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THE RUSH TO FREE TRADE IN THE DEVELOPING WORLD:
WHY SO LATE? WHY NOW? WILL IT LAST?

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ABSTRACT

This paper asks why developing country policymakers have been so reluctant to undertake trade reform until the 1980s, and why many of them have embraced open trade policies so wholeheartedly since then. To answer these questions, the paper develops a heuristic index of the "political cost-benefit ratio" (PCBR) of policy reform. The PCBR is a measure of the amount of redistribution of income generated for every dollar of efficiency gain achieved by reform. Judged by this index, trade reform performs very poorly: liberalization typically leads to five dollars of income being reshuffled within the economy for every dollar of net efficiency gain. However, when the liberalization is undertaken at a point of deep macroeconomic crisis and in conjunction with stabilization policies, the value of the PCBR index falls dramatically. This explains why trade reform is politically so difficult in normal times, and why times of crisis provide an opportune moment for undertaking structural reforms. The paper concludes by evaluating the sustainability of the reforms of the 1980s.

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1. Introduction

A paper on the political economy of trade liberalization in developing countries must address at least two puzzles. First, why has trade liberalization in these countries been traditionally so contentious? There is probably no area in economics where professional opinion is so united: warts and all, free trade is seen as superior to protection by the vast majority of the economics profession. The attraction of free trade resides at one level in the theoretical elegance of the principle of comparative advantage--which, as Paul Samuelson once put it, is the only proposition in economics that is at once true and non-trivial.¹ But even when the theory is complicated by second-best considerations under which trade restrictions can become efficiency enhancing, most economists remain in favor of free trade on practical grounds. Yet import-substitution policies relying on trade restrictions have been the orthodoxy among developing country policymakers for much of the post-war period. Until recently, policymakers have systematically resisted advice from academics and lending agencies to open up their economies to international competition.²

The second puzzle has to do with the qualifier in the previous sentence.

1. Samuelson was challenged by a mathematician colleague with disdain for economics to come up with such a proposition, and confesses to being at a loss until he came up with the principle of comparative advantage. That it is true, Samuelson pointed out, need not be explained at great length to a mathematician. That it is non-trivial, he said, was evidenced by the long history of errors committed by individuals who had not understood it.

2. On the general subject of the political economy of policymaking in developing countries, the reader is referred to Bates (1988), Haggard and Webb (1990), Meier (1991), and Rodrik (1992b).

Since the early 1980s, developing countries have flocked to free trade as if it were the Holy Grail of economic development. Turkey, Ghana, Morocco, Bolivia, Mexico, and more recently scores of other countries in Latin America, Asia and Africa have made considerable progress in dismantling their protectionist trade regimes, doing away with import licenses and quantitative restrictions. Argentina and Brazil have begun the same process in the last couple of years. Even India appears to have embarked on the road of trade liberalization after decades of heavy-handed dirigism. Table 1 provides capsule summaries of some of the more significant reforms. Together with the historic transformation and opening of the Eastern European economies, these developments represent a genuine revolution in policymaking. The puzzle is: why now, and why so many countries all at once?

The key to these two puzzles might appear at first to be one and the same. The reasons for the recent conversion to outward orientation must be sought, at least initially, in the dissolution of the forces and motives that led policymakers to resist the reforms in the past. However, I shall argue that this line of reasoning does not take us too far. The reasons for the free-trade bandwagon are more or less sui generis, and derive from the intense, prolonged macroeconomic crisis that surrounded developing countries during the 1980s. This crisis resulted in the overshadowing of the distributional considerations that had blocked trade reform until the 1980s. A combination of special circumstances made governments eventually choose openness over further restrictions, the latter being the "normal" outcome historically during crises brought on by unfavorable external circumstances.

Table 1: Recent Trade Policy Reforms in Selected Developing Countries

Argentina	Tariffs reduced starting in October 1988. Import licensing abolished except for 22 items (vehicles and parts). In 1991, a three-level tariff structure was introduced (zero, 11 percent and 22 percent).
Bolivia	Trade regime is overhauled in 1985, and quantitative restrictions (QRs) are eliminated. As of April 1990, two basic tariff rates exist: 5 percent for capital goods, and 10 percent for others.
Brazil	Major trade reform announced in March 1990 as part of the Collor stabilization package. Almost all QRs are to be phased out and replaced by tariffs. The average tariff was reduced to 25 percent in 1990 (from 37 percent). An average tariff rate of 14 percent is sought by 1994.
Chile	Substantial reform after 1973, with elimination of QRs and a uniform tariff rate of 10 percent (except for motor vehicles) achieved by 1979. The uniform tariff was raised to 35 percent briefly during the macroeconomic crisis of the early 1980s, but was subsequently reduced to 15 percent.
Ghana	Import licensing substantially liberalized and a uniform tariff introduced for most imports.
Indonesia	Continued trade reform since 1986. By end-1988, only around 20 percent of imports (by value) subject to licensing.
Jamaica	QRs eliminated and tariffs lowered to 20-30 percent for most items.
Mexico	Substantial liberalization of QRs since mid-1985. Few import licensing requirements remain. Tariffs reduced to an average of 11 percent by 1988. Maximum rate is 20 percent. Accession to GATT in 1986.
Morocco	Significant reduction in protection since 1983 through the elimination of some QRs and the reduction of tariff rates. Maximum tariff reduced from 400 percent to 45 percent.
Nigeria	Trade liberalization initiated in 1986. Import licensing system reformed and substantial cuts undertaken in tariffs.

(continued on next page)

Table 1: Recent Trade Policy Reforms in Selected Developing Countries (cont.)

Pakistan	In July 1988, a reform program initiated providing for a shift from non-tariff measures to tariffs. Import licensing eliminated for wide range of products. Maximum tariff reduced to 125 percent (from 225 percent).
Peru	The newly elected Fujimori government embarked on a stabilization package in August 1990, including substantial trade reform. All QRs were eliminated, and the tariff system was simplified to include three rates (15%, 25%, and 50%) only. In March 1991, the top rate was reduced to 20%.
Senegal	Most QRs removed during 1986-88; selective reductions in tariffs.
Tunisia	Licensing removed from more than one half import items by mid-1990. Maximum tariff reduced to 43 percent (from 220 percent).
Turkey	General trend towards liberalization since 1980. Substantial liberalization of QRs and licensing procedures.
Venezuela	Comprehensive import liberalization introduced in 1989. Most import prohibitions abolished and tariffs reduced to a maximum rate of 50 percent (from 80 percent). Accession to GATT in 1990.

Sources: Whalley (1989), Williamson (1990), World Bank (1989), UNCTAD (1991), and national sources.

The reasons that developing countries initially adopted import-substitution policies and widespread trade restrictions are well known. Such restrictions were perceived early on as necessary by nationalist policymakers, as well as many development economists, for laying the basis for industrialization and development. A temporary period of protection was required for infant industries to grow and become competitive. Over time, the problems with the infant-industry argument became increasingly evident. The negative examples were the countless cases of infant industries that refused to mature in old age, and spawned inefficiencies throughout the economy. The positive examples were the East Asian tigers (South Korea, Taiwan, Singapore and Hong Kong), where the early administration of outward oriented policies were yielding spectacular results by the 1970s. Yet despite the accumulating evidence, trade reform remained sporadic and was often reversed.

