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THE SEQUENCING OF STRUCTURAL ADJUSTMENT AND STABILIZATION

Sebastian Edwards

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PREFACE

The International Center for Economic Growth is pleased to publish *The Sequencing of Structural Adjustment and Stabilization* by Sebastian Edwards as the thirty-fourth in our series of Occasional Papers, which feature reflections on broad policy issues by noted scholars and policy makers.

Dr. Edwards provides an overview of existing studies on the sequencing and speed of economic liberalization, which draw on the experiences of the Southern Cone nations. In a time of virtual consensus among economists that outward-oriented economic policy is the key to successful economic growth, the debate over the optimal sequencing of structural adjustment—in terms of its effect both on the financial sector and on human welfare—is of increasing concern to policy makers. The sequencing of liberalization constitutes a "competition of instruments"—or policy dilemma—that requires policy makers to reach a balance among the possibly conflicting goals of development. Should reforms be carried out rapidly and, if so, at what short-term cost to the private sector? Should the freeing of the capital account be contingent on ridding the economy of disequilibria in the balance of payments?

Finally, Dr. Edwards asserts that a successful policy package must, above all, be credible. If citizens believe that reform will fail or that it will be reversed at the whim of the government, popular political resistance could cripple any attempt at reform.

Recent capital inflows to the countries of Latin America, which threaten to introduce pricing distortions, and the process of economic liberalization in the postsocialist nations of Eastern Europe make it advisable for policy makers in these countries to draw from the experiences of the Southern Cone countries, with their various sequences of adjustment. Dr. Edwards's insightful analysis underscores the necessity to balance the long-term goals of the financial sector with the near-terms needs of a population dependent on the availability of resources and employment during the time of transition.

In recent years, Dr. Edwards has been at the forefront of both theoretical and applied research dealing with the complex and timely policy issues of economic liberalization.

Nicolás Ardito-Barletta
General Director
International Center for Economic Growth

Panama City, Panama
October 1992

ABOUT THE AUTHOR

Sebastian Edwards is Henry Ford II Professor of International Business Economics at the Anderson Graduate School of Management at the University of California, Los Angeles. He is also a research associate of the National Bureau for Economic Research in Cambridge, Massachusetts, and a senior fellow of the Institute for Policy Reform in Washington, D.C.

Dr. Edwards received his Ph.D. in economics from the University of Chicago. He has published extensively in professional and scientific journals and is coeditor of the *Journal of Development Economics*. His books include *Monetarism and Liberalization* (1991) and *The Macroeconomics of Populism in Latin America* (1991).

Dr. Edwards has worked as a consultant in a number of countries in Latin America and Asia as well as for the World Bank, the International Monetary Fund, the Inter-American Development Bank, the OECD (Paris), the New Zealand Treasury, the central banks of Costa Rica and Colombia, the United States Agency for International Development, and a number of international corporations.

SEBASTIAN EDWARDS

The Sequencing of Structural Adjustment and Stabilization

At the end of the 1980s the economics profession came to virtual agreement regarding the advantages of economic policies that favor openness and export-led growth. The decades-old debate over inward- versus outward-oriented economic policy seems to have been decisively won by the proponents of outward orientation. This consensus has, however, generated a score of important and pressing questions regarding the actual implementation of outward-oriented policies. Perhaps the questions that have attracted the greatest attention of policy makers and economic analysts are the ones related to sequencing and speed of structural reform: In what order should different markets be liberalized? Should a country tackle the inflationary problem before dealing with market-oriented reforms, or should the opposite sequence be pursued? How costly is it to undertake liberalization if the labor market is still regulated and distorted? The crucial importance of these questions became even more apparent with the recent efforts undertaken in Eastern European countries toward market-oriented reform and economic restructuring.

Although questions related to sequencing and speed, like the ones

Previous versions of this paper were presented at conferences in Cali, Colombia, and Seoul, Korea. I thank Miguel Savastano for his comments and assistance.

posed above, are faced every day by policy makers and advisers, the academic literature on the subject has been sparse, scattered, and sometimes enigmatic. The purpose of this paper is to present a broad analytical survey of the existing literature on the sequencing of structural reform with special emphasis on policy lessons.[1] The paper deals with two broad questions: first it addresses the issue of the sequencing of the liberalization of different markets, placing particular emphasis on the imports market, the financial market, and the nontradables and labor markets. These problems are addressed in the first five sections. The next section deals with the second broad question tackled in this paper regarding the sequencing of macroeconomic stabilization and structural adjustment reform, an issue that has attained considerable interest in the context of East European reforms. In the final section, I briefly discuss the experiences of the countries of the Southern Cone of Latin America with structural adjustment and liberalization. The paper also includes a bibliography on the sequencing issue, which will hopefully be useful to those interested in further exploring this topic.

Capital Inflows, Adjustment Costs, and the Sequencing Issue

In their classical study on industrialization policies in the developing nations, Little, Scitovsky, and Scott (1970) addressed for the first time some of the issues related to the speed and order of liberalization. Their analysis--mainly based on political economy considerations—led to their basic recommendation that structural reforms should be carried out gradually. The reason for this policy advice was based on the role of adjustment costs and on the opposition to the reform policy that these costs can generate. According to these authors, faster reforms will result in larger short-term costs--including unemployment and bankruptcy—and thus in stiffer political opposition. Along similar lines, Michaely (1982) has argued that in order to minimize the political opposition to trade reform it is necessary to minimize the short-run unemployment effects and other adjustment costs associated with these policies. According to Clark (1986), one way of reducing these adjustment costs is by relying on foreign capital during the transition; he has argued that the Egyptian structural reforms of the 1970s succeeded thanks to the ample availability of foreign funds that helped achieve a smoother transition.

Anne Krueger has also argued that an increased reliance on foreign funds will greatly reduce the friction that emerges during major structural reforms.[2] In fact, in her writings on possible solutions to the debt crisis, Krueger has strongly argued that the multilateral institutions should provide extensive financial assistance to those indebted developing countries committed to reforming their external sectors (see Krueger 1988). Moreover, in a recent piece evaluating the success of the Korean experience with outward-oriented policies, Krueger (1990) has pointed out that the ample foreign financing available to Korea during the period from 1962 to 1979, when the most important structural reforms were implemented, helps explain a significant fraction of that country's spectacular growth. In fact, based on a counterfactual simulation exercise, Krueger argues that if Korea had not received such inflows of capital, the rate of growth would only have been 70 percent of what was actually achieved.

Interestingly, Krueger's view on this important historical episode is somewhat at odds with Ronald McKinnon's interpretation. According to McKinnon, far from being beneficial, the large inflow of capital into Korea from mid-1966 on generated significant costs, including high inflation (through the monetization of these foreign funds) and "some degree of regression in [Korea's] . . . financial liberalization" (McKinnon 1984, p. 477).[3] As is explained in greater detail in the next section, McKinnon's position is based on the real exchange rate effects of capital inflows.

