LATIN AMERICA’S NEW ECONOMIC MODEL:
MICRO RESPONSES
AND ECONOMIC RESTRUCTURING

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Summary: This paper introduces a volume on the microeconomics of Latin America under the New Economic Model (NEM). The paper reviews the rationale and policies of the NEM, and analyzes the impact of the reforms at the macroeconomic, sectoral and microeconomic levels. At the firm level, the contributions to this volume demonstrate that a considerable adjustment process is taking place. As sectoral structural change indices demonstrate, however, this has not resulted in widespread shifts of resources between sectors, nor has it resulted in significant improvement in overall employment, productivity, and growth. The authors analyze the reasons for this disjuncture, and suggest policy alternatives.

1. INTRODUCTION

In the last two decades of the twentieth century, the countries of Latin America and the Caribbean have embarked on a new experiment in economic policy. Leaving behind the protectionist, state-guided Import-Substitution Industrialization (ISI) model that had dominated the region since the middle of the century, country after country has introduced a New Economic Model (NEM) that emphasizes the free play of market forces both domestically and internationally. Proponents of this model had long argued that it was the only way to overcome the problems of inflation, balance of payments deficits, rising international debt, inefficiency, and lack of international competitiveness that had plagued the ISI model in the region. As we enter a new millennium, however, we find that the results of the NEM are far from clear, and remain the subject of considerable debate.

Much of the assessment of this model has taken place at the macroeconomic level. By 1997, before the effects of the Asian crisis began to be felt in the region, it was generally argued that the success of the model was becoming evident after a difficult transition period. Regional GDP and export growth were up, investment was rising, inflation and fiscal deficits were down, the debt burden was lower, and capital inflows were once again strong. Unemployment was falling, although still high by historic standards, and real wages were rising, albeit sluggishly.

However, there were still areas of concern, ones that have intensified with the effects of the Asian crisis in 1998-99. The aggregate figures for the region mask considerable variation between countries in growth performance, with some countries still struggling to achieve acceptable growth rates. Most countries have suffered negative effects from the Asian crisis, and the region’s overall growth fell sharply in 1998 and 1999. Trade deficits are high in many countries, as is unemployment, and both have risen since 1997. The need to sustain capital inflows has forced some governments to maintain high real interest rates. Clearly, the recent crisis underlines the macroeconomic vulnerability of the NEM. The roots of this vulnerability, however, can be more clearly understood at the microeconomic level. The weaknesses prior to the crisis, as well as the effects of the crisis itself, are in part a reflection of the microeconomic responses to the NEM, responses which we are just beginning to understand.

In this special issue of World Development we provide an overview of the emerging economic structure of the Latin American region. The expectation was that the new array of price signals under the NEM would result in a transfer of resources into
more efficient, internationally competitive activities, thus raising the overall level of production and income. The contributions to this issue examine the firm-level responses and microeconomic transformations that have in fact occurred. How have enterprises, long characterized as rent-seeking and uncompetitive, responded to the changing rules of the game? What sectors are emerging as leaders in the new global model? What is happening to the structure of production and employment and to labor productivity as a consequence of the firm responses to the reforms? This focus on firm response and structural change is clearly but a part of the microeconomic outcomes of the NEM – other important dimensions, such as the impact on income distribution, the environment, the financial sector, and government services, are only touched on here. Studies of these issues serve as an important complement to this volume.

This introductory essay is organized as follows. The next section examines the rationale of the NEM and reviews the reforms implemented in the region. Section 3 presents the broad indicators of microeconomic performance under the model, especially with respect to structural change. Section 4 summarizes the main points emerging from the contributions to this issue with respect to firm responses to the NEM. The final section presents conclusions and policy alternatives.

2. THE NEW ECONOMIC MODEL IN LATIN AMERICA

(a) The genesis of the New Economic Model

While the implementation of the NEM emerged out of the crisis of the 1980s, the call for the basic reforms of the model predated the crisis by several decades. As early as the 1950s, critics of the dominant ISI model, although in a distinct minority, were arguing that ISI was based on a misguided rejection of the basic principles of laissez-faire economics. As problems with ISI emerged, a growing debate over its merits focused particularly on the experience of the Latin American countries. The Latin American Monetarist school argued that the inflation spreading throughout the region was a result of excessive government spending to support an inherently inefficient and ultimately unsustainable growth model. Inflation lowered real interest rates and discouraged private saving, thus slowing growth, while the overvalued exchange rates promoted even greater inefficiencies in resource use. In this environment, industries could only survive through rent-seeking, made possible by protectionism and subsidies, and were unable to compete in international markets.

In the 1950s and 1960s, monetarists proposed attacking these problems through devaluation, a reduction of the money supply and decreases in the fiscal deficit (Foxley, 1983). The emphasis of this approach was on stabilization, rather than on structural change, although the reduction in government expenditures would also have the secondary consequence of affecting resource allocation. Policies suggested to support this reduction included increased prices of government-produced or -controlled goods and services, such as fuel and other intermediates, credit, foreign exchange, basic foods, medicine, and transportation.
With the acceleration of inflation and slowing of growth in most countries following the 1973 oil price increases, critics of the ISI model became not only more vocal, but also more radical in their policy recommendations. The objective was now not only stabilization, but also a transformation of the productive structure through its complete liberalization from government interference. This so-called neoconservative model was introduced in three Southern Cone countries, Argentina, Uruguay, and Chile, in the mid-1970s (Foxley, 1983; Ramos, 1986). Key policies included liberalization of domestic markets, privatization, trade opening, and opening to international financial flows, as well as the withdrawal of the state from many previous areas of economic activity (development banks, social services, etc.).

The experiments in Argentina and Uruguay were of short duration and ended in the debt crisis of the early 1980s with poor results. The results in the first decade of the Chilean reforms were also not encouraging, with a sharp recession in the mid-1970s, followed by growth in the late 1970s characterized by increasing overvaluation of the currency and culminating in collapse in 1982. It was not until the mid-1980’s, following a moderation of the reforms (greater government involvement in the financial sector, temporary increases in tariffs, greater government promotion of export sectors) and a recovery of copper prices, that Chile emerged as the growth leader in the region (Reinhardt, 1998). In this decade, other countries in the region were continuing to experiment with a variety of orthodox and heterodox reforms in an attempt to recover from the destabilizing effects of the debt crisis. The failure of most of these attempts during this period of “muddling through” contributed to a growing conviction that what was needed was no less than a complete reform of economic policy and structure, along the lines of the Chilean program.

This view of the desired direction for the region’s development model was explicit in the proposals of Balassa et al. (1986). Although this work was not generally well received in the region (Williamson, 1997), some of its proposals quickly became part of the growing policy consensus, especially the outward-looking orientation and the withdrawal of the government from economic activity. The most explicit formulations of the emerging consensus are found in two works of differing, although complementary, scope: the World Development Report 1991 (World Bank 1991) and John Williamson’s “What Washington Means by Policy Reform” (Williamson 1990).

Williamson explicitly delineated the so-called Washington Consensus, reflecting what the principal power centers and think-tanks in that city considered, at the end of the 1980s, to be the necessary package of sound economic policies to achieve the desired objectives of growth, low inflation, and sustainable balance of payments. This consisted of ten recommended policy instruments incorporating the basic ideas of orthodox macroeconomic policies, outward-oriented economies, and free-market capitalism - i.e., stabilization and liberalization. These policies also lay at the heart of the World Bank’s call for a market-friendly approach to economic development (World Bank 1991), an approach based fundamentally on the principle that state intervention should be exceptional and constrained by checks and balances (for example, by forcing government programs to undergo market tests).

While the conclusions of these documents were strongly debated in the region and some of their main components were modified throughout the 1990s, they were the
foundation for the region’s economic reform process. Changing external circumstances by the late 1980s - the restoration of liquidity in the international banking system, the establishment of a secondary market for Latin American debt, and the recovery of export prices - all contributed to economic stabilization and facilitated the implementation of the “first generation” of reforms. These focused on liberalizing three specific markets - foreign trade, the financial system, and the labor market - and on reducing the widespread activities of the State.

The implementation of these reforms spread from Chile first to Bolivia, Costa Rica, and Mexico, where reforms began by the mid-1980s. They were joined by Argentina, Peru and Venezuela later that decade or at the beginning of the 1990s. The most important late reformer was Brazil, which started opening up its economy in 1990 and developed a strong privatization program after 1994. By the mid-1990s, most countries in the region were implementing economic reforms although their scope and intensity varied considerably. During this period, the old “neoconservative” label originally applied to this policy orientation was replaced by a variety of terms, including “structural adjustment programs,” the “neoliberal” model, and finally, the “new economic model” (Bulmer-Thomas, 1996).