To understand why, we need to understand what trade policy does and how it affects different groups in society. A large part of this paper is devoted to presenting a framework in which such an analysis can be carried out. I will discuss the channels through which commercial and exchange rate policies work, and highlight their respective distributional impacts. My main theme in this part of the paper will be that the central political difficulty in undertaking trade reform is the exceedingly high ratio of redistribution to aggregate gain that trade reform typically generates. The "political cost-benefit ratio" of trade reform, to be defined more precisely below, is generally very high. This, I will argue, is the source of the contentiousness of trade policy in normal times.

The second part of the paper turns to the reforms of the 1980s. As mentioned previously, I will argue here that it is the pervasive crisis of the

1980s that enabled these reforms. Desparate policymakers packaged reforms in the fiscal, monetary, and exchange-rate areas--which were intimately linked to the crisis--with reforms in commercial policies--which were by and large only incidental. The depth of the crisis reduced distributional considerations to second-order importance, and eliminated previous resistance.

This raises the question of the sustainability of the reforms. If and when normal times and politics as usual return, will these reforms not be undercut by the re-emergence of the previous distributional coalitions? In the last section of the paper, I will suggest some reasons for being more hopeful. The status-quo bias which helped entrench the previous policy regime is now likely to work in reverse. Provided macroeconomic stabilization proves successful and inflation and external balances are brought under control, it will not be easy to backtrack from the reforms.

2. Trade Reform, Distribution and Economic Efficiency

We start by reviewing the standard partial-equilibrium analysis of trade liberalization. The general-equilibrium analysis--to which we must necessarily resort when reform involves more than a few items--is more complicated, but the wrinkles involved need not concern us for the moment. The next section will extend the analysis in the general-equilibrium direction.

Figure 1 shows the domestic demand and supply (S) schedules for an import-competing commodity, say steel. Let the import restriction take the form of a quota, with only a specified amount of imported steel allowed in the country. To simplify further, we assume that the home economy is small in the world market for steel (that is, it takes the world price for steel as given)

and that domestically produced and imported steel are perfect substitutes for each other. Let us fix the exchange rate at unity. The (fixed) world price is indicated in the diagram by p^* . Adding up horizontally the domestic supply with the import quota, we get the supply curve faced by domestic consumers (S_q) inclusive of imports. The intersection of domestic demand with S_q (point C) gives us the domestic price of steel in equilibrium, p_d . The gap between p_d and p^* is the protection provided to the domestic industry by the quota. It also represents the unit rent created by the quota. These rents accrue typically to holders of import licenses who get them through, depending on the context, political connections, bribery, or sheer luck.³

Now consider the consequences of eliminating the import quota. If domestic consumers can import as much steel as they want at price p^* , the new, free-trade equilibrium is found at the intersection of the domestic demand schedule with the perfectly flat world supply schedule (point D). The domestic price falls from p_d to p^* . Consequently, imports and domestic consumption increase, while domestic production decreases and quota rents vanish. The reform enhances the efficiency of resource allocation: previously, resources worth p_d were tied up in the domestic steel industry; by releasing these resources and increasing imports at price p^* , a net gain can be achieved.

We can carry out a detailed welfare analysis of the reform to see who loses, who gains, and by how much. There are three groups of interest here:

3. In rare cases, the government auctions import licenses to highest bidders. In this instance, quota rents accrue to the government in the form of revenue from the auction.

users of steel⁴, domestic producers of steel, and license holders. The lower panel of Figure 1 shows the consequences for each of these groups. The gain to users of steel (or the economy in general) is captured by the area under the demand curve, ACDH. The loss to steel producers is the area under the domestic supply curve, ABGH. License holders in turn lose the quota rents amounting to the area BCEF. This leaves a net efficiency gain to the economy from removing the quota which amounts to the sum of two triangles, BFG and CDE.

At this point in the analysis the economics professor usually stops and rests his case, feeling smug after this unassailable demonstration of the superiority of free trade. I would guess that most students are left a bit uneasy the first time they are subjected to this logic. For what is striking about the analysis is perhaps less the end product--the two triangles of efficiency gains--but the massive transfers of income from one group to another--the rectangles that appear or vanish--which are necessary to get there. License holders and steel producers lose out on chunks of income while consumers (who may include downstream producers using steel as an input) gain by a magnitude which barely exceeds these losses, leaving a net efficiency gain that amounts to two paltry triangles. In other words, the ratio of net gain to redistribution that is involved is quite small.

Economists have long been aware of the links between trade policy and income distribution. Some of the most fundamental theorems of trade theory

4. Since steel is an intermediate product, these consumers will typically be producers as well. The demand curve for steel reflects the derived demand for the commodity, taking into account all the inter-industry links up the processing chain, including the consumers of the final products which use steel (e.g., cars).

concern precisely the distributional consequences of free trade (e.g., the Stolper-Samuelson [1941] theorem). Development economists have spent much effort trying to ascertain whether these consequences are normatively desirable or not--that is, whether free trade improves equity. A good recent analysis is the study by Bourguignon and Morrisson (1989), which contains both cross-country regression analyses and case studies. The main conclusion of Bourguignon and Morrisson is that protection has a negative effect on income distribution.⁵ More to the point, they find that the effect of trade policies on distribution is quantitatively very significant, even though their measure of trade policy is crude and subject to error. Everything else held constant, they find the income share of the richest 20 percent of the population to be higher by 4-5 percentage points in highly protectionist countries, where protectionist is defined by a mean effective rate of protection greater than 30 percent.

What this suggests, then, is that the prospect of too much redistribution may be the central political difficulty in trade reform. From the perspective of policymakers, the pure reshuffling of income must be counted as a political cost. In politics, rents and revenues that accrue on a regular basis create entitlements. Whether viewed as desirable or not, taking income away from one group is rarely easy for a politician to accomplish. And while most policy

5. However, there is an alternative way of interpreting this evidence. Recent studies have shown that growth-damaging policies are more likely to be undertaken in countries where the distribution of income is skewed, at least where democratic regimes are concerned. See Alesina and Rodrik (1991, 1992) and Persson and Tabellini (1991). Hence causality may well go in the other direction, i.e. from inequalitarian distribution to high levels of trade protection.

reforms undercut such entitlements, trade reform does so with a vengeance. Of course, the efficiency benefit of the reform is itself a source of political gain: it amounts to an increase in the size of the national pie, representing the improvement in the well-being of at least some groups in society at no cost to others.

Such considerations can be formalized by devising an index of the "political cost-benefit ratio" (PCBR) of policy reform. We define this index as follows:

$$(1) \text{ PCBR} = \frac{1}{2} \times \frac{\sum_j |\Delta \text{ income}_j| - \text{net gain}}{\text{net gain}},$$

where "net gain" stands for the efficiency gain of the reform, j indexes groups (or individuals) in society, and " $\Delta \text{ income}_j$ " is the change in the income of group j . Note that net gain can also be expressed as $\sum_j (\Delta \text{ income}_j)$. The numerator is the sum of the absolute values of the income effects of the policy on different groups (net of the efficiency gain), and therefore is a measure of the total redistribution resulting from the policy. We divide this by two to get rid of the double-counting. In this way, the numerator becomes equivalent to the sum of losses suffered by the groups adversely affected by the reform. Hence, the numerator captures the political cost of the reform, while the denominator captures its benefit. The index is meant to quantify the notion that, for any amount of increase in the size of the national pie, the more reshuffling of income that is required to achieve that increase the more costly is the change to policymakers. More specifically, the PCBR index

answers the following question: how many dollars of income are shuffled from one group to another for every dollar of net efficiency gain?

