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**Latin America/Caribbean and Asia/Pacific Economics and Business Association**
An initiative of the Inter-American Development Bank and Asian Development Bank Partnership Agreement

**WORKING PAPER No.7**
**December 2002**

# Trade Policy Regimes and Development Strategies: A Comparative Study

By Patrick A. Messerlin, Sciences-Po
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**PRESENTED AT THE LATIN AMERICAN AND CARIBBEAN ECONOMIC ASSOCIATION ANNUAL MEETING, MADRID, SPAIN ● OCTOBER 11-13, 2002**

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**Edited by the Integration and Regional Programs Department (INT) of the IADB**

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- Provide an inter-regional framework for professional networks to collaborate on issues of mutual interest between the regions.

- Facilitate and inform the process of economic policy-making and private sector decisions through enhanced interaction among policymakers, academia, and the business community.

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# ABSTRACT

Over the past two decades, nearly all developing countries and transition economies have undertaken important changes in their trade regimes, often as part of World Bank-International Monetary Fund programs. Recently, further changes in trade regimes have been driven by participation in regional trade agreements and in the General Agreement on Tariffs and Trade/World Trade Organization. However, while greater openness appears to have produced useful gains, not all countries have benefited equally from the reforms. This study attempts to distinguish between important elements of the reform programs, taking account of the linkages with other economic policies, and to derive some indicators of trade policy performance that might be used in developing more precise guidelines for future reforms.

The paper looks at the relative importance of reforms in different regions and corresponding trade performance. It starts by describing the overall economic performance of a number of countries in Latin America, Europe, and Asia. Then, it reviews Latin American trade policies over the past 20 years, and provides an international comparison, developing indicators that could serve as guidelines for monitoring progress. It concludes with a discussion of the links between trade and other economic policies.

# Trade Policy Regimes and Development Strategies: A Comparative Study

Patrick A. Messerlin

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Over the past two decades, nearly all developing countries and transition economies have undertaken important changes in their trade regimes, often as part of World Bank-International Monetary Fund programs. Recently, further changes in trade regimes have been driven by participation in regional trade agreements (RTAs) and in the General Agreement on Tariffs and Trade/World Trade Organization (GATT/WTO). However, while greater openness appears to have produced useful gains, not all countries have benefited equally from the reforms. This study attempts to distinguish between important elements of the reform programs, taking account of the linkages with other economic policies, and to derive some indicators of trade policy performance that might be used in developing more precise guidelines for future reforms.

The study looks at the relative importance of reforms in different regions and corresponding trade performance. The first section describes the overall economic performance of a number of countries in Latin America, Europe, and Asia. The second section reviews Latin American trade policies over the past 20 years, and the third section provides an international comparison and develops indicators that could serve as guidelines for monitoring progress. The fourth section discusses the links between trade and other economic policies.

## Economic Performance in Selected Countries

The overall economic performance of Latin America has been somewhat less satisfactory than that of the Pacific Asian region, particularly in the 1970s and 1980s, although there was a marked improvement in the 1990s until the Brazilian crisis. Table 9-1 gives the real growth in GDP from 1965-70 to 1997-98 for a number of countries in Latin America, Europe, and Asia, chosen to represent a range of policy choices and performance.[1] Chile has been the lead performer in Latin America, but Argentina and the Dominican Republic had increased

[1] The effects of the East Asian crisis already show up in the 1997-98 data for Pacific Asia.

economic growth in the 1990s. The Latin American countries also performed well prior to the debt crisis of the early 1980s, which had only a minor effect on countries in Pacific Asia.

Overall growth is reflected in per capita incomes. While Latin American incomes were considerably higher than those of the Pacific Asian countries up to 1985, by the late 1990s, income levels in Pacific Asia ($11,449) were 50 percent higher than those in Latin America ($7,622) (World Bank 2000). Income growth in the Central European countries has lagged behind even Latin America since the late 1990s. The growth rate in Chile's income levels has been only slightly below the average in Pacific Asia since 1985, and above it in 1995-97.

Pacific Asia's export performance was also better than that of Latin America in 1980-95. Latin America was able to lift its performance in 1995-97, with strong results in Mexico, Argentina, and the Dominican Republic (table 9-2). Latin American and Central European countries had comparable performance in 1990-95, while Poland's strong exports sustained a superior European performance over other regions in 1997-98.

Extensive debate has focused on the link between openness and economic performance (Sachs and Warner 1995; Rodrik 1999). Although analysts generally accept that trade liberalization makes a positive contribution to economic growth, at least in the medium-to-long term, some criticize the econometric evidence. Rodrik, in particular, emphasizes the importance of governance rather than openness per se. Even economists who accept the general proposition recognize that the short-term effects need not be positive (Mosley 2000). In practice, there is likely a considerable overlap, with more open economies also undertaking institutional reforms. The evidence from the countries covered by this study fits the general pattern, with a moderate positive correlation between growth in real gross domestic product (GDP) in the selected countries in the 1990s against their trade/GDP ratios for the same period (figure 9-1).

Figure 9-2 plots the aggregate export performance of Latin America and Pacific Asia (exports of goods and services in current U.S. dollars, indexed at 1995=100) and their real exchange rates in 1980-98. (The real exchange rate is the U.S. dollar rate adjusted by the relative movements in inflation, measured by GDP deflators.) The figure shows a significant negative correlation in the 1990s, implying that a real appreciation is associated with a negative movement in exports of goods and services.

We also regressed the export index in figure 9-2 against real exchange rates and the aggregate economic growth of major industrial economies in 1981-98. Table 9-3 shows that the aggregate export performance of the selected countries is positively affected by GDP growth in the industrial countries and negatively affected by their real exchange rates. Since the data are in index form (1995=100), the interpretation of the coefficients is that relative to the base year,

1995, a 1-point movement in the index of GDP in the industrial countries will call forth an increase of 2.27 points in the exports of goods and services in the selected developing countries. By contrast, a 1-point appreciation of the real exchange rate in the selected countries will cause a decrease of 0.46 points in their exports.

The main message from this analysis is that, while developing countries can do little about the economic performance of industrial countries, developing countries can operate on their own export performance in several ways. First, they can affect the real exchange rate by trying to control or liberalize movements in their nominal exchange rate, directly or indirectly (for example, through monetary policies). Similarly, an autonomous or policy-induced increase in foreign direct investment (FDI) inflows would likely cause an appreciation under a floating currency regime, and vice versa.

Second, developing countries could operate on price movements in their own countries by using macroeconomic and microeconomic policies that affect investment, technology, industry, and trade. For example, trade policies impact efficiency in the allocation of resources, technology, and productivity. Adoption of new technologies may be the key to improving productivity—and hence unit prices and international competitiveness. Although transparent and predictable trade policies are helpful in attracting FDI, which is often associated with new technologies, other governance factors also affect the attractiveness of a host country for FDI.

## Latin American Trade Policies

### *From Import Substitution to Outward Orientation*

Until the reforms that began in the 1980s, Latin America (like many developing regions) was characterized by a high degree of government intervention and state ownership. In trade policy, policymakers thought that import protection and import substitution industrialization (ISI) were needed to generate jobs and provide income stability. They used infant industry (economy) arguments to justify shutting out foreign trade by means of exchange controls, multiple exchange rates, quantitative import restrictions or prohibitions, high tariffs, subsidies, and tax breaks. Export restrictions or taxes channeled raw materials to domestic processing industries (in the transition economies, they have been used in the past to ensure food supplies). There was widespread xenophobia about foreign investment, and many countries

placed legal and constitutional obstacles in the way of foreign participation in the development of natural resources and financial and other services.

A particularly important consequence, the ISI policies created an anti-export bias: import protection reduces the demand for foreign currencies (apparently saving foreign exchange), but this inevitably pushes up the exchange rate, making exports more expensive and reducing their international competitiveness. Specifically, ISI policies had strong negative effects in agriculture—an area of comparative advantage in Latin America (Krueger, Schiff, and Valdez 1988), exacerbating rural poverty and encouraging the drift to urban areas. In industry, tariffs were generally high, unbound, and set in tiers that escalated with the level of processing, although they were often irrelevant because of the prevalence of nontariff measures (from minimum prices to quantitative restrictions).[2] Moreover, there were so many tariff exemptions that the published tariff often bore little resemblance to the duties collected.[3] The tariffs, import restrictions with liberal exemptions, and tax breaks for key sectors created a policy mix that was so complex as to be partly self-defeating. Industry lost touch with international markets, falling behind in the adoption of newer technologies and international competitiveness.