Despite the change in labels, however, it must be emphasized that the logic and content of the NEM reforms remained the same as those of its original neoconservative forebear: to restore economic efficiency, and thus long-term growth potential, by allowing markets rather than governments to direct resource allocation. At its heart, despite the emphasis placed on macroeconomic stabilization policies, the NEM rests on microeconomic foundations. Efficient allocation of resources was to occur through the decisions of individual economic agents, with government’s role reduced to that of setting the rules of the game - property rights, rules of jurisprudence - and maintaining macroeconomic stability. In the following section, we review the expected microeconomic results of the reforms.

(b) The expected microeconomic responses to the NEM reforms

The trade reforms of the NEM could be expected to have both static and dynamic consequences, as Dijkstra (2000) discusses. At the same time, the incentive structure facing firms would also be affected by other NEM reforms, including devaluation and the liberalization of factor markets. Static effects, involving a reallocation of existing resources in response to the changing incentive structure, could occur both within and between firms. Within firms, the NEM would predict a substitution of labor for capital along the marginal rate of substitution (MRS) curve in response to the falling wage-rental ratio, under the assumption that firms are responsive to these relative prices. We might also see a substitution of domestic resources for imported inputs due to devaluation - or the opposite, due to the elimination of import barriers and reduction of tariffs.

Overall, greater competition due to trade opening would induce a search for greater efficiency in resource use at the firm level - although, as Dijkstra points out, this response may be sensitive to imperfect markets in production or trade, as well as depend
on the actual degree of firm inefficiency before the reform. In addition, production for international markets might allow exporters to increase efficiency by capturing economies of scale. Here, too, however, Dijkstra provides a caveat: this effect is more likely for manufactures, and more likely where the country already has a manufacturing base established before trade opening.

Between sectors, we would expect the overall response to the reforms to involve a shift from production of “importables” to production of “exportables,” as comparative advantage determines profitability in the global marketplace. This would involve a movement to or along the existing production possibilities frontier. This movement would allow for a greater level of real income through trade, according to the predictions of the Heckscher-Ohlin model. Increased real income and investment would also cause demand for nontradables to increase, although the relative balance between tradables and nontradables cannot be predicted a priori.

The overall result of these responses should be increased productivity, both through greater efficiency at the firm level, and through a shift in resources towards more productive firms and sectors. As Katz (this volume) points out, this inter-firm shift can take place within industries - that is, from less to more efficient firms within any particular industry - as well as between them. Overall, the expected responses to the new incentive structure would be a shift from artificially induced capital- and import-intensive industrial investment to investment in natural-resource and labor-intensive production along static comparative advantage lines.

The greater efficiency and income resulting from these responses would in turn generate higher rates of growth in the long run - i.e., a greater outward shift of the production possibilities frontier than would otherwise have been the case. This is because the greater income would generate higher rates of domestic saving and investment, while the increased profitability of exportables production would attract expanded inflows of foreign capital. Anticipated effects are also delineated by Burki and Perry (1998a), who highlight the growing consensus in academic and policy-making circles that the economies most open to international trade have faster growth rates, due both to higher levels of investment and to greater increases in factor productivity.

It is interesting to observe, however, that supporters of the NEM generally pay little explicit attention to the long-run dynamic consequences of the new productive structure. In particular, there is little consideration of the potential impact on the accumulation of knowledge and technological capabilities, factors crucial to sustained competitiveness in the new global economy. There is a tacit presumption that the new productive structure, because it rewards efficiency, will lead to a rapid process of “learning-by-doing” and therefore an expanded endowment of skills and technological capabilities. Presumably, the growing relative endowments of capital, skill, and technology will change each country’s comparative advantage towards higher value-added products.

While considerable attention has been paid to the stabilization consequences of the reforms, much less is known about the microeconomic responses – in particular, whether firms have responded in the expected manner, and whether the expected outcomes have occurred with respect to employment, efficiency, and growth. A picture is just beginning to emerge, based on evidence of economy-wide changes in production and
employment patterns, and on the results of research carried out at the firm level. The results are still fragmentary, and far from conclusive, but they do suggest a mixed picture in terms of the expected or desired responses. We will review here the evidence with respect to indicators at three levels: the economy as a whole, economic sectors, and individual firms.

3. LATIN AMERICA’S PERFORMANCE AFTER THE REFORMS

(a) Macroeconomic indicators

As pointed out by Ramos (2000), to date the macroeconomic results of the NEM are mixed, although it is clearly too early for a general assessment of its long-term results. The most positive outcomes have been the sharp reduction of inflation, which fell from three-digit levels at the end of the 1980s to about 10% in 1997-98 (Table 1), and the increase in export volume which grew four times faster in the 1990s than during the three decades of ISI. The boom in capital inflows, both portfolio and direct investment, can also be counted as a positive result of the NEM as shown by Mortimore (2000), although its long-run effects are still under debate.

Table 1

<table>
<thead>
<tr>
<th>Macroeconomic Indicators for Latin America and the Caribbean</th>
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<tr>
<td>GDP growth</td>
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<tr>
<td>Consumer price index growth</td>
</tr>
<tr>
<td>Export growth</td>
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<tr>
<td>Import growth</td>
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<tr>
<td>Exports of goods and services / GDP a</td>
</tr>
<tr>
<td>Imports of goods and services / GDP a</td>
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<tr>
<td>Gross fixed capital formation / GDP a</td>
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</table>


Source: ECLAC, Statistical Yearbook for Latin America and the Caribbean, several years, and ECLAC 1999a.

There are also important disappointing outcomes. These include low GDP and employment growth, the minimal recovery of investment coefficients, the poor dynamics of total factor productivity, and the persistence of one of the world’s worst regional income distributions (Bulmer-Thomas, 1996, Londoño and Szekely, 1998). In addition, two particularly problematic outcomes of the NEM are the instability of growth in the decade after the reforms and its variability between countries.
The region lived through two very short economic cycles in the 1990s, 1991-1995 and 1996-1999, each ending with almost no GDP growth. As indicated by Ocampo (1999), growth has been strongly affected by capital movements, which have been highly unstable. The liberalization of the capital account has not only opened access to the world capital markets, but has also increased the region’s vulnerability to external shocks.

Behind the region’s overall modest growth performance we find very different situations across countries. Stallings and Peres (2000), based on data for nine countries, found two types of countries in the region. The first, which includes Argentina, Bolivia, Chile and Peru, grew much faster in the 1990-98 post-reform period than in the 1950-1980 ISI period (5.7% and 4.0% respectively), while for the second group, which includes Brazil, Colombia, Costa Rica, Jamaica and Mexico, the converse is true (2.6% and 6.1% respectively). Moreover, individual countries in the first group not only fared better after the reforms than under the previous economic model but also better than all individual countries in the second group.

The reasons behind these different performances are still not clear. Some authors (e.g., IDB 1997, Lora and Barrera 1998) have highlighted their findings of a positive correlation between reform intensity, as measured by a reform index, and growth performance. On the other hand, Stallings and Peres (2000) indicate that countries in the better performing group were not only “aggressive” reformers, but were also forced by their initial conditions to simultaneously undertake economic reforms and macroeconomic stabilization. It may well be, as Rodrik (1996) argues, that the positive growth performance was due as much or more to the stabilization policies (including devaluation) than to the liberalization reforms. In practice it is quite difficult to separate the respective effects of these two sets of policies on growth. Some authors have simply ignored this distinction (Burki and Perry, 1998a), while others (Edwards 1995; Lora and Barrera 1998) have explicitly recognized it and sought to identify the independent effects of each. The latter, in an econometric exercise, find significant positive effects of trade and financial reforms on economic growth, while trade liberalization and privatization are significant to explain investment dynamics. However, inadequate model specification, limited number of available observations and poor statistics jeopardize their conclusions. To date, the question of the independent impact of the structural reforms remains unanswered.

Another important problem with analyses of the impact of the reforms is their tendency to abstract from historical influences. The inherent inertia of historical phenomena makes it difficult, however, to identify how much of a process is the result of exogenous changes to a path (for example, the reforms) and how much is due to dynamics that were in place earlier than these (for example, efforts to modernize firms as a result of technological advances, as shown by Katz, 2000). This suggests that other factors should be included in our analysis of country experience under the NEM.

In sum, we do not yet have a clear picture of the effects of the reforms on macroeconomic outcomes in the region. At least some of these outcomes may have been influenced as much by stabilization policies and the legacy of prior industrialization policies as by the liberalization reforms themselves. The data discussed below, and in the contributions to this issue, suggest the importance of these factors, as well as of such additional independent factors as prior productive structure, country size, resource
endowments, geographic location, and special trade relations. It appears that some countries were better positioned to benefit from the NEM than others.