While the index is meant to be nothing more than a heuristic device, it is possible to give it a solid theoretical foundation. Suppose for example that the policymaker wants to maximize a conventional, utilitarian social welfare function, subject to the constraint that no group of individuals is made worse off by the reform compared to the status quo. The policymaker has at his disposal only distortionary subsidies and taxes to undertake the requisite compensation. Then the cost-benefit calculus undertaken by the policymaker will bear a certain similarity to the index discussed above. In fact, we can view the PCBR index as representing a special case of the problem just stated. The appendix provides a formal statement of this and more details.

Our index has the property that its values will range between 0 and infinity. When a policy is purely redistributive and achieves no net gain, the value of the index goes to infinity. When a policy increases some groups' incomes without taking income away from any other group (that is, when it is Pareto efficient), the index takes a value of zero. The latter case corresponds to the economist's proverbial "manna from heaven"; it would be politically very desirable if it could be made a reality.

We know already from the preceding discussion that trade reform will perform poorly when judged by this index. To see how poorly, let us try to relate expression (1) to parameters of relevance to trade reform. We distinguish, once again, among consumers, import-competing producers, and rentiers. Let m denote import volume, q import-competing production, c total consumption of the importable, p the domestic price of the importable, p^* the

world price, and t the (ad valorem) tariff-equivalent of the trade restriction initially. To a first-order approximation, the income effects of trade reform can be summarized as follows⁶:

consumers: $-c\Delta p$
 producers: $q\Delta p$
 rentiers: $m\Delta p + tp^*\Delta m$
net gain: $tp^*\Delta m$.

(Note the identity $m = c - q$.) Therefore, our index can be written as follows:

$$(2) \text{ PCBR} \approx \frac{-c\Delta p}{tp^*\Delta m} = \frac{1}{\mu\epsilon t},$$

where μ is the share of imports (at border prices) in domestic consumption and ϵ is the absolute value of the import demand elasticity. The expression on the right-hand side relates the PCBR index to recognizable parameters. We note that the index is increasing in t , μ , and ϵ .

Table 2 shows the range of values that the PCBR index can take under plausible combinations of these parameters. We fix the import demand elasticity at 2 (which is relatively generous) and vary the other two parameters. We find that in most reasonable circumstances the PCBR lies above 5. In words, an index of 5 indicates that for each dollar of net income generated, five dollars of income are being reshuffled among different groups in the economy. This puts us much closer to the "pure redistribution" case

6. The approximation is based on calculus, that is it ignores some interaction terms. It will be more accurate the smaller the trade reform.

than the Pareto-efficient case. Put bluntly, trade reform is politically inefficient.⁷

Table 2: Plausible Values of the PCBR Index Under Trade Reform ($\epsilon = 2$)

		t	
	.2	.5	.7
.1	25.0	10.0	7.15
μ .2	12.5	5.0	3.57
.4	6.25	2.50	1.79

In fact, things are typically worse. By its very nature, trade liberalization creates a lot of winners whose identities cannot be discerned beforehand. That is because the general-equilibrium ramifications of reform cannot be all sorted out with perfect foresight. After reform, some entrepreneurs in import-substituting sectors will transform themselves into successful exporters; some new, unanticipated export opportunities will be created. It is only after reform takes roots that the full configuration of gainers and losers becomes evident. This kind of uncertainty leads to a systematic bias against policy reform: reforms that would receive adequate

7. To the extent that rent-seeking behavior dissipates some of the rents of trade protection, the efficiency gains of reform may be larger than those measured here. However, the rent-seeking literature generally exaggerates these gains. If individuals can waste resources in competing for the rents generated by, say, quotas, they can also waste resources in lobbying the government for the re-imposition of quotas that have been taken away. Altering the incentives for rent-seeking behavior goes beyond simple changes in the levels of trade protection.

political support after the fact may fail to receive support beforehand as long as some of the gainers (or losers) from reform cannot be identified ex ante (Fernandez and Rodrik, 1991). Hence, the uncertainty surrounding the distributional effects compounds the immediate difficulties raised by the distributional consequences themselves.

These arguments raise the question: if trade reform is politically so costly, why is it ever undertaken? The maintained assumption behind the PCBR index is that altering the distribution of income is politically costly. This need not always apply. In particular, policymakers may want to reshape distribution--or be indifferent to it--following a transformation in political regime or a change in the underlying configuration of power. Indeed, historically sharp changes in trade policy have almost always been preceded (or accompanied) by changes in the political regime. This was true of the first significant move to free trade in modern history, the repeal of the Corn Laws in England in 1846, a move that reflected the growing political power of urban interests over landed interests. It was also true of the most significant case of reform in the developing world until the 1980s, the reforms that took place after Pinochet's coup in Chile in 1973. More evidence on this will be discussed below in section 5. Not all political transformations result in trade reform; but sharp changes in trade policy are typically the result of such transformations.

What about the gradual, steady liberalization in the developed world under the aegis of the GATT during the post-war period? It is harder to credit political regime changes for this process. The political acceptability

of these reforms derived instead from the joint influence of two factors: (i) the gradualist nature of the reforms, and (ii) a favorable external environment in the form of unprecedented economic growth. The latter served to mask the distributive consequences of liberalization, and allowed everyone to share in the benefits of recovery and, later on, increased prosperity. The gradual nature of the liberalization, meanwhile, ensured that these distributive effects would remain second-order relative to the consequences of overall economic growth. The lesson is a simple, but valuable one: the congruence of gradualism with increasing, all-around prosperity provides the most comfortable environment for trade reform.⁸

3. A Closer Look at the Distributive Consequences of Trade Reform

Since trade reform and distribution are so closely related, it is helpful to have a framework for analysis in which the links are laid out. As the reforms in question are across the board, the framework should accommodate economy-wide (that is, general equilibrium) repercussions. This section provides a sketch of such a framework.

We begin by distinguishing among three sets of commodities and services: (i) importables; (ii) exportables; (iii) non-tradables. We associate with each of these groups an "average" domestic price, denoted by p_m , p_x , and p_n respectively. This classification is meant to be exhaustive; that is, all

8. Of course, the two need not be unrelated. Growth may be fostered by the on-going liberalization. But given the lags and uncertainty involved, the relationship is unlikely to be exploitable for political purposes.

Table 3: A Matrix for Trade Policy Analysis

commodity group	domestic price	relation to world price	typical goods or services	income group most directly affected
importable	p_m	$= ep_m^*(1+t_m)$	intermediates, capital goods, consumer durables	IS industrialists; import license holders; organized labor
exportable	p_x	$= ep_x^*/(1+t_x)$	cash crops, light manuf.	agric. producers; export-oriented entrepreneurs
non-tradable	p_n	--	construction, informal sector, labor services	informal sector; unorganized labor

Notes: e: exchange rate (home currency per foreign currency);
 t_m : tariff equivalent of all import restrictions (including license premia);
 t_x : tax equivalent of all export restrictions;
 prices with asterisks denote world prices (in foreign currency).

commodities and services produced in the economy should fit in one of these categories.⁹ Table 3 shows the typical commodities that are classified under these headings; intermediate goods (such as chemicals) and capital goods, for example, are typically importables.