The lack of any discernable growth and high inflation in the 1980s paved the way for a break with the past. Per capita incomes were declining, unemployment soared, and social programs were threatened. In a number of cases, there were serious balance-of-payments crises (Indonesia, Mexico, and Nigeria); in Latin America, there was acute hyperinflation (Argentina, Bolivia, and Peru). Following the growing disillusion with the failure of past policies (or at least a recognition that the ISI model had run its course), many countries noted the achievements of the fast-growing economies in East Asia, which were either open (Singapore and Hong Kong) or had begun reforms much earlier (Korea and Chinese Taipei), albeit with different emphases in key elements.

Today, the trade policy situation is much clearer than in the pre-reform period. Developing countries have eliminated most nontariff barriers and tariff exemptions, applied lower most-favored-nation (MFN) rates, and adopted more uniform tariff structures. However, much remains to be done.

[2] Papageorgiou, Michaely, and Choksi (1990) provide an excellent review.

[3] For example, in Argentina, the average nominal tariff was reduced from 98 to 49 percent in the Martinez de Hoz period (1976-81), and stood at more than 30 percent in 1988, but the ratio of duties collected to total imports was close to 2 percent for all the years between 1970 and 1988.

***Trade Liberalization and Domestic Growth: First Evidence***

Table 9-4 gives an overview of the changes and their impact on growth. It presents applied (rather than bound) MFN tariff rates before and after the main reforms for a small group of countries. All the countries in the sample show a positive relation between reduced protection and increased growth rates (table 9-1). This relation is captured by "tariff liberalization gross elasticities," defined as the increase or decrease in the growth rates (before and after tariff liberalization) with respect to the decrease in tariff protection. [4] The gross qualification is intended to convey that tariff changes are likely to be accompanied by regulatory reforms in other domains (for instance, reduction of nontariff measures, liberalization of financial transactions, better macroeconomic policies, and general governance), which are generally (although not necessarily) consistent with tariff reductions.

Gross tariff elasticities can be estimated for the short and long run. Short-run estimates are based on changes in the growth performance between the five-year periods immediately preceding and following the liberalization; long-run estimates are based on the average growth rates for the entire periods available before and after liberalization. It seems reasonable to give precedence to gross elasticities in the short run because trade is only one growth factor among several. The impact of any tariff liberalization is likely to decrease with time, assuming all other things constant and the absence of indirect effects of liberalization on technical progress, and competitive market structures.

Table 9-4 provides three major results. First, all the short-run elasticities except one are negative, as expected. For instance, in Argentina, a 1-percent tariff decrease is associated with a 0.36-percent increase in the growth rate. The exception is Mexico, which exhibits a positive (although small) short-run elasticity. Setting data problems aside, two reasons may explain the Mexican anomaly: macroeconomic problems and the already existing *maquiladora* regime. In any case, this result is interesting because it fits well with the insistence of the Mexican authorities to conclude the NAFTA agreement.

Second, the highest elasticities are those observed for Chile, which has a uniform MFN tariff—another observation tending to support the superiority of the uniform tariff formula over a product-discriminatory tariff liberalization (Tarr 2001). This result likely mirrors the existence of

[4] It is crucial to relate changes in growth rates to *changes* in the level of protection. Relating growth rates to the *level* of protection (as Bairoch [1993] did in examining the European liberalization of the 1860s) is not the relation suggested by economic analysis, and indeed it leads to a result—the European tariff liberalization of the 1860s-1970s leading to recession—that is not observed if changes are taken into account (Messerlin 1985).

other liberalization measures in Chile (a uniform tariff is such a bold approach that it is unlikely to be limited to tariff matters).

Third, long-run elasticities may be positive—once again, not such a surprising result because many factors other than trade liberalization play a role in domestic growth. Long-run elasticities are negative in only three cases: Argentina, Chile, and Poland. In the Chilean case, this result re-emphasizes the robustness and simplicity of the Chilean trade policy in the long run (enhancing the expectations of further liberalization in Chile, as recently underlined by the reduction in MFN tariffs from 11 to 9 percent with little opposition). By contrast, the Polish case may reveal the expectations related to the Polish accession to the European Union (Poland will have to adopt lower European Union tariffs). Positive long-run elasticities are consistent with economic analysis for the remaining eight countries, to the extent that some reversal in tariff liberalization is observed in the other countries of the sample, particularly if anti-dumping measures are included. That leaves Argentina as the only country in the sample with a negative long-run elasticity despite a (slight) reversal in tariff protection between 1992 and 2000.[5]

Gross tariff liberalization elasticities can also be computed with respect to changes in export performance. Table 9-4 presents the results for exports of goods only, and for exports of goods and services. Negative elasticities are the rule, a result consistent with economic analysis showing that tariffs on imports are de facto taxes on exports.

### *Multilateral Framework and Domestic Goals*

Prior to the Uruguay Round, Latin American interest in GATT was largely aimed at improving access to foreign markets, including by securing legitimacy for special and differential treatment. At the beginning of the Uruguay Round, the position of the Latin American countries began to evolve. GATT members, such as Argentina, Colombia, and Mexico, began to play an active and positive role in the Uruguay Round negotiations. Initially, they adopted a strategy of asking for credit for their previous unilateral actions on trade liberalization, which they undertook in connection with World Bank lending programs. This was not a successful move, both because industrial countries did not believe that there would be a reversal of the ongoing trade liberalization, and because Latin American governments were increasingly convinced that trade liberalization was good for the implementing country. In addition, since 1986, some 15 Latin

[5] The tariff reversal consisted of the merger of tariffs and the statistical tax (hence, the reversal was more apparent than real).

American countries have joined the GATT/WTO, binding all their MFN tariffs at ceiling levels ranging from 20 to 50 percent and, in some cases, making binding commitments on nontariff measures.

In the Uruguay Round itself, all Latin American GATT members made comprehensive ceiling-binding commitments, normally around 35 percent. The main exceptions to the 35 percent ceiling binding were Peru, which bound across the board at 30 percent, and Costa Rica, which bound at 40 percent. Overall in the Round, the Latin American countries cut their bound rates by 24.5 percent (Guzman and Laird 1998). However, these concessions were to bind at rates substantially above current applied tariff rates, leaving scope for tariff increases.

Apart from tariff reforms, the Latin American countries also committed themselves to the multilateral rules-based system, which the Uruguay Round was extending in such areas as services and trade-related intellectual property rights (TRIPs), as well as to tightened disciplines in other areas (see Safadi and Laird 1996). These disciplines are being reviewed in the WTO work program established at the Fourth WTO Ministerial Meeting in November 2000, where market access negotiations in industrial products were added to those previously agreed on in agriculture and services.

### *Regionalism Old and New*

Prior to the reforms of the last 10-15 years, tariff preferences were widespread throughout the region. But they were established bilaterally or among groups of countries under the Asociación Latino Americana de Integración (ALADI) umbrella with different product coverage, limited degrees of preference, and often production-sharing agreements. All these agreements failed for several key reasons (de Melo and Dhar 1992): many products were excluded from the coverage of the agreements, high rates of protection were maintained against third countries, and there was little scope for economies of scale. Thus, the early regional arrangements essentially led to amplified trade diversion, and reduced rather than increased welfare (Langhammer and Hiemenz 1991).

Paralleling the autonomous reform process in Latin America and the increased GATT/WTO membership in the 1980s and early 1990s, RTAs have flourished in Latin America—mirroring a worldwide movement to which the European Union has by far been the largest contributor, the hub for a host of RTAs (Crawford and Laird 2001; Messerlin 2001). Among the more important of these new or reformulated RTAs are Mercosur (and its FTAs with

Bolivia and Chile), the Andean Community, the Central American Common Market (CACM), the G3 (Mexico, Colombia, and Venezuela), and the Caribbean Rim Agreement. Several Latin American countries are also participants in the Asia-Pacific Economic Cooperation (APEC), although this is not as yet a preferential trade agreement, espousing open regionalism. Last but not least, there is the plan for a Free Trade Area for the Americas (FTAA) by 2005 that would subsume all existing trade agreements in the region and carry trade liberalization further than previously imagined.

All these new RTAs differ markedly from those of the 1960s. They not only cover tariff liberalization covering almost all products, but they also aim at comprehensive agreements in the areas of investment, intellectual property, rules of origin, anti-dumping duties, sanitary standards, dispute settlement, and competition policy. Beyond the questions related to their sheer complexity and overlap, these new RTAs raise two key strategic issues for Latin American countries.