(b) Structural Change

As noted in section 2, at the heart of the NEM was the expectation that the new incentive structure would give rise to significant changes in the structure of the economy. We review here the evidence with respect to four parameters: production, exports, imports, and employment.

(i) Production

Advocates of the reform model have long argued that Latin America’s productive structure had been severely distorted by government intervention. Protectionism and subsidies allowed sectors with no comparative advantage to thrive, while discouraging those sectors with export potential. The liberalization of the economy was therefore expected to generate significant changes in economic activity.

The available evidence on broad changes in economic structure is presented in Table 2, covering three sub-periods: the period of crisis (1980-85), the period of stabilization and reform (1985-90), and the period of post-reform (1990-96). 13 The figures show a significant shift of resources between broad economic sectors during the first half of the 1980s, with industry losing out to agriculture and especially services. Broad shares remain virtually constant thereafter. 14 At this aggregate level, then, the data show a marked influence of the crisis on productive structure, but little influence of recovery and reform.

<table>
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<th>Date</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
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<tbody>
<tr>
<td>1980</td>
<td>8.2</td>
<td>38.0</td>
<td>53.8</td>
</tr>
<tr>
<td>1985</td>
<td>9.0</td>
<td>34.3</td>
<td>56.6</td>
</tr>
<tr>
<td>1990</td>
<td>9.0</td>
<td>33.9</td>
<td>57.1</td>
</tr>
<tr>
<td>1996</td>
<td>9.1</td>
<td>34.0</td>
<td>57.0</td>
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Source: Calculated from production data in ECLAC 1998.

It is certainly possible that most of the change occurred within, rather than between, economic sectors. David et al. (2000), for example, document considerable shift within agriculture. Two major changes have been the conversion of cropland to pasture and the shift from domestic staples to the production of oilseeds, fruits, and vegetables for export. Within services, as well, there has been a shift in the 1990s, in this case towards modern services like banking and telecommunications, as well as towards personal services. Stallings and Peres (2000) show that the interaction between privatization, new regulatory frameworks and fast technological change led to a strong
dynamism in sectors like telecommunications, mining, and electrical power generation and distribution. Although market structures differed among countries, higher investment and new production facilities with state-of-the-art technology spread through the region, usually introduced by MNCs.

For the manufacturing sector, Katz (2000) shows that performance has varied considerably between industries. Structural change in the industrial sector, however, has been less than we might expect, as can be seen from a calculation of Structural Change Indices (SCI). The SCI measures the overall shift in the share of output in the various categories over a given time period: 

\[ SCI = \sum_i \left| s_{ie} - s_{ib} \right| / 2, \]

where \( s_{ib} \) = share of category \( i \) at beginning of period, \( s_{ie} \) = share of category \( i \) at end of period. The value of the index ranges from 0 (no change in shares) to 1 (complete change).

Table 3 presents manufacturing SCIs calculated for seven countries for which reliable data is currently available, based on changes in the shares of 28 manufacturing industries at the ISIC three-digit level. From this data, we can see that change within manufacturing in the 1990s has been moderate, and comparable to preceding periods. In 1980-85, structural change resulted from the differential effects of the crisis on existing industries. In general, the lowest degree of change occurred during the 1985-90 stabilization/reform period, which is consistent with the observation of Macario (2000) that manufacturing investment is strongly influenced by uncertainty with respect to the macroeconomic situation, especially with regard to the exchange rate. In the 1990s, with greater stability, we do see an increase in manufacturing structural change, but it is comparable to the 1970s and early 1980s.

Table 3 shows that the SCI for Mexico, however, do not include assembly or “maquila” production, which seriously understates the degree of change in that country since 1980. As is clearly shown in the contributions by Buitelaar and Padilla (2000) and by Mortimore (2000),

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<tbody>
<tr>
<td>Argentina</td>
<td>0.07</td>
<td>0.10</td>
<td>0.07</td>
<td>0.09</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.12</td>
<td>0.08</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>Chile</td>
<td>0.23</td>
<td>0.11</td>
<td>0.08</td>
<td>0.12</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.14</td>
<td>0.13</td>
<td>0.07</td>
<td>0.08</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.08</td>
<td>0.05</td>
<td>0.05</td>
<td>0.04</td>
</tr>
<tr>
<td>Peru</td>
<td>0.15</td>
<td>0.09</td>
<td>0.06</td>
<td>0.11</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.24</td>
<td>0.09</td>
<td>0.17</td>
<td>n.a.</td>
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<tr>
<td>Total b</td>
<td>0.11</td>
<td>0.08</td>
<td>0.05</td>
<td>0.07</td>
</tr>
</tbody>
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a Data for 1990-96 corresponds to 1990-94; does not include maquilas.

b SCI for 7 countries, calculated as sum of each country SCI weighted by country’s share of beginning year total value added.

Source: Calculated from the ECLAC PADI data base.
there have been major structural changes within Mexican industry as a result of the growth of the maquila sector. The same is true with respect to many Central American and Caribbean countries. This will be discussed further in the next section.

(ii) Exports

Overall, as the increasing export coefficient in Table 1 shows, the expected shift to exportables in the 1990s has indeed occurred. Furthermore, it is interesting to note that intra-regional trade has grown strongly, both absolutely and as a share of the total, with the development of bilateral and subregional trade agreements. The member countries of the Latin American Integration Association (the eleven countries in Table 4) saw their exports to each other rise from 12.9% of regional imports in 1990 (12.8% in 1980) to 17.9% by 1996 (ECLAC, 1998, Table 292).

Given the region’s export growth, and given the magnitude of the reforms, we might expect considerable change in the composition of exports under the NEM. Table 4 (next page) presents summary data for the region’s export composition over the 1980-96 period, and Table 5 presents SCIs calculated from this data. In the case of Mexico, separate reporting of maquila exports (which include both consumer goods and machinery) makes it necessary to use a different export classification scheme.

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<tbody>
<tr>
<td>Argentina</td>
<td>0.17</td>
<td>0.14</td>
<td>0.13</td>
<td>0.16</td>
<td>0.14</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.22</td>
<td>0.22</td>
<td>0.24</td>
<td>0.09</td>
<td>0.05</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.34</td>
<td>0.32</td>
<td>0.37</td>
<td>0.21</td>
<td>0.19</td>
</tr>
<tr>
<td>Chile</td>
<td>0.20</td>
<td>0.11</td>
<td>0.14</td>
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<tr>
<td>Colombia</td>
<td>0.46</td>
<td>0.41</td>
<td>0.16</td>
<td>0.36</td>
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<tr>
<td>Ecuador</td>
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<td>0.21</td>
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<td>0.18</td>
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<td>Paraguay</td>
<td>0.12</td>
<td>0.20</td>
<td>0.32</td>
<td>0.16</td>
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<tr>
<td>Peru</td>
<td>0.19</td>
<td>0.16</td>
<td>0.39</td>
<td>0.33</td>
<td>0.07</td>
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<tr>
<td>Uruguay</td>
<td>0.04</td>
<td>0.08</td>
<td>0.10</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.10</td>
<td>0.15</td>
<td>0.20</td>
<td>0.08</td>
<td>0.05</td>
</tr>
<tr>
<td>Total South America⁴</td>
<td>0.22</td>
<td>0.21</td>
<td>0.27</td>
<td>0.19</td>
<td>0.11</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.53</td>
<td>0.39</td>
<td>0.15</td>
<td>0.25</td>
<td>0.14</td>
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</table>

⁴ SCI for 10 countries, calculated as sum of each country SCI weighted by country’s share of beginning year regional exports.

Source: Calculated from data in table 4.

The overall SCI for South American exports in the 1980-96 period is moderate, at 0.22. As was the case with production, however, the greatest change in the structure of exports (0.27) occurred during the period of crisis, when exchange rates depreciated strongly in the region. Less change occurred in the stabilization period (0.19), and even less in the post-reform period (0.11), when real exchange rates appreciated in many countries. In every country, the lower overall index for the 1980-90 period than for the
sum of the two sub-periods indicates that some of the changes in the stabilization period were a reversal of changes that had occurred in the crisis period. Overall, the composition of South American exports has changed less than expected in response to the reforms.

