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The following symbols are used in tables in the Review:

(…)	Three dots indicate that data are not available or are not separately reported.
(—)	A dash indicates that the amount is nil or negligible.
	A blank space in a table means that the item in question is not applicable.
(–)	A minus sign indicates a deficit or decrease, unless otherwise specified.
(.)	A point is used to indicate decimals.
(/)	A slash indicates a crop year or fiscal year, e.g., 2001/2002.
(-)	Use of a hyphen between years, e.g., 2001-2002, indicates reference to the complete number of calendar years involved, including the beginning and end years.

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Summary

The terms of trade *for commodities* in the twentieth *century*

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This paper looks at the evolution of the terms of trade between commodities and manufactures in the twentieth century. A statistical analysis of the relative price series for 24 commodities and eight indices reveals a significant deterioration in their barter terms of trade over the years 1900 to 2000. This decline was not continuous, however, nor was it distributed evenly among individual products. As is shown here, the far-reaching changes that the world economy underwent around 1920 and again around 1980 led to a stepwise deterioration which, over the long term, was reflected in a decline of nearly 1% per year in the aggregate indices of real raw material prices.

I

Introduction

This paper examines the evolution of the international terms of trade for commodities in the light of recent empirical evidence. The analysis is divided into nine sections. Section II provides a brief summary of the theoretical foundations for what is known as the Prebisch-Singer hypothesis. Section III presents the evidence, in the most straightforward manner possible, of the evolution of relative prices (or barter terms of trade) for commodities as compared to manufactures. Section IV provides an analysis of the autoregressive dynamics of the series, while section V assesses the possible existence of structural breaks. In section VI, the dynamics of the series are examined by drawing upon the analysis set forth in the preceding two sections. Section VII looks at the evolution of the stationary series and identifies two points in time when major changes occurred (1921 and 1979). Section VIII provides a brief discussion of the persistence of shocks in the short and medium terms. The study's findings are interpreted in section IX.

The empirical analysis employs price series for 24 commodities, seven indices constructed by Grilli and Yang (1988) and, as an alternative index, the industrial commodities price index calculated by *The Economist*. In order to cover the entire twentieth century, the indices developed by Grilli and Yang have been updated to 2000 using these authors' original methodology. A detailed description of the products and indices is provided in section III.

II

The Prebisch-Singer hypothesis

The thesis concerning the declining trend of the terms of trade[1] for developing countries was formulated concurrently by Sir Hans Singer and Raúl Prebisch[2] in the early 1950s. Their work in this area was, in large part, undertaken in an effort to account for the empirical research findings of the United Nations Department of Economic and Social Affairs, which corroborated the existence of such a trend.[3] The original formulation of this thesis combined two different yet clearly complementary hypotheses whose subsequent theoretical development in the economic literature was to follow parallel courses. One of these hypotheses regarded the negative effect of the income-inelasticity of the demand for commodities on developing countries' terms of trade, while the other dealt with the asymmetries in the functioning of labour markets in the world economy's "centre" and "periphery". The fundamental conceptual difference between these two hypotheses lies in the fact that, whereas in the first case the pressure towards a deterioration in real commodity prices is generated through goods markets (i.e., on the barter terms of trade), in the second this pressure is generated through factor markets (and hence on the factorial terms of trade) and thus affects the barter terms of trade only indirectly, through the effects on production costs. Another difference, which is a consequence of the foregoing, is that whereas the first hypothesis applies solely to commodities (or, more generally, to goods whose demand exhibits a low income-elasticity), the second applies to all goods and services produced in developing countries, regardless of their type or the nature of final demand.

The first hypothesis was based on the well-known observation that economic growth tends to trigger

☐ This essay was prepared as a background paper to the *Globalization and Development* report (ECLAC, 2002). The authors wish to thank Oscar Altimir, André Hoffman, Raimundo Soto and Daniel Titelman for their comments and Claudia de Camino and Jaime Contador for their data processing work. They are also grateful to Paul Cashin and John Cuddington for their willingness to share their databases on the subjects covered.

[1] See Scandizzo and Diakosawas (1987) for the different meanings attached to the term.

[2] See Singer (1950) and Prebisch (1950).

[3] The relevance and reliability of the data used have been debated at length. See, in particular, Scandizzo and Diakosawas (1987).

changes in the production structure over time and, in particular, to generate a tendency towards a reduction in the relative size of the primary sector. As is widely recognized, this structural break is associated not only with the characteristics of final demand (especially the low income-elasticity of the demand for foodstuffs) but also with the fact that, in many cases, technological change in the production of manufactures entails reductions in raw material costs or the production of synthetic materials. These variations in the production structure have major implications at the world level if the international division of labour is such that developing countries specialize in the production of raw materials while industrialized nations specialize in manufactures. Under these circumstances, it is to be expected that either the former will grow more slowly or the surplus of commodities they produce will tend to push down the relative international prices of those commodities.[4]

The second hypothesis was formulated by both authors –although perhaps more clearly by Singer– in terms of an unequal distribution of the benefits of technological progress. According to this hypothesis, in the case of manufactures these benefits accrue to producers in the form of higher income, but in the case of commodities they are reflected in lower prices. This asymmetry results from the operation of both goods markets (greater market power for setting the prices of manufactures) and labour markets (greater organization of industrial workers). At the international level, however, it also reflects the problems of the international division of labour. In this instance, the more precise formulation was Prebisch's. According to his view, the weaker long-term demand for raw materials means that the relative surplus of labour displaced from primary activities tends to concentrate in developing countries which, in turn, have more difficulty putting that surplus labour to work in new production sectors. The problems they face include political restrictions on migration to industrialized nations and obstacles to late industrialization in developing countries, associated, in Prebisch's hypothesis, with the large disparities between the countries of the "centre" and the "periphery" in terms of technological capabilities and the availability of capital. This situation generates a surplus of labour which leads to a relative decline in the wages of developing-country workers and, hence, in those countries' terms of trade.[5]

The history of the controversy surrounding the issue of developing countries' terms of trade can largely be written by tracing the development of these two hypotheses.[6] The neoclassical and Keynesian literature of the 1950s and 1960s focused on the first of them. According to Johnson (1954), the lower income-elasticity of the demand for raw materials ought to be reflected in slower economic growth in the countries specializing in those products or in a tendency for raw material prices to decline. This effect depends entirely on income-elasticity, but the lower the price-elasticity of the demand for raw materials is, the larger the decrease will be. It should be emphasized, however, that this type of model is incapable of generating asymmetries in the transmission of technical progress, and thus cannot be used to validate the second Prebisch-Singer hypothesis.

In a neoclassical (Heckscher-Ohlin) trade model, any factor that increases the supply of a given good will result in a decrease in its relative price. Thus, in countries or regions that are large enough to influence international prices, technological change in export industries will be reflected in a deterioration of the terms of trade. Conversely, technological change in import-substitution industries will have just the opposite effect, since it will cause factors of production to be transferred to those sectors, thereby reducing the supply of exports and, consequently, improving the terms of trade.

Unlike this line of reasoning, the analysis of "unequal exchange" since the late 1960s has focused on asymmetries in the operation of labour markets. The most comprehensive treatments of this subject are based on the models developed by Findlay (1980 and 1981) and Taylor (1983, chapter 10) in the early 1980s.[7] In both cases, the economy being modelled is one in which

[4] The pressure towards unequal rates of growth will be greater if the externalities generated by production (the generation of demand multipliers and the externalities associated with technical progress, in particular) are greater in the case of industrial production. This was also one of the core elements of the two authors' thesis, but will not be discussed further here. See Hadass and Williamson (2001) for an interesting recent empirical assessment of this question covering the period 1870-1940.

[5] Prebisch (1950) believed that this asymmetry was particularly evident during downswings in the business cycle. In his view, workers in countries of the centre were not only able to secure wage increases during booms, but were also able to defend their wages during recessionary phases in the world business cycle. In contrast, the surplus of raw materials, and hence the marked cyclical deterioration in their prices, meant that workers in the periphery were unable to prevent their incomes falling during crises.

[6] See Ocampo (1986 and 1993).

[7] See Ocampo (1986) for a comparison of these and other models.

the "North" sets the pace of world economic growth and the "South" adapts to that pace. The essential element of this model is, however, its recognition of the asymmetries in the economic structures of the two. Thus, the North has a neoclassical economic structure in Findlay's model and a Keynesian (or, more accurately, Kaleckian) structure in Taylor's, while in both formulations the South functions as a Lewis-type surplus-labour economy. These asymmetries give rise to a pattern that fits perfectly with the second Prebisch-Singer hypothesis, i.e., in the long run the North appropriates the full benefits of its own process of technical change, while the South's productivity gains lead to a commensurate deterioration in its barter terms of trade (in other words, its technical changes are "exported"). This is a reflection of the asymmetrical effects that technological change has on real wages. While wage increases in the North are proportional to increases in productivity, in the South real wages are not affected by technological change. The corresponding effect is transmitted through production costs and is therefore unrelated to the type of good being produced or the demand for it.[8]

Over the last two decades, the empirical literature on this issue has been greatly enriched,[9] thanks to the existence of more reliable data and new, more rigorous statistical methodologies for analysing time series. In the following sections, these methodologies are used to analyse the validity of a thesis that has already been around for half a century. It should be added that, given available data, the empirical assessment refers chiefly to the barter terms of trade. Nevertheless, the abundant recent literature on the international "convergence" or "divergence" of per capita incomes and wages can, in a sense, be regarded as a contribution to the clarification of the second above-mentioned hypothesis regarding the trend in the factorial terms of trade.[10]

III

Preliminary analysis of the trend in real commodity prices

This analysis is based primarily on 24 commodity price series[11] and seven indices which were originally developed by Grilli and Yang (1988) for the period 1900-1986, but which have been updated to the year 2000 in order to cover the entire century.[12] The deflator used to calculate real prices is the manufacturing unit value (MUV) index developed by the United Nations.[13] As an alternative, the industrial commodity price index of *The Economist* for 1880-1999 is also used.[14] The deflator used in this case was the Great Britain Index of Export Prices[15] for 1880-1900 and the MUV thereafter. Section A of figure 1 shows the total Grilli and Yang price indices. The nomenclature used in the rest of the paper is explained in box 1.

[8] Consequently, contrary to the argument made by Hadass and Williamson (2001), this effect should be modelled under the assumption of equivalent (unitary) income elasticities for goods produced by the two regions.

[9] See, among others, Cuddington and Urzúa (1989), Powell (1991), Ardeni and Wright (1992), Cuddington (1992), Cuddington and Wei (1998), Bleany and Greenaway (1993), León and Soto (1995a and 1995b), Cashin and McDermott (2002) and Cuddington, Ludema and Jayasuriya (2002).

[10] See ECLAC (2002, chapter 3) for a summary of the conclusions reached in the course of this debate and some additional calculations.

[11] The commodities are: six metals (aluminium, copper, lead, silver, tin and zinc), seven non-food raw materials (cotton, hides, jute, palm oil, rubber, timber and wool), seven foods (bananas, beef, lamb, maize, rice, sugar and wheat), three beverages (cocoa, coffee and tea) and tobacco. John Cuddington of Georgetown University was kind enough to make these series available to the authors.

[12] The indices covering the period from 1986 to 2000 and the methodology used to update them are presented in appendix A.

[13] This index reflects the unit value of industrialized countries' exports of manufactured products. It was originally taken from Grilli and Yang (1988) and later updated using the series compiled by the Statistics Division of the United Nations Department of Economic and Social Affairs.

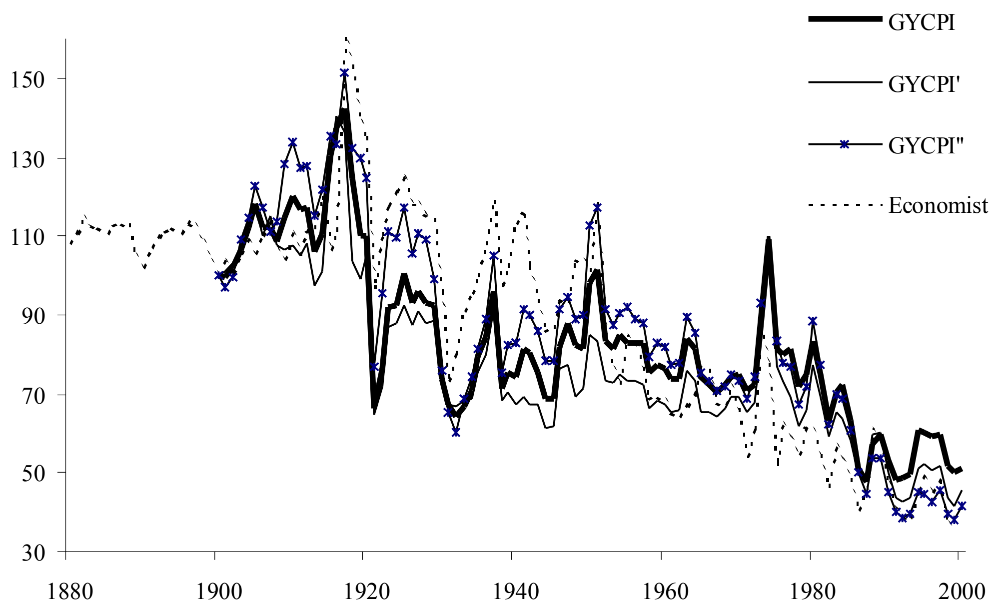
[14] This series includes prices for six metals (aluminium, copper, lead, nickel, tin and zinc) and nine non-food commodities (coconut oil, cotton, hides, palm oil, rubber, soya oil, soybeans, timber and wool). The authors were able to obtain this series thanks to the generous assistance of Paul Cashin of the International Monetary Fund (IMF) Research Department.

[15] This index (developed by A.G. Silverman) was chosen due to the absence of alternative data and the importance of this country in world trade in the late nineteenth century.

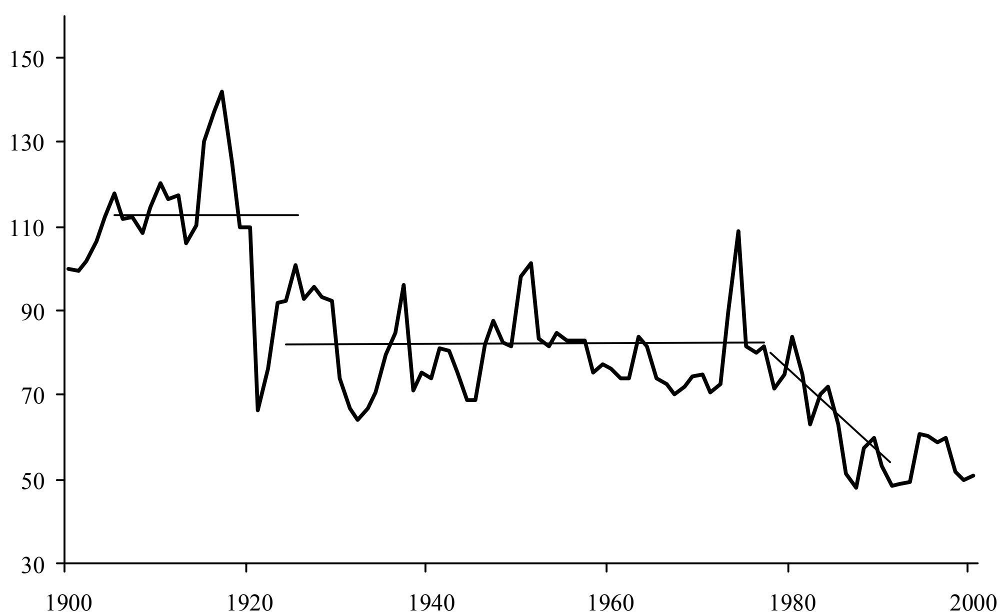
FIGURE 1

Non-petroleum commodity price indices
(*1900=100*)

A. Total indices



B. GYCPI



Source: Grilli and Yang (1988) and authors' calculations.

Box 1
NOMENCLATURE

Following the nomenclature employed by Grilli and Yang, seven dollar-denominated price indices (four aggregate indices and three sub-indices) for internationally traded commodities will be considered:

GYCPI: Total index, weighted by each product's share of total exports in 1977-1979. Three sub-indices are derived from this: foods, non-foods and metals.

GYCPI': Total index, weighted by the developing countries' share of commodity exports in 1981. (The original index used weightings for 1977-1979; since these were unavailable, 1981 weightings were used instead).

GYCPI'': Total index, weighted by the share of world exports represented by commodities during the current year.
GYCPI''': The same as GYCPI'' except that it includes the petroleum price.

Despite the differences between the series caused by the varying weightings of the commodities' export shares and the cyclical variability of each series, a marked long-term decline in real prices is clearly seen. Taken as a whole, the cumulative decrease is very large, since by 2000 raw materials had lost between 50% and 60% of their pre-1920 value relative to manufactures. This finding has been corroborated by various authors.[16] Cashin and McDermott (2002), for example, found a downward trend without structural breaks of 1.3% per year over a period of 140 years,[17] which, oddly enough, they interpret as very small compared to the variability of the series, even though it translates into a cumulative decline of 75% over the period they analysed.

This downturn is a hallmark of the twentieth century, not the nineteenth. In fact, in keeping with the recent observations of Hadass and Williamson (2001), the series actually point to an improvement in real raw material prices in the late nineteenth and early twentieth centuries.[18] These authors have also noted that the sharp reduction in shipping costs that occurred during those years benefited all countries. This is reflected in the improvement that can be seen in the terms of trade for the period when prices are measured in a given location (i.e., fob export prices versus cif import prices).

It is important to note that this decrease has not been continuous. Instead, it has occurred in stepwise shifts that appear to have permanently altered price levels. Section B of figure 1 reproduces the GYCPI series, highlighting what appear to be shifts of this kind. It is noteworthy that the largest price drops followed, with a lag, the two major slowdowns in the industrialized economies' long-term growth rates, occurring during the First World War and in 1973 (see Maddison, 1995).

These observations suggest that, rather than discussing whether or not there was a long-term downtrend in the barter terms of trade for raw materials during the twentieth century, it would be more to the point to talk about the particular dynamics exhibited by this decline and the differences in price movements for individual products. The Prebisch-Singer hypothesis has traditionally –and perhaps erroneously–[19] been associated with a secular or continuous trend. This study considers the hypothesis that this deterioration occurred in steps. The exploration of this possibility is based on a detailed analysis of the behaviour of aggregate price indices and individual product prices.

A preliminary view of the situation is outlined in table 1, which shows the average annual growth rates of the series for the two stages during which the sharpest decreases were seen and for the period as a whole and gives calculations of the loss in relative value that occurred between the first and last five years of the twentieth century. The data show that product behaviour was quite heterogeneous. Regardless of the weighting used, however, all the indices show average declines of

[16] See, for example, a summary of the studies conducted up to the 1980s in Ocampo (1993).
[17] Cashin and McDermott use *The Economist*'s industrial commodity price series for the period 1862-1999 and then convert it to a relative price series using United States GDP as a deflator.
[18] A number of partial (country) studies also provide evidence that raw material prices rose in real terms throughout the nineteenth century.
[19] Cuddington, Ludema and Jayasuriya (2002) contend that the Prebisch-Singer hypothesis did not claim that the long-term trend was necessarily constant over time, but only that it was negative.

TABLE 1

Commodity prices and indices deflated by the United Nations manufactures unit value (MUV) index
(*Average annual growth rates*)

	1920-1930	1980-1990	1900-2000	1900/1904-1996/2000 Annual	Cumulative
Commodity					
Aluminium	1.8	2.8	-1.1	-1.3	-71.7
Bananas	5.8	0.1	0.0	-0.1	-7.5
Beef	-0.2	-6.6	1.0	0.9	134.6
Cocoa	-0.7	-9.5	-1.3	-1.0	-61.8
Coffee	0.4	-8.3	-0.1	0.4	45.3
Copper	1.4	-1.1	-0.7	-0.6	-46.0
Cotton	-3.0	-6.1	-1.0	-1.1	-66.0
Jute	-0.9	0.6	-0.4	-0.7	-30.4
Lamb	-0.1	-3.9	1.6	1.7	399.3
Lead	0.7	-4.2	-0.8	-0.3	-48.0
Leather	-4.7	1.3	-0.8	-1.1	-63.6
Maize	-1.2	-5.3	-0.8	1.2	-61.9
Palm oil	-2.8	-2.8	-0.3	0.0	-1.3
Rice	3.7	-6.9	-1.3	-1.2	-66.9
Rubber	-9.5	-7.9	-2.8	-2.8	-93.4
Silver	-5.3	-16.2	-0.3	-1.0	-23.8
Sugar	-16.8	-10.5	-1.3	-1.1	-65.4
Tea	7.6	-4.0	-0.7	0.7	-56.2
Timber	-2.2	-1.5	1.1	-1.5	208.1
Tin	0.1	-10.2	0.1	0.2	15.4
Tobacco	-2.7	-0.4	0.8	-0.7	100.4
Wheat	-4.5	-3.1	-0.6	-0.9	-46.4
Wool	-3.1	-5.5	-1.2	-0.4	-76.6
Zinc	-0.9	4.7	0.3	0.1	5.9
Index					
GYCPI	-3.9	-4.4	-0.7	-0.7	-47.8
GYCPI’	-3.7	-4.2	-0.8	-0.8	-55.4
GYCPI’’	-4.9	-6.5	-0.9	-1.0	-60.2
GYCPI’’’	-5.1	-6.1	-0.4	-0.7	-49.3
Foods	-5.2	-7.8	-0.8	-0.7	-49.8
Non-foods	1.2	5.1	0.0	-0.2	-14.6
Metals	5.5	0.9	-0.1	-0.1	-7.1
The Economist	-3.4	-2.5	-1.0	-1.0	-60.1

Source: Authors’ calculations based on Grilli and Yang (1988) and on data from the United Nations and *The Economist*.

0.8% per year due to the decrease in the relative value of food products, which was particularly steep during the 1920s and the 1980s. While non-food products lost some 15% of their purchasing power in the course of the century, food products lost about half. The only commodities whose relative value rose substantially over the century as a whole were beef, lamb, timber and tobacco.

The following analysis deals with the dynamic structure of each series. While it is clear that during the twentieth century most commodities’ purchasing power dropped significantly, neither the size of this cumulative decrease nor the average annual growth rates provide a basis from which to infer the series’ long-term growth behaviour.[20] In order to understand this behaviour, it is essential to know how the series respond to shocks and, in particular, whether or not they have a stochastic component. It is also important to evaluate the possibility that the series exhibit structural breaks before using all the information that has been compiled to model the behaviour of each one as completely as possible.

[20] As Cuddington, Ludema and Jayasuriya (2002) have noted, modern time series econometrics has taught us that it is potentially misleading to assess the presence of long-term trends through visual examination of series or estimation of simple log-linear time trend models.

IV

Autoregressive dynamics of the series

A distinction should be drawn between two types of autoregressive processes that may give rise to statistical trends displaying different dynamics: a deterministic trend (DT), if the series are stationary in variance, and a stochastic trend (ST), if they exhibit properties of non-stationarity in variance.[21]

A deterministic trend (DT) model exhibits the following dynamics:

$$[1] \qquad Log\ P_t = \beta\, T_t + ARMA(p,q) e_t$$

where T_t is a trend variable, e_t is an independent and identically distributed random shock and the parameter β is the trend (exponential growth rate), which can be estimated using traditional econometric procedures (ordinary least squares). The use of the term *ARMA*[22] for the residual rules out the possibility of a misspecification caused by higher order autocorrelations of the series. In this model, the series P_t is not stationary (unless β=0), but the fluctuations of P_t around its DT are stationary (there is no evidence of a unit root). The only information required in this model in order to forecast the long-term price trend is the average growth rate of the variable β, since shocks, being wholly transitory, will not affect long-term projections.

In turn, a stochastic or stationary trend (ST) model in differences has the following dynamics:

$$[2] \qquad \Delta\ Log\ P_t = \gamma + ARMA(p', q')\ \mu_t$$

where Δ is the first differences operator and γ is the average growth rate of the variable. The presence of μ_t,[23] an independent and identically distributed random variable, will induce stochastic behaviour in price levels. This model would be appropriate if the series were found to have a unit root. Consequently, in addition to a possible deterministic trend (γ), in this case shocks can have permanent effects on commodity price levels. If γ is statistically significant, then we have a unit root process with drift.

Applying this logic to the GYCPI, Cuddington, Ludema and Jayasuriya (2002) show that the possibility of finding a statistically significant trend hinges critically upon the conclusions derived from a unit root test. More specifically, these authors show that, if the index is found to be following a DT process, then the trend can be regarded as significant (of the order of -0.3% per year). If, on the other hand, it is found that it follows an ST process, then the high variance of the series in differences means that the null hypothesis of a zero growth rate cannot be rejected.

As a first step towards determining which model was the most appropriate for each of the series being analysed, the unit root hypothesis was subjected to both augmented Dickey-Fuller (ADF) and non-parametric Phillips-Perron tests. The detailed results are presented in appendix B. As can be seen, the ADF tests do not rule out the null hypothesis of non-stationarity (existence of unit root) for seven of the eight indices and 18 of the 24 commodities. When the Phillips-Perron tests are run, the same thing occurs in the case of two indices and 14 commodities.[24]

These results are far from conclusive and, given their importance for the prospects of obtaining a statistically significant trend, further work is called for in this area. In some studies, furthermore, it has been found that these two tests wrongly tend not to rule out

[21] See, among others, León and Soto (1995a) and Cuddington, Ludema and Jayasuriya (2002).

[22] Combination of an autoregressive process indicating that today's value depends on the values of the variable in the past (AR) and a moving average process where the value of the variable depends on errors in the past (MA).

[23] It is important to emphasize that, whereas e_t is a random shock that does not affect the trend of the series, μ_t is a random variable whose presence induces stochastic behaviour in the trend.

[24] Using the same data, Cuddington (1992) shows that 12 of the 24 products can be modelled as non-stationary processes for the period 1900-1983. The results tally with those presented in appendix B, but with some important exceptions. For the period 1900-2000, coffee, lead and tin prices exhibit characteristics of non-stationarity that did not arise in Cuddington's results, which were also used by León and Soto (1995a). Going by the results of the Dickey-Fuller test, meanwhile, these authors find jute and rubber to be non-stationary, but in this study they are regarded as stationary, as the Phillips-Perron test shows this to be so at a 90% confidence level. If, however, we take a 95% confidence level as a minimum significance requirement, as these authors did, then jute, rice and rubber prices would be non-stationary, as would the variable weightings index.

the null hypothesis of a unit root, especially if the series has structural breaks.[25] What is more, if finite samples are being used and the shocks dissipate slowly, there may be very few independent observations of the process and, in that context, the estimation of DT models may generate more reliable estimates of the parameters (León and Soto, 1995b). In the case being discussed here, a number of authors have found proof of the existence of structural breaks or instability in the parameters.[26] In this instance, furthermore, the sample is finite and the speed at which the shocks dissipate is unknown.

For these reasons, an alternative method must be used in order to ascertain the persistence of shocks in the structure of the series. If persistence is high, the series may be regarded as non-stationary, since the shocks will become a quasi-permanent component of it. On the other hand, if shocks dissipate rapidly, the behaviour of the series will be stationary over time. This is effectively a non-parametric test for the existence of a unit root.

In order to conduct such a test using the same approach as León and Soto (1995a and 1995b), recursive estimation procedures were employed to determine the ratio between the variance of innovations and the variance of the series. This estimator (known as Vk) makes it possible to see, from period to period (recursively), whether a shock changes the series' variability temporarily or permanently.[27] Its interpretation is explained in box 2. The Vk estimator also makes it possible to describe the response of the barter terms of trade in accordance with the dissipation pattern characterizing them (see section VIII).

The results of this estimation are presented in figure 2.[28] The solid lines depict the trend of the Vk estimator from period to period and the dotted lines its 95% confidence interval. If Vk (or its confidence interval) trends towards 1 over the period, then the series is exhibiting a high level of persistence in the face of shocks, so the series being analysed is not stationary.[29]

Box 2

INTERPRETATION OF THE VK ESTIMATOR

The variance ratio can be interpreted as a measurement of the significance of the permanent component as follows: if a series *Yt* follows a DT process, then no innovation has a permanent effect (i.e., the permanent component is nil). Thus, in the long run, the variance of innovations and the Vk estimator will trend towards zero. If *Yt* is a random walk, then innovation is wholly captured by the permanent component, so the variance of innovations will tend to equal the variance of the series and the variance ratio will be 1. In an intermediate process such as the ST process, lastly, Vk will be between 0 and 1.

As figure 2 shows, this approach confirms the non-stationarity hypothesis for the prices of six commodities: aluminium, bananas, cocoa, cotton, silver and tobacco. The estimator does not provide conclusive evidence in the cases of tea and wool, and these series are therefore considered to be non-stationary, as indicated by the earlier tests. In relation to the prices of the remaining products and the indices,[30] conversely, the null hypothesis of Vk trending towards 1 can be rejected and it can thus be concluded that they do not exhibit non-stationarity.[31]

Although the analysis conducted up to this point would lead us to believe that the ST model should be estimated for eight products (aluminium, bananas, cocoa, cotton, silver, tea, tobacco and wool) and that the DT model should be used for the remaining products and all the indices, our basic hypothesis is that the deterioration in price indices occurred in a stepwise fashion, which would point to the presence of structural breaks in the series.[32] This issue will be dealt with now.

[25] León and Soto (1995a and 1995b) and Perron (1989).

[26] See, in particular, Cuddington, Ludema and Jayasuriya (2002). The issue will be examined in greater depth in the following section.

[27] See Cochrane (1988). A detailed explanation of this procedure is given in León and Soto (1995b).

[28] To calculate this estimator we used the program written by Paco Goerlich for RATS. This software is based on cochrane2.src (Cochrane, 1988) and is available at www.estima.com.

[29] The way in which the estimator was constructed (León and Soto, 1995a and 1995b) causes the initial values to be close to 1, but what is important is its convergence towards or divergence from Vk=1.

[30] The standard tests thus yielded biased results for beef, coffee, copper, lead, tin and the foods and metals indices.

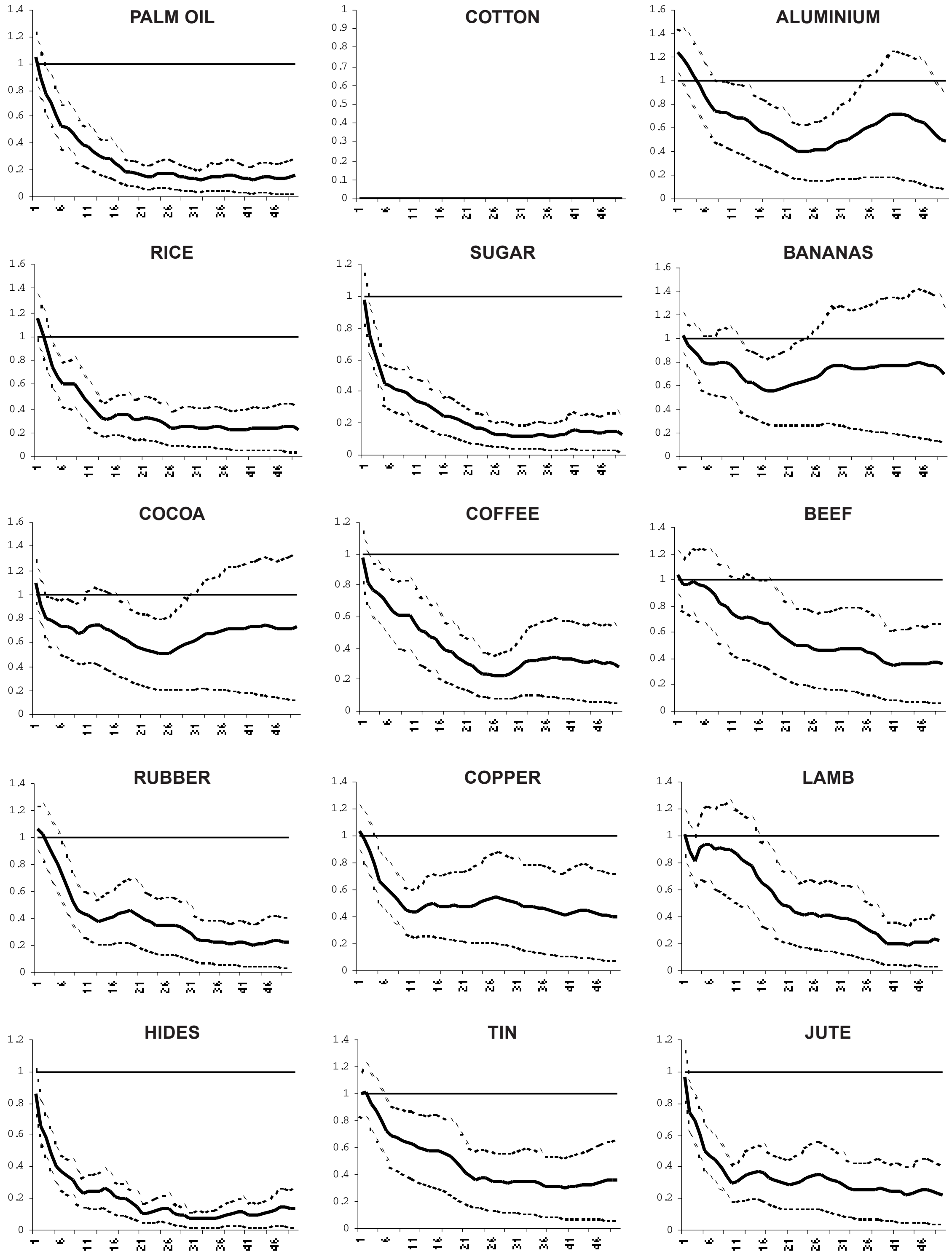
[31] If these results are compared with the findings of León and Soto (1995a), a number of differences arise. Whereas they found the prices of cocoa, silver and tea to be stationary during 1900-1992, our estimates for 1900-2000 indicate that they are non-stationary.

[32] Cuddington, Ludema and Jayasuriya (2002) contend that, regardless of whether a DT or ST specification is chosen, there is evidence that one or more breaks or instabilities in the parameters may be the problem.

FIGURE 2

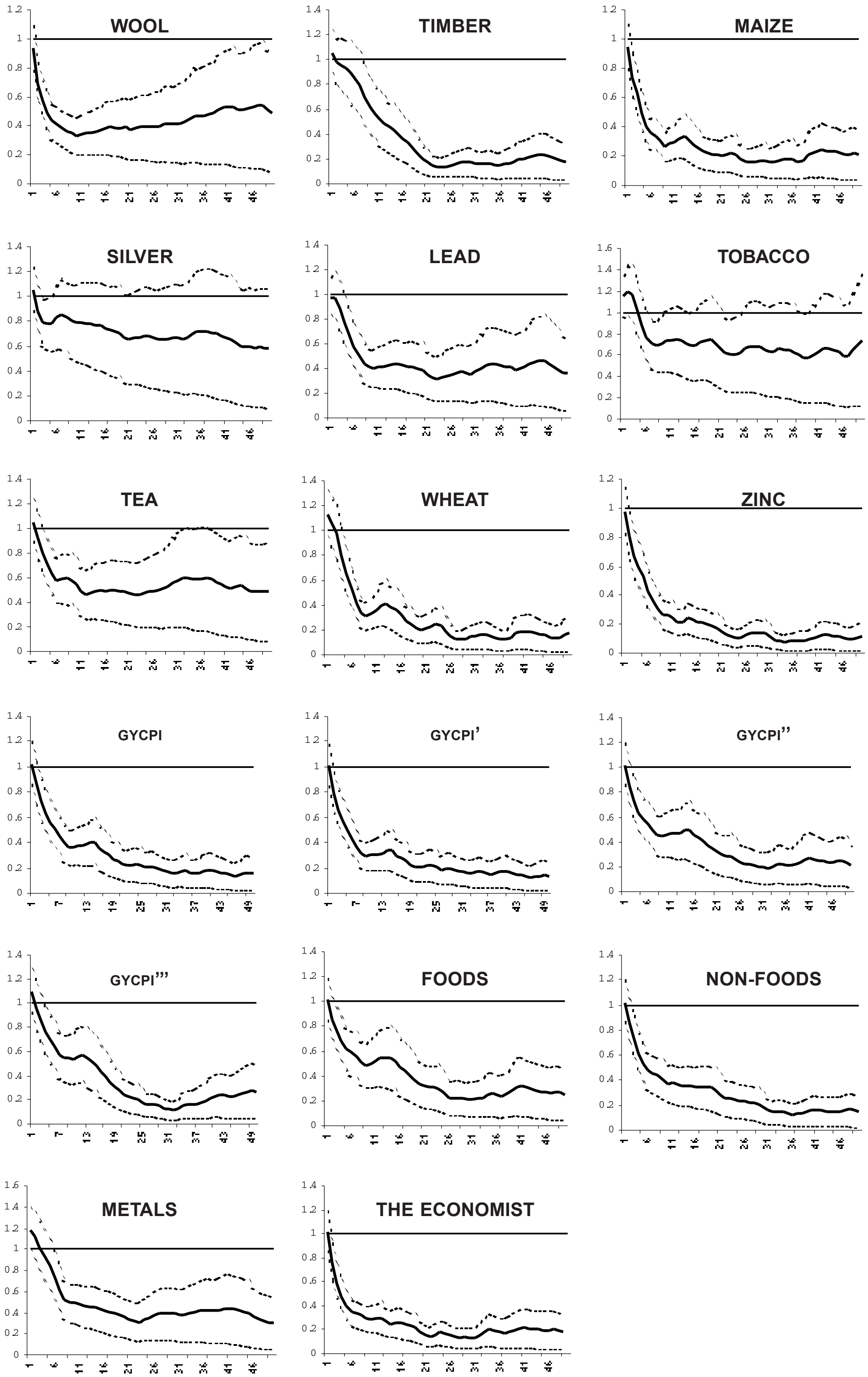
Recursive estimates of persistence (Vk)

(*Vertical axis: Vk; horizontal axis: time*)



(*continued on following page*)

Figure 2 *(continued)*



Source: Prepared by the authors.

V

Structural breaks

The first step in this direction is to analyse the possible presence of structural breaks in the series that probably follow the DT model.[33] Following Cuddington, Ludema and Jayasuriya (2002), we first calculate the recursive residuals and the confidence bands for the hypothesis that the residuals come from the same distribution as that of the estimated model. We also show probabilities (*p*-values) for an *N*-step forecast test for each possible sample.[34] The results are given in appendix C. As can be seen there, for eight commodities (beef, hides, lamb, lead, palm oil, rubber, sugar and timber) these tests suggest the presence of a structural break around 1920. The same is true for all the overall indices and the food sub-index. In addition, five commodities and one index (coffee, jute, lead, palm oil and tin, and the GYCPI''') display a structural break around 1980. Lastly, rice, sugar, timber and the *Economist* index show a break around 1970.

To confirm the existence of these breaks, one of Perron's tests (1997)[35] is used to conduct an endogenous search for the point where a structural break occurs (box 3).

Box 3
PERRON'S TEST

This test selects a break point that minimizes the t-statistic for testing the null hypothesis of a unit root. The test may be estimated according to three possible models. The first allows only for a one-time change in the intercept, which occurs gradually. This is the innovational outlier (IO1) model. The second model allows for a change in both the intercept and the slope. This is the innovational outlier with changing trend (IO2) model. The third model allows for a change in the slope, with no break in the trend function. This is the additive outlier (AO) model.

Cuddington, Ludema and Jayasuriya (2002) put forward four criticisms of this methodology and propose an alternative algorithm. The first criticism is that this is a test whose null hypothesis is the presence of a unit root, conditional on the presence of a structural break at an unknown date, and not a test for the presence of a structural break as such. The second is that it allows for only one structural break, whereas there is no reason in principle to believe that additional breaks may not be present. Thirdly, they identify as an implicit weakness the fact that the test allows for the structural break under the alternative hypothesis but not under the null hypothesis. Fourthly, the test assumes that the type of structural break is known in advance. Notwithstanding these criticisms, the test has been used in this paper in view of its simplicity and the availability of the relevant algorithm.

Since we do not have a structural form a priori for each of the variables and we wish to circumvent the last of the criticisms mentioned above, we estimated the three models and applied the test to all of them. The results for all the variables, which are given in appendix D, are consistent with the results of the Vk estimator for six of the eight commodities that are non-stationary according to the estimator (bananas, cocoa, cotton, silver, tea and tobacco),[36] since it is not possible to reject the unit root hypothesis for these commodities at a 95% confidence level.

Eight commodities (beef, coffee, copper, jute, lamb, maize, timber and tin) and the GYCPI''' show no evidence of a structural break according to this test, but they also show no evidence of a unit root according to the Vk estimator. Nonetheless, it must be borne in mind that, for most of these commodities,[37] this outcome is inconsistent with the results of the recursive residuals exercise (the case of these commodities will be re-examined in section VII).

[33] An interesting overview of the work done in this area can be found in Cuddington, Ludema and Jayasuriya (2002).

[34] The null hypothesis is that forecasting errors correspond to a model with no structural break. If the *p*-value is smaller than 0.01, then the null hypothesis can be rejected with a 99% confidence level.

[35] This procedure was written for the Regression Analysis of Time Series (RATS) software by G. Colletaz and F. Serranito of the Laboratoire d'économie d'Orléans, and is available at www.estima.com.

[36] This is not the case with aluminium or wool.

[37] The exceptions are copper and maize.

For eight commodities, lastly, the null hypothesis of a unit root can be rejected with a 95% confidence level with respect to the alternative hypothesis of a structural break. These commodities are hides, lead, palm oil, rice, rubber, sugar, wheat and zinc. The same is true of all the indices except the one that includes petroleum (GYCPI’’’). These results are consistent with the recursive residuals analysis, except in the cases of wheat, zinc and the GYCPI’’’. It is clear, however, that the presence of a structural break does not preclude the possible presence of one or more additional breaks. This possibility is considered in section VII.

Table 2 gives the results for these eight commodities and for the seven indices that show a structural break according to the Perron test. These results may at first appear confusing and, in terms of pinpointing a specific year for the structural break, inconclusive. One third of the changes take place between 1910 and 1930 and more than a third between 1970 and 1990. While the selection of any time period is arbitrary, it is interesting to note that nine statistically significant changes can be detected in the period 1915-1925. Twelve more are found in 1973-1983 and eight more in 1941-1951. Thus, two thirds of the breaks detected took place in these three time periods. Considering this evidence and, particularly, the fact that these periods coincide with the three historical turning points in the world economy (the two world wars and the end of the "golden age" of growth in the industrialized economies),[38] the DT and ST models will be estimated in the next section. The fact that breaks appear in more than one period will not be considered, however, until section VII.[39]

[38] See Maddison (1995) and ECLAC (2002).

[39] In particular, consideration will be given to those cases that show evidence of more than one structural break according to the recursive residuals test (lead, palm oil, sugar and the GYCPI").

TABLE 2

Timing of structural breaks with null hypothesis of unit root[a]

	Innovational outlier (intercept)		Innovational outlier (intercept and trend)		Additive outlier (trend)	
	IO1		IO2		AO	
	1900-2000		1900-2000		1900-2000	
	UR		UR		UR	
Commodity						
Hides	1950	**	1916	**	1905	**
Lead	1978	*	1945	**	1973	**
Palm oil	1917	**	1983	***	1991	**
Rice	1988		1971	**	1975	**
Rubber	1915	**	1934	**	1926	*
Sugar	1979	**	1979		1983	
Wheat	1941	***	1928	**	1910	***
Zinc	1920	***	1920	*	1928	***
Index						
GYCPI	1944	**	1944	*	1978	*
GYCPI’	1948	**	1971	**	1929	
GYCPI”	1983	**	1970		1978	**
Metals	1915	**	1951	*	1940	**
Foods	1983	**	1984		1977	*
Non-foods	1948	**	1938	**	1929	*
The Economist	1915	***	1915	***	1920	***

Source: Authors' calculations.

[a] *, ** and *** indicate statistical significance at 90%, 95% and 99% confidence, respectively.

VI

Estimating the dynamic of real commodity prices

At this point, it would be useful to summarize the results obtained thus far:

- Trends in the prices of beef, coffee, copper, jute, lamb, maize, timber and tin and in the index that includes petroleum (GYCPI''') can be estimated according to a deterministic-trend (DT) model, using traditional econometric techniques.[40]
- Aluminium, banana, cocoa, cotton, silver, tea, tobacco and wool prices should be estimated according to a stochastic-trend (ST) model.[41]
- The presence of a structural break should be considered in relation to the remaining indices and to hides, lead, palm oil, rice, rubber, sugar, wheat and zinc.

This section presents estimates of these models to determine whether there is a statistically significant trend in those series that follow a deterministic trend or a drift in those that follow a stochastic trend, and to identify the effect of structural breaks on the remaining series. Section VII will cover, among other topics, the presence of more than one structural break and will accordingly re-estimate the models for all the variables that display at least one structural break in any of the tests.

Table 3 shows the results for the DT model estimated by the ordinary least squares (OLS) method, adding ARMA as required so that the residuals will be white noise. It is found that coffee, copper and tin do not show a statistically significant deterministic trend. Beef, lamb and timber, on the other hand, have shown a positive trend of over 1% a year. Lastly, jute, maize and the aggregate index that includes petroleum (GYCPI''') show a constant declining trend. Of course, a simple model like this one cannot completely capture the dynamic of the series.

Table 4 shows the results for the eight variables that manifest non-stationarity. In view of their wide variability, it is unsurprising that none of the drifts is statistically significant.[42] The sign for all these commodities is negative, however, with the exception of tobacco. If these results are compared to those in table 1, it becomes apparent that the five products that show a drift[43] of close to -1% declined by a cumulative total of nearly 60% between 1900-1904 and 1996-2000. For these prices, then, negative shocks have clearly been more frequent than positive ones, and the conclusion is that they have deteriorated significantly.

Lastly, table 5 shows the results obtained by estimating the three models considered by Perron (see box 3). This table is organized on the basis that a structural break occurs at time *Tb*. Accordingly, it shows the values of both the intercept and the trend, both before and after the structural break occurs.[44]

According to these results, the relative price trend for hides, lead, palm oil, rice, rubber, sugar[45] and wheat has been systematically negative.[46] The relative price trend for zinc has been systematically positive, but it exhibited a steep fall in 1920. If the value of β is considered, it can be concluded that the trend has been constant and negative only in the case of sugar. In the other cases, β obscures the fact that, for some commodities, the trend was not significant prior to the structural break (as in the cases of hides, lead, rice and wheat), whereas for others it lost statistical significance after the break, this being the case with palm oil and rubber (IO2).

Table 6 presents a similar analysis for the non-petroleum aggregate price indices. Clearly, all of them show a systematic negative trend. However, for GYCPI, GYCPI'' and the food sub-index, this trend was not

[40] The cases of beef, coffee, jute, lamb, timber and tin will be re-examined in section VII, as the two tests presented are not consistent and therefore do not preclude the possible presence of one or more structural breaks.

[41] An interesting observation is that five of these commodities (aluminium, cocoa, cotton, tea and wool) are among those that display the steepest falls, as shown in table 1. This will be taken into account in the subsequent analysis of the results of the ST model estimate.

[42] Cuddington, Ludema and Jayasuriya (2002) reach the same conclusion using the ST model for the GYCPI series.

[43] Not statistically significant.

[44] The intercept for palm oil was 4.96 before 1917, for example, after which it was 5.09. The trend, meanwhile, was -0.72%, taking this break into account. The trend changed again after 1991, from -0.46% to -3.4% per year, while the intercept remained at 4.90.

[45] This variable exhibited a sharp decline in 1979.

[46] Only the segments in which the trend is statistically significant have been considered.

TABLE 3

Estimates of variables that follow a deterministic-trend (DT) process[a/b]
(*Real variables in logarithms*)

	C	β (%)	AR(1)	MA(1)	MA(2)	MA(4)	R^2
Beef	2.93 ***	1.46 **	0.86 ***				0.88
Coffee	3.68 ***	0.21	0.81 ***				0.67
Copper	4.71 ***	-0.25	0.84 ***				0.72
Jute	5.40 ***	-1.07 **	0.91 ***		-0.42 ***		0.72
Lamb	2.86 ***	1.66 ***	0.81 ***			0.31 ***	0.89
Maize	5.57 ***	-1.29 ***	0.70 ***				0.79
Timber	3.64 ***	1.02 ***	0.77 ***				0.87
Tin	3.64 ***	0.32	0.86 ***				0.76
GYCPI’’’	5.08 ***	-0.72 ***	0.60 ***	0.44 ***			0.81

Source: Authors’ calculations.

[a] C = constant; β = trend; AR(i) = autoregressive element of order i; MA(j) = moving average element of order j; R^2 = coefficient of determination.
[b] *, ** and *** indicate statistical significance at 90%, 95% and 99% confidence respectively.

TABLE 4

Stochastic-trend (ST) model estimates[a/b]
(*Differences of real variables in logarithms*)

	C (%)	AR(2)	MA(1)	MA(2)	MA(3)	MA(4)	R^2
Aluminium	-1.10		0.28 ***	-0.20 **			0.13
Bananas	-0.01			-0.21 **			0.03
Cocoa	-1.20	-0.33 ***					0.11
Cotton	-1.13			-0.28 ***	-0.19 *		0.14
Silver	-0.26			-0.26 **			0.07
Tea	-0.82	-0.24 **					0.06
Tobacco	0.77					-0.27 ***	0.08
Wool	-1.40			-0.41 ***			0.13

Source: Authors’ calculations.

[a] C = constant; β = trend; AR(i) = autoregressive element of order i; MA(j) = moving average element of order j; R^2 = coefficient of determination.
[b] *, ** and *** indicate statistical significance at 90%, 95% and 99% confidence respectively.

significant prior to the structural break. Another noteworthy finding is the proportionate increase in the deterioration of GYCPI’, the metals sub-index and the non-food sub-index after each structural break.

As little long-term information comparable to the price series analysed is available for productivity, transport costs and changes in product quality, it is difficult to include these variables in the statistical exercises. In any event, existing productivity series for the countries of the Organisation for Economic Co-operation and Development (OECD) show a break in the trend of relative labour productivity in agriculture and manufacturing in the 1950s: while manufacturing productivity had risen faster than agricultural productivity up to that time, the opposite was the case from then on (Bairoch, 1989; Maddison, 1991). This structural break is not, however, reflected in the statistical results analysed earlier. Furthermore, the long-term lead gained by agricultural productivity, as revealed by these data, would only suggest a relatively marginal decline in the agricultural terms of trade (about 0.2% a year). There are no comparable series for the developing world, and even if such series were available, they would be distorted by changes in the rural underemployment that characterized the developing countries throughout the twentieth century.

The series on productivity per hectare for seven agricultural products estimated by Scandizzo and Diakosawas (1987) and updated with information from the United Nations Food and Agriculture Organization

TABLE 5

Commodity prices: Estimates of the deterministic-trend (DT) model, with structural breaks[a/b]

	Intercept			Trend					
	[1900, Tb]	[Tb, 2000]	C	[1900, Tb]	[Tb, 2000]	β (%)	AR(1)	MA(1)	R^2
Hides									
IO1, 1950	5.21 ***	5.14 ***				-1.09 ***	0.57 ***		0.72
IO2, 1916			5.07 ***	0.22	-1.24 ***		0.56 ***		0.73
AO, 1905			5.19 ***	-4.23	-1.21 ***		0.56 ***		0.72
Lead									
IO1, 1978	4.75 ***	4.84 ***				-0.91 *	0.86 ***		0.76
IO2, 1945			4.50 ***	-0.10	-1.21 ***		0.79 ***		0.77
AO, 1973			4.42 ***	0.05	-2.99 ***		0.67 ***		0.79
Palm oil									
IO1, 1917[c]	4.96 ***	5.09 ***				-0.72 ***	0.52 ***	0.37 ***	0.66
AO, 1991			4.90 ***	-0.46 **	-3.40		0.55 ***	0.37 ***	0.65
Rice									
IO2, 1971			4.98 ***	-0.08	-4.02 ***		0.47 ***	0.54 ***	0.86
AO, 1975			5.05 ***	-0.33 *	-5.27 ***		0.47 ***	0.51 ***	0.87
Rubber									
IO1, 1915	6.32 ***	6.83 ***				-2.40 ***	0.74 ***		0.92
IO2, 1934			5.87 ***	-3.00 ***	-1.46		0.88 ***		0.91
AO, 1926		6.24 ***		-3.33 ***	-4.29 ***		0.87 ***	0.24 **	0.92
Sugar									
IO1, 1979	5.25 ***	4.99 ***				-0.72 **	0.38 ***	0.46 ***	0.64
Wheat[d]									
IO1, 1941	5.37 ***	5.40 ***				-0.92 ***	0.38 ***	0.62 ***	0.81
IO2, 1928			5.20 ***	-0.01	-1.02 ***		0.35 ***	0.65 ***	0.81
AO, 1910			5.31 ***	-0.95	-0.91 ***		0.34 ***	0.66 ***	0.81
Zinc									
IO1, 1920	4.72 ***	4.35 ***				0.39 ***		0.55 ***	0.46
IO2, 1920			4.46 ***	2.66 ***	0.32 ***			0.53 ***	0.47

Source: Authors' calculations.

[a] Tb = date of structural break; C = constant; β = trend; AR(i) = autoregressive element of order i; MA(j) = moving average element of order j; R^2 = coefficient of determination.
[b] *, ** and *** indicate statistical significance at 90%, 95% and 99% confidence respectively.
[c] The definition of the IO1, IO2 and AO models is given in box 3.
[d] The error structure of the equations reveals a misspecification, since ARMAs of an order higher than 2 are needed to correct the autocorrelation, and the AR(1) coefficient is greater than 1.

(FAO) indicate annual productivity improvements of about 1% throughout the twentieth century, with the notable exception of coffee, for which productivity increased by just 0.2% a year between 1910-1914 and 1995-1999. The rate of productivity growth sped up between the 1960s and the 1980s in the case of three products that were affected by the "green revolution" (rice, maize and wheat). The inclusion of these productivity series in the statistical exercises does not, however, change the conclusions to be drawn concerning long-term real price trends; in fact, their impact on real prices seems to have been only partial and not always statistically significant. There are perhaps just two exceptions to this rule. First, the

TABLE 6

Price indices: Estimates of the DT model, with structural breaks[a/b]

	Intercept			Trend					
	[1900, Tb]	[Tb, 2000]	C	[1900, Tb]	[Tb, 2000]	β (%)	AR(1)	MA(1)	R^2
GYCPI									
IO1, 1944	5.05 ***	5.11 ***				-0.81 ***	0.71 ***		0.83
IO2, 1944			4.85 ***	-0.17	-1.02 ***		0.68 ***	0.25 *	0.83
AO, 1978			4.81 ***	-0.19	-2.94 ***		0.70 ***	0.22 *	0.83
GYCPI'									
IO1, 1948	5.17 ***	5.32 ***				-1.01 ***	0.41 ***	0.41 ***	0.86
IO2, 1971			4.94 ***	-0.34 **	-2.54 ***		0.57 ***	0.34 ***	0.85
GYCPI''									
IO1, 1983	5.16 ***	4.88 ***				-0.72 ***	0.58 ***	0.30 **	0.89
AO, 1978			4.94 ***	-0.20	-4.42 ***		0.67 ***	0.27 **	0.88
Metals									
IO1, 1915	4.79 ***	5.14 ***				-0.80 **	0.85 ***	0.30 ***	0.86
IO2, 1951			4.85 ***	-0.39 *	-0.94 **		0.79 ***	0.36 ***	0.85
AO, 1940			4.89 ***	-0.56 *	-0.86 **		0.80 ***	0.42 ***	0.85
Foods									
IO1, 1983	4.89 ***	4.54 ***				-0.46 **	0.72 ***		0.83
AO, 1977			4.76 ***	-0.14	-3.94 ***		0.51 ***	0.35 **	0.84
Non-foods									
IO1, 1948	5.20 ***	5.32 ***				-1.10 ***	0.52 ***	0.32 **	0.86
IO2, 1938			5.01 ***	-0.60 **	-1.30 ***		0.62 ***	0.35 ***	0.86
AO, 1929			4.94 ***	0.34	-0.95 ***		0.64 ***	0.31 **	0.86
The Economist									
IO1, 1915	6.75 ***	7.04 ***				-1.33 ***		0.67 ***	0.91
IO2, 1915			6.82 ***	-1.58 **	-1.26 ***			0.72 ***	0.90
AO, 1920			6.75 ***	-0.13	-1.27 ***		0.28 *	0.53 ***	0.91

Source: Authors' calculations.

[a] Tb = date of structural break; C = constant; β = trend; AR(i) = autoregressive element of order i; MA(j) = moving average element of order j; R^2 = coefficient of determination.
[b] *, ** and *** indicate statistical significance at 90%, 95% and 99% confidence respectively. The definition of the IO1, IO2 and AO models is given in box 3.

absence of any long-term adverse trend in coffee prices may be related to slower productivity growth. Second, the structural break in real prices for rice in the early 1970s may be associated with the green revolution (though maize and wheat did not show any such breaks).