First, do RTAs with industrial countries have greater credibility than intradeveloping country RTAs? This question of increased credibility, as well as improved market access and even political stability, echoes the problems behind the candidatures of Central European countries to the European Union. Available evidence from these cases does not strongly support the credibility argument in favor of RTAs with industrial countries. For instance, tariff increases from European Union partners have preceded the Europe Agreements. They have been unsuccessful in reducing the skyrocketing use of anti-dumping measures, both between the members of the agreements and between the members and outsiders. Their complexities (for instance, on rules of origin) have generated transaction costs higher than small tariffs (moreover, these costs tend to be appropriated by trade intermediaries, fueling rent-seeking tactics). They have generated increases in applied tariffs by developing countries against their neighboring nonmembers (in an attempt to minimize losses of tariff revenues due to decreases in their tariffs vis-à-vis industrial hubs). Lastly, for most of these agreements, there is no evidence of large FDI inflows that could be directly attributed to them. However, Hartler and Laird (1999) show that Turkey's MFN tariff was reduced by half and the implementation of a number of measures under the Customs Union Agreement has been beneficial to Turkey and third countries. The main exception is agriculture, where both Turkey and the European Union have high levels of protection. Evidently, much depends on the details of the case, and it cannot be assumed that engaging in an RTA with industrial countries is necessarily welfare increasing.

Second, how easy will it be for Latin American countries to multilateralize the existing RTAs in which they participate? For instance, to what extent will the combination of the FTAA and an RTA with the European Union be close to worldwide free trade for the Latin American countries that would decide to join these two envisaged RTAs? If they were close to worldwide free trade, then Latin American countries might be induced to multilateralize them rapidly in the context of WTO Rounds of liberalization—an incentive that could be shared by other developing countries in the world, such as those in the Middle East and North Africa (Hoekman and Messerlin 2002).

## Trade Policy Regimes: An International Comparison

### *Evolution of Trade Policies*

There are some indications that trade policies have moved more slowly in Latin America than elsewhere. For instance, the use of nontariff measures has declined in many countries (Michalopoulos 1999; Laird 1999). However, nonautomatic licensing is still relatively frequent in Latin America (often related to the administration of tariff quotas in the agricultural sector); variable levies, associated with the use of price band systems, are important in Chile and Colombia; and prohibitions are still current in Brazil. Counterbalancing this decline in nontariff measures, there has been an increase in the use of administrative measures, such as anti-dumping, where certain Latin American countries (Argentina, Brazil, and Mexico) are among the most intensive users. Lastly, export regimes have survived in many Latin American countries, in sharp contrast with the Pacific Asian countries, which have mostly dismantled their export regimes since 1995, with the nearly complete elimination of the export processing zone instrument.

To gain an understanding of these moves in relative terms, we attempt to construct indices to allow broad comparisons between the trade policies of various countries. This approach highlights the determinants that producers and traders take into consideration when deciding to export to (or invest in) foreign markets. Firms export more to or from markets subjected to the best trade policies (even if they still do not fit the free trade ideal) than to other markets, and trade policies compete with each other to attract trade (and investment) flows. The approach has two additional advantages: it provides useful lessons to countries for improving

their existing trade policy, and it does not require knowledge of the absolute costs related to trade policies (which is hard to find), but a mere ranking of the trade policies examined.

When looking at foreign markets, firms consider a wider range of features than free trade. First, they consider whether the examined trade policy is simple to understand and predict. Second, they determine whether it will guarantee secure access in the future. And they analyze the policy's openness in terms of market access (the free trade component). In order to address these concerns, we considered three indices—simplicity, irreversibility, and openness—for a reference set of 39 countries (including 10 in Latin America), based on data from WTO (2001), UNCTAD's TRAINS database, and the OECD.

### *Simplicity Indices*

*Building the Indices*

Simplicity indices aim at capturing the information and other transaction costs that a trade policy imposes. They are intended to determine the extent of effort that producers, traders, and investors need in order to understand the trade policy of a country. The simplicity index in agriculture relies on six basic indicators.

1. Does the tariff schedule of the country examined include many tariff lines, meaning that more effort most be devoted to find the correct tariff line to be used, or that there are more risks of errors by or conflicts with the country's customs authorities than would be the case with a tariff schedule consisting of a more limited number of tariff lines?
2. What is the percentage of non-ad valorem bound tariffs? A low percentage would imply that greater effort is required to assess the real level of protection because specific tariffs or combined specific ad valorem tariffs entail a level of protection that varies with world prices.
3. What is the standard deviation of bound tariffs? A high deviation requires more effort to find out the exact tariff rate. Risks in the face of different rates are high, and the consequences potentially more costly than for a low standard deviation. A zero standard deviation signals a uniform tariff policy that has two advantages. First, it minimizes the information and transaction costs of foreign exporters for determining the nominal tariff rate (unique by definition). Second, it does not disturb the country's comparative advantage (the effective rate of protection of each industry is equal to the unique

nominal tariff rate), so that foreign investors have no reason to make complex calculations in order to know the effective tariff rates that their production will face, if located in the country.

4. What is the percentage of non-duty-free tariffs? A high percentage would imply greater risks of facing different tariffs (hence, information costs).

5. How many product groups are affected by the export subsidy reduction commitments signed by the country in question under the Uruguay Agriculture Agreement (UAA)? A small number would suggest a less complicated assessment of the support granted to the domestic producers of the examined country.

6. How many tariff quotas are included in the country's UAA commitments? A high number would imply the need for greater efforts to investigate the impact of these tariff quotas.

This list does not exhaust all possible indicators of simplicity. Indicator 1 would be improved with information on the existence and magnitude of changes in the number of lines during recent years (in order to capture the possible reshuffling of the tariff schedule for protectionist purposes) and on the number of tariff schedules that reflect preferential agreements involving the country examined. Indicator 2 would be more complete with evidence on seasonal tariffs and/or the number of public authorities (ministries and agencies) in charge of trade issues. Indicator 4 would be improved by information on low tariffs (say, lower than 3 percent) in order to get a sense of the extent to which trade barriers matter and to understand the rationale for such a wasteful allocation of resources (collecting low tariffs often does not even cover the administrative costs of customs). Indicator 6 could be improved with information on the management of tariff quotas—in particular, whether they are granted on a first come, first served rule or on another rule (underscored by OECD [2001], a first come, first served rule tends to have a protectionist impact).

The simplicity index in industry relies on five basic indicators. The first four are similar to the first four indicators for agriculture. The fifth indicator consists of the frequency of nontariff measures. A high frequency would require greater efforts to investigate the exact impact of these nontariff measures in the export market.

The first four indicators for industry could be improved in ways similar to those for agriculture. Indicator 5 would be improved with data on the number of customs officers (or enforcement officers in other government departments involved in NTM management) per dollar of imports, in order to capture the intensity with which nontariff measures could play an effective

role as a trade barrier on imports. However, there is no systematic information available in this area.

For each country, each basic indicator receives a score from 1 to 10, which reflects the decile to which the country belongs for that indicator. For instance, the highest grade (10) is given to those farm trade policies pertaining to the decile with (1) the smallest number of tariff lines, (2) the lowest percentage of non-ad valorem bound tariffs, (3) the lowest standard deviation of bound tariffs, (4) the lowest percentage of non-duty-free tariffs, (5) the smallest number of product groups affected by export subsidies, and (6) the smallest number of tariff quotas. In manufacturing, the same scoring system is applied for the first four common indicators with agriculture, and the highest grade (10) is given to trade policies pertaining to the decile with the lowest frequency of nontariff measures for indicator 5.

Then, for each country, aggregated indices for agriculture and industry are calculated as simple averages of the corresponding basic indicators. This (admittedly crude) method provides indices for the 39 countries and six regions (North America, Latin America, Europe, Pacific Asia, Southeast Asia, and Africa). The simplest trade policy would receive an index of 10 (it should be stressed that an index of 10 does not mean that the trade policy is perfectly simple, but merely that it is among the simplest available in the reference sample of 39 countries), and the most complicated an index of 1. As simplicity indices of 10 and 1 do not necessarily exist (because they are the simple average of several basic indicators), the average simplicity index for the whole set of countries is used as the reference figure.

*Results*

Table 9-5 shows that the seven Latin American countries for which there is information (there is no information available for Chile, Jamaica, and Peru) enjoy a simpler trade policy in agriculture than the reference average for the 39 countries.[6] Only Colombia exhibits a trade policy less simple than the reference set. The European countries (Norway and the European Union) have the poorest performance in simplicity in farm matters, reflecting the many instruments included in their agricultural policies. Interestingly, table 9-5 shows no result by country that would be at odds with the general perception from the past 20 years of analyses and negotiations in the farm sector.