The unifying theme in those papers that argue for financial assistance during the transition is that since the adjustment cost associated with micro reforms can be reduced by an increased availability of foreign funds, restrictions on the importation of capital should be reduced before the trade reform takes place—that is, a "capital-account-first" sequence of structural reform.[4]

The recent discussion on the market transformation in Eastern Europe has also emphasized dramatically the need for foreign capital—in the form of direct foreign investment, joint ventures, and portfolio capital—as an important early element of reform.[5]

Structural Adjustment and the Real Exchange Rate

Although economic liberalization has become a central component of most structural adjustment programs in the developing countries, the outcome of these reforms has not always been successful. In fact, in many countries liberalization policies have been reversed after a short period of time. A series of new cross-country studies have found that historically the degree of success of liberalization episodes has been closely linked to the behavior of the real exchange rate. For example, in a summary of a recently completed study on the liberalization experiences of nineteen countries, Michaely (1987) states that

> the *long term* performance of the real rate of foreign exchange clearly differentiates "liberalizers" from "nonliberalizers." . . . [L]iberalizers have tended to be *persistent in maintaining a more-or-less* given level of the real exchange rate over the long run; whereas "nonliberalizers" have tended to let this rate suffer from spasms [emphasis added].

In their evaluation of experiences with liberalization policies in the Southern Cone countries (Argentina, Chile, and Uruguay), Corbo and de Melo (1987) point out that the behavior of the real exchange rate—and more specifically the persistent real exchange rate overvaluation that developed in all three nations—was one of the main causes of the less-than-successful outcome of these reforms in the early 1970s. Edwards (1989e) has shown that real exchange rate behavior is at the heart of the explanation of why only a handful of the countries that have received World Bank Structural Adjustment Loans (SALs) have succeeded in liberalizing their economies. Also, Edwards (1984b) found out that real exchange rate volatility has negatively affected economic performance, including growth, in a score of developing countries.

Recent discussions on the appropriate sequencing of reform have indeed focused on the key role of behavior of real exchange rate during structural reform programs. Most authors that have concentrated on the key role of the real exchange rate during a trade liberalization effort have argued in favor of postponing the opening of the capital account. Ronald McKinnon was possibly the first author to oppose, on real exchange rate grounds, the view that structural (and mainly trade) reforms should be accompanied by capital inflows. In his classical study on the role of financial markets in the development process McKinnon (1973) argued that capital account restrictions should be relaxed only after trade and other industrial sector distortions had been eliminated. The rationale for this policy recommendation is that capital inflows will result in a real exchange rate appreciation which, in turn, reduces the protection in the tradables sector at a time when, because of the tariff reduction reform, a real exchange rate depreciation is needed.[6] McKinnon has posed his views in the following way: "Unusually large capital inflows of foreign capital . . . inhibit the exchange rate to depreciate sufficiently . . ." (1973, p. 160). This problem is compounded by the fact that these flows are unsustainable in the long run. Consequently, he argues, a structural reform of the trade account should "deliberately avoid an unusual or extraordinary injection of foreign capital" (p. 161).

Edwards (1989b) developed a formal intertemporal real equilibrium model to analyze the way in which the equilibrium real exchange rate reacts to a reduction in tariffs and to a capital account liberalization. He shows that in a world with three types of goods (exportables, importables, and nontradables), a reduction in tariffs can, strictly speaking, result in either an equilibrium real exchange rate depreciation or appreciation. Under most plausible cases and more probable configurations of elasticity values, however, a tariff liberalization reform will require an equilibrium real exchange rate depreciation. It is also shown that in this general model capital account liberalization will unambiguously result in a real exchange rate appreciation. This analysis, then, shows that theoretically there is support for McKinnon's contentions. In Edwards (1989a) a time series data set for a group of twelve LDCs was used to empirically investigate the way in which the equilibrium real exchange rate reacts to tariff changes and changes in capital flows, among other variables. He found that lower tariffs resulted in an equilibrium real exchange rate depreciation, while an increase in capital inflows was associated with a real appreciation.

In a number of later writings, McKinnon has again addressed the general issues of sequencing and speed of structural reform. In his analysis of the overall experiences of the Southern Cone countries with structural reform in the 1970s, McKinnon (1982) has argued that Chile's superior performance was due to having kept the capital account closed while tariffs were reduced. He contrasted this case to Argentina's poor performance and argued that the fact that Argentina had followed the opposite sequencing was at the heart of the explanation. McKinnon has also used the historical lessons from these episodes to conclude that trade liberalization should only take place after the fiscal deficit is eliminated. In this way the government will face no need to borrow from abroad to finance its expenditure, and thus the need for capital inflows during the transition will be reduced. This theme is also present in McKinnon's (1991) recent book on the dynamics of reform in the developing and former Communist nations.

As is explained in greater detail in the section entitled "Macroeconomic Effects of Alternative Sequencings," the behavior of the real exchange rate, and more specifically the dangers of overvaluation, have also played a central role in discussions on the sequencing of macroeconomic stabilization and structural reforms.

The Welfare Consequences of Alternative Sequencing Scenarios

A number of authors have used a traditional second-best welfare approach to address the sequencing dilemma. In a series of papers, Jacob Frenkel (1982, 1983) discussed the appropriate order of structural reform from this welfare perspective. His analysis was partially based on the Southern Cone reforms of the early 1970s. Frenkel made the important point that goods and asset markets clear at different speeds: Although asset markets clear almost instantaneously, the attainment of equilibrium in the goods markets usually takes some time. Thus, he argued, a synchronization of the structural reform process will call for the goods markets (that is, the current account) to be liberalized before the capital account. Also, Frenkel pointed out that from a second-best perspective, it is more advisable to open the current account before liberalizing restrictions on capital mobility. He says that "a comparison of the costs of distortions . . . supports the proposition that the trade account should be opened first" (1983, p. 167). His analysis, however, does not include a formal discussion of this proposition.

Most works on the sequencing question have focused on the rather narrow issue of the order of liberalization of the current and capital accounts of the balance of payments, without addressing the sequencing problem from a broader perspective. An early exception is Anne Krueger (1984, 1985) who provides a comprehensive discussion that deals with labor markets, the agricultural sector, and the trade and capital accounts. She argues that the most serious problem with a generalized reform program is the political resistance that it generates. Economic agents can generally recognize the short-run adjustment costs associated with structural reforms, but usually have difficulties perceiving its long-run benefits. In terms of the appropriate sequencing, Krueger is not fully committed. While on the one hand she argues for increased capital inflows during the transition period of a trade-related structural reform, on the other hand she points out that opening up the capital account in the presence of trade distortions may result in a serious misallocation of investment funds (Krueger 1985). Regarding the speed of structural reform, however, Krueger favors an abrupt dismantling of distortions. This recommendation, she argues, is dictated by both welfare and credibility considerations.

An important question in evaluating the welfare effects of alternative sequencing scenarios refers to the possible unemployment effects of different policy measures. In this area, a particularly pressing concern of policy makers is the possible short-run unemployment effects of trade liberalization policies. From an analytical perspective, the effect of a trade reform on employment will depend on a series of factors, including the nature of labor-market distortions (minimum wages, for example), the extent of indexation, and the relative factor intensities of the different sectors of the economy. Within the most basic trade framework—the Heckscher-Ohlin model—a trade liberalization does not generate any employment problems in a developing nation where exports are labor intensive. In fact, this will be the case regardless of whether wages are flexible or rigid. Perhaps the simplest framework for dealing with the potential employment consequences of reform is the dependent economy model with three goods, three factors, and rigid real wages. In this setting trade liberalization results in unemployment. If wage rigidity is limited to the importables sector only, this will tend to increase the gap between wages in the importables and other sectors. The labor force in this case will tend to be reallocated between nontradables and exportables. The effect of trade liberalization on total unemployment is not clear because there are two forces that affect the equilibrium level of unemployment in opposite directions. On the one hand, the probability of finding a high-wage job is reduced by the reduction in labor demand in the importables sector, but, on the other hand, the wage in the rest of the labor market falls, reducing the opportunity cost of unemployment (see Edwards, 1989d).