In sum, coffee, copper and tin show no statistically significant deterministic trend. Likewise, aluminium, bananas, cocoa, cotton, silver, tea, tobacco and wool exhibit a drift that is not statistically significant. All of them, however, except silver and tobacco, have suffered a cumulative deterioration of nearly 60%. On the other hand, beef, lamb and timber have shown a positive deterministic trend. Zinc has also followed a systematically positive trend. Lastly, jute, maize and the aggregate index GYCPI''' have followed a constant declining trend, while the relative price trend for hides, lead, palm oil, rice, rubber, sugar and wheat and all the other aggregate indices has been systematically negative. Therefore, 4 commodities show a positive trend; 11 show no statistically significant trend or drift, though 5 of them experienced a cumulative decline of nearly 60%, indicating a strong predominance of negative shocks; and 9 show a stepwise or continuous negative trend. In the aggregate, commodities with negative trends or shocks prevail, and all indices thus show a systematic tendency to decline.

In general, given the scarcity of available information, no firm conclusions can be drawn about the impact of changes in relative agricultural productivity on the long-term trend or breaks in the trend of the terms of trade for these commodities over the twentieth century; even less can be inferred about the impact on their factorial terms of trade. As we pointed out in section III, the literature on the convergence or divergence of real wages and per capita income is more relevant for assessing the validity of what is referred to here as the second Prebisch-Singer hypothesis.

VII

Multiple structural breaks

The model estimation carried out in the preceding section on the basis of Perron's methodology (1997) reveals that, in the case of eight commodities and seven of the eight indices, there was at least one structural break in price trends in the course of the twentieth century. They also confirm that these breaks tended to worsen the terms of trade for commodities. This tends to substantiate our basic hypothesis that the deterioration of those prices took place in a stepwise fashion. Unfortunately, the methodology used so far allows for only a single structural break.[47] This means that there is still room for another possible step to "hide" behind the statistical estimates. Indeed, this is suggested by the results of the recursive residuals analysis and the fact that the breaks are located around more than one period (see section V).

While it cannot be established with strict econometric rigour, the foregoing results and economic history itself imply that the biggest breaks were concentrated around 1920 and 1980. This suggests that they represent the delayed effects of the sharp slowdowns in the world economy after the First World War and after the first oil shock of the 1970s, which marked the end of the "golden age" of the industrialized economies (Maddison, 2001). More precisely, the following econometric analysis assumes that the breaks took place around 1921 and 1979, coinciding, respectively, with the severe international crisis that followed the First World War, whose effect on raw material prices is well known, and with the effects of the monetary policy adopted by the United States economic authorities to curb inflation. Statistical exercises were also performed to determine whether there was a structural break in the series at the end of the Second World War or shortly thereafter (around the time of the Korean War). Since the findings did not point to a significant statistical break at that time, they have not been reported in this paper.

Accordingly, the results and historical facts described warrant a final econometric exercise involving re-estimation of all the models[48] except those that show a stochastic trend, assuming that structural breaks took place in 1921 and 1979. Table 7 contains the corresponding estimates, and figure 3 shows the results for the indices, excluding the ARMA dynamic of the residuals to illustrate more clearly the breaks and the deviations of prices from the estimated trends.

These exercises show that food prices rose considerably up until the First World War, whereas metals lost value. In terms of specific commodities, only a few (hides, palm oil, maize and timber, in particular) followed a rising trend, and only one (rubber) followed the opposite pattern.

In 1921, all the Grilli-Yang aggregate indices experienced a large, sudden decline (of between 44% and 52%, depending on the aggregate index used), from which they failed to recover in subsequent decades. In terms of commodity groups, metals were the only

[47] Cuddington, Ludema and Jayasuriya (2002) present the results of a model that accommodates more than one structural break for the GYCPI series. However, that model could not be applied on a large scale to all the series included in this analysis owing to its econometric complexity.

[48] Justifications for re-estimating all the stationary price series except copper and maize were presented in the preceding sections. These two commodities have been included to round out the analysis by covering all stationary series. Non-stationary variables cannot be estimated using traditional methods because, as shown earlier, these methods may generate spurious results.

TABLE 7

Estimation of stationary series with structural breaks in 1921 and 1979[a]

	C	t021		c21		t2279		c79		t8000		AR(1)	AR(2)	AR(4)	MA(1)	MA(2)	MA(4)
Commodity																	
Beef	3.03	0.72		-0.18		2.49	***	0.32		-4.28	**	0.80					
Coffee	3.14	3.74		-0.41		1.39	**	-0.11		-4.11	**	0.73					
Copper	5.03	-1.38		-0.42	***	0.85	***	-0.10		-2.22	**				0.81	0.33	
Hides[b]	4.82	3.29	***	-0.63	***	-1.10	***	0.37	**	-3.58	***				0.52		
Jute	4.57	2.66	*	-0.28		0.19		-0.32	*	-2.90	**	0.31			0.51		
Lamb	2.66	3.23		-0.16		1.84	**	0.34		-1.46		0.79					0.36
Lead	4.35	1.11		-0.28	*	0.22		0.14		-5.60	***	0.76					
Maize	4.90	3.30	***	-0.44	***	-0.54	***	-0.20		-3.73					0.55		
Palm oil	4.67	3.20	**	-0.53	***	-0.41		-0.27	*	1.12					0.82	0.27	
Rice	5.28	-1.86		0.12		-0.42	*	-0.31	**	-3.13	***				0.91	0.26	
Rubber	7.38	-6.62	***	-0.67	**	-1.06	***	-0.33	*	-2.00		1.62	-0.74		-1.00		
Sugar	5.20	2.58		-1.04	***	0.34		-0.33		-2.01		-0.48			1.39	0.63	
Timber	3.16	5.22	***	-0.41	***	1.08	***	-0.00		0.76		0.70					
Tin	3.50	1.17		-0.36	*	1.64	***	0.09		-5.01	***	0.67					
Wheat	5.08	1.72	*	-0.31	**	-0.66	***	-0.03		-1.78	**	0.35		-0.26	0.52		
Zinc	4.65	0.81	**	-0.42	***	0.59	**	-0.03		-0.32					0.69	0.21	
Indices																	
GYCPI	4.91	1.24	**	-0.49	***	-0.08		-0.06		-1.94	***				0.82	0.29	
GYCPI'	5.06	0.67		-0.44	***	-0.18		-0.02		-2.15	***				0.80	0.25	
GYCPI''	4.95	1.84	**	-0.48	***	-0.29	*	-0.06		-3.35	***				0.85	0.29	
GYCPI'''	4.86	2.10	**	-0.52	***	-0.30		0.17		-3.09	***				0.98	0.38	
Metals	5.46	-2.82	**	-0.19		-0.21		0.12		-1.66	*	0.59			0.41		
Foods	4.57	3.05	***	-0.60	***	0.09		-0.11		-3.61	***	0.37			0.51		
Non-foods	5.11	0.45		-0.44	***	-0.33	*	-0.01		-2.19	***				0.82	0.30	
The Economist	6.47	2.12	***	-0.20	**	-1.17	***	-0.02		-2.06	***				0.67		

Source: Authors' calculations.

[a] C = constant; β = trend; AR(i) = autoregressive element of order i; MA(j) = moving average element of order j; R^2 = coefficient of determination.
[b] Does not converge.

exception to this rule. The decline is statistically significant, although of varying magnitudes, for 11 out of 16 commodities. Interestingly, this drop was followed by a long period (1922-1979) in which aggregate price indices followed no statistically significant trend. This occurred because the different prices moved in opposite directions.

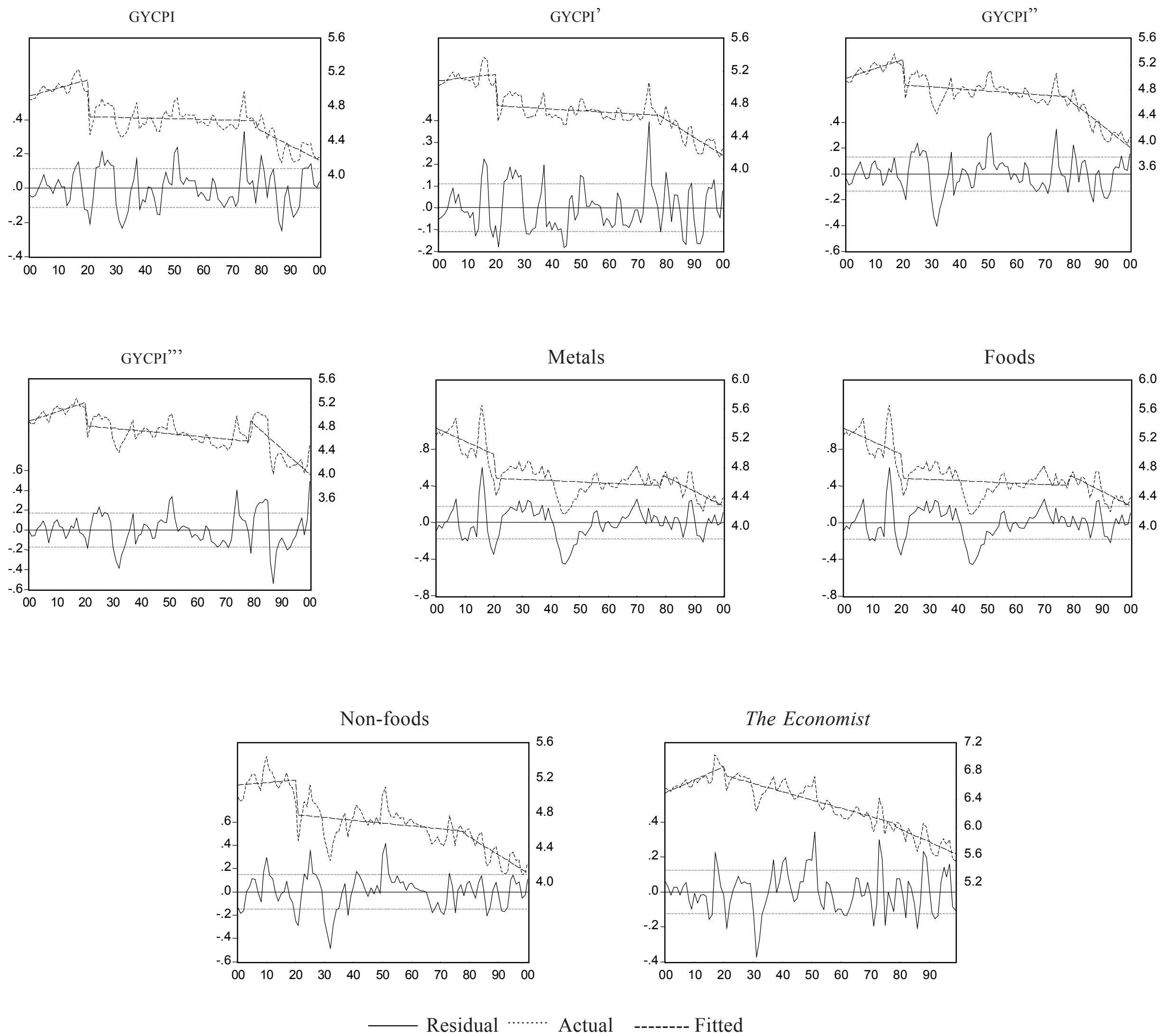
Lastly, in contrast to what had happened in 1921, in 1979 there was no sudden drop in prices, but rather a break in the price trend, which became strongly negative from then on (with declines of 2% to 3% a year for the various sub-indices). This trend was very pronounced for food and less so for metals; moreover, it was negative for 14 of the 16 commodities included in table 7, although it was statistically significant for only 9. A closer analysis might indicate that the decline was concentrated in the 1980s,[49] in which case this phenomenon would be more similar to what took place in 1921, albeit more gradual over time.

Lastly, it should be pointed out that the *Economist* series also displays a stepwise dynamic, although this differs from that of the Grilli-Yang indices. In particular, the 1921 adjustment is smaller (20%) in the *Economist* series, but it shows a strong, statistically significant negative trend in the period 1922-1979 (1.2% a year), picking up speed after 1979. Thus, as figure 3 illustrates, this series follows a much more secular trend towards deterioration from the 1920s onward.

[49] See Maizels (1999) for an analysis of changes in raw materials prices in that decade.

FIGURE 3

Estimation of aggregate price indices incorporating multiple structural breaks



Source: Prepared by the authors.

The statistical exercises therefore seem to indicate that the reduction in real commodity prices throughout the twentieth century resulted from two major structural breaks that took place around 1921 and 1979. The first of these breaks took the form of a sudden, one-time drop in prices, and the second took the form of a shift in the price trend.

To complete this overview, the following section briefly analyses the speed with which the series reverted to the mean in response to short-term shocks. If this took place slowly, it would imply that short-term shocks had a long-lasting effect on economic performance.

VIII

Short- and medium-term shocks and variability

The Vk estimator, which was used in section IV to determine the long-term persistence of innovations, is also useful for analysing the series' reaction to short- and medium-term shocks without resorting to methodologies based on parameterizations that give too much weight to dynamic characteristics of a short-term nature. The speed with which the estimator tends to zero shows how a shock is dissipated. Following the methodology of León and Soto (1995b), table 8 illustrates the behaviour of this estimator for variables that do not present non-stationarity characteristics.

The table shows that nine commodities display a significant mean reversion process in the first five years after a shock. In six cases (hides, jute, maize, sugar, wool and zinc), the shock has dissipated by 40% within the first four years. In three cases (coffee, palm oil and rice) the reduction is 25%. When the same parameters are applied to the indices, all of them except the index that includes petroleum and the metals price index show a high speed of mean reversion. After this initial reversion, the process continues at a slower pace, so that after more than 25 years only nine commodities have returned to long-term equilibrium (Vk < 0.26).

Viewed from a macroeconomic standpoint, these results show that, while reversion to the mean is relatively rapid, the effects of a shock last for more than a year, and therefore have an impact in both the short and medium terms. This indicates that stabilization funds are a viable option, but the reference prices used by such funds must change to take account of market prices if their use is not to lead to large-scale fiscal losses.

TABLE 8

Estimation of the mean reversion process
(*Value of the Vk statistic*)

Year	1	2	3	4	5	10	15	28
Commodity								
Beef	1.04	0.97	0.97	0.99	0.96	0.79	0.70	0.47
Coffee	0.98	0.82	0.77	0.75	0.71	0.61	0.46	0.23
Copper	1.04	0.97	0.89	0.78	0.67	0.45	0.49	0.54
Hides	0.86	0.66	0.58	0.49	0.40	0.24	0.24	0.10
Jute	0.97	0.74	0.69	0.60	0.50	0.30	0.37	0.33
Lamb	1.01	0.89	0.82	0.92	0.94	0.90	0.70	0.41
Lead	0.98	0.98	0.89	0.77	0.67	0.40	0.44	0.37
Maize	0.94	0.74	0.64	0.50	0.40	0.28	0.27	0.16
Palm oil	1.05	0.90	0.77	0.71	0.61	0.39	0.29	0.16
Rice	1.15	1.02	0.88	0.74	0.66	0.48	0.33	0.25
Rubber	1.07	1.03	0.95	0.87	0.80	0.43	0.40	0.35
Sugar	0.98	0.75	0.65	0.55	0.45	0.36	0.27	0.13
Timber	1.06	0.97	0.96	0.93	0.89	0.56	0.40	0.17
Tin	1.00	1.01	0.93	0.88	0.80	0.63	0.58	0.34
Wheat	1.13	1.05	0.98	0.81	0.65	0.33	0.35	0.12
Wool	0.93	0.69	0.58	0.49	0.43	0.33	0.37	0.41
Zinc	0.98	0.80	0.67	0.60	0.53	0.26	0.23	0.14
Index								
GYCPI	1.02	0.87	0.74	0.63	0.57	0.36	0.40	0.21
GYCPI'	1.01	0.79	0.66	0.58	0.50	0.30	0.34	0.20
GYCPI''	1.02	0.85	0.73	0.64	0.58	0.46	0.49	0.22
GYCPI'''	1.10	0.95	0.86	0.76	0.70	0.54	0.49	0.16
Metals	1.18	1.11	1.02	0.94	0.84	0.49	0.44	0.39
Foods	1.01	0.85	0.77	0.68	0.62	0.50	0.52	0.23
Non-foods	1.03	0.86	0.74	0.61	0.52	0.37	0.36	0.22
The Economist	1.01	0.76	0.59	0.48	0.40	0.29	0.25	0.13

Source: Authors' calculations.

IX
Conclusions

The econometric findings presented in this paper do not provide evidence of a secular or continuous trend towards the erosion of the terms of trade. It is nevertheless a fact that relative raw materials prices deteriorated markedly in the course of the twentieth century. Various tests confirm that there has been a decline, whether stepwise or continuous, in the prices of nine commodities and in all the indices. Meanwhile, eight commodities present a unit root and high volatility; it is therefore not surprising that their drift, although negative in all cases but one, is not statistically significant. At the same time, however, five of them present a cumulative decline of nearly 60%, indicating that negative shocks far outweighed positive ones. Lastly, four products have followed a rising trend, while three others show no significant deterministic trend.

Since all the non-petroleum indices show evidence of structural breaks, it is affirmed here, in the light of both the information generated from the tests and the historical evidence, that the first downward step seems to have taken place around 1920 and was related to the major changes produced in the global economy by the First World War. The second structural break seems to have occurred around 1980, in the wake of the world economic slowdown that began in 1973. Econometric analysis confirms the presence of these steps in different ways. Whereas the first case involved a substantial one-time adjustment in commodity prices, the second case involved an adverse break in the price trend. Prices followed a more positive trend before the First World War, and there is no clear evidence of a significant trend between the 1920s and the 1970s.

APPENDIX A

Methodology used to update price indices

John Cuddington generously provided data on the prices of the 24 individual commodities used by Grilli and Yang (1988). This information was then updated from 1987 by ECLAC on the basis of statistics provided by the United Nations Conference on Trade and Development (UNCTAD), the International Monetary Fund (IMF), the World Bank and the Organization of Petroleum Exporting Countries (OPEC). These series were then used to update the price indices (four aggregate indices and three sub-indices) presented by Grilli and Yang (1988).

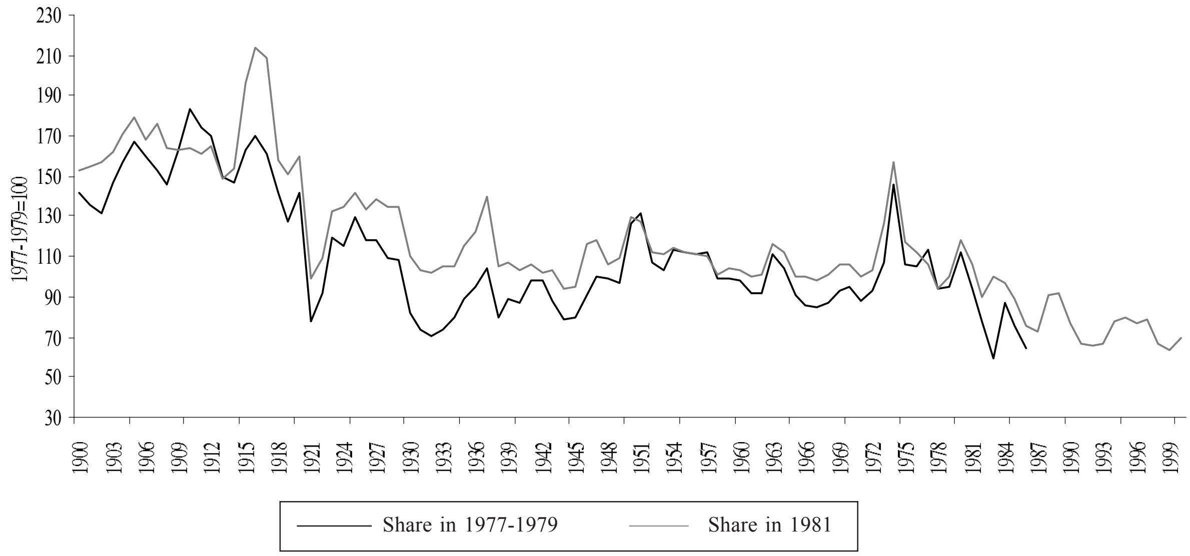
The first of the aggregate indices (GYCPI) is a price index that weights commodities by their share of world exports in 1977-1979. These weightings, which were published by Cuddington and Wei (1998), were used to update the index to 2000. The second index (GYCPI’) was weighted by the developing countries’ share of commodity exports in 1977-1979. The original weightings are unavailable, so weightings were developed for 1981 on the basis of COMTRADE[50] data and the index was then recalculated for the entire century. Figure A.1 shows both the original series and the new one, in real terms. The differences between the two are concentrated in the years prior to 1950. Nonetheless, the trends are similar except during the years of the First World War, when the new weightings amplify the upswing in the price index.

Grilli and Yang’s other two aggregate indices (GYCPI’’ and GYCPI’’’) have variable weightings based on the share of world exports represented by commodities in different years. The difference between the two is that the second of these indices includes petroleum. Variable weightings for the current year were calculated by ECLAC on the basis of COMTRADE data and were then used to update these indices. The resultant series are shown in table A.1.

[50] Foreign trade statistics database operated by the Statistics Division of the United Nations Department of Economic and Social Affairs.

FIGURE A.1

Real price index, weighted by developing countries' share of commodity exports



Source: Grilli and Yang (1988) and ECLAC calculations based on United Nations data.

TABLE A.1

Updating of Grilli and Yang's price indices (1988)[a]
(1977-1979 = 100)

					GYCPI sub-indices		
	GYCPI	GYCPI'	GYCPI''	GYCPI'''	Foods	Non-foods	Metals
1986	88.36	98.42	90.79	93.76	75.78	102.58	134.42
1987	93.61	107.56	92.56	81.28	90.54	124.55	180.99
1988	118.92	142.86	117.15	114.38	91.50	128.97	178.08
1989	123.29	143.19	116.13	120.54	86.67	125.89	157.21
1990	120.81	131.66	108.60	132.39	83.97	106.87	128.75
1991	109.78	115.15	96.77	118.55	84.44	107.25	129.28
1992	113.93	115.63	95.79	110.09	82.80	102.75	111.69
1993	109.25	111.43	91.96	102.60	102.04	131.04	133.96
1994	138.01	133.97	108.45	109.15	105.53	146.73	157.42
1995	149.71	149.57	117.79	118.84	108.12	128.56	141.00
1996	141.99	140.56	108.81	121.87	107.14	119.68	141.69
1997	133.75	133.36	107.57	118.27	93.35	98.84	120.37
1998	112.35	109.70	90.82	92.25	81.77	98.06	118.00
1999	107.01	102.46	85.61	101.53	75.03	105.75	126.19
2000	105.57	109.50	90.87	138.72	73.10	103.67	120.80

Source: Grilli and Yang (1988) and ECLAC calculations based on United Nations data.

[a] GYCPI: Dollar-denominated price index for 24 internationally traded non-petroleum commodities, weighted by each commodity's share of total exports in 1977-1979.
GYCPI': Dollar-denominated price index for 24 internationally traded non-petroleum commodities, weighted by the developing countries' share of commodity exports in 1981.
GYCPI'': Dollar-denominated price index for 24 internationally traded non-petroleum commodities, weighted by the share of world exports represented by commodities during the current year.
GYCPI''': The same as GYCPI'' except that it includes the petroleum price.

APPENDIX B

Unit root tests for the logarithm of the series in real terms

	Augmented Dickey-Fuller statistic[a]	Significance[b]	Phillips-Perron statistic	Significance[b]
Aluminium[c]	-2.21		-2.40	
Bananas[c]	-2.04		-2.59	
Beef[c]	-2.84		-2.78	
Cocoa[c]	-2.21		-2.46	
Coffee[c]	-2.55		-3.05	
Copper[c]	-2.23		-2.98	
Cotton[c]	-1.72		-2.38	
Hides	-3.71	**	-5.10	***
Jute	-2.31		-3.24	*
Lamb	-3.50	**	-3.06	
Lead[c]	-1.94		-2.72	
Maize	-2.49		-4.21	***
Palm oil	-3.99	**	-4.22	***
Rice	-2.41		-3.16	*
Rubber	-3.03		-3.34	*
Silver[c]	-1.98		-2.31	
Sugar	-3.09		-4.49	***
Tea[c]	-1.80		-2.39	
Timber	-3.98	**	-3.80	**
Tin[c]	-2.33		-2.70	
Tobacco[c]	-1.05		-1.90	
Wheat	-3.90		-4.37	***
Wool[c]	-2.04	**	-2.80	
Zinc	-4.09	***	-4.84	***
GYCPI	-2.82		-3.86	**
GYCPI’	-2.83		-4.09	***
GYCPI”	-2.25		-3.29	*
GYCPI”’	-3.06		-3.67	**
Foods	-2.12		-2.97	
Non-foods	-2.67		-3.91	**
Metals	-2.94		-3.13	
The Economist	-3.64	**	-3.89	**

Source: Authors’ calculations.

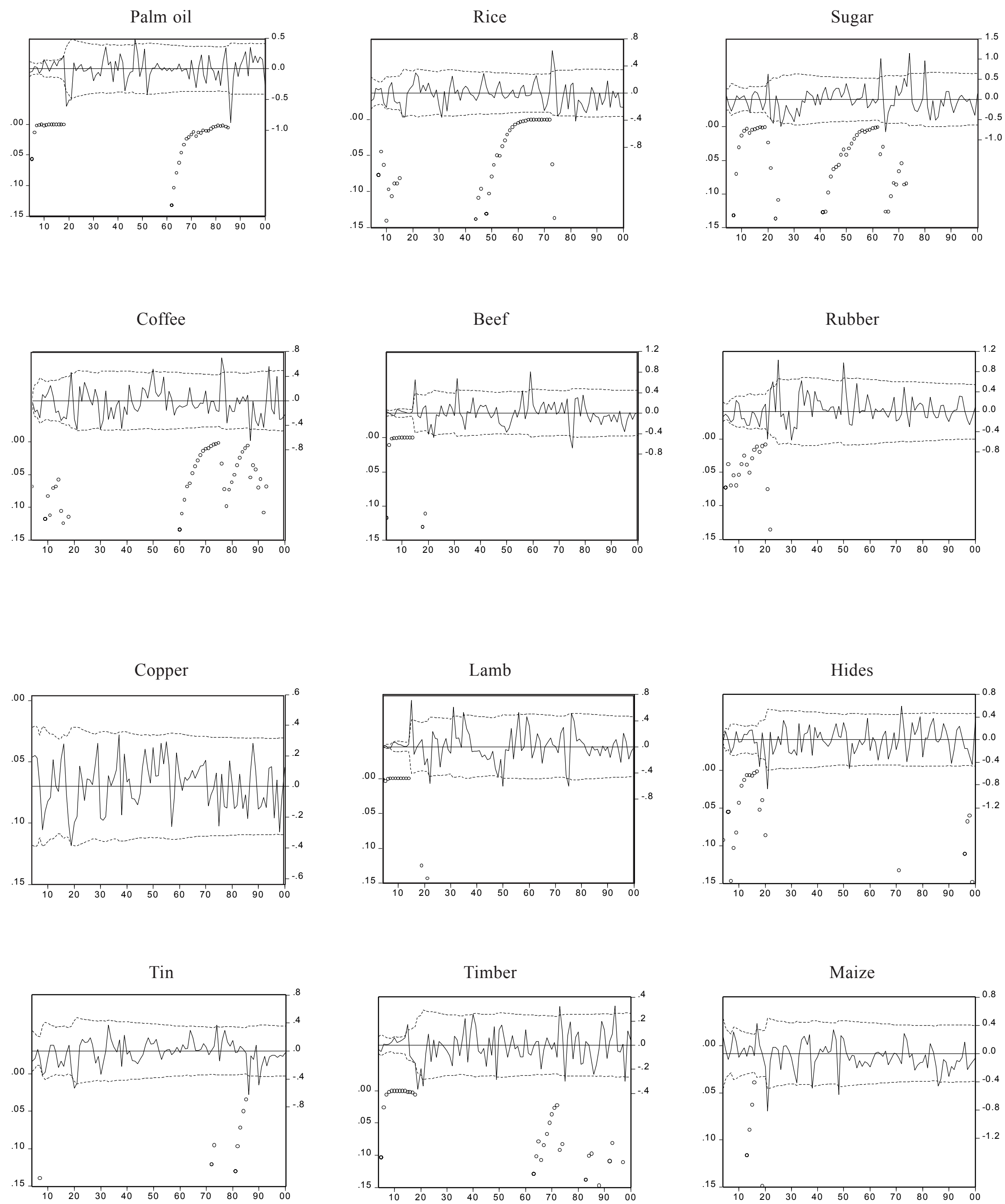
[a] Four lags are used.

[b] Significance in the event that the null hypothesis is rejected.
*, ** and *** indicate statistical significance at 99%, 95% and 90% confidence, respectively.

[c] Series for which the null hypothesis could not be rejected on the basis of either of the two tests.

APPENDIX C

Recursive residuals test for the existence of structural breaks



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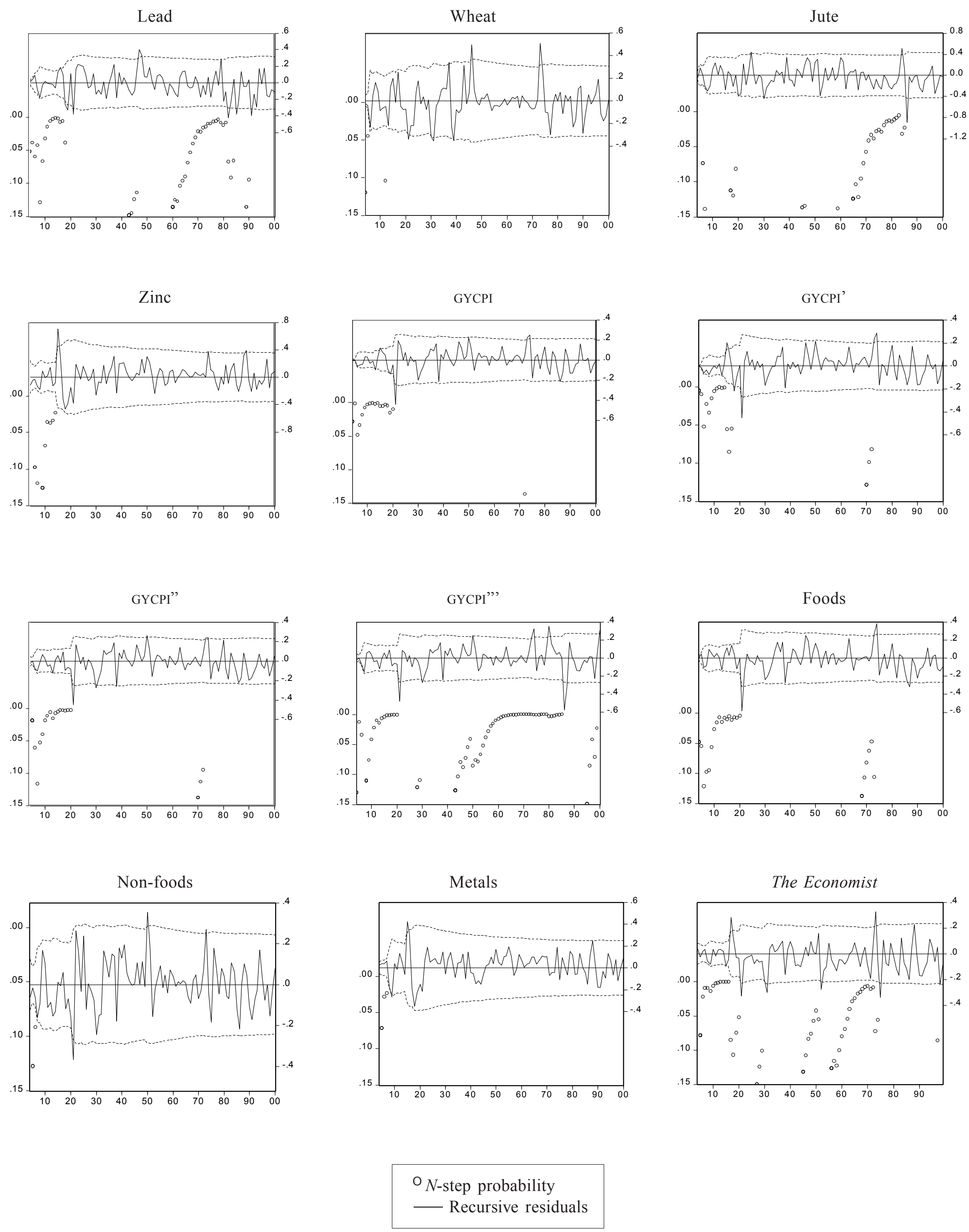
Appendix C *(continued)*



Source: Prepared by the authors.

APPENDIX D

Perron test for endogenous determination of the date of a structural break[a]

	Innovational outlier				Additive outlier	
	Intercept		Intercept and trend			
	IO1 1900-2000 Unit root		IO2 1900-2000 Unit root		AO 1900-2000 Unit root	
Aluminium	1938		1940		1948	**
Bananas	1923		1943		1941	*
Beef	1957		1957		1982	
Cocoa	1945		1965		1998	*
Coffee	1985		1947		1974	
Copper	1951	*	1951		1925	
Cotton	1983		1944		1965	
Hides	1950	**	1916	**	1905	**
Jute	1944		1958		1971	
Lamb	1945		1945		1926	
Lead	1978	*	1945	**	1973	**
Maize	1984		1971		1963	
Palm oil	1917	**	1983	***	1991	**
Rice	1988		1971	**	1975	**
Rubber	1915	**	1934	**	1926	*
Silver	1960		1971		1933	
Sugar	1979	**	1979		1983	
Tea	1983		1951		1962	
Timber	1912		1920		1913	
Tin	1984		1972		1985	
Tobacco	1915		1946		1964	
Wheat	1941	***	1928	**	1910	***
Wool	1972		1946	***	1953	***
Zinc	1920	***	1920	*	1928	***
GYCPI	1944	**	1944	*	1978	*
GYCPI’	1948	**	1971	**	1929	
GYCPI”	1983	**	1970		1978	**
GYCPI”’	1928		1977		1994	
Metals	1915	**	1951	*	1940	**
Foods	1983	**	1984		1977	*
Non-foods	1948	**	1938	**	1929	*
The Economist	1915	***	1915	**	1920	***

Source: Authors’ calculations.

[a] *, ** and *** indicate statistical significance at 90%, 95% and 99% confidence, respectively.

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Are Central American *export specialization* patterns "sticky"?

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In the national innovation systems of the Organisation for Economic Co-operation and Development (OECD), countries' export performance is considered to be the measure of their international competitiveness. The national specificity of economic performance is shown by the "stickiness" of each country's export pattern and indicates how much room for manoeuvre there is in each case for economic development policy initiatives. The authors introduce an analysis of the export specialization patterns of the Central American countries. They follow the methodology of innovative European research, taking into account econometric evidence of revealed symmetric comparative advantage for those countries' exports to the OECD, the CAN database of ECLAC being used for this purpose. This global analysis shows that in these countries' exports, agriculture- and *maquila*-based products with little value added have "sticky" characteristics.

I
Introduction

The specialization pattern of an economy is a central aspect of the study of national systems of innovation (NSI). The dynamic and structure of the pattern are the base from which a particular country can learn and innovate. We can consider this pattern as a starting point for the understanding of the particular learning processes at work throughout the economic structure.

Recent debate and studies of the Organisation for Economic Co-operation and Development (OECD) countries have shown that specialization patterns display long-term stability (Dalum and Willumsen, 1996). This fits well with the argument of the institutional economic tradition that production patterns are characterized by path dependency and stickiness (Dosi, 1982). If a country follows its competitive advantages, trade specialization will reflect the existing pattern of production in one way or another. In addition, the dynamic that this pattern shows could be a good indicator for evaluating the hypothesis of stickiness and stability.

Following these arguments, and using the ECLAC trade database (ECLAC, 1995), the present paper applies an econometric model to the Balassa comparative advantage indicator. We follow the same methodology as applied by Dalum and Willumsen (1996) to turn the Balassa indicator of revealed comparative advantage (RCA) into a revealed symmetric comparative advantage (RSCA) indicator.

The most important finding described in this paper is the relative stability and stickiness of trade specialization patterns in the Central American countries.[1] This stability and stickiness are the result of two simultaneous conditions. The first is the existence of path dependency resulting in lock-in development, in this case in sectors with low quality advantages for trade. The second is the political constraint resulting from trade agreement mechanisms and the resulting international pattern of trade between developed and developing countries. In developing countries, these two conditions have resulted in a specialization pattern based on low-skilled work and natural resource-intensive goods.

Using the national systems of innovation (NSI) approach, we argue in this paper that a new learning trajectory and the promotion of new industrial policies are crucial in the region in order to "lock out" from the existing trade pattern. The vicious circle of low-quality specialization, poverty and natural resource degradation needs to be broken if progress is to be made towards a more sustainable development process. To achieve this, the present paper argues for an innovation strategy of "learning by doing" and capitalizing on existing specializations.

Section II of this paper summarizes the theoretical discussion about competitiveness and innovation. Section III highlights the results of research into specialization patterns conducted recently in OECD countries. Section IV describes the main results and dilemmas of the competitiveness studies carried out in the Central American region. Section V presents a description of the Central American export structure. Section VI describes the econometric results of the stability test and analyses the stickiness of export specialization patterns in the Central American countries and the subregion as a whole. Lastly, section VII reviews the indicators and analyses the national system of innovation from the perspective of developing countries.

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[1] See the Web page of the SUDESCA project (www.sudesca.una.ac.cr) for fuller treatment of these subjects.

II

Structural competitiveness and innovation

The process of opening up national economies is leading to a focus on the trade balance and possible balance-of-payment constraints in the economic policy debate. The sustainability of that model depends on the scope for increasing the subregion's foreign direct investment and exports. A structural perspective on the issue points to problems related to the match between the domestic industrial structure and export markets, and to the point at which it is advisable to move from low-growth markets for traditional products to high-growth markets for high-technology products.

Consideration of the trade and technological specialization patterns of the OECD countries reveals a mixed picture of convergence and divergence, as change is resulting in both broader and narrower specialization patterns. Patterns have proved relatively stable in most countries over time. Of course, they differ markedly from country to country and small countries tend to be more specialized than large countries (Dosi, Pavitt and Soete, 1990), while their trade specialization patterns are more diverse.

Mainstream economic tradition has put emphasis on static factors that affect the trade specialization pattern, such as natural resource endowments. Recently, new international trade theories have focused more on the creation of new advantages than on the exploitation of existing ones. The so-called "comparative advantage debate" has focused more on company-level aspects and static factors of sectoral analysis (Porter, 1991) than on the national or even sectoral level. More recently, the role of institutions and institutional change has been studied within the framework of national systems of innovation (Freeman, 1992; Lundvall, 1992; Edquist, 1997).

The NSI approach has shown that knowledge is an important factor for production and that learning is a crucial process. They are co-determinants of export performance and competitiveness in a particular country context. Of course, trade and interaction will be a source of new knowledge, but accumulation and path dependency effects mean that the knowledge base of an economy is closely related to its particular specialization pattern and industrial structure. Existing sectors are the base from which the learning process develops, for the most part incrementally through improvements to the existing basis of technological capabilities and institutional performance (Lundvall and Johnson, 1994).

If this line of reasoning is accepted, we should not expect Central American trade patterns to change dramatically within a few years. This is the first hypothesis, which is considered in this study. Another important aspect associated with this is the quality of the pattern. Small developing areas such as Central America cannot specialize in many activities, but the pattern followed has not hitherto created the conditions for sustainable long-term development. Are Central American trade patterns convergent or divergent in relation to the OECD countries? Are the OECD countries a benchmark to follow? What has been the recent evolution of the trade specialization pattern? All these questions, together with some considerations concerning the role of certain political constraints on trade and the room for manoeuvre left by trade agreements, are discussed in the following sections of this paper.

III

OECD export specialization studies

If competitiveness is understood as rising market share, particularly in growth markets (Dalum, 1992), then the trade specialization pattern must be viewed both as a reflection of an economy's learning and innovation activities and as the basis for planning competitiveness policies.

The work on structural competitiveness and national export specialization carried out by the IKE group in Aalborg makes use of the IKE Trade Database[2] of OECD trade by commodities for the 21 "old" OECD countries (Belgium and Luxembourg taken together) with data from 1961 onward. Export market shares are given by country and industry, the latter being subdivided into: the five natural resource-based sectors; oil and natural gas; chemicals; engineering, electronics and transport equipment; other; and traditional industrial products.[3]

While a country's international competitiveness can be measured by its export performance (for example, by its export market share in an international market, like OECD), the revealed comparative advantage (RCA) index seeks to measure a country's relative export structure. This RCA indicator is equal to the percentage share of a given product in a country's exports, divided by the percentage share of that product in OECD exports. The RCA index compares national and OECD export structures, so that an RCA of 1 indicates an identical export structure, RCA above 1 indicates relative specialization, and RCA below 1 signifies despecialization in that product category (Dalum and Willumsen, 1996).

The above-mentioned study of convergence, divergence and stickiness in OECD trade specialization patterns tends to confirm the interpretation of the long-term history of market economies found in other studies, which show a series of shifting periods of either convergence or divergence.

Dalum and Willumsen (1996) used the IKE Trade Database on OECD trade by commodities. The RCA index was calculated for the period 1961-1992, which was later divided into two sub-periods (1961-1972 and 1973-1992) so that medium-term changes could be considered. Lastly, seven short periods (1961-1965, 1965-1969, 1969-1973, 1973-1979, 1979-1984, 1984-1988 and 1988-1992) were also analysed in order to study short-term development patterns.

[2] IKE (*International Konkurrence Evne*) group, international competitiveness project of the Department of Business Studies, Aalborg University, Denmark. The databases and the export specialization analysis indicators are further described in appendix A.

[3] The data have been aggregated to 60 commodity groups in accordance with the Standard International Trade Classification (SITC), Revision 1. Stickiness measures could be affected by the level of aggregation. For example, if the dynamic of change is more intrasectoral in different products, greater aggregation will underestimate the real dynamism of the trade specialization pattern. However, disaggregation into too many products will produce an excessive number of zeros and provide few opportunities for comparative analysis.

The same study includes a statistical test for the stability of national export specialization patterns by looking at the development of the specialization index over time for the 21 countries. Using the framework of country regression models, the revealed symmetric comparative advantage (RSCA) indicator was tested as below:[4]

$$RSCA_{ij}^{t2} = \alpha_i + \beta_i RSCA_{ij}^{t1} + \varepsilon_{ij}^{t2}$$

Here the dependent variable RSCA for country *i* in the final year *t2* is tested against the independent variable in the initial year *t1* of the period.

If β equals 1, the specialization pattern is unchanged in the period. Conversely, β above 1 signifies that the initial export specialization pattern of a country has been strengthened. This could be the result of an increase in the country's specialization in products it already specialized in and/or a decrease in its specialization in products it was already beginning to despecialize in. A β value between 0 and 1 indicates that the country converged towards the OECD average during the period, so that exports of despecialized product categories grew above average and specialized product exports grew at a below-average rate.

The correlation coefficient *R* gives a measure of the correlation between initial and final RSCA values. Therefore, it is a measure of the degree of change in the export ranking of the different products. A low *R* value signifies great mobility in the distribution of the RSCAs, while *R* equals 1 signifies no change in the product ranking during the period. A value below 0 indicates that the product ranking has changed fundamentally.

The variation coefficient of the country-wise regression models indicates, first, a regression effect. For example, a low β value implies a high effect and a relatively strong tendency towards decline in initially advantaged industries and growth in initially disadvantaged ones. Second, it indicates a mobility effect: a low *R* value implies a large effect and a high degree of structural change in the national economy. The two coefficients could be related to each other as the β/R value, which gives an indication of the standard deviation (dispersion) of export specialization. A β/R value above 1 signifies an increase in (the dispersion of) specialization, a value below 1 signifies a decrease in (the dispersion of) specialization, and a value equal to 1 signifies an unchanged specialization (Dalum and Willumsen, 1996).

[4] See appendix A.

The main result of the country analysis was summarized as follows by the authors quoted. The less developed OECD countries generally show high regression effects (low β) and high mobility effects (low R), whereas most of the small high-income countries show low regression effects (high β) and low mobility effects (high R). The large countries usually show higher regression effects (lower β values), implying a stronger tendency towards decrease in initially advantaged industries and increase in disadvantaged industries (Dalum and Willumsen, 1996, pp. 18-19).

The long-term period (1961-1992) shows a weak decrease in the dispersion of export specialization for all countries except Greece and Iceland, as indicated by the β/R values (0.90 on average). Germany has a particularly low mobility effect, and Japan a particularly high one. In the medium-term periods (1961-1972 and 1973-1992) and the short-term ones, the analysis shows relatively high stability in export specialization patterns.

Dalum and Willumsen (1996) also looked at the bilateral similarity patterns of the OECD countries in the years 1961, 1973 and 1992 by analysing the pair-wise country correlations in the RSCAs. The stylized features of the bilateral comparison show a growing number of small countries tending (weakly) to achieve a specialization pattern similar to that of larger countries, while the same authors (ibid., p. 15) identify the following tendencies: i) small countries show similar specialization patterns to other small countries with a historically similar resource base; ii) large European countries resemble one another; iii) the United States and Japan are basically characterized by mutual dissimilarities, and iv) small countries typically show patterns different from those of large countries.

A more advanced econometric analysis of the material yielded similar conclusions concerning the relative stickiness of OECD export specialization patterns (Dalum, Laursen and Willumsen, 1996). Against this background, the authors cited conclude that these relatively stable export structures give an indication of national specificities for international competitiveness. Table 1 summarizes the results of this study for the OECD countries.

A general conclusion arrived at by the authors cited on the basis of this data is as follows. On the one side, the β values are significantly different from zero and

TABLE 1

Organisation for Economic Co-operation and Development (20 countries): Stability and development of export specialization patterns in the long term and the medium term, by country

(*Revealed symmetric comparative advantage-RSCA*)

	1965-1992			1979-1992		
Country	β	R	β/R	β	R	β/R
United States	0.75	0.74	1.01	0.79	0.94	0.84
Japan	0.62	0.58	1.07	0.95	0.93	1.03
Germany	0.52	0.73	0.70	0.77	0.86	0.89
France	0.37	0.40	0.94	0.78	0.78	1.00
Italy	0.59	0.55	1.06	0.78	0.76	0.02
United Kingdom	0.57	0.71	0.80	0.76	0.80	0.95
Belgium-Luxembourg	0.66	0.69	0.96	0.97	0.91	1.07
Canada	0.72	0.82	0.88	0.83	0.87	0.96
Denmark	0.78	0.88	0.88	0.86	0.91	0.94
Finland	0.61	0.68	0.90	0.78	0.84	0.93
Netherlands	0.61	0.64	0.94	0.84	0.89	0.94
Norway	0.74	0.80	0.92	0.91	0.94	0.97
Austria	0.67	0.76	0.89	0.79	0.81	0.98
Switzerland	0.86	0.90	0.96	0.92	0.97	0.95
Sweden	0.70	0.76	0.91	0.89	0.91	0.97
Greece	0.63	0.58	0.10	0.87	0.89	0.98
Ireland	0.37	0.39	0.95	0.85	0.84	1.02
Portugal	0.54	0.64	0.84	0.64	0.72	0.89
Spain	0.29	0.51	0.57	0.59	0.79	0.74
Turkey	0.36	0.43	0.83	0.64	0.76	0.84
Mean (unweighted)	0.60	0.66	0.91	0.81	0.86	0.95

Source: Dalum, Laursen and Willumsen (1996).

significantly below unity at the 1% level for all 20 countries, meaning that the hypothesis of reverse or random patterns can be rejected. Since the β values are significantly smaller than one, the elements of stickiness and incremental change are combined. Trade patterns do not change "overnight" and do not change fundamentally even over three decades (Dalum, Laursen and Willumsen, 1996, p.15).

IV

Central American competitiveness studies

Among others aspects of national systems of innovation, the trade specialization pattern is an important point of reference if any particular economy's scope for increasing competitiveness is to be gauged. A country's specialization patterns show its revealed comparative advantage, which is closely related to factor endowment and prices on the one hand and institutional and organizational conditions on the other.

Latin American research on trade and international competitiveness has mainly focused on the role of factor endowments (Fichet, 1991; Buitelaar and Fuentes, 1991; Fajnzylber, 1991), but recently the role of national innovation systems in competitiveness has been taken up and related to the technological specialization of the Latin American countries (Alcorta and Peres, 1996).

In relation to the Central American countries, a survey of the research dealing with the relationship between trade specialization patterns and competitiveness was carried out as part of the first phase of the SUDESCA project.[5] According to this study (Gitli and Vargas, 1996), the research has so far concentrated on three aspects:

i) analysis of external factors affecting business decisions. So far the main concern has not been competitiveness itself but rather the global factors that might be related to it;

ii) studies based on the CAN computer program.[6] In general, these studies have found evidence for a dynamic of change in the trade specialization patterns of the Central American countries that tends to strengthen their comparative advantages. They generally depict the region as uncompetitive and its specialization pattern as being based on low-level competitive advantages, i.e., advantages deriving from cost factors such as cheap labour and the use of raw materials and natural resources;

iii) studies based on the Porter competitive advantage and clusters perspective. In general, these studies represent an important advance in the typification of the endogenous and exogenous factors affecting competitiveness in the subregion. The limitations of the main study carried out along these lines are due to the small number of sectors analysed and the limited statistical value of samples at the country level.

More specific studies relating to Latin American trade patterns have also been carried out in recent years by ECLAC, particularly in the joint ECLAC-UNIDO unit. Some of the results show very particular patterns. For example, a recent study based on the CAN database concluded that the situation of smaller countries in the region, those of Central America and the Caribbean, differed in several ways from that of the larger countries. An examination of their 10 principal exports, which account for 64% of the total, starkly demonstrates their new specializations: clothing and apparel. It is of significance to note that the new specializations of these smaller countries centre upon what might be considered less modern and less technologically sophisticated manufactures, the assembly of which is often carried out in export processing zones (Mortimore, 1995, p. 31).

Regarding the impact of the export model and specialization patterns on economic growth and local linkages, the author argues that in Latin America, even the three focal points of new international competitiveness in the region, that is Mexico (the

[5] SUDESCA: Sustainable Development Strategies for Central America. Joint research project between the International Centre of Economic Policy for Sustainable Development (CINPE) of the National University of Costa Rica, and IKE and the Centre for Environment and Development of Aalborg University, Denmark, in collaboration with the University of El Salvador, the Fundación Nacional para el Desarrollo (FUNDE) of El Salvador and the Escuela de Economía Agrícola (ESECA) of the Autonomous University of Nicaragua.

[6] CAN: Competitive Analysis of Nations database, organized by ECLAC, that contains disaggregated information on OECD imports from the rest of the world between 1977 and 1994. See appendix A for further details.

TABLE 2

Central America: Critical factors for competitiveness, ranked by importance

All industrial sectors[a]		
Internal factors	External factors	Policy factors
Strategic management	Monitoring of competitors	Clear rules and regulations
Financial management	Customs services	Educational investments
External logistics	Electrical energy	Health and social security
After-sales services	Technological research and management	Fair competition
	Credit availability	Regional agreements
	Interest rates	

Source: FEDEPRICAP/IDB (1994).

[a] Includes the food preservation industry (fruit and vegetables), apparel industry, paper products industry (packaging), agricultural machinery industry (coffee) and building industry (metal construction branch).

automotive industry, assembled goods), the Dominican Republic (goods assembled in the export processing zones) and Costa Rica (clothing and apparel, mostly assembled in free zones or using the temporary admission regime), share certain characteristics. They are industries in which higher levels of exports have been combined with low or lower levels of national value added in respect of physical inputs. Furthermore, they are industries very much dominated by foreign companies (Mortimore, 1995, p.51)

A prime example of research based on the Porter perspective is the comparative study of competitiveness in the manufacturing sectors of the subregion undertaken in the period from 1 November 1992 to 15 March 1994 by the Federation of Private Entities of Central America and Panama, in cooperation with the Inter-American Development Bank (FEDEPRICAP/IDB). This study considers the factors influencing competitiveness in individual companies, both external and internal. External factors are divided into four sets of business environment factors along the lines of the Porter "diamond" (Porter, 1991) and a set of government policy factors. The internal factors are structured along the lines of the Porter value chain model of the firm. The data were obtained through interviews, covering a total of 91 variables, which were conducted among 281 companies and organizations with the assistance of 31 expert panels throughout the subregion.

The competitive situation of all the Central American industries considered in the study is presented in table 2, where the critical factors are ranked by the importance ascribed to them in the responses.

The FEDEPRICAP/IDB study points to the important role of the environment within which each company operates, but it has some limitations that make it difficult to translate directly into the innovation systems analysis. The absence from the questionnaire of questions relating to internal research and development and innovation activities and to the external collaboration relationships of individual companies makes it impossible to attempt any systematic mapping of interactions linked to innovation, although these aspects were given some attention in the conclusions. What are focused on are information problems connected with the present business services infrastructure of the subregion, the weak sense of entrepreneurship and companies' inability to forge strategic alliances as a way of compensating for the poor services infrastructure.

Probably among the most complete and extensive studies into subregional competitiveness is the one recently published by the Central American Institute of Business Administration (INCAE, 1999). It attempts a detailed analysis of competitiveness in the Central American subregion using the Porter cluster methodology for several sectors. The result of this study is a group of specific cluster studies dealing with the apparel, electronics, agribusiness and tourist industries. In addition, a policy proposal entitled "Agenda for Competitiveness and Sustainable Development" was published and discussed with stakeholders.

The INCAE study has helped open up a debate about the need to develop a new kind of industrial policy in the subregion. The final report clearly recognizes the large differences among the countries and the need to put in place a basic framework of institutional and macroeconomic conditions. The weaknesses of the subregion as regards investment in education and infrastructure are also well diagnosed. The role of the private sector is emphasized, while trade negotiations and new environmental policies are also mentioned as a basic precondition for competitiveness. The study covers different areas, but there are some problems with the methodological framework it uses to select clusters with potential and with its choice of benchmarking scenarios for the subregion.

Taken all together, the competitiveness research carried out so far in the Central American subregion concerns problems related to short- and medium-term obstacles for export growth. There are practically no studies focusing on topics such as the characteristics, dynamism, strategic alliances and financing sources of exporters, or on national and regional innovation systems. It has also been found that there is a need to continue with research projects in the field of competitiveness in the subregion.

The results of the first phase of the SUDESCA project on systems of innovation in Central America have shown that there is strong potential for development and opportunities for learning and innovation through the existing production structure, the main requirement being to improve institutional and organizational conditions (Segura and Vargas, 1998; López and Amaya, 1998; Cummings and Mena, 1998). However, these studies also show that the existing production structure has created path dependency in sectors that have very few productive linkages with the rest of the economic system, possess few technological advantages and rely mainly on natural resources and low-skilled workers.

According to Segura and Vargas (1998), some of the most important problems with innovation policy in the case of Costa Rica are:

i) poor understanding of the innovation process;
ii) reproduction of an economy with low coherence and cohesion and little innovation potential because of a lack of linkages;
iii) risk of destruction of natural and social capital, which will reduce innovation capacity.

Costa Rica thus runs the risk of developing a dual economic structure with low long-run innovation capacity, as is reported to have occurred in the case of Mexico (Cimoli, 1999). Even though Costa Rica has been the most successful of the Central American countries in increasing exports and improving competitive performance, it still has many problems and is having to cope with a legacy of strong dependency from the past. In the other countries of the region, the conditions are worse and the results achieved, to judge by the dynamic of their participation in the export market, have been only moderate. The following section gives a very brief summary of the situation.

V

The Central American export structure

When Central American statistics are examined, some general considerations need to be taken into account. In the 1980s, the subregion was severely affected by the oil crisis and by political problems. Periods of civil war distorted economic development in El Salvador, Guatemala and especially Nicaragua. These need to be regarded as special situations, but more recent data could anticipate the path of post-conflict development, especially in Nicaragua (table 3).

As table 3 shows, the United States accounts for a very large share of exports from all the Central American countries; about 37% of the total in all years. The second largest market is Europe, with 26% of the total in 1995, followed by intraregional exports (23%) and exports to other countries (14%). In the period analysed, the European market increased in importance while the Central American economies became regionalized.

Table 4 shows export market shares by industry group, classified by product types (textiles, apparel, other manufactures and agriculture-based products). The reference market is that of the United States. We can see that agriculture (natural resource-based products) and apparel (low-skilled work) account for 86% of this trade, including *maquila* output going to the United States. We can also see that the apparel sector grew the fastest and showed strong dynamism in the early years of the 1990s.

As in other respects, Costa Rica and Guatemala are alike in that they specialize in agriculture and apparel. El Salvador specializes mainly in apparel while Nicaragua shows concentration in agricultural activities. Although the reference market is the United States, the pattern is very representative because this market takes about 50% of all Central American exports.