[6] Table 9-5 gives summary results by aggregated index. Detailed results by indicator are available from the authors.

Table 9-5 shows that the situation in industry is dramatically different. Latin American countries have a markedly more complicated trade policy than the reference average for the whole sample of countries. In particular, the three largest Latin American countries (Argentina, Brazil, and Mexico) have the most complicated trade policies of all the countries in the sample (with Turkey, but the observations for this country date from 1997, that is, at the time when the customs union signed with the European Union had not yet simplified Turkey's trade policy). Three small Latin American countries (Jamaica, Costa Rica, and Chile) have an index higher than the average index of the reference sample of countries.

The sharp contrast between the situation of Latin American countries in farm and industry matters is striking, all the more so because of the negligible difference between the world simplicity indices in agriculture and industry. This implies a converse shift in other countries. Of course, European countries provide the best illustration of this converse situation, although their relative performance in simplicity of industry is mediocre (close to the world average).

Of course, simplicity is not synonymous with openness. Certain countries have a simple trade policy because they are open, as best illustrated by Iceland in industry, or Hong Kong, China in agriculture and industry. But simplicity does not necessarily imply openness. For instance, the European Union trade policy in industry is relatively open but complicated; trade policies of African countries tend to be relatively simple but not open; and India and (to a lesser extent) Sri Lanka exhibit relatively complex, closed trade policies.

This observation raises two key issues for improving trade policies. The first is the need to pay attention to the divergence between the measures of simplicity and openness—in particular, complex but open trade policies—since the lack of simplicity is likely to erode the benefits from open market access. Second, detailed information based on the basic indicators shows the main sources of the lack of competitiveness in Latin American trade policies vis-à-vis the policies of the rest of the world: the number of tariff lines in certain Latin American tariff schedules, the share of non-duty-free bound tariffs, and the frequency of nontariff measures.

***Irreversibility Indices***

*Building the Indices*

The irreversibility indices aim at capturing the risks that an existing trade policy could be reversed rapidly and substantially. Irreversibility is a major dimension of trade policy envisaged by producers, traders, and investors—and by GATT/WTO with the concept of bindings.

The irreversibility index in agriculture relies on four indicators. Greater irreversibility in trade policy implies the following:

1. A smaller share of unbound tariffs in the tariff schedule. Unbound tariffs exempt the country from the most stringent WTO discipline, that is, the need to renegotiate any increase in a tariff above the binding ceiling rate.
2. A smaller standard deviation in the fill rates of tariff quotas. A wide dispersion reflects the impact of quota management methods, assuming that the tariff quotas included in the UAA (3 to 5 percent of domestic consumption) are so small that they should be fulfilled at a similar (presumably high) rate.
3. A smaller average use of export subsidy outlays.
4. A smaller percentage of tariff lines potentially subjected to special agricultural safeguard provisions.

The list misses the most relevant information on domestic farm policies, for instance, the existence of (legal or de facto) trade monopolies or farm boards, the risks of reversibility associated with sanitary and phytosanitary standards, labeling procedures, and nontrade concerns. For example, environmental policies may be perverse if, as is the case in the European Union, they may favor farmers who have been the initial polluters.

In industry, the index relies on five indicators:

1. A smaller share of unbound tariffs in the tariff schedule (as in agriculture)
2. A smaller number of tariff lines with bound tariffs higher than 15 percent (because high unbound tariffs generate either higher risks of reversal or risks of larger reversals)
3. A smaller difference between the bound and applied tariffs
4. A smaller frequency of core nontariff barriers (NTBs)

5. A smaller number of anti-dumping cases (per hundred million dollars of imports) initiated during the period 1995-99.

The economic rationale of all these indicators is obvious, although there are some apparent data problems.[7] As for simplicity, the list of indicators could have been more complete. For instance, a country that has no anti-dumping regulations is treated the same as one that has the regulation but has initiated anti-dumping cases, although the potential risk of irreversibility may be quite different, at least in the short run. As a result, it would have been useful to add to indicator 4 an indicator on the existence of anti-dumping regulations adopted under the Uruguay Anti-dumping Agreement.

*Results*

The results in table 9-5 appear plausible, although the picture in manufacturing for Central European countries (Czech Republic, Hungary, Poland, and Slovakia) and Gabon seems too optimistic. (This may be due to the fact that, for these countries, the frequency of their core NTBs has been arbitrarily set to the regional average; see footnote 7.)

Irreversibility indices provide the same global results as the simplicity indices, although they are slightly less marked: the Latin American countries exhibit a noticeably higher level of irreversibility than the reference sample of countries in agriculture (European countries have the lowest level), whereas the converse situation prevails in industry. Chile is the only exception in industry, with an index higher than the world average. The contrast between large and small Latin American countries that was visible for simplicity does not hold clearly for irreversibility.

Detailed results by basic indicator (not shown) suggest that trade policies can lack irreversibility for different reasons. Three basic indicators explain the less-than-average indices of Latin American countries: the large number of tariff lines with bound tariffs higher than 15 percent (more than 99 percent of the Latin American tariff lines are in this situation, with the

[7] For example, in some instances, applied tariffs are higher than bound tariffs for certain countries (indicator 3). This may result because observations on bound and applied tariffs are for different years or because of trade-weighted averaging. Moreover, differences between bound and applied tariffs should ideally be assessed differently whether they are calculated over a small share of unbound tariffs or over a large share. A score of 1 has been attributed to all countries with a share of unbound tariffs larger than 50 percent (independent of the observed difference between bound and applied tariffs for the country in question). Indicator 4 (frequency of core nontariff barriers) is not available for all countries. The European Union frequency has been applied to Central European countries, and the regional average to the Latin American, Pacific Asian, and African countries for which a specific observation is missing.

exception of Brazil [97.4 percent]); the large difference between bound and applied tariffs (the record being held by Jamaica with 41.2 percent); and the intensive use of anti-dumping measures per hundred million dollars of imports (Argentina and Peru being 18 times more aggressive than the United States and 11 times more aggressive than the European Union).

### *Openness Indices*

*Building the Indices*

The level of protection is another key dimension examined by producers, traders, and investors when making their decisions, and we attempt to capture this with the openness index. The openness index in agriculture relies on nine indicators. Greater openness in farm trade policy implies the following:

1. A smaller average bound tariff as estimated by the OECD
2. A smaller average bound tariff as estimated by the World Bank[8]
3. A smaller average applied tariff
4. A smaller share of tariffs lower than 15 percent
5. A smaller share of tariffs lower than 100 percent
6. A smaller escalation index (the ratio of the average tariff on semi-processed goods with respect to the average tariff on unprocessed products, as calculated by WTO 2001, in order to take into account the magnification of nominal protection introduced by the escalation process
7. A lower producer support estimate mirroring production subsidies (from OECD)
8. A lower final post-Uruguay Round budgetary outlay commitment on export subsidies
9. A higher fill rate of the tariff quotas.[9]

The openness index in industry relies on eight indicators. Greater openness in manufacturing trade policy for a given country implies the following:

1. A smaller average bound tariff

[8]Bound tariffs in agriculture often have a specific tariff component that is difficult to quantify in ad valorem terms; therefore, we rely on the two available estimates provided by the OECD and the World Bank.

[9]There is so little information on the average applied tariffs in agriculture that, unfortunately, it has been

2. A smaller average applied tariff
3. A smaller share of peak tariffs (higher than 15 percent)
4. A smaller escalation ratio (the ratio of the average tariff on finished products with respect to the average tariff on raw materials, as calculated by WTO 2001
5. A smaller standard deviation of the applied tariffs (because a narrow range of tariff rates minimizes the risk and magnitude of effective protection)
6. A smaller frequency of core NTBs
7. A smaller use of anti-dumping actions (per thousand dollars)
8. An indication of whether the country has signed the information technology agreement (ITA), reflecting the country's openness to technical progress, which is key for liberalizing services.

Since several Latin American countries are aggressive users of anti-dumping actions, an additional interesting piece of information would have been the average anti-dumping duty, or the ad valorem equivalent of anti-dumping measures.

*Results*

Table 9-5 provides a summary by region. According to detailed results by basic indicator (not shown), Latin American countries have average openness performance (compared with the reference sample) in agriculture, but significantly lower than average in industry. In industry, there is a clear division between small countries (Chile, Costa Rica, and El Salvador) that are more open than the sample average, and large countries (Brazil, Mexico, and Argentina) that exhibit significantly lower indices than the world average.