The table also shows how the domestic price of each aggregate relates to the relevant world price. The domestic price (in pesos) of importables equals their world price (in dollars) multiplied by the exchange rate (defined as

9. Some commodities can be simultaneously imported and exported, raising a difficulty as to whether they should be classified as importable or exportable. With sufficient disaggregation, this will normally not be a serious problem in the context of developing countries.

pesos per dollar) times one plus t_m , the tariff equivalent of all import restrictions. Under t_m we include not only duties and other taxes, but also the ad-valorem price equivalent of quota restrictions and other non-tariff measures. In fact, t_m itself is usually not directly observable when trade restrictions, as so often, are primarily of a non-tariff nature. It can be "recovered" by comparing the price of domestic products with the price of close substitutes on world markets. The domestic price of exportables (e.g., coffee or clothing) is related to the world price in a similar manner, where the export tax t_x captures the ad-valorem price equivalent of all export restrictions. We note that an import tariff increases the domestic price of importables--the price paid by consumers and received by producers--while an export tax reduces the domestic price of the exportable.

Finally, note that prices of non-tradables do not bear any systematic relationship (at least in the context of trade policy) to prices of similar goods on world markets. Since haircuts and cement are normally non-tradable (the first because of restrictions on labor mobility, the second because of transport costs) there is no arbitrage relationship that would pin down domestic prices in relation to foreign prices.¹⁰ Hence, p_n is determined exclusively by domestic demand and supply. We should note that the most important category of non-tradables is labor services. The wage rate is consequently the most important non-tradable price.

Table 3 also shows the identities of the income groups whose fortunes are

10. There are always exceptions: Venezuela exports cement to Florida as it is cheaper to transport cement via the ocean than it is to bring it overland by train or truck. In fact, in late 1991 cement producers in Florida were trying to bring antidumping action against Venezuelan exporters.

most closely tied to each of these prices. Hence, the incomes of import-substituting industrialists, import-license holders, and often of organized labor are determined in the first instance by p_m , the importable price. The price of exportables, p_x , serves the same purpose for agricultural producers and export-oriented entrepreneurs. The non-tradable price p_n determines income in the informal sector and of unorganized labor.

Now, each of these groups' well-being is determined not only by the price they receive for their production. Other prices matter too, since these affect input costs and consumption costs. Real incomes are determined, therefore, by relative prices and not the absolute level of any single price. To draw the links between trade policy and distribution, we have to ask how specific relative prices are affected by trade policy.

But which relative prices? Since we have three prices in our economy, there are only two relative prices that are of independent interest, but many different ways of expressing them. For reasons that will be clear shortly, it is convenient to focus on: (i) the relative price of importables to exportables, and (ii) the relative price of "tradables" to non-tradables. These two relative prices are key to the resource allocation effects of trade policy, and any political-economy analysis must begin with them.

Using the definitions in Table 3, the first of these can be expressed as follows:

$$(3) \quad p_m/p_x = (p_m^*/p_x^*)(1 + t_m)(1 + t_x)$$

The second relative price is obtained by lumping importables and exportables

into a basket called tradables. Formally, the price of tradables, p_t , is a weighted average of p_m and p_x :

$$(4) \quad p_t = [e p_m^*(1+t_m)]^\alpha [e p_x^*/(1+t_x)]^{1-\alpha} = e [p_m^*(1+t_m)]^\alpha [p_x^*/(1+t_x)]^{1-\alpha},$$

where α is the weight on importables. Our second relative price is then given by the ratio of prices of tradables to non-tradables:

$$(5) \quad p_t/p_n = e [p_m^*(1+t_m)]^\alpha [p_x^*/(1+t_x)]^{1-\alpha}/p_n.$$

This ratio is also called the "real exchange rate".

From an economic standpoint, the distinction between these two is useful because each has a distinct effect on resource allocation. Changes in p_m/p_x are associated inversely with changes in an economy's openness: the higher this relative price, the smaller is the share of imports and exports in national income (*ceteris paribus*) and the greater the level of import-substituting production. On the other hand, changes in p_t/p_n are typically associated with changes in the trade (or current account) balance: the higher this relative price, the more positive the trade balance (*again ceteris paribus*). These resource-allocation effects also define the criteria by which the success of commercial policy and of exchange-rate policy should be measured: successful trade liberalization will increase the ratios of imports to GNP and exports to GNP on a sustained basis; successful devaluation will reduce the trade deficit (or increase the surplus) without affecting domestic levels of inflation and unemployment. Finally, the two relative prices have distinct distributional consequences. The first relative price captures distributional conflict within tradables sectors, whereas the second focuses on distribution across the tradables-non-tradables cleavage.

Armed with these two relative prices, we are now ready to analyze the consequences of trade policy for the real incomes of different groups in society. For each policy in question, we ask how these relative prices are affected, and read the implications for different groups with the help of the classification in Table 3.

(a) Commercial policy. The term commercial policy captures the set of policies that have direct implications for the domestic prices of importables and exportables. In terms of our schema, these are policies that affect the relative price p_m/p_x . As shown in (3), these are import and export taxes of various sorts, including quantitative restrictions, licensing, advance deposits on imports, prohibitions, and (often) commodity marketing boards. Note that the relative price of importables and exportables does not depend on the exchange rate, as e enters both the numerator and the denominator and cancels out. That is, exchange rate policy is distributionally neutral as between import-competing and export-oriented interests (see the discussion under [c] below however).

Secondly, we note the symmetry in the way that import and export taxes enter equation (3): import tariffs and export taxes have identical effects.¹¹ A ten percent export tax has the same effect on p_m/p_x --and hence on the openness of the economy and on distribution within tradables--as a ten percent

11. This result, known as the Lerner symmetry theorem, is surprisingly general. All that it requires is that the trade balance be insulated from the effect of the tariff or tax, as would obtain when p_n is perfectly flexible or e is adjusted to maintain the trade balance unchanged. Often, however, and especially in the short run, macroeconomic equilibrium may fail to obtain, and the symmetry may break down. The claims made in this paragraph lose their force when this is the case. See the discussion below on compensated and uncompensated trade liberalizations.

import tariff, and vice versa.¹² This demonstrates that import protection imposes a penalty on exporters that is identical to a direct export tax. Conversely, an export tax benefits import-competing interests. The logic works for subsidies also, as long as one keeps in mind that a subsidy is a negative tax. Hence, an export subsidy takes away some import protection and hurts import-competing interests as much as a direct reduction of protection.

Finally, we note that commercial policy per se has no direct distributive consequence for groups that derive their income from non-tradables, such as unorganized labor (or the informal sector). From (5) we can see that a reduction in the import tariff would tend to increase the real incomes of labor (as p_t/p_n is reduced), but only as long as the nominal exchange rate (e) remains unchanged. If the import liberalization is packaged with a devaluation (see below), the effect on labor is ambiguous.

The situation may be quite different with respect to organized labor in import-competing industries. High profits in these industries may be shared with labor unions and be reflected in wage premia relative to the rest of the economy. The relaxation of import controls will bite into these labor "rents", and hurt these groups directly.