In a recent paper, Edwards (1992) has used a four-sector intertemporal general equilibrium model to formally analyze the welfare consequences of alternative sequencings. He has shown that there are no definitive welfare-based theorems on which to base a preference for a particular sequence. He has argued that policy recommendations on sequencing should, thus, be based on macro management and credibility considerations.

The elimination of capital controls also have potential employment consequences. These, however, have to be discussed within an explicit intertemporal framework. Under the assumption that the economy is distorted by controls to capital mobility and by a minimum wage, it is possible to show that the removal of capital controls will tend to increase employment in nontradables through a positive effect on expenditure demand. In a similar framework it can be shown that an anticipated tariff reform can generate a negative effect on the level of employment (Edwards 1989d).

Sequencing, Sustainability, and Credibility of Reform

An important preoccupation of most authors has to do with the survivability of a structural reform program.[7] In fact, Michaely (1987) has defined a successful trade liberalization reform as one that is sustained through time. An important determinant of sustainability is the extent to which the reform program is credible. If there is no credibility the public, expecting the liberalization measures to be reversed, will actually take steps that will undermine the effectiveness of the reform program. As is discussed in greater detail later in the section on Southern Cone experiences in the 1970s, a number of analysts have argued that the problems faced by the Southern Cone nations with their reform programs were largely related to lack of credibility.

Calvo (1983, 1987) and Stockman (1982) discussed theoretically the role of credibility in the liberalization process. In particular, Calvo (1987) emphasized that if a specific reform is not credible to economic agents, liberalizing other sectors may actually be welfare reducing. A good example of this would be to liberalize the capital account at a time when the public believes that the trade reform will be reversed—that is, when the credibility of the trade reform is low.

According to Calvo, if a trade reform lacks credibility, the public will use foreign funds—that have been made available through the liberalization of the capital account—to import larger amounts of goods, especially durables, than what would be called for if the trade reform were credible. This over-importation will result in welfare losses because the lack of credibility has played the role of a distortion. Because under these circumstances the liberalization of the capital account magnifies the preexisting distortions (that is, taxes or tariffs), Calvo recommends that in countries where governments lack credibility, capital controls should not be removed until the trade liberalization program is fully consolidated. Thus, from this view of credibility we once again infer the recommendation that capital controls should not be lifted in the early days of the structural adjustment program. Quite the contrary, these considerations call for the postponement of such measures until the trade reform is solidified.

World Bank and IMF Studies on the Sequencing of Reform

Some international institutions have also shown concern regarding the appropriate sequencing of liberalization. The World Bank, for example, has supported a number of related projects. Early contributions are Edwards 1984 and Edwards and van Wijnbergen 1983 and 1986. These authors constructed formal general equilibrium intertemporal models to analyze the appropriate speed and order of liberalization. They assume a two-period economy with tariffs and distorted investment decisions. On welfare grounds they show that in this setting a low-level (gradual) trade reform is preferable to abrupt reform. The reason for this is that by liberalizing slowly present-period savings increase, reducing the extent of the existing distortions. They also argue that on second-best grounds the most appropriate sequencing consists of liberalizing the current account before opening up the capital account. Rodrik (1987) extended this framework by adding two additional distortions: a minimum wage and a fixed price for nontradabies. As opposed to Edwards and van Wijnbergen, however, he concentrates on the trade and capital account of the balance of payments. Rodrik concludes from his analysis that the sequencing suggested by Edwards and van Wijnbergen is the most adequate.

A 1985 World Bank conference on the dynamics of structural reform included contributions by Krueger (on overall issues), Mussa (on the speed of liberalization), Michaely (on speed and order within the trade account), Edwards (on the sequencing of the reforms), and Harberger (on the role of the capital account), as well as commentaries by McKinnon, Balassa, Lal, and Dornbusch (see Choksi and Papageorgiou 1986). These papers dealt mainly with analytical issues without looking in detail at the empirical evidence. The main conclusion that emerged from this conference was that although theoretically little was known of the dynamics of structural reforms, the fate of these liberalizations often depended on implementing a package that included an appropriate speed and sequencing of the reforms. With regard to the issue of speed, no unique policy conclusion was obtained, while there was widespread agreement that the most appropriate sequencing of reform would postpone capital account liberalization until the trade reform was completed. The reasons for this recommendation were related to the effects on the real exchange rate of alternative components of the structural reforms; adjustment costs and political economy considerations; and welfare considerations.

Deepak Lal (1986), however, maintained a dissenting view, arguing that a free-floating exchange rate would be an important—indeed crucial—component of a liberalized or reformed economy. Since an important requirement for having a genuine floating system is to have, at least to some extent, a convertible currency, Lal argued that the appropriate order would imply opening up the capital account before reforming micro decisions through the reduction of import tariffs. Later, Sell (1988) developed a simple formal framework to analyze this issue. He used Dornbusch's (1974) three-good model (with exportable, nontradable, and importable goods) to investigate the way in which tariff reform affects other relative prices and the equilibrium real exchange rate. As in Dornbusch's original discussion, he found that the degree of substitutability (or complementarity) between the three goods is an important determinant of the way the tariff reform will affect the equilibrium real exchange rate. He argues that because in theory a trade liberalization can result in either a real depreciation or a real appreciation, it is convenient to adopt a floating exchange rate before the trade reform is initiated. Sell, then, sides with Lal arguing in favor of the capital-account-first sequencing.

The 1986 World Bank conference on labor markets and trade, organized by C. Lluch and R. Klinov, dealt specifically with the role of labor market distortions in structural reforms. The studies presented at this conference emphasized the potential unemployment effect of structural reforms and discussed possible ways to reduce this problem, including retraining grants, deindexation of wages, and dismantling of other rigidities in the labor market. Edwards (1988a) argued that a gradual trade reform would generally reduce unemployment dislocations. The other papers delivered at this conference did not, however, tackle the issue of the sequencing of reform.

In an important World Bank study on trade and industrial policy in East Asia, Bhattacharya and Linn (1988) briefly dealt with the appropriate order of reforms. In a nutshell they have argued that (1) goods sectors should be liberalized before financial sectors; (2) domestic financial markets should be liberalized before opening the capital account; and (3) barriers to international trade should be removed before lifting capital controls.

The influential project directed by Michaely, Choksi, and Papageorgiou (1991) has recently reviewed the liberalization episodes of nineteen countries. In the synthesis of this study, the authors highlight a number of very important facts. First, the authors found that macroeconomic instability was the single most important cause behind reversal of trade reforms. Second, in these countries trade related structural reforms generated no significant unemployment consequences. And third, those countries that could not sustain a trade liberalization process corresponded to those nations that had experienced a significant real exchange rate appreciation. An accompanying study dealing with a smaller number of countries—Argentina, Chile, Uruguay, and Colombia—confirmed the view that capital inflows usually result in real exchange rate appreciation as capital outflows usually result in depreciation. These findings, then, lend additional support to the view that argues for postponement of capital account deregulation on the grounds that this policy induces real exchange rate overvaluation and loss of competitiveness in the tradables sector.

