Policy Directions for the New Economic Model in Latin America

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Summary. — The new economic model (NEM) has been extremely successful in reducing inflation and in increasing exports, but quite disappointing in terms of the growth of output and productivity. It is argued that this calls for a "second generation" of reforms, especially centered at the plant level and its surrounding factor markets, to close the huge productivity gap separating firms from best practice and so enable the accelerated growth rates typical of successful "late starters." Policies should emphasize the systematic identification of those technologies and practices best suited to local conditions and their rapid transfer, adaptation and diffusion throughout the economy.

Key words — industrial policy, growth, Latin America

1. INTRODUCTION

As has been well documented in the papers of this special issue, in the last 10–15 years a "new economic model" (NEM) has been put into place in Latin America. A major strategic reversal has taken place, from an inward-looking model of industrialization based on the substitution of imports (ISI) to a strategy aimed at penetrating large and growing international markets on the basis of specialization and comparative advantage; from an economy with strong government intervention in markets to one where resource allocation is largely determined by the interplay of free and unregulated prices; and from one where the public sector played the leading role in development to one where the private sector is the key agent of dynamism in the economy.

In the earlier model, "industrial policies" played a prominent role in development strategy. On the one hand, high and variable tariff protection led to marked differences in the treatment and effective priority accorded different productive activities. On the other hand, given the control of interest and exchange rates, credit and foreign exchange had to be rationed administratively. Thus criteria for such rationing were required—based on economic considerations, such as the expected impact on employment, foreign exchange or growth generally, or on less noble and more mundane, rent-seeking considerations. Since at the heart of the “new economic model” was the freeing of markets and the liberalization of trade, the scope for such traditional “industrial policies” has therefore been necessarily reduced if not fully eliminated.

Hence, two closely related questions come to the fore. First, and most fundamentally, is whether indeed there is any longer a role for “industrial policies” in free and open economies, and if so what type of policy? In the spirit of the papers in this issue, I argue that there is a role for industrial policy though with a marked shift in the choice of instruments and in the focus of such policy (now termed “competitiveness policies” to denote this shift in focus toward enhancing productivity growth).

Second, just how important are such competitiveness policies for high growth? Are they a complement, but a secondary one, to the major structural reforms currently underway, or, as I argue, are they indeed indispensable if the markedly higher growth rates, typical of the “catch-up” phase of late-starter developing countries, are to be achieved?

2. FROM THE “INDUSTRIAL POLICIES” OF THE ISI STRATEGY TO THE “COMPETITIVENESS POLICIES” OF THE PRESENT

In the heyday of Import-Substitution Industrialization (ISI), four sets of policies made up
what was known as "industrial policy." First, at the heart of program design, were "vertical policies," that is, those aimed at promoting sectors considered to be of high priority. Typically, manufacturing was favored over sectors with traditional comparative advantage, such as agriculture and mining. Second, preferred sectors benefited from a wide variety of instruments: (a) tariff protection or import quotas on output, while their imported inputs came in with low or no tariffs; (b) preferential credits; (c) purchases from public sector firms; and (d) the supply of utilities and key inputs from public sector firms at below market prices. Third, there was a tendency to see the proper sequence of sectoral priorities as going from first, relatively easy to substitute final consumer goods, to the later substitution of intermediate goods (steel, petrochemicals, paper, etc.), which were more technologically demanding, normally requiring continuous production processes (as well as large-scale production), and finally, to the domestic production of capital goods far more technologically sophisticated and demanding. Fourth, there were also "horizontal" policies—funding for training, preferential credits for small and medium-sized enterprises (SMEs), and technology policies (aimed especially at building up the technological infrastructure of research and technology institutes), but these were largely complementary to "vertical" or sectoral policies, and normally involved significantly fewer resources.

While under ISI the region as a whole grew at a solid rate of 5.6% per year (1945–80), well above that of any period before (or after), the strategy ran into increasing problems as it moved from consumer goods to intermediate goods and then on to capital goods: the growing limitation of domestic markets too small for minimum efficient scales of production; insufficient competitive pressure to induce productivity increases; the tendency to overdiversify production rather than to specialize; the "deadweight" costs of administering all of these programs. In addition, the ISI strategy tends to act as a disincentive to exporting, since tariffs are, in effect, a tax on exports, especially nontraditional exports.

For all of these reasons by the early 1970s the strategy of ISI had reached a stage of rapidly diminishing returns. If this was not immediately noted at the time, it was no doubt due to the fact that GNP continued to grow at a good pace in the 1970s, but on the basis of ever increasing, foreign debt-financed capital formation. The growth of total factor productivity in the region came to a halt in 1973 and stagnated thereafter (see Figure 1). Of course, all of this became patently clear with the onset of the debt crisis, when the collapse of capital inflows put an end to growth in the region in the 1980s.

It is thus not surprising that the debt crisis would bring into question if not disrepute the ISI model followed since the Great Depression and would give rise to the NEM based on price

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Figure 1. Total factor productivity, 1950–98, Latin America, Best Practice and Asian tigers (index 1950 = 100).
(Source: ECLAC.)
stabilization, liberalization, privatization and orientation to international markets. The resulting freeing of prices and interest rates, the elimination of most subsidies and the sharp reduction in tariff as well as nontariff barriers enormously reduced the scope of “vertical” or sectoral industrial policies. Moreover, instruments such as public sector purchases of (more expensive) domestic products or public sector firms’ sales of key inputs to selected sectors at below-market prices were virtually eliminated both because of the disrepute in which these instruments had fallen and because of the critical need to reduce fiscal deficits.