(b) Exchange rate policy. Exchange rate policy affects a different relative price, that between all tradables and non-tradables. This can be seen in expression (5) in which e enters the numerator. This is an important distinction between commercial policy and exchange rate policy, and is often

12. Sometimes this equivalence is stated in a different way: a ten percent increase in tariffs is identical to a ten percent increase in the export tax. As a moment's reflection will show, this does not follow from (3), unless t_m and t_x are initially zero.

missed in general discussions of "trade policy". At the risk of being repetitive, the distinction is summarized in Table 4. A devaluation increases the domestic price of tradables and, ceteris paribus, raises p_t/p_n . Unlike commercial liberalization, a devaluation is likely to squeeze unorganized labor and reduce real wages in terms of tradables (provided wages are determined predominantly by conditions in the non-tradable sector). The reduction in real wages is the flip side of the increase in competitiveness brought about by devaluation. Also, a devaluation affects all tradable sectors symmetrically: both import-competing and export-oriented interests benefit from it, while commercial liberalization pits these two sectors against each other.

With respect to real wages, one point bears stressing. It is useful to distinguish between two concepts of the real wage: the product real wage and the consumption real wage. The first is the nominal wage divided by the price of tradables, and it is the one that determines the competitiveness of domestic tradables. The second is the nominal wage divided by an aggregate price index that includes prices of non-tradables; the latter measures the purchasing power of wages and is the more appropriate index of workers' well-being. If non-tradables are sufficiently important in workers' consumption basket and wages rise sufficiently more than prices of non-tradables, it is possible that consumption real wages increase as a consequence of devaluation while the product real wage falls.

Table 4: Commercial Policy vs. Exchange Rate Policy

Policy	relative price affected	resource-allocation effect	distributive effect
commercial policy	P_m/P_x	openness	import-competing vs. export-oriented interests
exchange rate policy	P_t/P_n	trade balance	all tradables vs. non-tradables; real wages

Moreover, unlike commercial policy which can be made effective by fiat, the economic success of exchange rate policy depends on the response of p_n (or wages). We see from (5) that the value of the real exchange rate p_t/p_n depends both on e and on p_n . For an increase in the nominal exchange rate to bring about an increase in the real exchange rate (i.e., to achieve a real depreciation) we have to ensure that p_n does not rise proportionately. Now, as mentioned above, p_n is determined by domestic supply and demand conditions. Making exchange rate policy effective, therefore, requires restrictive demand management policies which do not allow p_n (or wages) to rise along with e . This is the source of the oft-repeated admonishment to developing countries that exchange rate devaluation (expenditure switching) should be coupled with restrictive monetary and fiscal policies (expenditure reduction) to have an effect on the external balance. Economic "effectiveness" calls for income redistribution.

(c) Devaluation when foreign exchange is rationed. We have drawn a sharp distinction between commercial policy and exchange rate policy, both in terms

of distributive and resource-allocation impacts. There are circumstances, however, under which the distinction disappears and a devaluation becomes identical to commercial liberalization. This occurs when foreign exchange is rationed by the government and there exists a black market for foreign exchange.

In the presence of a black market, there are at least two exchange rates: an official exchange rate, call it \bar{e} , at which only a limited number of transactions are carried out due to rationing by the central bank; and the black market rate, e_b , which represents the marginal cost of foreign exchange and to which importers must resort in order to satisfy their needs in excess of the official allocation (naturally, $e_b > \bar{e}$). This is shown in Figure 2. Exporters must turn in their foreign exchange receipts at the lower price \bar{e} . Hence, domestic prices of importables and exportables are now given by: $p_m = e_b p_m^* (1+t_m)$ and $p_x = \bar{e} p_x^* / (1+t_x)$. The relative price of importables to exportables becomes:

$$(3') \quad p_m/p_x = (e_b/\bar{e})(p_m^*/p_x^*)(1+t_m)(1+t_x)$$

where the exchange rates have not canceled out (cf. [3]). The gap between \bar{e} and e_b represents rents that accrue to those who get access to dollars at the official rate (since these dollars are worth the black market price).

Therefore, foreign currency rationing creates a situation that is entirely analogous to the imposition of a trade restriction. This can be seen from (3'): an increase in the exchange-rate premium (i.e., a larger gap between e_b and \bar{e}) works just like an increase in t_m or t_x .

Now consider a devaluation of the official rate (an increase in \bar{e}). This prompts an increase in the supply of foreign exchange, as exporters

respond by increasing their activity. As shown in Figure 2, that in turn leads to a decrease in the black-market exchange rate. The net effect is a fall in e_b/\bar{e} , which amounts to a fall in the price of importables relative to the price of exportables (see [3']). Now the devaluation has worked just like commercial liberalization, and will have all the same resource allocation and distributive consequences. In particular, the rents accruing to those with access to official dollars will diminish. This is the case of a "trade-liberalizing devaluation". By increasing the availability of foreign exchange, previously rationed, the devaluation allows more exports and more imports.. Import-competing groups that would normally benefit from a devaluation are now hurt.

(d) Compensated and uncompensated trade liberalization. Consider a reduction in import barriers. In the medium to long run, there is no reason the liberalization should have an adverse effect on the trade balance; even in the absence of adjustments in the exchange rate, endogenous changes in non-tradables prices will generally be enough to return the economy to external balance. In the shorter run, things may be a bit more complicated if p_n is not sufficiently flexible, or, what amounts to the same thing in most contexts, if the operation of labor markets is plagued by rigidities. To make the point as starkly as possible, let us assume that p_n is fixed and does not adjust once import barriers are lifted.

By inspecting (5) we note that a reduction in t_m will reduce the numerator of p_t/p_n and hence appreciate the real exchange rate. This makes domestic production less competitive and can be expected to deteriorate the external balance. Intuitively, cheaper imports replace domestic output. An endogenous reduction in p_n would insulate the external balance from the effect

of the liberalization. In its absence, the government can achieve the same insulation by undertaking a devaluation. An increase in e raises the numerator in p_c/p_n and prevents the appreciation of the real exchange rate and the loss of competitiveness. With a compensating devaluation of this sort, the effects of liberalization are limited to those discussed under (a) above. The devaluation gives an added boost to exporters and alleviates some of the squeeze on import-competing groups.

The alternative is to do nothing on the exchange rate front. This is the option that has been selected during the 1980s by many governments fighting triple-digit (and higher) inflation. (Examples are Bolivia, Mexico, and Israel.) The reason is that, in a high-inflation environment, stability in the nominal exchange rate may be needed as an anchor for the domestic price level. A devaluation may be perceived as too risky, lest it unleash inflationary expectations.

Clearly, the exchange rate cannot be targeted on the domestic price level and the external balance simultaneously. When it is targeted on the former, a compensating devaluation is ruled out. Consequently, the liberalization imposes a magnified squeeze on import-competing interests to the benefit of non-tradable sectors. The ensuing deterioration in the current account balance can continue as long as there are capital inflows willing to sustain it. Living beyond one's means in this fashion can even create a sense of euphoria. But politically this can be dangerous. Powerful import-substituting interests are more likely to oppose vigorously an uncompensated liberalization than a compensated one. In Chile, for example, the early stages of liberalization during 1975-78 took place in the context of a depreciating real exchange rate. Industrialists started to complain in

earnest only after 1979 when the real exchange rate started to appreciate. Similarly in Mexico liberalization during 1985-87 did not have detrimental effects on industry thanks to a depreciating exchange rate; starting in 1988, when the peso was stabilized and the trade reform speeded up, the liberalization began to bite considerably more.

4. Distributive Consequences for the State

We have left out of the discussion so far a very important claimant on national income, the state (or the bureaucracy). Policymakers' willingness to undertake trade reform is often shaped as much by the perceived impact on the fiscal resources of the state or on the wealth of well-placed bureaucrats as by the pressure from below. We close the analysis of distribution by discussing briefly the main channels through which trade policy channels resources to and from the state.