### Table 4

**Export Profiles, 1980-1996**  
(percentage of total exports)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Agriculture</td>
<td>Food</td>
<td>Metal/Mechanics</td>
<td>Intermediates</td>
<td>Mining</td>
<td>Consumer</td>
<td>Agriculture</td>
<td>Food</td>
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<td>Intermediates</td>
<td>Mining</td>
<td>Consumer</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>3.3</td>
<td>5.7</td>
<td>1.6</td>
<td>52.2</td>
<td>36.7</td>
<td>0.5</td>
<td>3.3</td>
<td>5.7</td>
<td>1.6</td>
<td>52.2</td>
<td>36.7</td>
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</tr>
<tr>
<td>Chile</td>
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<td>1.4</td>
<td>0.4</td>
<td>19.7</td>
<td>9.7</td>
<td>0.6</td>
<td>1.5</td>
<td>1.4</td>
<td>0.4</td>
<td>19.7</td>
<td>9.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Colombia</td>
<td>2.7</td>
<td>8.6</td>
<td>2.8</td>
<td>26.0</td>
<td>11.1</td>
<td>0.4</td>
<td>2.8</td>
<td>8.6</td>
<td>2.8</td>
<td>26.0</td>
<td>11.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Ecuador</td>
<td>18.9</td>
<td>14.0</td>
<td>1.2</td>
<td>55.8</td>
<td>0.7</td>
<td>0.2</td>
<td>18.9</td>
<td>14.0</td>
<td>1.2</td>
<td>55.8</td>
<td>0.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Paraguay</td>
<td>25.9</td>
<td>6.7</td>
<td>0.1</td>
<td>62.9</td>
<td>0.2</td>
<td>0.7</td>
<td>25.9</td>
<td>6.7</td>
<td>0.1</td>
<td>62.9</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Peru</td>
<td>39.6</td>
<td>5.5</td>
<td>0.5</td>
<td>46.5</td>
<td>0.7</td>
<td>0.1</td>
<td>39.6</td>
<td>5.5</td>
<td>0.5</td>
<td>46.5</td>
<td>0.7</td>
<td>0.1</td>
</tr>
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<td>Argentina</td>
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<td>31.9</td>
<td>6.6</td>
<td>32.9</td>
<td>9.7</td>
<td>0.2</td>
<td>43.3</td>
<td>31.9</td>
<td>6.6</td>
<td>32.9</td>
<td>9.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Brazil</td>
<td>27.3</td>
<td>31.9</td>
<td>6.7</td>
<td>49.1</td>
<td>7.5</td>
<td>0.2</td>
<td>27.3</td>
<td>31.9</td>
<td>6.7</td>
<td>49.1</td>
<td>7.5</td>
<td>0.2</td>
</tr>
<tr>
<td>South America excluding Argentina and Brazil</td>
<td>25.6</td>
<td>28.6</td>
<td>1.8</td>
<td>42.5</td>
<td>12.8</td>
<td>0.2</td>
<td>25.6</td>
<td>28.6</td>
<td>1.8</td>
<td>42.5</td>
<td>12.8</td>
<td>0.2</td>
</tr>
</tbody>
</table>

### Notes

- **Nonmaquila consumer and metal-mechanics products.**
- **Includes Bolivia, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela.**

**Source:** Calculated from ECLAC 1998.
Mexico, on the other hand, has clearly undergone a significant change in export composition, with an export SCI for the 1980-96 period of 0.53. Furthermore, the changes have been cumulative over the entire period. The articles by Buitelaar and Padilla (2000) and by Mortimore (2000) shed light on this exceptional case, showing that maquila (apparel, car parts and electronics) and motor vehicle exports have expanded steadily since the early 1980s, both absolutely and as a share of the total. The driving force has been foreign direct investment (FDI), mainly from the US. On the other hand, as David et al. (2000) show, the performance of Mexico’s agricultural sector has been weak. Trade opening for Mexico has emphasized its labor-force and geographic advantages rather than those deriving from its natural resources.

The articles by Buitelaar and Padilla (2000) and by Mortimore (2000) also show that a similar process of maquila expansion has taken place in the free trade zones of the CAC region. Unfortunately, it is not possible to calculate an SCI for CAC exports before 1990, due to the exclusion of FTZ exports from the country-reported totals. However, the index for 1990-96, based on maquila estimates provided by Buitelaar, is 0.22 - even higher than Mexico’s 0.14 for the same period.

These results lend support to the argument that there are two quite distinct patterns of development emerging in Latin America, one north of Panama, the other south. The export-led model emerging in the north is based not only upon the comparative advantage of low-killed labor, but even more significantly, on geographic proximity to the US. Special trade relations with the US (NAFTA, the Caribbean Basin Initiative) have further enhanced these advantages in the northern region. Structural change in response to these factors, in the context of trade opening, has been extensive.

In South America, on the other hand, these factors have been insignificant, and the responses to trade opening have been primarily determined by the country’s natural resource endowments, by differences in initial conditions (such as level of industrialization), and by the impact of subregional free-trade agreements (Mercosur, Andean Community). With respect to the two largest countries, very little change in export profile occurred in Brazil between 1990 and 1996, a period marked by severe macroeconomic instability in the early years. In Argentina, on the other hand, structural change in exports has been extensive. The biggest changes were a sharp decrease in the share of agricultural exports, mainly in the stabilization period, and an increase in the share of mining (petroleum) and metal/mechanics (auto) exports, mainly in the 1990s. As Mortimore shows, the latter has been spurred by FDI – in this case, however, influenced by the desire to maintain subregional market share (e.g. in the Mercosur market), rather than for export outside of the region.

The variations in export profile development of the less industrialized South American countries in the 1990s exhibit both common patterns (increased share of processed food and metal/mechanics exports) and variations, especially with respect to mining and intermediates. These trends may reflect differences in their natural resource endowments, as expected under the NEM. However, the data in Table 4 indicate that, in many cases, the pattern of change in the post-reform period was actually a continuation of trends that began before the reforms, in the 1980s. Indeed, in the cases of Chile, Argentina and Venezuela, Londero and Teitel (1998) show that the growth of processed
natural-resource exports began in the 1970s, and was the consequence not only of natural resource endowments, but also of policies to promote diversified industrial capabilities under ISI. Thus, considering the export patterns of both the north and south regions, structural change in exports cannot be totally attributed to the impact of the NEM. Pre-existing or external factors were also important determinants.

(iii) Imports

At an aggregate level, imports to the region have grown rapidly since the late 1980s. However, the growth rates have varied by category, as Table 6 shows. While imports in all categories fell in the crisis of the early 1980s, intermediate goods fell the least, and consumer goods the most. In the recovery period of the late 1980s, intermediate goods experienced the lowest growth rate and consumer goods the highest. In the 1990s period of rapid import growth, the growth of consumer and capital goods has continued to exceed the growth of intermediates. Both of these categories have therefore increased as a share of total imports since 1985.

Table 6
Latin American Imports by Category, 1980-1996

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$US millions</td>
<td>(share of total)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>60,318.9 (64.3)</td>
<td>41,582.7 (69.8)</td>
<td>55,752.5 (61.1)</td>
<td>133,613.8 (56.9)</td>
</tr>
<tr>
<td>Consumer</td>
<td>11,409.2 (12.2)</td>
<td>5,720.7 (9.6)</td>
<td>13,893.7 (15.2)</td>
<td>41,607.1 (17.7)</td>
</tr>
<tr>
<td>Capital</td>
<td>22,152.1 (23.6)</td>
<td>12,286.3 (20.6)</td>
<td>21,560.8 (23.6)</td>
<td>59,703.1 (25.4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growth Rate</th>
<th>1980-85</th>
<th>1985-90</th>
<th>1990-96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate</td>
<td>...</td>
<td>-0.07</td>
<td>0.06</td>
</tr>
<tr>
<td>Consumer</td>
<td>...</td>
<td>-0.13</td>
<td>0.19</td>
</tr>
<tr>
<td>Capital</td>
<td>...</td>
<td>-0.11</td>
<td>0.12</td>
</tr>
</tbody>
</table>

| Structural Change Index | 0.06 | 0.09 | 0.04 |

Source: Calculated from data in ECLAC 1998.

The increase in consumer goods imports could be predicted from the analysis of the NEM: if firms developed under ISI were indeed inefficient, trade opening would result in their demise, as consumers would benefit from cheaper imports. However, a key question raised by critics of the NEM is the extent to which the failure of some Latin American firms may have been unwarranted - that is, reflecting not their inherent inefficiencies, but rather the rapidity of trade opening and the lack of mechanisms to help
firms adjust to the new competitive environment. This point is raised in several contributions to this issue.

On the other hand, the rise in the share of capital goods imports was not a clear-cut prediction of the model. Critics of ISI had long argued that government intervention in inputs markets had resulted in excessive capital-intensity of Latin American industry. The elimination of these factor price distortions should presumably have resulted in increased labor-intensity of production. Similarly, the elimination of exchange-rate subsidies for capital goods imports should have raised the relative cost of imported equipment. However, the import coefficient for capital goods has actually increased in the 1990s, as Table 7 demonstrates. This is consistent with Alcorta’s results (this issue) regarding the substitution of imported capital goods for domestic production in the largest countries in the region. The possible reasons for this are discussed below.