Thus the NEM brought two important changes in industrial policy. First, and by far the most important, sectoral or vertical policies have been downplayed, leaving only horizontal policies, such as training, credit to small and medium-sized enterprises (SMEs), and building up the scientific and technological infrastructure. Moreover, given the stringent needs of most public sectors since the debt crisis, the resources devoted to such programs have tended to decline and at most maintain themselves. Second, technology policy has moved away from an almost exclusive reliance on supply-driven instruments and increasingly toward market and demand-driven instruments. In effect, in the past, efforts to raise domestic research and development (R&D) to 1% of GNP were largely concentrated in direct, public sector funding of R&D at university and technological research institutes, with little requirement that such work be demanded or even considered relevant by the private sector. In this sense, then, past technology policies were supply-driven. To correct this relative independence of public sector-financed R&D from the needs of the productive sectors, technology policies are becoming increasingly “demand-driven,” public sector support for such research now being conditioned to the expressed interest of private firms in the projects in question, if not requiring partial financing as well.

These programs are all consistent both with the old and new model, the difference being that “horizontal” policies tended to be a secondary complement of the ISI model, whereas they are the principal form of industrial policy justified under the new model.

3. THE RESULTS OF THE NEW ECONOMIC MODEL

While it is still possibly too early to make a fair evaluation of the new economic model, to date the results are mixed (see Table 1). There have been two notable successes. First, and most noteworthy, thanks to the sharp reduction in fiscal deficits, inflation has been brought down from an average of 400% per year during the 1980s and an unheard of 1200% in 1990 to some 10% in the present. This latter is but half of the inflation rate during our “golden era,” 1950–80.

Second, thanks to trade liberalization, and notwithstanding the exchange rate appreciation brought on by financial liberalization and ensuing capital inflows, the volume of exports has grown close to 9% per year in the 1990s, a rate four times that of 1950–80 under ISI. Moreover, the growth of nontraditional exports has been even greater, so that today some 50% of Latin American exports are nontraditional products, whereas in 1980 this was but 25%.

Yet the results in terms of growth and productivity have been modest if not mediocre. Economic growth in the 1990s has averaged 3.5% per year, above that of the “lost decade” of the 1980s, but well below the 5.6% per year of the ISI period which the new model was meant to surpass, and far below the above 7.5% annual growth of the late-starting “Asian tigers.” Moreover, overall labor productivity in the region has grown at a most sluggish rate (1% per year), less than one-third the rate of the ISI period.

### Table 1. Economic evolution of Latin America: 1945–98, Annual rates of growth

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<tr>
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<tr>
<td>Inflation rate (%)</td>
<td>20</td>
<td>400+</td>
<td>1200 → 10</td>
</tr>
<tr>
<td>Export growth (%)</td>
<td>2.1</td>
<td>4.4</td>
<td>8.8</td>
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<tr>
<td>Growth of GNP (%)</td>
<td>5.6</td>
<td>1.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Productivity growth (GNP/worker) (%)</td>
<td>3.1</td>
<td>-1.8</td>
<td>1.0</td>
</tr>
<tr>
<td>% Poor</td>
<td>50+ → 35</td>
<td>35 → 41</td>
<td>41 → 38</td>
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*a Source: ECLAC.*
To be sure, the new economic model has not been fully implemented in all countries, and several countries did not put it into effect at all until well into the 1990s. Moreover, the model had simultaneously to cope with galloping inflation. A fairer assessment would thus have to discount those disappointing results due to macroeconomic instability and stabilization and then take into account the necessary time lags before desired results could be expected. Yet it is especially here in the issue of the appropriate time frame that the issue of the microeconomic adjustments possibly needed to accompany structural reforms is critical. Yet is it reasonable to expect 10 years of virtual stagnation to pass before steadily positive results begin to show up? Does success or failure depend on just how long we must wait for firms to respond favorably to structural reforms? Is a critical determinant of firms’ speed of response, the industrial or competitiveness policies that accompany structural reforms?

The response of firms to structural reforms has been uneven. Thus privatized activities (telecommunications, utilities and financial services) have been among the sectors with the most rapid response to the reforms in terms of growth and productivity. Processed or commodity manufactures have also been among the most rapidly growing export activities, as have export processing zone manufactures, especially apparel and electronic assembly products, and automobiles (these latter benefited with sector specific measures and trade policies).

Prominent in all of the above activities have been transnational firms and domestic conglomerates. On the other hand, far slower in terms of growth in output or productivity has been the typical response of the bulk of domestic, family-owned firms, large or otherwise, especially those outside of the areas of traditional comparative advantage (Peres & Stumpo, 2000). While many of them have introduced important increases in productivity, these have been generally of an organizational sort, but with the same basic plant—reducing product lines, inventories and layers of management hierarchies. Important as such changes are, they are limited by the fact that capital shortages, among other factors, have kept down outlays for new plant. Such matters are worse, of course, in the SMEs of the region, whose production and productivity have not only lagged but at times even declined.

Thus the response of firms to structural reforms in recent years can best be described in terms of the same S shape typical of firms’ speed in adopting and diffusing new technologies (see Figure 2). Given the segmented nature of agents’ response, however, it would seem that not all firms are on the same S curve. Transnationals and domestic conglomerates in Latin America are on a rapidly growing one, whereas most other firms in the region, not only SMEs, are on a far more slowly rising one, thus producing a kink, if you will, in the economy-wide S curve. This would suggest that the problem of accelerating the favorable response to reforms (and so, shifting the S curve to the
left) is acute, requiring more, not less, work at the microeconomic level to raise productivity and competitiveness.

The productivity gap separating countries of the region with developed countries on the frontier of technology and best practice production is strong and generalized throughout Latin American economies, and not restricted to a few sectors. Total factor productivity levels in the region are on the order of 40% of those in the United States (ECLAC, 1995). Labor productivity differentials are, of course, even greater. For example, in the case of Brazil, these average 27% for all sectors, varying from lows of 14% and 18% in food retailing and food processing, respectively to a maximum of 88% (steel); and even important modern sectors, such as airlines, telecommunications, banking and auto assembly register less than half of US productivity levels (McKinsey Global Institute, 1998).