**Policy Lessons**

The approach described here is not only useful to better assess the existing situation. It also provides useful lessons for improving existing trade policy by helping each country to assess the major weaknesses of its current policy. Thus, each country decides which remedy is most urgent and whether to undertake action in a unilateral or multilateral framework. For instance, should a country focus on the simplicity dimension of its trade policy, or should it also

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impossible to introduce this indicator.

deal with the irreversibility or openness aspects? For each aspect, what is the precise source of problems, hence the priority instrument for improvement? Such questions are often overlooked when adopting trade policy. For instance, many difficulties in trade facilitation flow from the implementation of complex trade policy. Solving the problem at its source (simplifying trade policy) is a more efficient action than creating a problem by adopting a complex trade policy, and then investing in ways to deal with the problems it creates (Maur and Messerlin 2001).

The three indices are correlated to a certain extent, but differently in agriculture and industry.[10] The trade policies of most Latin American countries lag behind those of the rest of the sample—Chile being the main exception, with, in several instances, certain small Latin American countries (El Salvador and Jamaica). The fact that the Latin American country positions are better in agriculture than in industry reflects two converging forces: the more protectionist approach of Latin American trading partners in agriculture, coupled with the Latin American comparative advantages in this activity, which induce these countries to have a more liberal trade policy. Of course, this situation is not satisfactory for Latin American consumers (who would benefit from less protection in industry) and producers (who would benefit from less protection in Latin American trading partners).

This approach is useful from a policy perspective because it provides insight on the areas where improvements in policy should be made and on the environment in which such improvements should be made. This second point deserves more attention than usually granted. Openness is an issue that is best dealt with through WTO negotiations because a country can then compound the benefits from its lowered protection by the gains from lowered protection among its trading partners. By contrast, simplicity is a feature that could be addressed through unilateral actions because it permits a full return from the level of openness granted by previous trade negotiations. It seems counterproductive to erode granted trade concessions and their potential benefits by implementing a complicated trade policy, the ultimate consequence of which is to restrict market access. In such a case, the country bears the political costs of liberalization, without realizing the economic gains. Irreversibility may be a feature that needs multilateral disciplines, but it also has a purely domestic component in terms of subsidies and broadly conceived national treatment.

In sum, decomposing trade policy into features that have different (unilateral or multilateral) tones suggests a subtle approach to trade liberalization. For instance, simplifying

[10] The lower level of quality for agricultural data compared with data on industry does not allow the combination of indices for agriculture and industry. This is even truer for services, where data are so poor that it has been impossible to conduct a similar exercise of scoring and calculating indices by country and

its trade policy would be unlikely to provide large benefits to Chile, which already ranks high in this domain. By contrast, simplification would be productive for Argentina and Mexico; for instance, Mexico should reduce the number of tariff lines, and Argentina should reduce nontariff measures. Adding services would reinforce this contradiction, to the extent that privatization of services undertaken in Latin American countries is equivalent to liberalizing these services, an assumption that many economists and observers would challenge. In effect, too many of these privatizations have consisted of moving public monopolies into private hands without a substantial opening of the markets involved.

**Trade Policies and Other Economic Policies**

Latin America has had a long history of populist policies, leading to overly expansive macroeconomic policies relying on deficit financing, generalized controls, and a disregard for basic economic equilibria (Dornbusch and Edwards 1991). Policymakers, rejecting monetarist orthodoxy and influenced by structuralist supply-side solutions, thought that idle capacity would provide leeway for the economic expansion needed to improve living standards without running inflationary risks. This was done by deficit financing, covered by foreign borrowing. When bottlenecks arose, usually from a lack of foreign exchange, devaluation was initially rejected because of the likely adverse consequences for inflation and living standards. It was also argued that devaluation would not work because of institutional rigidities. For example, under existing systems of land tenure, it is easy to avoid increasing agricultural production in response to price incentives (increasing output would have required the possibility of creating larger farms). If agricultural production were increasing, the gains would be offset by a decline in the terms of trade. Moreover, in the absence of equivalent domestically produced goods, imports would not fall. Thus, it was argued that devaluation would not improve the trade balance, but rather lower real incomes and accelerate inflation. Nevertheless, each time the economic situation deteriorated, governments were usually forced to resort to price realignments, devaluation, exchange controls, and import restrictions.

In Latin America, more than most other developing regions, fixed or managed exchange rate policies have often been used as a nominal anchor to help combat inflation. The risk attached to such policies is that, when real exchange rates appreciate, there is a negative effect on export competitiveness and export performance, affecting the overall balance-of-payments

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region.

position. This occurred in Mexico until the tequila crisis of 1994, in Brazil up to 1998, and most recently in Argentina. Thus, Latin American countries (and the selected European countries) have persistently run current account deficits (table 9-6). Although Pacific Asian countries faced a similar problem until the 1990s, they have had greater success in controlling deficits than has Latin America.

In order to combat the deterioration in trade performance and balance of payments as a result of real exchange rate appreciation, countries in Latin America often used import restrictions in the past. However, with the tightening of WTO disciplines and Latin American countries' increased participation in regional trade agreements, the option of using trade policy for balance-of-payments reasons has become more difficult. In any case, trade measures do nothing to address the domestic deficits that underlie current account imbalances, and likely inhibit the type of structural change necessary to resolve such problems. Therefore, in the past 10-15 years, governments have increasingly addressed such macroeconomic problems with fiscal and monetary measures.

Several economic indicators explain the nature of the problem. For example, Latin American (and European) countries have taken a less strict fiscal stance than the selected Pacific Asian countries, which have more often run fiscal surpluses. Within Latin America, only Chile and the Dominican Republic have run surpluses since 1990. In Latin America, fiscal deficits have been financed both by overseas borrowing and by printing money, giving rise to periods of high inflation and even hyperinflation. The Central European countries have, at times, experienced similar problems, which are rare in the Pacific Asian countries that have generally had less than single-digit inflation since the mid 1980s. In general, the Latin American countries had greater success in tackling inflation in the late 1990s, although it has persisted above 10 percent in Colombia and Mexico.

Latin America's need for foreign borrowing to finance development has been occasioned by the relatively poor rates of domestic savings and investment. In the past 20 years, the GDS/GDP and GDI/GDP ratios in Latin America (and the selected European countries) have typically been 10-15 percentage points lower than those of Pacific Asia.[11] For example, the GDS/GDP and GDI/GDP ratios were 21.3 and 19.9 percent, respectively, in Latin America in 1997, and the corresponding figures for Pacific Asia were 33.7 and 37.1 percent, respectively. Developing and transition economies have also had a poor record in attracting FDI and indeed have often followed policies that explicitly rejected inward FDI flows. However, these policies

[11] GDS is gross domestic savings and GDI is gross domestic investment.

changed in the 1990s, and recent data show that Latin America had some success in increasing foreign investment in the 1990s (table 9-7).

Prior to the change in foreign investment policies, Latin America—and other developing regions—relied on sovereign borrowing from international financial institutions and foreign banks (although less so from banks since the debt crisis of the early 1980s). This has led to a huge debt servicing commitment. The debt service/gross national product ratios of Latin American countries are comparable to those of other regions, but, reflecting their poorer trade performance, Latin American ratios of total debt service to exports of goods and services have typically been around 15 percentage points higher than other regions, for example, 35 percent in 1998, compared with 21.7 percent for Pacific Asia and 18.1 percent for the European countries.

Latin America's performance resulted in lack of confidence in the region, which is also reflected in relatively high real interest rates, 10-18 percent in the 1990s, compared with 5-8 percent for Pacific Asia. If the private sector has to pay such high interest rates for borrowing for capital investments, this must also affect Latin America's international competitiveness. Competitiveness is factored into export performance through relative prices that are a component of real exchange rates.

Thus, macroeconomic policies impinge on trade performance through a number of channels. High inflation, as a result of lax fiscal and monetary disciplines, directly affects all prices in the domestic economy. High interest rates, which result from uncertainty, and high foreign borrowing affect factor prices. And relative price movements are a component in the real exchange rate. In addition, using the nominal exchange rate as an anchor to control domestic inflation may result in a real appreciation with negative effects on export performance. If import restrictions or import taxes are used to tackle balance-of-payments deficits, they will also cause an anti-export bias and, by locking in structural weaknesses, make adjustment more difficult.