### Table 7

<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Bolivia</th>
<th>Brazil</th>
<th>Chile</th>
<th>Colombia</th>
<th>Ecuador</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>38.7</td>
<td>92.4</td>
<td>20.2</td>
<td>66.1</td>
<td>57.0</td>
<td>77.4</td>
</tr>
<tr>
<td>1980</td>
<td>22.3</td>
<td>84.6</td>
<td>13.4</td>
<td>76.5</td>
<td>56.1</td>
<td>80.2</td>
</tr>
<tr>
<td>1990</td>
<td>18.3</td>
<td>n.a.</td>
<td>12.5</td>
<td>82.7</td>
<td>60.3</td>
<td>73.6</td>
</tr>
<tr>
<td>1994</td>
<td>51.9</td>
<td>n.a.</td>
<td>18.7</td>
<td>80.5</td>
<td>63.2</td>
<td>n.a.</td>
</tr>
<tr>
<td>1996</td>
<td>49.9</td>
<td>n.a.</td>
<td>n.a.</td>
<td>84.5</td>
<td>62.9</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Source: Calculated from the ECLAC PADI data base.

(iv) Employment

Once the initial adjustment shock to production and employment had passed, the reforms of the NEM should have favored rapidly expanding employment in response to the lower real wages. However, the data in Table 8 show that the employment response has been weak, especially outside of the service sector.

As David et al. (2000) show, the responses to the NEM in agriculture have been labor-displacing. Cultivated land has decreased overall, with a shift to forestry, cattle, or non-agricultural uses, while the most dynamic agricultural producers have introduced more capital-intensive production processes. The result has been a decrease in agricultural employment in the 1990s. While the Latin American total has been heavily affected by the large drop in Brazil’s agricultural labor force, most countries of the region have experienced a decline, except for those still in early stages of demographic transition (e.g., Central America, Paraguay, Peru).
Industrial employment growth since the mid-1980s has been particularly disappointing: well below both the growth rate of the 1970s, as Table 8 shows, and the growth rate of industrial output in the 1990s, as Katz (2000) demonstrates. Here, too, firm-level responses have contributed to this poor performance. In the crisis period of the early 1980s, firms sought to reduce costs through cutbacks in both investment and employment. In the second half of the 1980s, with reforms spreading in the region, uncertainty replaced crisis. Firms acted defensively, adopting a cautious attitude focusing on cost reduction through reorganization of production processes, reduction in inventories, and retrenchment in product diversity, as evident in the behavior of firms surveyed by Macario (2000).\textsuperscript{18}

In the 1990s, overall manufacturing investment recovered to pre-crisis levels in many countries. While this had a positive effect on output, it had a minimal effect on employment. Indeed, for the six countries for which the most reliable data is available, average manufacturing employment fell 0.8 per cent yearly between 1990 and 1996, while manufacturing value added increased by 3.9 percent (Weller 2000).\textsuperscript{19} Katz (2000) similarly finds that manufacturing labor productivity growth in many Latin American countries in the 1990s coincided with significant decreases in employment.

---

Table 8
Economically Active Population (EAP) Sectoral Average Annual Growth Rates, 1970-1997

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Industry</td>
<td>Services</td>
<td>Total</td>
</tr>
<tr>
<td>Argentina</td>
<td>-1.1</td>
<td>0.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.9</td>
<td>2.2</td>
<td>4.3</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.3</td>
<td>7.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Chile</td>
<td>-1.1</td>
<td>1.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Colombia</td>
<td>1.9</td>
<td>3.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.7</td>
<td>5.5</td>
<td>6.1</td>
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<tr>
<td>Ecuador</td>
<td>0.2</td>
<td>2.6</td>
<td>6.8</td>
</tr>
<tr>
<td>El Salvador</td>
<td>-0.6</td>
<td>5.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Guatemala</td>
<td>1.5</td>
<td>2.2</td>
<td>4.1</td>
</tr>
<tr>
<td>Honduras</td>
<td>2.7</td>
<td>4.9</td>
<td>4.5</td>
</tr>
<tr>
<td>Jamaica</td>
<td>2.3</td>
<td>1.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Mexico</td>
<td>3.1</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Panama</td>
<td>-0.8</td>
<td>2.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Paraguay</td>
<td>2.7</td>
<td>3.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Peru</td>
<td>1.8</td>
<td>3.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1.6</td>
<td>4.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.0</td>
<td>6.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Total*</td>
<td>1.5</td>
<td>4.4</td>
<td>4.7</td>
</tr>
</tbody>
</table>

---

* Totals for 1990-97 do not include Argentina, Bolivia, Guatemala, and Venezuela.

It is important to note however that industrial employment growth in the 1990s has varied considerably between countries, as can be seen from the data in Table 8. The highest growth has occurred in the CAC countries as a result of rapidly expanding employment in the assembly industries. In Mexico, too, maquila employment has expanded extremely rapidly, as Buitelaar and Padilla (2000) show, but total industrial employment growth was held down by the decline in domestically oriented labor-intensive industries until the late 1990s. South American countries, especially, have registered extremely low levels of industrial employment growth, with Chile and Peru being the only exceptions. As can be seen from the SCI data in Table 9, another unexpected characteristic of the reform process has been the fairly limited shifts in employment patterns within manufacturing.

<table>
<thead>
<tr>
<th>Table 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Change Index, Manufacturing Employment, 1970-96</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Argentina</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Chile a</td>
</tr>
<tr>
<td>Colombia</td>
</tr>
<tr>
<td>Mexico a b</td>
</tr>
<tr>
<td>Peru</td>
</tr>
<tr>
<td>Venezuela</td>
</tr>
<tr>
<td>Total c</td>
</tr>
</tbody>
</table>

a Data for 1990-96 corresponds to 1990-94.
b Data for Mexico do not include maquilas.
c SCI for 7 countries, calculated as sum of each country SCI weighted by country's share of beginning year total employment.

Source: Calculated from the ECLAC PADI data base.

Why the disappointing results with respect to employment growth, which goes against one of the central expectations of the model? Various explanations have been offered. One possibility is that the price of capital has actually fallen more than the price of labor. Although previous protection levels for capital goods imports were not particularly high in many countries during ISI, trade liberalization did lower the price of imported capital goods, especially in the context of overvalued currencies in many countries during the 1990s. In addition, while interest rates have generally been high in the region, the price of electronic equipment has fallen sharply in world markets. At the same time, proponents of the NEM have argued that the implementation of labor market reforms is still incipient and that labor costs — e.g., those of dismissing personnel—continue to be very high in the region. To date, empirical investigation of trends in relative factor prices is lacking.

Another possible explanation is that firms have responded more to the need to incorporate new computerized equipment introduced by the current technological revolution, than to changes in relative factor prices — an argument that is reminiscent of
the “fixed factor proportions” debate of the 1960s and 1970s. While plausible, this, too, remains to be investigated. A third possible explanation, for countries south of Panama, is that new investment has been directed primarily toward more capital-intensive sectors. For example, as the share of industrial value-added of traditionally labor-intensive sectors, such as clothing and footwear, decreased in five of the largest countries in the region (Argentina, Brazil, Chile, Colombia and Peru), employment in formal enterprises in these sectors declined by 3.5% in 1990-96.\(^{20}\) As Katz (2000) shows, much of the expansion in industrial output has occurred in natural-resource processing activities with considerably higher capital-intensity than these declining sectors.

As a result of these tendencies, employment growth has been concentrated in the service sector. The extent of the shift in the employment profile is evident in Table 10, which shows the steadily increasing share of services and decreasing shares of agriculture and industry in the 1980s and 1990s. Services accounted for 95% of net job creation in the region in the 1990s. In particular, 70% of new jobs were created in commerce, hotels and restaurants, and social, communal and personal services (Weller, 2000), where productivity and wages are generally lower than in industry and in other services, like telecommunications and banking. Moreover, most job creation took place in informal small and micro-enterprises. This “tertiarization” of Latin America’s labor market (Tardanico and Menjivar-Larin, 1997) is an important part of the explanation for the poor overall productivity performance of the region in the 1990s.

### Table 10

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>40.8</td>
<td>23.1</td>
<td>36.0</td>
</tr>
<tr>
<td>1980</td>
<td>32.2</td>
<td>25.8</td>
<td>42.0</td>
</tr>
<tr>
<td>1990-92(^a)</td>
<td>28.3</td>
<td>22.7</td>
<td>49.0</td>
</tr>
<tr>
<td>1995-97(^a)</td>
<td>23.6</td>
<td>21.3</td>
<td>54.9</td>
</tr>
</tbody>
</table>

\(^a\)Year varies by country


(v) Conclusion

In sum, the NEM has indeed resulted in a rapid growth of exportables. This has occurred generally along the lines of natural resource endowments in the medium-sized countries of the region, less so in Brazil and Argentina, and with a pattern of development north of Panama influenced primarily by geographic and labor force factors and special trade agreements.\(^{21}\) Despite the rapid export growth, there has been little of the expected shift in resources between sectors – although more so within sectors - and little of the expected effects on employment, on productivity, or on growth. While the experience north of Panama has been more dynamic in terms of structural change, this is still not universally the case with respect to the other variables. Firm-level responses to
the reforms in the various countries of the region, reviewed in the next section, provide some insight into these unexpected results.