This fact casts doubt as to the relative importance of sectoral policies. For much of the thrust in favor of sectoral policies in the past derived from the conviction that the region was poor because its output was concentrated in activities characterized by low productivity (e.g., agriculture) or with prospects of slow growth in demand in international markets (most raw materials). Yet, to the extent that sectoral productivity differentials are large and widespread in our economies, sectoral policies ought to play a lesser role than in the past, and so, for some time to come, will be secondary to policies aimed at more speedily narrowing the productivity gap throughout Latin American economies. It is this change in focus that is behind the move from industrial to competitiveness policies, and not merely a new name for the same old instruments. The issue, in a word, is not so much what is best to produce, but how best to produce it.

4. NEW POLICY DIRECTIONS: TOWARD A “SECOND GENERATION” OF REFORMS

If the foregoing analysis has been anywhere near the mark, the principal new directions for enhancing accelerated growth in the region center on raising productivity and so, competitiveness. Such competitiveness policies, in my estimation, go well beyond the dominant neoliberal prescription of: more privatization, liberalization (now of labor markets) and lower fiscal burdens on the private sector. For stabilization, privatization and trade opening up are necessary but not sufficient conditions for speedy growth. Moreover, rapid financial liberalization, with insufficient regulation, has proven to be one of neoliberalism’s greatest failures, resulting in the major banking and financial crises that beset the region in recent years (and now Southeast Asia). Credit is a special type of “good,” one that must be rationed not just by price, as most other goods, but by quantity as well. Credit involves the exchange of a good now for a promise to pay at a future date, thus requiring great confidence, and so an appropriate regulatory framework if financial crises are to be averted. The other neoliberal proposals are, in my estimation, showing rapidly diminishing returns. For, as will be presently discussed, though freer markets may be required in other factor markets, this is generally secondary to the more serious failures besetting those markets—failures generally not due, in my estimation, to government imposed regulations (the standard neoliberal culprit).

If this is the case, then new policy directions must emphasize two sets of policies, much neglected or heretofore played down: “meso-economic policies,” or the systematic correction and strengthening of key markets, especially, factor markets, but at an adequate resource level; and “microeconomic policies,” that is, those especially aimed at raising productivity at the level of the firm—to assist in the systematic identification of those “hard” and “soft” technologies and practices best suited to local conditions (factor scarcities and resource availability), and their rapid transfer, adaptation, assimilation and diffusion throughout the economy. 8

(a) Meso-economic policies

Four key factor markets require deepening and strengthening: the markets for physical capital, both savings and investment; for human capital; for labor; and for foreign exchange. A sample of five policies to improve these markets follows.

First, raising savings is important for growth, and this can be done by raising private and/or public sector savings. A necessary condition for raising private savings is that interest rates be positive in real terms (a condition that was often violated in the past). Hence, recent reforms have eliminated those restrictions
which often led to negative real rates of interest. Nonetheless, experience indicates that once real interest rates are positive, overall private savings (as opposed to financial savings) have not shown themselves to be significantly sensitive to further interest rate hikes. Other measures that have proved successful in raising private sector savings include the following two (ECLAC, 1995). One is conditioning public sector credits, or even subsidies, for housing to families that have complied with a minimum savings of their own. It has been demonstrated that low and middle to low-income families are willing to save far more than they currently do on their own, if such savings can lead to a qualitative jump in their standard of living, as would be the case if it could provide them with access to decent housing otherwise not available for people in their income bracket. Second, there is evidence that private sector savings rise if taxes are shifted from undistributed profits on firms (thus inducing reinvestment) to distributed profits in the form of dividends to individuals, for firms, it would seem (though it is not unambiguously clear) have a higher propensity to invest than do individuals.

Savings can also be increased by reducing public sector deficits and/or increasing surpluses. How then can public sector savings be increased? One answer (a neoliberal favorite) is to cut spending. But after a decade of relative fiscal austerity, aside from military spending (not always easy politically, above all in a region, believe it or not, where military spending, of however dubious utility, is in fact low by international standards), there is little else of significance left to cut. The alternative is, therefore, to raise public sector savings by increasing taxes.

Despite neoliberal misgivings, there would seem to be considerable room for improvement here (ECLAC, 1998). For the fact is that the average tax burden on the private sector is but 16% of GNP (compared to over 25% in the OECD). Indeed, the country in Latin America with the highest tax burden (increased by two percentage points by the democratic government in 1990 and with no harm to growth) is in fact low by international standards), there is little else of significance left to cut. The alternative is, therefore, to raise public sector savings by increasing taxes.

A second important area of reducing fiscal deficits or increasing surpluses is in introducing "actuarial" accounting into the social security systems of the region, and balancing the budget on actuarial terms. Even those few countries that enjoy a current account surplus in their social security systems are in fact in actuarial deficit. For the combination of reduced fertility rates—already in place—and of the continued extension in life expectancy after 65, means that by the year 2020 the ratio of pensioners to economically active labor force will rise by 30%. Thus today we are incurring 30% greater obligations for tomorrow, requiring an increase in contributions or reduction of benefits of 30% or some combination of the two. Thus on actuarial accounting we are already in deficit right now, and so under obligation now to increase contributions and/or reduce benefits as of now. Doing so would lead to current account surpluses (savings) for some time to come, but surpluses needed to offset the deficits on the horizon, in whose obligation we have already incurred. This would be another indispensable step to raise savings coefficients.