First and most directly, import and export taxes are a source of revenue for the public treasury. Trade taxes (including the profits of marketing boards) play a particularly important role in the poorest countries where such revenues can make up between a quarter and a half of central government income. Under most circumstances, trade liberalization may be expected to reduce these revenues. But there are a couple of important exceptions to this rule. First, the initial stages of trade liberalization usually involve the elimination of quantitative restrictions and often their replacement by tariffs. Such tariffication should be expected to channel resources that previously ended up as quota rents towards public coffers. Secondly, when trade restrictions get too high and overvaluation of the exchange rate becomes extreme, trade taxes are typically dissipated in smuggling and other illicit

activities. Correcting such problems can lead to a sharp increase in government revenue despite the overall liberalization. A significant example of this took place in Ghana after 1983.

Exchange rate policy also has important implications for government finance, but the effects tend to be more subtle. Since exchange rate policy aims at changing the price of tradables relative to non-tradables, the income effect on the public sector can be found by answering the following question: are non-traded goods and services a net source of income for the government or not? When it is, as when payroll taxes constitute an important component of government revenue and much of public spending goes to purchase tradables (military hardware, for example), a devaluation will leave the state sector poorer. When it is not, as is the case in oil producing economies, the public sector benefits from a devaluation. Turkey and Venezuela are good examples of the former and latter, respectively. Sometimes the question is put differently: is the government a net seller or buyer of dollars vis-a-vis the private sector? Useful as a first approximation, this question betrays a partial-equilibrium logic where a general-equilibrium one is needed.

As discussed above, much of trade policy is concerned with the creation and elimination of rents (Krueger 1974). These rents are often captured by individual bureaucrats. A government official who is entrusted with the disposition of scarce import licenses or foreign currency is endowed with a very valuable resource. Whether he cashes in on this resource by accepting bribes or simply basks in the self-importance created by his job, asking him to give up willingly on this resource may be asking too much. This explains why restrictive trade regimes and foreign exchange crises often create a powerful lobby within the government in favor of their continuation, and why

successful implementation of reforms may require the replacement of the middle echelons within the economic bureaucracy. Indonesia, which substituted a Swiss inspection firm for its customs bureaucracy, is a good case in point.

5. Why Has There Been So Much Trade Liberalization Lately?

We now turn to the second puzzle stated at the outset of the paper: if trade reform is politically so difficult to undertake, why are so many countries doing it now? The mystery is heightened when we consider that the current wave of trade reform is taking place in an environment least conducive to its success. For high inflation blunts the impact of relative-price changes achieved by trade reform and recession makes the required resource reallocation more costly.

Our focus on the distributional consequences of trade policy provides one potential key to the puzzle. Perhaps the powerful interests that benefited from protection and had successfully blocked reform have been weakened by the debt crisis of the 1980s. If so, we can explain the general move towards liberal policies. But the argument would require a demonstration that import-competing interests, the ones most severely hurt by reform, were weakened disproportionately. Such an argument would be difficult to construct. Of course, the debt crisis highlighted the urgency of earning foreign exchange and may have thus increased the political strength of exporters. But by the same token, the need to conserve foreign exchange must have played into the hands of import-substituting groups. The crisis of 1982 and the ensuing macroeconomic mess were costly all around. It is not at all evident that import-competing groups bore the brunt of the effects and that they systematically lost out on the political front.

On the international scene, there were two clear winners: the World Bank and the IMF. The crisis forced developing countries to line up at the gates of these Bretton Wood institutions, pleading for the imprimatur that would unlock debt rescheduling arrangements and new capital flows. The renewed importance of these institutions gave unprecedented salience to their orthodox arguments on economic management, i.e., the need for trade liberalization, realistic exchange rates, and conservative monetary and fiscal policies. The bargaining was especially one-sided in Africa, where governments were poorly endowed with the technical expertise to evaluate and reshape standard prescriptions and lacked powerful patrons among rich countries which would help moderate World Bank and IMF demands.¹³

That the World Bank and the IMF became uncommonly powerful vis-a-vis developing country governments during the 1980s is indisputable. Yet it would be a mistake to picture the process of policy reform as one where orthodox economic policies were externally imposed on unwilling policymakers. In some African cases, this characterization may come close to being true--witness, for example, the cycle of reform and reversal in Zambia. But more often than not, reform has had a significant home-grown component, exceeding on occasion the World Bank's or the IMF's expectations and stipulations. The Mexican liberalization since 1987, for example, has been more ambitious and has proceeded faster than some World Bank officials thought was prudent at the time. The recent Argentine, Brazilian, and Indian conversions cannot be credited to the Bretton Woods institutions either; these large countries have

¹³. For a recent study of the World Bank's relations with governments, see Mosley et al. (1991).

a long history of avoiding and evading Bank conditionality on liberalization. External actors have played at best a modest role in initiating recent reforms.

The bulk of the credit must go instead to the dire economic circumstances in which most developing countries found themselves as a consequence of the prolonged macroeconomic crisis of the 1980s. The experience of high inflation and negative growth year after year eventually prepared the ground for embracing an entirely new set of policies. The continued deterioration in economic conditions shaped a general consensus that something had to be done. Put differently, the perceived overall gain from restoring the economy's health became, after a point, so large that it swamped distributional considerations.¹⁴

This point can be demonstrated by using the PCBR index developed previously. We will show that the political cost-benefit ratio of trade reform declines dramatically when it is introduced in the context of stabilization policy. Consider then a trade reform that is part of an overall economic stabilization package. The stabilization aims at reducing inflation and reviving the economy by eliminating the foreign-exchange stranglehold. We

14. Witness for example the following description of the Ghanaian experience: "Rent seekers who can control import licenses are usually a potent source of opposition to devaluation, but the crisis had become so bad in Ghana that the group benefiting from administrative allocation of foreign exchange was extremely limited. Indeed, by the early 1980s, the economy had deteriorated to such an extent that even senior government officials, who normally benefit from access to imported goods even in times of shortage, reported that they were going hungry and were concerned that they could not find food for their families" (Herbst, 1991). For a formal model on the benefits of crisis for economic reform, which closely parallels the argument here, see also Drazen and Grilli (1990).

leave for later the question of why trade reform is included in the package alongside the standard fiscal and monetary measures; suffice it to say that in practice when trade reform arrived it did so as part of an overall macroeconomic package of this sort. Now, stabilization differs from trade liberalization in one key respect: unlike trade liberalization, it holds the promise of generating benefits that will be shared by all. Few coherent interest groups can be identified that are net gainers from triple-digit inflation and economic collapse, and hence few interest groups that do not stand to benefit from an end to both.¹⁵ Moreover, the deeper the crisis, the larger the overall net benefits from recovery.