4. MICRO-LEVEL RESPONSES TO THE REFORMS

A number of contributions to this issue provide evidence on the response of domestic and foreign firms to Latin America’s NEM. Peres and Stumpo contrast the dynamics of large and small domestic firms in the region. Macario concentrates on the responses of the dynamic, modernizing domestic firms, while Mortimore provides evidence on the responses of foreign firms. David et al and Thorpe et al. assess the evidence on firm response in two important natural resource sectors, agriculture and fisheries, while Alcorta analyzes the impact of the NEM on the dynamics of suppliers and users of machine tools in the region. Buitelaar and Padilla assess the experience of firms in the export-oriented “maquila” sector in Mexico, Central America and the Caribbean.

Taken together, these articles provide us with a broad picture of microeconomic responses in the region. They cover the experience of a wide array of domestic and foreign firms. They cover both resource- and labor-intensive export sectors, expected to become the engine of comparative-advantage based economic growth in the region, and domestically oriented industries such as telecommunications and machine tools, that are key to the dynamic competitiveness of the region.

Overall, these articles support the impression of mixed results from the NEM. Three dynamics stand out as most relevant at the firm level. First and foremost, different types of firms have shown different performance. Second, leadership in the economic process is shifting towards enterprises strongly linked to international markets. Third, domestic linkages and development of endogenous technological capabilities have been weakened in this process (or not developed at all, as happened in most maquila industries), although with different intensity according to countries.

The largest domestic conglomerates and the subsidiaries of multinational corporations have been the most dynamic agents in the region. As shown in Peres (1998) and by Thorpe (2000), large domestic conglomerates have reacted to the NEM by reorganizing and modernizing their activities, strengthening their international linkages through direct investment abroad or orienting a significant part of their production to foreign markets, and organizing or becoming part of global production chains. At the firm level, the most positive trends have been specialization in their core business, modernization of production facilities incorporating state-of-the-art imported equipment, and development of sophisticated financial and managerial skills, as also reported by Macario’s (2000) survey of the most successful exporters in the region.

At the conglomerate level, large domestic business groups show different strategies. While some of them, like the producers of cement in Mexico or pulp and paper in Chile, concentrate their businesses in one or a few production sectors, others have increased their diversification well beyond what synergy would indicate. Examples include the Vicunha group in Brazil, which operates in the textiles, steel and basic mineral industries, or the CARSO group in Mexico, with important activities in
telecommunications, electrical conductors and retail trade. Different, and sometimes even preferential, access to privatization of public enterprises was instrumental for this somewhat contradictory blend of specialization at the firm level and diversification at the group level. Important market failures, particularly in the capital market, make it still profitable for large Latin American investors to organize through business groups, including very diversified ones.

Despite their successful performance under the NEM, domestic business groups face important challenges. They continue to be extremely concentrated in mature or natural-resource-based industries (beer and non-alcoholic beverages, cement, petrochemicals, glass and glass products, agro-industries, etc.). Their presence in higher technology- or marketing-intensive sectors such as automobiles, computing equipment, pharmaceuticals, or electrical and electronic industries is very low or null. Domestic conglomerates may have state-of-the-art production facilities and management, but, with a few notable exceptions, they have not shown similar skill regarding product and process innovation. A second difficulty is that domestic conglomerates remain too small by international standards to be real global players. The largest Latin American business groups have yearly sales on the order of four billion dollars, while their international competitors operate at an entirely different scale of magnitude.

Because of this concentration in rather mature industries and their small size in comparison to their global competitors, domestic business groups have lost share to the subsidiaries of MNCs. This is particularly evident in manufacturing, where the share of foreign firms in the sales of the 100 largest corporations in the region increased from 46% to 61% during 1990-98. While the 100% foreign-owned automobile producers account for nine percentage points of this increase, the other six points resulted from takeovers of large domestic firms by foreign ones. Such takeovers have been extremely frequent since the mid-1990s (Peres, 1998, and América Economía, 1999), intensifying the shift in leadership from state-owned and large domestic enterprises to foreign firms.

In this context, the most successful strategy developed by MNCs in the region has been to seek platforms to improve the efficiency of their international systems of integrated production. The Mexican automobile industry and the Mexican and Caribbean Basin maquiladora facilities have been the outstanding performers under this strategy, as shown by Mortimore (2000) and by Buitelaar and Padilla (2000). Although foreign investments seeking access to natural resources and to markets for manufactures continue to play a role in South America, their importance has diminished relative to the efficiency-seeking investments. Moreover, conspicuously absent from this picture are investments that would seek strategic assets (e.g., research and development advantages) in the region.

Despite the greater dynamism of the larger firms, particularly those foreign owned, small and medium-sized enterprises (SMEs) have not uniformly been losers under the NEM. Peres and Stumpo (2000) show that SME specialization in growing domestically-oriented sectors like foodstuffs and some chemical products have buffered the impact of trade liberalization on SMEs as a whole. Although SMEs in some sectors (clothing and footwear) were negatively affected by foreign competition, they accounted for less than 10% of the value of SME production in most countries).
SME production, share in manufacturing output, and productivity increased in a number of countries, with the productivity gap vis-a-vis the larger firms narrowing in five of them (Peres and Stumpo, 2000). Nonetheless, SME productivity is only between one fourth and two thirds of that of larger firms. SMEs have not been an exception to the increasing heterogeneity that characterizes economic performance under the NEM, as they are far from a homogeneous group. Size has not been the only determinant of firm behavior and performance, as sector- and country-specific variables have also played decisive roles.

One sector that requires more investigation is that of microenterprises. Some NEM supporters singled out these enterprises as likely to be most positively affected by the free-market reforms, which were expected to eliminate policy-induced biases against this sector (de Soto, 1986). The dearth of official statistics on these enterprises makes it difficult to assess their dynamics under the NEM. At this point, we must rely on scattered case studies, which report predictably mixed results. While some microenterprises have been negatively affected by increased import competition, others have been able to sustain their competitiveness through participation in dynamic clusters or through new types of subcontracting relations.36

Summarizing results at the micro-level, contributions in this issue indicate that where firms have responded positively to the NEM reforms, these responses have often involved the introduction of imported equipment that has increased the capital-intensity of production processes. While this has increased the efficiency of individual firms and sectors, it has resulted in the displacement of labor from these sectors. This displacement is most evident in agriculture, as David et al. (2000) show, but also apparent in manufacturing. Overall, economic growth has not been rapid enough to absorb the displaced labor as well as the new labor force entrants, and unemployment has remained high in many countries (at 8% for the region in 1999, according to ECLAC, 1999b).

In addition to the employment consequences, the widespread increase in the use of imported equipment and inputs has weakened existing production chains or prevented their creation in the maquila sector. Again, while efficient from the point of view of the individual firm, this response has weakened the channels through which the dynamic sectors might stimulate growth in other domestic sectors, as shown by Alcorta (2000) in his investigation of the dynamics of machine-tool diffusion. Another problem emerging from this behavior has been the growing trade deficits of many countries of the region. As the data in Table 1 show, import growth has exceeded export growth in the region, and the trade balance has been consistently negative for most of the decade.

And finally, the decisions by many firms to rely increasingly on imported inputs renders the region extremely vulnerable to downturns in export earnings, such as those resulting from the recent Asian crisis, which reduce import capacity. Reliance on short-term capital inflows to maintain economic activity results in high real interest rates, with negative consequences for domestic firms. Thus the recent economic difficulties of many countries of the region are not simply the result of unfortunate external events, but emanate also from the ways in which firms have responded to the incentives created by the reforms of the NEM.
5. CONCLUSION

(a) What have we learned?

One conclusion that can be reached from this review of structural change in the region is that more change has occurred at the micro level than is apparent at the aggregate level. The contributions to this volume document a process of change at the firm level that is only moderately apparent in structural change between economic sectors. To the extent that it has occurred, then, efficiency gains to date have come about more through improved practices at the firm level than through broad processes of resource reallocation. This may, of course, be a function of lags between firm-level response and observed restructuring at the sectoral and macro level, which remains to be seen.