Second, it is not just a question of increasing savings, and so investment, but of assuring that the savings available for investment is allocated to the best uses. Only an efficient system of financial intermediation can assure this, and such a system is sorely lacking in the region. Because of the costs and uncertainties of project evaluation and the problems of seemingly inadequate guarantees, the market for long-term capital in the region is virtually nonexistent, not just for risk or venture capital, but for restructuring and even expansion. Hence, except for the very few firms traded on the stock exchange, most long-term investment—for restructuring or expansion—is self-financed, so that investment funds are allocated in accordance with past and not expected rates of return. How can capital move at a faster pace into those sectors with promise—agriculture, mining, and activities supplying, processing or servicing our key natural resources—when these firms are, for the most part, regardless of size, family-run firms, not
listed on the stock exchange? How can these economies increase the amounts of finance available for the expansion of those promising firms, already capable of competing internationally, as well as finance the restructuring of those firms in "challenged" import competing activities, whose restructuring would render them competitive?

It would seem that these activities are ideal for the massive introduction of innovative financial instruments, still incipient in the region, such as leasing, factoring and securitization (in this latter case of bank loans and/or supplier credits and their subsequent "packaging" and resale in specially developed secondary markets so as to diversify risk and massively draw resources into such activities). It is thus not a question of freeing capital markets, but of developing them. For in the absence of mechanisms to intermediate resources into such promising activities, their required expansion or modernization will be dangerously put off.

Third, though investment in human capital is recognized as a key to growth (and social equity), notwithstanding the annual social rates of return of 15–20% characteristic of this activity, there is virtually no private lending for investment in education or training. Thus, what investment takes place is subject to the ups and downs of the public sector's budgetary situation or the income of individual families. Therefore, talent and the prospects of the investment play much too little a role. Given the importance of human capital in growth (and equity), an important source of growth is thus being squandered. Important as non-negative real interest rates are for savings and investment, freeing interest rates does not suffice. The real problem lies elsewhere. What seems to be decisive is the guarantee such a person can provide, which, in the absence of slavery (!) is tenuous at best.

A proposal to overcome this problem (ECLAC, 1992) is to take advantage of the fact that all workers will end up being creditors of their social security programs (be they old style "pay as you go" pension programs or individual capitalisation programs, increasingly more frequent in this day and age). The idea is that any prospective student could use his future pension or pension rights as a guarantee for a training loan from a bank, in exchange for which his interest and principal will be deducted automatically from his future earnings in addition to his regular social security payments until the loan is fully repaid. To cover the cases of unemployment, labor force withdrawal, informality or leaving the country, all recipients would be required to have a guarantor (typically a relative) in the social security system, from whom these monthly payments would be withdrawn in case the debtor was not repaying the loan. It is neat, tidy, and virtually risk free, and so, would be quite attractive to private lenders. It would have the merit of rendering useful today, as a guarantee, today's obligation of forced savings, which all salaried workers must now incur, and which is currently of no worth until retirement. It thus redresses a major market failure, opening access to capital markets to the mass of the population with potential, and it does so in a truly market-friendly way. 12

Fourth, much is made, and correctly, of the need to reform the labor market. But, the favored neoliberal reform, increased flexibility and deregulation (lower minimum wages, weaker unions, reduced entry barriers, lower severance pay), while reasonable in several contexts 13 overlooks the principal source of underemployment and low labor productivity in Latin American economies. The latter stems from a nonpublicly imposed practice, but nonetheless a real institution: paying wages for the most part according to hours worked. It has been proposed that "participatory salaries," be introduced where an important component of wage income (say 15–20%) is variable in accordance with the performance of the firm or the department or section in which the worker be found. This tends to raise productivity since it more closely ties the worker's interests with the destiny of the firm, reduces labor–management conflicts, and inverts the process of social control (workers who go beyond minimum requirements are today criticized by their peers for tending to pressure up standards whereas under participatory wages, these would be praised for providing a benefit for them all, not just management).

Even more important, participatory wages tend to increase productive employment. During a recession, such firms are more apt to lower their prices to maintain sales and production (and so employment), for they know that their labor costs, at least the variable component thereof, will automatically decline. Fixed wage firms, on the contrary, under the obligation to maintain their contracted wage, have far less leeway to face such a drop in demand by lowering prices—for their costs.
remain fixed—and thus such firms tend to hold prices in the face of recession, while cutting back production, and so, employment. Indeed, this is not just theory. The success of Japanese firms, and more recently, those of Taiwan and South Korea—all of whom tend to pay participatory wages to hold down unemployment in the face of serious prolonged stagnation or sharp recession, speaks of the practical merits of this form of wage payment. For similar reasons, incidentally, in periods of boom, participatory wage firms will tend to expand output and employment rather than prices and profit margins, to avoid giving unnecessary cash “windfalls” to workers, thus tending to stabilize prices while expanding employment.

If they are so good, why does not everyone use participatory wages? On the one hand, as with all innovations, the first to introduce such a contract will probably need to pay a premium to overcome the uncertainties and suspicion it will engender. Thus the innovator is likely to be penalized rather than rewarded. On the other hand, this type of contract generates externalities: above all, it benefits workers that all other firms pay participatory wages, and one has a fixed wage contract, for the others will assure “full employment,” while one’s own fixed wage contract will reduce income variability and risk. Thus there is a public policy case to be made for promoting the introduction of such contracts.

Fifth, although neoliberals argue that ISI was always a mistake, and structuralists argue that ISI made sense in its day to start off a needed process of industrialization, the protection of domestic markets was never meant to be but a first stage in the development of an internationally competitive industrial base. There is a wide consensus today that the future lies in the penetration of foreign markets, and that consequently, trade opening is needed.

What is at issue today is not so much how fast trade should have been opened up—that is water under the bridge now—but whether trade policy should be neutral, as neoliberals are wont to favor, or whether it should have a transitory pro-export bias as many neostructuralists argue (Agosin, 1993; Macario, 1995, 2000). For although tariffs were the instrument suited to the ISI strategy, many neostructuralists argue that export promotion is now the policy suited to a strategy of internationalization.