TABLE 3

Central American export markets: Exports by region, 1990-1995

Region	1990	1991	1992	1993	1994	1995
			A. Millions of dollars			
Intraregional	794.40	924.30	1 156.86	1 351.42	1 499.90	1 783.65
Europe	1 142.00	1 073.80	1 169.25	1 212.38	1 574.80	2 033.32
United States	1 847.00	1 897.80	2 115.82	2 394.23	2 472.97	2 866.99
Other countries	959.40	942.60	821.28	870.33	886.83	1 150.48
Total	*4 742.80*	*4 838.50*	*5 263.20*	*5 828.36*	*6 434.51*	*7 834.44*
			B. Percentages of the total			
Intraregional	16.75%	19.10%	21.98%	23.19%	23.31%	22.77%
Europe	24.08%	22.19%	22.22%	20.80%	24.47%	25.95%
United States	38.94%	39.22%	40.20%	41.08%	38.43%	36.59%
Other countries	20.23%	19.48%	15.60%	14.93%	13.78%	14.68%
Total	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*

Source: Prepared by the authors on the basis of Central American Monetary Council data (1996).

TABLE 4

Central America: Exports to and market share in the United States, by sector, 1990-1995
(*Percentages of the total*)

	Export share			Market share		
Sector	1990	1993	1995	1990	1993	1995
Textiles	1.4	1.1	0.8	1.0	0.9	0.8
Apparel	29.2	44.4	49.8	3.3	6.3	8.1
Other manufactures	12.3	11.5	11.5	0.1	0.2	0.2
Industrial subtotal	42.9	56.9	62.0	0.4	0.8	1.0
Agriculture	54.9	41.2	36.1	6.7	7.9	8.1
Total	*100.0*	*100.0*	*100.0*	*0.9*	*1.3*	*1.4*

Source: Prepared by the authors on the basis of Fallas, Gitli and Vargas (1997) and data from the United States Department of Commerce/ ECLAC (1996).

VI

RSCA test results for the Central American countries

While specific product-by-product data are available for the trade relations between the Central American countries and the United States, we did not have access to data with the same structure for these countries' exports to OECD. To solve this specific data problem, we decided to use an OECD database (with data going up to 1994) specially managed by the CAN software developed by ECLAC.[7] CAN uses a simple average of three years' trade as a reference for each year in order to standardize the data. We constructed different categories that were used to define product groups on the basis of the technical characteristics of the production process.

[7] See the ECLAC web site.

We give figures for 1977-1994 in order to provide a medium-term perspective on trade patterns.[8]

Tables 5 and 6 show the results of the statistical test for the stability of national export specialization patterns in regression models, by country and for the subregion as a whole, in the short term (1979-1984, 1984-1988, 1988-1992)[9] and in the medium term (1977-1994 and 1979-1992).[10] Both tables show the values of β, R and β/R in the different periods. In the following section of this paper, we use the data obtained to test the stability of Central American specialization patterns over the last 20 years.

The decomposition of the dispersion in a regression effect (1-β) and a mobility effect (1-R) reveals that the β-values are significantly different from zero and significantly below unity at the 1% level for all five countries. As Dalum and Willumsen (1996) explain, trade patterns do not change overnight and do not change fundamentally even over two decades. This result points to a general tendency towards increase in industries that countries are highly specialized in. The β specialization, which measures the ability of previous specialization patterns to determine those of the future, is strong, as indicated by the unweighted β value of 0.87 (table 6).

[8] The reader should be aware that changes in product quality and characteristics occur over the medium term, but the rigidities of the SITC classification mean that they go unperceived.

[9] Appendix A shows the revealed comparative advantage (RCA) and revealed symmetric comparative advantage (RSCA) ratios by sector: agriculture, energy, non-natural resource-based manufacturing, natural resource-based manufacturing, and others.

[10] We have been using 238 sectors in accordance with SITC, Revision 2.

TABLE 5

Central American countries: Stability and development of OECD export specialization patterns in three short-term periods[a]

(*Revealed symmetric comparative advantage (RSCA) ratios*)

Country	1979-1984		1984-1988		1988-1992	
	β	*R*	β	*R*	β	*R*
Guatemala	0.89	0.82	0.91	0.82	0.91	0.91
Honduras	0.93	0.86	0.93	0.94	0.90	0.88
El Salvador	0.75	0.78	0.78	0.74	0.89	0.76
Nicaragua	0.76	0.81	0.72	0.75	0.88	0.73
Costa Rica	0.95	0.80	0.86	0.88	0.99	0.90
Panama	0.82	0.81	0.73	0.86	0.94	0.84
Central America	0.95	0.90	0.90	0.92	0.99	0.93

Source: Prepared by the authors on the basis of the CAN21 software and the SPSS set of social science statistics.

[a] All β coefficients are statistically significant at 99%.

TABLE 6

Central American countries: Stability and development of OECD export specialization in two medium-term periods[a]

(*Revealed symmetric comparative advantage (RSCA) ratios*)

Country	1979-1992			1977-1994		
	β	*R*	β/*R*	β	*R*	β/*R*
Guatemala	0.81	0.68	1.20	0.77	0.61	1.25
Honduras	0.77	0.65	1.18	0.79	0.68	1.15
El Salvador	0.66	0.56	1.18	0.50	0.50	1.00
Nicaragua	0.73	0.71	1.04	0.75	0.69	1.09
Costa Rica	0.86	0.64	1.34	0.80	0.64	1.25
Panama	0.77	0.72	1.06	0.72	0.66	1.09
Central America	0.87	0.79	1.10	0.81	0.74	1.10

Source: Prepared by the authors on the basis of the CAN21 software and the SPSS set of social science statistics.

[a] All β coefficients are statistically significant at 99%.

Concerning the short term (1979-1984, 1984-1988 and 1988-1992), it should be noted that the β/R ratio estimated (1.05, 0.98 and 1.07) is indicative of a despecialization process Z. Only Nicaragua and El Salvador show a slower specialization process, something that is closely linked to the war periods in those countries during the 1970s and 1980s.

Care has to be taken in analysing the data, especially in the cases of Nicaragua and El Salvador, because the war periods fall between the periods analysed. Also, the OECD trade figures exclude the 25% or so of total trade flows that take place within the region and with other non-OECD countries.

In the medium-term periods (1977-1994 and 1979-1992), the results show a general increase in the dispersion of export specialization, implying a trend towards greater specialization. This increase in dispersion is substantial and can also be seen in the unweighted mean for β/R, which is 1.10. This tendency is particularly marked in the case of Costa Rica, where β/R is 1.34 in the period 1977-1994 and 1.25 in 1979-1992.

In conclusion, we have identified a process of specialization in the subregion during most of the period analysed. This was stronger in countries like Costa Rica which did not experience war or major political problems. Even in countries that experienced a war period in between, however, pattern stability and, more recently, an incipient specialization process have been detected.

According to these results, divergence has increased during the period analysed, if the comparison is with the divergence level identified by Dalum and Willumsen (1996). This is not a good omen for countries that are highly specialized in a few uncompetitive export products that can easily be displaced by competitors from other areas.

VII

Path dependency and national systems of innovation from a developing country perspective

The analysis of relative export specialization patterns sheds no light on any causal relationships or the initial specialization structure. Nor is it clear so far whether the small Central American countries are following a relative export specialization path similar to that of the less-developed OECD countries, or if they are closer to the development path of small (rich) OECD countries with a similar natural resource base.

The tension between convergent/divergent trade specialization processes on the one side and divergent technological specialization processes on the other, and the unclear relationship between these processes as a whole, are seen as the core of the dynamics of national systems of innovation analysis (Dalum and Willumsen, 1996, p. 1). These developments point to the interplay of international imitation processes and technology diffusion as a mechanism of convergence and institutional (contextual and historical) mechanisms of national divergence.

Path dependency of the trajectories and learning are central elements in the systems of innovation approach, whether the systems concerned are national or technological (Lindegaard, 1997). The present econometric study tends to confirm this, as do the OECD studies.

Just as the OECD market was examined for the export and specialization patterns analysis, intra-industry trade in Central America and other small market areas has to be considered. Trade among the Central American countries has grown fast in recent years, and this integration process could be a sign of a Central American innovation system emerging at the subregional level.

The inclusion of developing countries in the analysis of national innovation systems highlights the role of political factors, both internationally and nationally. Trade agreements and quota systems, in conjunction with national export promotion policies, are decisive factors in Central American exports to the OECD countries. This may go some way towards explaining the stability of trade patterns. The regulation of imports from developing countries will also to some extent determine the production structure of the OECD countries themselves, as we have indicated.

Stickiness, on the other hand, is a necessary component in all learning trajectories. New industrial policies, if based on a broader innovation strategy of "learning by doing", will seek out the competitive advantages created by new products, production processes, organizations and markets branching out from the existing structure. Here, institutional change can enhance interactive learning as well as existing skills, know-how and experience.

In this way, the current Central American innovation process of horizontal diversification within sectors may translate into changes in the sectoral composition and export specialization of the countries' economies. There could be growth in manufacturing and high-technology products and services emerging out of the current (sticky) sectors of natural resource-intensive industries (agriculture) and apparel (textiles). The research challenge is to pursue closer investigation and understanding of these processes and of the opportunities for creating linkages and building networks for innovation and learning.

APPENDIX A

Indicators and databases

Revealed comparative advantage (RCA) index

$$RCA_{ij} = \frac{X_{ij} / \sum_i X_{ij}}{\sum_j X_{ij} / \sum_{ij} X_{ij}}$$

where X: exports of product i from country j.

The index measures the share of national exports represented by exports of this product as compared to the share of all OECD country exports it represents (Dalum, 1992, p. 213).

Revealed symmetric comparative advantage (RSCA) indicator

$$RSCA = (RCA\text{-}1) / (RCA\text{+}1)$$

The indicator immunizes lack of normality in the distribution of the data (Dalum and Willumsen, 1996, p. 16).

Regression model

$$RSCA_{ij}^{t2} = \alpha_i + \beta_i RSCA_{ij}^{t1} + \varepsilon_{ij}^{t2}$$

where i: country; tl: initial year; t2: final year; α *an*d β: standard linear regression parameters; ε: error term (Dalum and Willumsen, 1996, p. 7).

IKE trade database

This database belongs to the IKE (*International Konkurrence Evne)* group of the Department of Business Studies, Aalborg University, Denmark. Visible exports and imports are expressed in current dollars for the 23 OECD countries from 1961 onward. Data are delivered in the Standard International Trade Classification (SITC) format.[11]

CAN (Competitive Analysis of Nations) database[12]

The CAN computer software, developed by ECLAC, provides detailed knowledge of the competitive situation of 89 countries across almost 240 sectors during the period 1977-1994. It draws on an extensive database of foreign trade statistics (COMTRADE) to three digits of the SITC. The international market is defined in terms of the imports of OECD member countries, as these represent a demanding market for which reliable, consistent and up-to-date information is available. The CAN database is updated by ECLAC every two or three years, and the latest version, which is to be distributed shortly, will include data up to 1997.

[11] See OECD (1995).
[12] See ECLAC (1995).

APPENDIX B

Central America: Revealed comparative advantage (RCA) and revealed symmetric comparative advantage (RSCA) ratios, by sector and country

	rca79	rca84	rsca79	rsca84	rca84	rca88	rsca84	rsca88	rca88	rca92	rsca88	rsca92	rca79	rca92	rsca79	rsca92	rca77	rca94	rsca77	rsca94
By sector																				
Agriculture	4.986	5.542	0.666	0.694	5.542	5.202	0.694	0.678	5.202	4.953	0.678	0.664	4.986	4.953	0.666	0.664	4.060	4.672	0.605	0.647
Energy	0.344	0.355	-0.488	-0.476	0.355	0.253	-0.476	-0.596	0.253	0.145	-0.596	-0.747	0.344	0.145	-0.488	-0.747	0.533	0.077	-0.305	-0.856
Non-natural resource manufactures	0.421	0.726	-0.407	-0.159	0.726	0.578	-0.159	-0.267	0.578	0.425	-0.267	-0.404	0.421	0.425	-0.407	-0.404	0.485	0.388	-0.347	-0.441
Natural resource manufactures	0.178	0.220	-0.698	-0.640	0.220	0.376	-0.640	-0.453	0.376	0.493	-0.453	-0.340	0.178	0.493	-0.698	-0.340	0.226	0.555	-0.631	-0.286
Others	1.727	1.169	0.267	0.078	1.169	0.803	0.078	-0.109	0.803	0.767	-0.109	-0.132	1.727	0.767	0.267	-0.132	1.262	0.556	0.116	-0.285
By sector and country																				
Agriculture																				
Costa Rica	5.989	6.185	0.714	0.722	6.185	5.498	0.722	0.692	5.498	5.070	0.692	0.671	5.989	5.070	0.714	0.671	5.178	4.833	0.676	0.657
El Salvador	4.878	5.807	0.660	0.706	5.807	6.088	0.706	0.718	6.088	4.293	0.718	0.622	4.878	4.293	0.660	0.622	3.471	3.610	0.553	0.566
Guatemala	5.087	6.150	0.671	0.720	6.150	6.198	0.720	0.722	6.198	4.961	0.722	0.664	5.087	4.961	0.671	0.664	4.282	4.741	0.621	0.652
Honduras	5.713	6.530	0.702	0.734	6.530	6.652	0.734	0.739	6.652	5.048	0.739	0.669	5.713	5.048	0.702	0.669	5.142	4.261	0.674	0.620
Nicaragua	5.202	4.764	0.678	0.653	4.764	5.480	0.653	0.691	5.480	5.420	0.691	0.688	5.202	5.420	0.678	0.688	3.720	6.393	0.576	0.729
Panama	3.268	3.929	0.531	0.594	3.929	3.167	0.594	0.520	3.167	4.837	0.520	0.657	3.268	4.837	0.531	0.657	2.648	5.112	0.452	0.673
Energy																				
Costa Rica	0.019	0.020	-0.963	-0.961	0.020	0.018	-0.961	-0.964	0.018	0.010	-0.964	-0.980	0.019	0.010	-0.963	-0.980	0.040	0.011	-0.923	-0.978
El Salvador	0.294	0.202	-0.545	-0.664	0.202	0.144	-0.664	-0.748	0.144	0.007	-0.748	-0.986	0.294	0.007	-0.545	-0.986	0.676	0.007	-0.194	-0.987
Guatemala	0.715	0.510	-0.166	-0.324	0.510	0.370	-0.324	-0.460	0.370	0.151	-0.460	-0.738	0.715	0.151	-0.166	-0.738	0.885	0.132	-0.061	-0.767
Honduras	0.260	0.259	-0.587	-0.589	0.259	0.217	-0.589	-0.644	0.217	0.166	-0.644	-0.715	0.260	0.166	-0.587	-0.715	0.277	0.084	-0.566	-0.845
Nicaragua	0.498	1.311	-0.335	0.135	1.311	1.667	0.135	0.250	1.667	1.451	0.250	0.184	0.498	1.451	-0.335	0.184	1.017	0.128	0.008	-0.773
Panama	0.263	0.407	-0.584	-0.422	0.407	0.266	-0.422	-0.580	0.266	0.145	-0.580	-0.746	0.263	0.145	-0.584	-0.746	0.238	0.188	-0.616	-0.683
Non-natural resource manufactures																				
Costa Rica	0.148	0.191	-0.742	-0.679	0.191	0.187	-0.679	-0.685	0.187	0.243	-0.685	-0.610	0.148	0.243	-0.742	-0.610	0.145	0.245	-0.747	-0.607
El Salvador	0.075	0.221	-0.861	-0.639	0.221	0.110	-0.639	-0.802	0.110	0.141	-0.802	-0.753	0.075	0.141	-0.861	-0.753	0.238	0.133	-0.615	-0.765
Guatemala	0.041	0.400	-0.922	-0.429	0.400	0.111	-0.429	-0.800	0.111	0.102	-0.800	-0.815	0.041	0.102	-0.922	-0.815	0.056	0.102	-0.894	-0.815
Honduras	0.394	0.287	-0.434	-0.553	0.287	0.324	-0.553	-0.511	0.324	0.327	-0.511	-0.507	0.394	0.327	-0.434	-0.507	0.182	0.360	-0.692	-0.471
Nicaragua	0.120	0.024	-0.785	-0.953	0.024	0.010	-0.953	-0.981	0.010	0.085	-0.981	-0.844	0.120	0.085	-0.785	-0.844	0.206	0.050	-0.658	-0.904
Panama	1.662	2.264	0.249	0.387	2.264	1.594	0.387	0.229	1.594	1.483	0.229	0.194	1.662	1.483	0.249	0.194	2.091	1.515	0.353	0.205
Natural resource manufactures																				
Costa Rica	0.129	0.286	-0.772	-0.555	0.286	0.405	-0.555	-0.423	0.405	0.521	-0.423	-0.315	0.129	0.521	-0.772	-0.315	0.166	0.552	-0.716	-0.288
El Salvador	0.331	0.307	-0.502	-0.531	0.307	0.286	-0.531	-0.555	0.286	0.668	-0.555	-0.199	0.331	0.668	-0.502	-0.199	0.411	0.781	-0.418	-0.123
Guatemala	0.037	0.064	-0.928	-0.880	0.064	0.217	-0.880	-0.643	0.217	0.528	-0.643	-0.309	0.037	0.528	-0.928	-0.309	0.029	0.564	-0.943	-0.279
Honduras	0.050	0.101	-0.905	-0.817	0.101	0.142	-0.817	-0.752	0.142	0.501	-0.752	-0.333	0.050	0.501	-0.905	-0.333	0.039	0.643	-0.925	-0.217
Nicaragua	0.082	0.010	-0.849	-0.980	0.010	0.034	-0.980	-0.935	0.034	0.160	-0.935	-0.723	0.082	0.160	-0.849	-0.723	0.123	0.213	-0.780	-0.649
Panama	0.396	0.365	-0.432	-0.465	0.365	0.656	-0.465	-0.207	0.656	0.379	-0.207	-0.451	0.396	0.379	-0.432	-0.451	0.594	0.336	-0.254	-0.497
Others																				
Costa Rica	0.298	0.566	-0.541	-0.277	0.566	0.522	-0.277	-0.314	0.522	0.403	-0.314	-0.426	0.298	0.403	-0.541	-0.426	0.142	0.406	-0.752	-0.422
El Salvador	0.234	0.209	-0.620	-0.654	0.209	0.184	-0.654	-0.689	0.184	0.335	-0.689	-0.498	0.234	0.335	-0.620	-0.498	0.280	0.285	-0.562	-0.557
Guatemala	0.435	0.408	-0.394	-0.420	0.408	0.339	-0.420	-0.494	0.339	0.352	-0.494	-0.480	0.435	0.352	-0.394	-0.480	0.485	0.304	-0.347	-0.533
Honduras	0.393	0.258	-0.436	-0.590	0.258	0.350	-0.590	-0.482	0.350	0.195	-0.482	-0.673	0.393	0.195	-0.436	-0.673	0.455	0.183	-0.374	-0.691
Nicaragua	1.226	1.898	0.102	0.310	1.898	2.823	0.310	0.477	2.823	2.158	0.477	0.367	1.226	2.158	0.102	0.367	1.069	1.887	0.033	0.307
Panama	7.531	3.274	0.766	0.532	3.274	1.526	0.532	0.208	1.526	2.444	0.208	0.419	7.531	2.444	0.766	0.419	5.148	1.739	0.675	0.270

Source: Prepared by the authors on the basis of data from CAN21 and Vargas (1999).

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Micro, small and *medium-sized enterprises* in Latin America

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This article presents the characteristics and situation of micro, small and medium-sized enterprises in a number of Latin American countries. First of all, it considers the most common definitions used in each country and establishes the number of enterprises in each category, together with their sectoral and regional distribution. It then analyses the influence that the business environment has on the management of enterprises, their problems and the public response, with consideration given to the degree of institutional development in the region and the impact of this on business behaviour. In the light of supply and demand aspects, lastly, it suggests areas for improvement and mechanisms for public-private coordination. It also identifies some problem areas for businesses and formulates proposals for greater and more effective involvement by those responsible for the design and implementation of development policies in the region.

I

Introduction

The conditions that generated interest in micro, small and medium-sized enterprises (MicSMEs) in Latin America more than 10 years ago have not only remained largely in place, but in many cases have become more acute owing to the presence of new elements that need to be taken into account in the international economic situation (the development of new technologies, the process of internationalization and others). Also, recurring economic crises in several of the region's countries have had a variety of effects on the performance of businesses of these kinds. All this has served to emphasize both the importance of these enterprises as generators of employment (albeit of an unstable kind) and drivers of progress at the local level, and their significant potential to complement the work of large enterprises.

In addition to these considerations, the commitment to their local areas shown by MicSMEs from the outset and the successful experiences of production systems based on them –both in their relations with large enterprises and in their reciprocal relations at the local level– show what can be achieved in terms of economic growth and redistribution of income. The results achieved in Italy (Emilia Romana), Germany (Baden-Württemberg) and the United States (Silicon Valley) share the common denominator of dense networks of MicSMEs capable of generating competitive products on a collective basis.

At the same time, the fact that only about 20% of gross world product is traded internationally (Alburquerque, 1997) gives a clear idea of how important the local activities of MicSMEs are for the development of the Latin American countries.

One of the most important tasks for public- and private-sector institutions in the region, therefore, is to take advantage of the potential of MicSMEs at the local level, as approximately 80% of countries' economic decisions have an internal perspective.

This article aims to present a general overview of the situation of MicSMEs in a number of Latin American countries (where the FUNDES network operates)[1] and at the same time –at the aggregate level– to suggest some areas in which public-sector, private-sector and intermediate organizations in the region should participate in a more active way. For this purpose, an attempt is made to identify some gaps between supply and demand oriented towards MicSMEs or in segment insufficiently served by this group of enterprises, which is considered to be very dynamic and to have the greatest potential for productive development (in relation to size).

II

MicSMEs: how they are defined, how many there are and where they are located

Given the need for information on smaller enterprises, the first question that arises is: why define economic units by size? There are at least two possible responses: i) for purely statistical purposes, and ii) for policy purposes. Apart from these reasons, however, defining economic units in this way will always be useful for

□ This paper is part of a FUNDES project on indicators for small and medium-sized enterprises (SMEs) in Latin America. I would like to express my appreciation for the comments of Albert Berry and an ECLAC external referee and for the extensive cooperation received in the drafting of this paper from all the FUNDES units working in 10 countries on BEE (these units will henceforth be referred to as BEE units).

[1] The FUNDES network covers 10 countries where the foundation provides consultancy, training, services to improve the business environment, e-business services and others. These countries are Argentina, Bolivia, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Mexico, Panama and Venezuela.

obtaining information on the size of each segment (and thus its impact on business activity), and for taking better focused production development measures.

The results obtained both from our documentary research and from the investigation within the FUNDES network provide a first indication of how heterogeneous the situation of MicSMEs in Latin America is. Countries in the region use different criteria to define enterprises: employment, turnover, assets and others (table 1), and some countries use more than one criterion (and hence more than one definition). Most frequently, however, definitions are based on employment (eight countries), turnover/revenue (six countries) and assets (four countries). Some countries also vary the definition depending on whether the economic unit concerned is engaged in manufacturing, trade or services. There are even countries where the definitions vary with the institution producing them, with each institution applying its own definition when formulating development policies.

On the basis of the definitions referred to in the previous paragraph, the number of enterprises was determined for each of the countries considered (table 2), using official sources –such as economic censuses, when available– or public- or private-sector calculations considered meaningful. Most of the information is for the second half of the 1990s (except for Colombia and Argentina). In some cases the data available relate only to the manufacturing sector, while in others use has been made of samples that are in some way representative; some countries only supply information on enterprises that are registered in some way. From this it may be inferred that the sample underestimates the real number of economic units in each country, and accordingly in Latin America as a whole. It nevertheless provides a starting point for considering the situation of enterprises in the region.

Although it does not make much sense to add together the figures in the table (in view of the problems mentioned in the previous paragraph), if we

TABLE 1

Definitions of enterprises

	Criterion	Microenterprise	Small enterprise	Medium-sized enterprise	Large enterprise
Argentina[a]	Turnover	Up to 0.5	Up to 3	Up to 24	More than 24
Bolivia[b]	Employment	Up to 10	Up to 19	Up to 49	More than 49
Chile[c]	Turnover	Up to 2,400	Up to 25,000	Up to 100,000	More than100,000
Colombia[d]	Employment	Up to 10	Up to 50	Up to 200	More than 200
Costa Rica[e]	Employment	Up to 10	Up to 30	Up to 100	More than 100
El Salvador[f]	Employment	Up to 4	Up to 49	Up to 99	More than 99
Guatemala[g]	Employment	Up to 10	Up to 25	Up to 60	More than 60
Mexico[h]	Employment	Up to 30	Up to 100	Up to 500	More than 500
Panama[i]	Revenue	Up to 150,000	Up to one million	Up to 2.5 million	More than 2.5 million
Venezuela[j]	Employment	Up to 10	Up to 50	Up to 100	More than 100

Source: Prepared by the BEE units of the FUNDES network using data from the Secretariat for Small and Medium-sized Enterprises and Regional Development (SEPYME) of Argentina; the Vice-ministry for Microenterprises, Ministry of Labour (Bolivia); the National Socio-economic Survey (CASEN) and the Production Development Corporation (CORFO) of Chile; the MicSME law of July 2000 (Colombia); the Ministry of Economic Affairs (Costa Rica); the Department of Statistics and Censuses (El Salvador); the National Institute of Statistics, the Chamber of Commerce and Promicro (Guatemala); the National Council for Micro, Small and Medium-sized Enterprises (Mexico), Law 33 and Law 8 of 2000 (Panama), and the Central Statistics and Informatics Office (Venezuela).

[a] In millions of pesos. Definition for manufacturing. There are others for trade and services, also based on annual turnover.
[b] Various criteria are used: employment, turnover and assets. The official definition, however, is based on employment.
[c] In *unidades de fomento* (UF). One UF is equivalent to approximately US$ 24. There is also another definition, based on employment.
[d] There are two definitions, one based on employment and the other on assets.
[e] There are other definitions, based on investment and annual turnover.
[f] The official definitions are based on employment and assets (National Commission on Micro and Small Enterprises - CONAMYPE).
[g] Definition of the National Institute of Statistics. There are two more, used by the Chamber of Commerce and Promicro respectively (all are based on employment).
[h] Definition for manufacturing. There are others for trade and services, also based on employment.
[i] In balboas or dollars (one-to-one parity).
[j] Definition only for manufacturing. There are no definitions for trade or services.

TABLE 2

Latin America (10 countries): Number of enterprises

Country	Year of information	Micro-enterprises	Small enterprises	Medium-sized enterprises	Large enterprises	Total
Argentina[a]	1994	814 400	69 500	7 400	5 200	896 5000
Bolivia[b]	1995	500 000	1 007	326	234	501 567
Chile[c]	1997	432 431	78 805	10 870	4 814	526 920
Colombia[d]	1990	657 952	26 694		821	685 467
Costa Rica[e]	2000	58 620	14 898		1 348	74 866
El Salvador[f]	1998	464 000	12 398	502	316	477 216
Guatemala[g]	1999	135 000	29 024	9 675	2 438	176 137
Mexico[h]	1998	2 676 327	85 223	24 461	7 307	2 793 318
Panama[i]	1998	34 235	5 601	1 149	1 239	42 224
Venezuela[j]	2000	...	8 701	2 613	776	...

Source: Prepared by the BEE units of the FUNDES network using data from the sources cited in table 1.

[a] The total is 903,995 if so-called auxiliary enterprises are included. Data from the national economic census conducted by the National Institute of Statistics and Censuses (INDEC, 1994).
[b] Estimate of the Centre of Studies for Labour and Agricultural Development (CEDLA).
[c] CORFO data.
[d] Data from the economic census conducted by the National Administrative Department of Statistics (DANE, 1991). Other sources, however, indicate that in 1991 there were almost one million enterprises (Econometría Ltda.).
[e] There is no breakdown between small and medium-sized enterprises. Data from Castillo and Chávez (2001).
[f] Only industry, trade and services. Data from the Ministry of Economic Affairs and the National Commission on Micro and Small Enterprises, obtained from the annual economic survey (CONAMYPE, 2002) and the microenterprise survey (CONAMYPE, 1995).
[g] Industrial enterprises in the metropolitan area only. Data from the National Institute of Statistics, Industrial Census.
[h] Only manufacturing, trade and services; including other economic units, the total is 3.1 million. Data from the National Institute of Statistics, Geography and Informatics (INEGI), economic censuses.
[i] Data from the Directory of Establishments prepared by the Ministry of the Comptroller General and Administrative Development.
[j] Only industrial enterprises. Data from the National Institute of Statistics (formerly OCEI). There is no official information on microenterprises or on trade and services enterprises. The Bolívar programme made an estimate of about 480,000 enterprises (Páez, 2001).

nevertheless do so, we arrive at a figure of approximately 6.2 million economic units of various sizes in the countries considered.

Strictly speaking, and using the official definitions in each country, there are at least 400,000 small and medium-sized enterprises in nine countries (with the particularities and biases in the information already mentioned), excluding so-called "microempresas de acumulación" ("accumulation microenterprises") which form part of the "empresa media" or "middle class enterprise" level.

The term "empresa media" was coined in Mexico in order to create a single classification combining SMEs with microenterprises deemed to have development potential. This new classification goes beyond the usual practice of distinguishing between subsistence microenterprises and those with development potential solely on the basis of the number of workers employed. Although the number of workers does give a quantitative idea of a microenterprise, it gives no indication of its qualitative characteristics. Other factors must be included to reflect business attitude.

To include such factors, use was made of some questions from the 1996 Mexican National Microbusiness Survey, prepared by INEGI. Four questions in particular were considered. The first two relate to structural aspects: the type of hierarchical structure in the enterprise, and some of its physical characteristics. The other two are concerned with the entrepreneurial aptitudes or characteristics of the person running the business: the reason for initiating it and the way he or she sees the enterprise developing.[2]

[2] The first question concerned the position of the person operating the business; the options were employer (16.2%) or own-account worker (83.8%). The second asked whether the business had its own premises (71%) or not (21%). The third sought to ascertain why the owner had started the business, and the possible responses were: family tradition (6.2%); to supplement the family income (28.7%); to have a higher income than in wage employment (32.9%); failure to find wage employment (19.2%); flexible working hours (4.5%); laid off because of personnel cutbacks

A simple average of five variables (the four questions and the number of workers) was calculated on the basis of the statistics yielded by each response, giving an idea of the size of the middle class enterprise sector in Mexico. This sector is thus deemed to include all medium-sized and small enterprises and 25.3% of microenterprises. The percentage of microenterprises arrived at is similar to that indicated in other studies, such as one by the Organisation for Economic Co-operation and Development (OECD, 1997), where it is stated that a significant proportion of microenterprises, perhaps 25% or more, are growth-oriented and perform an important role in generating economic growth and flexibility.

On this basis, it may perhaps be speculated that about 25% of microenterprises can be categorized as middle class enterprises. If small and medium-sized enterprises are added in, we are looking at a little over 1.6 million enterprises in these countries in the region which could be targeted by initiatives to enhance competitiveness.[3]

For this group of countries, about 92% of all production units covered by the statistics in table 2 are defined as microenterprises, just over 7% are SMEs, and a little less than 1% are defined as large enterprises.

This information is at odds with the common perception of the weight of SMEs in the business structure, or at least with the frequent confusion between SMEs and MicSMEs. Adopting a concept like that of the "middle class enterprise" thus seems to be a step in the right direction for concerted business development policy planning between the public sector and the private sector in the region.

It is necessary to recognize the different characteristics of the categories that make up the "middle class enterprise" sector (medium-sized and small, and a percentage of microenterprises), as each type needs different kinds of development measures. In many cases it is the degree of relative development of each company type that determines support and/or development needs. In the case of microenterprises, the policies established over time have had a clear welfare-oriented bias that has only served to perpetuate their situation without bringing qualitative improvements. To remove the most dynamic group from this category and include it with "middle class enterprises" would be an improvement, as it would mean that group having access to measures better suited to its particular circumstances.

Meanwhile, the geographical and sectoral distribution of enterprises indicates where businesses are concentrated and what their main economic activity is. Patterns of geographical location are associated, in principle, with resource endowments or comparative advantages. For example, exporters seek locations with good physical infrastructure endowments (transport and communications), while economic units developing products are interested in proximity to educational institutions.

Research by the FUNDES network shows a high concentration of economic units in the countries' capitals, and in other large cities. This is because concentrating activities in large cities generates economies of agglomeration that help to reduce production costs in many economic activities. In clusters of this type, moreover, the cost-effectiveness ratio –i.e., efficiency– can be improved, owing to a number of factors that include the concentration of population, the large number of distributors, the availability of financial and commercial services and access to information on external markets and technology. In this situation, low-productivity enterprises (such as SMEs) also benefit from the production chains that are generated. As a result, SMEs too tend to concentrate in large cities.

The evidence on regional development processes in Latin America shows that concentrations of

(3.2%); and other reasons (5.3%). Options 1 and 3 were considered indicative of entrepreneurial business owners, who thus accounted for 39.1% of microenterprises, with the remaining 60.9% operating subsistence enterprises. Lastly, people's plans for their businesses were considered, with the following results:

1) To continue with the business:	
1.1 Without significant changes	67.7%
1.2 With a larger product line	7.2%
1.3 Making new investments	9.5%
1.4 Increasing the number of workers	0.8%
1.5 With another plan	2.2%
1.6 Don't know	0.8%
2) To change the line of business	5.3%
3) To give up and seek wage employment	3.9%
4) To give up and follow another plan	1.3%
5) Don't know	1.3%

Responses 1.2, 1.3, 1.4 and 1.5 were considered indicative of an entrepreneurial perspective. Thus, 19.7% have an entrepreneurial attitude, while 80.3% do not, at least not explicitly (Zevallos, 2000).

[3] Taking into account three groups of enterprises (microenterprises with development potential, middle class enterprises and large enterprises), each with different characteristics and needs. It should be borne in mind, however, that drawing inferences for the region is risky, because while the proportion of microenterprises in the middle class enterprise sector in Mexico (25.3%) is very similar to the figure given by OECD (25%), this does not necessarily mean that the entire region has the same business structure.

population are the result of concentrations of economic activity, which in turn results from the identification of some comparative advantage or economies of agglomeration. Table 3 shows how heavily concentrated business activities are in some of the developing countries considered. Rather than being one-off cases, these reflect the general situation in the region.

In all cases, the greatest concentration of business is clearly in the capital and in the economically most important regions of the countries.

Some relevant sectoral information can also be obtained (based on the relative proportions of manufacturing, trade and services). As can be seen from table 4, the data also show that trading and service activities are highly concentrated in most of the countries for which information is available.

On average, the sectoral composition in these countries is 13% manufacturing, 53% trade and 34% services. This information suggests that although manufacturing is the activity that on average generates the greatest value added, trading and service activities are more common in the countries of the region. The reasons for this include the business environment, current regulations and the fact that manufacturing requires more in the way of skills and qualifications than do the other two sectors (the bulk of services in Latin America are what are known as personal services, which add little value).

TABLE 3

Latin America (eight countries): Number of regions (states/departments) where 50% of all enterprises are located

	Percentage	Number of regions out of the total
Argentina[a]	55.2	3 out of 20
Chile[b]	48.5	2 out of 13
Colombia[c]	49.0	1 out of 7
Costa Rica[d]	74.8	1 out of 6
El Salvador[e]	55.3	2 out of 14
Mexico[f]	48.1	6 out of 32
Panama[g]	52.4	1 out of 9
Venezuela[h]	51.5	2 out of 9

Source: Prepared by FUNDES using information collected by the BEE units of the FUNDES network.

[a] Federal Capital + Greater Buenos Aires + the rest of Buenos Aires.
[b] Metropolitan Region and Bío Bío.
[c] Bogota alone (followed by Valle with 15% and Antioquia with 14%).
[d] Central region.
[e] San Salvador and Santa Ana (then La Libertad with 11.4% and San Miguel with 10.6%).
[f] Mexico City, Mexico State, Veracruz, Jalisco, Puebla and Guanajuato.
[g] Panama City alone (followed by Chiriquí with 14.8%).
[h] Capital and central area (followed by the centre-west area with 16.7%).

TABLE 4

Latin America (eight countries): Sectoral distribution of enterprises[a]
(*Percentages*)

	Manufacturing	Trade	Services
Argentina	13	52	36
Colombia[b]	26	31	43
Chile[c]	11	41	16
Costa Rica[d]	19	33	48
El Salvador	11	62	27
Guatemala[e]	16	47	37
Mexico	13	52	36
Panama	8	55	36

Source: Prepared by FUNDES using information collected by the BEE units of the FUNDES network on the basis of official data or sectoral studies.

[a] In some countries the figures may not add up to 100% because there are other sectors not included here.
[b] SMEs only.
[c] In the service sector only personal services and restaurants are considered. Other sectors are not included.
[d] The figure for the service sector includes transport and communications and is for SMEs only.
[e] SMEs only.

III
The business environment for MicSMEs in Latin America

The conditions under which MicSMEs in the region operate are not particularly favourable. This is largely due to their internal capabilities (low level of technology take-up, insufficiently skilled workers and/or owners themselves, poor management, low productivity), but it is also true that certain aspects of the business (and institutional) environment affect them to a greater extent than large enterprises.

This can be appreciated by considering the structural conditions that prevail in the region's economies, which have not adapted to new global trends quickly enough for their structures to be reshaped as required to meet the new challenges of a globalized world. These structures include institutions, defined as the ground rules within which citizens (and, obviously, enterprises) have to act.

1. The weight of institutions

Many processes associated with the period of economic stabilization that the countries of Latin America went through from the mid-1980s to the early 1990s affected company performance in different ways and to different degrees. One of these processes was trade liberalization, which created a new situation for enterprises and their relationship with domestic and external markets.

This process of change generated expectations among Latin American citizens, as the model it was replacing had run its course. Change has been slow, however, and there has been little sign of much favourable impact on society. As a result of these and other factors, the model has come to be viewed with scepticism by citizens, and some initial successes have not had the effect they might owing to adverse expectations (which in some cases could become self-fulfilling prophecies). The apathy and mistrust displayed by citizens towards certain public initiatives, and implicitly towards institutions and policies, is a consequence of this.

Citizen (and of course business) confidence in the basic institutions of the Latin American States is a key factor for understanding their economic performance. The situation is very different from that of the industrialized countries, where institutions and economic performance are largely independent of one another. In our region, by contrast, unfavourable expectations with regard to institutions are generally a prelude to adverse economic results. At times, such expectations are generated by interest groups that have lost out from policy measures in the "redistributive struggle".

Wiarda and Kline (1985) claim that Latin America has increasingly become a society in conflict, where old standards and institutions have been called into question as society has divided into new groupings, each with its own view of the direction the country should take. A democratic government may come briefly to power, only to be followed by a new military regime or by populist politicians calling for a reform programme, who are replaced in turn by an oligarchic-conservative government. They add that conflicts in the region are often profound, the gaps that divide contending groups and classes are immense, and there is intense resentment among those who are not in the government, be it left-wing, right-wing or centrist, but who may come to take part in it and govern effectively with the expectation of surviving for a long time.

Latin American society can be described as a society divided into groups or sectors, each of which has fought for its own interests (particularly important is the struggle for public resources, as a rent-seeking exercise), which to some extent are not complementary and may even be mutually exclusive among sectors. This has resulted in the disparities between the different economic and social development projects that each of the different groups has implemented whenever they have succeeded one another in power.

The organization of society into economic and political interest groups has thus been the basis for conflicts between capital and labour, between exporters and industrialists and even among regions. Although SMEs are not necessarily part of this conflict (since, at least at present, they are not strong enough politically to become an interest group in the region), their participation in this process will probably vary depending on who the winners and losers in the redistributive struggle are.

The visible signs of such conflicts are to be found in the economic policy issues that are decided whenever "regime change"[4] takes place in the Latin American countries, including such important matters as:

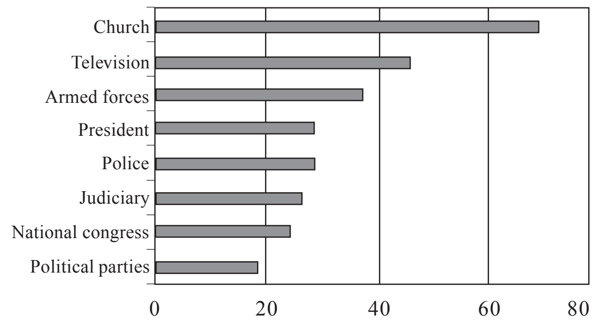
– The role of the State in the economy
– The existence or otherwise of income redistribution policies
– The choice of "priority areas" for government
– The tax structure
– The type of trade policy
– Interest rate policy (rates set by the market or regulated by the State to meet "strategic objectives" or serve the needs of "priority sectors")
– Exchange-rate policy (floating, controlled or regulated exchange rate)
– Prices policy
– Monetary policy
– Labour market policy (employment terms and wages decided by the market, State involvement in determining these, mixed regimes)
– The role of foreign investment (free, regulated or restricted entry)
– The role of the State in law-making (to regulate life in society, promote certain activities, etc.)

All these economic policy variables are constantly being altered by governments, making it impossible for investors to regard new measures as permanent and plan accordingly. The effect of such changes in the policy variables mentioned has been to create uncertainty and thus cause investors to delay or simply withhold investment, resulting directly in lower economic activity. This uncertainty is reflected in the degree of trust felt by citizens in the institutions on which national States are based. As we see in figure 1, the institutions that inspire most trust among citizens are not those on which States are based.

Lack of citizen trust in such important institutions as the presidency, political parties or congress has a negative impact on economic activity: i) if the conditions obtaining in economies that are in a state of transition include the presence of old, outmoded practices from the previous model and heavy bureaucratic structures that confirm citizens' perceptions and tend to reduce the inherent competitiveness of economic units; ii) if the lack of "visible results" undermines the confidence of citizens, who hardly distinguish between public-sector actions (positive and negative) and the institutions that carry them out, which they see as ineffective; iii) if citizens take an attitude of apathy and scepticism towards institutions and policies whose visible effects include lower investment and sales. These variables have a tremendous impact on economic expectations in the region.

FIGURE 1

How much confidence do you have in the following institutions?[a]



Source: Taken from *The Economist* of 13 December 2001 (www.economist.com), with information from *Latinobarómetro*.

[a] Percentage saying "a lot" and "some".

Political instability and economic instability in Latin America (the two are closely connected and have been extensively studied)[5] exacerbate any problems since, by undermining the trust of citizens and the credibility of institutions, they have a negative impact on consumption, investment and, ultimately, gross domestic product (GDP). By way of example, table 5 shows the performance of GDP in two groups of countries (developed and developing) and their standard deviations with respect to average growth.

The standard deviation of the GDP growth rate shows how variable this has been in relation to its average value.[6] This variability is markedly higher in the Latin American countries than in the industrialized ones, although on average their growth rates have been similar. One result of such unstable growth is that investors have little faith in the continuity of policies.

These are the conditions of institutional credibility in which public policies and business development

[4] The expression "regime change" is used here to refer not so much to changes of government –whether or not these come about democratically– but to changes in the direction of economic policy as a result of political and/or economic crises (although the one is unlikely to occur without the other).

[5] See, among others, Alesina and Perotti (1994); Borner, Brunetti and Weder (1992); Knack and Keefer (1995).

[6] A high value for this variable indicates great variability in the rate of GDP variation (instability), while a low value reflects a low degree of variability (stability).

TABLE 5

Some developed and developing countries: Mean and standard deviation of the real GDP growth rate, 1961-1996

Country	Mean	Standard deviation
Germany	2.95	2.27
Canada	3.78	2.44
United States	3.02	2.13
France	3.32	2.02
Italy	3.45	2.56
Japan	5.53	3.60
United Kingdom	2.31	2.13
Developed country average	3.48	2.45
Argentina	2.35	5.37
Bolivia	3.42	3.15
Chile	4.09	5.62
Costa Rica	4.59	3.60
Mexico	4.62	4.02
Peru	3.27	5.54
Uruguay	2.07	3.95
Developing country average	3.49	4.47

Source: Zevallos (1998).

initiatives have to be carried out. There are also the requirements of the new economy, which in the process of globalization has developed a new production and institutional framework requiring enterprises to make substantial improvements in their processes and ensure flexibility, quality and low prices, and requiring countries to establish systemic policies to promote production. In these circumstances, what are the exogenous factors that affect the performance of MicSMEs?

2. The business environment as seen by enterprises

The FUNDES Business Enabling Environment Conditions Programme has conducted research in different countries of the region to ascertain the conditions under which businesses operate and the relative importance they assign to them. From our own research, we had an "inventory" available for three countries in the region: Argentina, Colombia and Costa Rica.

Although the following do not represent all the problem areas for enterprises, we concentrate on them because, from the methodological point of view,[7] they do include the largest quantity of important aspects of the difficulties facing smaller enterprises:

– Finance
– Technology and information
– Marketing and external trade
– Regulatory structure and competition
– Organization and cooperation
– Human resources
– Other factors

Each of these areas in turn has its particular set of problems with an order of importance that is not necessarily the same for all countries but that is sufficiently representative of the general issues. The most representative elements for the business environment in three countries are presented in table 6.

Some of the main issues in the different areas are as follows. With regard to finance, businesses complain that they lack access to the formal financial system as a mechanism for obtaining credit. In the area of technology and information, the main difficulty is the lack of appropriate technology for enterprises and the dearth of relevant information on markets, supply, demand and other aspects. With regard to marketing, again, the problems result from asymmetry in the relationship between small and large enterprises. This asymmetry is also reflected in the regulatory structure, and in the relationships of patronage and corrupt practices that prevail in many dealings with the authorities.

Cooperation among enterprises is being seriously neglected because of the enormous asymmetry in the relationship between large and small enterprises, owing to the market power of the former. The absence (or scarcity) of organizations representing SMEs also reduces the opportunities for them to make their demands known. Meanwhile, the inappropriate orientation of school, technical and occupational education has resulted in some specialities becoming over-subscribed to the detriment of others. In addition, poor linkages between enterprises and the school system have meant that the education provided is inappropriate for business needs. It is for these reasons among others, in the opinion of business people themselves, that enterprises are unable to improve their competitiveness.

Table 6 provides a summary, from the demand side, of the situation of enterprises in relation to the business environment. Its significance becomes clear when it is compared with the public and/or private activities (the supply side) carried out for the benefit of enterprises as part of a systematic support policy, in the form of isolated initiatives, or as a combination of the two.

[7] We use the FUNDES/IDB (2002) classification.

TABLE 6

Argentina, Colombia and Costa Rica: Problems of small enterprises, by area

Area	Argentina	Colombia	Costa Rica
Finance	Bank commercial platforms inappropriate/little access to financing	Access to credit/ venture capital	Borrowers undefined/excessive requirements and formalities/ high rates and restrictive repayment schedules/limited options
Technology and information	Inadequate consultancy services (soft technology)	Little access to technology/ lack of information systems	Lack of advanced technologies/ inadequate technology infrastructure
Marketing and external trade	Ineffective export promotion/ excessive bureaucratic formalities for foreign trade	Export provisions/smuggling/ informal economy	Restricted access to foreign markets
Regulatory structure and competition	Overpayments and corruption in procedures/concentration of supply and/or demand/lack of legal security	Protection of trademarks and patents/environmental requirements/complexity of company start-up process/ inconsistency and arbitrariness	Barriers to entry in internal market/ excessive general operating formalities
Organization and cooperation	Large enterprises do not favour modernization of SMEs/inadequacy of employers' organizations	Interests poorly represented	Ineffective production chains (sectoral linkages)/lack of entrepreneurial culture
Human resources	Inadequate training services	Social security contributions/ lack of qualified personnel/ other labour provisions	High level of social security contributions
Other	Little use of public support instruments/cost of infrastructure services	Fiscal charges/encroachment of public space (inadequate guarantee of ownership rights)/ centralization	High cost of public services/ ineffective promotion and support policies/inadequate support network

Source: Prepared by FUNDES on the basis of Yoguel, Moori and others (1999), Howald (2001) and Castillo and Chávez (2001).

3. Business development policies

How has the public (and/or private) sector reacted to the problems of smaller enterprises? There is no single answer to this question. One feature that is common to all the countries, however, is the power which has been assigned, at least in theory, to the law as an instrument for responding to business problems.

In many countries of the region there is a tendency to think that passing laws is the way to solve many of the problems for which public action is required, and hence legislation, regulations and rules are enacted. These measures, in turn, tend to generate new organizations, instead of direct public action. A clear example of this is the law enacted in Panama in 2000 (Law 8, creating the Authority for Micro, Small and Medium-sized Enterprises, or AMPYME), the purpose of which is to "generate employment, improve wealth distribution and reduce poverty levels (37% of the country's population)" (Cuevas, 2001).

Unfortunately, there is no sign in Latin America of any positive correlation between the creation of new regulations and the solution of the problems they are intended to address. In fact, the new regulations often go to swell a body of existing ones, generating higher transaction costs (associated with the need to study and understand the new rules) for enterprises and individuals.

Another frequent response to business (or social) demands are development measures. Here again, the countries are not all similarly placed. There is, however, a tendency to place great faith in initiatives designed to strengthen business competitiveness.

Some authors[8] suggest, furthermore, that development policies are more rhetorical than real if they are not backed by the necessary financial and human resources.

[8] See Dussel Peters, 2001, for an analysis of the situation in Mexico.

In all cases, efforts (real or simulated) to shape a structure that meets the needs of smaller enterprises are constrained by the need to maintain macroeconomic stability.

Accordingly, three options are available (although the most common, these are not necessarily the only ones): i) a specific legal framework (for example a MicSME law) which usually, but not always, provides for some kind of organization to coordinate public-sector initiatives; ii) a general legal framework with a MicSME dimension, i.e., some provision is made for MicSMEs in general laws (such as preferential treatment in fiscal, labour and other laws), and iii) specific development measures with varying degrees of coordination among them. In relation to such measures, table 7 shows the whole range of policy proposals.

In many of the region's countries there seems to be a groundswell of support for the creation of enterprise development laws. Although this has not yet brought observable results in most countries, it seems to indicate that governments are taking MicSMEs into account in their public policies. There are legal initiatives of this type in Argentina, Colombia, El Salvador, Mexico, Panama and Venezuela, among the countries considered here.

Table 7 illustrates some of the characteristics of what could be called a "development policy", in terms of whether or not there is a specific legal framework and/or a MicSME dimension in the general legal framework. It also shows whether or not there is a national programme for business development, who formulates and implements the policy, the degree of

TABLE 7

Latin America: Basic aspects of MicSME development policy

	ARG	BOL[a]	CHL	COL	CRI	SLV	MEX	PAN	VEN[b]
There is a specific legal framework for SMEs	Yes	No	No	Yes	No	No	Yes	Yes	Yes
There is an SME dimension in general legislation (e.g., specific articles for SMEs in fiscal and labour law, etc.)	Yes	No	No	No	Yes	No	No	Yes	NR
There is a national SME development programme	No	No	Yes	Yes	No	Yes	Yes	No	Yes
There is an SME dimension in general development programmes	No	No	Yes	Yes	Yes	No	Yes	No	Yes
There are public-sector organizations specializing in SMEs	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
SME development policies are decentralized	Yes	No	No	No	No	No	Yes	No	Yes
The operators of SME development programmes are public-sector, private-sector or both	Both	Both	Both	Both	Both	Both	Both	Both	Both
The private sector provides direct support services to SMEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
If the answer to question 8 was yes, who provides them? (e.g., chambers of commerce, universities, NGOs, etc.)	[c]	[c]	[c]	[c]	[c]	[c]	[c]	[c]	[c]

Source: Prepared by FUNDES on the basis of a survey of BEE unit consultants.

[a] The support policies are for micro and small enterprises.
[b] Answers refer to small and medium-sized enterprises.
[c] The responses to the last question are as follows: *Argentina*: all; *Bolivia*: non-governmental organizations (NGOs), foundations; *Chile*: private-sector enterprises and consultants, universities through third party agreements, etc.; *Colombia*: chambers of commerce, Colombian Association of Manufacturers (ACOPI), Business Development Centre (CDE), Technology Development Centre (CDT), private consultants, universities, foundations, NGOs; *Costa Rica*: chambers of commerce, NGOs; *El Salvador*: non-profit foundations, employers' associations, consultancy enterprises; *Mexico*: chambers of commerce, universities, NGOs; *Panama*: For non-financial services: FUNDES, National Union of Small and Medium-sized Enterprises (UNPYME), National Network of Organizations of Small and Medium-sized Enterprises (REDNOMIPEN), Latin American University of Science and Technology (ULACIT), Universidad Santa María La Antigua (USMA), Universidad Latina (ULAT), Panamanian Association of Executives (APEDE). For financial services: Credit Corporation (CREDIFUNDES), Cooperative of Small and Medium-sized Businesses (CACPYMER), El Educador Veragüense Saving and Credit Cooperative (COOPEVE), San Antonio Saving and Credit Cooperative (CACSA), Multicredit Bank, Mibanco, Global Bank, etc.; *Venezuela*: employers' associations (Conindustria, Fedeindustria), NGOs such as the Bolívar programme and the Popular Action Service Centre (CESAP).

policy decentralization, and the involvement of the private sector as a significant input for support measures.

Just as there is a degree of support for measures to enhance business competitiveness (which in Latin America is reflected in the growing interest in establishing specific regulations for SMEs), there have also been visible efforts to favour particular approaches or components in the structure of support measures and/or business development programmes. Thus, for example, these measures and programmes:

– Seek to remedy market failures
– Are based on the principle of subsidiarity
– Are demand-oriented
– Seek private-sector participation (in financing, implementation, etc.)
– Are based on (uniform) horizontal policies
– Development programmes cover different needs
– The variable (if any) normally used for evaluating programmes is the number of enterprises covered

In several of the region's countries, however (especially those that are more institutionally advanced and have more highly developed support policies), some of these characteristics are beginning to be replaced by others that are more oriented towards market sectors or segments.

Accordingly, the market orientation-based criterion of analysis used by the model now prevalent is beginning to be complemented by criteria such as systemic competitiveness (Esser, Hillebrand and others, 1994), microeconomic competitiveness (Porter, 2001) and others. With these, hybrid solutions for State involvement in the economy are being sought: there has been a movement away from the "facilitating" State along the lines of the minimal State (Nozick, 1991), which confines itself to protecting citizens from violence and theft and upholding contracts, and towards the State as "promoter", which seeks to eliminate or diminish obstacles in the commercial environment in order to enhance the competitiveness of enterprises, thus maximizing the impact of public- and private-sector support initiatives.

The policy options adopted by countries and the characteristics of the policies applied give rise to specific actions in each of the areas listed in table 6. Table 7 provided an overview of the countries' support structure ("development policy") for SMEs. Table 8 below shows (for the same areas as were indicated in table 6) the support measures and respective programmes available to MicSMEs, this information being based on the findings of a short survey we conducted among consultants with the FUNDES network in nine countries. This article does not seek to evaluate either the efficiency of the programmes or their internal consistency; the aim is merely to report on the support tools available in the countries of the region considered.

The description we give here is not exhaustive, but simply the result of an investigation of the promotional actions most frequently pursued in the Latin American countries and, within this context, of a set of areas also recognized as the most common. The aim is to identify gaps between support measures and company demands and, at the same time, to generate a debate on the way economic resources invested in promotion are used, with a view to optimizing this.