**Overall Evaluation**

WTO commitments have helped to lock in autonomous reforms, and have contributed to the predictability and transparency of trade regimes (governance issues), although they have done little to further open Latin American markets. Some advances have been made through regional trade agreements, despite important exclusions. The new WTO agenda and ongoing negotiations in RTAs may lead to further changes, but there is an impression that trade reforms

have stalled, and the evidence on simplicity, irreversibility, and openness provided above shows that there is considerable variation among countries. Much remains to be done on simplifying and opening up trade regimes and locking them in. Moreover, although the analysis has focused on trade policy, good governance requires actions on the entire legal framework of a country. Privatization programs tend to focus too little on effective competition, weak government procurement procedures, and the lack of a strong competition policy in all but a few countries. Therefore, markets are less contestable than is desirable, and this impacts the international competitiveness of domestic production.

To understand the evolution of trade policy in Latin America, it is important to take macroeconomic policy into account. The relatively high level of inflation in the region led some countries to adopt fixed exchange rates or managed floats, which, together with other policies, caused real exchange rate appreciation with negative effects on export competitiveness. Latin America's savings/investment ratios are low compared with those in Pacific Asia. Past policies pushed up the cost of borrowing for domestic investment and made it difficult for Latin America to attract FDI, the key to improving productivity and competitiveness.

Finally, while the majority of developing countries have much to do to complete their trade reform programs, they continue to face the problem of protectionism in major markets (Laird 1999; Messerlin 2001). Apart from high, escalating tariffs on certain key exports of the developing countries, they have increasingly resorted to administrative protection—anti-dumping policies and export restraint agreements. Developing countries face nontariff barriers to their exports of chemicals, iron and steel, other basic manufactures, textiles and clothing, and electronic goods. In addition, quotas, surcharges, variable levies, subsidies, and state trading have distorted agricultural trade. This result partly reflects the absence of developing countries in the GATT rounds. Hence, it is important for these countries to participate actively in the post-Doha WTO work program in order to further their interests in removing barriers to trade.

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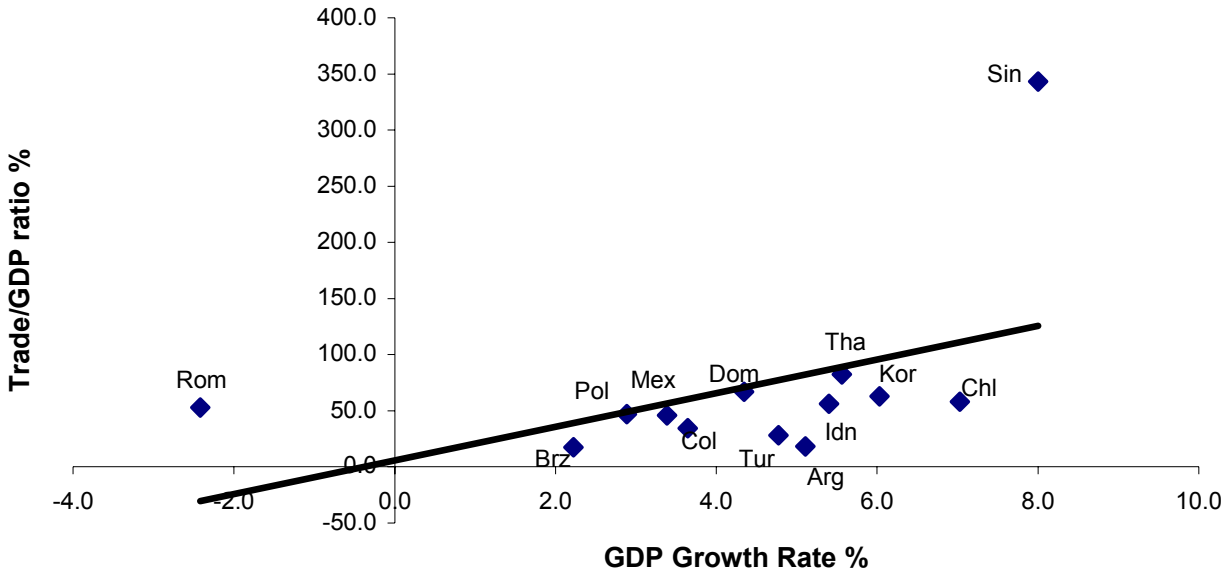
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**Figure 9-1. Trade/GDP and GDP Growth, 1990-98**




Source: Data from WDI 2000 (CD-ROM).

Note: Countries in the sample are listed in table 9-1.