The infant industry of today is no longer, as in the past, a matter of the acquisition of the skills required to produce efficiently, but of the penetration of international markets. Herein lie the skills we are most lacking, and these have a “public nature” to them. In effect, the first producers to discover that a new (nontraditional) product can be successfully produced in our country and sold abroad competitively at international standards of quality are Schumpeterian innovators, who benefit other producers with this critical information, which they cannot themselves fully appropriate. To overcome the otherwise resulting underinvestment in such a critical activity, policy should benefit these pioneer nontraditional exporters for the costs they incurred and the benefits they are bringing to other domestic producers. A case for transitory subsidies can thus be easily made to encourage such penetration of foreign markets with nontraditional exports, until the “herd” comes in (who, of course, should not receive it), and all the more so in this critical juncture of globalization and internationalization. A simple instrument and effective way to provide such an incentive, without having to predefine what is a nontraditional export, is to provide a special drawback or subsidy, say equivalent to 10% of sales, to all exporters of products whose total national exports are less than say $10 million (and diminishing to zero once the exports exceed $20 million, when the “herd” can be presumed to be doing the bulk of the exporting).

Similarly, the case can be made that a firm that develops a new market for a traditional export—say, manages to penetrate the Japanese market with this product—even though this export by now is traditional, warrants an analogous subsidy, for the penetration of a new market is quite demanding, and will bring enormous benefit to all who follow thereafter. Again this is a Schumpeterian innovator warranting a special prize for his effort and “public” benefit. To encourage this sort of critical activity again a transitory subsidy can be justified; say 5–10% of sales to that market, until that market imports more than say US$5 million of the product in question.

While according to World Trade Organisation (WTO) regulations most export subsidies must be eliminated as of the year 2003, the same effect as above can be achieved with WTO-friendly instruments. For example, and simply for illustrative purposes, such pioneer exporting activities can be provided with credits

14. The case for these transitory subsidies is no longer a public policy case. The case for participation is always a public policy case.

15. Similarly, the case can be made that a firm that develops a new market for a traditional export—say, manages to penetrate the Japanese market with this product—even though this export by now is traditional, warrants an analogous subsidy, for the penetration of a new market is quite demanding, and will bring enormous benefit to all who follow thereafter. Again this is a Schumpeterian innovator warranting a special prize for his effort and “public” benefit. To encourage this sort of critical activity again a transitory subsidy can be justified; say 5–10% of sales to that market, until that market imports more than say US$5 million of the product in question.
at some one or two points above LIBOR, and it will be WTO friendly, for it simply puts exporters’ financial inputs at international prices, a permissible policy. Yet in all Latin American countries a credit that is only a point or two above LIBOR is a huge incentive, given that domestic rates are typically double that.

Finally, the region must increase several times over its expenditures on trade missions and attendance in international trade fairs. For example, Japan spends US$5 per capita in supporting trade missions. This implies that a Latin American country of intermediate size, such as Chile, should spend $75 million per year in this function, and, given the fact that exports weigh in at twice the proportion of Japan (30% of GNP versus Japan’s 15%), possibly up to $150 million! Whereas Brazil, using the same parameters, should spend close to $1 billion on this alone. The region’s expenditures in this area are, in fact, but a fraction of this, notwithstanding the fact that today we consider exporting central.

(b) Microeconomic policies

A second set of policies, even more neglected than the former and hence warranting all the more attention, are microeconomic policies aimed at raising firm-level productivity—through more up-to-date “hard” technology (more and better equipment) or “soft” technology (better management practices, leaner production, greater quality control, “just-in-time” production, etc.). Yet, since firm-level productivity would seem to be the sole responsibility of the entrepreneur, policy emphases currently as well as in the past have focused on the macroeconomic and “mesoeconomic” levels rather than on the “microeconomic” or firm level.

Public policy at this level has thus been largely limited to the building up of the scientific and technological infrastructure, but this is only part of what needs to be done. Moreover, it tends to draw attention to raising own R&D, which, at our stage of development, is not yet the central problem that it is often made out to be.

There is, in fact, a critical and much neglected role for public policy at the microeconomic level. At the region’s present stage of development, rapid and continuous productivity gains depend far more on the rapid acquisition and diffusion of technology than in raising own R&D. There are, however, important costs associated with the search and identification of that modern technology most suited to local conditions. Profitable as such search be, there tends to be considerable underinvestment in same, because the ideal strategy for each individual firm is to let others incur the search costs, while one quickly imitates and so produces but at even lower costs. Since the fruits of systematic search are not themselves innovations, patent protection is both unavailable and undesirable as an instrument. Hence, a strong case can be made for public policy to speed the massive and systematic search for, transfer and rapid diffusion of those technologies and management practices best suited to domestic conditions; and not just in one or several sectors but, given the huge, economy-wide productivity gap, massively and across the board, irrespective of sector.

Technology can be acquired by research and investigation, by reverse engineering and by imitation, by visiting and seeing. It can come embodied in machinery, blueprints and patented processes, or be acquired tacitly by “learning by doing” or by interaction with others, both those interested in our acquiring their goods (suppliers of machinery and intermediate inputs) as well as those interested in our supplying them with inputs to their precise specifications. Moreover since learning is cumulative, it is subject to important economies of scale and agglomeration. Finally, even where its sale or licensing is feasible, it is bogged down by the information breakdown intrinsic to such markets: to wit, the purchaser does not know how much the knowledge is really worth to him until he is told it, but once told, it is necessarily worth less. In short, knowledge is a nontrivial good, whose benefits are not solely limited to those who undertake the costs of developing it. It is characterized by uncontrollable spillovers and externalities, for which the price system, however attractive it otherwise might be for the allocation of resources, is particularly poorly suited.