The PCBR index for this reform can be calculated by tracking the effects of both the liberalization and the stabilization. Let us denote the across-the-board benefit of stabilization by γ , the percentage increase in net income that accrues to all groups in the economy as a result of stabilization. γ is a proxy for the depth of the crisis (as well as for the likely success of the stabilization). Further, let θ denote the share of consumption of importables in GNP, and ω the percent reduction in the price of importables relative to exportables as a consequence of the reform. The PCBR index for the stabilization-cum-liberalization package can now be expressed as:

15. This does not mean that stabilization does not generate distributional conflict; see Alesina and Drazen (forthcoming) for a model based on such conflict. But in this model (and in reality) the conflict over stabilization is based not on who gains and who loses from stabilization, but on who gains more and who gains less. Therefore the distributional conflict is of a lower order of magnitude than in the case of trade liberalization.

$$(6) \text{ PCBR} = \frac{1}{\mu \epsilon t + [\gamma/w\theta]}$$

It is now a matter of simple algebra to demonstrate that when the all-around benefit of stabilization (γ) is large it swamps the redistributive aspect of the trade reform. Table 5 shows how the PCBR index falls sharply with γ . When $\gamma = 0$, the PCBR index takes its usual high value--5.0 under the present parameter combinations. In the presence of a stabilization program that promises to make all groups better off by 10 percent ($\gamma = 0.1$), the index plummets to 0.69. With $\gamma = 0.25$, the index declines further to 0.30. Note that since relatively small increases in the growth rate of an economy can cause large jumps in the level of the present-discounted value of income, an expectation that a successful stabilization will increase well-being by 10-25 percent is not far off the mark.¹⁶

Hence trade reform can suddenly start to look politically attractive if:
(a) it is perceived as an integral part of a stabilization package, and (b) the macroeconomy stands engulfed in a deep crisis.

16. Let the stabilization increase the growth rate of the economy by only one percentage point, from zero to 1 percent. Assume that individuals have a time discount rate of 8 percent. Then, this relatively small increase in the growth rate translates into a 14.3 percent increase in the level of individuals' wealth (present discounted value of income).

Table 5: The PCBR Index with Stabilization-cum-Trade Reform

γ :	0	0.10	0.25	0.50	1.00
PCBR :	5.00	0.69	0.30	0.16	0.08

Note: $\tau=.5$, $\mu=.2$, $\epsilon=2$, $\theta=.4$, $w=.2$

The argument that economic crisis can help reform is consistent with the evidence (scanty as it is) from earlier decades also. A recent World Bank research project has analyzed liberalization episodes in 19 developing countries during the post-war, pre-debt crisis period (Papageorgiou et al., 1990). Table 6, taken from this research, lists 13 cases of trade reform that is classified by the principal authors as "strong" and "fast" reform episodes. The table shows that the vast majority of these reforms--10 out of 13--took place in the context of either a change in political regime or a generalized perception of complete economic collapse, or both. The close association between economic collapse and reform is even more evident in the 1980s, where a significant amount of each has occurred: I know of no significant case of LDC trade reform in the 1980s that did not take place in the context of a serious economic crisis.

Two questions remain to be answered. First, why did the changes in trade policy take the form of liberalization rather than of closing up? After all, the logic of the argument is symmetric with respect to trade policy "reforms" in either direction. Second, why were trade reforms packaged with stabilization, if the relationship between trade policy and the debt crisis is

incidental?¹⁷ That is, why did policymakers perceive a need for commercial policy reforms on top of monetary, fiscal, and exchange-rate reforms?

Table 6: The Correlates of Trade Reform

"strong" and "fast" reform episodes	year	change in political regime	perception of complete economic collapse
Argentina	1976	x	x
Chile	1956		x
Chile	1974	x	x
Greece	1953		
Indonesia	1966	x	x
Israel	1952		x
Peru	1979		
Philippines	1960	x	
Singapore	1968	x	
Spain	1977	x	
Sri Lanka	1977	x	
Turkey	1980		x
Yugoslavia	1965		

Source: Papageorgiou et al. (1990).

The answer to the first question is that the countries concerned for the most part initially did choose to regulate rather than to liberalize. This reaction constituted the traditional response to foreign-exchange crises: when dollars become scarce, LDC policymakers impose rationing and tighten quantitative restrictions. And this is what happened in the early stages of the debt crisis. Turkey, which entered its debt crisis early in 1977, mucked around with halfway measures for two-and-a-half years until it decided to

17. For an argument that the relationship is indeed incidental, see Rodrik (1992a).

liberalize in 1980. Mexico, started to liberalize in earnest in late 1987 (but some of the measures were announced in 1985--still three years after the debt crisis hit). Peru was an extreme case of turning inward under Garcia, until the Fujimori government took over. Brazil and Argentina took the better part of the decade before they decided to liberalize. Hence, liberalization was selected only after the alternative had been tried repeatedly and discredited. The crisis called for something new; import controls were not it.

The second issue--the packaging of stabilization with liberalization--is more mistifying. One factor, related to the above, was that the crisis had discredited the entire pattern of previous economic policymaking, including the commercial policy regime. To have credibility, policymakers had to make a clear break with the past, and this included doing away with the import-substitution regime. It may be too much to assume that the policymakers themselves were fully aware of the distinctions, and of the full set of causal relations among the trade regime, the macroeconomic stance, and the economic crisis. Also, we must give credit to the World Bank for having invented and successfully marketed the concept of "structural adjustment", a concept which packaged together microeconomic and macroeconomic reforms. Structural adjustment was sold as the process that countries needed to undergo in order to save their economies from the crisis. For governments that bought into the package, the distinction between sound macroeconomic policies that maintain external balance and stable prices, on the one hand, and policies that determine openness, on the other, was obfuscated.

6. Sustaining the Reforms

The argument made in the previous section is perhaps not very encouraging with respect to the sustainability of trade liberalization into the 1990s. If the argument is correct, the reforms were enabled not by the dissolution of powerful import-competing coalitions, but by a deep economic crisis--necessarily of a temporary nature--which relegated distributional issues to second place behind the need to stabilize the macroeconomy. Once the crisis is over and politics as usual returns, will these coalitions not reassert themselves and demand a return to import protection? Possibly so. But there are reasons to think that it will not be easy for policymakers to turn their backs on the reforms.

The experience of Chile provides an instructive example. During the 1970s, a radical trade reform was imposed on Chilean business from above by a repressive dictatorial regime impervious to interest-group pressure. By the early 1980s, import-substitution policies had been replaced by a simple uniform tariff of 10 percent (motor vehicles being the sole exception). With the return of democracy at the end of the decade, a reasonable guess might have been that protectionist business interests would rise to the occasion and push for a return to some of the old policies under which they had prospered. Yet nothing of the sort happened. In fact, during the presidential election campaign in the fall of 1989, the trade regime never became an issue. All major groups, it would seem, were ready to live with free trade.

One reason that the open trade regime has not been challenged in Chile is the comparative success of its economy. When many of its neighbors are reeling under triple-digit inflation and negative growth, Chile has managed to keep its inflation rate at or below 20 percent and has been growing steadily

at 5 percent per year. Why mess with success?

One lesson from the Chilean experience, then, is that when policies are demonstrated to "work" they will gain legitimacy. When the economy starts to recover and inflation is firmly under control, some of the success--rightly or wrongly--will be attributed to the open trade policies. Indeed, probably the most important determinant of the sustainability of the liberalization will be the success of macroeconomic stabilization. In countries where inflation and external imbalances are brought under control, the reform package, including its commercial component, will have legitimacy and will be resistant to political attack. Bolivia can be cited as an additional example here: the memory of the successful 1985 stabilization after a hyperinflation has created a political consensus on the desirability of liberal trade policies. Where stabilization fails, on the other hand, the trade reform too will be prone to reversal.