**Figure 9-2. Real Exchange Rates and Exports, Latin America and Asia, 1980-98**

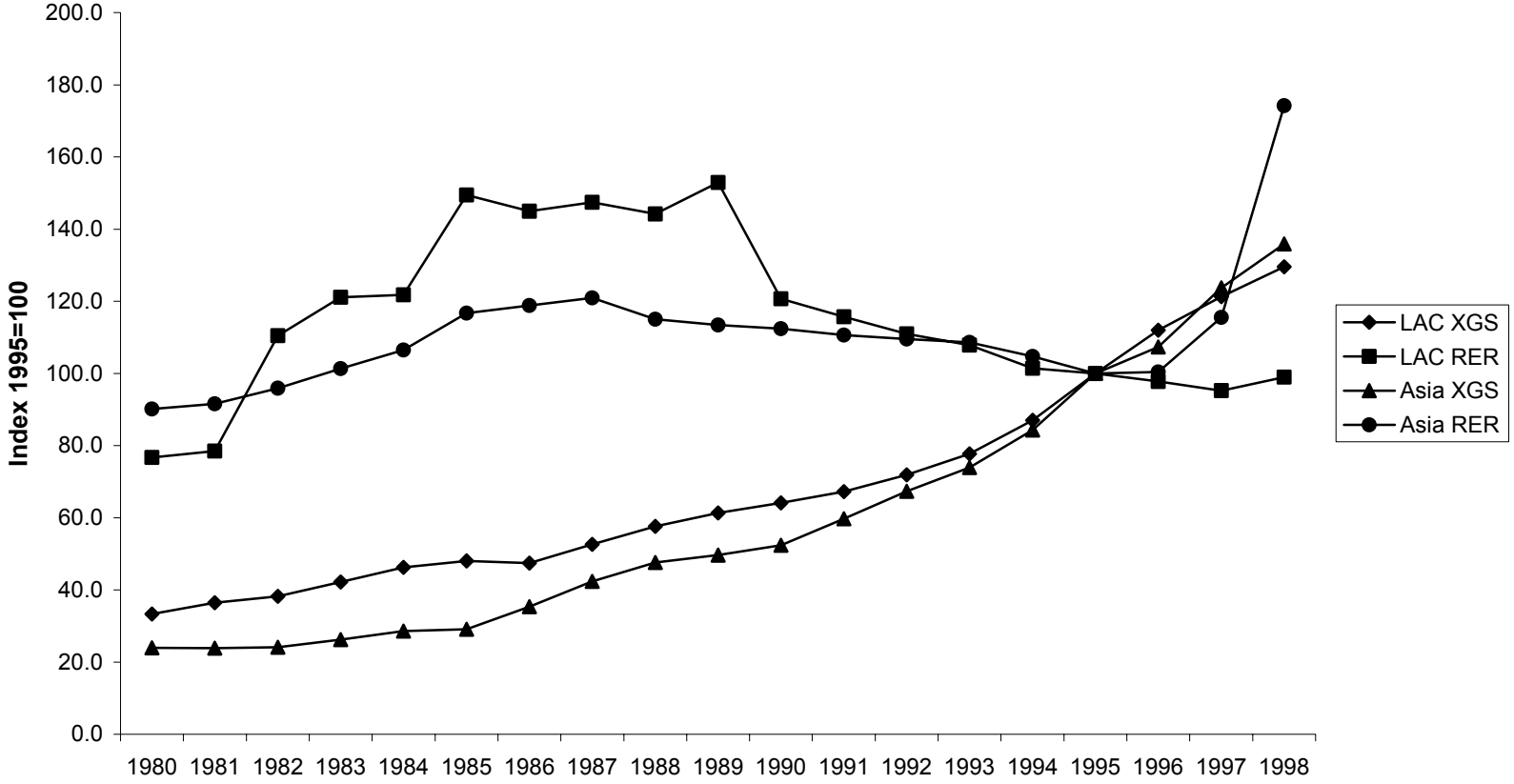


**Table 9-1. Real Growth in GDP in Selected Countries, 1965-98**
(Percent)

| Country/region | 1965-70 | 1970-75 | 1975-80 | 1980-85 | 1985-90 | 1990-95 | 1995-97 | 1997-98 |
|---|---|---|---|---|---|---|---|---|
| Argentina | 4.0 | 3.1 | 2.8 | -2.5 | -0.5 | 6.6 | 6.8 | 3.9 |
| Brazil | 7.8 | 10.3 | 6.7 | 1.1 | 2.0 | 3.1 | 3.0 | 0.1 |
| Chile | 4.6 | -1.4 | 7.3 | 0.9 | 6.7 | 8.7 | 7.5 | 3.4 |
| Colombia | 5.9 | 5.7 | 5.4 | 2.2 | 4.5 | 4.5 | 2.4 | 0.6 |
| Dominican Republic | 9.0 | 9.0 | 4.9 | 2.3 | 2.8 | 4.2 | 7.7 | 7.3 |
| Mexico | 6.2 | 6.3 | 7.1 | 1.9 | 1.7 | 1.5 | 6.0 | 4.8 |
| Latin America (average) | 6.2 | 5.5 | 5.7 | 1.0 | 2.9 | 4.8 | 5.6 | 3.4 |
| Korea, Republic of | 10.5 | 8.1 | 7.1 | 8.1 | 10.0 | 7.5 | 5.9 | -5.8 |
| Singapore | 12.9 | 9.5 | 8.5 | 6.2 | 8.4 | 9.1 | 7.8 | 1.5 |
| Thailand | 9.1 | 5.7 | 8.0 | 5.4 | 10.3 | 8.6 | 2.1 | -9.4 |
| Indonesia | 6.3 | 7.8 | 7.9 | 5.6 | 7.1 | 7.8 | 6.3 | -13.2 |
| Asia (average) | 10.9 | 7.8 | 7.8 | 6.6 | 9.6 | 8.4 | 5.2 | -4.6 |
| Poland | - | - | - | 0.1 | 1.1 | 2.7 | 6.4 | 4.8 |
| Romania | - | - | 7.4 | 3.1 | -3.0 | -2.1 | -1.5 | -7.5 |
| Turkey | - | 5.7 | 2.8 | 4.9 | 5.6 | 3.2 | 7.2 | 2.8 |
| Europe (average) | - | 5.7 | 5.1 | 2.7 | 1.2 | 1.3 | 4.1 | 0.0 |

*Note*: Values are based on GDP at market prices (1995 U.S. dollar prices).
*Source*: World Development Indicators (2000, CD-ROM).

**Table 9- 2. Growth in Exports of Goods and Services, 1980-98**
(Percent based on current dollars)

| Country/region | 1980-85 | 1985-90 | 1990-95 | 1995-97 | 1997-98 |
|---|---|---|---|---|---|
| Argentina | 0.3 | 8.1 | 11.1 | 11.2 | 0.5 |
| Brazil | 4.9 | 4.9 | 8.4 | 6.0 | -0.7 |
| Chile | -5.5 | 17.9 | 13.6 | 3.6 | -8.8 |
| Colombia | -3.3 | 14.0 | 7.2 | 7.6 | -5.2 |
| Dominican Republic | 0.8 | 6.7 | 25.6 | 11.0 | 6.0 |
| México | 6.9 | 9.1 | 12.8 | 16.8 | 6.3 |
| Latin America (average) | 3.5 | 8.5 | 11.3 | 11.5 | 2.1 |
| Indonesia | | 8.6 | 12.6 | 9.3 | -13.3 |
| Korea, Republic of | 9.0 | 19.2 | 15.0 | 5.8 | -5.0 |
| Singapore | 2.8 | 19.3 | 17.0 | 2.7 | -17.6 |
| Thailand | 2.8 | 26.3 | 19.2 | 1.5 | -9.0 |
| Asia (average) | 5.3 | 20.3 | 16.6 | 3.7 | -10.7 |
| Poland | -4.1 | 7.8 | 13.4 | 5.5 | 9.2 |
| Romania | -2.0 | -10.2 | 8.1 | 2.9 | -4.4 |
| Turkey | 25.2 | 13.6 | 11.7 | 19.2 | 4.9 |
| Europe (average) | 2.0 | 5.8 | 12.0 | 11.6 | 5.7 |

*Source*: World Development Indicators 2000 (CD-ROM).

**Table 9-3. Factors Affecting Export Performance in the Sample Countries, 1981-98**

| Variable | Coefficient | t-value |
|---|---|---|
| Constant | -90.15 | 4.08 |
| Real exchange rate | -0.46 | 3.45 |
| GDP growth in industrial countries | 2.27 | 14.24 |
| | | |
| $R^2$<br>F statistic | 0.93<br>113.04 | |
| Degrees of freedom | 17 | |

*Note*: Values are from ordinary least squares regression; the dependent variable is the export index. The countries in the sample are listed in table 9-1.
*Source*: Authors' calculations.

**Table 9-4. Gross Tariff Liberalization Elasticities for Selected Countries, 1980s and 1990s**

| Country | Pre-reform | | Post-reform | | Short-run elasticity with respect to | | | Long-run elasticity with respect to | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Average tariff rate | Year | Average tariff rate | Year | Growth | Exports of goods | Exports of goods and services | Growth | Exports of goods | Exports of goods and services |
| Argentina | 30.0 | 1989 | 12.2 | 1992 | -0.359 | -0.172 | -0.152 | -0.245 | -0.262 | -0.261 |
| Brazil | 51.0 | 1988 | 12.5 | 1996 | -0.117 | -0.434 | -0.371 | 0.319 | -0.127 | -0.125 |
| Chile | 20.0 | 1985 | 11.0 | 1992 | -0.902 | -3.313 | -3.640 | -0.673 | -2.140 | -2.461 |
| Colombia | 31.0 | 1987 | 11.5 | 1996 | -0.329 | -1.853 | -1.989 | 0.172 | -1.447 | -1.642 |
| Mexico | 22.6 | 1986 | 12.5 | 1993 | 0.047 | -0.525 | -0.634 | 0.382 | -0.653 | -0.757 |
| Indonesia | 27.0 | 1985 | 20.0 | 1994 | -0.642 | -3.437 | -3.680 | 0.694 | | |
| Korea | 24.0 | 1984 | 9.0 | 1995 | -0.114 | -1.338 | -1.426 | 0.343 | -0.481 | -0.551 |
| Thailand | 44.0 | 1991 | 23.1 | 1995 | -0.341 | -1.777 | -1.680 | 0.112 | -1.090 | -0.985 |
| Poland | 18.3 | 1989 | 9.3 | 1995 | -0.195 | -0.232 | -0.683 | -0.449 | -0.968 | -1.002 |

*Note*: Values for elasticities are simple averages for all products, including agriculture, except for Poland (which is a trade-weighted average).
*Source*: Authors' calculations.