4. Some gaps

Despite the length of the list of basic development policy elements that appears in table 7, the demands of businesses tend to be numerous, not so much because initiatives are lacking but because they are ineffective. Hence the importance of conducting more in-depth research on the operations of the actual programmes. As part of the international research carried out by the Business Enabling Environment Conditions Programme some of the problems indicated by businesses have been identified:

– There are severe information problems that result in decisions (in both the public and private sectors) being taken on the basis of incomplete information
– The (more or less informed) perceptions of those responsible for development policies become the basis for action, often without consultation with the businesses that are supposed to benefit from them
– The financial and human resources needed to apply a determined policy of decentralization are not always available
– Programmes are not well publicized at the national (federal), departmental (state) and local levels (information problems)
– Programmes are heavily concentrated in the capital or in more developed areas (large cities). Although this reflects business concentration, it leaves enterprises in other areas disadvantaged and perpetuates the concentration of supply
– There is little coordination among development institutions in the public sector (ministries and other agencies), between the public and private sectors (between the government and business chambers and associations), and between national government and state (departmental) governments

TABLE 8

Latin America and the Caribbean: Most common lines of support for MicSMEs

Exists = X Does not exist = 0 No response = NR

	Argentina	Chile	Colombia	Costa Rica	El Salvador	Guatemala	Mexico	Panama	Venezuela
Financing									
Loan guarantee systems	X	X	X	0	0	0	X	0	X
Loans for MicSMEs	X	X	X	X	X	X	X	X	X
Venture capital funds	X	X	0	0	0	0	X	0	0
Leasing	X	X	X	X	0	X	X	X	0
Factoring	X	0	X	X	X	0	X	X	0
Discounted credit insurance premiums	0	X	0	0	0	0	X	NR	0
Discounted (subsidized) interest rates	X	0	0	0	0	0	X	0	X
Microcredits (to microenterprises/small loans)	X	X	X	X	X	X	X	X	X
Credit invoice (duplicata); supplier financing	X	0	0	X	X	0	X	X	NR
Financial assistance services	X	X	X	X	X	X	X	X	NR
Other financial instruments	X	X	X	0	0	0	X	NR	X
Loans for MicSMEs run by women	X	0	X	X	0	X	X	X	X
Financial assistance for new undertakings (seed capital)	0	X	X	0	0	0	X	0	0
Regional investment funds	X	0	NR	0	0	0	X	0	0
Technology and information									
Financial support	X	X	X	X	0	0	X	X	X
R&D tax credit	NR	X	X	0	X	0	X	X	X
Technological consultancy services	0	0	X	0	X	0	X	X	X
Enterprise incubators	X	0	X	X	X	0	X	X	X
Technology parks	X	0	X	X	0	0	X	X	X
One-stop shops	0	0	NR	NR	X	0	X	0	NR
Other technology and information programmes	X	X	NR	NR	X	0	X	NR	X
MicSME restructuring and management support programmes	X	0	NR	NR	X	NR	X	X	X
– Business advisers	X	0	X	0	0	0	X	X	0
– Competitiveness measures	X	0	X	0	X	X	X	X	X
– Quality programmes	X	0	X	X	0	0	X	X	X
– Other special programmes	X	0	X	0	0	0	X	X	NR
Technical assistance funds	X	X	NR	0	X	0	X	X	X
Marketing and external trade									
Special programmes	0	X	NR	NR	0	0	X	X	X
– Funds	0	X	X	NR	0	0	X	X	X
– Programmes for new exporters	0	X	X	NR	0	0	X	X	X
– Other programmes	X	NR	X	NR	0	0	X	X	X
Market information	X	NR	X	NR	X	0	X	X	0
Trade promotion support	X	X	X	NR	X	0	X	X	0
Attendance at trade fairs	X	X	X	NR	X	0	X	X	X
Brochures	X	X	X	NR	X	0	X	X	0
Export promotion services	X	X	X	NR	X	0	X	X	X
Regulatory structure and competition									
Evaluation of business impact	X	0	NR	NR	0	0	0	X	0
Review of tax structure	0	0	NR	NR	X	X	X	X	X
Simplified procedures for:	X	0	NR	NR					0
– registering companies	NR	0	NR	NR	X	X	0	0	0
– paying taxes	NR	0	NR	NR	X	X	X	0	0
– exporting (drawback)	NR	X	NR	NR	X	X	X	0	0
Labour market deregulation	X	0	NR	NR	0	0	0	X	X
Modernization of public administration	X	0	NR	NR	0	X	X	X	X

Table 8 (continued)

	Argentina	Chile	Colombia	Costa Rica	El Salvador	Guatemala	Mexico	Panama	Venezuela
Organization and cooperation									
Organizations that encourage entrepreneurial values, through forums, documents, etc.	X	X	NR	NR	X	0	X	X	NR
Clusters	0	0	X	NR	X	0	X	X	X
Strengthening of local government	X	X	X	NR	X	0	X	X	X
Improvement of human resources management	0	0	X	NR	X	0	X	X	X
Encouragement for regional location	X	0	X	NR	0	0	X	X	0
Local non-financial service centres	X	0	X	NR	X	0	X	X	0
Regional development agencies (to bring national instruments to the local level)	X	0	NR	NR	X	0	X	X	0
Human resources									
Tax credit for training	X	X	NR	0	X	X	X	0	X
Occupational training:	X	X	X	0	X	X	X	X	X
– women/young people	X	X	X	NR	X	X	X	X	X
– businessmen/women	X	X	X	NR	X	X	X	X	X
– workers	X	X	X	NR	X	X	X	X	X
National training programme	X	0	NR	0	X	X	X	0	X
Private-sector training services	X	X	X	X	X	X	X	X	X
Public-sector training services	X	X	X	X	X	X	X	X	X
Other activities									
Improvements to public services (infrastructure)	NR	NR	NR	NR	X	0	X	X	NR
(Special) programmes involve joint financing or a particular degree of subsidy to the enterprise	X	0	NR	NR	X	0	X	0	NR
Other activities (specify)									

Source: Prepared by FUNDES on the basis of a survey among consultants with the BEE units of the FUNDES network in nine countries.

– There is little integration between enterprises and the school system (reflected in growing professional unemployment or underemployment owing to a lack of dialogue about investment in programmes useful for business)
– The access requirements of a number of support programmes tend to take a large number of enterprises out of the market. If the objective is selectivity this approach is appropriate, but this cannot be the case in situations where horizontality is presented as a principle of public initiatives

Perhaps the most representative feature of the situation described, seen from the supply side, is the lack of coordination among national government agencies, and between these and local governments.

In turn, coordination is inadequate because development initiatives are generated in isolation, those affected by them have little involvement in the generation of solutions, public agents have little contact with business realities, and there is a lack of collaboration among State organizations that compete for space within the system of government.

IV

Opportunities for improvement

Comprehensive business development action involves a range of measures, from deciding on a medium- and long-term economic orientation to fostering the values of entrepreneurialism and collaboration. This is clearly a long-term task. In the areas indicated, however, there are several ways of bridging the gap between the demands of businesses and the services on offer.

1. Finance

A recurring problem for enterprises is that of access to capital. This problem is derived from failings in the capital market, such as the low level of venture capital financing, excessive bureaucracy, high rates and short repayment schedules.

Among the lines of support examined, however, are MicSME loans and microcredits. The paradox is that lines of credit for economic units of these types are supposed to exist in all the countries. Our task therefore is to find out why the supply is not reaching the demand, at least in sufficient amounts (or with appropriate repayment terms and/or conditions), and also to ascertain the degree of market penetration of the financing available and what mechanisms can be created to improve access and financing conditions. This is an area of special interest in countries where institutional reforms are beginning, or where there is no experience with modern financing mechanisms.

2. Technology and information

In this area, the main problems are the lack of appropriate technology at accessible costs and the low level of access to the technology that is available for modernizing equipment or machinery, for product design and the like, and for management tasks and training. In addition, the lack of effective information systems (for supplier and customer records, among other things) also constrains the competitive development of economic units.

With regard to technology, unlike the financial area, there is greater heterogeneity in the lines of support, which clearly shows the lack of direction of programmes in this area. In several of the countries considered, either such programmes do not exist or they are not known about. Although it is their relative underdevelopment that usually limits their technological potential, it still provides an opportunity for them to implement effective technological projects. An important factor is that in almost all these countries financial support is available for technological development.

With regard to information, most of the Latin American countries considered lack one-stop shop systems. With the support of national or international intermediate organizations, however, some of them have begun to establish "*ventanillas únicas*" (single windows) for official formalities. This offers an opportunity for them to apply the lessons of successful experiences in other countries of the region.

3. Marketing and external trade

This topic is growing in importance for MicSMEs, as a small but growing number of them are beginning to enter foreign markets with some success. The problems that afflict them are clearly those of access to information and services, along with some provisions and/or procedures that are an obstacle to trade, among other things. With regard to markets, unfair competition from the informal sector also constitutes a limitation for formal enterprises (and even amounts to an incentive to "informalize" some activities).

Obviously, the opportunities for MicSMEs to enter foreign markets depend on their internal conditions (such as the quality of their output, price and market access opportunities). A good-quality transport and communications infrastructure, however, and the existence of a logistical and information support infrastructure that facilitates the task of the exporter, are competitive advantages in which the public and private sectors can collaborate and which can help exporting MicSMEs to enter new markets. Mechanisms for providing assistance and information to exporting MicSMEs may be generated on the basis of one-stop shops that complement the single window function with information and assistance services.

On the other hand, resolving the issue of informality is beyond the capacity of institutions, so this must be dealt with by a joint effort of the whole of society. The generation of mechanisms to "formalize" enterprises under simplified schemes, although not a solution, usually improves the conditions under which enterprises can operate in the formal economy, thereby reducing the incentive to join or remain in the informal sector.

4. Regulatory structure and competition

Most of the countries in the region have already passed through a process of structural adjustment and reform and are now at varying stages in a second process, known as institutional reform. At this point, bureaucracy and its more negative aspects (arbitrariness, corruption, discretionality) are the obstacles that businesses mention with the greatest frequency. The lack of trademark and patent protection (piracy), environmental requirements and a lack of legal security are also becoming a particularly sensitive problem for business.

At this stage in the process, however, the policy response tends to be slower, because the habits acquired by institutions[9] (and their informal rules of operation)

[9] The case of Mexico and the Solidarity Programme is a good

are usually more difficult to change. In this area, most of the countries are revising their procedures, modernizing their administration and even adding flexibility to legislation that has an impact on competitiveness (for example, labour legislation). In this process, "best feasible practice"[10] should be reviewed and adapted to our circumstances.

5. Organization and cooperation

In this area there are three perceptions among businesses that we should take into account: i) the lack of cooperation among economic units, a particularly complex aspect because it involves the human factor and people's willingness to cooperate or organize into groups; ii) the existence of a markedly asymmetrical relationship between MicSMEs and large enterprises, which favours the latter, and iii) the absence of an entrepreneurial culture in our societies.

Two of these perceptions are connected with the issue of education as training for life. This issue is beyond the scope of intermediate organizations, as it forms part of public education policy, although it is also related to education in the home and the fostering of habits of collaboration, among other aspects.

At the same time, one of the most important problems with regard to associativity is the lack of institutional representation: in most of the countries examined in the region, employers' associations represent less than 1% of all enterprises. This is even more marked in the case of MicSMEs, whose representation is generally subsumed into employers' associations dominated by large enterprises, which have different interests. This is in contrast, for example, to the situation in Taiwan, where the representation of MicSMEs has great political weight. A medium-term project could be to generate MicSME representation mechanisms.

The asymmetrical relationship between large enterprises and MicSMEs –one aspect being the absence of production linkages– is a major obstacle to the development of the latter. The public-sector (and private-sector) response to this issue is very fragmented and sometimes non-existent. Some countries have sought legal solutions based on regulations to encourage competition, but their scope has been very limited.

6. Human resources

There are two important and interrelated issues in this area: i) the view of businesses regarding the social security contributions they have to pay for workers, and ii) the effectiveness of occupational training instruments. Besides job skills, business skills also need to be considered.

The social security contributions payable in many countries differ greatly in relative impact. Labour-market deregulation has taken place in Latin America either through the legal framework (changes in laws) or in a de facto manner, through informal employment mechanisms. In this case, the State needs to strike a balance between encouraging business competitiveness and providing workers with the necessary protection.

In relation to the second point, almost all countries in the FUNDES network now have public- and/or private-sector training programmes. It is necessary to inquire, however, how wide their reach is, what purpose they serve and what their price-quality ratio is. Such questions are particularly relevant for the organizations that offer such services. One line of institutional action would be to make an inventory of training instruments (for job and business skills) in the countries, to evaluate the effectiveness of these instruments in comparison with the tools of the provider organization, and to offer governments services that come with an assessment of effectiveness (certified, for example, by an outside organization).

example. As it was impossible to modernize bureaucratic structures in order to improve the efficiency of this programme, President Salinas de Gortari created a "parallel bureaucracy" to implement it. The outcome was obviously better than it would have been with the established bureaucracy.

[10] A concept coined by Albert Berry to indicate the possibility of "adapting" solutions generated in countries where the degree of economic and institutional development provides initial conditions that are greatly superior to those of the less developed countries.

V
Conclusions

The situation of MicSMEs in the region displays major shortcomings in areas ranging from the statistical information available to public policies in the countries and specific development activities. There are great challenges to be overcome, but also interesting opportunities.

The present article provides information on the range of enterprises that exists, their geographical and sectoral distribution, and the demand from MicSMEs and supply of "products" for smaller enterprises, which is very significant.

Most of the countries in the region classify MicSMEs by the numbers employed. In general, SMEs make up between 3% and 20% of all economic units, depending on the number of microenterprises in each country. But if we include "accumulation" microenterprises or those with "development potential" in the SME group, the percentage increases significantly. This leads us to consider the possibility of adopting a broader concept of SMEs (such as the "middle class enterprise" concept used in Mexico). This broader definition would help widen the scope of business development policies to include economic units which at present only have access to support mechanisms that perpetuate a survival situation.

At the same time, the business environment in the region reflects situations that are far wider than specific aspects of support, such as the very economic and political structure of the countries, the variability of their economic policies and the uncertainty that this variability generates.

If we wished to characterize the public environment for smaller enterprises in the region, three main components would have to be mentioned: i) the instability of our economies, which discourages investment and distorts relative prices and thence the incentive structure, reducing confidence in economic performance and potentially in cooperation among enterprises; ii) the failure of governments properly to appreciate the problems of MicSMEs, and iii) the ineffectiveness of the institutional mechanisms of the State (structure) when it comes to resolving public policy dilemmas relating to business.

These three components have a significant influence on the way enterprises operate. The first has an impact on economic activity as a whole, increasing the instability of the economy and thence uncertainty; the impact on smaller economic units is greater because they are less well equipped to cope with economic fluctuations than are large enterprises. The second makes it harder for enterprises to find effective mechanisms for dealing with their problems, since there are gaps in development policy or excessive concentration on initiatives in one area that are ultimately redundant, further reinforcing the competitive disadvantages of MicSMEs. The third component has an impact that is essentially operational in nature, as it has to do with problems in the day-to-day working relationship between enterprises and the State (bureaucracy, discretionality, degree of compliance with rules).

Where economic instability is concerned, it is governments –in collaboration with private enterprise, intermediate organizations and other appropriate social partners– that have to set a medium-and long-term course, generate minimum agreements and take measures consistent with these goals. The action of intermediate organizations is peripheral, being confined to supporting measures that tend to generate stability (both economic and political) in national economies.

With the other components, the role of intermediate organizations becomes more significant. With regard to the second, most national governments have a variety of instruments in each of the areas identified as problematical by businesses. The measures they take, however, are not based on a prior diagnosis of demand, but rather on the more or less informed perceptions of politicians and public-sector agents. For a number of years, the idea of outsourcing services formerly provided by the State has been gaining ground. In such areas, the States should take advantage of the institutional experience of intermediate organizations.

As for the third component, the effectiveness with which solutions are implemented is dependent on programme design, which in turn is closely linked to the diagnosis of problems. A proper understanding of these problems is the basis for finding appropriate solutions, and so it is advisable to approach those who know them best, namely the people running businesses. Their participation in creating solutions is a guarantee of success.

FUNDES has been working to identify the "obstacles in the business environment"[11] which affect the performance of smaller enterprises. This work has served as a basis for the design and implementation of specific initiatives to solve business problems in a number of the region's countries. Initiatives such as the single window (Argentina), simplified official formalities (Costa Rica) and the development of a tax system for MicSMEs (Colombia) have resulted from efforts to diagnose the problems of the business environment.

[11] Defined as all the main problems affecting SMEs at the start-up, development or diversification stage of their businesses (FUNDES, 2000, p. 6).

Small but consistent efforts form the basis for more integrated initiatives. Latin America has been making progress in this direction; lack of information, however, continues to be a critical obstacle to the development of better oriented strategies. Good diagnoses are another prerequisite for developing policy that is consistent with the needs of producers. Plans and programmes with well defined objectives make it possible to generate attainment indicators, which are important when resources are scarce. Lastly, joint effort by a cohesive and collaborative private sector and a professional and committed public sector is an important supplementary factor for successful implementation of a business development strategy.

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Accountability in government *programmes to promote* small and medium-sized *enterprises*

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A potential threat to the effectiveness of institutions in Latin America promoting small and medium-sized enterprise (SME) development is that these programmes might become clientelistic agencies, advancing interests other than the welfare of the SMEs themselves. As governments in Latin America have adopted more market-oriented policies, however, government institutions in the region that promote SMEs are undergoing a similar transformation. Our hypothesis is that two factors, the extent to which an institution has adopted market-oriented practices and its degree of autonomy (both from government and from societal interest groups), are what determine its level of accountability, as measured by the extent to which the institution conducts systematic, independent evaluations of the impact of its programmes. The four cases examined here (SEBRAE in Brazil, NAFIN in Mexico, CORFO in Chile and SEPYME in Argentina) show that the hypothesis is valid for government institutions, but less so for private institutions with assured budgets.

I
Introduction

For a number of reasons, governments in Latin America have long promoted the development of local small and medium-sized enterprises (SMEs). Governments do this primarily because SMEs provide employment[1] and contribute to local economic growth and development. Nevertheless, a potential threat to the effectiveness of institutions in Latin America promoting SME development is that these programmes might become clientelistic agencies, advancing the interests of individual politicians rather than the welfare of the SMEs themselves. As governments in Latin America have adopted more market-oriented policies, however, government institutions in the region that promote SMEs are undergoing a similar transformation. Our hypothesis is that two factors, the extent to which these institutions have adopted market-oriented practices and their degree of autonomy (both from the government and from societal interest groups), are what determine their level of accountability, as measured by the extent to which the institution conducts systematic, independent evaluations of the impact of its programmes. This article examines and compares the practices and organizational structure of four different institutions –the Secretariat for Small and Medium-sized Enterprises (SEPYME) in Argentina, the Brazilian Assistance Service for Micro and Small Enterprises (SEBRAE) in Brazil, the Chilean Economic Development Agency (CORFO) in Chile and Nacional Financiera, S.N.C. (NAFIN) in Mexico– in order to assess the validity of this hypothesis.

II
The theoretical context

Debates about the role of SMEs in Latin America have continued since the International Labour Organization (ILO) published an early study on SMEs in Kenya in 1972 (ILO, 1972). In the 1980s, one influential study by the Economic Commission for Latin America and the Caribbean (ECLAC) concluded that there was an enormous gap between the hopes governments in Latin America placed in these types of firms, and the available evidence of their genuine potential.[2] As larger enterprises developed technologically, SMEs played an ever smaller role in the region's economic development. Although this problem resulted from a number of factors, the growing productivity gap between larger enterprises and SMEs was probably most important. However, another part of the problem was that, increasingly, SMEs were either not part of the more efficient, more technologically adept larger enterprises' production processes at all, or participated in them only in a subordinated way, as "junior partners" to the larger firms.

A recent study that describes the performance of small and medium-sized manufacturing enterprises (SMMEs) in 10 Latin American countries since the second half of the 1980s under the "new economic model" comes to three controversial conclusions (Peres and Stumpo, 2000). First, macroeconomic conditions

[1] SMEs employ between 40% and 50% of the workforce in Latin America (see Alburquerque, 1997, p. 155). Small and medium-sized manufacturing accounts for a large share of employment in the manufacturing sector: 45% in Argentina (1993), 67% in Brazil (1997), 53% in Chile (1996) and 45% in Mexico (1993), according to Peres and Stumpo, 2000, pp. 1643 to 1655.

[2] According to the overall information for Latin America in the 1980s, SMEs had a very limited position in the economic structure, showed a preference for domestic markets, and generally did not play a leadership role in the economic, political or institutional spheres. SMEs were usually oriented towards mass consumer goods, the utilization of rudimentary technology, and lack of inter-enterprise cooperation. Within firms, these factors give rise to many problems, including inadequate production conditions, an extraordinarily conservative management approach, a detrimental form of dependency on input and product markets, problems with access to financing and a low level of manpower skill.

have been the main determinants of SMME performance; second, trade liberalization has had a strong impact on sectoral restructuring within SMME production; and third, the effects of public policies aimed at fostering SMME development can be eliminated as an important factor. According to this study, in most countries, with the exception of Brazil and Mexico, public policies have had little impact because of a lack of financial and human resources and fragmented decision-making among government agencies.

While we would agree with the importance of macroeconomic conditions and the level of trade liberalization in promoting SME development, we would argue that the nature of the public agencies promoting SMEs can also have an impact. Whether the impact is positive or negative depends upon the specific characteristics and policies of the agency concerned.

As late as the 1980s, traditional government programmes to support the development of SMEs consisted largely of direct subsidies. The usual kind of subsidy consisted of loans with easy terms, such as low interest rates and long repayment periods. Since these were loans from the government, rather than commercial banks, many SMEs found that they could renegotiate the terms or postpone making payments. In this period, the majority of the national development banks in Latin America had a high-risk exposure with a low quality of loan portfolio. Over time, policy makers realized that making government loans to SMEs was not an effective policy.[3]

In response to these difficult lessons, as well as to the new consensus in Latin America in favour of economic restructuring, government officials decided that they would not only have to restructure government institutions designed to promote SMEs, but would also have to reformulate their policies towards SMEs.

In Brazil, CEBRAE (Brazilian Support Centre for Small and Medium-sized Enterprises), the government institution promoting SMEs, became SEBRAE (Brazilian Assistance Service for Micro and Small Enterprises), a private agency, in 1990. In Chile, CORFO (Chilean Economic Development Agency) began its own restructuring in 1990. In Mexico, NAFIN (Nacional Financiera, S.N.C.) began this transformation in 1989. In Argentina, lastly, Congress approved a special law in 1995 (Estatuto legal para las pyme) to promote SMEs. In 1997, SEPYME (Secretariat for Small and Medium-sized Enterprises) was created under the direct authority of the President.

All of this was consistent with the so-called "Washington Consensus" on economic reform in Latin America —a term United States economist John Williamson had coined to denote the set of market-oriented policies favoured by Washington, D.C. based institutions such as the IMF and the World Bank (Williamson, 1990).

Some Latin American authors, while agreeing on the importance of market-oriented policies, argued that there were some important differences between the views in Washington and Latin America on this topic. The IMF, for example, concerned with budget deficits, tended to maintain that government spending generally was anathema to reform, and government programmes should be cut across the board. At least some Latin American policy makers argued, however, that some government spending –for example, spending on programmes to promote SMEs– could, if the SMEs prospered, eventually bring in more tax revenues and enhance a country's fiscal situation in the long run (Pereira, 1992; Edwards, 1995). Reducing government "bloat" and inefficiency was essential, the Latin American authors argued; but indiscriminate cuts in spending programmes were not necessarily warranted or a good idea for a country's long-term economic development.[4]

Regardless of these differing views, the new, more market-oriented approach meant that as government institutions cut their budgets and reduced their payrolls, the kinds of economic programmes they advocated changed as well. Now, the emphasis was on providing financial services through the private banking system (rather than direct loans from government institutions). Also, increasingly, government institutions sought to develop a different model for action altogether by providing non-financial services (sometimes known as "business development services", or BDS). Such services included providing technical assistance, promoting technological innovation, and facilitating business linkages.

The prevailing Washington Consensus compelled government institutions to reform their structures and

[3] The traditional policies to support SMEs consisted of direct State action through State financial agencies, which channelled credit to SMEs at subsidized interest rates. The poor performance of these policies resulted from the emphasis on subsidized credit and the poor management of loan portfolios. This situation required many institutions to undergo financial restructuring (see Castillo, 1993; Held, 1995).

[4] In the context of the Argentine crisis, policy makers are questioning the Washington consensus ever further.

policies. In the same way, the Committee of Donor Agencies for Small Enterprise Development (also known as the Donor Committee) was also influential in bringing about this emphasis on the part of government institutions to provide non-financial services. The Donor Committee was composed of representatives from international institutions, such as the World Bank, the Inter-American Development Bank (IDB) and the International Labour Organization (ILO), that work to promote the development of SMEs. In the mid-1990s, this organization helped define the standards for best practices in financial services. In the late 1990s, the Donor Committee devised a preliminary set of guidelines for best practices in non-financial services. However, non-financial services include a wider array of activities than financial services. Therefore, it has been more difficult for the Donor Committee to offer fixed guidelines for such activities.[5]

Nevertheless, those working in this field are well aware that certain principles and practices are more likely to be effective than others. Most important, any institution working to promote development of SMEs in Latin America should be market-oriented, i.e., should have the specific needs of the clients themselves (rather than some narrow political objective) in mind. Despite the new consensus in favour of market-oriented policies and practices in Latin America, some SME programmes still fall short of achieving this goal. Moreover, some lack institutional autonomy from government. These two factors, we maintain, are important in determining the level of accountability of these organizations, which is central to an agency's overall effectiveness.

The model we have developed (see section IV below) seeks to explain the factors that lead to accountable government programmes to promote the development of SMEs in Latin America. Before proceeding to a more specific discussion of the model, however, we provide in the next section further background and political context on the four institutions we assess in this article. This is important in order to understand the current structure of these institutions and the political, economic and organizational context in which they have been operating since experiencing the dramatic changes in Latin America in the last decade. While each institution has been transformed by these changes, each has also emerged with somewhat different organizational structures. Once we have explained these differences, we can present the model, which shows how these different structures affect each institution's level of accountability.

III

The changing institutional environment

1. The challenge of institutional transition

The transformation of development institutions in Latin America began with the process of financial liberalization that started in the 1970s. As the deficiencies of the structuralist,[6] government-interventionist model for economic development became more evident, the need for financial liberalization was clear. By the mid-1970s, most Latin American policy makers agreed that one of the principal causes of Latin American countries' low saving rates was excessive government control of the financial system, notably government control over credit allocation and interest rates.

At the beginning of the 1980s, Latin American governments began to focus their efforts on restructuring their development banks in the context of economic liberalization and the reform of the financial system. Some countries, such as Chile and Argentina, began this process early; others, such as Brazil and Mexico,[7] have undertaken it more recently. Since the

[5] Other organizations, such as the Organisation for Economic Co-operation and Development (OECD), through its Forum for Enterprise Development, have encouraged the dissemination of best practices related to finance, regulatory frameworks, taxation policies, business networks, support services, e-commerce and cross-border cooperation, among others (see OECD, 2002).

[6] The structuralist vision of the saving-investment process encouraged policy makers to work towards a structural transformation of the economy, implementing tax policies to increase income tax revenues, establishing tax incentives for investment, and creating "developmentalist" financial corporations (see Rosales, 1988).

[7] An analysis of the role of development banks in the context of financial liberalization in Argentina, Brazil, Chile, and Mexico can be found in ALIDE (1993).

1990s, development institutions have not only reduced their role in direct financing of development activities, but have also begun to offer an array of non-financial services.

In each country, government SME development agencies have undergone a different kind of restructuring. While Brazil, as mentioned earlier, chose to privatize its SME development agency, CEBRAE (now known as SEBRAE), Mexico decided to modernize its development bank, NAFIN, but still keep it under government control. In Chile, CORFO transferred administrative duties of its SME programmes to private intermediaries (the CORFO network), while Argentina's SEPYME was designed to maintain coordination of a number of SME promotion activities under the direct control of the Executive Branch.

In Brazil, the Collor administration terminated several government-run SME programmes. In April 1990, the government SME institution, CEBRAE, was privatized and renamed SEBRAE. While private, SEBRAE was financed by a 0.3% government payroll tax levied on firms in Brazil. SEBRAE's new role was to assist SMEs seeking to improve their organization, management, technological capability and creditworthiness (Suzigan and Villela, 1997). A non-profit institution, SEBRAE has its headquarters in Brasilia and another 27 offices (one located in each of Brazil's 26 states, plus the federal district).

SEBRAE's structure makes it original and distinct from other institutions promoting SMEs in Latin America. Although, technically, SEBRAE's funding still comes from the government by means of the payroll tax on firms, the amount provided to SEBRAE is not subject to political debate in Brazil's Congress, or to the political whims of Brazil's president, and SEBRAE is in no other way linked to the federal government. The amount is 0.3% of Brazilian firms' payroll in any given year. This insulates SEBRAE from political debate over the nature of its activities. The Brazilian government cannot withhold funding from SEBRAE unless it changes the 0.3% financing law by an act of Congress. In comparison with the other cases considered here, SEBRAE has a high level of autonomy over its budget as well as in its decision-making.

In Mexico, as a result of the country's new economic model, NAFIN has been subject to deep changes in practically all areas. In 1989, NAFIN initiated a modernization programme under the framework for consolidating financial intermediaries. After 55 years as a traditional development bank, NAFIN underwent a restructuring that included many austerity measures (NAFIN, 1998). While remaining a government institution, NAFIN is seeking to become a modern development bank, working to promote new financial intermediaries, to bring venture capital to develop new investment, and to provide non-financial services for SMEs such as technical assistance and training. Under Mexico's laws, NAFIN's board is composed primarily of government officials and remains under the control of the government. The principal sources of NAFIN's budget, as NAFIN itself indicates in its annual report (NAFIN, 1997, p. 14), are loans from international development institutions such as the World Bank and IDB, lines of credit from foreign banks, and the placement of securities in the domestic and international markets.

Thus, NAFIN is a case of an institution that has its own independent budget, yet still remains under government control. The decision-making process in NAFIN remains largely under the control of central government through NAFIN's government-appointed board of directors. Of the cases considered in this article, NAFIN represents a high level of budgetary autonomy, but a low level of decision-making autonomy.

In Chile, CORFO, created in 1939, was at one time a traditional development bank as well as a holding company for public enterprises. However, in the last 10 years CORFO has undergone a major restructuring. In 1990, CORFO decided to end its direct action as a financial institution. Its goal thenceforth was to provide, through the private financial system, long-term resources to the business sector that were compatible with the development of investment projects. In 1992, CORFO began to develop new programmes for the modernization of SMEs. The main programmes were promotion of technological innovation, cooperative development and technical assistance. Since 1993, CORFO has systematically transferred the administrative duties of these mechanisms and the allocation of its resources to private intermediaries in order to attain greater efficiency and coverage in its activities.[8]

Like NAFIN, CORFO has some assets of its own. It can obtain loans from international lending institutions.

[8] In 1997, consistent with this objective, Chile's laws regarding CORFO were modified. Under the new arrangements, CORFO's Board now includes representatives from the private sector, as well as representatives from the agricultural and foreign ministries. CORFO has now outsourced the management of its company holdings to a separate committee, and CORFO itself is devoted entirely to promoting SMEs.

However, the Chilean Congress must approve CORFO's annual budget. In relation to the other cases considered here, CORFO represents an intermediate level of autonomy from the central government, in terms of both its budget and its decision-making capability.

In Argentina, many different public institutions –such as the Ministry of the Economy, the Secretary of Industry, Commerce, and Mining and the Federal Investment Council, among others– used to have a number of separate programmes to promote SMEs. In 1995, the Argentine Congress approved the "SME statute". This law focused on technical and financial assistance for SMEs and a system of reciprocal guarantees and labour relations for these firms. In order to put this law into effect, the Executive Branch created a special secretariat called SEPYME in 1997.

SEPYME's purpose was to coordinate the Argentine government's various SME programmes. In the beginning, SEPYME had the status of a ministry and was under the direct authority of the President of Argentina. Its budget served only to support its activities in coordinating the other government SME programmes, not actually to implement these programmes. Also, although SEPYME had political authority over SME programmes, it lacked administrative authority over personnel working in the various ministries that were charged with executing them. Therefore, while SEPYME lacked autonomy from the government in its budget and its decision-making process, its autonomy was further weakened by its lack of direct control and responsibility over the programmes it coordinated. Of the cases analysed here, SEPYME represents a very low level of both budgetary and decision-making autonomy. Although SEPYME is now under the authority of the Ministry of Production, it still possesses less autonomy from the government than the other institutions we analyse here.

2. Multilateral institutions: guidelines for obtaining assistance

Multilateral institutions, such as the World Bank, IDB and the Donor Committee, have an important role in designing, implementing and financing SME programmes in Latin America. If government institutions want to get financial assistance from any of these organizations, they need at a minimum to comply with the requirements laid down by them. Assistance from multilateral organizations is often part of a package, all of which is conditional upon meeting certain objectives, such as structural adjustment and economic reform.

Significantly, by the mid-1990s the World Bank, one of the main institutions that Williamson (1990) had defined as being part of the Washington Consensus, had begun to emphasize the importance of institutions in promoting economic competitiveness. Noting the success of East Asian countries during the previous three decades, where the State had a key role in promoting economic development, the World Bank began to rethink the role of the State in this process. This new thinking was reflected in the 1993 World Bank study, *East Asian Miracle* (World Bank, 1993). Recent World Bank publications have continued to emphasize the importance of the State in promoting development, and have explicitly referred to shortcomings in the old approach with such titles as *Beyond the Washington Consensus: Institutions matter* (Burk and Perry, 1998) and *More instruments and broader goals: Moving toward the post-Washington consensus* (Stiglitz, 1998).

IDB is the most important donor agency providing resources to institutions that promote SMEs in Latin America. Table 1 indicates the extent of that support for each of our country cases.

Multilateral institutions transfer not only money but also best practices. The Donor Committee, for example, has a clear vision of what it considers to be the best practices for SME programmes in Latin America. In its 1997 report on business development services for SMEs, it listed numerous guidelines, all related to the overarching aim of developing "business-like organizations", that institutions working to provide non-financial business development services should follow. These include developing a "business-like vision and corporate culture", "a high degree of autonomy from government", "management systems to introduce or simulate market mechanisms" and "the technical capacity to adapt or develop new products" (The Donor Committee, 1997). Although these guidelines are clearly part of the institutional environment in which SME programmes are designed, it is difficult to know the exact influence that they have on government institutions in Latin America.

TABLE 1

Inter-American Development Bank (IDB): Activities supporting SMEs, 1990-1998
(*Millions of dollars*)

	Brazil	Chile	Mexico	Argentina	Total
Financial support[a]	550	358	587	300	1,795
Non-financial support[b]	250	40	250	254	794
Science and technology[c]	160	68	180	95	503
Loan support and regulatory reform	–	150[d]	250[e]	675[f]	1,075

Source: Puente, Llisterri and Rivas (1998).

[a] Multisectoral credit.
[b] Business productivity support programmes.
[c] Science and technology programme.
[d] Financial reform improving access to formal sources of credit.
[e] Trade regulation, tariffs, customs and other aspects of the trade system.
[f] Financial reform, legal framework, trade regulation and business environment.

IV

The model

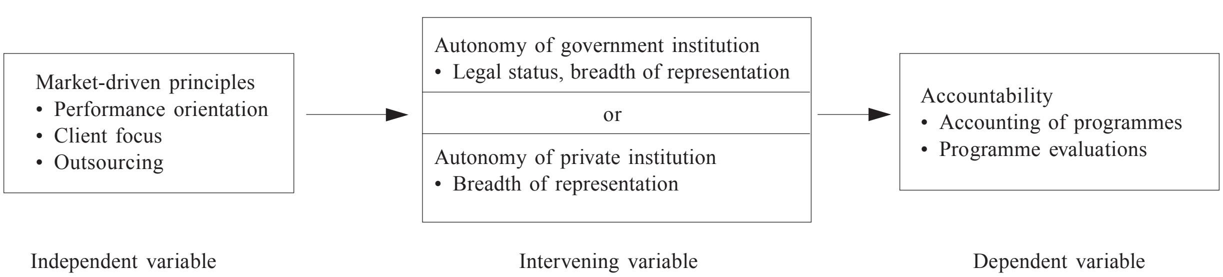
In our model (figure 1), the extent to which the institution promoting SMEs is market-driven (has adopted market-oriented practices) is the independent variable. The autonomy of the institution is the intervening variable. The dependent variable is the institution's level of accountability.

1. Independent variable

Because of the strong influence of multilateral lending institutions, there is a widespread consensus about the principles and instruments that institutions promoting SMEs should adopt. This explains why we do not find significant variation between our cases with regard to the independent variable, namely the extent to which the institution promoting SMEs is market-driven. In fact, our analysis shows that each of the four institutions in our study has similar programmes promoting market-oriented policies for SMEs. In order to make this assessment, we examine three major programmes that each institution has developed for promoting SMEs: business consulting, technological development and business networking.

FIGURE 1

Market orientation, autonomy and accountability of institutions promoting SMEs



Source: Prepared by the authors.

The measures and indicators we use for assessing the extent of market orientation for each programme are the following:

i) *Performance orientation*
Indicator: Co-financing. Does the institution practise co-financing of projects?
ii) *Client focus*
Indicator: Client design. Does the institution incorporate any client designs into its projects?
iii) *Outsourcing*
Indicator: Outsourcing. Is there outsourcing to private institutions?

2. Intervening variable

Although there may be little difference among the institutions with regard to our independent variable, there are important differences in the intervening variable, the level of autonomy of the institution promoting SME development. The four country cases differ widely in this regard.

The level of autonomy of an institution means its ability to implement broad government objectives without becoming captive to the interests of particular groups, either within the government or in society at large, that want to advance their own narrow interests. Given the difficulty with clientelism in Latin America, SME programmes are susceptible to becoming captured in this way by specific interest groups. Our hypothesis is that institutions that can avoid such political interference will have a higher level of accountability, as defined by their conducting systematic, independent evaluations of their own programmes.

We use different measures for the "autonomy" variable in government and private institutions. One aspect of autonomy in government institutions is legal autonomy, or the independence of the institution from government control. A greater degree of independence would make the institution less susceptible to political interference from groups within the government, including the president, seeking to advance narrow political ends. Another measure of autonomy is breadth of representation on the board of directors. A broad representation from different government ministries and the private sector would tend to prevent the institution from becoming "captured" or controlled by particular societal groups pursuing their own interests. Private institutions would tend automatically to have legal autonomy, but would still be prone to being captured by individual societal groups. For private institutions, then, our sole measure for autonomy is the breadth of representation on the institution's board of directors.

The measures and indicators for each kind of institution for the "autonomy" variable are as follows:

a) *Government institutions*
  i) *Legal autonomy*
  Indicator: Is the institution part of the national government structure (least autonomous), a separate ministry (intermediate autonomy) or a public agency (most autonomous)?[9]
  ii) *Breadth of representation*
  Indicator: How broad is the societal representation on the board of directors? Is just one sector represented, or a wide range of sectors? Is there broad private and public representation?
b) *Private Institutions*
  Breadth of representation
  Indicator: How broad is the societal representation on the board of directors? Is just one sector represented, or a wide range of sectors? Is there broad private and public representation?

3. Dependent variable

For the dependent variable, namely the level of accountability of SME programmes, the indicators are the number and quality of the evaluations the institution does of its own SME programmes. Our assumption is that institutions that are not doing systematic evaluations of their programmes will be less effective at promoting SME development.

The measure and indicators we used are as follows:

a) *Accounting of services provided*
Indicator: Does the institution provide data/statistics on what services were provided and where?
b) *Programme evaluations*
Indicator: Is there evidence that the institution conducts systematic, independent evaluations of the impact of specific programmes?

[9] It would also be useful to have an indicator for the professional capabilities of the institution, such as how many professionals (economists, lawyers, engineers, etc.) work for it and what kind of gap exists between salaries for professionals at a given institution in comparison with professionals in the private sector. However, this information is difficult to obtain. We believe that the legal status indicator is both the most important and sufficient for our purposes here.

V
The cases of Brazil, Chile, Mexico and Argentina

1. Why these countries? Why these institutions?

Almost every country in Latin America has institutions that promote the development of SMEs. We chose to focus on Brazil, Chile, Mexico and Argentina not only because these are important countries, with large SME programmes, but also because the main institutions working to promote SMEs in these countries have each undergone extensive institutional reform. Currently, each one, while similar in goals, represents a different strategic model of how to promote SMEs.

Since being privatized in 1990, SEBRAE has represented a private model for SME promotion. Its Board of Directors has representatives from both the public and private sector. Mexico's NAFIN is a more traditional government development bank. Although it does have representatives from the private sector on its Board of Directors, government officials on the Board are referred to as "series 'A' advisers", while representatives from the private sector on the Board are referred to as "series 'B' advisers", denoting their lesser status. In contrast, CORFO, Chile's government development agency, has government officials on its Board from several different ministries, plus two representatives from the private sector, appointed by Chile's President. It also uses a very non-traditional approach to promoting SMEs. CORFO serves as a coordinating agency, doing much of its work through private actors that are usually organized into industry associations. SEPYME in Argentina has evolved over time. In the beginning, it was directly under the authority of the President of the Republic, and therefore lacking in autonomy. More recently, it has been reorganized under the authority of the Ministry of Production. Nevertheless, so far it represents a structure that is less autonomous than the other institutions considered here.

As table 2 shows, each of the four institutions, while similar in some ways, differ considerably with regard to their legal structure.

With regard to legal structure, at one extreme is SEBRAE, a private corporation providing its own services, not only to small firms but to microenterprises as well. This structure gives the organization significant independence from the government, yet institutional clout at the same time. At the other extreme is SEPYME, which operates only as a coordinator of other agencies.

In comparing the four institutions, we found that each had programmes that were similar, both in title and content. We examined three of the main programmes: business consulting, technological development and business networking. Table 3 summarizes key features of these programmes in each country. The table shows, first, that the four institutions analysed had very similar non-financial programmes, and they all had business consulting and business networking programmes. Only NAFIN in Mexico did not have technological development programmes. These institutions seem to be adopting very similar sorts of "best practices", as advocated by the Donor Committee.

It is significant that even the wording of these programmes is similar. The point is that they are all fairly similar in the extent to which they are market-driven. Our focus, therefore, is on the significant differences in the intervening "autonomy" variable.

TABLE 2

Institutional framework for SME development

Country/Institution	Category	Legal structure	Focus
Brazil/SEBRAE (1990)	Non-financial services agency (NFSA)	Private corporation	Micro and small firms
Chile/CORFO (1939)	NFSA and development bank	Public corporation	Small and medium-sized companies
Mexico/NAFIN (1934)	NFSA and development bank	National credit agency	Small and medium-sized companies
Argentina/SEPYME (1997)	Coordinator agency	Sub-cabinet-level agency	Small and medium-sized companies

Source: Prepared by the authors.

TABLE 3

Latin America (four countries): Main SME development programmes, by country and category

Programme	Brazil	Chile	Mexico	Argentina
Business consulting	Programmes for entrepreneur development	Promotion projects (PROFOs)	Training and technical assistance programme (COMPITE)	Business reorganization programme for exporters (PRE)
Technological development	Technological support for micro and small enterprises (PATME)	Technological and productive development fund (FONTEC)	No programme[a]	Argentine technology fund (FONTAR)
Business networking	Supplier qualification programme (CF)	Supplier development programme (PDP)	Supplier programme (PP)	Supplier development programme (PDP)

Source: SEBRAE: http://www.sebrae.com.br; CORFO: http://www.corfo.cl; NAFIN: http://www.nafin.com/portalnf; SEPYME: http://www.sepyme.gov.ar.

[a] Although NAFIN itself does not have a specific programme on technological development of SMEs, Mexico does have such programmes, notably the Subsistema de Desarrollo Tecnológico del Sistema de Centros operated by the Ministry of Public Education (SEP) and the National Council for Science and Technology (CONACYT).

VI

Results

The tables below provide a summary of our findings on each institution, organized according to independent, intervening, and dependent variables. We elaborate further on these results in Section VII.

With regard to the independent variable, all the institutions appear to be market-driven, at least in the three areas we examined (business consulting, technological development and business networking), as table 4 shows. In assessing the criteria used to determine the extent to which each institution is market-driven, we found a great deal of similarity. Other than the lack of outsourcing by Argentina's SEPYME, there really is very little variation in terms of degree of market orientation across cases.

With regard to the intervening variable, degree of autonomy, there is considerably more variation (table 5).

Table 6, which gives results for the dependent variable (level of accountability), shows that Chile's CORFO has the highest level of accountability, while Argentina's SEPYME has the lowest. Brazil's SEBRAE and Mexico's NAFIN are in the intermediate range.

VII

Conclusions

In each country, it is possible to see an institutional transition. The institutions have transformed themselves to become more market-driven, and by and large they have achieved this goal. Of course, each institution appears to have employed a different model to achieve this outcome. Before, Argentina's SEPYME operated as a sub-cabinet-level agency, directly under the authority of the President. Currently, it is under the authority of the Ministry of Production and coordinates other agencies to carry out SME programmes. Mexico's NAFIN is still in the process of restructuring itself from a traditional development bank into a more modern one

TABLE 4

Independent variable: degree to which SME development institutions are market-driven

Measure:	Performance orientation	Client focus	Market mechanisms
Indicator:	Co-financing	Client design	Outsourcing
SEBRAE/Brazil			
Business consulting	YES	YES	YES
Technological development	YES	YES	NO
Business networking	YES	YES	NO
CORFO/Chile			
Business consulting	YES	YES	YES
Technological development	YES	YES	NO
Business networking	YES	YES	YES
NAFIN/Mexico			
Business consulting	YES	…	NO
Technological development	...	...	...
Business networking	YES	YES	NO
SEPYME/Argentina			
Business consulting	YES	YES	YES
Technological development	YES	YES	NO
Business networking	YES	YES	NO

Source: SEBRAE: http://www.sebrae.com.br; CORFO: http://www.corfo.cl; NAFIN: http://www.nafin.com/portalnf; SEPYME: http://www.sepyme.gov.ar.

TABLE 5

Intervening variable: Degree of autonomy enjoyed by SME development institutions

Country/Institution	Indicators of autonomy		Degree of autonomy
	Legal status	Breadth of representation on the board	
Brazil/SEBRAE	Private	Broad representation	High autonomy
Chile/CORFO	Public	Medium-high representation	Medium autonomy
Mexico/NAFIN	Public	Medium-low representation	Low autonomy
Argentina/SEPYME	Public	Directly under President/Ministry	Very low autonomy

Source: SEBRAE: http://www.sebrae.com.br; CORFO: http://www.corfo.cl; NAFIN: http://www.nafin.com/portalnf; SEPYME: http://www.sepyme.gov.ar.

TABLE 6

Dependent variable: level of accountability

Indicator / Country/Institution	Accounting of services provided	Evaluations of impact of specific programmes	Level of accountability
Brazil/SEBRAE	YES	NO	Medium
Chile/CORFO	YES	PROFOS, FAT, FONTEC (independent, outsourced evaluations)	High
Mexico/NAFIN	YES	NO	Medium
Argentina/SEPYME	NO	NO	Low

Source: SEBRAE: http://www.sebrae.com.br; CORFO: http://www.corfo.cl; NAFIN: http://www.nafin.com/portalnf; SEPYME: http://www.sepyme.gov.ar.

that works through intermediary agencies and also incorporates non-financial services into its sphere of activity. Chile's CORFO, once a traditional development bank that increased its level of autonomy, now operates almost completely through private financial and non-financial intermediaries. Lastly, Brazil's SEBRAE is a unique experiment in Latin America: it is the first government institution promoting SMEs to have become a private organization. While all these institutions have chosen different models or strategies to pursue their objectives, we can safely say that they have all become market-driven institutions.

With regard to the intervening variable, the results mostly confirm our expectations. We hypothesized that the degree of autonomy (table 5) would determine the level of accountability of the institutions promoting SMEs. As it turns out, Chile's CORFO, whose medium level of autonomy is the highest of any of the three public institutions', also has the highest level of accountability. It provides multiple, systematic, independent evaluations of its programmes. It actually outsources the evaluation of its programmes to universities in a competitive bid process in order to ensure that the evaluations will be independent and unbiased. Argentina's SEPYME, in contrast, with the lowest levels of autonomy, has the lowest level of accountability. Indeed, it does not even provide an accounting of the number of SMEs it assists, the quantity of the services it provides to them, etc. In an intermediate position is Mexico's NAFIN, which has a low level of autonomy. Since it does keep track of the SMEs it assists, but does not do independent evaluations, we classify it as having a medium level of accountability. These are the sorts of results our hypothesis had predicted.

Brazil's SEBRAE, however, represents a paradox. Although it has a high level of autonomy, it has only a medium level of accountability. Upon reflection, however, the reason seems obvious. SEBRAE is a private institution with an assured budget, based on the 0.3% payroll tax on Brazilian businesses. It does not have to make a budget proposal every year as government institutions do, and compete for its allocation of resources. Therefore, SEBRAE does not have an incentive to provide systematic, independent evaluations of the impact of its programmes.

Like government agencies, however, SEBRAE must spend the full amount of money it receives every year; if not, Brazil's Congress might decide to reduce the payroll tax in future years. One way to do this would be to spend the resources on a large number of programmes, not only those for SMEs but also programmes to promote microenterprise development. This might explain why SEBRAE has such a broad "coverage": it has programmes for 17% of all SMEs and microenterprises in the country, as compared to smaller numbers for NAFIN (14%) and CORFO (10%), which focus on SMEs (figures for SEPYME are not available) (Peres and Stumpo, 2002). Without systematic studies, however, there is no way to ascertain the impact of this coverage with any certainty. Indeed, SEBRAE may provide broad coverage but with low impact or results. Without greater accountability, it is impossible to know for sure.

Chile's CORFO represents an alternative model of autonomy. In the case of CORFO, the government retains control of the institution and defines its overall strategic objective. At the same time, however, CORFO maintains a degree of legal autonomy because it is organized as a public corporation, with its own budget and decision-making capabilities. In addition, CORFO's Board of Directors is composed of a broad range of representatives from the private sector as well as from a number of different government ministries. Lastly, CORFO operates almost entirely through private intermediaries to carry out its work. This structure gives the institution a great deal of independence from government political interference, enabling it to carry out its objectives in a highly systematic and effective manner. It also explains CORFO's high level of accountability: in order to justify continued funding to such a broad range of interested parties, CORFO has to provide numerous outsourced, independent evaluations of every programme that it undertakes.

The outcomes analysed here suggest that to the extent that government institutions seeking to promote SMEs are market-driven and possess autonomy, they will have higher levels of accountability. However, autonomy alone may not be enough for private institutions working in this area. Our findings suggest that private agencies, even highly autonomous ones such as SEBRAE, need to take steps to ensure their accountability. One practical suggestion for agencies with this kind of structure is that they make sure to build this sort of systematic, outside evaluation of the impact of their programmes into their practices.

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ECLAC, transnational *corporations and the quest* for a Latin American *development strategy*

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This paper analyses the role assigned to foreign direct investment and transnational corporations in the ECLAC development project, examining the history of the institution and its most representative publications. With impressive continuity in its vision and policy recommendations, ECLAC has recognized the need for foreign investment as an aid for Latin American development, but has been cautious about its consequences. ECLAC has continually called for close scrutiny and regulation of the activities of transnational corporations. The main idea underlying these recommendations is that Latin American-owned industries have to be the guiding forces of economic development. In addition, ECLAC has consistently stressed the benefits of Latin American integration in helping expand Latin American industries, foster autochthonous research and development and provide Latin American governments with information and bargaining power vis-à-vis transnational corporations.

For, essentially, the debate is still defined by two principal questions: one, where lies the responsibility for our lag? In ourselves or in the outside world which exploits us? Two, how can we make progress? By imitating others (the West or Russia) or by fashioning our own way?
ALBERT O. HIRSCHMAN

I
Introduction

The economic history of the last 50 years has been one of impressive changes throughout the world. During this period, Latin American countries have embarked on a process of import substitution industrialization (ISI) and have changed their relation to the international economy significantly. ECLAC has played a key role in this process. From its inception, when it provided a concise theoretical framework from which ISI was launched, and down to our own neoliberal times, its analyses and recommendations have always played an important role in Latin American intellectual and political debates.

ISI was intended to reduce Latin America's external vulnerability and to put the region on the path of development. However, the scarcity of investment sources, lack of capital and technological disadvantage were central and pervasive problems. This paper is an attempt to trace how ECLAC addressed these problems and to determine the role foreign capital and transnational corporations (TNCs) were supposed to play in the development strategy it envisaged. It will show the role originally intended for foreign investment as ISI was first proposed. It will deal with the way this vision changed through the years, as the industrialization process advanced and FDI and the participation of TNCs in the region increased and changed. It will also consider how these changes were related to theoretical developments and challenges such as dependency theory and neoliberal ideas. This will be done by reviewing the different stages of ECLAC thinking and interpreting the role played by FDI and TNCs in each of them. It will suggest that, even though significant changes have taken place, and the attention paid to foreign capital and TNCs has increased through the years, a similar view has persisted: FDI and TNCs are useful or even necessary as a means of gaining access to the capital and technology that can make industrialization possible, since they can function as sources of technological diffusion and economic dynamism. However, a note of caution is always in order: one must be aware of balance-of-payment crises and any increase in foreign dependency. In view of all this, ECLAC has proposed policies of selective engagement and control of TNCs, a transitory role for FDI, and regional integration. Throughout the period, the idea that Latin American-owned industries should be the guiding forces of economic development persists in ECLAC thought.

This paper will trace the views of ECLAC regarding TNCs during each of the five decades of its existence, coinciding broadly with stages in its intellectual development.[1] The first part analyses the 1950s, when ECLAC thinking was being developed. The concern with foreign capital was present from the outset but increased as the decade advanced, while the emphasis was on attracting public funds. The second part analyses the 1960s, when the need to deal with TNCs became imperative, and when their positive and negative contributions were first evaluated, in the light of a growing recognition that ISI needed to be reformed and transcended. Moreover, the attention paid to TNCs and foreign capital increased throughout the decade. During the 1950s, the emphasis was on the need to attract foreign public-sector capital. By the 1960s, and increasingly thereafter, the need to deal with and attract foreign private-sector investment gained ground. In this stage, TNCs were viewed as a means of fostering exports of manufactured goods (a view that appeared in the

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[1] The periodization is based on Bielschowsky (1998a, pp. 11-12).

1950s and increased in importance in the following decades), as the limits of ISI were becoming apparent just as the importance of TNCs was increasing worldwide. Next, the paper considers the 1970s, which were marked by the analysis of "development styles". In this third stage, the emphasis was on the limits of what TNCs could contribute, given the region's style of development. Moreover, the analysis of TNCs became a central concern in ECLAC studies. Lastly, it analyses the 1980s and 1990s, marked by the idea of "productive transformation with equity". The attention paid to TNCs and foreign capital is even greater, especially since the 1990s saw a renewal of capital flows to the region and a recognition of the need for more open economies. The need to attract TNCs as sources of technology and capital was highlighted. However, the idea that Latin American firms must guide the development strategy was maintained, and the positive aspects of ISI were recognized. The international economic and intellectual context is considered in every stage.

II

The 1950s: the early years

In 1949 (1950 in English), ECLAC published its "manifesto" under the authorship of Raúl Prebisch, setting forth the bases for its understanding of Latin American economic problems (Prebisch, 1950). Its starting point was the particular position as a commodity producer and exporter that Latin America had come to occupy in the international economic system. This was a position that corresponded to the postulates of the theory of comparative advantage. However, according to Prebisch, the economic performance and situation of the periphery contradicted the prediction of the theory of comparative advantage that the increases in productivity occurring in the industrial countries would be transferred evenly throughout the system. On the contrary, Prebisch observed that the region's terms of trade had been deteriorating over the long term. This was caused, in part, by the better organization skills of labour in the centre. In the downswing of the economic cycle, these groups resisted wage cuts. Rural workers in Latin America lacked organization and so were not able to resist downward wage pressures. This meant that the adjustment needed in the centre was transferred to the periphery. The other important factor was the monopolistic power enjoyed by industries in the centre. In later writings, another factor was introduced to account for the deteriorating trend in the terms of trade. This was the inelasticity of demand for commodities at the centre. Known as Engel's law, it stated that as income grew, the share of demand accounted for by commodities tended to decline. In the periphery, by contrast, demand for industrial imports was elastic. This explanation came to be known as the Prebisch-Singer thesis, and became the hallmark of ECLAC.

If industrialization was needed to solve the region's problems, then the structural characteristics of the periphery, the decline in its terms of trade, its low saving rate and the technological disparity with the centre all meant that the process needed to be one of import substitution industrialization. The new industries, therefore, should be encouraged and protected by the State.

Prebisch reflected that the imperative problem posed by the lack of savings for investment meant there was a need for resources other than those of the State. One possibility he envisaged was foreign capital.[2] While the problem of foreign capital was present from the start, it gained considerably more attention as the 1950s advanced. The first systematic reflection on this aspect appeared in 1954.[3] Foreign capital "can be seen as a way of securing the additional foreign exchange resources needed to sustain a high rate of development while at the same time eliminating the difference between the demand for imports implied by this and the regular revenues from exports themselves" (ECLAC, 1969, p. 33). It was also needed as a means of supplementing internal savings.

[2] Despite the general belief that Prebisch had an anti-export bias, he believed from the start that ISI did not mean "that primary exports should be sacrificed". They provided foreign exchange, and therefore investments to enhance the agricultural exporting sector's productivity were needed (Prebisch, 1950).

[3] Prebisch did however address this issue in *The economic development of Latin America and its principal problems*: "An immediate increase in productivity per man could be brought about by well-directed foreign investments added to present savings" (Prebisch, 1950).

The low level of foreign capital investment in Latin America in the 1950s was a matter of great concern to ECLAC.[4] Prebisch explained that foreign investment had played a major role in the previous development strategy, especially the development of infrastructure through FDI and the bond market. However, the bond market had ceased to be accessible to Latin American countries after the defaults of the 1930s. Therefore, given the international situation and the need to lower the cost of investments, he felt that the best solution was foreign aid provided by international financial institutions. These institutions should provide easy access to funds so that Latin American countries could invest in social capital (ECLAC, 1954, p. 15), "at least until the private bond market is reopened" (*ibid.*, p. 15). He proposed a policy of international cooperation whereby industrial countries would provide capital and investments to Latin America, chiefly through these international institutions. This did not need to be a kind of Marshall Plan, because "Latin America's need is for productive loans on very long terms and at rates of interest as low as those permitted by money markets" (*ibid.*, p. 22). He cautioned that this needed to be a temporary form of relief, until the development of Latin American industries allowed them to generate their own resources. The desirability of foreign resources being transitory in character was to remain a central concern of ECLAC. Another important aspect was the need for foreign capital to enter in amounts large enough to produce favourable effects on the region's development.[5] The goal of this policy was not only to secure investment, but also to raise the saving rate and encourage new investments (ECLAC, 1954). An important proposal was that international funds should be channelled to Latin American businesses through specific State institutions. For example, recognizing the institutional inadequacies of the region, notably its financial institutions, ECLAC proposed the creation of an Inter-American Fund for Industrial, Agricultural and Mining Development. This fund, based on national development plans for each country, would manage the available resources.

