman, *International Trade and Investment: Two Perspectives*. (July 1981)
144. Sidney Dell, *On Being Grandmotherly: The Evolution of IMF Conditionality*. (Oct. 1981)
145. Ronald I. McKinnon and Donald J. Mathieson, *How to Manage a Repressed Economy*. (Dec. 1981)
- *146. Bahram Nowzad, *The IMF and Its Critics*. (Dec. 1981)
147. Edmar Lisboa Bacha and Carlos F. Díaz Alejandro, *International Financial Intermediation: A Long and Tropical View*. (May 1982)
148. Alan A. Rabin and Leland B. Yeager, *Monetary Approaches to the Balance of Payments and Exchange Rates*. (Nov. 1982)

*Out of print. Available on demand in xerographic paperback or library-bound copies from University Microfilms International, Box 1467, Ann Arbor, Michigan 48106, United States, and 30-32 Mortimer St., London, WIN 7RA, England. Paperback reprints are usually \$20. Microfilm of all Essays by year is also available from University Microfilms. Photocopied sheets of out-of-print titles are available on demand from the Section at \$6 per Essay and \$8 per Study or Special Paper.

149. C. Fred Bergsten, Rudiger Dornbusch, Jacob A. Frenkel, Steven W. Kohlhagen, Luigi Spaventa, and Thomas D. Willett, *From Rambouillet to Versailles: A Symposium*. (Dec. 1982)
150. Robert E. Baldwin, *The Inefficacy of Trade Policy*. (Dec. 1982)
151. Jack Guttentag and Richard Herring, *The Lender-of-Last Resort Function in an International Context*. (May 1983)
152. G. K. Helleiner, *The IMF and Africa in the 1980s*. (July 1983)
153. Rachel McCulloch, *Unexpected Real Consequences of Floating Exchange Rates*. (Aug. 1983)
154. Robert M. Dunn, Jr., *The Many Disappointments of Floating Exchange Rates*. (Dec. 1983)
155. Stephen Marris, *Managing the World Economy: Will We Ever Learn?* (Oct. 1984)
156. Sebastian Edwards, *The Order of Liberalization of the External Sector in Developing Countries*. (Dec. 1984)

PRINCETON STUDIES IN INTERNATIONAL FINANCE

44. Clas Wihlborg, *Currency Risks in International Financial Markets*. (Dec. 1978)
45. Ian M. Drummond, *London, Washington, and the Management of the Franc, 1936-39*. (Nov. 1979)
46. Susan Howson, *Sterling's Managed Float: The Operations of the Exchange Equalisation Account, 1932-39*. (Nov. 1980)
47. Jonathan Eaton and Mark Gersovitz, *Poor-Country Borrowing in Private Financial Markets and the Repudiation Issue*. (June 1981)
48. Barry J. Eichengreen, *Sterling and the Tariff, 1929-32*. (Sept. 1981)
49. Peter Bernholz, *Flexible Exchange Rates in Historical Perspective*. (July 1982)
50. Victor Argy, *Exchange-Rate Management in Theory and Practice*. (Oct. 1982)
51. Paul Wonnacott, *U.S. Intervention in the Exchange Market for DM, 1977-80*. (Dec. 1982)
52. Irving B. Kravis and Robert E. Lipsey, *Toward an Explanation of National Price Levels*. (Nov. 1983)
53. Avraham Ben-Bassat, *Reserve-Currency Diversification and the Substitution Account*. (March 1984)
54. Jeffrey Sachs, *Theoretical Issues in International Borrowing*. (July 1984)
55. Marsha R. Shelburn, *Rules for Regulating Intervention under a Managed Float*. (Dec. 1984)