Studies funded by the IMF have also dealt with some sequencing issues. Khan and Zahler (1983, 1985, 1987) provide an early and insightful analysis of these issues. They constructed a simulation model to analyze the consequences of alternative liberalization sequencings. As in Frenkel's discussions (1982, 1983), their model assumes that financial markets adjust much faster than goods markets. They found that over the long run, alternative sequencings of liberalization did not make significant differences in terms of the behavior of real output and relative prices. Another important finding of these studies is that a consistent macroeconomic policy is imperative in any reform aimed at liberalizing the current and capital accounts. In an IMF Occasional Paper, Corden (1987) also addresses the question of the appropriate sequencing of structural reform in the LDCs and concludes that "opening up the domestic capital market to the world is likely to make it more difficult to manage the exchange rate." As a consequence, this will "present problems if it is desired to fine tune the exchange rate as part of a major trade liberalization." Thus, argues Corden, the adequate sequencing should postpone the liberalization of the capital account until the trade reform has been consolidated (Cordon 1987, p. 23).

In a more recent effort from the IMF, Bhandari (1989) has developed a model with well-developed real and financial sectors to explicitly analyze the issue of the adequate liberalization sequencing. Contrary to other authors, Bhandari models capital controls using a dual exchange rate regime characterized by a fixed nominal rate for commercial transactions and a freely fluctuating rate for financial transactions. He argues that an appropriate criterion for selecting one sequencing over another is the way the economy's degree of competitiveness evolves. He then shows that in his model almost anything can happen and, thus, that "if the policymakers' preference function is defined in terms of the adjustment of prices—output and the commercial real exchange rate—it is clear that a general unqualified statement regarding the sequencing of commercial versus financial reform is not available'' (p. 3).

Macroeconomic Effects of Alternative Sequencings

More recently, and partially as a consequence of the collapse of communism, a new dimension has been added to the policy debate on the sequencing of liberalization in the developing countries. A number of authors, and certainly the multilateral institutions, have investigated the interaction between structural reforms and macroeconomic stabilization programs. Most contributions to this emerging literature have dealt with the sequencing of stabilization and liberalization policies, discussing whether liberalization should be undertaken before, simultaneously, or after disinflation is attained. As can be seen in Table 1, this literature has provided a number of insights and a myriad of policy recommendations that go from ''liberalize first'' to ''stabilize first.''

Those authors that favor the liberalize-first strategy or the simultaneous implementation of both policies include Krueger (1981, 1984, 1988), Michaely (1987), and Corden (1987). They argue that there is little connection between disinflation and liberalization policies, and that the costs of trade restrictions are too high to justify the postponement of liberalization until the macroeconomy has regained equilibrium. They are careful to point out, however, that in order to ensure the success of the trade reform, it is crucial to avoid real exchange rate overvaluation.

The supporters of the stabilization-first sequence include Sachs (1987, 1988), McKinnon (1984), and Fischer (1986, 1987). They have based their views on a number of considerations, including the historical difficulty of avoiding overvaluation in countries with high fiscal deficits and the relationship among inflation, relative price variability, and resource allocation.

A limitation of much of this literature, however, is that it is very general and no systematic attempt has been made to analyze the historical evidence. Moreover, most of these studies have not made a clear distinction among different degrees of trade reform, different

TABLE 1 A Schematic View of the Literature on the Sequencing of Stabilization and Trade Liberalization

1. Trade Liberalization First

1981, Krueger. If there are foreign funds available, tariffs can be reduced without an accompanying real depreciation, helping the stabilization effort by providing an anchor for many domestic prices.

2. Simultaneous Implementation of Both Policies

1981, Krueger. In theory there is very little connection between the determinants of inflation and of the orientation of the trade regime. It is possible to attack both problems at the same time as long as we avoid real overvaluation.

1984, Krueger. Postponement of liberalization implies prolonging inefficiency costs. Implement both policies simultaneously, following crawling peg and assuming that the government will not resort to controls in an effort to curb inflation.

1987, Michaely. Liberalization will only succeed with a depreciated real exchange rate. This requires solving fiscal deficit pressures simultaneously.

1987, Corden. As long as overvaluation is avoided it is possible to carry on both policies at the same time.

3. Stabilization First

1981, McKinnon and Mathieson. Liberalization will have a better chance of succeeding if undertaken with a fiscal surplus. In this way we can assure that we will maintain a depreciated real exchange rate.

1984, McKinnon. The main problem with aborted liberalizations is that they have been accompanied by massive capital inflows that resulted in real appreciation. The best way to avoid the need for foreign funds is to achieve fiscal surplus before liberalizing.

1986, 1987, Fischer. Since inflation generates serious distortions, liberalization will take place under inappropriate signals. Thus, inflation should be brought down first.

1987, 1988, Sachs. Both policies result in a "competition of instruments," where what is required to succeed in one front is the opposite of what is needed to succeed in the other. Historical evidence from successful Asian exporters suggests that stabilization should be consolidated before attempting trade reforms.

initial conditions, or different initial types of macroeconomic disequilibria. There is little doubt, however, that the answer to this sequencing question will depend greatly on the extent of the initial macroeconomic disequilibrium and other distortions. In fact, the problems faced by policymakers will be vastly different in countries with low or medium rates of inflation than in those that are experiencing high to very high rates of inflation. This is because, first, higher inflation is usually associated with higher relative price volatility and, thus, greater uncertainty. This, in turn, affects investment incentives and resource reallocation, making liberalization in highly inflationary countries a somewhat risky proposition. Second, large macroeconomic disequilibria will usually have effects on the structure of protection; as macroeconomic pressures mount, most countries will hike tariffs and impose trade, exchange, and capital controls in an effort to slow down the outflow of reserves. These trade restrictions that respond to inconsistent macropolicies are sometimes called balance of payments motivated controls. In these cases, then, the ability to reduce the extent of external restrictions will be related to the progress made in controlling macroeconomic pressures. Finally, it is important to note that the costs associated with a stabilization program will depend directly on the initial magnitude of the macroeconomic disequilibrium; ending high inflation is usually a more difficult, protracted, and costly enterprise than defeating mild inflation (see Edwards 1989e).

A recent evaluation of the World Bank's structural adjustment loans (SALs) suggests that two of the most important determinants of a successful trade liberalization reform are the control of the fiscal deficit and the behavior of the real exchange rate.[8] This study shows that those countries that failed to make progress on their trade reform goals were also those that were unable to implement a real depreciation. The examination of trade liberalization attempts under the sponsorship of the World Bank's SALs also suggests that investment behaves very differently in successful and unsuccessful countries. Those countries that met their liberalization goals experienced major surges in investment, and those that failed in opening up their economies experienced significant drops in investment.[9] For successful liberalizers the ratio of investment to GDP was 20.9 percent three years before the reform and 29.4 percent three years after the reform. On the other hand, in the case of unsuccessful countries these figures were 28.4 percent and 19.7 percent respectively.

When dealing with the interaction between liberalization and stabilization policies, it is important to clearly specify the extent of macroeconomic disequilibrium that the country is facing. This will largely dictate the most desirable policy package, including the sequencing of different measures.

Liberalization and macroeconomic adjustment in countries with mild rates of inflation. Most Asian nations have traditionally had low or medium levels of inflation (up to 30 percent per annum). Under these conditions there are, at best, modest tradeoffs between stabilization and liberalization programs. In these cases the distortionary effects of inflation, although high, are not staggering; fiscal deficits are not overwhelming; indexation has not taken over all transactions; and the structure of protection basically responds to resource allocation motives and not to balance of payments pressures. As Anne Krueger (1981) pointed out more than a decade ago, under these circumstances, and as long as real exchange rate misalignment is avoided, there are no reasons to postpone liberalization until the macroeconomic disequilibria are defeated. In fact, a number of measures related to the liberalization itself may help the effort to bring down inflation. First, replacing quotas with tariffs will increase government revenues, helping to reduce the fiscal deficit and its concomitant inflationary pressures. Second, the reduction of tariffs will in itself contribute to the anti-inflationary effort by putting downward pressure on the domestic price of imported goods.