Indeed, even more than our limited reliance on sectoral policies, if one group of policies sets Latin America apart from the Southeast Asian tigers, it is our neglect of the whole host of policies pursued by them to accelerate the transfer of technology. Kim (1997) has added detail to just what much of this entailed in Southeast Asia’s quest to achieve creative imitation. In effect, informal, nonmarket mediated mechanisms proved decisive in acquiring technology. Most transfer of technology is relatively inexpensive if there is local reverse
engineering capacity. This depends among other factors on the capacity to be a fast "strategic follower": to learn by watching and by visiting. This kind of learning entails, among others, technological surveillance, the hiring of foreign specialists; the use of technical assistance from foreign firms; attendance at international trade shows; the invitation of international suppliers to visit the country; the sending of engineers to foreign universities; the manning of technological missions abroad; attendance at international professional meetings; links to foreign research institutes; technological assistance centers for SMEs; and sectoral research centers for the absorption and adaptation of key technologies, generic and otherwise (this latter definitely being a case where a solid scientific and technological infrastructure is an important prerequisite).

There are three policies, that are especially lacking in the region in this regard and could be expected to have a very significant impact at this "microeconomic" level. 18

First, it is insufficiently appreciated in the region just how important the systematic promotion of technological licensing can be at its current stage of development, as it was in Japan and Korea at this stage of their development. Recent studies (Agosin & Saavedra, 1998) have established, for example, that for years Japan paid out 0.25% of GNP in royalties, whereas Brazil and Chile pay out but 0.05% to 0.08%. This is a virtual order of magnitude difference in an area in which Latin America still seems tied to its past, more apt to considering that the proper policy is to limit such payments rather than to accelerate and exploit fully the potential in licensing. Clearly this is a throwback to the old ISI days, when FDI and technology licensing were looked at with suspicion, as instruments of exploitation by foreigners. Latin America has changed with respect to FDI and transnationals, but seems to be still lagging insofar as licensing goes. Much remains to be done here.

Moreover, licenses need not be taken out just with the leading international firms. There are any number of less well known, but strong firms, that possess important technologies, but who simply do not have experience in international markets. Niosi (1997) makes the point in arguing for technology tracking institutes, that whereas Asian firms come to Canada knowing what they want, and where alternative technology suppliers exist, what they offer and under what conditions, Latin American firms are laid back and for the most part are approached by and receive visits from Canadian sellers of technology offering their wares. The first obviously know what they want and what alternatives exist; whereas the Latin Americans not only are at the mercy of the good will of the technology providers who come their way, but really are not actively engaged in taking it apart and knowing why it is worthwhile; they just take it passively. This is hardly an active policy of technology acquisition and diffusion.

Second, for the most part Latin American firms lack systematic efforts to acquire and transfer technology through the cheapest means available, learning by visiting and observing. One of the most successful components of the Marshall Plan for the reconstruction of Europe is its less well-known technical assistance program. The idea was that since Europe had to reconstruct, rather than reproduce the plants in use in 1939, why not reconstruct with best practice techniques? The idea was to do "industrial extension in reverse": rather than bring experts to Europe and tell them how to do it, take European entrepreneurs, managers, engineers, technicians to see best practice plants of similar scale and conditions in what was then the sole center of best practice, the United States. For six weeks such groups (typically 20 per subsector) visited and studied six best practice plants (one per week) and scrutinized them in detail—the equipment, the process, the organization of production, layouts, inventory and quality control, labor relations, marketing techniques, etc.—and then wrote a report (today this would be accompanied by videos) on what seemed the best combination of practices most suited for conditions in their countries. Upon their return each member was required to spread the news to 10 other firms. It is estimated that the results of such missions raised productivity by 35–50% without any significant increases in investment. 19 It was simply the fruit of a systematic study of the range of best practices, and the discussion and interaction among the interested parties with their developed countries' counterparts.

It is, of course, well known that before that, Japan first and later, Korea, did much of the same on their own with stupendous results. Similar results could be expected in Latin America. It is thus proposed that Latin American countries organize technology missions abroad (15–20 members subsector) to visit best...
practice plants in the world (now not just the United States, but Europe, Japan or all three as be most appropriate to the industry in question), again for 6–8 weeks, and videoing as well as studying the practices, so as better be able to diffuse the findings at home. The government would help make the contacts, organize and cofinance such missions—including possibly attendance at trade fairs.

If the government were to cover travel and per diem and member firms cover salaries, the government component of such missions would be of the order of $15,000 per visitor or $300,000 per mission of 20. Fifty such missions a year could be fielded at a mere $15 million a year, significantly raising the total factor productivity of the investments of the 1000 participating firms as well as that of the possibly 5–10,000 firms indirectly benefited through the postvisit diffusion in the order of 35–50%, were it to replicate the experience of the Marshall Plan. 20 For a medium-sized country—such as Chile—a program on this scale would benefit directly or indirectly all of its exporting firms in a single year, and would extend similar benefits to the bulk of potential exporters in five years or so. This is a program that is massive, as required, is relatively inexpensive, and has an extraordinarily high rate of return, not just in terms of the resources directly granted it (which are, in fact few), but very especially in strongly raising the productivity of new investment (and this latter is large, of the order of 20% of GNP). Obviously, larger countries, such as Mexico and Brazil would need multiply their efforts, but these would represent a trivial percentage of resources (of the order of 0.2% of GNP per year). 21

Third, it would seem that the region is ripe for the introduction of “model” plants for each sector and prevalent scale of production. For then the costs of systematic search could be shared, while diffusion could be inexpensive and rapid. The drawback in such a proposal is that the costs of setting up model plants—there being so many sectors and different scales of production, each with its own idiosyncrasies—could be quite high. Thus it is suggested that the government create “virtual model plants,” that is to say, rather than building them, it should consider sponsoring (and financing) competitions for the design of same—each design to include not only the technology and process considered best suited for that scale of production, but the market niche and quality it should aim for, the layout and organization of production considered ideal etc. The selection of the winners would be made by a panel of sectoral leaders and specialists, and the winners (or top three) would earn important prizes, say summing $0.5 million per virtual model plant. Awards could be made to 30 subsectors per year at a relatively low cost and the details of each “virtual plant” would be available to all interested parties at no or minimal costs, so as to accelerate diffusion.