A second lesson from the example of countries like Chile and Bolivia is that all policies create constituencies for their continuation. Outward-oriented policies generate new profit opportunities for entrepreneurs, some of whom may have been engaged only in import-substituting activities prior to reform. As new, previously unpredictable export activities appear, a new class of export-oriented businessmen is created. These entrepreneurs now have a stake in the new policy regime, and will fight any attempted reversal. The distributional complications discussed in the first half of the paper now operate in reverse: going back to protection will be difficult precisely because so much (re)redistribution will be involved.

Such status-quo bias will help enlightened policymakers stick with open trade policies. But there are also things that the policymakers themselves

have done to avoid reversal. Governments in many countries have been imaginative in devising strategies for institutionalizing the reforms. Mexico, for example, first bound its tariff rates under the GATT and then began negotiations with the U.S. to enter a free trade agreement. By making reversal extremely costly, these actions have helped solidify the reforms. The appropriate strategies naturally depend on the context. But some helpful ones include: adopting a uniform tariff to make individual tariff rates less susceptible to special-interest pleading from business; re-organizing the economic bureaucracy to reduce the power of officials that benefited directly from the previous licensing and rationing system¹⁸; a credible export subsidy program to ensure that an interest group with a stake in outward orientation is brought into existence quickly. I have discussed these and other strategies at greater length elsewhere (see Rodrik, 1989a, 1989b, 1992c, and Panagariya and Rodrik, 1991).

Creative policymakers will no doubt come up with more of these strategies. But institutional innovation notwithstanding, a point made above bears repeating: nothing will help sustain open trade policies more than a stable macroeconomic environment. The success of the recent reforms, therefore, will ultimately depend less on their own direct effects than on the success of macroeconomic policy.

18. Onis (forthcoming) provides a good discussion of some of these institutional innovations in post-1983 Turkey: "The post-1983 governments aimed explicitly at weakening the role of the traditional bureaucratic elites Installing a managerial bureaucracy in the form of a select group of U.S. educated technocrats, recruited from outside the ranks of traditional bureaucracy, hence largely independent from both societal and intra-bureaucratic pressures, has been perceived as a necessary condition for the consistent implementation of the economic program."

APPENDIX

We begin by defining a conventional, utilitarian social welfare function

$$V(\sigma_1, \dots, \sigma_k; \tau) = \sum_i U_i(\sigma_1, \dots, \sigma_k; \tau),$$

where σ_i stands for various subsidies (and taxes) available to the policymaker for undertaking compensation, τ is the generic trade policy instrument, and $U_i(\cdot)$ stands for group (or individual) i 's utility function. Note that utility functions are reduced-forms defined directly over the policy instruments. Since σ_i will generally be distortionary, $U_i(\cdot)$ and $V(\cdot)$ have their standard interpretation as in the public-finance literature.

The policymaker selects the tax/subsidy scheme to ensure that no group is made worse off subsequent to a trade reform than in the status quo. Denoting the status-quo level of utility of group i by \bar{U}_i , his problem can be written as follows:

$$(1) \quad \begin{aligned} \text{Max}_{(\sigma_1)} \quad & V(\sigma_1, \dots, \sigma_k; \tau) \quad \text{s.t.} \quad U_1(\sigma_1, \dots, \sigma_k; \tau) \geq \bar{U}_1, \\ & \vdots \\ & U_k(\sigma_1, \dots, \sigma_k; \tau) \geq \bar{U}_k. \end{aligned}$$

The associated Lagrangean expression is given by:

$$\mathcal{L} = V(\sigma_1, \dots, \sigma_k; \tau) + \sum_i \mu_i [U_i(\sigma_1, \dots, \sigma_k; \tau) - \bar{U}_i],$$

where μ_i are the Lagrange multipliers ($\mu_i \geq 0$). We assume that $V(\cdot)$ is sufficiently well-behaved that the second-order conditions for this problem

are satisfied. Let $\{\sigma_i^*(t)\}$ represent the solution to this problem. We can then derive the maximum-value function $V^*(t)$:

$$V^*(t) = V(\sigma_1^*(t), \dots, \sigma_k^*(t); t)$$

To the policymaker who must compensate the losers by using distortionary taxes and subsidies, the net benefit of trade reform is now given by $dV^*(t)/dt$. By the envelope theorem,

$$\begin{aligned} dV^*(t)/dt &= \partial L / \partial t \\ &= \partial V(\cdot) / \partial t + \sum_i \mu_i [\partial U_i(\cdot) / \partial t]. \end{aligned}$$

We now note that the constraints in (1) will bind in the post-reform equilibrium only for those groups that are made worse off, and will not bind for the winners. Hence

$$\mu_i = \begin{cases} 0 & \text{for beneficiary groups;} \\ > 0 & \text{for losing groups.} \end{cases}$$

Consequently, we can write $dV^*(t)/dt$ as:

$$(2) \quad dV^*(t)/dt = \partial V(\cdot) / \partial t + \sum_{\text{(losers)}} \mu_i [\partial U_i(\cdot) / \partial t].$$

The first term here is simply the efficiency gain of the reform, and for a reduction in t will normally be positive. The second term represents the cost of compensating the losers: it is the weighted sum of utility losses suffered by those groups adversely affected by the reform, with the weights being the Lagrange multipliers. Note that these multipliers summarize the (marginal)

resource cost of compensation. For an efficiency enhancing-reform, the sign on the second term is always opposite to that on the first.

The PCBR discussed in the text can now be seen to represent a special case of the calculus expressed in (2), with gains and losses measured in income rather than utility terms. The denominator of the PCBR is the first term of (2). The numerator, which equals the sum of losses, is the second term of (2), with all μ_i that are positive set equal to unity.

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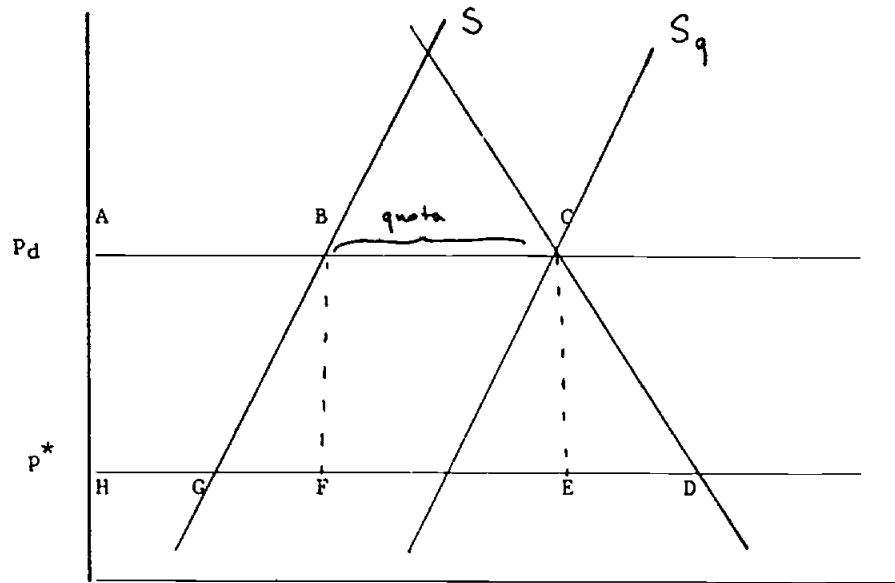
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Figure 1: Trade Reform and Income Distribution



Distributional effect of removing quota on imports:

import-competing producers:	-ABGH
import license holders:	-BCEF
rest of the economy:	+ACDH
NET GAIN:	BFG + CDE

Figure 2: Foreign Currency Rationing and Multiple Exchange Rates