The other problem Prebisch admitted was the technological disadvantage faced by Latin American industries and the high cost of keeping up to date and obtaining technology from the centre. TNCs needed to be involved in some way for Latin America to gain access to the newest technology. This, however, had to be done in a cautious and programmed way. TNCs should not be active across the board; rather, their participation should be guided by the State and confined to determined sectors of the economy, ideally by means of accords between industries for joint participation, technological assistance and personnel training (ECLAC, 1954). This would allow Latin American industries to compete from a better position. Indiscriminate participation would hinder the aim of ISI. As in the case of investments, Prebisch thought there was a need for an international cooperation strategy through which the advanced industrial countries would aid Latin America with specific programmes of technological assistance.

Another related proposal, first raised in 1949, was the creation of a Latin American Common Market (Prebisch, 1950). The logic behind the proposal was that this would give the new industries a larger market and would encourage economies of scale, thereby allowing Latin American industries to compete from a stronger position. The inflow of FDI to the region could be enhanced and controlled, in the way described above, if it took place within the Common Market and was subject to policies coordinated among Latin America's governments. This could be an important way of reducing the region's external vulnerability, if a regional anticyclical policy were applied (ECLAC, 1954).

These ideas, however, were not in accord with the post-war plans of the United States. The security goals envisaged by American policy makers included the integration of the Third World into the world economy, but in a way that would ensure the international economic environment was open to United States trade and investment (Painter, 1999, p. 14). The ECLAC quest for autonomy and control over foreign businesses (which were mainly American in this period) was an evident obstacle to the American project. Moreover, while the United States Government encouraged the integration process in Europe, a Latin American integration project was seen as undesirable. Lastly, Prebisch's idea of economic assistance was not successful, for the United States refused "requests for economic assistance and looked to the military and traditional elites to maintain a favourable climate for foreign investment". American, and therefore international, assistance was directed mainly to Europe and Asia (Painter, 1999, pp. 21-24). For the next 50 years, the resulting tension between the ECLAC project and United States interests would remain a key source of pressure for the acceptance of the ECLAC project.

[4] ECLAC estimated that FDI totalled only US$ 1.6 billion in the first three years of the 1950s (ECLAC, 1954, pp.14-15).

[5] This was consistent with the reliance and stress that ECLAC placed on programming. See Hirschman (1961).

III

ISI transformed: the 1960s

The early years of ISI produced an ambiguous outcome. On the one hand, nurtured by high protective tariffs and expansionary State policies, industrialization advanced at a rapid pace and the growth rate in the Latin American countries was substantial.[6] By the 1960s, industry had become the engine of the economy in the largest countries, and was an increasingly important sector across the region.[7] However, the process soon encountered serious problems. The most evident one was that the import coefficient had risen and shifted towards capital goods (Ffrench-Davis, Muñoz and Palma, 1998, p. 190). As a result, not only did balance-of-payments crises become more frequent, but their impact became even more acute. Even more than in the previous period, economic performance was severely affected by external crises.

The 1960s also saw the birth and development of dependency theory. This was the result of several influences, but the problems of ISI referred to above and disenchantment with industrialization as a means of reducing external vulnerability were factors of the utmost importance.[8] In contrast with what Prebisch and the early ECLAC writings had claimed, dependency thinkers explained the underdevelopment of the periphery not as a product of a particular development strategy, but as a result of the development of the system. The Cuban revolution implied that a more radical approach than that of ECLAC was gaining ground in the understanding of Latin American problems and solutions.

However, the early 1960s witnessed a positive international climate for ECLAC ideas, as the Kennedy administration, concerned by the Cuban example, changed its international security policies and turned its attention in a more positive way towards Latin America. Influenced by modernization theory, its idea was that the "Communist threat" should be controlled through the economic development of the Third World. To this end, it launched the Alliance for Progress in March 1961. US$ 20 billion in foreign aid was to be channelled to the region under this programme over a 10-year period, with the United States Government providing a large part. Of special importance was that the ideas of planning and structural reform achieved further legitimacy, as these were the aims of the Alliance for Progress (Montecinos, 1997). Moreover, the Alliance was in accord with Prebisch's original idea about the type of foreign investment needed in Latin America. However, by the middle of the decade the results of foreign aid were far from significant, especially regarding structural reforms. The discouraging results of Vietnam, increased instability in the Third World and political turmoil at home led United States foreign policy to turn away from aid and the encouragement of economic development and to focus on security instead, the result being support and encouragement for military coups across the region (Painter, 1999, pp. 63-64).

In the light of the real problems encountered by ISI and the macroeconomic instability that ensued, and in an intellectual climate marked by dependency theory, ECLAC needed to revise its analysis and policy recommendations.[9] It entered this new stage in its intellectual history with renewed analysis and proposals. Contrary to what their critics have stated, Prebisch and ECLAC reacted quickly to this new situation.[10] In *Towards a dynamic development policy for Latin America*, Prebisch recognized and emphasized the lack of dynamism of ISI. He found two main problems: external and internal constraints (Prebisch, 1963, p. 15).

Given the external imbalances ISI had brought about, Prebisch called for a deeper industrialization

[6] For an overview of the period and the economic performance of the region, see Ffrench-Davis, Muñoz and Palma (1998, p. 187). In the 1950s, Latin America's GDP grew at a rate of 5.1%.

[7] By 1960 its share of GDP was 21% in the region as a whole, being higher in the largest countries (Ffrench-Davis, Muñoz and Palma, 1998, p. 187).

[8] The origins of dependency theory are of course far more complex, and the wide array of schools of dependency thinking makes them even more difficult to determine. See Love (1996a, pp. 182-201).

[9] ECLAC never really endorsed dependency theory, but some of its proponents worked in ECLAC. Furthermore, dependency theory evolved from structuralist ideas, and even Prebisch helped develop it and echoed it (Love, 1996b).

[10] For example, Harberger states that "good economics" faced the bulwark of doctrinaire isolationism and protectionism: "the old ECLAC, which actively sponsored and fostered the interventionist, statist, and illiberal policies of the era" (Harberger, 1996, p. 306).

process with a shift towards capital and intermediate goods, which would ease balance-of-payments constraints. External constraints had been created not only by the rise in imports, but also by the lack of export dynamism. Together with this problem, Prebisch perceived a continuing decline in the periphery's terms of trade. For this reason, he claimed that there was an urgent need to act on two fronts, increasing manufactured exports to several markets (including those of the centre) without neglecting traditional exports, whilst taking steps to shore up the terms of trade (Prebisch, 1963, p. 102). Also important as a way of promoting exports was the integration of the Latin American countries into a Common Market (Ffrench-Davis, Muñoz and Palma, 1998).

ECLAC was now also emphasizing the importance of the region's social problems.[11] "The social structure prevalent in Latin America constitutes a serious obstacle to technical progress and, consequently, to economic and social development" (Prebisch, 1963, p. 4). It was "no longer feasible to maintain consumption patterns that imply the dissipation of a substantial capital formation potential" (*ibid.*, p. 13). Structural reforms (such as agrarian reform) were now considered essential. "Latin America must quicken its rate of economic development and redistribute income in favour of the broad masses of the population" (*ibid.*, p. 10).

ISI had aggravated the external constraints, and the problems of capital and investment continued. Furthermore, the nature of the industries developing in Latin America meant that the region still faced a significant technological disadvantage. At least in the largest and most advanced countries, ISI had reached a dead end (Prebisch, 1963). A policy was needed to restrict the consumption of the higher-income groups and encourage exports. However, there was still a need for foreign capital, investment and technology if the ECLAC strategy was to be effective. "We need the outside world to help us to cultivate our own ability, so that the population as a whole can be brought to share in the process of development" (Prebisch, 1963, p. 54). As before, foreign investment was needed on a temporary basis until the region could generate its own resources and technology.

The role of FDI and TNCs was therefore reinterpreted in this new stage. This review was influenced not only by the general developments already mentioned, but also by disenchantment with the previous strategy. Prebisch had set store by international public aid and financial institutions, but this had not solved the problems. In the 1950s, FDI had accounted for 60% of all capital movements. By the early 1960s, however, in the spirit of the Alliance for Progress, the focus had shifted to official lending, again in accord with Prebisch's ideas (Ffrench-Davis, Muñoz and Palma, 1998).

In the 1960s the emphasis, where foreign capital was concerned, shifted towards FDI and TNCs. Prebisch now claimed that in this new era a "clear distinction must be made between two types of foreign capital: the out-dated type, with the enclaves which still subsist, and the new type which takes a determined share in the intensive process of industrialization" (Prebisch, 1963, p. 54). "The foreign enterprise must be a nucleus for the dissemination of technology" (*ibid.*, p. 54). But even if the participation of TNCs and FDI was seen in a more positive light, concerns about their presence and suspicions as to the real gains it might bring were still expressed. One problem was the enormous profits some companies made. "The profit incentive is clearly essential if foreign private enterprise is to be attracted. However, it should be the consequence of the advanced techniques such firms bring into the country, the new patterns of production, organization and marketing they introduce into the local milieu." (*ibid.*, p. 55). This was not what usually happened in practice, however, owing to excessive protection and inflation. TNCs could play a role, provided this was firmly regulated and guided as part of a clear development programme. This meant a strong governmental stance to define the place TNCs could occupy. Prebisch thought TNCs could play an important part in a "programme designed to encourage exports", as they brought "knowledge of export practices and external markets" in which Latin American industries were at a disadvantage (*ibid.*, p. 56). ECLAC had recognized the need to encourage exports since the 1950s, and in the 1960s this idea would become a central tenet of its proposals (Bielschowsky, 1998a, pp. 22-23). Prebisch now thought that TNCs could be of help in this endeavour. Again, a "partnership between foreign and Latin American enterprise might be a very suitable solution, from the standpoint both of dissemination of techniques and of improved relations with domestic interests" (Prebisch, 1963, p. 56). In short, underlying all these proposals was the need for

[11] This coincided with a change in the perception of development in economic theory, away from an approach that equated development with GDP growth and towards one in which social aspects were part of the definition of development. See Arndt (1987, chapter 4).

definite, clear policies such as tax exemptions. "Otherwise, foreign investment might carry undue weight in some branches of economic activity, which would be undesirable from various points of view" (*ibid.*, p. 56). Given the cautious stance towards TNCs, the solutions to this dilemma that Prebisch envisaged were, on the one hand, to progress with regional integration. This would give rise to more efficient industrialization in the region, again because of specialization, complementarity, larger markets and economies of scale. This being the case, Latin American industry could "stand up to foreign enterprise, either by making common cause with it or by competing on an equal footing" (*ibid.*, p. 99). Again, the integration process could also foster autochthonous research and development (R&D), as there would be more incentives for industries, and this would facilitate policy coordination among Latin American States to encourage R&D. A complementary part of the strategy was that States should take definite action to promote research that could yield more appropriate and efficient technology.

Alongside State regulation of TNCs, another important idea that appeared in this period –one that should be related to Prebisch's unceasing quest for an international cooperation programme– was the proposal for an international code of conduct to regulate the operations of TNCs. This could be seen as a response to the obvious fact that TNCs were increasing their operations in the region. It is important to note that this was also raised by Prebisch as an important concern at the United Nations Conference on Trade and Development (UNCTAD).[12]

As mentioned, dependency ideas appeared and developed, in part, at ECLAC during the 1960s. The younger generation working under the dependency paradigm also reflected on the role of foreign capital and TNCs. Prominent among these economists was the Chilean Osvaldo Sunkel. For Sunkel, "it could be argued that until the mid-1950s, what prevailed were forms and methods of incorporating external financial, human, technological and material resources that contributed to the development of an essentially national industry in Latin America. From then on, however, with the decades of crisis and the Second World War now left behind, and coinciding with the rapid expansion of transnational conglomerates and a new stage in the import substitution process in Latin America, the phase of denationalization and dispersion of Latin American industry began" (Sunkel, 1998, p. 513). The latter development, Sunkel thought, was one of the most important factors behind the disappointing results that the industrialization process had yielded (*ibid.*, p. 513). Furthermore, Sunkel thought that the world was probably "moving towards a new variant of the centre-periphery model, from which we thought that import substitution industrialization was liberating us". In this new model, "the international division of labour was taking on a new form, as were its agents: the transnational manufacturing oligopolies" (*ibid.*, p. 515). This model had important consequences, especially the persistence and deepening of the mono-exporting model, the fact that the economy's dynamic influence came from abroad, and the location of basic decision-making centres abroad. Sunkel also thought that that the growing presence of TNCs would increase the problem of external indebtedness. Lastly, Sunkel warned that the process of Latin American integration could ruin Latin American industries once and for all by favouring firms from outside the region. This could happen if conditions were created in which "domestic companies are not only disadvantaged, but debarred from obtaining protection from the national State" (*ibid.*, p. 516). Summing up, he said that "the main characteristic of the current system of international economic relations, and probably of the future system as well, is the penetration of the economies of underdeveloped countries by the most powerful agents of developed country economies [TNCs], and especially by those of the American economy, the predominant centre of the capitalist system today" (*ibid.*, p. 66).

[12] Prebisch left ECLAC and was appointed Director of UNCTAD in 1964. He left that post in 1969, disappointed by the lack of support and what he considered the organization's lack of achievement. See Dosman and Pollock (1998, pp. 573-603).

IV

The landslide and "styles of development": the 1970s

Since the mid-1950s, governments throughout the region had striven unreservedly to attract FDI and TNCs. This period saw a significant increase in the inflow of FDI to Latin America, attracted by high rates of protection. New TNCs entered the region to occupy leading positions in the production of manufactured and intermediate goods. This outcome was a disappointment, however, for "capital was often raised locally, many investments represented the purchase of an existing firm and there was no guarantee that the seller would reinvest the proceeds locally" (Bulmer-Thomas, 1994, p. 359). This phenomenon only increased during the 1960s, as international trade and notably trade in manufactures continued to grow spectacularly. ISI had now advanced to a further stage in the larger countries, but the problems only became starker. Political and economic instability, rising inflation and more acute external imbalances became common phenomena in the region's countries. These economic and political developments, and the pervasiveness of dependency theory, had the effect of spreading a negative view of ISI. The role that FDI and TNCs had come to play in Latin America only reinforced the suspicions of dependency theorists, who were rising to prominence in intellectual circles in both Latin America and the developed world.[13]

When the 1970s began, the Latin American countries faced even more constant external concerns and instability. The 1973 oil shock put an end to the "golden age" and initiated a period of international financial instability and reduced growth in the industrial countries, coupled with rising inflation. The effects of this crisis put enormous pressures on the development strategy followed by Latin America, especially for oil importing countries. This period also witnessed a rise in the standing of monetarist schools that attacked the ISI strategy ferociously.

In spite of all the problems, the enormous financial flows available in the international market allowed Latin American countries to continue without serious reforms, by following a debt-led strategy. This situation meant that these countries' foreign debts were to grow significantly throughout the decade. Nevertheless, several governments across the region were trying to encourage industrial exports. In fact, manufactured exports continued to grow throughout this period, although never to the level necessary to relieve the shortage of foreign currency (Ffrench-Davis, Muñoz and Palma, 1998).

In this situation ECLAC entered its third stage, characterized by the idea of "development styles" (Bielschowsky, 1998b, p. 34). The idea was that the problem of Latin America lay in the style of development being followed. It was basically claimed that the essential issue lay in the social and political structure and in the relationships of power and inequality that sprang from it.[14] It was the distribution of power and income that determined the outcome of the development strategy. Therefore, for an industrialization process to be successful, the main problem to be tackled was income distribution. This was not a new idea, but it acquired more analytical importance and was recast in a broader framework. The same could be said of the need for manufactured exports, an idea that gained importance at this time.

The economic importance of TNCs was such that ECLAC recognized that "there could be no doubt that the future of the region must perforce envisage various degrees and forms of coexistence with this type of economic unit" (ECLAC, 1981). The attention paid to TNCs in ECLAC studies grew significantly, and they became a central focus of concern rather than an aspect of broader analyses.

Aníbal Pinto, analysing the internationalization of the post-war economy, acknowledged that TNCs had come to play the leading role in the most dynamic

[13] It has to be noted, however, that one of the most prominent of them, Fernando Henrique Cardoso, did not have such a negative view of TNCs. This could be seen even in *Dependency and development*, but appeared much more clearly after he coined the notion of "associated-dependent" development. Cardoso maintained that to view TNCs as opposed to growth and development was wrong. For him, TNCs needed a dynamic market to work and so could actually foster both growth and development. Given the characteristics of the international system and the periphery, attracting TNCs was a feasible way for peripheral countries to attain their potential rate of development (Cardoso, 1973, pp. 142-176).

[14] The main expression for these ideas is found in Pinto (1976, pp. 99-130).

sectors of Latin American economies, especially the largest ones (Pinto, 1980, p. 42). By the late 1960s, TNC penetration in manufacturing was particularly marked, with foreign firms accounting for between 30% and 40% of total output in the largest countries (Bulmer-Thomas, 1994, p. 315).

TNCs had come into Latin America and adapted to the region's particular "style of development", marked by its unequal income distribution. There was a "contradiction between the transnational objectives of these enterprises and the national objectives aimed at securing an integrative and autonomous style of development… At the internal level, it is expressed in particular through the orientation of the structure of production, which is adapted to the restrictive and elitist demand of the strata with the highest income, while at the external level it is reflected in the incapacity of the transnational corporations to solve the problems of the external bottleneck, which they may even help to make worse, and in their real and potential role with regard to the regional integration processes" (Marinho, 1981, p. 9).[15] FDI and a major presence for TNCs were now recognized as inevitable, but they could only have a positive impact (in the original sense of being transitory and regulated and occupying a limited, albeit key, position) if the social structure and the style of development were changed. The emphasis on manufactured exports and the continuing promotion of regional integration were of a piece with the original ECLAC idea that if development was to come, Latin American industries, within a reformed social structure, had to be the guiding force. Aníbal Pinto, however, recognized that the participation of TNCs was problematic, but that with appropriate regulation and pressure they could be directed towards exporting activities, and so it did not appear advisable to "reject outright or excessively curtail the hypothesis of a larger contribution by foreign consortia to industrial-export diversification". It would largely depend on how national policies were put into practice (Pinto, 1980, p. 140).

These proposals were part of what came to be known as the "new international economic order" (NIEO). Strongly associated with UNCTAD, and arguably a logical result of Prebisch's ideas, this became the new framework within which the region was expected to act. At the third regional appraisal in Guatemala in 1977, the idea of a new international development strategy within the NIEO came to the fore. It was recommended that "strong encouragement should be given to the work aimed at preparing the international code of conduct governing the activities of transnational corporations" (ECLAC, 1977). Furthermore, governments were now in a better position to negotiate with and control TNCs, since their experience gave them more bargaining power. Not only this, but Latin American countries should share information to increase their collective bargaining power vis-à-vis TNCs. They should also develop measures to promote the restructuring of world industrial production, in particular by securing greater access for manufactured products from developing countries through the reduction of trade restrictions and regulation of TNCs. Easier access to technology should also be guaranteed to developing economies. But as always, it was Latin American industries and technologies that had to be developed. There was an imperative need to create or strengthen institutions in the region that could engage in R&D or facilitate its transfer.

As the decade advanced, the ideas of ECLAC were faced with their strongest challenges ever. In a politically polarized climate, its reformist stance was losing appeal.[16] The United States Government had changed its attitude and was supporting and encouraging military interventions to counter the Communist threat. Guerrilla movements throughout the region, a socialist government in Chile and the organized NIEO movement had further polarized the international political environment.

This situation led to further radicalization of dependency theory, and gave it a wider appeal. In the developed world, orthodox monetarist economic ideas were gaining ground in academic circles and, towards the end of the decade, in political ones too. A campaign against the "bad economists", those associated with ECLAC, had begun in United States academic circles in the 1950s. As the structuralist school was branded unprofessional, a professional project was launched to promote "correct" (i.e., monetarist) economics in Latin America.[17] ECLAC thus became trapped between the more radical critics (followers of dependency theory)

[15] Marinho was a staff member of the ECLAC/UNCTAD Joint Unit on Transnational Corporations.

[16] ECLAC reformism had its limits since it was an international agency and, at a theoretical level, always assumed the State to be an exogenous factor (Love, 1996b, p. 242).

[17] This was done by funding and creating new institutions and by attracting Latin Americans to graduate schools in the United States. The most exemplary case was the accord between the University of Chicago and the Pontificia Universidad Católica in Chile. See Montecinos (1997, pp. 291-295).

and conservative monetarists. Meanwhile, in the Southern Cone brutal military dictatorships were applying monetarist programmes and making the first efforts to abandon the industry-led strategy. The case of Chile is significant: not only had ECLAC ideas played an important role in reformist policy-making in Chile during the 1960s, but its headquarters were located in that country. These attacks on ECLAC structuralism, like the military coups in the Southern Cone, could be related to the clash between the autonomous, regulatory stance of ECLAC and United States business and security interests. The failure of the Alliance for Progress had given rise to a change in United States foreign policy that was increasingly favourable to military interventions and distrustful of what United States officials saw as subversive ideas. Lastly, the state of crisis in the United States economy and the competition it now faced from Japan and Europe implied that any attempt to curtail American business interests – especially in the region, where they were hegemonic– needed to be a matter of concern.

The 1970s were also a high point for foreign investment, although it came mainly in the form of financial flows and external debt. The "debt-led growth" strategy would come to an abrupt end in 1982. The region now faced the need to adjust its economies while at the same time dealing with their debt problems in an extremely unfavourable external environment.

V

From debt adjustment to "productive transformation": the beleaguered 1980s and 1990s

The besieged position of ECLAC meant that the emphasis on development and production shifted towards a position of opposition to the type of adjustment demanded by the lending banks and IMF (Bielschowsky, 1998b, p. 37). The fourth stage in ECLAC thought was driven by the objective of finding a way out for the region as it faced inevitable adjustment. The main proposal was for "expansionary adjustment". This required an agreement between lenders and Latin American countries as well as a less strict use of fiscal and monetary policies. ECLAC saw this as the only way in which adjustment could be carried out without further damaging the social conditions of the region.

The mid-1980s saw the appearance of new theoretical reflections that transcended the adjustment problems. This is the stage that still permeates ECLAC thinking. Primarily in the works of Fernando Fajnzylber, the main concern was to re-evaluate the ISI experience and to reflect on the feasibility of an industrializing strategy (Fajnzylber, 1990). Central to this reappraisal was the success story of the newly industrializing countries in East Asia. In this light, ECLAC tried to confront the problems of the past and find a way of remedying them. The ISI strategy had not managed to solve the problems of social inequality, mainly because of its lack of technological absorption. The Asian example allowed ECLAC to maintain its stress both on industrialization and on State intervention.[18] These ideas would crystallize in the proposal for "productive transformation with equity" that was to mark ECLAC analyses through the 1990s (ECLAC, 1990). What was needed now was a "new industrialization" that would put emphasis on the need for "technological progress". In the 1990s, the need for a competitive external strategy complemented these early ideas, with industrialization being seen as the core of productive transformation. As part of this new strategy, Latin America should also address the problems of poverty and inequality through definite measures of income redistribution (ECLAC, 1990).

The position of ECLAC in the 1990s was a feeble one, given the dominance of the Washington Consensus ideas. These ideas had gained importance through the agency of IMF and the World Bank during the 1980s, as these institutions played the leading roles in the debt negotiation process of the 1980s and the structural reform processes of the 1990s. Furthermore, the attempts to debunk structuralist ideas (launched, as we have seen, in the 1950s) had finally been successful, as the economists trained under these programmes came

[18] It is interesting that the World Bank and IMF have interpreted the Asian experience in a different light and have used it to justify their free market proposals. See World Bank (1993).

to occupy the highest positions in Latin American governments. The end of the Cold War (1989-1991), with the United States predominant, only gave further strength and support to these new ideas. Moreover, this dominance meant that the proposals of ECLAC had lost such little leverage as they enjoyed.[19] In this climate, ECLAC had to respond and adapt its ideas.

An important element in this new period, and in the way ECLAC confronted the demanding and hostile intellectual and political climate, was the organization's assessment of the actual achievements of ISI. While recognizing the problems, shortcomings and abuses associated with it, and particularly the negative aspects of State intervention and its lack of emphasis on market forces, ECLAC took a positive view of these achievements. This was essential, given that neoliberal thought blamed ISI for the apparent economic failure of the region,[20] claiming that it had resulted in the emergence of inefficient industries which had hindered Latin American economic performance. In response, the proposal of the Washington Consensus was to let free markets and an open economy restore efficiency. Any encouragement of industries was seen as "populist" and thus negative (Dornbusch and Edwards, 1991).

In the view of ECLAC, not only had Latin America seen high rates of growth during the "golden age" (1950-1973), but ISI had been more positive than was previously thought in terms of technological learning and development. This provided a strong base from which the region could engage in a transformation towards a more dynamic, competitive and outward-looking industrial sector (Katz, 1998, pp. 63-75).

The 1990s also marked the return of Latin American countries to the international financial markets after the debt crisis. The 1980s had seen a decline in flows to the region and in the percentage of total international flows it received.[21] Furthermore, the 1990s were a decade in which the international economic situation was characterized by increasing flows of FDI, with what were now called the "emerging economies" playing an important role.[22] The privatization process in Latin America exerted a great attraction on these flows. The dominant neoliberal consensus regards FDI and TNCs as desirable elements of a good economic situation. In an open, globalized economy, governments should facilitate them and create positive conditions to attract them. Policies that either hinder this or seek to encourage national industries are regarded as counterproductive and unsound by the Washington Consensus.

By contrast with the commercial bank loans which predominated in the late 1970s, foreign investment in the 1990s went mainly into services and productive investments (ECLAC, 2000). These changes prompted a renewed interest in TNCs in ECLAC studies. An important finding was the way these companies' participation in the Latin American economies had changed over recent decades (Stumpo, 1998). Whereas during the ISI years TNCs had tended to invest in intermediate and consumption goods, since the mid 1970s and early 1980s, when Latin American governments were seeking to transform ISI strategy, the bulk of FDI has gone into commodity manufacturing for export. This finding gives support to the original ECLAC claim that TNCs cannot be the guiding forces of development. Important though they might be, the need for technologically advanced industries can only be met from within Latin America itself.

By recognizing the benefits of ISI, by taking the example of East Asia and by showing the shortcomings of what TNCs have to offer the region, ECLAC –in contrast to the Washington Consensus– still promotes positive policies that can help Latin American industries, while recognizing the need for more open economies and freer markets. The imperative is to foster the absorption of the latest technology by Latin American industries so that they can compete internationally. Even if TNCs can help foster exports in certain periods and in certain sectors, the soundness of the region's position in international markets will "depend on the existence and progress of national firms capable of competing –either on their own or with the aid of inputs of foreign capital– against the firms supplying the international market" (ECLAC, 1990, p. 75). Productive transformation with equity has to take place in a context of higher international competitiveness, grounded in a "deliberate and systematic absorption of technical progress". This implies that "proper account must be taken of the need for learning and dissemination of internationally available know-how" (*ibid.*, p. 14). Both technological and human capital advances have to be absorbed so

[19] The current proposal for a free trade area of the Americas, led by the United States Government, is a clear example of this.

[20] For example, Arnold Harberger thinks that the situation in Latin America improved once "good economics" (that taught at the University of Chicago) replaced the "bad economics" of ECLAC. See Harberger (1996, p. 303).

[21] 1991 was the first year since the debt crisis in which the region saw a positive transfer of resources (ECLAC, 1995, p. 26).

[22] In 1998, these flows reached US$ 650 billion. Still, the bulk of capital flows went to developed economies. In 1997 the proportion was 59%, and in 1998 it was 71% of the total. See ECLAC (2000).

that productivity, competitiveness and equity can be improved. According to ECLAC, this has been a neglected aspect in Latin America.

Studies that analyse TNCs and the flows of FDI to the region in the 1990s help ECLAC to hold out against the refusal of support for Latin American industries suggested by the Washington Consensus. As in its early stages, it expects TNCs and FDI to have positive effects, and there is a clear awareness of the need to encourage and attract foreign capital and technology. ECLAC believes, however, that these will never be a substitute for actual Latin American industries, if the region is to develop and tackle its social problems. Another important element in the ECLAC view is its stress on the example provided by Latin American TNCs that have managed to grow and expand successfully, which are thought to be possible sources of economic dynamism (Chudnovsky, 1999). This allows another old idea to be maintained: the importance and desirability of regional integration. Although progress has been weak, regional integration has helped to promote trade in manufactured products across the region.[23]

Lastly, the impressive flows of FDI to the region since the 1990s have made it a matter of renewed importance for some sort of regulation to be in place. State regulation is obviously recognized as necessary, but it is weakened by the lack of adequate information. Reviving its old argument about the importance of governments having adequate information and experience to give them bargaining power vis-à-vis TNCs, ECLAC is pursuing studies that should help Latin American governments to regulate TNCs and FDI. In 1999, for example, two shortcomings were recognized: lack of statistical evidence, and regulatory challenges, given the number of channels and agreements through which FDI is directed (ECLAC, 2000).

VI
Conclusions

As the example of the 1990s shows, ECLAC has continued with its quest to promote a development strategy based on modern industry and technology that will allow Latin America to follow an autonomous path towards development and equity. Throughout the 50-year period we have considered, the Latin American and world economies have both changed significantly. In each period, Latin America's relationship with the international economy and with foreign investment has changed its form. The last decade has also been one in which ideological trends are far from coinciding with ECLAC ideas. Globalization, FDI and the participation of TNCs are currently seen as the desired means of development for "emerging countries".[24] Nevertheless, ECLAC continues its effort to understand these changes within the same framework and under the same assumptions it originally used. By doing this, it strives to preserve its own idea of what a Latin American development strategy should be. These assumptions and their framework shape its understanding of the nature of foreign investment.

This paper has shown that the position taken by ECLAC towards TNCs and FDI has been a coherent and consistent one through its five decades of existence. This position implies recognition of the need for foreign investment, but has been marked by awareness of the dangers and drawbacks of an uncritical reliance on outside capital. It has also shown that, its continuity notwithstanding, the analysis of ECLAC has adapted and responded to changing economic and ideological conditions, but without compromising its basic position.

The issues of FDI and TNCs are complicated and crucial ones in Latin America, and the likelihood that interdependence will increase and international trade continue to grow tends to render them even more important. In an age when the theoretical consensus tends to disregard the problematic nature of FDI and adopt an attitude of blind faith towards open markets, and when the problems and vulnerability of the region seem to be increasing, the critical effort of ECLAC, if understood in its own framework, is an important voice striving to address and elucidate them.

[23] In the years leading up to the 1980s debt crisis, intraregional exports doubled as a share of the Latin American industry total. The main drawback, particularly in the small and medium-sized countries, was that they were unable to provide ISI with the "critical mass" in terms of market size and the degree of competitiveness required for success in the long run (Ffrench-Davis, Muñoz and Palma, 1998, p. 213).

[24] Except of course by the "globalophobics", as Mexico's former president Ernesto Zedillo so strangely termed those who demonstrate at every meeting of international leaders.

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Policy response *to poverty and* **inequality in the** *developing world*

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The author argues that the effectiveness of poverty alleviation instruments largely depends on how poverty is defined. The aim of reducing absolute poverty chiefly entails a discussion of growth, historically the main factor in this process. If poverty is defined in relative terms, on the other hand, then it is changes in inequality that are the main factor behind variations in its incidence. In any event, the relationship between the two potential sources of poverty reduction is crucial.

This article summarizes the growth and distribution implications of growth-oriented policies in the first instance, then of distributional policies. It concludes by considering which instruments offer the best hope of reducing absolute poverty or relative poverty, and how sensitive the optimum policy combination might be to the way poverty is defined.

I
Introduction

By the most common yardsticks of economic progress (per capita income or purchasing power, satisfaction of basic needs), there has been a striking decline in the incidence of poverty in the Third World, and hence in the world as a whole, over the past half century for which fairly adequate data are available. With a constant poverty line of 200 1970 United States dollars,[1] world poverty incidence fell from nearly half in 1950 to about a quarter in 1977 and has carried on falling since, probably to between 10% and 13% in 1995, with the absolute number of poor declining by over 40%.[2] A considerable share of this advance has reflected rapid growth and a low level of inequality in China. When that country is excluded, incidence falls more slowly, from 36% in 1950 to 24% in 1977 and somewhere between 11% and 15% by 1995, while the absolute number of people in poverty falls modestly by perhaps 5% to 15% over the whole period, with all or nearly all of this reduction occurring since 1980. Defined by the higher poverty line of 1,000 1987 international dollars, the absolute level of poverty outside China showed a net increase during the period 1950-1995, with this pattern emerging over the recent period 1980-1995 as well as before.

The decline in poverty incidence (defined by income level) in the non-socialist world has been fitful, uneven regionally, and threatened by changes of policy and context. Accordingly, there is a good deal of concern to find a secure recipe for the sort of "growth with equity" that would bring rapid and widespread poverty alleviation. Though there is considerable agreement, at least among economists, with respect to some of the elements of a good strategy to reduce it, other possible elements are more controversial, and there is nothing approaching consensus on the relative importance of the suggested components. This paper puts forward some views on what works, and emphasizes the need to base policy on a more serious analysis of human welfare than has been the case and to tighten the links between the definition of poverty and the policy response.

Any discussion of the alleviation of absolute poverty (when defined as purchasing power below some given absolute level) is necessarily also a discussion of growth. One may think of the rate of poverty alleviation as being determined jointly by the rate of average income growth and changes in the distribution of income. If distribution improves, this contributes to poverty alleviation, so growth "accounts for" less than the whole of the improvement; otherwise it "accounts for" all or more than all of the alleviation which occurs. In this mechanistic sense, the great bulk of the poverty alleviation which has occurred over the past half century, perhaps all of it, is due to growth. Over the last decade or so, increases in inequality have become the norm in developing (as well as developed) countries; growth itself is, accordingly, a less secure route to absolute poverty alleviation than before, even though it has become the sole source thereof.

It is useful to distinguish between the primary distribution of income –that which emerges from the functioning of the economy before any subsequent redistribution through taxes and transfers– and the secondary distribution which includes the effects of these. Taking this distinction into account, one may think of the challenge of poverty alleviation as involving i) growth, ii) the impacts of the particular growth pattern followed on primary distribution (sometimes positive and sometimes negative), and iii) direct poverty redressal, whereby some form of redistribution takes place to alleviate part of the poverty implicit in the primary distribution of income; this may be through the State or through private channels, such as the extended family or the community.

If relative income or consumption is a key element of the basic definition of poverty –and authors like Easterlin (1974), Scitovsky (1976) and Hirsch (1976) have argued that relative consumption is the central determinant of well-being in industrial countries– then changes in distribution are likely to be the main source of changes in poverty incidence, where poverty is defined as a low level of self-defined well-being (see

☐ I thank Gerry Helleiner and José Antonio Ocampo for their valuable comments on an earlier draft. Any remaining errors are my own.

[1] And with other country values converted to United States dollars at the purchasing power parity conversion rate.

[2] Based on Berry, Bourguignon and Morrisson (1983) and Berry and Serieux (2002).

below). In either case, it is evident that the relationship between the two potential sources of poverty reduction, namely growth and improved equity, is important. Many early post-war development theorists emphasized that growth might well worsen income distribution over a period (Kuznets, 1955). Others, including some who did not expect the early-stage worsening of distribution and some who believed that it would not be sharp enough to prevent benefits reaching the poorer groups, believed in the "trickle-down" theory, which predicts that even if growth is not designed particularly for the benefit of the poor, some of its fruits will nonetheless accrue to them. The record of the last half century has basically confirmed the trickle-down theory, at least in the sense that much poverty alleviation has been achieved, even in countries which did not seem to concern themselves much with poverty alleviation. The experience of Taiwan shows just how complementary a very equitable distribution of income can be with very fast growth, even during the early phases (Ranis, 1978). Other countries, while making the point in a less spectacular way, have records which are consistent with it. The growth/distribution discussion has thus gradually moved to a fairly general acceptance that the two objectives are not likely to be in conflict in any systematic way unless a bad combination of policies has been chosen. The range of experiences on both the growth and the distribution fronts suggests that policy may matter a great deal, i.e., that not all of the variance of outcomes is due to differing exogenous circumstances.[3]

Since, especially over the longer run, growth is the main factor in alleviating absolute poverty as measured in income terms, it follows that those policies adopted principally for their expected growth benefits may also be the main determinants of how poverty changes over time, with policies adopted for their expected distributional benefits playing a lesser role. In practice, some of these latter policies may in fact worsen distribution, either because governments mainly controlled by the relatively well-off shy away from implementing policies in a way which will be progressive, and/or because there remains a good deal of guesswork as to the distributional impacts of many policies.

Section II of the paper reviews the implications for both growth and distribution of those policies usually pursued with the former objective in mind, section III does the same for those policies normally pursued with distributional objectives in mind, section IV points to how sensitive the composition of the optimal policy package may be to the way poverty is defined, and section V presents some general conclusions on "best policies".

II

Growth and distributional implications of primarily "growth-oriented" policies

There is no serious debate about the importance of physical capital formation, human capital accumulation and technological change as sources of growth. The only discussion revolves around their relative importance and how this varies by setting, and around how best each of them may be achieved. In the latter context such policies as fiscal and trade policy are naturally involved. The distributional implications of these three processes are more complicated and may depend very much on the details of the case.

1. Conservative macroeconomic policy

It is accepted that runaway inflation is prejudicial to growth. Whether or under what range of circumstances low inflation (say single-digit) produces better growth results than low double-digit levels is much less clear. The current (strong) preference for quite low rates of inflation seems to be based primarily on conservative ideology (whose predictions may of course turn out to be right) and on the perception that high inflation is more problematic in the context of the high level of integration towards which the world is evolving. It does appear that hyperinflation has a negative impact on distribution, although this may be relatively short-lived and is in any case not a major determinant of inequality.

[3] The history of ideas about poverty and its relationship to growth, as well as many issues relating to poverty policy, are reviewed in Lipton and Ravallion (1995).

It is also often argued that the "inflation tax" resulting from even intermediate levels of inflation is significantly regressive, in which case lax monetary policy is likely to be regressive as well. But the evidence is fragile and there is little theoretical reason to expect the effects to go one way or the other, unless there is a correlation between the looseness of monetary and fiscal policy and the distribution of net benefits from them (taxes, government expenditures, access to credit). It is fairly widely believed that the low real interest rates which have tended to accompany high rates of inflation tend to produce a more concentrated distribution of credit than would rates closer to market levels (Fry, 1988, p. 163), but here too the evidence is still very sparse. Hypotheses on the distributional implications of loose as opposed to tight fiscal policy are more varied, with nothing approaching consensus (Whitehead, 1996). Overall, while there is no well-grounded reason to believe that these policies have important direct effects on equity, the credit, tax and public expenditure patterns which go with them may matter a good deal, albeit in ways not yet well understood.

The complexities of the impact of macroeconomic policy on distribution and poverty are further underlined by the recent theories of hysteresis of social conditions over the course of the business cycle; these argue, for example, that poverty, human capital and employment are not affected symmetrically by the downturn and subsequent recovery which together constitute a business cycle, since the gains in the recovery tend to be less than the losses in the downturn. Thus, a business cycle is not a neutral event in the sense that when gross domestic product (GDP) has returned to its pre-recession level the same will be generally true of other variables; cyclical behaviour can have permanent costs in terms of holding those variables below the levels they could have reached had the evolution of GDP been less volatile. Related to these propositions is the idea that when price stability (desirable in itself) is obtained at the expense of output growth stability, the net redistributive effects may be adverse (Ocampo, 2002).

The major direct contribution that having a job makes to people's levels of satisfaction, as revealed in the surveys cited above, implies that any policy package which leads to high unemployment (e.g., tight monetary/fiscal policy aimed at achieving payments balance) is doubly problematic. Only if high current unemployment is necessary to assure low future unemployment is such a policy likely to be justified.

2. Saving and investment policies

For really fast growth, savings need not only to be high, but to be used effectively as well. Both the cross-country correlation between saving/investment rates and growth, and the fact that the fast-growing countries of East Asia all underwent dramatic increases in their saving rates as part of the growth acceleration (World Bank, 1993), underline the priority status of this variable. Unfortunately, there remains great ambiguity as to what factors help to raise saving in which sorts of countries. Low demographic burdens appear to have helped in East Asia (Bloom and Williamson, 1998); positive real interest rates and strong financial systems appear to raise financial saving (Mason, 1988), although whether they matter to total saving remains unclear (Masson, Bayoumi and Samiai, 1998, p. 497; Akyüz,1995). Fast growth appears to contribute to high saving rates, so the major challenge may be to achieve that first burst of rapid growth.

If saving potential were in fact limited to the rich (say the capitalist class), then there would be a clear trade-off between fast growth and equitable distribution of income. This is not universally the case, as we know from the experience of countries like Taiwan, but it may be that the trade-off is absent only under somewhat limited conditions. It is no doubt better to achieve high saving from a narrow segment of the population than not to get it at all, especially when the objective is alleviation of poverty defined in absolute terms. Where saving is highly concentrated among entrepreneurs, some of whom are not particularly rich, the situation is more acceptable, since the distribution of consumption expenditures is considerably less unequal than that of income.

3. Human capital accumulation

Although it is widely accepted that human capital accumulation is important to growth (Schultz, 1961) and the mechanisms linking the two have been studied from various perspectives, our understanding of the role of human capital in the growth process is only modestly greater than it was several decades ago. Mincerian regressions, long the most widely used method of demonstrating the social payoff to education and training, have been shown to be very sensitive to specification problems, especially omitted variables bias and aggregation bias (Rosenzweig, 1999; Schultz, 1989); credentialism, although its possible quantitative importance has been harder to demonstrate, also continues to cast doubts on the simpler Mincerian interpretation of earnings differentials and to suggest that they suffer from upward bias (Dore, 1976). On the other hand, positive externalities related to the process of imitable innovation, skill acquisition from the more educated and the like could be significant also, and would tend to produce a downward bias in the standard estimates. It is reasonable to think that the Mincerian regression estimates do give a very rough feel for social payoffs to education in many circumstances; an estimated 15% rate of return should probably be interpreted as meaning that the true rate is in the range 5-20%.[4] A convergence between the Mincerian regression results and evidence from other methodologies would be needed to narrow the range of uncertainty.[5] With practical training of various sorts (including periodic over-career upgrading of skills) much under discussion now, and relevant in various ways to poverty alleviation, it is discouraging that earnings function analysis has even more obvious difficulties in sorting out the benefits of these forms of human capital than those of formal education.

The Mincerian estimates have been a source of optimism not only for their generally medium to high estimates of the overall social returns to further human capital accumulation, but also for their indication that such returns are particularly high for primary education. This underpins the belief that raising the human capital of those towards the bottom of the educational and earnings profiles is a useful anti-poverty tool, perhaps even the most important tool of all. But there is still only a limited understanding of what steps will in fact narrow educational gaps (this requires, for example, an understanding of the response pattern from those on the upper side of the educational gaps) and of how the future of education-related earnings gaps may unfold. The empirical evidence linking human capital advances to better growth and distribution outcomes is too flimsy to provide a substitute for detailed understanding of what goes on inside this "black box". It is quite possible, especially given the apparent importance of the skills that are complementary to computer literacy and the information revolution, and of the widely observed increases in earnings gaps by level of education over the last decade or so (Robbins, 1995), that the relative payoff to higher as opposed to lower levels of education has risen for the medium term. Keeping well trained people in the country is increasingly difficult to the extent that high-level migration gets easier in a context of globalization; the migration option may be one of the factors behind rising earnings gaps in developing countries (Hamada and Bhagwati, 1975). These considerations could mean that the optimal growth promotion strategy in the area of human capital is no longer as likely to improve distribution or alleviate poverty as it may have been at some point in the past.

The argument for generalized, good quality basic education remains powerful, since the payoffs to literacy and numeracy are evident and since this level is necessary to allow people to advance to the higher ones. The need to worry more about the quality of basic education is made more pressing, however, by the current ambiguities in the evidence of payoff to education in general. Further, and as with most of the other instruments under discussion, the relationship between human capital and poverty is likely to be sensitive to how poverty is defined. This is tautologically the case if one uses a "basic needs" definition in which education figures importantly.

4. Technological change

There is no dispute about the importance of saving and investment as a source of growth. In contrast, there is a debate on which new technologies contribute to growth, with theory suggesting that overly modern or capital-intensive ones may not do so, whereas "intermediate" or appropriate technologies are a surer bet. Empirical confirmation of this presumption is limited and for the most part indirect, however, and there is considerable doubt as to whether the shelf of appropriate technologies available is very well stocked.

The distributional impacts of technological advance are also ambiguous. Simple theory suggests strongly that modern technology, in creating few jobs per unit of investment, will tend to worsen the distribution between capital and labour income, and that where such technology is also skill-intensive it will likewise worsen the distribution between more skilled and less skilled workers. Partly because we do not have indicators of the rate or pattern of technological change (in contrast to human capital formation, saving, etc., for which we do have useful measures), it has been difficult to get an empirical feel for the validity of these

[4] Estimates like that of Behrman and Deolalikar (1993) suggest that the true effects of education on productivity might be as low as 40% of those implicit in the simple Mincerian regressions.

[5] Pritchett (1996) puts the confusion in this area quite starkly. There has been too much simplistic analysis and too little concern about the manifold methodological problems.

theoretical presumptions. Technological change can be a threat to equitable distribution and hence to poverty alleviation, either because it has a bias towards capital or skilled labour, or because businesses that are in a position to adopt it are already better off (for example, because they are larger) than those not so favourably placed. Certain changes in agriculture can produce a negative distributional impact through both factors, as where tractorization not only lowers costs on large farms in ways which smaller farms cannot replicate, but also displaces labour and pushes more workers on to the smaller farms.[6] In other sectors, too, the size and existing technologies of the firms which introduce new technologies are both relevant to the final impact of that adoption (James, 1998; Berry, 1998a).

Some aspects of the process of technological change are more exogenous to individual developing countries, and even to the group as a whole, than is the case with the other sources of growth discussed above. It is widely noted that about 97% of research and development expenditures occur in the industrialized countries of the North (World Bank, 1999). Accordingly, it may be very hard for developing countries, particularly those that are tightly tied into the world economic system, to buffer themselves against some of the negative effects arising from the pattern of ongoing technological change at the world level. Still, a good deal of the evolution of technological practices is affected by the internal context and policies. Though key breakthroughs in agricultural research usually come from outside the country, it is important for their effective adoption, and especially their adoption by smaller farmers, that such international research be complemented by local efforts (Evenson, 1975). In other sectors there are a number of policies that clearly contribute to the rate of technological improvement by smaller firms (Levy, Berry and Nugent, 1999), whose measures are usually more favourable to employment than those adopted by larger counterparts.

5. Outward orientation and other pro-market policies

The proponents of freer trade, less government intervention and more market-friendly economic policies generally have argued that this sort of shift will raise the rate of growth not only through Heckscher-Ohlin efficiency effects (Feder, 1983) but also by contributing positively to domestic saving, foreign saving (capital inflows) and the rate of technological change as a result of greater contact with foreign sources, etc. (Rodrik, 1995, pp. 2933-2934). There is no doubt that each of these factors is frequently at work. On the other side of the ledger are the negative effects of instability in the capital inflows and outflows which have come with freer international capital movements, and a possibly negative effect on investment when freer markets lower the certainty about the payoff to certain investments. Also, to the extent that some degree of protection is justified by the presence of learning-by-doing effects as formalized in the "infant industry argument", the inability to protect may hinder countries from helping along nascent industries which could become competitive. Under what circumstances the positive effects of outward orientation will prevail remains to be seen. Given that, with only a few exceptions, the shift to market-friendly policies has not yet brought the developing countries an immediate or large positive impact on growth, the case cannot be considered closed. It may be that those effects will ultimately be significantly positive as anticipated by the proponents, but that a longish gestation period is required for the benefits to manifest themselves fully, or it may be that the optimism was simply ill-founded. The level of analysis which provided the basis for the policy shift was far from exemplary.[7] Nor does economic theory help much to clarify what trade policies are likely to work best in developing countries; too much depends on the assumptions fed into the theory. When investor risk-aversion is strong and learning by doing is important, it is likely that infant industry protection will be necessary to induce some investments which contribute to growth. If developing countries were highly effective in the design and implementation of policy intervention, free trade would

[6] The World Bank's somewhat belated recognition of this threat came in the early 1970s. A study of the results of (large) tractorization in Pakistan helped to produce it.

[7] For example, although much use was made of cross-country regressions showing a positive correlation between outward orientation and growth, relatively little attention was paid to the fact that the presence of a positive impact on individual countries does not necessarily or generally imply a positive impact for the Third World as a whole —a classic example of the fallacy of composition. This issue is discussed in the context of primary exports by Maizels (1994), among others, and in that of manufactures by Faini, Clavijo and Senhadji-Semlali (1992) and by UNCTAD (1996). An even graver flaw, because less obvious to the untrained eye, has been the carelessness evinced in the measurement of "outward orientation". Alternative measures, each with some apparent logic, are not well correlated with one another.

probably not be their first-best option; their frequent failure to apply infant industry protection in a way close to that contemplated in the theory makes substantially free trade look like a more attractive "second-best".

There is a strong possibility that outward-oriented policies are the best way to go for small countries but less so for large ones. When Peru adopted import substitution industrialization (ISI) strategies from the 1950s onward, the results appear to have been much less favourable than those in Brazil, which between 1945 and 1980, under strong ISI policies, outgrew almost every other country in the world (Maddison, 1992). Growth achieved by inducing multinational corporations to invest in labour-intensive exports is much more relevant to the smaller countries than to the half-dozen or so in which the bulk of the less developed countries' population lives.

The distributional implications of freer markets, including freer trade and international capital movements, are hotly debated. Positive Heckscher-Ohlin effects are expected by most proponents on the basis of the ideas that, firstly, developing countries typically have a comparative advantage in labour-intensive goods and services so that freer trade should increase the relative demand for labour and hence improve the distribution of income and, secondly, that freer trade in many countries implies a stronger demand for agricultural products whose exports are indirectly discouraged by ISI policies mainly designed to protect manufacturing. Prominent among the various counter-arguments is the empirical fact that the recent wave of globalization and liberalization of trade and capital movements has coincided with increasing inequality in many developing countries (Berry and Stewart, 1997) as well as in the developed ones; this fact throws doubt on whether Heckscher-Ohlin effects are working as strongly as predicted.[8] For some regions (like Latin America) the explanation for their not doing so may be that these countries' comparative advantage at a world level does not in fact lie in unskilled labour-intensive goods and services, but rather in goods intensive in natural resources or relatively skilled labour, or both. More generally, the fact that firms which engage heavily in international trade tend to be larger (industry held constant) than those which do not, and also tend to use more capital-intensive and modern technologies, suggests that distribution will tend to worsen as the share of output which is traded internationally rises.

Putting together the still doubtful growth effects of freer trade with the negative distributional trends which have frequently coincided with the policy shift makes it evident that any presumption that freer markets will bring significant poverty alleviation should be put on hold. Perhaps the most likely outcome is a small positive impact on growth together with a negative impact on distribution of medium scope, leaving a small net effect, possibly positive and possibly negative, on the rate of absolute poverty alleviation. But the range of possible effects is wide, given our lack of understanding of the mechanisms involved and the rather confusing empirical record thus far. In a society which places substantial weight on relative income, the impact of this policy shift on poverty could be strongly negative if the distributional effect is significantly negative.

[8] Various empirical studies have reached more positive judgements. Thus, Londoño and Székely (1998) concluded on the basis of cross-country regressions for Latin America that trade reform had produced a positive impact on distribution, while labour reform had had the opposite effect. Stallings and Peres (2000) found that both trade reform and tax reform had negative impacts on household distribution. Morley (2000) also found the impact of trade reforms to be negative. Though they estimated a positive effect from the reforms, Londoño and Székely concluded that the reforms alone would not bring marked improvements in inequality or poverty unless they had the effect of diminishing educational inequality and widening access to other productive assets.

III
Distribution and growth implications of primarily "distribution-oriented" policies

As with the main components of the more growth-oriented policies, each of the distribution-oriented policies considered below may have significant growth impacts besides the effects on distribution for which they are more often implemented.

1. Asset redistribution policies

The most obvious way to improve income distribution is through a redistribution of productive assets. In the case of human capital, this can only be done gradually over the course of time since expropriation and immediate redistribution is not feasible. With physical assets such redistribution is possible, but seriously feasible only with land, i.e., via land reforms. That these can have a substantial and lasting effect on income distribution under favourable circumstances is clear. Taiwan province of China is the most commonly cited case; it appears that inequality fell markedly at the time of the reform, undertaken when the country was still mainly agricultural (Kuo, 1983, pp. 94-97). The subsequent trajectory has been an exceptionally positive one in terms both of growth and of distribution. It appears that the initial equality contributed to its own perpetuation by helping to produce a very equal distribution of educational opportunities, dynamic growth of small enterprise, first in rural and then in urban areas, and a stronger political voice for the representatives of small enterprise. But few countries have had significant agrarian reforms, so the number of experiences is too small to permit a judgement on the range of circumstances under which the effects would be as positive as they appear to have been in Taiwan or Korea. It is also clear that only very unusual political conditions open the door for a major land reform to take place. It therefore appears destined not to be an important component of many poverty alleviation strategies, even though it may in principle be the most promising of all in many of the less developed countries.

Some attention has recently been given to the potential of market-based land reforms, in which subsidies to help small farmers buy land replace expropriation as the means of land transfer. The economic logic of these reforms is promising (Deininger, 1999), although it seems unlikely that such approaches will in practice have more than a marginal impact on the agrarian structure if applied without traditional confiscatory land reform. When complemented by such traditional reform, they may have greater value, partly through the "threat effect" which can make landlords more flexible in the face of expropriation. Removal of legal constraints on land subdivision is a minimal enabling device (Lipton, 1993, p. 651). Removal of subsidies favouring large farmers or their crops can be a valuable supportive device for credit or land laws to help the poor, and can be nudged along by the fiscal stringency faced by so many countries. Lower subsidies helped discourage the rich from subverting reforms in north-east Brazil, though other positive steps were also taken there.

Forest dwellers in many countries have faced expulsion from their natural-resource bases as other actors, sometimes private lumber companies and sometimes the State, put pressure on them. In this sector, as in agriculture, good distribution and efficient production often go together, as demonstrated by the success of community-managed forests (which produce a range of timber and non-timber products) in a number of the states of India (Kant, 1996) and elsewhere (Brightman, 1987). In 1988 the Government of India finally gave up on its former policy of excluding such dwellers from forest management, in recognition of the failure of that policy on both output and distribution grounds (Kant and Berry, 1999).

2. Policy in support of small farms and micro, small and medium-sized enterprise

Much more feasible politically than asset redistribution policies (mainly land reform) are forms of support for the small firms, in agriculture and outside, which are the base of employment for the majority of the labour force in most developing countries. Such support, to the degree that it raises output and productivity in these firms, directly increases the incomes of many poorer people. Its other advantage comes from the fact that smaller firms, whatever the industry, tend to be more labour-intensive than larger ones, so their presence raises the total demand for labour relative to what it would have been if their place had been taken by larger firms. Although small enterprises often generate low incomes, their productivity level (output per unit of scarce inputs) is often high, albeit varied. Medium-sized firms frequently achieve the highest total factor productivity of all the size categories, and thereby contribute to high incomes and to growth (Ho, 1980). Small and medium-sized enterprises (SMEs) contribute to a more equitable distribution since their factor proportions tend to be close to those of the economy as a whole.

Raising the productivity of small farms and of microenterprise has an immediate effect on poverty. In the former case the sources of success are clear —the sort of improvements in crop varieties which defined the green revolution. In the case of non-agricultural microenterprise, much effort has gone into improving credit access on the assumption that this will lead to higher productivity and hence incomes. A major challenge here is to assure the sustainability of the credit institutions; most experiments thus far have failed to pass this test (Santor, 1999). On the equally important question of whether their social benefit-cost ratio is adequate, the evidence is harder to come by and thus far uncertain.[9] If the available support programmes turn out not to have strong potential to raise the collective productivity of microenterprise, then a dilemma will arise as to whether such support is a more or less effective way of alleviating some poverty than is targeted poverty alleviation involving transfers of one sort or another to the poor.

If it is not feasible to achieve considerable productivity increases in very small enterprises, the next most direct way to alleviate poverty is to encourage a rapid expansion of small to medium-sized enterprise, which will eventually tighten up the labour market and create jobs for those currently lodged in the less productive microenterprise sector (Berry, 1998b). Depending on the country, this impact on poverty may come very quickly or with some lag.

3. Direct poverty-redressal policies

All societies have ways of alleviating the poverty of those with inadequate entitlements on the basis of their own efforts or opportunities. In developing countries, most such mechanisms involve the family (including the extended family) or the community. Developing countries have been evolving targeting techniques over the last decade or so; the statistical record, while still ambiguous, holds out a reasonable hope (Grosh, 1995) that, with further experimentation and refinement, they may play an increasing role in poverty alleviation over the next few decades, in some countries at least.[10]

A number of higher-income developing countries (several in Latin America, for example) are moving towards such developed-country staples as unemployment insurance. These too will inevitably go through a period of experimentation before it becomes clear what role they can and should play. The same goes for the various “safety net” public employment programmes which a number of governments have implemented over the last few decades, from the Indian state of Maharashtra to Chile under Pinochet. These pay a low enough wage to ensure that only the needy take up the employment option offered, and they attempt to generate social benefits in the form of infrastructure (road maintenance, school building, other).