Avoiding real exchange rate misalignment during the disinflation process is undoubtedly the most important aspect of trade reform undertaken in these types of countries. More specifically, since more liberal trade regimes will require a more depreciated equilibrium real exchange rate than more distorted regimes, the authorities should make sure that this real depreciation indeed takes place. Depending on the initial level of inflation and on the ability to implement corrective macropolicies, the new (more depreciated) real exchange rate could be accomplished through a stepwise nominal devaluation or a crawling peg. In nations with relatively low rates of inflation, a stepwise nominal devaluation may be enough to achieve the new equilibrium level for the real exchange rate. In those countries with a medium rate of inflation (from 20 percent to 40 percent per annum), however, a pragmatic crawling peg is the most appropriate route.[10] As shown in Edwards (1989e) this has indeed been the case in most of those countries that have successfully implemented trade reforms while controlling inflation under the auspices of World Bank Trade Adjustment Loans in the 1980s.

The existence of a foreign debt overhang adds a number of complications to the design of trade reforms, and in particular to their interaction with macroeconomic stabilization. Although these difficulties are particularly acute in the presence of high and very high rates of inflation, they also exist in mildly inflationary contexts. In the first place, the debt crisis altered the initial conditions from which the structural reforms had to be initiated. This is because many countries initially responded to the crisis by compressing imports through higher trade restrictions. Second, under crisis conditions larger real devaluations are required in order to generate a higher positive external transfer. These devaluations, in turn, will put pressure on the fiscal deficit by increasing the domestic currency cost of servicing the foreign debt. Third, under these circumstances the public will generally be skeptical about the sustainability of the proposed trade reform. As a consequence of this, the lowering of protection can—and usually will—result in very large increases in imports (especially of spare parts, intermediate inputs, and consumer durables), which will worsen the trade balance. Fourth, the existence of a large debt overhang implies that there would be very few, if any, incentives to increase investment. This, of course, negatively affects the chances of success of the liberalization program. In fact, recent evidence indicates that even in those countries that have received World Bank assistance for undertaking reform, the investment ratio has remained rather low.

Stabilization and structural adjustment in countries with medium and high rates of inflation. In the case of countries with high rates of inflation, however, a prudent strategy is to proceed more slowly. Initially, while the process of controlling the fiscal deficit is underway and inflation has not been fully subdued, it is advisable to eliminate at least some of the controls and external distortions. In particular, at this stage it is usually desirable to tackle those restrictions that were imposed solely for balance of payments motives. More drastic trade reform measures (that is, those dealing with restrictions originally imposed for resource allocation motives) should generally be postponed until macroeconomic equilibrium is achieved.

The main rationale behind the above recommendation has to do with the competition-of-instruments problem. In a highly inflationary context some policy measures that are conducive to attaining macroeconomic stability will tend to hinder the liberalization goals. In fact, one of the most important sources of tension between stabilization and liberalization programs resides in the fact that a successful liberalization requires a real exchange rate depreciation, while disinflation has often resulted in an appreciation of the real exchange rate (Edwards 1989b). Historically, the episodes of disinflation with real exchange rate appreciation have mainly been a result of stabilization programs that relied on some form of fixed nominal exchange rates to provide an anchor to expectations and domestic prices.

An important second source of competition of instruments refers to the role that tariffs play as a revenue source in the developing countries. In many cases the elimination of tariffs will result in a decline in tax revenues and, thus, in an increase in the fiscal deficit, putting positive pressure on inflation. In countries with a large public debt there is a third potential source of conflict. If liberalization is accompanied by a real devaluation—which is the recommended policy from the perspective of the external sector—the real cost of servicing the debt will increase, putting more pressure on the deficit and jeopardizing the inflationary goals.

As the level of inflation becomes higher and higher, the possibility of major trade-offs between the goals of stabilization and trade reform increases. In addition to the real exchange rate trade-off discussed earlier, in the case of very rapid rates of inflation (above 100 percent per annum), three other sources of conflict between the goals of the two policies, related to relative price variability, interest rate behavior, and wage rate indexation, can play a very important role. As Fischer (1986, 1987) has emphasized, an important consequence of rapid inflation is that relative prices become highly variable. This enhances the degree of uncertainty in the economy and has a negative impact on investment decisions. The process of sectoral allocation of capital can, indeed, be seriously disrupted with some investment flows going into the wrong sectors. In fact, a recent empirical investigation has found

TABLE 2 Macroeconomics and Trade Liberalization Policies: Some Policy Recommendations for the LDCs

	Devaluation	Replace QRs with tariffs	Restrictions motivated by balance of payments	Resource allocation protection levels
1. Mild inflation (≤ 35%)	Yes. Stepwise devaluation may be advisable. Care should be taken that real exchange rate is devalued in an amount called for by liberalization.	Yes. This will generally improve revenues and help to reduce the fiscal deficit.	Usually nonexistant or very low.	Can be reduced independently of stabilization policies. Care should be taken, however, in replacing tariffs as revenue devices.
2. High inflation (50%–100%)	Yes. Crawling peg should be adopted. In some cases this could follow a major stepwise devaluation aimed at correcting misalignment.	Yes.	Should be reduced simultaneously with stabilization.	Should be postponed until the most pressing macro pressures subside. In some cases the tax system should be reformed.
3. Very high inflation (> 100%)	In some cases a large stepwise devaluation followed by a fixed rate may be advisable (hyperinflations). In other cases a crawling peg will be more advisable.	Yes.	In some cases their reduction should be postponed until some macro order is regained. In others, some restrictions can be reduced simultaneously with stabilization.	Should be postponed until macroequilibrium is attained. Revenue considerations will be important in some countries.

NOTE: QR = quantitative restriction.
SOURCE: Edwards 1989e.

that those countries with higher variability of the relative price of tradables to nontradables have tended to have a lower aggregate investment ratio than those nations with more stable relative prices (Edwards 1989e). This suggests that the liberalization objectives may be hindered if the reform is attempted before the macroeconomy has been stabilized. Consequently, a number of authors, most notably Stanley Fischer, have argued that under conditions of very high inflation, liberalization reforms should be postponed until the macroeconomic environment has regained its stability.

Table 2, taken from Edwards 1989e, provides a summary of the policy implications regarding the sequencing of micro reforms and macro stabilization. Most Asian nations fall in the first category of mild inflation. This means that for these countries there is only a tenuous relationship between macro and micro reforms; under most circumstances the latter can be undertaken somewhat independently of the macro situation. This does not mean, however that the basic budget constraints, or the real exchange rate equilibrium, for that matter, can be violated. In fact, if this does happen it is highly likely that serious credibility problems will evolve, eventually harming the sustainability of the macro reforms.

The Southern Cone Episodes in the 1970s and 1980s and the Sequencing of Structural Reforms

Although literature on structural reforms in the LDCs has been quite rich in analytical insights, relatively little empirical work of a statistical nature has been undertaken on the subject. In terms of ex-post explanations of the outcome of reforms, a considerable number of authors have discussed the experiences of Argentina, Chile, and Uruguay. Some of the works in this area include those of McKinnon (1982), Harberger (1982), Dornbusch (1983, 1985), Calvo (1983, 1986), Corbo and de Melo (1985, 1987), Balassa (1982a,b), Edwards (1985, 1986), and Edwards and Cox-Edwards (1991). The Chilean experiment offers some important lessons for the sequencing debate. First, this episode shows that the destabilizing effects of massive capital movements are much greater than what most observers initially thought. With hindsight we can say that in the Chilean case it would have been advisable to distance the two reforms even more.