**Table 9-5. Aggregate Indexes for Agriculture and Industry, Selected Countries and Regions**

| Countries Regions | Regions | Agriculture | | | Industry | | |
|---|---|---|---|---|---|---|---|
| | | Simplicity | Irreversibility | Openness | Simplicity | Irreversibility | Openness |
| Canada | NA | 7.8 | 9.0 | 9.3 | 8.2 | 8.6 | 9.8 |
| United States | NA | 6.7 | 7.0 | 9.1 | 7.4 | 7.5 | 9.4 |
| Argentina | LAC | 7.0 | 10.0 | 6.8 | 5.0 | 7.2 | 6.4 |
| Brazil | LAC | 7.0 | 10.0 | 8.0 | 5.2 | 7.6 | 6.9 |
| Chile | LAC | | | | 7.2 | 7.2 | 8.4 |
| Colombia | LAC | 6.8 | 8.3 | 5.6 | 6.4 | 6.8 | 7.5 |
| Costa Rica | LAC | 8.5 | 8.5 | | 7.4 | 8.1 | 8.4 |
| El Salvador | LAC | 10.0 | 9.0 | | 6.8 | 8.6 | 8.5 |
| Jamaica | LAC | | | | 8.0 | 8.0 | 7.0 |
| Mexico | LAC | 7.8 | 8.0 | 7.9 | 5.2 | 7.2 | 6.9 |
| Peru | LAC | | | | 6.8 | 6.8 | 6.9 |
| Venezuela | LAC | 7.0 | 7.5 | 6.3 | 6.6 | 6.8 | 7.1 |
| European Union | E | 4.8 | 6.8 | 7.0 | 6.6 | 6.3 | 9.6 |
| Iceland | E | 6.5 | 8.0 | 6.7 | 8.8 | 7.5 | 9.1 |
| Norway | E | 3.5 | 5.8 | 5.0 | 8.8 | 5.8 | 8.4 |
| Switzerland | E | 5.7 | 5.5 | 7.4 | 5.8 | 6.1 | 10.0 |
| Turkey | E | 3.8 | 5.5 | 6.3 | 4.6 | 5.0 | 7.8 |
| Czech Republic | E | 6.8 | 8.5 | 8.7 | 7.2 | 7.8 | 9.3 |
| Hungary | E | 5.2 | 3.5 | 8.6 | 6.0 | 5.8 | 7.6 |
| Poland | E | 4.8 | 5.0 | 7.1 | 6.4 | 5.8 | 8.9 |
| Romania | E | 4.8 | 7.5 | 3.5 | 6.2 | 5.5 | 7.5 |
| Australia | PA | 9.2 | 9.8 | 8.9 | 7.2 | 8.7 | 9.1 |
| Hong Kong | PA | | | | 8.4 | 8.4 | 10.0 |
| Indonesia | PA | 7.8 | 10.0 | 7.4 | 6.6 | 8.0 | 8.3 |
| Japan | PA | 8.6 | 9.7 | 7.7 | 8.8 | 8.7 | 9.6 |
| Korea | PA | 6.2 | 8.0 | 6.0 | 8.0 | 7.1 | 9.1 |
| Malaysia | PA | 8.0 | 7.3 | 8.2 | 6.6 | 7.5 | 7.8 |
| New Zealand | PA | 9.8 | 8.8 | 8.1 | 7.6 | 8.6 | 9.3 |
| Philippines | PA | 7.8 | 8.3 | 6.7 | 7.6 | 7.6 | 8.7 |
| Singapore | PA | 10.0 | | | 8.2 | 9.1 | 10.0 |
| Thailand | PA | 6.8 | 9.0 | 6.5 | 6.4 | 7.2 | 7.8 |
| India | SEA | 7.0 | 8.0 | 3.0 | 5.8 | 6.0 | 4.0 |
| Sri Lanka | SEA | 7.0 | 10.0 | 6.8 | 6.4 | 7.6 | 7.9 |
| Cameroon | A | | | | 7.8 | 7.8 | 7.3 |
| Chad | A | | | | 7.8 | 7.8 | 7.3 |
| Gabon | A | | | | 8.0 | 8.0 | 7.4 |
| South Africa | A | 6.3 | 6.3 | 8.5 | 7.0 | 7.0 | 7.0 |
| Tunisia | A | 7.3 | 7.0 | 3.4 | 6.2 | 6.0 | 5.9 |
| Zimbabwe | A | | | | 7.0 | 7.0 | 6.7 |
| Number of observations | | 31 | 30 | 28 | 39 | 39 | 39 |
| Minimum index | | 3.5 | 3.5 | 3.0 | 4.6 | 5.0 | 4.0 |
| Maximum index | | 10.0 | 10.0 | 10.0 | 8.8 | 9.1 | 10.0 |

| Countries Regions | Regions | Agriculture | | | Industry | | |
|---|---|---|---|---|---|---|---|
| | | Simplicity | Irreversibility | Openness | Simplicity | Irreversibility | Openness |
| North America | NA | 7.3 | 8.0 | 9.2 | 7.8 | 8.1 | 9.6 |
| Latin America | LAC | 7.7 | 8.8 | 6.9 | 6.5 | 7.4 | 7.4 |
| Europe | E | 5.1 | 6.2 | 6.7 | 6.7 | 6.2 | 8.7 |
| Pacific Asia | PA | 8.2 | 8.9 | 7.4 | 7.5 | 8.1 | 9.0 |
| Southeast Asia | SEA | 7.0 | 9.0 | 4.9 | 6.1 | 6.8 | 5.9 |
| Africa | A | 6.8 | 6.7 | 6.0 | 7.3 | 7.3 | 6.9 |
| All countries | | 7.0 | 7.8 | 6.9 | 7.0 | 7.3 | 8.1 |
| All countries except Latin America | | 6.8 | 7.6 | 7.0 | 7.2 | 7.2 | 8.3 |
| Industrial countries | | 7.2 | 7.8 | 7.5 | 7.8 | 7.7 | 9.4 |
| Developing countries | | 6.9 | 7.9 | 6.6 | 6.6 | 7.1 | 7.4 |

Source: Authors' calculations.

**Table 9-6. Current Account Balance, Selected Countries and Regions, 1980-1998**
(Percentage of GDP)

| Country/region | 1980 | 1985 | 1990 | 1995 | 1997 | 1998 |
|---|---|---|---|---|---|---|
| Argentina | -6.2 | -1.1 | 3.2 | -1.9 | -4.1 | -4.9 |
| Brazil | -5.5 | -0.1 | -0.8 | -2.6 | -3.7 | -4.3 |
| Chile | -7.1 | -8.6 | -1.6 | -2.3 | -5.0 | -5.3 |
| Colombia | -0.5 | -4.5 | 1.2 | -5.0 | -5.4 | -5.7 |
| Dominican Republic | -10.9 | -2.1 | -4.0 | -1.5 | -1.1 | -2.1 |
| México | -4.7 | 0.4 | -2.8 | -0.4 | -2.1 | -4.1 |
| Latin America (average) | -5.8 | -2.7 | -0.8 | -2.3 | -3.6 | -4.4 |
| Indonesia | | -2.2 | -2.6 | -3.2 | -2.3 | 4.2 |
| Korea, Republic of | -8.5 | -0.8 | -0.8 | -1.7 | -1.7 | 12.6 |
| Singapore | -13.3 | 0.0 | 8.5 | 17.3 | 15.8 | 20.9 |
| Thailand | -6.4 | -4.0 | -8.5 | -8.1 | -2.0 | 12.8 |
| Asia (average) | -9.4 | -1.8 | -0.9 | 1.1 | 2.4 | 12.6 |
| Poland | -6.0 | -1.4 | 5.0 | 0.7 | -4.0 | -4.4 |
| Romania | | | -8.5 | -5.4 | -6.1 | -7.6 |
| Turkey | -5.0 | -1.5 | -1.7 | -1.4 | -1.4 | 0.9 |
| Europe (average) | -5.5 | -1.5 | -1.7 | -2.0 | -3.8 | -3.7 |

*Source*: World Development Indicators 2000 (CD-ROM).

**Table 9-7. Foreign Direct Investment, 1980-88**
(Percentage of GDP and millions of dollars)

| Country/region | 1980 | 1990 | 1997 | 1998 |
|---|---|---|---|---|
| *Percentage of GDP* | | | | |
| Argentina | 0.9 | 1.3 | 2.8 | 2.1 |
| Brazil | 0.8 | 0.2 | 2.4 | 4.1 |
| Chile | 0.8 | 1.9 | 7.0 | 5.9 |
| Colombia | 0.4 | 1.1 | 5.2 | 3.0 |
| Dominican Republic | 1.4 | 1.9 | 2.8 | 4.4 |
| México | 1.0 | 1.0 | 3.6 | 2.6 |
| Latin America (average) | 0.9 | 1.2 | 4.0 | 3.7 |
| Indonesia | 0.2 | 1.0 | 2.2 | -0.4 |
| Korea, Republic of | 0.0 | 0.3 | 0.6 | 1.7 |
| Singapore | 10.5 | 15.2 | 10.2 | 8.6 |
| Thailand | 0.6 | 2.9 | 2.5 | 6.2 |
| Asia (average) | 2.8 | 4.8 | 3.9 | 4.0 |
| Romania | .. | 0.0 | 3.5 | 5.3 |
| Turkey | 0.0 | 0.5 | 0.4 | 0.5 |
| Poland | .. | 0.1 | 3.4 | 4.0 |
| Europe (average) | 0.0 | 0.2 | 2.4 | 3.3 |
| *Millions of dollars* | | | | |
| Argentina | 788 | 1,836 | 4,924 | 4,177 |
| Brazil | 1,544 | 324 | 18,608 | 29,192 |
| Chile | 213 | 654 | 3,354 | 1,840 |
| Colombia | 51 | 484 | 4,894 | 2,509 |
| México | 2,090 | 2,634 | .. | .. |
| Dominican Republic | 93 | 133 | .. | .. |
| Latin America (total) | 4,779 | 6,064 | 31,780 | 37,718 |
| Indonesia | .. | 1,093 | 4,499 | -400 |
| Korea, Republic of | -20 | -264 | -1,605 | 616 |
| Singapore | 1,138 | 3,541 | 4,988 | 4,110 |
| Thailand | 187 | 2,303 | 3,356 | 6,811 |
| Asia (total) | 6,176 | 6,674 | 11,238 | 11,137 |
| Romania | 0 | -18 | 1,224 | 2,040 |
| Turkey | 18 | 700 | 554 | 573 |
| Poland | .. | 89 | 4,908 | 6,365 |
| Europe (total) | 18 | 771 | 6,686 | 8,978 |

*Source*: World Development Indicators 2000 (CD-ROM).