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[9] While it is clear in many cases that the credit recipients have done better than non-recipients, this leaves open the question of whether the gains of the former have been at the expense of losses among the latter, a not implausible scenario in cases like small-scale retailing where the structure is one of monopolistic competition and the total market size may be quite constrained. A recent, impressive study of the main microfinance institutions in Bangladesh is that of Morduch (1998).

[10] Ocampo (2001, p. 25) notes that in two of the three countries of Latin America where rural poverty reduction was most marked in the 1990s, namely Brazil and Chile (the other was Panama), the reduction was closely tied to an allocation of transfers and State subsidies targeted on the poorer sectors.

IV

Policy priorities vary with the definition of poverty

Past errors in the interpretation of how development occurs have been at least matched by oversimplification in the matter of defining poverty. Social scientists other than economists (especially sociologists and psychologists) have long emphasized that people's feelings of deprivation are very much related to relative income and purchasing power and the feelings of inferiority which arise when these are low, especially in competitive societies where people are judged by their relative success. The concentration of economists on income-related measures of welfare may have been no more than a naïve prejudice, on balance ill-supported by other more direct evidence. Specifically, when people in the industrial countries (where such surveys have been carried out with some frequency) are directly consulted about their happiness and its correlates, absolute income seems to play a much smaller role than standard economic theory would suggest. It is moderately significant when the comparison is between people at different levels of the income hierarchy at a point of time, but less so –some authors say virtually insignificant– as a factor in how average societal welfare changes over time, even when average incomes have risen considerably (Easterlin, 1974; Scitovsky, 1976; Oswald, 1997). Most such studies reveal that the strongest influence among economic variables comes from employment; people with jobs are much happier than those without them.[11] Low inflation also makes people happier. The educated are happier than the uneducated, the self-employed than employees and the retired than the economically active. The ultimate meaning of all this evidence remains to be seen; in particular, the small apparent role of income cries out for analysis.[12]

One might plausibly guess that income would be a more significant determinant of self-reported happiness in lower-income (developing) countries, and the available data do show this. Frank (1997, p. 1834) notes that "most careful studies find a clear time-series relationship between subjective well-being and absolute income at low levels of absolute income". Where most people lack minimally adequate shelter and nutrition, additional income yields significant and lasting improvements in subjective well-being (Diener and Diener, 1995). Reported satisfaction levels are significantly lower in extremely poor countries than in rich ones, and within countries the positive link between income and satisfaction is significant primarily at the lowest levels of relative income. "For individuals in the middle and upper portions of the income distribution, variations in income explain less than 2% of variation in reported satisfaction levels" (Frank, 1997, pp. 1834-1835, citing Diener and Diener, 1995). Having concluded that average satisfaction levels within a country are not significantly correlated with income over time, Frank puts great emphasis on relative status as a source of respect and a determinant of well-being.

The surprising (to many economists at least) findings on the relative unimportance of income as a determinant of societal welfare may be only one of several reasons for reconsidering the conceptual basis for poverty policy. The role of a sense of belonging to a community in human welfare is obvious at one level, but it remains to be factored into discussions of economic policy. The same may be said of "social capital" (the ability to work effectively with others). Participatory poverty assessments uncover some of the correlates of welfare and deprivation as experienced by the respondents. In his study in the Republic of Guinea, Shaffer (1998) found that, although consumption data revealed no relative deprivation of women vis-à-vis men, two other dimensions which disproportionately affect women surfaced clearly: excessive workloads and lack of decision-making authority/respect.

[11] This is presumably due in part to unhappy people having trouble finding jobs, but longitudinal studies by psychologists have demonstrated that this is not the only cause (Oswald, 1997, p. 1822).

[12] Though rising average income does not appear to lead to anything like commensurate increases in average happiness, it is true that there is a significant cross-section relationship between happiness and income. In the European data for 1975-86, 18.8% of the bottom quintile report being "very happy" compared with 28.4% for the top one, while 26.7% report being "not too happy" compared with 13.1% for the top quintile (Di Tella, MacCulloch and Oswald, 1996). Part of this correlation would be due to the higher unemployment rates of the lower-income groups. Over time the happiness of the unemployed shows much more fluctuation than that of the employed, for reasons as yet unexplained.

The combination of evidence to the effect that more income does make individuals better off than their counterparts with less income, but that when everyone's income rises over time there is no comparable effect on average reported happiness, is consistent with the general notion that people's welfare depends on relative status, which in modern societies is affected by relative income and consuming power. Given such attitudes, deprivation –the reason one is interested in poverty as a problem– can be alleviated mainly, or even exclusively, by reducing the degree of income inequality. But, as many authors have emphasized, a more basic implication of such a situation is that society is dysfunctional in the sense that, as long as it defines satisfaction in relative terms, there is no way to make everyone better off. The gain of people on low incomes who are now closer in status to those above them is a loss to the latter, who can no longer enjoy the feelings of superiority which gave them satisfaction before. A society whose attitudes are less individualistic and competitive and more positively community- or society-oriented has the chance to benefit much more from economic advance. In short, the empirical evidence from the industrial countries suggests that attitudinal change may be more important than economic growth, and that without the former the latter may remain largely irrelevant. Although this is less true of the developing countries, to the extent that they replicate the attitudinal patterns of the rich countries it will become their problem too. A key objective of any society should be to reduce the "zero sum" component of what gives people satisfaction.

Given current attitudes, what does the partial and in some ways puzzling evidence on the determinants of human welfare add up to, in terms of its practical implications for economic policy? Most striking is the ambiguous role of income. Taken literally, the results would seem to suggest that economic growth ought to be severely downgraded in our thinking about poverty and welfare and that socio-economic policy should focus much more than it now does on employment (for those that want it), on employment conditions (including the avoidance of excessive work), on income distribution, on freedom from economic insecurity, on the importance of personal respect, and on sense of community. Whatever the ultimate meaning of the low weight attached to income, a plausible case can be made that most of the other identified correlates of self-declared happiness are associated with one another in a mutually supportive way. To begin with, a (or the) main direct source of high levels of income inequality is an inadequate demand for the labour of those with the least skills, and this also tends to produce unemployment of the more chronic and socially costly type, together with economic insecurity and the anxiety which accompanies it. Income inequality is also associated with an unequal distribution of physical and human capital. These interconnected inequalities are a direct cause of lack of respect for those at the bottom of the pyramids of income, wealth, education, skills, etc. Diminishing the inequalities naturally reduces the number of people subjected to lack of respect from others, even if those others retain an income/wealth/education-related definition of status and respect; although in fact, when these variables do not constitute such a gulf among people, the societal definition of the sources of respect is likely to change in a positive way. When differences among people are smaller, the sense of community is also more developed and positive in its impacts.

As noted above, there has been no general positive trend in income or expenditure distribution over the last half century, and a disproportionate share of countries have recently suffered the opposite pattern. It follows that a poverty indicator which gives enough weight to relative income will show little if any progress over time, especially during the last couple of decades. Thus, the widely differing implications of the alternative poverty indicators that have been put forward suggest an urgent need to consider more seriously which of these are most meaningful and perhaps to identify some professionally defensible combination of them that would give due weight to each of the determinants of deprivation and satisfaction as experienced by individuals. Most of the indicators used by economists are naïve in their implicit assumptions about the sources of individual feelings of deprivation, but thus far little attempt has been made to incorporate anything subjective into the indicators compiled by international agencies and by most economic researchers.

One of the more notable complexities still to be effectively dealt with is that of intra-family inequalities and the way they may have been changing over time. If rising incomes, urbanization and other processes of development have typically brought with them advances in intra-family equality between the sexes, one would conclude that, correctly measured, the distribution of expenditure among persons has evolved more positively than the standard estimates, which assume away intra-family inequality. How the distribution of subjective welfare has evolved is less clear; if women's expectations have evolved more rapidly than their relative position, for example, subjective welfare distribution might move in the opposite direction from that of expenditures.

V

What are the best bets?[13]

Which policy instruments are most effective in alleviating poverty thus depends very much on how poverty is defined. The optimal package is easiest to define when absolute poverty, as measured by income or expenditure per person, is the operative concept. In that case it is clear that growth is central, growth with equity is desirable, and policies whose main objective is redistribution are unlikely to play a large role. The most promising instruments are promotion of a high saving rate, preferably with widespread involvement of the population; investment in human capital, especially for those population groups who lag in that respect; technological change, with a serious effort to keep the innovations within the realm of "appropriate technology"; and policy support for smaller production units. Population policy and asset redistribution may be among these key elements in some countries, institutional reform and monetary/fiscal policy in others. Whether generally market-friendly policies will play a positive or negative role remains to be seen.

As the weight assigned to relative poverty (also defined by income or expenditures per person) and to employment conditions, respect, etc., increases and that assigned to absolute poverty decreases, the relative promise of the various policies is altered, perhaps dramatically. When relative poverty is the dominant concern, support for smaller productive units and attempts to raise the human capital of the poor are probably the best policy options available in most countries; asset redistribution may be the best in some cases where feasible, and significant in others; population policy can be important, especially when complemented by strong gender policies in countries where inter-gender inequality is significant. Saving and technology policies are question marks in this situation, since there is no general presumption that they can improve distribution even if executed fairly carefully with that objective in mind. Market-friendly policies are an unlikely component of the package.[14] These policies may be deleterious in another way; to the extent that they focus on market competition as the route to wealth for individuals, firms, regions, etc., they may heighten people's awareness of their relative position and thereby make the perceived deprivation of those performing less well in the market that much more acute.

Since almost all students of poverty would grant that, if income and expenditures are the relevant indicators, both absolute and relative positions affect welfare, we are left with the conclusion that the optimal package will be somewhere between the two just identified, closer to the first if absolute poverty is more important and closer to the second if relative poverty is more important.

The aspect of relative position which can most easily be taken into account in the measurement of change is relative income. But, as noted, an individual's welfare involves also the way he or she is treated by others and the related sense of social inferiority, the lack of access to psychological support, etc. Discriminatory treatment towards women, the aged, children or subordinated ethnic groups all figure importantly in the loss of welfare. Accordingly, measures of societal welfare should take these forms of inequality into account directly. While some societies have made progress in dealing with ethnic and gender inequality, the problems associated with age may have on balance become more severe as more people live to advanced ages and as family responsibility for that group diminishes.

The task of policy prescription is altered again and perhaps made more complex when poverty is defined in other, more subjective ways which allow for the benefits of feelings of community and feelings of security (not taken account of in the absolute or relative income figures, although well enough reflected in the market behaviour of individuals in the form of insurance purchases, risk aversion in investment behaviour, etc.). Without some concrete feel for societal preferences as to what the good life is (and recognizing that such perceptions are themselves to some extent dependent

[13] Among many reviews of poverty reduction strategies are Shaffer's report to the United Nations (United Nations, 1998), Chatterjee's paper for the Asian Development Bank (Chatterjee, 1995) and Lipton and Ravallion (1995).

[14] This is a very broad-brush discussion. Within the category of market-friendly reforms there are some which are quite likely to worsen income distribution and others which are quite likely to improve it.

on past and current experience), it is impossible to take strong positions on what good policy is. It is clear, though, that it might look rather different from what such policy would be when the indicators were objectively measurable income or expenditure.

Desire for security is not necessarily inconsistent with a need for adventure as well; societies need to search for good ways to reconcile these goals. If access to opportunities is more important to satisfaction than ex post success in economic terms, this too alters the way in which both overall economic performance and the degree of inequality in a society should be measured. Unfortunately, the concrete policy implications of these plausible components of social welfare are at this time fuzzy, for lack of careful assessment of what they might imply in practical terms.

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Expanding the *coverage of* pension systems *in Latin America*

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Despite the reforms undertaken by several countries in Latin America, the coverage of the region's pension systems remains inadequate. Underlying that circumstance are both context-sensitive factors and those of a more structural nature, such as the level of relative development, the difficulty of covering certain segments of the labour market, and the way in which the systems and incentives are designed. Given the decisive influence of the structural factors, the expansion of coverage will require the right combination of contributory and non-contributory systems, to which end this article makes some policy recommendations. Forestalling poverty in old age demands a combination of social insurance elements (based on saving and unfunded systems) and social security, involving some solidary and tax-related financing.

I

Introduction

The basic aim of any pension system is to provide people with an income after their retirement, generally after they meet some eligibility criterion such as age or incapacity to work, as each society considers appropriate. The way in which the system is arranged to finance such income is important, as is the way in which the contributions and benefits are set, but the system's effectiveness in meeting its goal depends on its including, during their working lives, those who will later be eligible for the benefits. In that sense a system's coverage is one of its most important features.

Clearly, coverage is only one consideration in judging the quality of a pension system. Several ECLAC studies have analysed others, such as the system's financial sustainability, the quality of the benefits, its degree of progressiveness and how efficiently it is run.[1]

An initial proxy of the effectiveness of the region's pension systems in covering the target population (taking 60 as the average age for retirement)[2] yields results that are generally disappointing. In only four of the countries in table 1 (note the second column) does there appear to be adequate coverage of the target population; coverage is deficient in the other 18.[3]

Table 1 also illustrates the substantial challenge involved in covering all retirees and the financial implications of doing so. Take a hypothetical case in which all retirees (those aged 60 and over) are maintained by the younger population (aged 29 to 59) through a system that provides a pension equivalent to the latter group's per capita output. In such a scenario the ratio between the two groups (the first column of table 1) gives some indication of the maximum level of income, as a percentage of GDP, that would have to be transferred to the older population.[4] It is plain that the figures are very substantial, even if the replacement rates were to be far below those implicit in this calculation. Hence the need for care in broadening coverage: public efforts should focus on those who for various reasons cannot save for their old age, and saving systems should be established with appropriate incentives for those who can save.

This article examines some of the reasons for the limited coverage of pension systems and makes some policy recommendations on how to expand such coverage, thereby helping to reduce poverty among the retired population. The proposals seek to foster financial sustainability (which is crucial if the policies are to bear fruit) and to prevent the emergence of perverse incentives and moral hazards like those that have traditionally weakened the region's pension systems. The analysis prompts the conclusion that meeting the needs of the retired population demands a combination of social insurance (typically, prior saving) and social security, the latter entailing solidary tax-derived financing of certain basic benefits.

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[1] See the studies in the ECLAC Financiamiento del desarrollo series, as well as Uthoff and Szalachman (1991, 1992 and 1993), Schulthess and Demarco (1993) and Acuña and Iglesias (1991). See also Acosta and Ayala (2002), Packard and Shinkai (2000), Rabelo (2001) and Superintendencia de Administradoras de Fondos de Pensiones (2002).

[2] The figure is given solely for reference purposes. Retirement ages in the region range from 55 to 60 for women and from 60 to 65 for men.

[3] The figures in table 1 should be treated with caution. First, not all pensions are given on the basis of retirement age; there are many other reasons, which explains why some percentages exceed 100%. Second, some countries absent from the table have no formal pension scheme, and hence the region's average effective coverage is less than the table suggests.

[4] This approximation is based on the following simplified scheme. If all output originates among the economically active population (EAP) aged 20 to 59, GDP can be expressed as $GDP = qa * EAP$, where qa is the EAP's per capita output. If there is no current-account deficit, expenditure should be equal to output, which corresponds to the EAP's spending (including maintenance of minors under 20) plus that of the retired population (RP), which in this exercise consists of those aged 60 or more. In other words, $GDP = ga*EAP + gr*RP$, where ga and gr respectively represent the per capita spending of the active and retired populations. Combining the two expressions gives $qa * EAP = ga*EAP + gr* RP$. Consequently, the transfer of income to the retired population can be expressed as $(qa-ga)*EAP = gr*RP$. As a percentage of GDP, that is expressed as $(qa-ga)*EAP/qa * PA = gr*RP/qa * PA$. If spending by retirees were covered by a pension equal to the per capita output of the active population (that is, if $gr = qa$), then the transfer of income to the retired population as a percentage of GDP would be equal to RP/EAP, as shown in table 1. This, of course, is a maximum limit. In general the replacement rates (in this case the ratio gr/qa) are less than one.

TABLE 1

Latin America: Coverage of pension systems, by country

(*Proportion of beneficiaries, percentages*)

	Population aged 60 and over/Population aged 20 to 59	Pensioners/ Population aged 60 and over	Pensioners/ Total population
Uruguay	34.5	151.8	25.8
Brazil	14.1	139.4	10.0
Chile	17.5	108.2	10.4
Argentina	27.0	104.6	13.8
Trinidad and Tobago	17.0	62.7	5.6
Guyana	14.0	55.9	3.3
Panama	14.6	45.2	3.4
Costa Rica	14.5	35.9	2.5
Peru	14.3	34.0	2.3
Bolivia	16.2	32.8	2.3
Dominica	25.0	31.9	3.5
Paraguay	12.0	28.5	1.5
Mexico	12.9	26.1	1.6
Ecuador	13.9	26.0	1.7
Guatemala	12.5	25.4	1.4
Nicaragua	11.2	22.3	1.0
Colombia	16.1	19.3	1.5
Jamaica	18.8	18.8	1.7
El Salvador	14.3	14.3	0.9
Venezuela	13.0	10.9	0.7
Honduras	12.0	7.9	0.4
Barbados	25.0	4.6	0.7

Source: Prepared by the authors using data from ECLAC (2002) and from Palacios and Pallarès-Millares (2000).

II

Factors affecting coverage

Any examination of the determinants of pension coverage faces the serious problem that data are scarce and incompatible. Analysis must therefore proceed by means of a difficult comparison based on unharmonized and dispersed data, and must be illustrated by reference to specific cases.

With regard to national legal provisions, in 25 countries of the region all dependent workers must contribute to pension systems. In only 13 does the obligation cover independent workers and in 10 the latters' contributions are voluntary. Mesa-Lago, Cruz-Saco and Zamallon (1990) have shown that there is a substantial gap between what is laid down in the legislation and the systems' actual coverage. In an effort to understand the reasons for the limited coverage evidenced by the data, this article examines the context in which the pension systems operate, system design features that determine the level of incentives to participate, and some personal and labour market characteristics that affect the outcome.

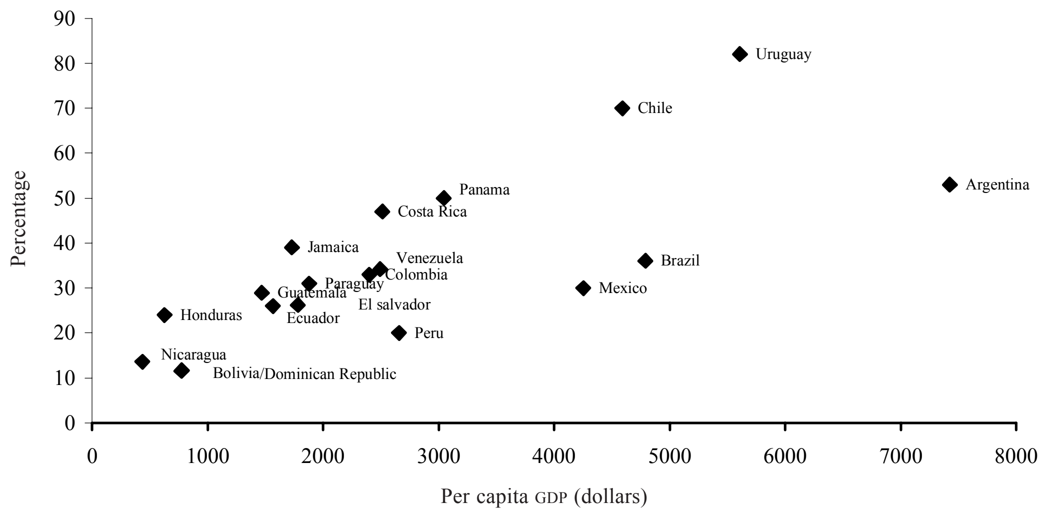
1. Structural factors

a) *Relative development level*

Figure 1 reveals a clear connection: the number of contributors to pension systems increases in line with the level of per capita GDP. There are three main reasons for this. First, in general there is a certain correlation between income levels and the demographic transition, giving rise to greater demand for mechanisms that provide an income in old age. Second, on the supply side, the higher the development level, the greater the availability of resources (especially public funds) that can be devoted to a pension system for retirees. Third,

FIGURE 1

Latin America and the Caribbean: Contributors/labour force, mid-1990s



Source: Prepared by the authors using official figures and data from ILO (2000).

from the standpoint of the economic structure, the formal sector's participation in the economy and urbanization levels increase as the development level rises, which make a pension system a more feasible proposition.

There is a link between per capita output and pension system coverage, but of course it is not mechanically causal. Such systems are more the result of policies specifically designed to set up social safety nets than a spontaneous consequence of growth.

b) *The significance of labour market segments that are poorly covered*

In its *Panorama Laboral*, the International Labour Organization (ILO) presents evidence of the meagre coverage of workers in the urban informal sector.[5] Also hard to cover are non-wage earners and family workers in agriculture. Using ILO statistics, figure 2 illustrates these two segments' significance in total employment and as a share of the economically active population (EAP) that contributes to social security. It shows that the percentage of contributors to social security declines as the proportion of workers who are poorly covered grows.[6]

Another poorly covered segment of the labour market, separate from those mentioned above, comprises technical and professional independent workers whose economic activity is generally more formal and who are normally more productive. The reasons for this vary from case to case. In unfunded systems the explanation lies in the slenderness of the association between contributions and benefits, which makes the former seem more like a tax than payments to a scheme that will provide future income. Since enforcement is very difficult among these workers, and/or since the contributions are voluntary, even the most skilled choose other ways of ensuring future income.

As regards saving-based systems, technical and professional independent workers find it more attractive in the short term to devote resources to developing their own economic activities than to contribute to a system whose returns are uncertain and whose liquidity is low, since in such schemes it is impossible to reallocate the contributions either to finance new activities or to avoid unwanted risks.

The irreversible nature of the contributions lies at the root of this disincentive, especially in capitalization systems where the returns are uncertain because of macroeconomic volatility and financial market fluctuations. It is highly unlikely that a majority of such workers would opt to make irrevocable contributions to systems that can suffer real losses. Even for dependent workers, whose membership and

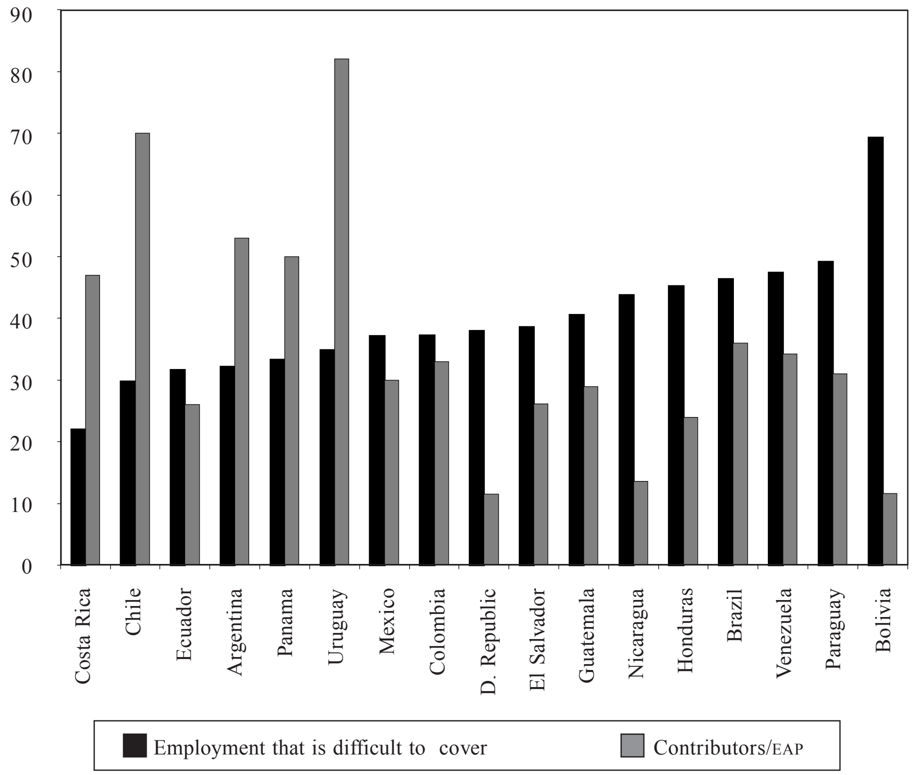
[5] See ILO (2000).

[6] Table 4 presents estimates of employment that is hard to cover relative to total employment. This category is broader than the urban informal sector because it includes self-employed workers and non-wage earners in agriculture.

FIGURE 2

Latin America: Employment that is difficult to cover and contributors to social security

(*Percentage of total employment and of the economically active population, respectively*)



Source: Prepared by the authors.

contributions are compulsory, exposure to this risk is involuntary and probably unwanted. In both cases, obligatory exposure to risk makes social security contributions seem like taxes. The inequity of this is all the more apparent when the private pension companies are not exposed to the same risk, even though their management might cause losses.

The dilemma facing workers is aggravated by the costly commissions levied by some recently introduced systems as a means of covering administrative costs. The high level of commission discourages the participation of and contributions from those who can choose between devoting part of their resources to a system that (because of the commissions) transforms only part of their total contributions into a larger accumulated fund, or trusting in the returns that they themselves can make through their own labour or through more efficient financial alternatives.

c) *The disadvantaged integration of women in the labour force*

The nature of the informal sector and the disadvantaged integration of women in the labour force combine to create a precarious pension situation. To understand it better, it is helpful to distinguish three stages.

First are the pre-pension-system or pre-system factors, of which the most important is women's substantially lesser participation in the labour force, most particularly among lower-income sectors where a large number of women are non-salaried family workers. This circumstance stems from the greater burden of childcare in those sectors, lower educational levels that lessen the marginal benefit of joining the labour force, and a lack of local-level institutional arrangements to provide childcare services (Jiménez and Ruedi, 1998).

Women who remain at home throughout their working lives to care for the household and family run a grave risk of becoming poor, since they are generally viewed as their husbands' dependants and thus can aspire only to a widow's pension.

Second are the effects of deficiencies in the way the pension systems are designed, coupled with inadequate integration into the labour market. A larger share of women who work do so for low wages in the informal sector, their jobs are sporadic or temporary (such as domestic help) and of poor quality, often in contexts marked by non-compliance with labour legislation.[7] Their membership of formal pension systems is therefore limited and discontinuous and, because they are paid less, such schemes offer them fewer benefits.

It is worth noting that these conditions obtain whether the system is a public scheme with a defined benefit or a private system of individual capitalization. The phenomena mentioned above are evident in both cases, which suggests that in general the systems have not been designed to address the significant inequality of opportunity that women face in gaining access to pension schemes.

Third are the post-system factors related to the accrual of rights. These differ depending on the scheme in question. In defined benefit pension systems the greatest disadvantage originates in women's lower incomes and less regular work records. Individual capitalization systems and private schemes feature other drawbacks. Because of women's lower contribution density and lower pay, they accrue fewer rights than men. That circumstance is aggravated by two others: women usually retire earlier and live longer than men. Thus a system that establishes a close link between contributions and benefits –equalling out the current value of both, as happens with pensions provided by private insurance schemes– will necessarily offer women lower pensions. That happens even when women accumulate the same resources as men, since their life expectancy is longer and their retirement comes earlier.

In sum, women's status in pension schemes is structurally disadvantaged. Rectifying that situation demands that systems be designed differently so as to acknowledge the difficulties facing women in securing the opportunities offered by the schemes. Those difficulties discourage them from joining formal systems.

[7] See ECLAC, 2000, Statistical annex.

2. Pension scheme design and ensuing incentives

a) *Contributions as savings or tax*

Thus far this article has addressed the consequences of factors related to the environment in which the pension systems operate. It is also important, however, to consider how the systems' design affects their coverage. Particularly interesting, more for its importance in the debate on reform strategies than because of its actual effect on coverage, is a comparison of the incentives for social security saving in unfunded systems and individual capitalization schemes.

One widely held view is that inadequate coverage is inherent in unfunded systems, which are marked by only a slender association between contributions and benefits: pension contributions are viewed more as taxes than as savings for old age, which leads to evasion and limited participation. An individual capitalization scheme, by contrast, which by definition links contributions and benefits, radically changes the nature of the contributions, converting them into savings and thereby fostering wider coverage.

This view has served as a basis for various reform efforts. Without entering into a discussion of the theoretical links between savings and incentives, or of the merits of capitalization as a means of ensuring the system's solvency, it can be said here that the scant empirical evidence available does not confirm the premise underpinning such a view.[8]

Analysis of the prototypical Chilean experience reveals that coverage has not varied greatly between the two schemes. Table 2 shows that introducing the Administradoras de Fondos de Pensiones (AFP) system and closing the Instituto de Normalización Previsional (INP) to new members did not bring about greater coverage than when only the unfunded system was available. Rather, trends in coverage reflect economic performance: coverage declines during recessions and expands in growth periods.

It is certainly important to design schemes in such a way as to relate contributions to benefits as a means of ensuring solvency. It is also important that simultaneous efforts be made to send the right signals about saving. The Chilean experience, however, should lower expectations about how effective such schemes can be in expanding coverage.

[8] Schmidt-Hebbel (1998) and Uthoff (2001) present different visions of the effects on saving of Chile's pension reforms. Fox and Palmer (2001) analyse design options that are also geared to protecting the solvency of the pension system.

TABLE 2

Chile: Trends in pension system coverage
(*Percentages*)

Year	Contributors/Employed			Contributors/EAP[a]		
	AFP	INP	Total	AFP	INP	Total
1975	---	71.2	71.2	---	61.9	61.9
1976	---	65.7	65.7	---	57.3	57.3
1978	---	56.6	56.6	---	48.5	48.5
1980	---	53.3	53.3	---	47.8	47.8
1982	36.0	16.6	52.6	29.0	13.4	42.3
1984	40.6	13.7	54.3	35.0	11.8	46.8
1986	45.9	11.6	57.5	41.1	10.4	51.6
1988	50.6	9.8	60.4	46.6	9.0	55.6
1990	50.6	8.1	58.7	46.8	7.5	54.4
1992	55.3	6.9	62.2	51.8	6.5	58.3
1994	56.2	5.5	61.7	51.8	5.0	56.9
1996	58.9	4.9	63.8	55.7	4.6	60.4
1998	58.0	4.2	62.2	53.8	3.9	57.7
1999	60.4	4.2	64.6	55.0	3.9	58.9

Source: Arenas de Mesa and Hernández (2001).

[a] EAP: Economically active population.

b) *Inconsistent incentives caused by generous but unsustainable benefits*

Robust statistical data are unavailable, but it seems clear that some systems are designed with inappropriate incentives that might lead to lower levels of participation. Some social security systems, for example, grant benefits not only to the spouse and dependent children but to other family members who are of working age. Since the health and pension programmes are indivisible, and since the benefits are extended to working-age family members, only one member joins; the marginal advantages of another's joining are less than the costs. In other words, there is a short-term personal incentive to make contributions but a disincentive for the family to do the same (Hernández Licona, 2001).

These practices spring from differences in national economic conditions and they affect the system's financial stability because, if the number of contributors falls and the number of beneficiaries grows, the expansion of coverage is unsustainable. In some cases, moreover, there is an implicit incentive to work in the informal sector since the benefits extend to working-age family members who are apparently jobless in the formal sector (but who work in the informal sector).

c) *Weaknesses in the portability of workers' funds*

Another cause of limited coverage is that workers cannot transfer their funds from one pension scheme to another without losing the benefits. To receive a pension, moreover, they have to have made contributions for some minimum period, but due account is not taken of the length of time that they have been affiliated to other schemes, or of the contributions made to them. In these circumstances it is likely that workers will opt not to join the schemes, which will reduce labour mobility and encourage informal activity.

The reforms undertaken in the region have sought to address this matter and increase portability by establishing various means of creating (and rebuilding) personal records covering job history and contributions.

d) *Credibility of the system*

It is often argued that negative perceptions of the unfunded systems' capacity to offer benefits has undermined membership. Various circumstances have eroded the system's credibility and discouraged participation, including a decline in the real value of the pensions as a result of inflation and subsequent budgetary adjustment, and the evidence of inefficiency and excessive delays.

This argument featured prominently in the emphasis placed on the total or partial privatization of pension systems in some countries. The underlying premise is that private management of the funds should make the pension system independent of political decisions, improve its efficiency and ensure a better allocation of accumulated resources, thereby enhancing the system's credibility and building confidence in it. The broad issues of efficiency and resource allocation are beyond the scope of this article; they have been addressed by Rodríguez and Durán (2000) and Mastrángelo (1999). Those analysts show that the reforms have not substantially improved efficiency and that efficiency considerations have little bearing on people's decision to join the new schemes. Recent experience, moreover, suggests that the system's independence from political pressure does not necessarily originate in its separation from the State apparatus but rather in general institutional and economic strength. An adverse context can affect pension schemes that are supposed to be independent.[9]

3. Myopia about the need to save for old age

One theory as to why pension systems have limited coverage rests on the argument that people are

[9] As part of the effort to deal with the crisis in Argentina, the Government decided to use the resources that had accumulated in the private pension funds, forcing them to accept public bonds to meet the public sector's financing needs in 2001.

TABLE 3

Mexico: Occupational category, by age
(*Percentage of the EAP*)

Age	Wage earners with IMSS or ISSSTE[a]	Wage earners without IMSS or ISSSTE	Employers	Self-employed workers	Unwaged	Total
12-15	2.5	36.6	0.0	3.8	57.2	100.0
16-25	28.1	42.4	1.1	8.3	20.1	100.0
26-35	37.7	29.3	4.3	21.1	7.6	100.0
36-45	32.5	25.2	6.3	29.9	6.0	100.0
46-55	25.0	22.2	8.3	37.2	7.4	100.0
56-65	15.4	16.8	8.2	53.2	6.4	100.0
66-75	5.0	11.0	8.7	67.3	8.0	100.0
76 or more	2.2	13.5	6.2	72.8	5.3	100.0

Source: G. Hernández Licona, 2001.

[a] IMSS: Instituto Mexicano de Seguridad Social; ISSSTE: Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado.

unmindful of the need to save for old age. This is one of the main reasons why participation has been made compulsory. Table 3 uses data on Mexico to illustrate this myopia. It shows that participation in social security systems is low in the younger working age groups and peaks in the group aged 26 to 35. The figures indicate that, initially, the most common occupational category comprises wage earners with and without social security. Among the older age groups there is a decline in both kinds of wage earners, while the proportion of independent workers increases and even surpasses 50% of the economically active population. This is because wage earners amass experience and financial capital in their early years in the labour market, which later allows them to embark on independent activities and become self-employed.

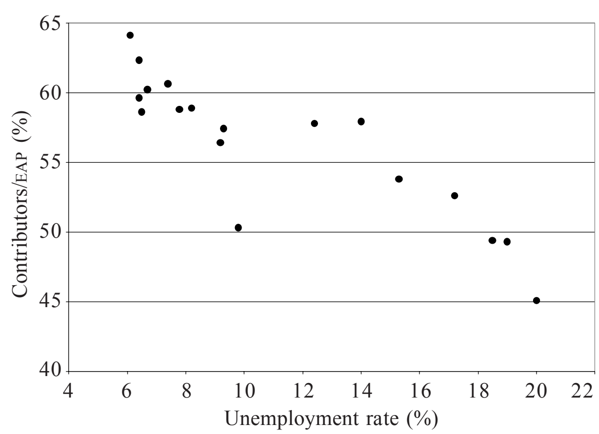
4. Contextual factors: employment levels

Coverage is also affected by short-term factors, although the link is difficult to document because of the scarcity of adequate statistics. Chile's experience between 1981 and 1992, as illustrated in figure 3, shows that when unemployment rises there is a decline in the share of the EAP contributing to pension schemes. Hernández Licona (2001) reports a similar situation in Mexico.

This link arises, of course, because unemployment cuts the connection with social security institutions. The region lacks adequate protection mechanisms to counteract this. One option currently under discussion consists of unemployment insurance that includes continuation of social security payments.

FIGURE 3

Chile: Relationship between pension scheme contributors and the unemployment rate, 1982-1999[a]



Source: Prepared by the authors on the basis of figures from the Instituto Nacional de Estadística (INE) and the Superintendencia de Adminstradoras de Fondos de Pensiones.

[a] Includes contributors to the Instituto de Normalización Previsional (INP) and to the Administradoras de Fondos de Pensiones.

III

Expanding the systems' coverage

1. The scale of the problem

The analysis in the preceding section indicates that progress on coverage has been inadequate in the region, despite the changes that several countries have made to their pension systems. Given the influence of structural factors on this situation, the prospects for a spontaneous expansion of coverage are not bright in either the public or private schemes. Thus, the extension of coverage to those who currently do not or cannot participate in pension schemes will require specific public action based on acknowledgement of the particular factors that systematically exclude those individuals from the present systems. This article maintains that such a policy demands the right combination of contributory and non-contributory schemes. The non-contributory systems, moreover, should largely be geared to the poor sectors whose members are unable to save.

The groups that are normally excluded, and to which the expansion of coverage should accord priority, are independent urban workers in both the formal and informal sectors, as well as those in the countryside. Within these groups, women are particularly disadvantaged. It is very difficult for pension systems to include such groups, and the difficulties tended to mount in line with the informal sector's growing share of non-agricultural employment throughout the 1990s. The scale of the challenge is evident in table 4, which shows the significance of those segments of the labour market that are poorly covered as a percentage of the working population. In the region's more developed countries, about 30% of jobs are hard to cover with pension systems. In the poorer countries the share usually surpasses 45% of total employment, peaking at 69% in Bolivia.

2. Some general criteria for policies to expand the coverage of contributory and non-contributory public pension schemes

Since several proposals can be made on how to expand coverage, it is important to define some general criteria before discussing specific policy guidelines. The bulk of these criteria refer to public systems; given the scale and nature of the groups that have no coverage, it is these schemes that will be called upon to save the vulnerable from poverty. The system should be very carefully designed so as to circumvent the disincentive to participate in saving-based systems.

Most of the causes of limited coverage are long-term, and thus any policy of expansion must be sustainable if it is to have lasting effects. The system should therefore be designed to support fiscal burdens that correspond to the capacity to generate public resources and devote them to that purpose. Expansion programmes that are inadequately financed or based on fleeting windfalls in public finances are unsustainable and their effects will not last. In several countries the preparation of the public budget entails an estimate of the structural and cyclical components of spending and income. So too should the calculation of pension systems, with a view to creating an enduring prospect of greater coverage.

For the same reason, it is inadvisable to expand systems that are actuarially in deficit: an increase in the number of members will normally swell the deficit, making the benefits and the extended coverage unsustainable. Actuarial equilibrium should therefore be seen as a precondition for expanding coverage.

If universal coverage is the final goal, an effort should be made to ensure that those who could meet their consumption needs in old age on the basis of their own savings capacity are encouraged to do so, thus allowing scarce public funds to be devoted to those groups that lack such a capacity. To that end, people should be motivated to save for their old age, but the level of public guarantees (in the form of minimum guaranteed pensions for those participating in contributory public schemes) must be carefully set so as to avoid the moral hazard of inducing them to contribute only for a certain number of years and thereafter to evade payments by working in the informal sector. There must be a permanent incentive to contribute, perhaps by initially offering low guarantees and then rewarding every additional year (or two- or three-year period, for example) with marginal increases in the guarantee that, at least theoretically, would be slightly better than the marginal benefit of not working.

The level of basic benefits granted by non-contributory systems should be set at such a level that

TABLE 4

Latin America: Share of employment that is difficult to cover with pension schemes, by country, 1998-1999[a]
(*Percentage of total employment*)

Country	Urban employment that is difficult to cover[b]	Agricultural employment that is difficult to cover[c]	Total employment that is difficult to cover
Argentina	32.2	n.d.	32.2
Uruguay	34.9	n.d.	34.9
Chile	25.9	3.9	29.8
Brazil	33.3	13.2	46.4
Mexico	30.1	6.9	37.1
Venezuela	43.5	4.0	47.4
Panama	20.5	12.7	33.3
Costa Rica	17.3	4.7	22.0
Colombia	29.3	7.9	37.2
Paraguay	27.5	21.7	49.2
El Salvador	27.8	10.8	38.6
Ecuador	31.7	n.d.	31.7
Dominican Rep.	26.8	11.2	38.0
Guatemala	20.5	20.1	40.6
Bolivia	36.6	32.7	69.3
Honduras	24.5	20.7	45.2
Nicaragua	26.0	17.8	43.8

Source: ECLAC (2001).

[a] Countries ranked by 1995 per capita GDP.
[b] Non-professional, non-technical workers in private establishments of up to five employees or self-employed staff, unwaged family workers and domestic employees.
[c] Self-employed workers and unwaged family workers in agriculture.

they do not constitute a disincentive to work once a certain age has been reached or some other condition of eligibility has been met. The upper limit should be set to strike a balance between two criteria, depending on the conditions in each country. If the basic aim is to forestall poverty in old age, the pension should not exceed the estimated poverty line in each country. If the aim is to preserve the incentive to work, the upper limit should be below the minimum wage, as long as the latter is properly calculated at a level close to the reserve wage for unskilled labour, if this is the section of the labour force that is to receive the pension.[10]

Another reason to forego generous benefits in non-contributory systems is that such benefits discourage membership of and payments to contributory schemes, giving the State responsibility for the welfare of those who could have helped save for their old age. The expansion of these schemes must therefore be carefully calibrated by focusing the non-contributory benefits on those sectors that cannot save. This can be done, for example, by means testing (of income and assets), self-selection mechanisms or taxes that offset any unwanted distributive effects of universal pensions.

It should be kept in mind, moreover, that pension systems seek to provide income in old age so as to guarantee a certain level of consumption. It is not always the case, however, that such consumption needs are best met through the provision of monetary income. If programmes are to be sustainable and have lasting effects, some of the consumption needs of those people who are not covered by contributory schemes can be met more effectively through the direct provision of goods and services, such as health care and access to medicines. Non-contributory pension systems, therefore, should be viewed as one link in the network of social protection rather than as an alternative to contributory schemes.

Last but not least, the subsidy elements to be introduced should be as progressive as possible or distribution-neutral.

3. Some policy recommendations

a) *Redesigning pension systems*

One significant criticism is that social security systems in most countries of the region emulate those previously implemented in developed countries, which have higher levels of urbanization and less informal activity. One proposal for securing universal coverage in the region is the creation (or enlargement, as the case may be) of a non-contributory scheme that gives a basic pension to all those who meet certain conditions, such as age or residence in the country.[11] Such a universal system would not replace the existing contributory schemes, but it would offer the benefits of timely coverage of the whole population and low operating costs. Possible adverse effects in terms of discouraging saving and work could be mitigated by setting the pension at an appropriate level, in line with the criteria outlined above.

The main difficulty with this kind of system is the cost. Table 5 presents estimates of the cost of a non-

[10] In many countries of the region the minimum wage is decided on the basis of other criteria. Hence its use to determine minimum pensions might cause sharp distortions.

[11] There are universal systems without means tests in New Zealand, Namibia, Botswana and Mauritius. Other schemes demand such tests (see Willmore, 2001).

TABLE 5

Latin America: Estimates of the cost of a universal pension[a]

Country	Population over 65	Urban indigence line	Urban poverty line	Minimum wage	Per capita GDP	Cost, as % of GDP, of a universal pension equivalent to:			Central government current income[b]
	% of total	Dollars/month			Dollars/year	Indigence line	Poverty line	Minimum wage	% of GDP
Countries at an incipient or early transition stage									
Nicaragua	3.1	26.3	52.7		471.2	2.1	4.2		25.8
Honduras	3.4	39.3	78.6	69.1	691.2	2.3	4.6	4.1	18.7
Bolivia	4.0	28.0	56.1	55.7	959.7	1.4	2.8	2.8	19.8
Guatemala	3.5	40.7	81.5	73.5	1547.6	1.1	2.2	2.0	11.0
Paraguay	3.5	42.0	83.9	178.3	1602.7	1.1	2.2	4.7	20.5
El Salvador	5.0	33.5	66.9	122.1	1736.8	1.2	2.3	4.2	11.3
Countries in mid-transition									
Ecuador	4.7	19.3	38.5	52.5	1404.4	0.8	1.5	2.1	19.6
Colombia	4.7	37.3	74.6	139.1	2267.8	0.9	1.9	3.5	10.8
Dominican Republic	4.5	42.1	84.3		2479.0	0.9	1.8		15.3
Venezuela	4.4	78.8	155.9	174.7	3036.8	1.4	2.7	3.0	16.3
Panama	5.5	40.7	81.4	25.5	3264.4	0.8	1.6	0.5	20.0
Costa Rica	5.1	37.5	75.1	217.4	3625.2	0.6	1.3	3.7	12.5
Brazil	5.2	26.7	66.2	74.5	4220.6	0.4	1.0	1.1	11.4
Mexico	4.7	56.8	113.6	85.6	4583.4	0.7	1.4	1.1	13.5
Countries at an advanced transition stage									
Chile	7.2	40.9	81.8	163.1	5128.5	0.7	1.4	2.7	21.0
Uruguay	12.9	56.4	112.9	88.6	5930.0	1.5	2.9	2.3	19.2
Argentina	9.7	71.6	143.3	200	7434.9	1.1	2.2	3.1	10.8

Source: Prepared by ECLAC on the basis of official figures.

[a] According to 1999 data.

[b] Excludes social security contributions and transfers to local government.

contributory universal pension for all those over 65, expressed as a share of GDP. It takes account of different options for the pension level and the progress that the countries have made in the demographic transition. The table offers estimates of three alternatives for a basic universal pension: i) one that guarantees those over 65 an income equivalent to the indigence line, which covers solely food costs, ii) another equivalent to the poverty line, and iii) a pension equal to the minimum wage. This last is the most burdensome option.

The table shows that for countries in the early stages of the demographic transition, the cost of a universal pension to forestall poverty in old age stands at about 3% of GDP, even though the eligible population is not yet particularly large. The high cost springs from the fact that per capita output in these countries is among the lowest in the region. For countries at a later stage of the transition the cost falls to an average of 1.7% of GDP because income levels more than offset the higher proportion of people over 65, relative to the first group of countries. Lastly, for countries at an advanced stage of demographic transition the cost rises again to 2.2% because a higher proportion of the population is eligible.

The main source of funds for such a programme is the central government's current income, which averages 16% of GDP.[12] Setting this figure against the

[12] Current public revenue figures are often hard to compare between countries. Those in table 5 do not include income derived from public utilities or transfers to local government. The latter are more significant in countries with federal systems. Since the degree of private participation in social security differs from country to country, social security contributions have been deducted from the data.

estimated costs, it is clear that a programme of universal coverage offering a rather modest pension –equivalent to the level of the poverty line– would call for about 10% to 18% of government income.[13] For most countries in the region, therefore, a universal programme such as this would exert significant pressure on public funds, a circumstance aggravated by the status of the demographic transition and by legitimate demands for benefits above the poverty line.

Because these two key conditions are present (the vulnerability of those who for various reasons cannot save for old age and the scarcity of public funds), Latin American pension schemes should be mixed. The dearth of resources makes it crucial to devise appropriate institutional arrangements that support the saving capacity of those who can save and thereby release the State from that responsibility, especially towards the more affluent groups. At the same time, the need to protect those whose participation faces structural obstacles, coupled with the lack of resources, underscores the importance of non-contributory schemes and the need to focus them on the poorest groups.

As to contributory schemes with low contribution density among low-income groups and women, systems marked by a close link between contributions and benefits will be unable to offer such groups a decent level of income; about 45% of their members will be eligible for a guaranteed minimum pension (Arenas de Mesa, 1999). In other words, in a pension system with defined contributions those groups will remain underprotected and the State will have to bear the substantial cost of providing guaranteed pensions.

These considerations have given rise to the proposal, now adopted by some countries in planning their systems, to include the solidary financing of a basic pension. The reforms in Argentina and Uruguay involve an individual capitalization component but they retain a basic pension financed through an unfunded system, which confers some degree of solidarity on the financing.[14] As mentioned earlier, such systems should take the precautions needed to avert any strategic conduct by the participants that might affect the solvency of the unfunded component.

[13] Current income, less social security contributions, has been used as the source for two reasons. First, the capital account is not used to finance recurring current spending (pensions). Second, this programme is not intended to replace the contributory scheme, which will continue to be financed by social security contributions.

[14] The process of social welfare reform in Costa Rica has also included proposals to retain common financing of a basic pension.

The system described here is potentially superior to schemes based solely on individual accounts, since it allows risks to be spread more widely. Individual capitalization schemes concentrate the risks (potential financial losses, jobs and income) on the participants and allow only financial diversification. Unfunded systems, for their part, are exposed to demographic risk (an increase in dependency rates) and the possibility of financial diversification is limited because the accumulation of funds is normally low. They can, however, feature some degree of intergenerational diversification because the risks are shared. Thus a combination of the two might offer a better risk spread from both the financial and intergenerational standpoints.[15]

Lastly, pension systems are incomplete if they lack mechanisms (operationally separate, in all likelihood) to deal with interruptions of contributions as a result of unemployment and maternity. The region has recently witnessed a resurgence of interest in unemployment insurance schemes. Plans to provide income during periods of unemployment should also involve (at least for some period) the continuation of contributions to pension systems, the payments being made from the unemployment insurance. The continuation of contributions in this way would obviate the risk that temporary losses in present income might become permanent losses in future income (lower pensions), and there would be a decline in the fiscal burden needed to provide guaranteed minimum pensions.

b) *Lessening the disincentives to participate in contributory pension schemes*

A second line of action is to reduce the alternative cost of participating in contributory schemes for independent and self-employed workers, and to enhance the right of participants to choose between risk and gain.

From this perspective, the voluntary expansion of those systems' coverage is constrained by their inflexibility and the limited range of products on offer, circumstances that prevent contributors from influencing what happens to their savings. The anti-coverage bias arising from irrevocability and the contributions' lack of liquidity would diminish if, under certain conditions and constraints, the accumulated funds could be accessed and used for purposes that their

[15] Recent experience shows that both private and public institutions are subject to the risk of political interference. No design can diversify that risk.

owners valued highly. The accumulated resources, however, would probably decline.

In theory, access to the funds is restricted so as to prevent their diversion towards ends that could endanger the provision of adequate pensions, but the lack of access acts as a disincentive that could lead to fewer accumulated resources. That could be mitigated, and future pension levels could be safeguarded, by placing limits on withdrawals and providing options for the return of funds. To avoid moral hazards in the face of guaranteed minimum pensions in the contributory scheme, access to the funds should entail the loss of the guarantee, at least until they are returned to the scheme.

Second, contributors should be able to decide between risk and gain throughout their membership period. They should be allowed to choose between various fund management companies and different funds with varying asset compositions, so as to make membership of the scheme attractive to those who are more risk-averse. From the viewpoint of dependent workers for whom membership and contributions are obligatory, access to different products offers partial compensation for the compulsory nature of the system. In other words, since the contribution is mandatory, it is at least equitable and fair that contributors should not be exposed to more risk than they deem proper. Chile recently reformed its pension system in such a manner.

Independent workers are discouraged from joining schemes because of flaws in the tax system. Unlike dependent workers, independent workers in some countries (Chile, for example) cannot deduct their contributions to the pension system from their tax payments. This involves a degree of double taxation, since both savings and subsequent pension income are taxed (Arenas de Mesa, 2000).

c) *Rectifying short-sighted views of the need to save for old age*

Low participation rates spring from short-sighted consumption and saving decisions, inducing governments to oblige dependent and independent workers to join pension schemes. Unfortunately there is no evidence that this has expanded coverage. Thought should be given to ways of educating potential participants and making pension schemes a more attractive saving option. Even in developed countries, however, the results of information and education campaigns on the need to save for old age have been discouraging.[16]

d) *Options for expanding coverage among women*

As mentioned earlier, several factors conspire to constrain coverage among women. Given the structural features of the region's labour markets and public sectors, the debate on how to tackle this matter is in its infancy. Here we shall deal solely with the question of widening coverage, since the quality of the benefits offered to women and other equity issues are beyond the scope of this article.

In developed countries, issues of gender equity in social security gained prominence in the 1990s. Matters such as the difference in retirement age, the credit in assessed years for women who care for children and the elderly, coverage for women who work at home, part time or in domestic service, or whose work is seasonal (in agriculture, for example), were analysed and addressed in social security reforms in the 1990s.

Examination of the reasons for limited coverage discussed above reveals that contributory regimes and the changes made to them will be of little use in expanding coverage among women. Systems based on formal and stable job patterns are rendered ineffective by women's lesser participation and poor integration in the labour market. This is particularly true for women from lower-income groups. Perhaps the only viable alternative for the latter, therefore, consists of non-contributory schemes that avoid moral hazard and that focus on those who lack the capacity to save or other means of ensuring income in old age. Since women comprise a higher proportion of those outside the labour market and those working in the informal sector, such programmes would implicitly expand coverage of women and would do so to a greater extent.

Several proposals have been made on how to set up special systems for situations in which low-income women are in the majority, such as work that is highly seasonal or sporadic. A recent proposal in Chile recommended that temporary female workers should have the right to a minimum pension under conditions that were adapted to the circumstances of their work.[17] Such special schemes are helpful inasmuch as they

[16] In its electronic edition of 15 April 2002, the *Financial Times* reported that a pilot programme conducted by the Government and pension funds of the United Kingdom, designed to inform thousands of participants of the meagre pensions that they would receive if they did not increase their contributions, prompted a positive response in under 10% of cases.

[17] Financial feasibility studies indicated that the proposal would give rise to a burdensome system, and hence a final proposal is still being assessed.

focus on low-income women and continue encouraging them to save for old age. If they are confined to certain types of work, however, they lessen the portability of the benefits and weaken labour mobility, which are negative outcomes from the perspective of pension system design and from the standpoint of resource allocation. The proliferation of special schemes, moreover, could again give rise to the fragmentation, inequality and financial disequilibrium that previously characterized the region's pension systems.

IV

Conclusions

Although the data on pension system coverage are inconsistent and incompatible, it is clear that coverage is heavily dependent on structural economic factors and that substantial sectors of the population cannot join contributory schemes. The potential coverage of contributory systems is determined mainly by the level of per capita GDP and the importance of the labour market's informal and agricultural sectors. Recent experience does not suggest that private schemes in which contributions and benefits are more closely aligned are particularly helpful in expanding coverage, although they do help make the system more solvent. The provision of universal protection that forestalls poverty in old age demands a new design.

The foregoing prompts the conclusion that if the whole population is to be protected, the right combination of contributory and non-contributory schemes will be needed (i.e., systems that bring together elements of social insurance and social security). In view of the public cost of non-contributory schemes, which table 5 shows to be a significant share of GDP, they should be expanded gradually and focused on poor groups whose members are unable to save. Their benefits should be carefully set so as to avoid improper incentives that undermine contributory schemes and/or saving for old age. Non-contributory systems seem to be the main option for expanding coverage of women, whose disadvantaged integration in the labour market lessens their prospects of benefiting from systems based on formal job patterns.

A substantial share of the members of contributory schemes are underprotected because of the irregularity of their work, and women in particular find it hard to establish continuous contribution records.[18] According to projections, this will be a serious problem in the future. The main response to it is to include in pension systems an unfunded component that finances a basic pension in a spirit of solidarity, in conjunction with a system of savings.

In sum, the provision of universal coverage requires a combination of social insurance, social security institutions and solidarity in financing part of the benefits. A mixed system, involving private and public components (contributory and non-contributory), with pensions funded on the basis of saving and of solidary and tax-related financing, is better than others that disregard the nature of the region's labour markets.

[18] See, among others, Arenas de Mesa (1999) and Uthoff (2001).

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Pension reform in Europe *in the 1990s:* lessons for *Latin America*

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Reform of European pension systems started from a situation in which income differentials were fairly small, partly owing to the high coverage of the system. In Latin America, informal working and inadequate coverage are still problems, and income inequality is high. Even so, both regions are moving towards individual account systems with strong links between contributions and benefits. Latin America has introduced compulsory financial accounts. Europe is moving towards lifetime pay-as-you-go accounts. Some European countries have set up notional defined contribution systems. In Latin America, the need to provide guarantees for the poor and the specific problem of women's poverty will be at the forefront as long as coverage remains inadequate. Other important issues are the minimum retirement age and the moral hazard associated with systems that encourage or support early retirement. Where these points and the problems of poverty are concerned, the European experience repays careful study.

I

Introduction

Public pension systems in Latin America date back to the 1930s. System design was based on what was then the dominant model: "Europe". In the initial stages, systems in Latin America covered primarily employees in the public sector and in multinational companies. In Europe in the 1930s, with the possible exception of the Mediterranean countries, systems tended to be more universal although benefits were low. As in Europe, Latin American systems expanded in the 1950s and 1960s. For the most part, however, they remained fairly elite, reflecting the small formal-sector labour force and high income inequality. The strong role of the State in post-war Latin American industrialization also meant that the covered labour force was predominantly within the public sector. As the workforce was young and growing, they were affordable.