More generally, the Chilean experiment suggests that in countries whose initial conditions resemble those in Chile in the mid-1970s, the capital account should be opened rather slowly and after sufficient time has elapsed since the completion of the trade reforms. Of course, it is not possible to state in a precise fashion what "sufficient time" means. Policy makers, however, should monitor real exchange rate movements and external sector behavior when deciding how and when to relax controls on capital movements. Second, the Chilean experiment clearly shows that the destabilizing effects of massive capital movements are greatly magnified in the presence of other distortions such as legally imposed real wage rigidities. Third, this experience highlights the crucial role of credibility in the success of an economic reform. As was said before, if the public believes that the reform attempt will be reversed, it will act accordingly and may even be able to entirely frustrate the reform process.

In the Chilean case the combination of marked real exchange rate overvaluation and the government's passive macroeconomic policy undermined the public's belief in the maintenance of both the exchange rate and tariff policies. In fact, it is in the credibility sphere where the most important lesson on the sequencing of liberalization lies. In a sense, the implementation of a consistent and credible policy package turns out to be more important than determining the correct order of liberalization (see Edwards and Cox-Edwards 1991).

It is interesting to note that ten years after the inception of the debt crisis, many Latin American countries are once again facing large inflows of capital that are putting strong pressure toward appreciating real exchange rates. In fact, the appreciation of the real exchange rate—and the concomitant loss in competitiveness—is one of the most serious problems faced by many Latin American countries in early 1992. This problem has become particularly severe in Argentina, Chile, Colombia, and Mexico.

The experiences of the Southern Cone have been used in policy evaluation and design in other countries. For example, some authors have argued that in order to avoid the fate of the Southern Cone, Korea should postpone the opening of the capital account. Although at this time there are no written accounts available to the public, policy makers in Ecuador, Bolivia, and Mexico have seriously studied the existing Southern Cone literature to design their structural reform policies.

Summary

The survey presented in this paper reflects the large amount of work and energy being devoted to analyzing sequencing issues within the context of the LDCs' economies. Some of the insights developed in these papers are clearly of interest for both the Eastern European countries and the economically more advanced nations. First, the idea of competition of instruments, which is closely related to the concept of "policy dilemma" developed in the 1960s, has a universal application. Second, the preoccupation with the real exchange rate as a crucial relative price is also relevant for the industrialized countries as well as for the post-socialist countries trying to reform their economies. Indeed an important point recently made by a number of authors, including Dornbusch, Williamson, and Feldstein, is that real exchange rate disequilibria—or real exchange rate misalignments—can be very costly for the developed nations.

NOTES

1. This paper pulls together, and draws on, some of the work I have been doing on the subject over the past ten years or so. See the references for a list of some of these works.

2. Krueger 1981 and 1984.

3. See also McKinnon's (1973) classical study on financial dependency in the LDCs.

4. The key here is the assumption that capital controls are precluding capital inflows. This, of course, need not be the case. Moreover, it will not be the case in those countries where the domestic financial sector is repressed. Thus, the proposed sequencing assumes that the domestic financial sector is liberalized before either the trade or the capital account. On this subject see, for example, Mathieson and McKinnon 1981 and Edwards 1984.

5. See, for example, the discussion in the collection of papers in Clague and Rausser 1992.

6. The fact that capital inflows result in a real exchange rate appreciation has been investigated extensively within the context of the Dutch-disease effects of foreign aid. See, for example, van Wijnbergen (1986).

7. See, for example, Little, Scitovsky, and Scott 1970 and Michaely 1982 and 1987.

8. A large percentage of World Bank SALs include trade liberalization as a condition for fund disbursements. The paper by Edwards (1989e), which served as background for a World Bank trade policy study, dealt with twenty-four countries that received SALs between 1979 and 1985. The countries included in that study are Chile, the Republic of Korea, Jamaica, Mauritius, Mexico, Turkey, Bangladesh,

Colombia, Côte d'Ivoire, Ghana, Kenya, Madagascar, Morocco, Panama, the Philippines, Senegal, Guyana, Malawi, Pakistan, Thailand, Togo, Yugoslavia, Zambia, and Zimbabwe.

9. It should be noted, however, that it is not possible to know exactly the extent to which the drop in investment is due to the macro disequilibrium.

10. Edwards (1989a) provides a comparison of the outcomes of eleven stepwise devaluations and seven crawling peg devaluations in Latin America.

BIBLIOGRAPHY

Aizenman, Joshua, and Jacob A. Frenkel. 1986. "Wage Indexation, Supply Shocks, and Monetary Policy in a Small, Open Economy," in S. Edwards and L. Ahamed, eds., *Economic Adjustment and Exchange Rates in Developing Countries*. Chicago, Ill.: University of Chicago Press.

Balassa, Bela. 1980. "The Process of Industrial Development and Alternative Development Strategies." *Princeton Essays in International Finance* no. 141, December. Princeton, N.J.: Princeton University Press.

____. 1982a. *Development Strategies in Semi-Industrial Economies*. Oxford, U.K.: Oxford University Press.

____. 1982b. "Structural Adjustment Policies in Developing Countries." *World Development* 10, 114–36, January.

____. 1987a. "The Interaction of Domestic Distortions with Development Strategies." Discussion Paper no. 249. World Bank Development Research Department, February.

____. 1987b. "The Effects of Exchange Rate Changes in Developing Countries." Discussion Paper no. 291. World Bank Development Research Department, May.

Bhagwati, Jagdish. 1978. *Anatomy and Consequences of Exchange Control Regimes*. New York: National Bureau of Economic Research.

____, ed. 1982. *Import Competition and Response*. Chicago, Ill.: University of Chicago Press.

____. 1988. "Export Promoting Trade Strategy: Issues and Evidence," *World Bank Research Observer* 3, January.

Bhandari, Jagdeep. 1989. "Trade Reform Under Partial Currency

Convertibility: Some Suggestive Results." IMF Staff Papers 36: 494–513, June.

Bhattacharya, A., and J. Linn. 1988. "Trade and Industrial Policies in the Developing Countries of East Asia." World Bank Discussion Paper no. 27. Washington, D.C.

Blejer, Mario, and Silva Sagari. 1987. "The Structure of the Banking Sector and the Sequencing of Financial Liberalization," in M. Connolly and C. Gonzalez-Vega, eds., *Economic Reform and Stabilization in Latin America.* New York: Praeger.

Brecher, Richard, and Jagdish Bhagwati. 1982. "Immiserizing Transfers from Abroad." *Journal of International Economics* 13: 353–64, August.

Brecher, Richard, and Carlos Díaz-Alejandro. 1977. "Tariffs, Foreign Capital and Immiserizing Growth." *Journal of International Economics* 7: 317–22, November.

Calvo, Guillermo A. 1978. "On the Time Consistency of Optimal Policy in a Monetary Economy." *Econometrica* 46: 1411–28.

——. 1983. "Trying to Stabilize: Some Theoretical Reflections Based on the Case of Argentina," in P. Aspe, et al., eds., *Financial Policies and the World Capital Markets.* Chicago, Ill.: University of Chicago Press.

——. 1986. "Fractured Liberalism: Argentina Under Martinez de Hoz." *Economic Development and Cultural Change* 34, no. 3: 511–33, April.