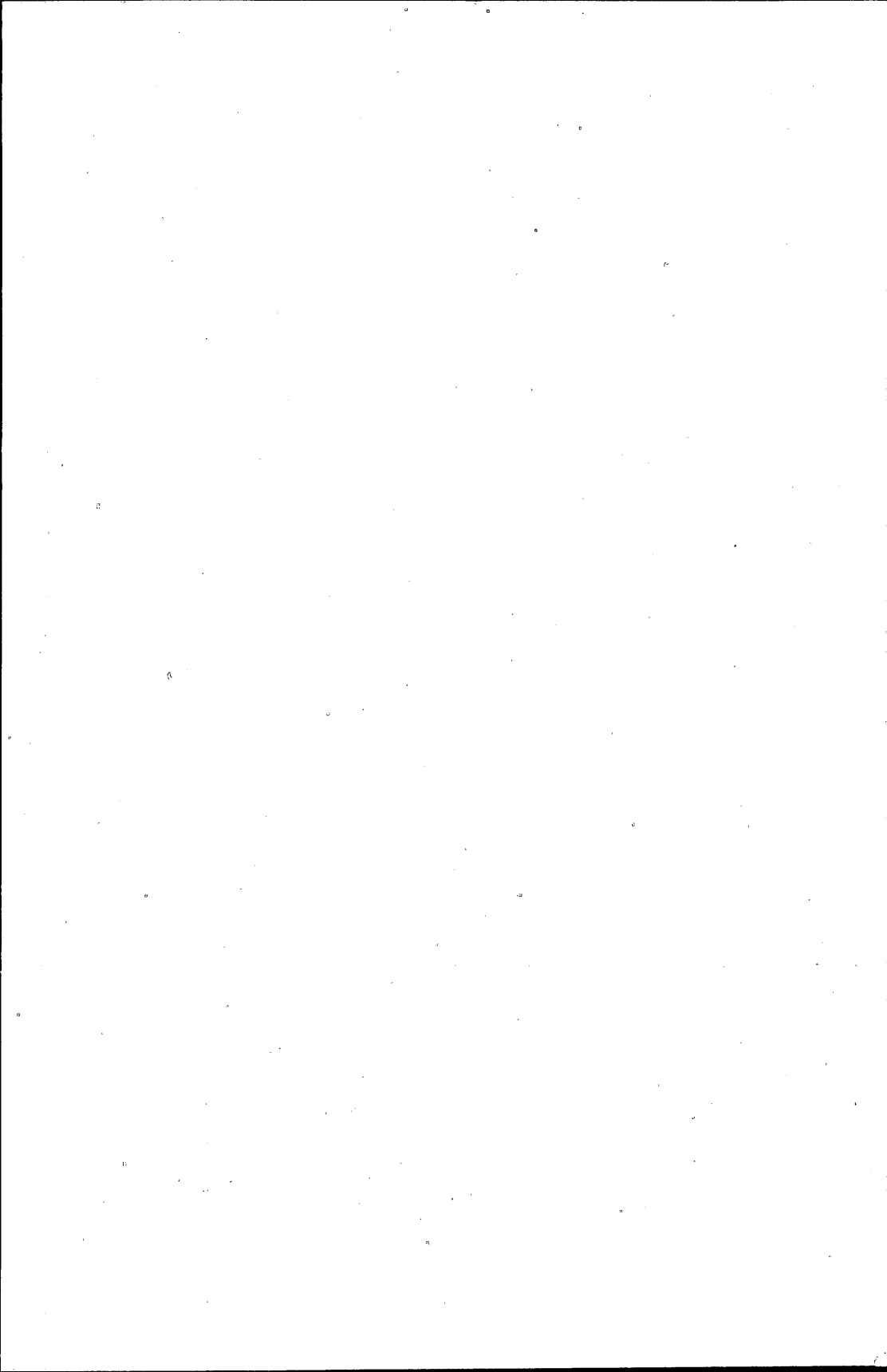
SPECIAL PAPERS IN INTERNATIONAL ECONOMICS

8. Jagdish Bhagwati, *The Theory and Practice of Commercial Policy: Departures from Unified Exchange Rates*. (Jan. 1968)
- *9. Marina von Neumann Whitman, *Policies for Internal and External Balance*. (Dec. 1970)
10. Richard E. Caves, *International Trade, International Investment, and Imperfect Markets*. (Nov. 1974)
- *11. Edward Tower and Thomas D. Willett, *The Theory of Optimum Currency*

- Areas and Exchange-Rate Flexibility.* (May 1976)
- *12. Ronald W. Jones, "Two-ness" in Trade Theory: Costs and Benefits. (April 1977)
 - 13. Louka T. Katseli-Papaefstratiou, *The Reemergence of the Purchasing Power Parity Doctrine in the 1970s.* (Dec. 1979)
 - *14. Morris Goldstein, *Have Flexible Exchange Rates Handicapped Macroeconomic Policy?* (June 1980)

REPRINTS IN INTERNATIONAL FINANCE

- 18. Peter B. Kenen, *Floats, Glides and Indicators: A Comparison of Methods for Changing Exchange Rates.* [Reprinted from *Journal of International Economics*, 5 (May 1975).] (June 1975)
- 19. Polly R. Allen and Peter B. Kenen, *The Balance of Payments, Exchange Rates, and Economic Policy: A Survey and Synthesis of Recent Developments.* [Reprinted from Center of Planning and Economic Research, Occasional Paper 33, Athens, Greece, 1978.] (April 1979)
- 20. William H. Branson, *Asset Markets and Relative Prices in Exchange Rate Determination.* [Reprinted from *Sozialwissenschaftliche Annalen*, Vol. 1, 1977.] (June 1980)
- 21. Peter B. Kenen, *The Analytics of a Substitution Account.* [Reprinted from *Banca Nazionale del Lavoro Quarterly Review*, No. 139 (Dec. 1981).] (Dec. 1981)
- 22. Jorge Braga de Macedo, *Exchange Rate Behavior with Currency Inconvertibility.* [Reprinted from *Journal of International Economics*, 12 (Feb. 1982).] (Sept. 1982)
- 23. Peter B. Kenen, *Use of the SDR to Supplement or Substitute for Other Means of Finance.* [Reprinted from George M. von Furstenberg, ed., *International Money and Credit: The Policy Roles*, Washington, IMF, 1983, Chap. 7.] (Dec. 1983)



ISBN 0-88165-088-9