This changed in the late 1970s. The oil crisis and the ensuing inflation, the public borrowing undertaken to keep economies afloat and then the subsequent debt crisis of the 1980s and the ensuing decade of stabilization and slow growth left public finances devastated. Stabilization laid bare the sustainability problems of the public systems, as benefit promises could no longer be inflated away. The inequities became clear as well. In many countries, the same contribution record brought vastly different benefits depending on occupation. Pension reforms were adopted to reduce government debt and improve the equity of the system. Latin American reforms, starting with Chile and spreading throughout the continent, brought forth a new model of public pension system: the defined-contribution (DC) individual account, fully advance-funded and privately managed (World Bank, 1994).

Latin American reforms have been influential around the world. As European countries began to focus on the need to reform their systems, the ideas of Latin America were often discussed. Europe has ended up by forging its own way in pension reform, but traces of Latin American thinking can be found in the reforms of 1990s. Individual accounts are now seen as key to reform in Europe as well.

Although the Latin American model has held up well, some problems are emerging. One of the biggest issues is coverage (Holzmann, Packard and Cuesta, 2000). It was widely expected that this would improve with reform, but the experience of Chile is that it has not. As a result, Latin American systems are not expected to prevent continued old-age poverty over the next few decades. In the face of this growing poverty challenge, some are looking back to Europe to see what the Old World has done with the quintessentially New World idea of individual accounts.

II

The Organisation for Economic Co-operation and Development in the 1990s

Public old-age pensions were originally introduced in Europe and elsewhere to reduce poverty in old age by providing coverage for the entire working population and their survivors. Although as a rule high-income industrial countries had some form of public pension scheme by the 1930s, the standard of living of the elderly was still a major political concern in the reconstruction period of the 1950s.[1] A priority of many governments was to create schemes that could benefit persons whose human capital and savings had been ravaged by two wars and a depression.

In a number of countries, public defined-benefit systems with generous rules emerged in the 1950s and 1960s. Some systems combined the same benefit for all with a benefit based on the number of covered years,

[1] The Beveridge Report, published in 1942, was commissioned by Churchill with the aim of improving the situation in the United Kingdom after the war.

and in some cases the number of covered years needed for a full benefit was set much lower (e.g., 30 years) than normal male working careers at the time, which were 40-45 years as late as the mid-1970s (Palmer, 1999). In addition, the benefit itself may have been based on the participant's best x years of earnings, or the final y years. Thus, all years did not have the same weight. This type of benefit formula helped to bring higher benefits to workers retiring in the 1960s and 1970s, which was the goal in many countries. In the longer run, however, it has turned out to be a problem. It involves an unfair redistribution from those with longer and relatively flat earnings careers (typically blue-collar industrial and white-collar service jobs) to persons with shorter working careers and steep increases in their earnings profiles (typically professional and white-collar management careers). In addition, these systems typically offer a full benefit at a specific age, and sometimes also seniority rights that allow persons with a specified number of years to retire before this full-benefit age.

As generous rules[2] matured, the workforce participation of males declined in all the original Organisation for Economic Co-operation and Development (OECD) countries except Japan, and the retirement age was lowered by as much as six years in Spain and five in France, but also by four years in Sweden, where the full-benefit age was reduced by two years in 1976. Unisexual life expectancy from age 60 increased by around 2.5 years over the period 1975-2000. So regardless of whether the benefit was paid to a male worker or his surviving spouse (usually younger by one or two years and expected to live five to six years longer), the benefit period had increased by some five to eight years over the 25-year period from the mid-1970s (Palmer, 1999).

Another development in the 1960s and 1970s would also affect Europe for a long time to come. Bolstered by strong post-war economic growth, there emerged an alliance of "solidarity" between unions interested in good benefits for their members (from a low age) and employers who were interested in setting a contractual age limit for older workers in order to get around last-in/first-out agreements with labour. This alliance helped foster the idea of a life course with the three phases of education, work and retirement that emerged in the 1960s and 1970s. Full retirement became a "life phase" specified by law and/or contract, not infrequently with contractual benefits supplementing statutory systems, making exit even more attractive.

Where there is at least a theoretical choice between work and retirement, in some countries the implicit tax on working longer (loss of lifetime resources, after tax benefits, from working one year longer compared to extra earnings from continued work) can be high. The evidence from 11 OECD countries suggests that workers react rationally and exit the labour force at a younger age if it is to their advantage economically (Gruber and Wise, 1999). It is now generally recognized that the de facto retirement age has to increase in the coming decades and that this can only be accomplished by changing benefit systems in the direction of actuarial neutrality with regard to the timing of retirement and life expectancy at retirement. This has led countries to move in the direction of lifetime accounts, and some (in Europe these include Italy, Latvia, Poland and Sweden) to introduce life expectancy as an explicit determinant of annuities.

What has happened with the goal of alleviating poverty among the aged? As income grew rapidly, especially during the quarter century that began with the period of reconstruction, it was possible to transfer increasing percentages of gross domestic product (GDP) from workers to pensioners. Financing improved benefits was not so difficult because people spent more of their adult lives working, and less in retirement. As schemes matured, the relative income status of pensioners steadily improved.

By the mid-1990s, poverty among pensioners was low in the OECD. Measured as 50% of median disposable income adjusted for household size, a little under 14% of persons aged 65 and over were in poverty (Förster, 2000). At one extreme, represented by Canada, the Netherlands and Sweden, the poverty rate among persons aged 65 and over was only 3%, using the 50% of median income measure. Interestingly, countries achieve similar results with rather different mixes of private and public provision (OECD, 2000).

There is variation in the poverty results within the OECD. For example, in the United States, with its less generous safety net, considerable immigration and larger income distribution spread, some 20% of persons aged 65 and over were in poverty in 1993 (Förster, 2000). However, poverty in the United States defined as 50% of median income represents a standard of living that is high compared to poorer countries both within and outside the OECD. Keeping this in mind, we note

[2] Systems in some countries required only 20-30 years of coverage for a full DB benefit.

that the poverty rate was about 20% in Turkey and 30% in Greece.

In sum, systems in the OECD that were originally designed to provide better benefits to persons retiring in the initial decades after the war were affordable up until the 1990s owing to transition rules, work patterns and lower life expectancy. The life-course model –with its three phases of education, work and retirement– produced lower de facto retirement ages which, combined with increasing longevity, lengthened the retirement phase. As a result, pension costs rose dramatically, with prospects of even more significant changes to come as population ageing continued. In conclusion, countries succeeded in transferring growing prosperity to the elderly, but at the same time system design and tax rules were working in the wrong direction for financial sustainability. By the late 1980s it was clear that many OECD countries needed to re-engineer their pay-as-you-go systems.

III

Latin America compared to the high-income countries in the 1990s

In the half century after the Second World War, the high-income OECD countries[3] changed from industrial into post-industrial economies, characterized by a high degree of urbanization with formal market economies, decreasing reliance on extended family structures and increasing female labour-market participation. These economic and cultural trends were bolstered by well-functioning legal institutions and efficient government administration of taxes, contributions and transfers. There are some similarities, but also some important differences between the high-income OECD countries and Latin America in these respects. We consider some of these here.

As a rule, universality is a key feature of pension schemes in just about all the OECD, although the term "universality" has admittedly different meanings in different countries. Some OECD countries have special regimes for various occupations, including the self-employed. An example is Italy which, in addition to special treatment of the self-employed, had pay-as-you-go occupational schemes that ceased to be self-supporting financially. In the 1990s, Italy moved increasingly towards true universality, extending to the self-employed. Others make no exceptions (e.g., Scandinavian countries, the United Kingdom and the United States). Australia and Ireland differ in that they have employer-based schemes. In Australia these became mandatory in 1992, but still backed up by a public safety net.

Compliance in high-income OECD countries has been facilitated by the growth of large and medium-sized business and government employers, and the decline in self-employment. As the labour market moves towards looser contractual arrangements, and with a shift away from contracts occurring in the new century, the OECD may also be facing an environment in the future that will make evasion easier. The legitimacy of the public pension system depends on a public perception that people are paying their fair share. The implication of the informal economy (non-compliance) is that some pay, usually through their employers, while others -in the informal economy- do not, and that in the long run those who do pay also bear the cost for those who do not pay. Systems that strongly link benefits to contributions are attractive because they underpin legitimacy for those who pay.

Pension systems in many of the countries of Latin America are in principle universal, as in Europe and North America, but low compliance and the informal economy have meant that coverage is low in practice. According to the Inter-American Development Bank (IDB), the average rate of informality in Latin America is 27%, but it varies greatly between countries within a range of 10% to 60% (IDB, 1998). Increased formalization can both increase and decrease inequality, depending on the point of departure. Formalization may increase inequality up to a threshold, from which

[3] Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, the United Kingdom and the United States.

continued improvement contributes towards reducing inequality. IDB estimates this threshold at about 25% to 30% informality. According to the IDB study, roughly half of the Latin American countries are now close to the point where increasing formality can be expected to reduce inequality.[4] In other words, taxes, contributions and transfers are either neutral or progressive, with redistribution to the poorer rather than the richer.

The financial account systems that became so popular in Latin America during the 1990s, but also the notional defined-contribution (NDC) account schemes that entered the European scene during the same period, redistribute the participant's individual resources over his or her lifetime. In principle, the tax wedge of traditional public defined-benefit (DB) schemes has been eliminated, i.e., benefits are directly linked to contributions. The corollary of this is that redistribution policy is moved to the general tax-transfer system.

The financial account schemes introduced in many Latin American countries in the 1990s constitute a vehicle for transferring individual resources over the life cycle, but are also a means for developing financial markets (Holzmann, 1997). What Latin America may still have to learn from Europe is that pay-as-you-go schemes can also be designed to emulate financial account systems, when designed as NDC account systems.

The structure of production and degree of urbanization in Latin America is surprisingly close to that in the high-income countries (table 1),[5] but here the resemblance ends, and where the two groups of countries differ is mainly on points important for pension financing. The growth of the labour force is much higher in Latin America, and the fact that the fertility rate is still well above two children per woman means that Latin America will continue to generate an expanding labour force for some time to come. Furthermore, there is still considerable latitude for increased female participation in the workforce. On the other hand, as women focus more on careers and their own earnings, the evidence from the OECD countries shows it is likely that they will give birth to fewer children. In sum, the demographics say that Latin America is much better situated than the OECD for the first quarter of the twenty-first century, but with declining fertility even Latin America will inevitably be faced with the situation now confronting the OECD countries, although much later.

Another feature distinguishing Latin America from the OECD is the relative prevalence of extended households. In the United States, for example, only about 15% of the population live in extended households, whereas around 30% live in single-person households. In Latin America the picture is very different. From 40% (Brazil) to 55% (Argentina, Peru and Venezuela) of the population live in extended households, and only around 5% live in single-person households (IDB, 1998). This suggests that transfers within the extended family are important in Latin America, and that they play a major role in alleviating poverty, especially in old age. With continued economic growth and increased formalization, the situation in Latin America may come to resemble more closely the present situation in the high-income countries of the OECD, although whether people choose to live in extended families even if they are affluent enough to live on their own is a separate, cultural question with considerable variance even within the OECD.

In sum, Latin America has the prerequisites for productivity growth in the coming quarter century, through growth of human capital. Labour-force growth will augment this. The challenge will be to bring the entire population into this growth process and include them within the institutions of the formal economy and pension systems that transfer individual resources over the life cycle. The process of formalization implies inclusion of most of the population in such pension systems. In the high-income countries of the OECD, economic growth has been a prerequisite for successful reduction of poverty in old age, but highly formalized labour markets with high tax compliance and legal structures to facilitate this have also played a major role.

[4] Note that inequality as measured by the Gini coefficient is typically under 0.3 in the high-income countries, where markets are formalized, but is typically around 0.5 or higher in Latin American countries.

[5] In this context, high-income countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Kuwait, the Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland, the United Arab Emirates, the United Kingdom and the United States. The data are rather old, from 1970, and it is likely that the regions have drawn closer since then.

TABLE 1

High-income OECD countries and Latin American and Caribbean countries: Some data from 1970
(*Percentages*)

Indicator	High-income countries		Latin America and the Caribbean	
1. *Structure of production*	*1970*		*1970*	
Agriculture	12		4	
Industry	35		38	
Services	53		58	
2. *Labour force*	*1980-1993*	*1993-2000*	*1980-1993*	*1993-2000*
Average annual growth	0.7	0.3	2.5	2.3
3. *Employment*	*1970*	*1993*	*1970*	*1993*
Female share of labour force	36	38	22	27
4. *Urbanization*	*1970*	*1993*	*1970*	*1993*
As % of population	74	78	57	71
5. *Fertility rate*	*1970*	*1993*	*1970*	*1993*
	2.3	1.7	5.2	3.1

Source: World Bank (1995).

IV

Storm clouds in the OECD: lessons for Latin America

The focus of the discussion on public pension schemes in the OECD shifted gradually from adequacy to financial sustainability and intergenerational fairness. By 1990, much of the OECD was discussing pension reform, with the focus on these two issues. The discussion and the measures taken by OECD countries may provide some important insights for Latin America.

The logic of pay-as-you-go (PAYGO) systems is straightforward: increases in outlays must be accompanied by additional financing in order to maintain financial balance. In a stable setting with no changes in fertility, age-specific mortality and net immigration, the population size and composition would remain static. If, in addition, the work patterns and age structure of labour participation were to remain unchanged, old-age PAYGO systems would not encounter serious long-run financial strain. The financial future of DB PAYGO systems in the OECD began to be called into question because these parameters were all changing, and projected to carry on doing so in the direction of increasing financial strain on schemes. Fertility has fallen well below the level needed to reproduce the population, mortality is improving and the labour-force participation of older workers, especially men, has been declining.

Because of low fertility rates, labour-force growth will turn negative within the coming decade and remain so in most of the high-income OECD countries. In fact, even if fertility rates were to increase to the rate of over two children per woman needed to reproduce the population within the next decade, this incremental growth would not reach productive age until 2025-2035. It is estimated that Europe may need to encourage net immigration of around 30 million persons in the next three decades to retain a labour force of close to its present size. The problem will not be resolved in the long run, however, even by a one-off increase in the number of people of working age. As long as the overall fertility rate remains below the level needed to reproduce the population, permanent net immigration will be necessary in order to maintain a labour force of a given size.

Although real GDP grew at around 3% from 1970 until the mid-1990s (World Bank, 1995), the growth in the contribution base was not high enough to keep contribution rates in PAYGO systems from creeping up to cover cashflow deficits. By the 1990s, high and rising contribution rates created concern not only about the future cost of pensions and the long-term sustainability of commitments based on current rules, but also about the long-term effects of high contribution rates on employment and compliance, the former due to the tax wedge built into traditional DB systems and the latter because individuals and employers will be more inclined to take advantage of any opportunities to avoid paying contributions when contribution rates are high.

The greatest pressures on OECD PAYGO old-age pension schemes come from the trend of increasing longevity and the tendency for older workers to leave the labour force earlier, frequently using the public disability system. In the OECD, people over 60 are projected to increase from around 20% of the population at the close of the century to 27% in 2020 and 30% in 2030 (table 2). Longevity has increased at different rates in OECD countries, and has risen faster for women than for men. However, men have recently made rapid gains with major breakthroughs in cardiovascular treatment, and these gains have yielded quality life years.

In Germany, Sweden and the United States, for example, the average gain in unisexual life expectancy at age 60 has been about one year for every 10 years that have passed since 1960. This means that life expectancy from age 60 increased from about 17 to 21 years in Germany, from 18 to 22 years in Sweden and from about 17.5 to 21.5 years in the United States. In Japan the increase has been from a little over 16 to more than 23 years! Demographers expect longevity to continue to increase at about the same rate, although this may be conservative, since this sort of estimate is based largely on historical developments rather than an assessment of the net impact of new medical technology and changes in living habits.

The following formula is helpful in illustrating the PAYGO predicament:

$$Contribution\ rate = \frac{\overline{p}}{\overline{w}} * \frac{pensioners}{contributors}$$

If we want to maintain a target ratio between an average benefit p and an average wage w, in order for the contribution rate to remain constant the number of contributors must increase at the same rate as the number of pensioners. If longevity is going to increase at the rate of one year for every 10 years that pass in the future, then this is an increase of 20-25% in the next 40 years. With a constant number of contributors this means the contribution rate will have to increase by the same percentage. The problem is that the growth of the native-born labour force will be negative, and if the trend in increasing disability take-up continues this will become even worse. In sum, the OECD countries cannot afford a shrinking workforce if average pensions are to maintain their present status with respect to the average wage, and if contribution rates are to remain close to present levels.

TABLE 2

Organisation for Economic Co-operation and Development (OECD): Share of the population aged over 60
(*Percentages*)

	2000	2010	2020	2030	2050
OECD	19.9	23.1	27.0	30.7	31.2
Transition countries	17.0	18.2	21.5	22.7	26.6
Latin American countries	7.7	9.3	12.2	16.0	23.5
Asia	7.3	8.6	11.6	15.0	20.7
Middle East and North Africa	7.3	8.1	10.0	12.4	18.1
Sub-Saharan Africa	4.4	4.5	4.9	5.9	9.9

Source: World Bank (1998).

There is considerable downward pressure on the age of exit, too. In many countries, workers and employers have taken advantage of generous seniority rules within old-age systems and seemingly open-ended disability systems for older workers. The result is that the average age at which people leave the labour force has fallen in the past three decades, as we have already noted. Although the retirement age for a full old-age benefit in many OECD countries is typically 65, the average age at which people left the labour force in the mid-1990s was as low as 56-57 for women and 59 for men.

There is considerable evidence that indicates the trend towards earlier exit is not justifiable in the high-income OECD countries on health grounds. As a rule, industrial work environments have improved greatly in the past half century and, on top of this, only around a third of the workforce has been employed in industry. Disability grants have increased dramatically over the past three decades,[6] while the percentage of persons with physically demanding jobs has been relatively constant or decreased.[7]

[6] See, for example, Aarts, Burkhauser and de Jong (1996).

[7] For example, Steuerle, Spiro and Johnson (1999) for the United States and NSIB (2001) for Sweden.

In part, the early exit of older workers is determined by economic incentives.[8] There is another force behind the increase in disability grants to older workers when employers need to slim down their workforces. Especially in Europe, there seems to be a general consensus among the social partners (management, unions and government) that disability is a legitimate exit path for older workers. As a result of this implicit consensus, employers, with the support of unions, are not especially interested in paying attention to the work environment and on-the-job training of older workers. This, even though on average the special requirements of older workers are few and inexpensive to provide (Ilmarinen, 1999). The gain to employers of laying off older workers is a social welfare loss for the nation. There are fewer people employed and those who have employment have to pay higher taxes to support the early exit of the others. The gain to employers is myopic, too. With scarcity of labour this behaviour depletes the supply and increases the cost of labour.

To summarize, rising longevity, declining fertility and the current practice of pushing older workers out of the workplace are all working in the wrong direction for pension finances. This last tendency may undermine the true purpose of disability, which is to provide satisfactory income maintenance for persons with severe illnesses and injuries. In short, adverse demographic change and the cost-push effects of generous systems overly utilized were the driving forces behind OECD reforms during the 1990s.

V

The emergence of pay-as-you-go notional defined contribution systems

The goal of reforms in the OECD during the 1990s was to create more intergenerational fairness. This has been accomplished by shifting more of the risk on to workers while they are working by moving towards lifetime earnings as a basis for benefit calculation. The result is lower benefits for less work, but also usually actuarial gains for remaining in the labour force.

A second goal was to create greater intragenerational fairness. Schemes based on career earnings meet this goal, too. The PAYGO NDC scheme adopted in Italy (1995) and Sweden (1994) goes all the way and implements a full DC career earnings model that also accounts for changing life expectancy in the computation of the annuity.

What is NDC PAYGO? In the NDC PAYGO system, wage earners pay contributions based on a fixed contribution rate and the value of these is accredited to their notional accounts, this being the defined-contribution feature of the system. Contributions are paid on earnings as long as people work. The previous year's account values are indexed annually using a nominal per capita wage index in Sweden[9] and a GDP index in Italy. Information about changing life expectancy and its effect on an annuity claimed at a specific age, given an individual's account record, is available at any time in the Swedish administrative system. In other words, changing life expectancy is a parameter than can be taken into account in individual decisions about when and how to exit from the labour force. In principle, the NDC structure makes it possible to claim any percentage of a benefit at any time after a legal minimum age for eligibility. People can combine a full or partial NDC benefit with work (and continue to contribute and acquire new rights), and then get a recalculated benefit at some later date.

Lastly, it should be pointed out that redistribution issues have not fallen out of the picture. All countries have some form of guarantee and/or means-tested social assistance to provide income support for the lifetime poor in old age.

[8] This is the subject dealt with in Gruber and Wise (1999).

[9] This will be supplemented, however, by a downside brake based on the contribution wage sum, which will affect the indexation of both notional capital and benefit payments.

VI

Financial account systems

In the 1980s, the United Kingdom was the only OECD country to move part of its mandatory scheme from PAYGO to financial accounts. In 1992, Australia mandated existing employer-based private pension schemes, and in 1994 Sweden passed legislation mandating a financial account system on top of its new NDC system. The United Kingdom and Sweden kept the PAYGO foundations in their schemes.[10] Australia kept its general revenue-financed support programme for the elderly.[11]

Other countries introducing financial account systems in the 1990s within the framework of the mandatory public scheme have kept large PAYGO first pillars, examples being Argentina, Hungary and Poland. Europe has not followed Chile in eliminating the PAYGO pillar, although both Hungary and Poland have adopted the Chilean administrative model in financial account system design. Sweden has not followed Chile in this respect either, however, and countries legislating for financial account systems more recently (e.g., Croatia and Latvia) have tended to follow Sweden in design. In this section we explain what lies behind the path taken in Europe.

1. Financing the transition to financial account systems

Why haven't more countries followed Chile and eliminated the PAYGO pillar altogether? There are at least two reasons. First, Chile cut public expenditure in the years prior to the reform, creating a surplus of 5.5% of GDP which was used to cover most of the transitional debt. Only about 1.5% of GDP per annum represented a double burden.[12] Neither Australia nor Kazakhstan had large PAYGO commitments requiring replacement to begin with, and thus were not confronted with the conversion problem. In the case of Australia, the 1992 reform simply mandated employer-based schemes that were already relatively widespread. The mandate meant that all employers were obliged to set aside funds for their employees and that the contribution rate for these had to at least match the mandate.

The OECD and transition countries, and also some Latin American countries, are demographically older than Chile was at the time of its reform. In the OECD, acquired rights are considerably greater. The acquired rights that would have to be monetized with a large or complete shift to financial account systems would be substantial, as would be the taxes required to do this.

There is a second, more fundamental reason why countries reforming after Chile have chosen not to abandon their PAYGO system entirely. Both the PAYGO and financial account systems are associated with downside risks, and combining the two pillars in the social security portfolio provides better security. In Europe, Sweden and Poland[13] argued along these lines.

How have countries found the means to introduce advance-funded systems? Various mechanisms have been employed to phase in second pillar financial account systems. These include reducing PAYGO commitments to pensioners, usually by changing indexation formulas; reducing PAYGO commitments to present workers by tightening benefit rules; taking advantage of demographic cycles; moving other assets into the pension system to help finance the transition; collecting more contributions than are credited to individual accounts, i.e., taxation; and reducing other forms of government consumption spending (creating a budget surplus to help finance old PAYGO commitments) (Fox and Palmer, 2001).

Many reforms introducing financial accounts have taken advantage of more than one of these at the same

[10] Sweden kept a large PAYGO component –with NDC PAYGO contributions accounting for 16% of the overall contribution rate and individual financial accounts for 2.5%– but topped up for a large part of the workforce with newly established occupation-based financial account systems with additional contribution rates of 2% to 4% (e.g., 3% for blue-collar workers). Thus, for example, a young blue-collar worker now has 65% of the total contribution rate in individual financial accounts.

[11] Since1992, employers in Australia have been required to arrange a pension account and contribute a minimum percentage (rising from 3% in 1992 to 9% in 2002) into it for employees. People can supplement on a voluntary basis. About 35% of the self-employed and 95% of full-time employees are covered. Coverage of all employed was about 80% in 1995.

[12] Valdés-Prieto, 1997, p. 205. Note that this is 3.75% of the covered wage bill, assuming covered wages are 40% of GDP.

[13] The slogan for the Polish reform was "Security through diversity".

time. A typical combination consists in reducing commitments to present workers, taking advantage of demographics and partially financing through taxation. The first has been accomplished by moving in the direction of career earnings in the PAYGO benefit formula, increasing the pension age for a minimum and/ or full benefit and, in the case of countries introducing NDC schemes, taking life expectancy at retirement into account in computing the lifetime benefit. Examples are Hungary, Latvia, Poland and Sweden, but only the last three have implemented NDC schemes. Countries can take advantage of demographics by reforming in good time before a large birth cohort become pensioners. This is a typical advantage in Eastern Europe, where the baby boom came around a decade later than in the OECD. Lastly, some countries in Europe, like Chile, have accepted that the introduction of a mandatory financial account system may need to be tax-financed, at least to some extent.

Bolivia and Poland are examples of countries that have moved other assets into the system. In Sweden, large PAYGO reserves will help pay for the baby-boomers of the 1940s, thereby keeping transition costs within a fixed contribution rate for the NDC PAYGO and funded pillar together. The introduction of NDC reduced future commitments in Sweden by about the amount needed to phase in the financial account system, reducing benefits in the PAYGO scheme for younger cohorts but giving them a larger share in the new financial account system.

In Chile, Australia, and Kazakhstan, financial account systems are combined with various guarantees. In Australia, there is a universal means- and asset-tested income floor. Chile has a minimum pension guarantee for covered workers plus social assistance for the poor who are not covered. Kazakhstan also has a minimum pension guarantee for covered workers.

Lastly, we note that there are some implicit costs of reform that countries may have underestimated. In countries where coverage is low, the future cost of the guarantee could be substantial, implying an increase in the tax rate on future workers. Even in countries where guarantees seem affordable, costs may be underestimated too. For example, the minimum guarantees in Sweden and the United Kingdom are price-indexed, but there is now pressure in the United Kingdom to raise the floor. On the other hand, the argument for separating out redistribution from social insurance is that proposals to change guarantees can be weighed against alternative uses of taxes within the normal political process.

2. The construction of financial account systems

Chile (1981), the United Kingdom (1986), Australia (1992) and Sweden (1995) represent four models of how to set up financial account systems that have evolved in the past couple of decades (table 3). Countries introducing advance funding in the 1990s have tended to follow one of these. There are several issues that come up in designing financial account models. Some of these are described and analysed in Palmer (2000).

An issue often raised is whether a social insurance system should allow people a free choice of funds, or restrict choice, for example to a small number of index funds. The latter view is put forward by a number of economists in the United States who believe that the United States old-age social security system should be totally or partially redesigned in the direction of advance funding. The logic of this point of view is first that this minimizes the risks if individuals are allowed to make their own fund choices, while yielding a market index return. In order to minimize administration costs, the fund or funds managing the assets of the scheme would be chosen through a bidding process. In one version of this model, workers would be allowed to mix bond with stock portfolios. In the most extreme version they would be mandated to participate in a single portfolio, with no opportunity for individual choice.

The argument in favour of a free choice of funds, as in Sweden, is that the State does not need to be paternalistic, other than to guarantee through supervision of funds that they operate within the limits of good practice. No fund can consistently lose money while the majority are making positive earnings and yet retain its participants. These will be well informed by the mass media and will chose funds offering positive returns. In other words, people can make informed decisions. The bottom line is nevertheless that the returns of neighbours can diverge, and considerably. Those who argue for the limited or single fund model argue that people find it difficult to accept that the returns of separate funds can differ. What they seem to forget, however, is that this situation must always arise across age cohorts even if everyone is in the same fund, simply because not everyone has the same investment period in the unified fund (Palmer, 2001).

At the end of the investment period, individuals would be allowed to purchase an annuity with their accumulated pension capital. Here too a number of alternative models arise. Annuity products could be offered by a monopoly provider or by private companies supplying annuity products mandated in law.

TABLE 3

Mandatory financial account models at the time of reform

	Who chooses fund manager?	Who collects contributions?	Who keeps accounts/sends statements?	Number of funds/ who chooses the funds?	Who chooses annuity provider?	Insurance provider(s)	Benefit forms
Chile 1981	Worker	Private manager	Private manager	Each manager has one fund. This becomes the worker's fund.	Retiree	Choice of leaving the account with the same manager or purchasing an annuity from an insurance company.	Gender-specific annuity or programmed withdrawal from pensionable age. A with-drawal can be exchanged for an annuity.
Australia 1992	Employer	Private manager	Private manager	If the manager chosen by the employer has more than one fund, the worker chooses the fund.	Retiree	Choice of leaving the account with the same manager or purchasing an annuity from an insurance company.	Lum sum or gender-specific annuity from age 55. Survivor benefit if the institution allows it.
UK 1986	Worker	Tax autority	Private manager	Managers provide more than one fund choice. The worker chooses the fund.	Retiree	Choice of leaving the account with the same manager or purchasing an annuity from an insurance company.	Up to 25% lump sum and/or gender-specific annuity from pensionable age to age 75. Possible survivor benefit.
Sweden 1995-2000	Worker	Tax authority	A public agency, which is part of the social insurance organization, operates as a "clearing house" between individuals and funds.	Worker chooses among (several hundred) registered mutual funds.	Government	State monopoly/ part of social insurance organization.	Unisexual annuity, partial or full from pensionable age. Possible survivor benefit.

Source: Palmer (2000).

How have models been designed?[14] The first issue is who chooses the fund manager. Should it be the worker or the employer? In Chile, the United Kingdom and Sweden, the choice has been given to the worker. In Chile, each participant has one fund. In Australia, the employer chooses the fund manager, but may opt to contract one with several funds among which individuals can choose. In the United Kingdom, the fund manager that the individual contracts with may have more than one fund to choose among. In Sweden,

[14] See, for example, Palmer (2000) and Fox and Palmer (2001).

people are presently limited to five fund choices among several hundred registered funds.

A related issue is who chooses the annuity provider. In Chile, Australia and the United Kingdom, individuals themselves choose among a number of possible providers. In Sweden, the government provides the annuity products. The Chilean, Australian and United Kingdom models follow more closely the traditional insurance approach, whereas Sweden has chosen to privatize savings during the accumulation period, allowing people to choose just about any sort of fund, while the annuity products are standardized for all.

Annuity products differ also. In Chile, Australia and the United Kingdom annuities are gender-specific, whereas in Sweden they are based on unisexual life expectancy. The Swedish model involves redistribution from men to women, which is consistent with the European court ruling on gender with regard to social insurance benefits. All but Sweden allow lump-sum benefits to be taken. The question is whether a lump-sum benefit is consistent with the principle of social security, i.e., the goal of providing income protection throughout a pensioner's life.

Countries introducing individual financial account systems after Chile have been aware of the high administration costs incurred by the Chilean system and have attempted to hold back costs with alternative forms of administration. A first step in this direction is to centralize the collection of contributions. This was an obvious choice in Sweden. Contributions for social insurance were already collected by the tax authority. Collection of contributions creates essentially no marginal cost.

The remaining marginal cost is that of transferring information and money to the fund managers. Sweden created a clearing house to direct contributions to the participating funds and perform net transactions on behalf of all fund participants vis-à-vis a specific fund. In all the other three models, either individuals or their employers, or both, deal directly with the fund managers.

Another question is who should keep the accounts and send out statements. In Chile, Australia and the United Kingdom the private manager does this. In the Swedish clearing house model, a public agency (the same agency that provides annuities) does this. The clearing house model provides an efficient method for executing transactions with individual fund managers, since the agency can aggregate all sales and purchases in a transaction day into one single transaction.

In sum, the OECD countries have not followed Chile in attempting to rid themselves of PAYGO schemes and introduce financial account schemes. The one exception, Australia, did not have a PAYGO system to begin with, but had an extensive general revenue-financed safety net that should be expected to become smaller as the newly mandated employer-based financial account schemes mature. The traditional OECD countries have large acquired PAYGO rights, compared with Chile at the time of its reform. To date, this has cooled any interest in mandating financial account systems. Where financial account systems have been introduced, younger generations have traded rights in the PAYGO scheme for rights in the financial account scheme. What European countries that have introduced financial account schemes have done is to mix these with PAYGO, diversifying participant risk between economic and financial rates of return.

VII

Poverty and women

One of the strengths of post-war OECD systems has been their poverty reduction impact. Most of this can be attributed to the high coverage level. Two other factors are also important: i) special provision for women and ii) added safety-net factors. The expansion of coverage in OECD systems took as its starting point the need to provide income security for families, especially widows. System designs usually included the following additional benefits, which almost exclusively helped women:

- survivors' benefits for a spouse with no pension or a lower pension and for minor children until they reached maturity or left school (to replace the loss of the main breadwinner's income or pension);
- pension credit for time out of the labour force having children (to boost the pensions of women who are in the workforce except when raising children); and
- for funded systems, unisex annuities in a DB or DC scheme (compensating women for a longer life expectancy than men).

These factors have been important in reducing the poverty rate among the ageing population. Many systems originally included a lower retirement age for women as well. These were put in place because women tended to be younger than their husbands, and it was considered desirable to have both partners retiring at the same time. For women, this provision was a mixed blessing. In DB systems with low eligibility thresholds, it meant redistribution to women. In systems where benefits are tied tightly to contributions, this provision can result in lower pensions for women owing to a shorter contribution time.

Poverty reduction is also achieved through targeted redistribution in old-age systems. All OECD systems include some type of minimum pension. In some cases, this is a demogrant, providing a minimum income floor for all those above retirement age, regardless of contributions (Sweden before system reform, Denmark, Australia, New Zealand, United States). In other cases, it is a minimum pension with a years-of-contribution eligibility requirement. The purpose of minimums with an eligibility requirement was twofold: they increased incentives to participate for lower-income workers, increasing coverage and thus public support for the system, and they reduced poverty.

The European reform trend towards a stronger link between contributions and benefits has changed, but not eroded, many of these benefits. Most systems have retained a minimum benefit. For women, non-discrimination statutes are causing most countries to equalize retirement ages. However, the same statutes are requiring unisex annuities, entailing a transfer especially to single women (for married couples, it is effectively an intra-household transfer if survivor benefits are in place). Many countries are keeping the childcare pension credit in public systems (although not in occupational systems). In Sweden, the childcare credit is paid for by a transfer from the general budget to the social insurance budget so that the funds are even available for investment into the mandatory funded DC system. In that country, the high labour-force participation of women, the relative equality of men's and women's wages and the childcare credit that compensates women for time out of the labour force are expected to lead to a fairly equal distribution of pensions and adequate protection for women. As a result, Sweden is gradually eliminating the survivor benefit for spouses in the PAYGO system, but has given participants in the financial account system a choice of a joint annuity.

Lastly, most OECD countries have social assistance systems providing benefits in cash and in kind, which offer the ultimate social safety net. These are being eliminated; yet the move towards contribution-related pensions is expected to make these systems more important, not less important, over time.

VIII

Lessons for Latin America

For reasons quite similar to those seen in Europe, Latin American countries have been moving away from redistributive DB systems towards contribution-related systems. The goals have often been the same:

- reducing future expenditures by raising the retirement age;
- reducing moral hazard;
- increasing public savings.

A number of important differences have emerged, however, between Latin America and European reforms. European countries: i) have retained a stronger PAYGO component than, for example, Chile and those countries in Latin America which followed the Chilean model; ii) have maintained the anti-poverty component, but redistribution is more targeted, and is low-cost owing to the high overall coverage rate; iii) have maintained or encouraged supplementary occupational systems; iv) have continued to include special protections for women, and v) have been looking for a way to wholesale fund management and thus realize economies of scale in this key area.

José Piñera's dream of closing down the public PAYGO system is not one shared by the majority of voters in Europe today. European voters continue to value the public pension system for several reasons. By contrast with the situation in Latin America, it has provided adequate pensions for most households, thus preventing deprivation among older households. Younger as well as older voters value this. The movement to individual accounts is a politically acceptable reform of PAYGO because in Europe, with near-universal coverage and more equal lifetime wage distributions, an individual account system will still provide adequate old-age security. Maintaining partial PAYGO allows European systems some flexibility in the event of further shocks, and allows some redistribution (towards women and the lifetime poor) to continue at a fairly low cost. A system which mimics the distribution of wage and salary income in the distribution of pensions is broadly acceptable because the underlying income distributions are more equal.

In most Latin American countries, the distribution of income is much more unequal. Macroeconomic shocks are greater and spells of unemployment tend to be more frequent. As a result, pensions based on contributions alone may not be adequate for old-age security. The contribution-based pension model, with a retirement-age life expectancy of about 12 to 15 years, is affordable on a fully or partially advance-funded basis for most countries. It should provide adequate protection against poverty for those who contribute for about 40 years. The problem is the uncovered population, or the partially covered population: those with long spells out of coverage due to time out of the labour force to raise children, unemployment or time in the informal sector between formal-sector jobs. The main issue is how to increase coverage and thus old-age security for the rest of the current workforce. This most likely requires some redistribution, which a pure individual accounts system cannot provide.

European systems expanded coverage at a time of low public debt, low wage and income inequality and rapid wage and labour-market growth. They did this with low eligibility requirements and minimum pensions. These policies were redistributive within and between generations, the latter because of PAYGO financing. As coverage expanded and the population matured, these policies became too expensive. As we have seen above, the story of the 1990s was the scaling back of this redistribution (now that coverage was near-universal). Minimum pension policies now tend to be more targeted on the lifetime poor.

Latin American economies do not currently have this fortuitous configuration. Although the labour force is growing rapidly, real wages have not been rising rapidly in most countries except Chile, and income inequality is high. Public debt is also high, in part because of the need to pay down generous pensions granted under the old system. As a result, significant redistribution would be quite expensive if adopted now with PAYGO financing (as some countries have already experienced).

There may, however, be some scope for increasing coverage and poverty alleviation through limited redistribution. Chile, for example, provides a guaranteed minimum pension given x years of coverage. Bolivia provides the Bonosol, a demogrant given at age 65. Other countries could consider using privatization revenues to provide a guaranteed minimum, perhaps requiring only 10 years of contributions but a high retirement age. The key in enacting such a policy is i) to keep the guarantee low and ii) to keep the retirement age high. If not, the incentive to contribute is eroded and the cost becomes unaffordable.

Another way to keep the public system affordable is to develop a complementary occupational pension system, outside the public system. Schemes inside the public system are a bad idea, as they generally transfer tax revenues from poorer households to richer ones. However, privately organized schemes (including those organized by unions) can release pressure from public schemes. They can be both a bridge to the public scheme in the case of early retirement and a solution to the problem of special groups such as teachers or civil servants. Two lessons from Europe emerge, however. First, careful regulation is required irrespective of whether schemes are DB or DC. Second, DC pensions are more affordable and easier to regulate, and facilitate labour mobility and economic restructuring.

Pensions have been an important factor in keeping many widows and single elderly women out of poverty. Individual account systems, which provide less redistribution, may reverse this. Adopting the European approach to gender issues in pensions would help Latin American systems reduce poverty. Most countries which now have individual account systems also stipulate a lower retirement age for women. In a contribution-based system, as noted above, this will lead to lower pensions for women, especially when combined with gender-specific annuities. As a result, many women will find themselves collecting the minimum pension if they collect any pension at all. Survivors' pensions and joint annuities would help to counteract this trend.

IX

Summary and conclusions

There are important differences in the economic histories of the Latin American and European countries, and these have shaped pension systems and reform options as we move into the first half of the twenty-first century. In Europe, expansion of systems was closely tied to expansion of formal labour-market participation. Universality of pension systems developed simultaneously with other labour market institutions, and inequality decreased as a result. In Latin America, this did not occur. As a result, attempts to provide universal coverage through contributory systems did not work. Expansion required large and unsustainable public transfers. In addition, Latin American systems developed some of the same early exit problems as European ones, but were financed from a much narrower contribution base. Financial problems occurred much earlier, and were far more serious.

Latin America has learned that public pension system objectives and means need to be consistent with economic fundamentals in order to be sustainable. Latin American reforms have shown European countries new ways of reconciling pension systems to these fundamentals: financial DC individual account schemes. This approach has brought financial stability to Latin American pension systems. However, these systems effectively replicate the inequality of labour income in retirement income, and reflect the degree of formality of the economy. Increased poverty reduction may require increased attention to the causes of old-age poverty (low lifetime income, especially among women) and structured, low-cost approaches to managing this risk, financed on a PAYGO basis. These may include:

- increased transfers to formal-sector women from men during the working years, so that retirement income will be adequate. This might include childcare pension credits or unisex annuities;
- affordable minimum pensions (many Latin American systems now include these);
- affordable means-tested transfers to ageing households.

However, all these mechanisms need to be developed slowly and expanded gradually to avoid the unsustainability problems of previous attempts.

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The Argentine crisis *and its impact on* household welfare

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This study presents the initial findings of a household survey dealing with the effects of the Argentine economic crisis on welfare. It also seeks to identify the coping mechanisms and strategies adopted by households in these difficult times. The results obtained confirm the negative image reflected in the macroeconomic indicators, identify the limitations of the different coping mechanisms and reveal serious effects on welfare. The evidence suggests that the effects on the use of health services have been more marked than those on the use of education services.

I

Introduction

Argentina is currently in the midst of a deep and unparalleled economic, social and political crisis. After three consecutive years of recession, the economic and financial crisis deepened during 2001. Various attempts were made during that year to restart growth as a prelude to improving the public finances and the debt profile, but to no avail. Efforts to halt a run on the banks (the *corralito* restricting withdrawals) constrained liquidity and economic activity and generated popular unrest. All this culminated in the resignation of President de la Rúa in December 2001, a quick succession of appointed presidents, a formal default on public-sector debt repayments and, in early 2002, the abandonment of the Convertibility Plan.

After four years of recession, the economy is projected to shrink by about 16% in 2002, bringing the decline in GDP to over 25% since its 1998 peak. With the peso depreciating sharply since its float and a lack of direction in monetary policy, Argentina is experiencing significant inflation for the first time since 1991. Between the decline in economic activity and the depreciation of the currency, per capita GDP has collapsed to a projected US$ 2,850 in 2002 (down from US$ 8,210 at its peak in 1998).

The downturn in the second half of 2002 sharply aggravated the already difficult social conditions in the country. Already high levels of unemployment (18.3% in October 2001) jumped to 21.5%, according to official figures for May 2002.[1] Moreover, job losses (particularly unskilled jobs) have been widespread. During the first quarter of 2002 the construction industry (vital for unskilled labour) shrank by 25% with respect to the last quarter of 2001 (42% with respect to the first quarter of 2001).[2] Poverty is also on the increase, confirming the link between economic crises and rising poverty (Lustig, 2000). Official estimates for 28 urban centres indicate that poverty rose from 38.3% in October 2001 to 53% in May 2002. This extremely negative environment has also had a strong impact on the health and education sectors, where there is growing evidence of deterioration in service delivery. The combination of all these factors has resulted in an increasingly fraught social situation with high levels of crime, violence and protests of various kinds.

This paper summarizes the initial results of a household survey conducted expressly to gauge the effects of the economic crisis on household welfare and identify the coping mechanisms and strategies adopted by Argentine families in these hard times. Specifically, the survey was designed to identify changes in income, consumption patterns, access to social and other services, saving and payment patterns, labour-market participation and reliance on formal and informal safety-net mechanisms. Additionally, the survey sought to collect information on changes in the mental and emotional state of individuals.

The survey is nationally representative, covering 2,800 households in different regions.[3] Unlike most other surveys in Argentina, including the INDEC Standing Household Survey (Encuesta Permanente de Hogares – EPH), this one included small settlements (less than 2,000 inhabitants) and thus provides a better insight into such areas. It did not include areas of scattered population, however, and thus does not present a full picture of Argentina's heterogeneous rural sector. For urban areas, the sample design was based on a stratification by city size and by region. Settlements in rural areas were selected randomly. While an effort was made to include settlements in different regions, the sample was not large enough to be representative at

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[1] Instituto Nacional de Estadísticas y Censos (INDEC), Standing Household Survey (Encuesta Permanente de Hogares – EPH), urban areas total.

[2] Encuesta de Indicadores Laborales (EIL), Ministry of Labour.

[3] The survey was conducted by the Instituto Brasileiro de Opinião Pública e Estatística (IBOPE).

the regional level. Overall, the survey design allows comparisons with the Standing Household Survey for urban areas.

The first part of the questionnaire asked for information on all household members and included questions on demographic characteristics, employment, income, migration status, education level, health coverage and social security contributions. Several of these questions were retrospective, using October 2001 as the reference point. Individuals were asked about their individual employment and non-employment income (cash and kind) and about official and unofficial income transfers.

The second part of the questionnaire took the household as its unit of analysis. The questions were answered by the head of household (or the best informed individual in the household).[4] Questions were asked on the use of savings, changes in consumption patterns and participation in social programmes and community activities. Respondents were also asked about their mental and emotional state and their expectations for the future. The questionnaires for urban and rural areas differed slightly to capture specificities related to those areas. The fieldwork was conducted in June and July 2002.

II

Main findings

1. Household income

Table 1 presents the basic information on incomes yielded by the survey. Reported monthly per capita income from all sources averaged 214.6 pesos.[5] This compares with an average income of 233 pesos estimated by INDEC for urban areas in May 2002. Standard procedures were used to adjust per capita income using the adult-equivalency scale (to reflect differences in consumption needs), yielding an average monthly income of 264 pesos. Some standard inequality measures are also presented, and these confirm the relatively high level of income inequality observed in the Argentine household surveys.

As mentioned earlier, a special feature of this survey is the inclusion of rural areas that are not covered by the Standing Household Survey. Table 2 confirms

TABLE 1

Argentina: Mean income, by quintile, June 2002

Quintile	Adult-equivalent household income (pesos)		Per capita household income	
	Mean (pesos)	Share (%)	Mean (pesos)	Share (%)
I[a]	40.5	3.1	32.0	3.0
II	107.4	8.1	85.9	8.0
III	182.7	13.8	146.3	13.7
IV	300.1	22.7	240.9	22.5
V	690.8	52.3	564.7	52.8
Mean	264.3	100	214	100.0
Y10/Y1[b]	28.9		28.4	
Gini coefficient	0.473		0.478	

[a] First quintile includes households reporting zero income.
[b] Y10/Y1 is the ratio of mean incomes in the highest and lowest deciles of the distribution. Y1 does not include those reporting zero income.

TABLE 2

Argentina: Mean income, by areas
(*Pesos*)

Areas	Adult-equivalent household income (pesos)	Per capita household income (pesos)
Urban	268.3	223.27
Rural	168.9	142.13

[4] If the household head did not know the answer to a particular question (e.g., changes in consumption patterns) the household was visited up to three times to find a member who did.

[5] Owing to the known difficulties that household surveys have in obtaining reliable data on income levels, a question was devised for those respondents who preferred not to report the exact amount of their earnings. They were asked to select the range that best reflected their own income (which was imputed by taking the average of each interval). This allowed the number of households with incomplete information on income to be reduced from 17.2% to 7.6%. When individuals did not report their earnings from work, these were estimated using Mincer equations, whereby the logarithm of hourly earnings is defined as a function of observable individual attributes such as sex, education, age and experience. The Heckman method was used to correct for selection bias. The absolute and relative effects of these corrections on incomes are insignificant (per capita income increases from 212 pesos to 214 pesos) (Heckman, 1979, pp. 153-161).

the well known (but not necessarily well established) fact that urban incomes are higher, with a gap of about 60%.

To identify the effects of the crisis on family incomes, the survey asked each household to state whether its current income had changed (in nominal terms) from what it was in October 2001. Table 3 shows that over 40% of households reported no change in income while almost 50% reported a reduction in nominal income. Interestingly, about 8% of households reported higher incomes.

The information collected gives no indication of the extent to which these changes influenced income distribution, as the retrospective questions did not refer to "levels" of income. Table 4, however, shows the incidence of change according to the education level of the head of household, a proxy for household income.

It is interesting to note that the highest incidence of income loss was in households headed by individuals with secondary education, a group that tends to be located in the middle of the income distribution ("the middle class"), while the lowest incidence was in households headed by individuals with incomplete primary education, a group that tends to be at the bottom of the income distribution scale ("the indigent"). This information suggests that the middle classes might have been the most seriously affected by the economic crisis.[6]

The case of the approximately 8% of households reporting an increase in income since October 2001 is of particular interest, given the extremely negative economic performance during this period. Table 5 provides some clues to the main reasons behind this increase in nominal incomes.

In almost half the cases, the reported increase in income is associated with a change in employment characteristics: a new worker in the family (most in temporary, informal jobs), a move to a better paying job, or more hours worked. The other half of the cases do not show any noticeable change in employment characteristics for any of the household members. In a little over 20% of cases, it is possible to identify an increase in non-employment incomes as the principal source of change.

2. Employment

The survey also inquired about the employment status of individuals and changes in this respect since October 2001. The results indicate a stable activity rate (i.e., no net change in labour-force participation) of about 40%, with an increase in the unemployment rate of about 3% combined with a reduction in the employment rate (as a proportion of the population) of slightly more than

TABLE 3

Argentina: Changes in income

Since October 2001	%
Increased	8.0
No change	43.4
Decreased	48.6

TABLE 4

Argentina: Changes in income, by education level of household head

	Education level			
	Increased	No change	Decreased	Total
Incomplete primary education	4.25	50.14	45.61	100
Primary education	7.81	44.85	47.34	100
Incomplete secondary education	15.44	34.52	50.04	100
Secondary education	6.72	39.51	53.77	100
Incomplete higher education	6.83	45.94	47.23	100
Higher education	8.91	41.24	49.85	100
Total	*8.07*	*43.22*	*48.71*	*100*

TABLE 5

Argentina: Households reporting higher incomes

Reason	%
More people working	15.0
Changed jobs	14.1
Worked more hours	14.4
Same job/same hours	31.7
Higher non-employment income	22.3
Other	2.5

TABLE 6

Argentina: Employment, May/June 2002
(*Percentages*)

	May/June 2002	October 2001
Employment rate	29.9	31.1[a]
Activity rate	39.8	39.8[a]
Unemployment rate	24.9	22.0[a]
Unemployment rate (EPH)	21.5	18.3

[a] Based on retrospective information from survey respondents.

[6] During the 1990s, by contrast, economic shocks had a profounder effect on the poor and those with the lowest education levels. See World Bank (2000 and 2001).

TABLE 7

Argentina: Changes in employment status
(*Thousands and percentages*)

Current status		Previous status: Unemployed	Inactive	Permanent job	Temporary job	Total
Unemployed	1000s	1 435	1 228	15	555	3 233
	%	50.6	6.2	0.2	17.1	9.9
Inactive	1000s	1 039	18 252	20	386	19 696
	%	36.7	92.5	0.3	11.9	60.0
Permanent job	1000s	113	91	6 498	331	7 034
	%	4.0	0.5	92.6	10.2	21.4
Temporary job	1000s	247	153	485	1 969	2 854
	%	8.7	0.8	6.9	60.8	8.7
Total	*1000s*	*2 834*	*19 725*	*7 018*	*3 241*	*32 817*
	%	100	100	100	100	100

1%. The Standing Household Survey (EPH) found a similar increase in the unemployment rate (from 18.3% to 21.5%) in 28 urban centres, although the levels were slightly different.

These aggregate numbers mask significant changes in the employment position of specific households. Table 7 provides a summary of these, using the answers to the retrospective questions to focus on changes in employment status between October 2001 and the time of the survey.

The stability of labour-force participation can be confirmed by comparing the numbers in the "inactive" category on the two sides of the matrix. The number of individuals leaving the workforce (most of them previously unemployed) is similar to the number entering (most of whom remain unemployed). A more detailed analysis shows that these are mostly "secondary earners" in households which have another member working.

Unsurprisingly, the number of individuals losing jobs exceeds the number finding them. As table 8 shows, those moving out of unemployment are more likely to be secondary workers than those losing their jobs, indicating some changes in family roles which will be analysed later.

The third factor worth mentioning is an apparent deterioration in the "quality" of jobs. This is reflected in the type of employment reported both by those who obtained new jobs (which tended to be temporary rather than permanent and, if permanent, more likely than not to be completely lacking in standard formal-sector benefits) and those who changed jobs (a net increase in the proportion of temporary jobs and, in the case of new permanent jobs, a high proportion without benefits). Approximately 6% of those in work reported losing at least some type of benefit. This is consistent with the trend revealed by the Standing Household Survey.[7]

TABLE 8

Argentina: Groups experiencing change, by position in household and gender

	Unemployed to employed (%)	Employed to unemployed (%)
Position in household		
Head of household	35.9	57.0
Spouse	18.8	12.6
Others	45.3	30.4
Total	*100.0*	*100.0*
Gender		
Male	58.4	62.0
Female	41.6	38.0
Total	*100.0*	*100.0*

The sharp deterioration in formal-sector employment is confirmed independently by the Ministry of Labour Survey of Employment Indicators (Encuesta de Indicadores Laborales – EIL), which

[7] For example, the proportion of wage earners without benefits increased from 33% to 35% between the October 2001 and May 2002 Standing Household Surveys.

covers more than 1,500 firms representing a universe of approximately 38,000 companies of various sizes and in different sectors that employ approximately 1.9 million registered workers in the three largest urban centres (Greater Buenos Aires, Greater Rosario and Greater Córdoba). As figure 1 shows, formal employment is estimated to have fallen by 7.4% since October 2001, and by 10.5% since June 2001.[8]

3. Poverty

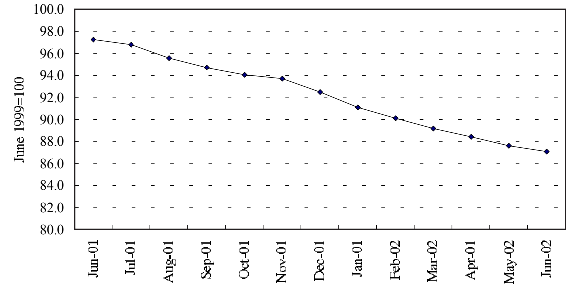
On the basis of the income data for June, the incidence of poverty was estimated using four different lines. First, we used the official "poverty" and "indigence" lines estimated by INDEC for the month of June 2002.[9] For rural areas, use was made of the poverty line for the urban centre in the same region. This does not take account of potential urban/rural price differences, of course, but it does at least control for regional differences (World Bank, 2001).[10] In addition, a one dollar and two dollar a day poverty line was constructed using the standard World Bank methodology for the country as a whole.[11] The national results are shown in table 9.

Table 10 gives the results for urban and rural areas.

A few points should be highlighted. First, the incidence of poverty/indigence (using the official lines) confirms the predictions made in the early stages of the crisis, which suggested poverty rates of about 50% and indigence rates of about 25%. Official estimates from the Standing Household Survey yield similar poverty and indigence rates (53% and 24.8%, respectively), although with narrower coverage owing to the exclusion of rural areas from the survey. Second, bearing all the necessary considerations in mind, it is important to note that the two dollar a day poverty line is very close to the official indigence line which, in principle, gives a better sense of how poverty in post-default Argentina compares to international levels. Third, and again with all the necessary methodological caveats, even though the incidence of poverty/indigence is, as expected, much higher in rural areas, including these areas in the estimation does not have a significant effect on national rates, given the relative size of the two groups.

FIGURE 1

Greater Buenos Aires: Formal employment



Source: Encuesta de Indicadores Laborales (EIL).

TABLE 9

Argentina: Poverty indices, June 2002
(*Percentages of individuals*)

	World Bank survey June 2002	Standing Household Survey (EPH) May 2002	Standing Household Survey (EPH) October 2001
Poverty	53.7	53.0	38.3
Indigence	23.8	24.8	13.6
PPP (1 dollar)	9.9	9.5	7.5
PPP (2 dollars)	24.6	20.8	17.1

TABLE 10

Argentina: Poverty indices by areas, June 2002
(*Percentages of individuals*)

	Urban	Rural
Poverty	52.9	72.6
Indigence	23.2	40.1

4. Subjective welfare

With the exploratory purpose of identifying changes in the mental and emotional state of individuals ("how

[8] Additional data supplied by the Administración Federal de Ingresos Públicos (AFIP) give similar results: the monthly jobs total was 10.1% lower in the first quarter of 2002 than in the same period the previous year.

[9] The basic food baskets were originally estimated for each urban centre on the basis of 1997 consumption patterns and were adjusted to reflect April 2001 prices in each centre using the INDEC consumer purchasing power parity index for that month. The lines were then updated to the month of June using the variation in prices in Greater Buenos Aires. The absence of systematic price information for all urban centres is a serious limitation. Comparison of changes in food prices in Buenos Aires, Córdoba, Mendoza and Tucumán during the first six months of 2002 shows a slightly larger increase in the interior than in Greater Buenos Aires.

[10] A more in-depth analysis of poverty in rural areas will be conducted separately.

[11] The poverty lines were constructed using the 1993 purchasing power parity (PPP) index for Argentina (PPP = 0.7779) and were converted into local prices using the consumer price index (CPI).