——. 1987. "On the Costs of Temporary Liberalization/Stabilization Experiments," in M. Connolly and C. Gonzalez-Vega, eds., *Economic Reform and Stabilization in Latin America.* New York: Praeger.

——. 1988. "Servicing Public Debt: The Role of Expectations." *American Economic Review* 18, September.

Choksi, Armeane, and Demetris Papageorgiou, eds. 1986. *Economic Liberalization in Developing Countries.* Oxford, U.K.: Basil Blackwell.

Clark, Paul. 1986. "Step-by-Step Liberalization of a Controlled Economy: Experience in Egypt." Unpublished manuscript.

Clague, C. K., and G. Rausser, eds. 1992. *The Emergence of Market Economies in Eastern Europe.* Oxford, U.K.: Basil Blackwell.

Cline, William R. 1983. *Trade Policy in the 1980s*. Washington, D.C.: Institute for International Economics.

Connolly, Michael, and J. McDermott, eds. 1985. *The Economics of the Caribbean Basin*. New York: Praeger.

Cooper, Richard N. 1971. "Currency Devaluation in Developing Countries." *Princeton Essays in International Finance* 86. Princeton, N.J.: Princeton University Press, June.

Corbo, Vittorio. 1987. "The Use of the Exchange Rate for Stabilization Purposes: The Case of Chile," in M. Connolly and C. Gonzalez-Vega, eds., *Economic Reform and Stabilization in Latin America*. New York: Praeger.

Corbo, Vittorio, and Jaime de Melo. 1985. "Liberalization and Stabilization in the Southern Cone of Latin America: Overview and Summary." *World Development* 13: 5–15, August.

———. 1987. "Lessons from the Southern Cone Policy Reforms." *The World Bank Research Observer* 2: 111–42.

Corden, W. Max. 1987. "Protection and Liberalization: A Review of Analytical Issues." IMF Occasional Paper 54, Washington, D.C., August.

Corden, W. Max, and R. Findlay. 1975. "Urban Unemployment, Intersectoral Capital Mobility and Development Policy." *Economica* 42: 59–78.

Cox-Edwards, Alejandra. 1986. "Economic Reform, External Shocks and the Labor Market: Chile 1974–1983." Paper presented at the World Bank Conference on Adjustment of Labor Markets in LDCs, June.

Cuddington, John T. 1986. "Capital Flight: Estimates, Issues and Explanations." *Princeton Studies in International Finance*, no. 58. Princeton, N.J.: Princeton University Press.

Cukierman, Alex, S. Edwards, and G. Tabellini. 1989. "Political Instability and Seignorage." Paper presented at the National Bureau of Economic Research (NBER) Conference on Political Economy.

de Melo, Jaime. 1987. "Financial Reforms, Stabilization, and Growth under High Capital Mobility: Uruguay 1974–1983," in M. Connolly and C. Gonzalez-Vega, eds., *Economic Reform and Stabilization in Latin America*. New York: Praeger.

Dervis, Kemal, Jaime de Melo, and Sherman Robinson. 1981. "A

General Equilibrium Analysis of Foreign Exchange Shortages in a Developing Economy." *Economic Journal*, December.

Díaz-Alejandro, Carlos F. 1975. "Trade Policies and Economic Development," in P. B. Kenen, ed., *International Trade and Finance: Frontiers for Research*. Cambridge, U.K.: Cambridge University Press.

———. 1981. "Southern Cone Stabilization Plans," in W. R. Cline and S. Weintraub, eds., *Economic Stabilization in Developing Countries*. Washington, D.C.: Brookings Institution.

———. 1987. "Good-bye Financial Repression, Hello Financial Crash." *Journal of Development Economics* 19: 1–24, January.

Dornbusch, Rudiger. 1974. "Tariffs and Nontraded Goods." *Journal of International Economics*: 177–85, August.

———. 1983. "Remarks on the Southern Cone." *IMF Staff Papers* 30: 173–76, March.

———. 1985. "External Debt, Budget Deficits, and Disequilibrium Exchange Rates," in G. Smith and J. Cuddington, eds., *International Debt in the Developing Countries*. Washington, D.C.: World Bank.

———. 1988. "Notes on Credibility and Stabilization." MIT Working Paper. Cambridge, Mass.: Massachusetts Institute of Technology.

Edwards, Sebastian. 1984a. "The Order of Liberalization of the External Sector in Developing Countries." *Princeton Essays in International Finance*, no. 156, December. Princeton, N.J.: Princeton University Press.

———. 1984b. "Implications of Alternative International Exchange Rate Arrangements for the Developing Countries," in H. Vosgerau, ed., *New Institutional Arrangements for the World Economy*. New York: Springer-Verlag.

———. 1985. "Stabilization with Liberalization: An Evaluation of Ten Years of Chile's Experience with Free Market Policies." *Economic Development and Cultural Change* 33: 223–54, January.

———. 1986. "Monetarism in Chile, 1973–1983: Some Economic Puzzles." *Economic Development and Cultural Change* 34: 535–59, April.

———. 1987. "Sequencing of Economic Liberalization in Developing Countries." *Finance and Development*: 26–29, March.

———. 1988a. "Terms of Trade, Tariffs and Labor Market Adjustment in Developing Countries." *World Bank Economic Review* 2: 165–85.

———. 1988b. "Structural Adjustment in Highly Indebted Countries," in J. Sachs, ed., *The Developing Countries Debt Crisis*. Chicago, Ill.: University of Chicago Press.

———. 1989a. *Real Exchange Rates, Devaluation and Adjustment: Exchange Rate Policy in Developing Countries*. Boston, Mass.: MIT Press.

———. 1989b. "Tariffs, Capital Controls, and Equilibrium Real Exchange Rates." *Canadian Journal of Economics* 22: 79–92, February.

———. 1989c. "Temporary Terms of Trade Disturbances, Real Exchange Rates and the Current Account." *Economica* 56: 343–57, August.

———. 1989d. "On the Sequencing of Structural Reforms in Developing Countries." NBER Working Paper no. 3138, October.

———. 1989e. "Stabilization, Macroeconomic Policy and Trade Liberalization." Background paper prepared for the Country Economics Trade Policy (CECTP) Division of the World Bank, January.

———. 1992. "Agriculture and the Sequencing of Structural Adjustment: A Welfare Perspective," in I. Goldin and L. D. Winters, eds., *Structural Adjustment and the Agriculture Sector*. Cambridge, U.K.: Cambridge University Press.

Edwards, Sebastian, and Alejandra Cox-Edwards. 1991. *Monetarism and Liberalization: The Chilean Experiment*. Chicago, Ill.: University of Chicago Press.

Edwards, Sebastian, and Sweder van Wijnbergen. 1983. "The Welfare Effects of Trade and Capital Market Liberalization: Consequences of Different Sequencing Scenarios." NBER Working Paper no. 1245, December.

———. 1986. "The Welfare Effects of Trade and Capital Market Liberalization." *International Economic Review* 27: 141–48, February.

———. 1987. "Tariffs, the Real Exchange Rate and the Terms of Trade: On Two Popular Propositions in International Economics." *Oxford Economic Papers* 39: 458–64.

Fischer, S. 1986. "Issues in Medium-Term Macroeconomic Adjustment." *World Bank Observer,* July.

———. 1987. "Economic Growth and Economic Policy," in V. Corbo, M. Goldstein, and M. Khan, eds., *Growth-Oriented Adjustment Programs.* Washington, D.C.: IMF and the World Bank.