The one exception to this picture of minimal structural change is with respect to exports. Here, we do see a significant level of change in export composition for some countries. This change is most apparent north of Panama, leading to a second important conclusion: the impact of the NEM has not been uniform. It has been strongly influenced not only by internal factors such as the previous level of industrial development and the existing resource endowments of each country, but also by external factors such as the country’s geographic position vis-à-vis the United States and its trade relations with that country. The Dominican Republic has outperformed Bolivia or Paraguay not because of a more thoroughgoing reform process, but because of their different integration into the world markets.

For some countries, we are perhaps seeing a case of export growth without export-led growth. This is true even of some of the more successful exporters, such as Mexico, where overall economic growth in the ‘90s has been moderate despite rapid export growth. In these cases, export growth based on specialization and use of imported inputs led to a relatively small share of value-added, and an even smaller share of national inputs, in the total value of exports, as Buitelaar and Padilla (2000) show for Mexico. As a consequence, the impact on the country’s overall productive structure was slight. In Mexico in particular, the weakening of domestic firms as a consequence of trade opening resulted in slow growth for the economy as a whole despite the rapid growth of exports - a problem that is only now, a decade after the reforms, beginning to be overcome.

The substitution of imported inputs and capital goods for domestic products did result in productivity increases that supported the rapid export growth experienced under the NEM. However, this was also accompanied by a reduction of local technological efforts, as shown by Alcorta (2000) and Katz (2000). The lack of emphasis on the development of technological capabilities at the firm level is troubling from the perspective of the long-run dynamics of the model. For those countries relying on cost-based advantages deriving from natural resources or low-wage labor, the realities of global competition make it difficult to maintain these advantages over time. As Thorpe et al. make clear, natural resources such as fisheries are vulnerable to overexploitation. At the same time, resource-based exports are vulnerable to cycles of boom and bust, as the experience of Chile with mining and paper pulp demonstrates. Labor-intensive assembly
industries are highly sensitive to changes in unit labor costs and market access, and are notoriously footloose, particularly in low-tech sectors like apparel.

A country’s ability to respond flexibly to these types of changes by moving into new areas of comparative advantage is key to its long-term success in the global economy. To date, the manner in which the countries of the region have followed their static comparative advantage, with minimal development of local technological capabilities, has troubling implications for their development. At the current juncture, many countries of the region are going through a period of economic uncertainty. Economic growth in the region has been zero for 1999, with generally modest improvement forecast for most countries in 2000 (ECLAC, 1999b). It is starkly apparent that the region remains vulnerable both to short-term external shocks (volatility of commodity prices, deterioration of prices for labor intensive products, volatility of capital movements, downturns in global demand), and to longer-term social and economic vulnerability due to the unevenness and instability of the growth process.

Another important issue arises with respect to the impact of the NEM on industry concentration. In both agriculture and manufacturing, there has been a tendency for economic concentration to increase in the most dynamic sectors. Furthermore, the most dynamic export-oriented sectors are in many cases those exhibiting greater scale economies (autos, natural-resource processing). At the same time, the overall tendency has been for MNCs to increasingly dominate production and/or marketing in these dynamic sectors, while leaving domestic producers, particularly small ones, concentrated in the less dynamic domestically-oriented activities. This lower dynamism results from the negative effects of the NEM on domestic market demand (negative effects resulting from stabilization measures, low employment growth, opening to consumer goods imports, etc.), which the growth of exports has been insufficient to overcome except in some of the countries north of Panama. In addition, the smaller firms in both agriculture and industry have suffered from the withdrawal of government from the provision of public and quasi-public goods on which they heavily relied. These firms have also suffered from the dismantling of institutions, such as special credit facilities, extension services, and marketing programs, that helped them to overcome the transactions cost disadvantages associated with their small size.

Economic restructuring that did occur in the region has resulted in very moderate overall employment growth, with most new employment concentrated in services. In all countries, furthermore, we see that a common response to the new incentive structure at the firm level has been to introduce labor-saving changes in techniques and especially in organization. Moreover, the use of subcontracting has been a widespread response to the new competitive environment, resulting in a shortening of labor contracts and increased economic insecurity for the labor force.

(b) Policy alternatives

Current policy recommendations in the literature on the NEM tend to fall into one of three categories: intensification of the reforms, complementation of the reforms
(“second generation” reforms in the areas of education, property rights, institutional development), or modification/reversal of some aspects of the reforms.

Lora and Barrera (1998), for example, emphasize the incomplete implementation of the NEM reforms in the region. They indicate that a 15% increase in their index of reforms in 1995-2002 would be accompanied by an increase in GDP growth rate from 3.8% to 5%. Even if this were accomplished, they recognize that it would not be enough for significant employment and poverty reduction. Something beyond the reforms is needed. For them, the core policy proposal is to increase the education effort in the region. If Latin America were able to increase its education level one year above the current trend, according to their analysis, GDP growth would increase by one percentage point to about 6%, a figure probably enough to cope with employment problems in the mid-term future.

Other authors go beyond this emphasis on education reforms. Burki and Perry (1998b) highlight the importance of institutions for growth and point out the significance of the “institutional gap” that Latin America has vis-a-vis the developed countries and most of the East Asian economies. They suggest that policy makers should pay special attention to institutional reform in areas such as financial system supervision, public administration, education and the judiciary.

Other contributions add further dimensions not addressed under the first-generation reforms. For example, Stiglitz (1998) points out that we are moving towards a Post-Washington Consensus, in which protection of property rights, strengthening of competition policy, and development of mechanisms for technology transfer should play a role not recognized by the reform proposals of the late 1980s and early 1990s. Similarly, Ocampo (1998) highlights the need for a pragmatic relationship between the State and the market to develop policies aimed at fostering technological development and strategic complementarities between investment decisions. Ffrench-Davis (1999) emphasizes the need to pay attention to the problems that arise in the implementation of the reforms, particularly regarding institution development and the emergence of contradictions between macroeconomic policy and reform objectives. Peres (1997) calls for—and shows that the region is moving slowly, but steadily towards— stronger competition policies, decentralized policies, environmental protection, and gender sensitive policies that take into account the changing gender composition of the labor force.

The contributions to this special issue shed some light on the complexity of firm responses to the reform process. Both the strengths and the weaknesses highlighted in these investigations provide some guide for policy formulation. Better macroeconomic policies and institution building are indeed needed in the region, but they will not be enough if they are not complemented by policies that address the microeconomic problems that have resulted from the NEM.

Policymakers have tended to overlook or take for granted plant level changes. Yet it is here, ultimately, where productivity is determined and successful catch-up takes place. As thoughtful observers remind us, the process of knowledge accumulation, which underlies all successful efforts at long-run economic competitiveness, is still insufficiently understood but is clearly far more complex than conceptualized under the NEM (Bru ton, 1998). Macario’s (2000) surveys reveal that many firms recognize the
need to make changes in technology and organization but lack information to make efficient choices. Ramos (2000) provides a number of suggestions for productivity enhancing policies to promote this learning process, with particular emphasis on technological catch-up by means of licensing, visits to best-practice firms abroad, and the construction of “model plants.”

It is particularly important to tailor these policies to the needs of small and micro enterprises. Given the disappointing outcomes of the NEM with respect to employment, policies to strengthen these firms take on added significance, as it is well known that they tend to be more labor-intensive than their larger counterparts. Results reported in this issue suggest that technology policy and institutional development should pay particular attention to reducing information and transactions costs. This will be instrumental for job creation and increasing productivity in this type of firms.

Other interventions that can support this sector include the expansion of generally accepted policies such as export promotion (market information, trade negotiations to open markets, access to credit at international market rates), technological innovation and diffusion (technology promotion funds, strengthening of supplier-user linkages, fiscal incentives to firm demand for technical assistance), and human resource development. This latter needs to incorporate not only formal education and support for on-the-job training, but also capacity building for entrepreneurs and managers. The state, through joint public-private associations, can encourage producers to consider new means of achieving higher efficiency. At the same time, there is a pressing need to develop innovative credit facilities that can address the financial needs of this sector.

Other problems identified in this issue center around the weakened position of domestic firms vis-à-vis MNCs, and the increasing reliance of both foreign and domestic firms on imported inputs. The implementation of policies supporting a cluster approach to industry development may foster the generation of linkages and even the creation of new, efficient production chains that often include a mix of different firm sizes (Porter, 1990, Casaburi, 1999, Altenburg and Meyer-Stamer, 1999). A second intervention that can assist domestic firms are reforms to strengthen minority shareholders’ rights. These can facilitate the formation of more efficient and stable joint ventures (Shleifer et al., 1999), particularly with MNC affiliates, which would open access to financial, technological and managerial resources well beyond those available to most domestic producers.