(c) The resource effort

Before closing, a word must be said concerning the order of magnitude of the required effort in such competitiveness policies. Otherwise, we risk generating a “shopping list” of programs with no sense of impact or of priorities. Most countries have policies in many of these directions, especially at the meso-economic level. Yet the resources so dedicated tend to be meager, given the needs and prospects. In effect, if the annual social rate of return of such programs were to average a very solid 30% (as is estimated by Evenson & Westphal, 1995), for every 3% of GNP invested in such programs (including those private resources mobilised by public funds), total factor productivity (TFP) would grow an additional 1% per year. To raise TFP growth to 2.5% per year would thus require mobilizing 7.5% of GNP. In point of fact, however, it can be estimated that current expenditures in such meso and microeconomic policies are of the order of 2–2.5% of GNP—less than a third of needs. 22

Second, we must be aware of the target universe which microeconomic policies aim to reach in order to raise national productivity. Just for the sake of establishing orders of magnitude, there are close to 100,000 firms in the formal sector alone in Chile, not to mention some 500,000 microenterprises. If we use the capacity to export as an approximation of technological modernization and international competitiveness, of these 100,000 firms, that are the ultimate object of competitiveness policies, only 6,000 export. Thus the effectiveness of competitiveness policies must be gauged in how many years it takes to reach and significantly upgrade and modernize the remaining 94% of formal sector firms. It is thus obvious that any effort that reaches and significantly impacts less than, say, 5% of formal sector firms per year, will be well below needs and potential. Moreover, given the relatively modest resources assigned to such meso and microeconomic
policies, it is small wonder that the number of firms significantly affected by most of our current programs is but a fraction of this.

5. CONCLUDING REMARKS

Though any number of instruments of the past associated with “industrial policies”—such as high and varying tariffs, preferential access to credit, imported inputs and public sector utilities, etc.—have been rejected as misplaced or had their scope reduced by the emergence of the “new economic model” in Latin America, it is the thesis of this paper that a new set of policies is required, rather than no policies, if the high growth rates characteristic of all successful late-developing countries is to be attained in the region. For at the heart of successful “catch-up” is skipping stages of development and moving rapidly toward the technological production frontier. But this is not an automatic process. Rather, it requires the implementation of productivity enhancing policies to close the “technological gap.” Such “competitiveness” policies shift the emphasis from what best to produce (the sectoral policies of the past) to how best and most efficiently produce it.

While the reforms of the new economic model have succeeded in dramatically lowering inflation and markedly increasing exports, the growth of output as well of productivity at the economy-wide level has been quite disappointing, even below that under ISI. It is thus the thesis of this paper that such accelerated growth requires a “second generation of reforms,” focusing on sharply raising productivity through policies at the much neglected meso and microeconomic levels.

Such neglect can in part be justified by the dominant role played by macroeconomic disequilibria after the debt crisis. But now that these disequilibria have been brought largely under control in most countries, the time is ripe to move down to the meso and microeconomic level. I suspect that the neglect of meso and microeconomic policies has also been due to the biases and assumptions of the “Washington Consensus.” Thus this paper has made a special effort to indicate, through concrete examples, a new policy agenda that might be formulated at the meso and microeconomic levels, beyond the limits set by that “Consensus.”

Finally, there is a problem of scale as well as of approach and adequate instrument design. Anything less is to give lip service to the meso and microeconomic policies needed for development, but to go on relying, in fact, on global reforms and no more, whatever the rhetoric.

NOTES

1. For extensive treatment of the old and new policy regimes, see Peres (1993, 1997).

2. By contrast, the productivity of countries on the technological frontier grew three times faster, so that in the last 50 years Latin America has lost ground vis-à-vis the countries of the OECD. Conversely, the productivity of the Asian tigers grew five times faster than Latin America’s (double even that of our “golden era,” 1950–73), and almost one percentage point per year faster than that of the OECD, thus strongly reducing the productivity gap with countries on the frontier.

3. To be sure, there are important exceptions, among the more notable being the preferential treatment accorded the automobile sector in most economies. Then too, Costa Rica successfully landed INTEL’s fourth chip plant in the world with a $500 million investment through direct negotiations on sector specific benefits. Less successful, however, was Brazil’s attempt to develop its own computer industry, a program which ultimately had to be abandoned because of its price and quality costs for Brazilian firms forced to purchase locally.

4. Only one important addition has been made to existing horizontal policies. This is the case of export promotion policies in increasingly open and globalized economies. Thus public sector resources have been provided to help new exporters enter foreign markets as well as help traditional exports penetrate new and different international markets.

5. While this assures much greater linkage between research and production, such financing has the drawback that much of what is now called research is operational and firm-specific, thus minimizing work of a “public good” nature in favor of a private, or at most a limited group, good.

6. Such results are far from peculiar to Latin America. Though productivity is far more homogeneous by firm
size in the United States than in Latin America, nevertheless the adoption of new technologies in the United States is greatly affected by size. Small firms (less than 100 workers) adopt at a rate 1/3 to 2/3 that of medium firms (100–499 workers) and these in turn adopt at rates 1/3 to 1/2 those of large firms (above 500 workers). Moreover, these adoption rates, in turn are 1/3 those of Japan, where, presumably, because of closer supplier relations, the investment in the transfer of technology is greater, and so faster. The point is that adoption rates and the speed of response are differentiated among firms and highly sensitive to policy inducements. See Shapira (1990).

7. In addition to appropriate reserve requirements for differing degrees of risk and transparency in the determination of nonperforming loans, this also entails, among other things, strict lending limits to any one sector, firm or conglomerate, with limits, if not prohibition, of the “triangulation” of funds to circumvent such regulations; as well as limits on loans to firms belonging to the same owner or conglomerate as the banks.