Frenkel, Jacob A. 1982. "The Order of Economic Liberalization: A Comment," in K. Brunner and A. H. Meltzer, eds., *Economic Policy in a World of Change.* Amsterdam, the Netherlands: North-Holland.

———. 1983. "Remarks on the Southern Cone." *IMF Staff Papers* 30: 164–73, March.

Harberger, Arnold. 1971a. "Three Basic Principles on Applied Welfare Economics." *Journal of Economic Literature* 9, September.

———. 1971b. "On Measuring the Social Opportunity Cost of Labor." *ILO Review* 103, no. 6: 559–79.

———. 1982. "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, the Netherlands: North-Holland.

Khan, Mohsin S. 1987. "Macroeconomic Adjustment in Developing Countries: A Policy Perspective." *World Bank Research Observer* 2: 23–42, January.

Khan, Mohsin S., and Roberto Zahler. 1983. "The Macroeconomic Effect of Changes in Barriers to Trade and Capital Flows: A Simulation Analysis." *IMF Staff Papers* 30: 223–82, June.

———. 1985. "Trade and Financial Liberalization Given External Shocks and Inconsistent Domestic Policies." *IMF Staff Papers* 32: 22–55, March.

———. 1987. "The Liberalization of Trade and Capital Flows in Developing Countries: Some Theoretical and Empirical Issues," in M. Connolly and C. Gonzalez-Vega, eds., *Economic Reform and Stabilization in Latin America.* New York: Praeger.

Kiguel, Miguel A., and Jose S. Lizondo. 1987. "Theoretical and Policy Aspects of Dual Exchange Rate Systems." World Bank Discussion Paper DRD201.

Kim, K. S., and D. F. Ruccio, eds. 1985. *Debt and Development in*

Latin America. Notre Dame, Ind.: University of Notre Dame Press.

Krueger, Anne O. 1978. *Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences*. New York: National Bureau of Economic Research.

———. 1981. "Interactions Between Inflation and Trade-Regime Objectives in Stabilization Programs," in W. R. Cline and S. Weintraub, eds., *Economic Stabilization in Developing Countries*. Washington, D.C.: Brookings Institution.

———. 1984. "Problems of Liberalization," in A. Harberger, ed., *World Economic Growth*. San Francisco, Calif.: ICS Press.

———. 1985. "How to Liberalize a Small Open Economy?" in M. Connelly and J. McDermott, eds., *The Economics of the Caribbean Basin*. New York: Praeger.

———. 1988. "Resolving the Debt Crisis and Restoring Developing Countries' Creditworthiness." Paper presented at the Carnegie-Rochester Public Policy Conference, University of Rochester, April.

———. 1990. "Capital Movements and Trade in a Dynamic Perspective." Paper presented at the Kiel Conference on Capital Flows.

Lal, Deepak. 1985. "The Real Aspects of Stabilization and Structural Adjustment Policies: An Extension of the Australian Adjustment Model." World Bank Staff Working Paper no. 636, March.

———. 1986. "Comment," in A. Choksi and D. Papageorgiou, eds. *Economic Liberalization in Developing Countries*. Oxford, U.K.: Basil Blackwell.

Lal, Deepak, and Sarah Rajapatirana. 1987. "Foreign Trade Regimes and Economic Growth in Developing Countries." *World Bank Research Observer* 2: 189–218, July.

Leamer, Edward E. 1980. "Welfare Computations and the Optimal Staging of Tariff Adjustments in Models with Adjustment Costs." *Journal of International Economics* 10: 21–36, February.

Little, Ian, Tibor Scitovsky, and Maurice Scott. 1970. *Industry and Trade in Some Developing Countries: A Comparative Study*. Oxford, U.K.: Oxford University Press.

McKinnon, Ronald I. 1973. *Money and Capital in Economic Development*. Washington, D.C.: Brookings Institution.

———. 1982. "The Order of Economic Liberalization: Lessons from Chile and Argentina," in K. Brunner and A. H. Meltzer, eds., *Economic Policy in a World of Change*. Amsterdam, the Netherlands: North-Holland.

———. 1984. "The International Capital Market and Economic Liberalization in LDCs." *The Developing Economies* 22, December.

———. 1991. *The Order of Economic Liberalization*. Baltimore, Md.: Johns Hopkins University Press.

Mathieson, Donald J. 1978. "Financial Reform and Capital Flows in a Developing Economy." *IMF Staff Papers* 25: 450–89. September.

Mathieson, Donald J., and R. McKinnon. 1981. "How to Manage a Repressed Economy." *Princeton Essays in International Finance*, no. 145. Princeton, N.J.: Princeton University Press, December.

Mayer, Wolfgang. 1974. "Short Run and Long Run Equilibrium for a Small Open Economy." *Journal of Political Economy* 82.

Michaely, Michael. 1977. "Exports and Growth: An Empirical Investigation." *Journal of Development Economics* 4: 49–54, March.

———. 1982. "The Sequencing of Liberalization Policies: A Preliminary Statement of Issues." Unpublished paper.

———. 1987. "Trade Liberalization Policies: Lessons of Experience." Washington, D.C.: World Bank.

Michaely, Michael, Armeane Choksi, and D. Papageorgiou. 1991. *Trade Liberalization Policy*. Oxford, U.K.: Basil Blackwell.

Mussa, Michael. 1974. "Tariffs and the Distribution of Income: The Importance of Factor Specificity." *Journal of Political Economy* 82: 1191–203, November.

Neary, Peter. 1978. "Short-Run Capital Specificity and the Pure Theory of International Trade." *Economic Journal* 88: 448–510, September.

———. 1982. "Capital Mobility, Wage Stickiness and the Case for Adjustment Assistance," in J. Bhagwati, ed., *Import Competition and Response*. Chicago, Ill.: University of Chicago Press.

———. 1985. "International Factor Mobility, Minimum Wages and Factor Price Equalization: A Synthesis." *Quarterly Journal of Economics* 100.

Rodriguez, Carlos A. 1983. "Políticas de Estabilización Argentina 1978–1982." *Cuadernos de Economia* 19: 322–40, April.

Rodrik, Dani. 1987. "Trade and Capital Account Liberalization in a Keynesian Economy." *Journal of International Economics* 23, August.

———. 1989. "Liberalization, Sustainability and the Design of Structural Adjustment Programs." Harvard Working Paper #177D, Kennedy School of Government, Harvard University, Cambridge.

Sachs, J. 1987. "Trade and Exchange Rate Policies in Growth-Oriented Adjustment Programs," in V. Corbo, M. Goldstein, and M. Kahn, eds., *Growth-Oriented Adjustment Programs.*" Washington, D.C.: IMF and the World Bank.

———. 1988. "Conditionality, Debt Relief and the Developing Countries' Debt Crisis." NBER Working Paper no. 2644.

Sell, Friedich. 1988. "True Exposure: The Analysis of Trade Liberalization in a General Equilibrium Framework." *Weltwirtschaftliches Archiv* 124, no. 4.

Stockman, Allan. 1982. "The Order of Liberalization: Comment," in K. Brunner and A. Meltzer, eds., *Economic Policy in a World of Change*. Amsterdam, the Netherlands: North-Holland.

van Wijnbergen, Sweder. 1985. "Interdependence Revisited: A Developing Countries Perspective on Macroeconomics Management and Trade Policy in the Industrial World." *Economic Policy* 1: 81–114, November.

———. 1986. "On the Macroeconomic Aspects of Foreign Aid: The Two-Gap Model Revisited." *Journal of International Economics*, July.

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