The region should develop new policies regarding other areas only marginally addressed to date. Of particularly relevance given the changes detected in this special issue is a set of competition policies to complement trade liberalization with increased rivalry among firms in the non-tradable sectors. Trade opening has put pressure on tradables, but has left untouched sectors where foreign supply cannot impact on prices and profits (retail trade, banking, domestic transport, etc.). Without competitive pressures, resources will continue to flow to those sectors and the goal of achieving an efficient integration into the world market will suffer. In highly concentrated sectors, like electrical power distribution, where competitive pressures operate only in the long-term through new investment, competition policies should be complemented with direct regulation.
It is clear from the contributions to this issue that the NEM has impacted significantly on the decisions of producers throughout Latin America. It is equally clear that the withdrawal of the state has weakened the ability of some producers to respond adequately to the new signals. The policies recommended here can strengthen the competitiveness of domestic firms and, equally significantly, generate a more dynamic incorporation of the region’s labor force into the growth process. It is worth emphasizing, however, that these policy recommendations do not address the more fundamental issue of the merits of the New Economic Model itself. Whether the NEM, however reformed, is the best way to achieve economic development in Latin America is a question that is increasingly moving to the forefront of economic debate in the region.

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NOTES


2 Vogel 1974. In the view of ISI critics, the inefficiencies created by this model included an excessive capital-intensity of production, a wrong mix of imported versus domestic inputs, a distorted product mix, and the inefficient performance of public enterprises.

3 There is an extensive literature on this period. A useful summary of the various policy experiments is Cardoso and Helwege 1992, Chapter 7.

4 Specifically, these instruments refer to: i) maintaining small fiscal deficits, understood as 1 to 2% of GDP, ii) setting public spending priorities which emphasize health and education and the elimination of subsidies, iii) implementing fiscal reform, especially through expansion of the tax base, iv) allowing markets to determine interest rates, v) allowing markets to determine the exchange rate, vi) opening up trade, with the elimination of quantitative restrictions, but recognizing the possibility of protecting infant industries and maintaining a moderate level of general protection (tariffs of 10 to 20%), vii) liberalizing foreign direct investment, viii) privatizing the productive activities carried out by the State, ix) deregulation, and x) defense of property rights.

5 The components of a market-friendly approach include: (a) investment in people, in particular, in (primary) education, basic health care, nutrition, and family planning; (b) development of a business environment characterized by domestic and foreign competition to promote innovation, the dissemination of technology, and the efficient use of resources; (c) integration of national economies into the global market through trade and investment; and (d) maintenance of sound macroeconomic fundamentals, including fiscal deficits compatible with inflation control.
The term “first-generation of reforms” refers to the basic reforms designed to implement the NEM. “Second-generation reforms” – a concept developed in the second half of the 1990s (Burki and Perry, 1998b) - incorporate institutional changes needed for an efficient operation of the “first generation,” and will be discussed below.

The emphasis on the development of a free-market economy overrode at times some of the finer points of the Washington Consensus, such as the protection of infant industries. Thus, the reform of foreign trade was seen basically as a process of trade liberalization and the fiscal reform, including privatization, as an instrument to diminish the size of the State and reorient expenditure from production subsidies to support the supply of public goods. Similarly, the reform of the financial system was viewed as the deepening of the same through the free determination of the interest rate as well as of the orientation of credit, and labor reform was seen as a process tending to eliminate restrictions on the free functioning of this market.

They recognize, however, that the benefits of trade liberalization are not equally distributed among countries. See also Fernández Arias and Montiel (1997) for a good review of the economic literature concerning the relationships between growth and macroeconomic stabilization, the size of government, trade opening, financial deepening, and the unification of exchange rates.

Double augmented total factor productivity (which corrects for changes in the quality of labor and capital) in eight Latin American and Caribbean countries (including the three largest and most of the medium-sized countries) grew at 0.8% per year in 1990-98, compared to 1.0% in 1950-80 (Hofman, 2000).

Data for the 1970s cannot be compared directly to the data in Table 2, as the base year for price corrections changed after 1980. However, a comparison of sectoral shares for 1970 and 1980 using the same deflator shows a constant industry share, with agricultural losing two percentage points to services.

Stallings and Peres (2000), using unweighted averages, show a sharper increase in the share of services in total production, which indicates that the relatively smaller countries have experienced more significant changes than the larger, particularly Brazil.

This characterization should not led us to forget that the Mexico’s economy goes well beyond maquilas and other assembly for the U.S. market. Highly capital-intensive sectors, e.g., cement, steel, glass, chemicals and petrochemicals, are very important in the industrial structure of that country, while some corporations that operate in those fields are global players.

Initial conditions included very high inflation (Chile, Peru) or hyper-inflation (Argentina, Bolivia), accompanied by serious political and social unrest.

Another problem with analyses of the impact of the NEM is the differing characterizations of the relevant reforms. For example, while capital account opening as part of financial reform has an important place in the analyses of ECLAC (1994) and the World Bank (Edwards, 1995), it is not taken into account in IDB (1996). Similarly, the reform of the State, reduced to the privatization of public assets in Lora (1998), includes components of deregulation in Edwards (1995), and has an even broader scope in ECLAC (1995) and in Burki and Perry (1998a).
Moguillansky and Bielschowsky (2000) show that manufacturing investment in the region after the reforms followed three stages. In a first stage of macroeconomic instability and unfavorable international environment, firms reacted defensively, reducing costs by rationalizing production (downsizing, incorporation of disembodied technological change, reducing product mix and increasing the use of imported inputs). With the improvement in macroeconomic conditions and the reduction of uncertainty, expectations changed and firms began to invest anew, giving rise to a second stage in which they modernized their capital stock, particularly machinery and equipment. In a third stage, firm dynamics was the result of a generalized expansion of existing plants and the creation of new production facilities. Most countries in the region are still in stage 2; only Chile being in stage 3 before the recent crisis.

Weller (2000) uses unweighted averages so that the largest countries do not dominate the total. If weighted averages were used, employment would fall by 3.2% yearly. The six countries are Argentina, Brazil, Chile, Colombia, Mexico (excluding maquilas) and Peru.


In the case of the highly successful Mexican automobile industry, sector policy played a key role in protecting it from foreign competition and fostering its integration into the North American production chain.

Alcorta and Peres (1998) show that the technological intensity of the region’s exports has not increased in the 1990s, remaining at a very low level by international standards.

In examining the emerging economic landscape under the NEM, one is struck by the extent to which the “Triple Alliance” of State/large domestic firms/MNCs (Evans, 1979) is coming to rest on the last leg. After the privatization programs of the 1990s just one state-owned enterprise still stands in the rosters of the 100 largest industrial corporations in Latin America (Compañía Venezolana de Guayana, CVG). While the large business groups remain a potent force in the region, their relative position has been diminished. The long-run implications of this trend for the sustained development of the region are unclear.

Information for SMEs usually does not include micro-enterprises (less than 5-10 employees).

As reported by Moguillansky and Bielschowsky (2000), foodstuff was one of the few industries that have shown strong investment dynamism in the 1990s in all the 6 countries they studied (Argentina, Brazil, Chile, Colombia, Mexico and Peru). The specialization of SMEs in a fast growing sector was instrumental for their positive production performance in many countries.


Concentration at the level of business groups has increased, this process being compatible with downsizing at the plant level or even at the firm level (Peres, 1998).

In the case of Chile, these difficulties were also apparent after the reforms of the 1970s, but were mitigated by the second phase of more “developmental” reforms of the 1980s.

Prudential regulation of the financial system has actually been on the table since the 1982 Chilean banking crisis.

Studies of firms in Chile, the leading regional reformer, demonstrate that many entrepreneurs remain “more interested in safeguarding existing competitive advantages than in creating new ones” (Messner, 1993: 55; see also Gwynne, 1993, Pietrobelli, 1998).
REFERENCES


América Economía (1999), *500 Latin America’s Largest Companies*.


ECLAC (several years) *Statistical Yearbook for Latin America and the Caribbean*, Santiago, Chile.


ECLAC (1999b), *Balance Preliminar de las Economías de América Latina y el Caribe*, Santiago, Chile.


Londoño, Juan Luis and Miguel Székely (1998), *Sorpresas distributivas después de una década de reformas*, in *América Latina después de las reformas*, Pensamiento Iberoamericano, Special Issue.


Ocampo, José Antonio (1999), *La reforma del sistema financiero internacional: un debate en marcha*, Fondo de Cultura Económica and CEPAL, Santiago, Chile.


Shleifer, Andrei, Robert Vishnu, Rafael La Porta and Florencio López-de-Silanes (1999), “Investor Protection and Corporate Governance, paper presented at a conference on “Gobierno Corporativo: Desafíos para América Latina” at the Escuela de Administración, Universidad de Chile, Santiago, Chile.

Stallings, Barbara and Wilson Peres (1999), *Growth, Employment and Equity: The Impact of the Economic Reforms in Latin America and the Caribbean*, ECLAC/Brooking, Santiago, Chile.