8. I am expressly leaving out the issue of selective sectoral policies, because of space limitations. But my own thoughts—especially in favor of “soft” sectoral policies—are in print (Ramos, 1998), and strongly espouse some form of consensual and strategic planning in this direction.

9. It is worth noting that by measures of this sort in the mid-1970s Chile, among others, was able to increase tax intakes by a full four percentage points of GNP, without increasing tax rates!

10. This problem is probably even more acute with our SMEs. Yet, my point is that this problem affects all but the handful of firms traded in the stock exchange—those responsible for the bulk of value-added.

11. Much capital has moved into such sectors, but not at the pace required. By and large it has gone in as direct investment, where property and finance go together, but there continues to be a dearth of finance available for ongoing firms, which constitute the bulk of firms in these activities, and a large part of value-added.

12. This proposal does not deal with the issue of the quality and relevance of education, a truly central issue, but one that would require another paper, if not a book, to deal with properly.

13. Who can dispute that some union power is excessive—possibly copper workers in Chile, petroleum workers in Mexico and Venezuela, some utility workers elsewhere, and stevedores generally? Yet the extent of unionization in Latin America is, outside of Argentina, relatively low, below 20%, and the bulk of unions are weak, not strong as in the few above cited cases. As for severance pay, the typical amount (one month per year of service) is not unreasonably costly for economies generally lacking in unemployment insurance. Moreover, just as one would expect, to the extent that such severance pay is perceived as a form of unemployment insurance, albeit imperfect, its costs are largely absorbed not by the firm but by the worker in the form of lower wages, so that it does not significantly affect the final costs of labor to the firm! Finally, the level of minimum wages in real terms is for the most part quite low, cited by ideologues, but rarely by firms, as a limitation to hiring.

14. Weitzman (1985) worked out the theoretical attributes of this model. The empirical evidence in favor of the practice can be found in Blinder (1990). Evidence (favorable) of the occasional introduction of such schemes in Latin America is to be found in ECLAC (1992).

15. Chile put in place just such an instrument in the aftermath of the debt crisis and it was eminently successful in raising nontraditional exports at a very rapid rate, the share of manufactures (including second, but not first processing, of its natural resources) today equalling 25% of its exports.

16. As with patents and other inducements to innovation, this should be necessarily transitory, for only the initial innovator or innovators warrant the benefit, and not those who follow suit thereafter.

17. It is true that investment in R&D in Latin America (at most 0.8% of GNP) is well below that of developed countries (2.5% of GNP). Yet, what is truly pertinent is how Latin American efforts compare to those of successful late-starters, such as the “Asian tigers,” at similar stages of development. Latin America’s efforts in R&D are in fact not significantly below those of the “tigers” when they were at our current, relatively low level of per capita income (as late as the mid-1980s, Korea spent but 0.9% of GNP in R&D). What is notable is that their efforts, as besfits countries then in the early stages of catch-up, were heavily focused on accelerating the transfer of technology through instruments designed to promote creative imitation, instruments which for the most part have but token presence in Latin America today: technological missions abroad, reverse engineering, the heavy promotion of licensing (at a rate 3–5 times current use), technological surveillance programs, etc.

18. It goes without saying that the three that follow are my sense of those most needed. Yet the literature is rich.
in further suggestions, including, among others, benchmarking, industrial extension services, subcontracting, export processing zones, networking, utility patents, incentives, as in Singapore, to the first firms to introduce processes and technologies new to the country, etc. See in this regard, for example, Dahlman (1994), Nadvi and Schmitz (1994), Lall (1990) and Shapira (1990).

19. For an exposition and evaluation of this program by two of its original organizers, see Silberman and Weiss (1992). I might add that the intellectual author of this proposal for modern times is Carl Dahlman of the World Bank, at whose behest the above study was commissioned. Dahlman proposed this program for the ex-Soviet Union. The idea is splendid, but Latin America is far better suited for its implementation for, unlike Russia, the region has in place and in working condition the principal institutional prerequisites of a market economy.

20. This, of course, is but a ballpark figure. The effect could be lower to the extent that Latin America’s absorptive capacity as of today is much less than that of postwar Europe. On the other hand, since the impact also depends on how great a productivity gap exists, the greater the current gap, the greater the effect of modernization. This explains why “backward” countries such as China today and Korea in the mid-1950s, with a far lower absorptive capacity than postwar Europe, exhibited far greater productivity growth upon modernizing than did postwar Europe. This is, of course, but a reflection of “catch-up” and the single great advantage of late-developing countries.

21. Preliminary results in Chile are quite positive. I am also gratified to see that Williamson (1997) has included this recommendation in his latest updating of the “Washington Consensus.”

22. A rough estimate can be made on the basis of the following: R&D (public and private) averages no more than 0.8% of GNP in the region; investment in training is likely to be less than 1% of GNP, for the goal of most training programs is to invest 1% of the wage bill (or 1/2% of GNP in direct expenditures, up to 1% if we include as well, as we should, the opportunity cost of labor); financing programs for SMEs, even in Mexico, which has among the best programs in the region (Kagami, 1995), account for only 5% of SMEs fixed capital investment (less than 1% of GNP), so that the subsidized component of such programs are not likely to amount to more than 0.33% of GNP; and public expenditure on export promotion programs, for example, in Chile, which has one of the region’s most active programs in this regard, amounts to less than 0.25% of GNP (Díaz, 1998). Altogether, then, it can be estimated that such programs currently account for less than 2.5% of GNP.

REFERENCES


ECLAC. (1995). Latin America and the Caribbean: policies to improve linkages with the global economy. Santiago, Chile: ECLAC.


Industrial Competitiveness Policy Experiences: Lessons for Latin America and the Caribbean in ECLAC, Santiago, 9–10 December.