TABLE 11

Argentina: Changes of emotional state
(*Percentages*)

	Feel discouraged		Feel hopeless about the future	
	Now	Before October 2001	Now	Before October 2001
Never	26.8	47.8	21.1	45.5
Sometimes	34.2	37.3	33.2	36.2
Often	24.8	9.6	27.5	11.3
Always	13.5	4.0	16.7	4.8
No response	0.6	1.3	1.5	2.2
Total	*100*	*100*	*100*	*100*

people feel"), the survey asked people whether they "felt discouraged" and/or "hopeless about the future". They were asked to identify the main reasons for these feelings and say how they felt before October 2001.

As table 11 shows, the survey indicates a high and increasing incidence of discouragement and pessimism among respondents (mostly heads of household). Table 12 provides further evidence for the source of this discouragement/pessimism among those reporting such feelings. "Economic reasons" predominate over all others.

In the case of those who said they felt discouraged now but not before October 2001, the aim was to ascertain whether this change was associated with the respondent's employment position. As table 13 shows, this does not appear to be the case. Similarly, there was no identifiable pattern associated with income distribution. These findings suggest that the economic crisis affected people's emotional state across the board.

5. Social unrest

The survey confirms a sizeable increase in the participation of individuals in various forms of social protest, which rose from 7.6% before October 2001 to 16.2%. Interestingly, participation increases up the income distribution scale. This is consistent with another finding of the survey: the most popular form of protest was the *cacerolazo*, or pot-banging (9.2% participated), a form of protest that became highly popular in the major urban centres during the first quarter of 2002.[12]

Violence appears to be an important factor in the post-crisis period. As table 15 shows, 20% of households claimed to have fallen victim to crime or violence in the previous six months. It is interesting to note that while the highest-income group reported the highest incidence of crime or violence, there is no simple correlation between income level and the likelihood of experiencing crime.

The data are consistent with the information collected by the Dirección Nacional de Política Criminal for Greater Buenos Aires, Rosario and Córdoba, which indicated that 13% of respondents had

TABLE 12

Argentina: Reasons for emotional state
(*Percentages*)

	Feel discouraged	Feel hopeless about the future
Cannot find a job	11.3	12.7
Difficulties with job	1.6	1.6
Economic reasons	53.4	54.0
Health reasons	4.8	3.0
Something hard to explain	16.1	15.4
Other reasons	12.8	13.4
Total	*100.0*	*100*

TABLE 13

Argentina: Employment position of those stating they were more discouraged

Current position	%
Employed	46.4
Unemployed	14.5
Retired	15.1
Student	3.4
Housewife	10.4
Other inactive	10.1
Total	*100.0*

[12] Lower-income groups participated mainly in pickets or road blockades.

TABLE 14

Argentina: Participation in social protests
(*Percentage of households participating*)

Quintile	I	II	III	IV	V	Total	Total before October 2001
	11.4	12.6	17.5	17.5	22.0	16.2	7.6

TABLE 15

Argentina: Exposure to crime and violence
(*Percentage of households*)

Quintile	I	II	III	IV	V	Total
	19.7	22.9	14.5	19.9	25.3	20.4

experienced some type of crime during 2000 (Dirección Nacional de Política Criminal, 2000). The information does not show significant differences among socio-economic groups but does reveal that higher-income groups are more likely to report crime (particularly car thefts).

III

Coping strategies

In this third section, the focus is on strategies adopted by households to cope with the crisis. First, there is a general description of the main types of strategies followed by households. These are grouped into three categories: i) adaptive household strategies, ii) active household strategies and iii) social network strategies (Loskin and Yemtsov, 2001). This is followed by analysis of the components of each category and identification of patterns indicating that certain strategies tend to be followed by different types of households (depending on income level, for example). It must be stressed that this is a first, exploratory step to prepare the way for a subsequent multivariate analysis of coping strategies.

1. Overview

As indicated earlier, the survey asked about the strategies most frequently used by households to cope with the worsening economic conditions experienced over the previous eight months.

The first set of strategies, which have been grouped under the term adaptive household strategies, includes those of households that responded to the crisis by changing their consumption patterns, including the use of various types of services. The second set of strategies, termed active household strategies, involves making increased use of the physical, financial and human assets available to the household. These strategies include bringing further household members into the workforce, working longer hours, selling assets, using savings, borrowing and migration. The last group, social network strategies, includes strategies that rely on assistance from friends, family, non-governmental organizations (NGOs) or the government.

Table 16 summarizes the key information on the use of these different strategies by families generally and, more specifically, by families whose household income fell.

A first aspect to be noted is that almost all households, regardless of whether they experienced changes in income, said they had altered their consumption patterns in response to the economic crisis. This is true across the income distribution spectrum (table 17). Argentine families have, indeed, adapted to the economic crisis by changing their consumption patterns.

Furthermore, with the exception of active strategies, which tend to be used more intensively by households whose income has fallen, no noticeable pattern is observed between the two groups in the use made of this broad set of coping strategies. However, when attention is focused on income groups (table 17), regardless of whether or not income has fallen, it becomes apparent that the use of social network strategies is strongly correlated with income levels.

Over and above these general patterns, as will be seen below, significant differences are found among

TABLE 16

Argentina: Use of strategies by households

	% of households using	% of households where income has fallen using
i) Adaptive strategies	98.2	99.1
ii) Active strategies	37.3	45.0
iii) Social network strategies	32.7	36.4
Do not use any of these strategies	1.5	0.8
Use at least one of them	98.5	99.2
Use at least two of them	54.7	61.6
Use all of them	13.6	17.8

TABLE 17

Argentina: Use of strategies, by income quintile[a]

(*Percentage of households using them in each quintile*)

Quintile	I	II	III	IV	V	Total
i) Adaptive strategies	99.8	98.1	98.9	97.3	96.6	98.2
ii) Active strategies	47.0	37.7	36.1	30.5	30.7	36.4
iii) Social network strategies	55.5	39.1	38.4	24.2	12.0	33.8

[a] The quintiles in this section are constructed with the same number of households in each, ranked by family income adjusted for household size (using adult equivalents) and excluding households for which information is incomplete.

TABLE 18

Argentina: Use of adaptive strategies, by income quintile

Changes in consumption patterns	I	II	III	IV	V	Total
Food						
Lower consumption	90.4	83.1	73.2	69.0	59.1	74.9
Switch to cheaper products	97.6	95.4	92.5	91.5	84.8	92.3
Other goods						
Lower consumption	90.5	87.7	81.5	76.8	68.3	81.0
Switch to cheaper products	89.5	89.3	80.4	80.2	76.6	83.2
Purchase of second-hand products	51.7	40.2	34.8	33.0	24.3	36.7
Dispensing with/reducing use of domestic service[a]	...	...	43.0	27.8	40.5	37.9

[a] Estimated only for those households for which this was an option and only when a sufficient number of cases was observed.

the various groups once the broad categories are broken down.

2. Household adaptation strategies

Table 18 summarizes the types of changes made by households in their expenditure patterns. What it reveals in particular is a tendency to reduce consumption levels and switch to cheaper products. A distinction is made between essential (food) and non-essential (other) items.

Broadly speaking, table 18 shows that all families have reacted to the economic crisis by combining lower consumption with a switch to cheaper goods, be these essential or non-essential.[13] Having said this, two patterns can be discerned. Firstly, and unsurprisingly, higher-income groups appear to have avoided such changes to a greater extent. This is particularly true in the case of food, where the difference between income quintiles is striking. Secondly, switching to cheaper

[13] The consumer price index rose by 30% during the first six months of 2002. Food prices rose by more (39%) than the average. Using the expenditure shares for the lowest quintile yielded by the 1997 consumption survey, we estimate that the cost of living for the poorest groups in society rose by 45% over the period.

TABLE 19

Argentina: Have families taken children out of school?

Age group	Going to school (% of whole group) All areas	Urban areas	Rural areas	Estimated drop-out rate All areas
6 to 12	97.0	97.3	92.1	0.2
13 to 15	92.5	92.5	90.9	0.6
16 to 18	80.2	81.1	60.1	2.3

products (or second-hand ones when available) appears to be a more common response than cutting consumption levels. In other words, the information suggests that families have tried to maintain food consumption as far as possible by reducing the consumption of other goods and switching to less expensive products. Not surprisingly, the lower-income groups seem to have been less successful at this.

The survey also reveals changes in use of and access to various types of services (specifically education, health and public services).

A question that deserves particular attention –and for which a separate analysis is being conducted using various sources of information– is whether there is any evidence of a higher school drop-out rate as a result of the economic crisis. Preliminary indications from the survey provide limited evidence of such an effect. Table 19 includes three age groups: 6 to 12, 13 to 15 and 16 to 18. The second column gives rough estimates of coverage rates for each group, without reference to the level of schooling. With all their limitations, these data confirm the rates traditionally ascertained from household surveys and show no sign of a decline in coverage.

The survey also sought to ascertain whether there was any indication that children reported as not attending school during the first months of the 2002 school year had actually dropped out. Household heads were asked whether anyone in the household (they were not required to say who)[14] had either dropped out of school or postponed attendance since October 2001. The third column shows what percentage of children in the age group concerned are not in school and belong to a family in which at least one member has dropped out of school or postponed attendance. Of course, this might mean that the numbers dropping out are overestimated if more than one household member dropped out or delayed the start of classes (including higher education); this being the case, it is an estimate of the maximum potential size of the effect.

The first thing to be noted is that, given the very small number of cases involved, the estimates are not sufficiently precise (i.e., have a high coefficient of variation). Taking this into account, it is apparent that there is no evidence of children in the 6 to 12 or 13 to 15 age brackets dropping out and there is a small (but not statistically significant) percentage of drop-outs in the 16 to 18 group.

As a consistency test, we checked the latter group's position in the household income distribution. As table 20 shows, the few students who do seem to have dropped out belong mainly to the lowest deciles of the distribution, which does lend further plausibility to the evidence.

The limited evidence on changes in school drop-out rates as a result of the crisis could indicate that families are trying hard under difficult circumstances to protect what is perhaps the most important type of investment they can make in their children (De Ferranti, Perry and others, 2000). Evidence from other crises suggests, however, that the negative effects might be felt not immediately but several months after the onset of the crisis (e.g., in 2003 enrolment rates). Furthermore, the data from the survey do not tell us how many children are not attending school regularly, which may be a more prevalent type of adjustment in many cases.

Table 21 provides some further evidence as to whether families made adjustments that affected their children's education. The percentage of families switching schools (to less expensive private schools or from private to State schools) is very small, suggesting an unwillingness to make such changes even in the face of a sharp economic deterioration.

On the other hand, a very large proportion of households (particularly in the lower income groups)[15]

[14] This avoided the "shame" effect that might have caused the numbers dropping out to be underreported, at the cost of losing information on exactly which member of the household was concerned.

[15] Almost 90% of households in the lowest income quintile reported cutting back their purchases of school materials, as against only 43% of those in the highest quintile.

TABLE 20

Argentina: School drop-out rates
(*Percentages*)

Quintile	Proportion dropping out in the 16-18 group
I	53.9
II	23.3
III	6.3
IV	16.6
V	0

TABLE 21

Argentina: Adjustments in education expenditure
(*Percentages of households*)

Switched from a private school to a State one	2.0
Switched to a cheaper private school	3.1
Bought fewer school materials	71.9

reported reducing their purchases of school materials; the effects on the quality of schooling remain to be seen. The difficulties experienced by several provinces in keeping up spending levels suggest that restrictions on the supply side may be more serious than those on the demand side, at least at this early stage of the process.

In the case of health services, there is evidence of serious negative impacts since early 2002, in the form of difficulties both in the social health insurance system and the public health system. The information collected through the survey confirms the trends identified previously.

Approximately 12% of individuals experienced some change in health insurance coverage (table 22). More than 60% of these, mainly in the lowest-income groups, lost their coverage altogether. Of those whose health insurance coverage changed, this change was to lower coverage in 40% of cases. Almost half of those who were previously covered twice (by the *obra social* and *prepaga* systems) now maintained only their primary (*obra social*) health insurance. There was also a shift from full private insurance to emergency insurance only.

The loss of health insurance coverage is leading an increasing number of people to rely on public health facilities. Of those households reporting that they had switched from private coverage to public health services because of the economic crisis, 60% had lost their private coverage or seen it restricted in some way. More specifically, 16% lost their coverage altogether, 5% could not use it because they had debts outstanding, 13% could not afford to pay their share of services, 8%

TABLE 22

Argentina: Changes in health insurance coverage
(*Percentages of individuals experiencing a change in coverage*)

Quintile	I	II	III	IV	V	Total
Lost all coverage	76.0	61.1	78.6	52.6	33.6	61.4
Changed coverage	24.0	38.9	21.4	47.4	66.4	38.7

experienced a reduction in the services covered by their insurers and 13% were retirees experiencing difficulties with the services offered by the Instituto Nacional de Servicios Sociales para Jubilados y Pensionados (PAMI).[16]

Overall, the survey found that families had cut back on health services in one way or another as a result of the economic crisis. A few findings are worth mentioning. Almost 23% of households reported that at least one member had been unable to obtain access to health services at some time. Three quarters of them gave the reason as a “lack of money” to pay for medicines (44%), transportation costs (25%) and contributions (5%). More specifically, 37% of households with children under the age of 12 said they were taking their children for medical check-ups less often. Almost 45% of these households belonged to the lowest quintile of the income distribution. But this effect was also felt in the second (29%) and third (18%) quintiles.

Cutting down on the use of utility services appears to be another strategy followed by households. Typically, this involves either halting or delaying payments (with the risk of being cut off) or simply asking for the service to be suspended. Between 30% and 50% of households said they had delayed payments. The percentage of households saying that various services had been cut off (electricity, gas, water, telephone, cable, Internet) ranged from 2% (in the case of the water supply) to 14% for cable television. In most cases, the main reason was non-payment.

Similarly, households have begun to make greater use of cheaper forms of transport, as table 23 shows. More than half of households that previously used only public transport now report that they are making more journeys by bicycle or on foot. A similar switch from cars and taxis to public transport is observed as well.

[16] PAMI is the national health insurer for retirees.

TABLE 23

Argentina: Changes in use of transport services

Quintile	I	II	III	IV	V	Total
From cars/taxis to public transport	57.4	56.7	47.8	45.5	32.4	46.1
From cars/ taxis/public transport to cycling/walking	73.9	62.5	61.3	49.0	33.5	55.4

These figures are consistent with official data on the use of public services,[17] according to which passenger numbers fell by 22% on urban railways, 9% on underground railways and 14% on metropolitan bus services in the first five months of 2002 (Estadísticas de Servicios Públicos, 2002).

3. Active household strategies

Table 24 summarizes some of the active measures adopted by households in response to the economic crisis. In only 13% of households did a new member enter the labour force.

This is a particularly important resource in the lowest-income group (table 25). The new worker is typically a secondary one: in 50% of cases it is the son or daughter and in 25% it is the spouse of the person identified as the household head. The effectiveness of this strategy, however, appears to be rather limited. A little over 13% of these new entrants succeed in finding a job, and those who are successful tend not to be the poorest.

Working longer hours appears to be another strategy followed by all income groups. However, it tends to be mostly salaried workers in permanent jobs, particularly in trade, that appear to succeed in the effort to increase working hours.

Alongside these changes in employment strategies, there is an observable tendency to replace leisure with work at home as a way of coping with the crisis. Two examples are worth mentioning. First, approximately 60% of households reported that they had increased the time allocated to the preparation of "home-made goods" (e.g., meals) to replace purchased goods. As table 25 shows, this strategy is widely used by the lowest-income groups. Second, households employing domestic workers cut back substantially on their use.

The survey also inquired whether a household member had migrated since October 2001 or if someone in the household was considering that option. On average, a little over 4% of households reported having at least one member that had emigrated, and this percentage held fairly steady across the income distribution.[18] The main reasons for migration included "lack of work" (58%) and the desire for a better quality of life (15%). Again, more than 20% of households reported that at least one family member was considering migrating. The main option being considered (80% of households overall, with the largest proportion being found among the highest-income groups in the City of Buenos Aires) was emigration to another country.

Since the crisis began, a larger proportion of households have been using their savings, selling assets or borrowing to keep consumption levels up (see table 26).

Perhaps the most interesting finding is the degree to which lower-income households rely as a coping strategy on the informal credit granted by neighbourhood stores (*compra al fiado*), which enables them to delay payment (table 27).

4. Social network strategies

Table 28 summarizes some of the main indicators of social network use by households. Table 29 provides further information broken down by income group. Overall, more than a third of households report benefiting at least in some respect from access to a social support network. Use of such strategies is somewhat higher among households that experienced falls in nominal income (table 28) and significantly higher among households at the bottom of the income distribution scale (table 29).

The survey provides some evidence that social networks are used differently depending on income level. Certainly, if the income distribution is compared with the distribution of households claiming to have received assistance from or given it to people not living in their own household, it transpires that households in

[17] Estadísticas de Servicios Públicos (2002). These statistics are collected monthly by INDEC and form the basis for its synthetic public services indicator (Indicador Sintético de Servicios Públicos – ISSP).

[18] This excludes those emigrating as a result of marriage, sickness or other family reasons.

TABLE 24

Argentina: Active household strategies

	% of households using	% of households that reported a loss of income using
Labour-market strategies		
Bringing new workers into the labour market	13.4	16.1
Working more hours	14.8	19.2
Time		
Increasing production at home	59.9	62.6
Dispensing with/cutting back on domestic service[a]	35.3	40.4
Migration	4.1	3.9

[a] The percentage for this item refers to households for which this category is relevant.

TABLE 25

Argentina: Active household strategies, by income level

Quintile	I	II	III	IV	V	Total
Labour-market strategies						
Bringing new workers into the labour market	28.0	16.8	12.2	6.2	1.4	12.9
Working more hours	11.4	15.6	16.3	11.5	13.4	13.7
Time						
Increasing production at home	74.4	73.0	62.6	52.5	43.2	61.1
Dispensing with/cutting back on domestic service[a]	.	.	43.0	27.8	40.5	37.9
Migration	4.3	2.3	6.0	5.1	4.6	4.5

[a] The percentage for this item refers to households for which this category is relevant.

TABLE 26

Argentina: Use of financial strategies

	% of households opting to		% of households that reported a loss of income opting to	
	Now	Before October 2001	Now	Before October 2001
Sell assets	3.7	1.1	5.5	1.0
Use savings	5.1	3.0	7.1	4.9
Borrow from banks	1.7	2.4	1.3	3.1
Buy on credit	7.3	5.1	9.7	6.6

TABLE 27

Argentina: Use of financial strategies, by income level

Quintile	I	II	III	IV	V	Total
Selling assets	5.9	3.7	3.3	2.7	1.1	3.3
Using savings	2.8	3.5	4.0	8.0	5.6	4.8
Borrowing from banks	0.9	3.6	1.8	0.6	2.0	1.8
Buying on credit	14.6	13.1	9.5	2.3	0.7	8.0

the lowest quintile tend to be net recipients and those in the highest quintile net givers.

Retrospective questions were used to identify changes in access to or use of social networks since October 2001. While the survey revealed an increase in various forms of social network use, the greatest increases were in the use of barter and participation in community activities.

TABLE 28

Argentina: Use of social network strategies

	% of households using	% of households that reported a loss of income using
Assistance from other people not living in the house[a]	16.3	17.0
Borrowing from friends or family	10.7	13.7
Social plans	6.9	7.5
Participation in community activities[b]	20.9	26.4
Barter	11.1	15.2
Using at least one of these strategies	37.0	42.5
Using more than one	14.6	19.9

[a] A higher percentage of households (22%) claimed to provide assistance to people living in different households.
[b] Community activities include the following: school canteens, soup kitchens, community purchasing of goods, community workshops, fund-raising and community childcare, among others.

TABLE 29

Argentina: Use of social network strategies, by income level

Quintile	I	II	III	IV	V	Total
Assistance from other people not living in the house	26.4	15.5	20.9	15.8	7.3	17.1
Assistance to other people not living in the house	10.0	19.7	17.1	21.2	37.9	21.2
Borrowing from friends or family	21.2	15.7	10.6	5.8	3.0	11.3
Social plans	18.5	6.1	7.5	1.3	0.1	6.7
Participation in community activities	29.4	23.6	22.8	15.7	15.7	21.4
Barter	20.2	15.4	11.7	5.5	3.9	11.3

TABLE 30

Argentina: Changes in the use of social networks

	% of households using	% of households using before October 2001
Assistance from other people not living in the house	16.3	13.2
Borrowing from friends or family	10.7	7.0
Assistance from government or NGOs	6.9	2.7
Participation in community activities	20.9	11.1
Barter	11.0	3.2

The degree to which barter is used in low-income groups is made evident by the fact that the per capita income of households using it is less than the average for the population as a whole (143 pesos as against 214, and 183 pesos as against 264, with and without adult-equivalent adjustment, respectively). Households using barter tend to have more unemployed members (43.3% as against 22.4%) and more temporary workers (42% as against 23%), which is further proof of their vulnerability.

A similar pattern is observed for those households that report receiving some type of official help. Their per capita income is below average (122.7 pesos and 97.62 pesos, with and without adult-equivalent adjustment), they have a higher incidence of unemployment (65% have an unemployed member), and those members that are employed are more likely to have temporary jobs (80%).

IV

Conclusions

This paper presents a variety of evidence for the magnitude of the social costs entailed by the Argentine economic crisis and its adverse effects at all income distribution levels. Household-level data confirm the negative picture yielded by analysis of the macroeconomic indicators available since early in the year.

Households are using a variety of coping strategies to respond to what is an intense crisis. The limited consumption data collected are not enough to establish the extent to which falling incomes are resulting in extreme forms of deprivation (i.e., the extent to which families' coping strategies are enabling them to avoid serious constraints). However, the scale of the shocks and the limitations on the effectiveness of the various coping mechanisms identified suggest that the effects on welfare are indeed very serious. The evidence points to greater effects on the use of health services than of education services, a conclusion that is being analysed in more detail using other sources of information.

A rapid comparison with events in other countries that have experienced similarly large economic shocks reveals some very interesting similarities as well as some specific differences. Fallon and Lucas's analysis (2002) of the effects on labour markets[19] indicates a pattern of rising open unemployment rates and major changes in the sectoral composition of employment (sharp reductions in construction and manufacturing, the latter as the corporate sector is hit by the higher costs of imported materials, difficulties in obtaining credit and the rising burden of foreign-currency debt) similar to what has been observed in post-convertibility Argentina.

Evidence relating to the distributional impact of crises shows some differences between countries. Thomas, Frankenberg and others (1999) estimated that in the case of Indonesia per capita expenditure fell by more in the top and bottom quintiles of the distribution than among households in the middle of the distribution scale. In Thailand, by contrast, there is evidence of modest redistribution of income from the middle-income to the high-income classes. The data analysed in the present work suggest that the decline of family income in Argentina has affected the middle class most.

Regarding coping strategies, Thomas, Frankenberg and others (1999) note that in Indonesia (as in the case of Argentina now) informal assistance from friends and family members was particularly important during the crisis, with about a quarter of all households receiving such assistance. Its mean value was considerably higher than that of assistance from official services. Sudarno, Wetterberg and Pritchett (1999) also found that coping strategies in Indonesia differed by income level. For instance, middle-class families responded by working longer hours, reducing consumption, drawing down savings and selling assets, while lower-income households resorted to more drastic measures, such as taking their children out of school.

Regarding this last point, the evidence is mixed. In Mexico during the 1982 crisis, for example, secondary school drop-out rates increased slightly while primary school drop-out rates fell. Both changes were part of long-term trends throughout the 1980s (Lustig, 1998). Similarly, Adam and Chamberlin (1999) did not find evidence of significant reductions in school participation in Thailand, although they too recognized the measurement difficulties and delayed responses that have been mentioned here. The evidence for Thailand, though, did find a gap in drop-out rates between poor and non-poor households, something that could also be identified (although not with precision) in the case of Argentina.

Lastly, even though the current crisis is much greater in scale than those experienced during the 1990s, the general characteristics of the coping strategies being seen now are very similar to those identified in previous studies on Argentina (World Bank, 2001), particularly the reliance on social networks and the changes in consumption patterns.

The next steps in this ongoing analysis will include more detailed studies of the impact of the crisis on health and education services, a more systematic analysis of the use of different coping strategies by household type (using multivariate methods), more specific consideration of the rural sector –making use of the unique coverage of this survey– and a particular focus on the role of migration as a coping strategy.

[19] The countries analysed and their crisis years, in reverse chronological order, are: Indonesia (1998), Republic of Korea (1998), Malaysia (1998), Thailand (1997), Argentina (1995), Mexico (1995) and Turkey (1994).

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The determinants *of recent foreign bank* penetration in Brazil

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This paper sets out to analyse the determinants of recent foreign bank investments in the Brazilian retail banking market and the strategies of the major European banks in Brazil. Since the recent wave of banking internationalization, financial institutions have continued to pursue their existing relationships while seeking greater integration into local markets. The recent influx of European banks into Latin America and Brazil, meanwhile, has been due to a varied range of factors, including bank restructuring in Europe, the dynamic of internationalization in the Spanish banking system and the process of market deregulation in the region. The paper also stresses some common and specific features of the major European banks in Brazil. One common feature is that they are large universal banks which have chosen to develop abroad as a business expansion strategy.

I

Introduction

During the 1970s and 1980s, the presence of foreign financial institutions in Brazil was confined to minority stakes in investment banks and leasing companies, although there were no restrictions on the establishment of representative offices. Later, the 1988 Constitution prohibited foreign financial institutions from setting up new agencies or increasing their capital holdings in locally based financial institutions. However, article 52 of the temporary provisions act of the 1988 Constitution established that such restrictions did not apply to authorizations resulting from international agreements, reciprocity or decisions made in the interests of the Brazilian government. In 1995, owing to the banking crisis triggered by contagion from the Mexican crisis, the Brazilian Government allowed some foreign institutions to take over certain troubled local banks. This step was also intended to strengthen the domestic banking sector. Consequently, foreign banks increased their stake in total Brazilian banking sector assets from 8.4% in 1995 to 27.4% in 2000. Interestingly, it was European banks –Banco Santander Central Hispano (BSCH), HSBC and ABN Amro, among others– that led the main operations involving foreign banks in Brazil during the 1990s.

This paper sets out to analyse the factors that have recently led foreign banks to enter the Brazilian market and the strategies of the major European banks in Latin America and Brazil.[1]

Section II analyses the factors giving rise to the banking internationalization process, and shows that the recent wave of banking internationalization has been characterized not only by the pursuit of existing relationships, with financial institutions catering mainly to their home country customers, but also and increasingly by greater integration into local markets. Section III examines the determinants of foreign bank investment in Brazil and shows that the recent arrival of a wave of European banks in Latin America and Brazil has been driven by a varied range of factors, including the process of banking sector restructuring that has resulted from European monetary union (EMU), the dynamics of internationalization among Spanish banks (which have been the main players in the recent influx of foreign banks into Latin America), the process of market deregulation in the region since the early 1990s, the better prospects of rising returns to financial institutions offered by the region in comparison with developed countries, and the potential for efficiency gains. In the case of Brazil, the banking crisis of 1995 was a milestone, since it resulted in the country opening up to foreign banks.

Section IV considers the recent penetration of European banks in Brazil. Section V analyses the Latin American expansion strategies of the major European banks –BSCH, Banco Bilbao Vizcaya Argentaria (BBVA), HSBC and ABN Amro, one of whose common features is that they are large universal banks which chose to extend their operations abroad as a business expansion strategy– and identifies some specific factors behind the expansion of each financial group. Lastly, section VI summarizes the main arguments developed in the paper.

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[1] It thus seeks to analyse only the factors leading foreign banks to enter the retail banking market in Brazil, and not the effects of this process. These are discussed by Carvalho (2002) and Paula (2002b).

II

Banking internationalization: the strategic rationale for expansion

Cross-border consolidation among financial institutions has accelerated over the last few years, and has recently reached the retail banking market. For the purposes of this section, what needs to be asked is why banks headquartered in particular countries set up branches or subsidiaries in foreign countries.

Generally speaking, the literature of the 1970s and 1980s (Grubel, 1977; Aliber, 1984) built up a theory of international banking that was heavily influenced by the theory of foreign direct investment in manufacturing, as advanced by Kindleberger (1969), Vernon (1966) and Caves (1971). According to this explanation, multinational banks have some comparative advantages. Banks go abroad to serve their domestic customers who have done likewise, a process sometimes termed the "gravitational pull effect". Multinational banking grows in parallel with foreign direct investment as banks try to meet the demand for banking services from multinational firms abroad. The willingness of banks to move abroad in these circumstances is seen as essentially defensive, a way of ensuring that they will continue to do business with the domestic parents of foreign subsidiaries, so that the existing flow of information resulting from the bank-client relationship will not be pre-empted by a competitor bank. Secondarily, multinational service banks also do some business with wealthy individuals locally, supplying them with the specialist services and information required for trade and capital market dealings with their home countries.

The motives leading banks to expand abroad can be interpreted in price-theoretic terms. According to Grubel (1977), "the continuous commercial contacts between the bank and manufacturing firm permit the bank to have access to information about the firm's financial conditions at such a low cost and high speed that it is in a better position than any other competitor to evaluate and respond to the firm's demand for loans". Thus, "the ability to draw on the information and personal contacts between the bank's and manufacturing firm's parents in a [foreign country] at very low marginal cost represents the main source of comparative advantage that the bank's foreign branch has in dealing with the firm's subsidiary abroad in competition with the local banks" (Grubel, 1977, pp. 352-353). According to this view, the internalization of information is the principal advantage enjoyed by the multinational bank. In this connection, Casson (1990, p. 18) states that "when technology draws a firm to a new location abroad, the bank which has serviced the expanding firm at its home location has an advantage over indigenous firms in serving the new foreign subsidiary. This advantage is goodwill derived from special knowledge of the customer's requirements and it is a monopolistic advantage which is not patentable and which can be transferred abroad. The internalisation of this advantage transforms the domestic bank into a multinational bank". This is indeed the case with the large United States banks that are involved in wholesale and business banking. The connection with other United States businesses and with the local customers of these businesses creates the opportunity to internalize information at a low cost.

Historically, as is stressed by Focarelli and Pozzolo (2000, p.1, my italics), "the pattern of bank international shareholdings followed that of economic integration between countries: banks extended their activities abroad in order to provide services to their home-country clients in international transactions; afterwards, with a growing understanding of the foreign market (in particular of regulatory and institutional aspects) and a developed network of relationships with local financial institutions, some banks were induced to increase the range of their operations and provide services to the local population too. Although this account is likely to be accurate in general (…) *today the actual pattern of bank international shareholdings depends on a wider range of factors than just the overall degree of economic integration between countries.*" In particular, Grubel's theory of internalization cannot be applied to the retail banking market, since the majority of the retail customers of foreign banks have no previous connection with the banks in their home countries.

In the recent wave of banking internationalization, financial institutions have not only continued to pursue their existing relationships, but also (and increasingly) global banks have been seeking to widen their activities in host-country financial markets, mainly by acquiring controlling majority stakes or non-controlling minority stakes. Thus, the present strategy of global universal banks is aimed at diversifying their activities into certain domestic financial markets by creating branch networks and integrating more deeply into the local market, whereas in the past multinational bank strategies were geared mainly towards serving their home-country (corporate) customers, while helping some local firms to access the international financial market. To a great extent, this new strategy has been stimulated by the gradual easing or even, in some cases, the abolition of legal restrictions on the presence of multinational banks in local markets, in both developed and developing countries (Freitas, 1999).

Few recent works have sought an expansionary pattern behind the recent wave of banking internationalization.[2] One of the most common explanations points to the increase in banking competition caused by financial deregulation. As margins and fees tighten in the domestic financial services area, financial firms expand overseas in search of higher returns. Thus, with banks' net interest margins under downward pressure owing to the increase of banking competition, and with the big financial institutions usually based in mature economies with low growth potential, some banks are seeking to diversify their activities geographically into markets with growth potential and/or higher net interest margins. Generally speaking, internationalization is a way for banks to enhance their ability to generate profits as the minimum scale required to remain competitive continues to increase. Another explanation is that there are potential risk-reduction gains from the diversification of income that results from a multiplicity of products, client groups and geographies in multi-activity financial services organizations, and these gains increase with the number of activities undertaken.

Overall, the empirical evidence in the literature (Demirgüç-Kunt and Huizinga, 1998; Claessens, Demirgüç-Kunt and Huizinga, 1998) suggests that foreign financial institutions are actually less efficient than domestic institutions, except in developed countries. To analyse this claim, Berger and others (2000) considered two hypotheses:

i) *Home field advantage hypothesis*. According to this hypothesis, domestic institutions are generally more efficient than institutions from foreign nations. Their advantages derive in part from organizational diseconomies in operating or monitoring an institution from a distance, examples of which include turf battles between staff in different nations (affecting operations) and possible difficulties in evaluating the behaviour and effort of managers in a distant market (affecting monitoring efforts). Besides these, other barriers include differences in language, culture, currency and regulatory or supervisory structures, and explicit or implicit barriers against foreign institutions;

ii) *Global advantage hypothesis*. According to this hypothesis, some efficiently managed foreign institutions are able to overcome cross-border disadvantages and operate more efficiently than domestic institutions in other nations, as they attain greater efficiency by spreading their superior management skills or best-practice policies and procedures over more resources, lowering operating costs, or achieving risk diversification that allows them to undertake higher expected return investments.

Testing these hypotheses in five countries (France, Germany, Spain, the United Kingdom and the United States) during the 1990s, Berger and others (2000) found evidence for a limited form of global advantage, according to which only efficient institutions in one or a small number of nations with specific favourable market or regulatory/supervisory conditions in their home countries could operate more efficiently than domestic institutions in other nations. This finding suggests that some banking organizations can operate in foreign countries at or above the efficiency levels of domestic banks, paving the way for some additional global consolidation. A study carried out by Focarelli and Pozzolo (2000) shows in the same connection that banks with cross-border shareholdings are larger and have headquarters in countries with more developed and efficient markets. Banks operating in countries where the banking sector is larger and more profitable should be able to export their superior skills and are therefore more likely to expand their activities abroad. Local market opportunities –a higher expected rate of economic growth, more stable economic conditions and banking inefficiency in the destination country– are the main factors behind decisions by banks to expand abroad. Banks prefer to invest in countries that promise larger profits because economic growth is expected to be higher and there is scope for improving

[2] There are a few exceptions. See, for instance, Berger and others (2000) and Focarelli and Pozzolo (2000).

on the performance of inefficient local banks. Profit opportunities in host markets have become a key factor in determining the pattern of foreign bank shareholdings, which may take varied forms: full acquisition, targeted purchases of specific activities, joint ventures or alliances with local banks.

III
Factors leading foreign banks to invest in Latin America and Brazil

As the previous section shows, there are strong empirical and analytical reasons to believe that the process of consolidation in the banking industry is an international phenomenon, driven by financial deregulation and technological change. The new phase of banking internationalization is a consequence of this process, with financial institutions seeking to diversify their activities –in terms of products and services and/or geographical location– and increase their minimum scale of operations to remain competitive and enhance their ability to generate profits.

Banking crises, deregulation and the globalization of financial services led to a significant increase in the presence of foreign banks in emerging economies in the second half of the 1990s.[3] Banking consolidation in these economies has accelerated recently, transforming what was traditionally a highly protected industry. In this connection, Hawkins and Mihaljek (2001, p. 3) state that "global market and technology developments, macroeconomic pressures and banking crises in the 1990s have forced the banking industry and the regulators to change the old way of doing business, and to deregulate the banking industry at the national level and open up financial markets to foreign competition. (…) These changes have significantly increased competitive pressures on banks in the emerging economies and have led to deep changes in the structure of the banking industry."

The banking sector in Latin America (including Brazil) was one of the largest recipients of foreign direct investment (FDI) during the 1990s. However, the wave of bank FDI cannot be understood in isolation from the general influx of FDI into Latin America during the 1990s. The Latin America and Caribbean region received record levels of FDI in that decade, with inflows totalling US$ 76.7 billion in 1998 alone, or around 41% of all FDI flows to developing countries. Again, 42% of these inflows went to a single destination, Brazil, the largest country in the region and, since 1996, the leading Latin American FDI recipient and the second-largest destination for FDI among developing countries (ECLAC, 2000, pp. 35-6).

Some of the main factors behind the expansion of European banks in Latin America can be summarized as follows:

- *The banking sector restructuring process resulting from European economic and monetary union (EMU)*. For some European banks, expanding abroad is not only a source of earnings diversification, but also a way of strengthening their position in the European banking market given the increasingly competitive conditions facing banks in the European Economic Area. The European banks' strategy for Latin America may be interpreted as a response to this more competitive environment, in which several factors had been eroding income from traditional banking business (Paula, 2002, chapter 2). Further, political and regulatory constraints mean that there are some impediments to mergers and acquisitions in EU countries but incentives to such activity outside the bloc.[4] The preference for Latin America, and to a

[3] In Central Europe, according to Hawkins and Mihaljek (2001, p. 24), foreign banks now account for two thirds or more of both assets and capital, making these countries' banking systems among the most open in the world, while in Latin America the market share of foreign banks rose from an average of 7% at the beginning of the 1990s to 40% in 2000.

[4] One of these incentives is the absence of a single regulatory agency in the European Union (EU). This has limited the benefits of expanding areas of activity across borders and, at the same time, prevented European banks from diversifying earnings and reducing regulatory capital as has happened in the United States. Although the Single Market Act and the various European Commission financial directives should have created some uniformity, difficulties

lesser degree Central and Eastern Europe, is partly due to the fact that South-East Asia was in crisis during the second half of the 1990s, while the Indian and Chinese financial systems remained closed to foreign banks, leaving Argentina, Brazil and Mexico as the main big emerging markets open to FDI in the banking sector.

- *In particular, the dynamics of internationalization among Spanish banks*, since these have been the main players in the recent wave of foreign bank investment in Latin America. These banks pursued growth strategies based on mergers and acquisitions in their natural market before they launched their international growth strategy.[5] Thus, they were already "mature" banks when they decided to expand overseas. Indeed, with the implementation of EMU and the prospect of euro introduction, the larger Spanish banks –in particular, Banco Bilbao Vizcaya (BBV), Banco Santander and Banco Central Hispano (BCH)– had to look beyond their natural borders in search of global markets, in order to maintain their competitive position and defend themselves against the threat of hostile bids by either local or foreign competitors. In the initial stages of this process there was a proliferation of alliances and cooperation agreements with other financial institutions, chiefly within the European Union, while the second phase has involved a fast-paced, aggressive expansion strategy aimed at the main Latin American markets (ECLAC, 2000, p. 159). During the 1990s, Dutch and German banks were busy expanding into Central and Eastern Europe, while American banks were occupied with mergers and acquisitions in their own domestic market, leaving Latin America –cultural linkages also played their part– as the natural market for the Spanish banks.
- *The deregulation process that began in Latin America in the early 1990s, in the broader context of economic and political reform*, made it possible for foreign companies to enter key economic sectors such as banking, telecommunications and utilities. Bank privatization programmes generally formed part of longer-term public-sector reforms, which also involved privatization of major public enterprises with the aim of consolidating the public finances and cutting borrowing requirements (Hawkins and Mihaljek, 2001, p. 13). Another important motive was to deepen the role of the market.
- *The valuations of Latin American companies, including banks, are much lower than those of European companies*, making it easier to attain a large market share at a lower cost. According to Sebastian and Hernansanz (2000, p. 19), a 1% share of the German deposit market would have cost US$ 2,285 million in 1999, if attained by purchasing shares in the major listed banks (i.e., Deutsche Bank, Bayerische Hypo und Vereinsbank, Dresdner Bank, Commerzbank and Bankgesellschaft Berlin). The same share could have been obtained for an outlay of US$ 196 million in Argentina and US$ 205 million in Mexico.
- *The Latin American banking market has much greater growth potential than Europe's mature banking market*. The size of the financial system in terms of the ratio of M3 to gross domestic product (GDP) is only 28% in Latin America, while in the euro area it is 77% and in the United States 71% (Sebastian and Hernansanz, 2000, p. 18).
- *The Latin American banking sector offers financial institutions much better prospects for raising returns*, since the intermediation margins with which banks operate in these countries are considerably higher than in the developed world. While domestic banks' average margin on assets (net interest income over total assets) in Latin America was 5.76% for the period 1988-1995 (in Brazil it was 6.6% and in Argentina 9.9%), in the OECD countries it was 2.8% over the same period (Claessens, Demirgüç-Kunt and Huizinga, 1998, p.26). Again, Latin American banks steadily improved their already high profitability during the 1990s, although net interest revenue was stable. Their profitability is high compared both to the G3 countries (Germany, Japan and the United States) and other emerging countries (table 1).

have arisen and hampered cross-border operations. There are multiple supervisory agencies in European countries and no coordinating agency or single bank regulatory body for the entire euro area. As a result, mergers and acquisitions remain largely confined within national borders. See Kregel (2002) for further details.

[5] The expansion of Spanish banks into Latin America must also be seen in a broader context, with the major Spanish service firms (transport, telecommunications, energy and financial services) deciding to expand abroad after a period of structural change in the Spanish economy that was driven partly by the privatization of State firms. Since 1994, Latin America has been the prime investment destination in the international strategy of these firms, with total investments from Spain jumping from US$ 4.5 billion in 1990 to over US$ 18.5 billion in 1998 (ECLAC, 2000, p. 133).

TABLE 1

Selected regions and countries: Banking sector performance
(*As percentage of total assets*)

	East Asia[a]			Latin America[b]			Central Europe[c]			G3[d]		
	1992-1997	1998	1999	1992-1997	1998	1999	1992-1997	1998	1999	1992-1997	1998	1999
Net interest revenue	2.6	1.8	2.2	5.2	5.3	5.4	3.1	2.8	2.5	2.0	1.8	2.0
Other income	0.7	1.2	0.8	2.3	2.0	1.8	2.3	2.1	2.0	0.7	0.8	1.0
Operating costs	1.6	2.4	2.3	5.5	5.5	5.7	4.1	3.5	3.1	1.7	1.6	1.8
Loan losses	0.6	6.3	1.8	1.2	1.1	1.7	0.6	0.6	0.4	0.2	0.4	0.3
Pre-tax profits	0.8	-5.5	-0.7	1.4	1.3	2.4	0.5	0.7	1.0	0.7	0.6	0.8

Source: Hawkins and Mihaljek (2001, p. 6).

[a] Simple average of Indonesia, Malaysia, the Philippines, the Republic of Korea and Thailand.
[b] Simple average of Argentina, Brazil, Chile, Colombia, Mexico and Peru.
[c] Simple average of the Czech Republic, Hungary and Poland.
[d] Simple average of Germany, Japan and United States.

- *There is great potential for efficiency gains in Latin America*, since banking efficiency is generally lower than in developed countries. Domestic banks' ratio of operating costs to assets in Latin America averaged 5.5% in 1992-1997, as against 1.7% in the G3 countries, 1.6% in East Asia and 4.1% in Central Europe in the same period (table 1). The high operating costs (and high interest rate spreads) of domestic banks in Latin America are in large part the legacy of the high-inflation period of the 1980s and the early 1990s, when inflationary revenues generated easy profits for the banks and, consequently, there was little pressure to cut costs.

The previous section stressed that local market opportunities (higher expected rates of economic growth, more stable economic conditions and banking inefficiency in the host country) are the main factor leading banks to expand abroad. Accordingly, the main domestic factors behind the recent influx of foreign banks into Brazil were the more stable economic conditions deriving from price stabilization since 1994 (which changed the long-term business landscape in Brazil), higher expected rates of economic growth, and the growth potential of the banking market. Besides, since the early 1990s the Brazilian economy has been undergoing a wide-ranging liberalization process that has opened up previously restricted activities to foreign investors. Thus, investment by foreign banks in the country has followed a gradual easing of legal restrictions on the presence of foreign companies in the Brazilian banking sector. Article 52 of the temporary provisions act of the 1988 Constitution prohibits foreign financial institutions already established in the country from setting up new agencies or increasing their stakes in local financial institutions, until such time as a complementary law is enacted. However, this Constitution leaves open the possibility of foreign institutions having access to the domestic market, since article 52 also establishes that such restrictions do not apply to authorizations deriving from international agreements, reciprocity or decisions made in the interests of the Brazilian Government (Puga, 1999).

A particularly important change occurred in 1995, when a banking crisis was triggered by the tighter monetary policy and rising interest rates resulting from the 1994-1995 Mexican crisis. According to Carvalho (2000, p. 148), "the banking crisis of 1995 opened a window of opportunity for foreign banks to set foot in the country. The crisis devalued the existing banks, putting a larger number of them under the control of the central bank, without compromising, it seemed, long-term possibilities for the industry. In a report dated December 1998, the Central Bank of Brazil identified 104 financial institutions as going through some kind of 'adjustment' between the launching of the Real Plan and that date".

The recent process of banking consolidation in Brazil is in some ways similar to the Mexican experience, in the sense that in both countries the authorities responded to the banking crisis with an array of support programmes for financial institutions and their borrowers. These programmes were intended to bolster the health of the financial sector while at the same time opening it up to foreign banks, in the hope that the presence of the latter would help strengthen the banking sector.[6] The entry of foreign banks was also used as a policy to weaken the effect of local monopolies that had been established under the previous regulatory structure.

In this context, the Brazilian government allowed some foreign banks to enter the country to take over certain problem banks, such as Excel-Econômico and Bamerindus, and also to strengthen the domestic banking sector. Legislative Intent ("Exposição de Motivos") no. 311 of 23 August 1995 allowed the President to authorize the entrance of foreign banks into Brazil on a case-by-case basis. On that occasion, the Brazilian Government announced that foreign banks would not be allowed to open new branches or acquire smaller banks unless they purchased one of the troubled banks. The norm pronounces that the entrance of foreign banks is in the country's interests, and emphasizes the following favourable aspects:

- Improvements in the operational efficiency of the banking sector, with positive effects on bank intermediation.
- Increased banking competition, which would lead to lower spreads and banking fees, with positive effects on lending interest rates.
- Diversification and improvement of the supply of financial services, with lower costs.
- Introduction of new management technologies and innovations in products and services.

Thus, with greater flexibility in the regulatory framework governing the entry of foreign banks, the Brazilian Government let in a large number of these, in line with the international tendency towards the expansion of financial conglomerates seeking new markets for their businesses. Another factor that attracted foreign banks to Brazil was the privatization programme for State-owned banks. The programme of incentives for the restructuring of the State public financial system (PROES) was established in August 1996 by temporary measure 1,514. It forms part of a comprehensive process of State fiscal adjustment and debt restructuring. Under PROES arrangements, the federal Government finances the restructuring of State banks (Maia, 2000).

Taken together, the changes in the regulatory framework for foreign banks, the privatization programme for State-owned banks, price stabilization since 1994, the growing potential of the Brazilian retail banking market, the (still nascent) development of pension funds and a securities market in Brazil and the increasing integration of the Brazilian economy into trade and financial flows have all had the effect of attracting foreign capital into the Brazilian banking sector.

IV
The recent wave of European bank investment in Brazil

The recent wave of mergers and acquisitions (M&As) in the Brazilian banking sector began with takeovers of failing banks by solvent ones, typified by the acquisition of Nacional by Unibanco, Econômico by Excel, and Bamerindus by HSBC. Furthermore, bank takeovers increasingly involved a strong bidder and sometimes a weak but not yet insolvent target, examples being the acquisition of Banco de Crédito Nacional (BCN) by Banco Brasileiro de Desconto (Bradesco), Noroeste by Santander and Real by ABN Amro.

The M&A wave in Brazil involved different movements. Four large domestic private-sector banks (Bamerindus, Econômico, Real and Noroeste) were acquired by foreign institutions (HSBC, BBVA, ABN Amro and BSCH, respectively). Conversely, some foreign banks sold their local operations to domestic banks: BNP Paribas sold Banco Francês e Brasileiro to Itau

[6] See Dages, Goldberg and Kinney (2000) for an analysis of recent foreign bank penetration in Mexico and Argentina. According to a report on Brazilian banks (*Gazeta Mercantil*, 1999), in November 1995 the Brazilian federal Government launched a programme called PROER to finance the absorption of problem banks by healthy ones. Financing was provided under this scheme for the acquisition of seven banks: Nacional, taken over by Unibanco (a Brazilian bank); Econômico by Excel (Brazilian); Mercantil de Pernambuco by Banco Rural (Brazilian); Banco Antonio de Queiroz by Banco United (Brazilian); Banorte by Bandeirantes (Brazilian); Banco Martinelli by Pontual (Brazilian); and Bamerindus by HSBC (British).

TABLE 2

Brazil: Main mergers and acquisitions in the banking sector, 1995-2002

Year	Acquirer	Acquirer's country of origin	Institution acquired
2002	Bradesco	Brazil	Mercantil de São Paulo
	Bradesco	Brazil	Banco Ford
2001	Itau	Brazil	Banco do Estado de Goiás (BEG)
2000	BSCH	Spain	Banespa
	Itau	Brazil	Banestado
	Bradesco	Brazil	Boavista
	Unibanco	Brazil	Bandeirantes/Credibanco
	BSCH	Spain	Meridional/Bozano, Simonsen
1999	Bradesco	Brazil	Banco do Estado da Bahia (Baneb)
	Bradesco/BCN	Brazil	Pontual
1998	ABN Amro	Netherlands	Banco Real
	ABN Amro	Netherlands	Banco do Estado de Pernambuco
	Itau	Brazil	Bemge
	Unibanco	Brazil	Dibens
	Sudameris (Intesa/Crédit Agricole)	Italy/France/Brazil	America do Sul
	Chase Manhattan	United States	Patrimonio
	Bradesco	Brazil	Pontual
	CSFB	Switzerland	Banco Garantia
	BBVA	Spain	Excel-Econômico
	Caixa Geral de Depositos	Portugal	Bandeirantes
1997	Santander	Spain	Banco Noroeste
	Banco Interatlantico	Portugal/France	Boavista
	Santander	Spain	Banco Geral de Comercio
	Itau	Brazil	Banerj
	Bradesco	Brazil	BCN/Credireal
	HSBC	United Kingdom	Bamerindus
	Bozano, Simonsen	Brazil	Meridional
	Robert Fleming	United Kingdom	Graphus
	NationsBank	United States	Liberal
	American Express	United States	SRL
	Banco de Crédito Nacional (BCN)	Brazil	Credireal
	Lloyds	United Kingdom	Multiplic/Losango
	Unibanco	Brazil	Fininvest (50%)
	Icatu	Brazil	Fininvest (50%)
1996	Banco de Crédito Nacional	Brazil	Itamarati
	Banque National de Paris	France	Banco Comercial de São Paulo
	BBA Creditanstalt	Brazil/Austria	Financiadora Mappin
	Itau	Brazil	Banco Francês e Brasileiro
	Itamarati	Brazil	Crefisul
	Excel	Brazil	Econômico
1995	Unibanco	Brazil	Nacional
	Pontual	Brazil	Digibanco

Source: Prepared by the author with information from Chase Manhattan Bank (2000) and the Central Bank of Brazil.

and Caixa Geral de Depositos sold Banco Bandeirantes to Unibanco, while Crédit Agricole and Espirito Santo sold Boavista to Bradesco. One big state bank, Banco do Estado de São Paulo (Banespa), was acquired by BSCH, while several medium-sized state banks were purchased by the country's two largest private-sector banks, with Bradesco buying Credireal and Itau buying Banco do Estado de Rio de Janeiro (Banerj), Banco do Estado de Minas Gerais (Bemge), Banco do Estado de Goiás (BEG) and Banestado.

Table 2 lists M&As in the Brazilian banking sector during the period 1995-2000. It shows that:

i) Foreign banks (overwhelmingly European) were the dominant force in major acquisitions until 2000, followed closely by the large domestic private-sector banks. By contrast with neighbouring Argentina, where foreign bank acquisitions included two of the three largest private-sector banks, foreign acquisitions in Brazil mainly involved medium-sized banks. This partly reflects the prohibitively high market capitalization of the very largest banks.

ii) The principal foreign acquisitions, in terms of size, were the purchase of Bamerindus by HSBC (which was paradigmatic since it involved a big domestic retail bank for the first time), Excel/Econômico by BBVA, America do Sul by Sudameris, Banco Noroeste by Santander, Banco Real by ABN Amro and Banespa by BSCH. This last acquisition was the largest of recent years in Brazil, since it involved the purchase of a bank with assets worth around US$ 15 billion and made Banco Santander do Brasil the third largest private-sector bank in Brazil and the fifth largest overall, including State-owned banks. Banespa has a strong retail network, mainly in the state of São Paulo, the country's richest, but it also has high overheads. Its acquisition was something of a turning point in the history of BSCH in Brazil, since prior to the Banespa acquisition in November 2000 Santander do Brasil's relatively modest investments in Meridional and the prestigious investment bank Bozano, Simonsen left the group still locked out of the market elite, as it ranked only seventh in the banking industry.[7]

iii) The big American banks already established in Brazil –Citibank and BankBoston– did not participate in the M&A wave but opted to grow organically in the Brazilian banking market, where they have traditionally focused on a smaller and more select clientele.[8] The recent strategy of these banks in Brazil has been to increase their customer base, bringing in segments of the middle class and medium-sized firms. BankBoston has sought to operate in a more select segment of the retail market, with clients being required to have a monthly income of over 4,000 reais, while Citibank has sought to extend its customer base to lower segments of the middle class (those with monthly incomes of over 1,000 reais) and firms with annual revenues of over 5 million reais. The inactivity of United States banks in the recent M&A wave in Brazil can be partly explained by the good returns they have obtained by supplying new products in their own domestic market, where they have been able to expand geographically thanks to deregulation of the financial system. Diversification abroad, and specifically in Latin America, thus came to play only a secondary role in the overall strategy of American banks, with the possible exception of Mexico, which has strong linkages with the American economy via the North American Free Trade Agreement (NAFTA) and where Citibank recently bought Grupo Financiero Banamex-Accival (Banacci) and became the leader in the Mexican banking sector.

iv) The three largest domestic private-sector banks –Bradesco, Itau and Unibanco– have reacted to the penetration of foreign banks by participating actively in the M&A process with some important purchases, such as that of Nacional and Bandeirantes by Unibanco, BCN/Credireal and Mercantil de São Paulo by Bradesco, and Banerj and Bemge by Itau. Itau in particular has been a major acquirer of state banks, such as Banestado (Paraná), Banerj (Rio de Janeiro), Bemge (Minas Gerais) and BEG (Goiás). The reaction of Unibanco and Itau –both smaller than Bradesco, the largest private-sector bank– was partly defensive, as they used acquisitions/mergers to maintain their market share and leadership in the banking market and avoid being taken over themselves.[9] It is worth noting that Bradesco and Itau have been more aggressive in their acquisitions since end-2001, taking advantage of the interruption of foreign banking sector investment in Latin America due to the Argentine crisis. Bradesco has purchased part of Banco Ford (leasing and consumer credit) for 1 billion reais and Mercantil de São Paulo, a medium-sized bank with strong roots in São Paulo state, for 1.4 billion reais, while Itau has acquired BEG for 665 million reais. The acquisition of Mercantil de São Paulo by Bradesco was particularly important since the latter was one of the country's top 20 private-sector banks.

The growing presence of foreign banks in Brazil is confirmed by the available data. In terms of market share, banks controlled by foreign financial groups raised their share of total banking sector assets almost fourfold in just six years, from 7.2% in 1994 and 12.8% in 1997 to 27.4% in 2000, while the participation of all other segments,[10] especially State-owned banks,

[7] The Meridional group (Banco Meridional and Bozano, Simonsen) was bought by BSCH for close to US$ 1 billion, while Banespa was bought for US$ 3.7 billion, a sum five times higher than its book value.

[8] Recent acquisitions of local banks or branches in Latin America by BankBoston and, particularly, Citibank suggest that these banks' strategies may be changing.

[9] See Paula (2002b) for more information on the reaction of domestic private-sector banks in Brazil.

[10] With the exception of credit cooperatives, whose market share is negligible.

TABLE 3

Brazil: Share of total banking sector assets controlled by different financial institutions, 1993-2000
(*Percentages*)

Institution	1993	1994	1995	1996	1997	1998	1999	2000
Foreign-controlled banks	8.35	7.16	8.39	9.79	12.82	18.38	23.19	27.4
Private-sector domestic banks	40.67	41.21	39.16	39	36.76	35.29	33.11	35.2
Public-sector banks (+Caixa estadual)[a]	13.41	18.17	21.9	21.92	19.06	11.37	10.23	5.6
Caixa Econômica Federal	14.51	14.98	16.4	16.47	16.57	17.02	17.06	15.4
Banco do Brasil	22.93	18.28	13.91	12.52	14.42	17.44	15.7	15.6
Credit cooperatives	0.13	0.2	0.24	0.3	0.37	0.5	0.7	0.8
Banking sector	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Bank of Brazil (2002).

[a] Excluding the two big federal banks, Caixa Econômica Federal and Banco do Brasil.

declined (table 3). The rise of foreign banks in Brazil was mainly at the expense of domestic private-sector banks and, to a lesser extent, state and federally-owned banks.[11] Although the relative share of the public-sector (state and federal) banks segment –including that of the two "giants", Caixa Econômica Federal and Banco do Brasil– has tended to decline, as of end-2000 they still led the market with 36.6% of total assets, followed closely by the domestic private-sector banks (35.2%). For their part, the major domestic private-sector banks have increased their market share in the banking sector through M&As involving state and private-sector banks and, to some extent, through organic growth. Consequently, the banking sector market share (as a proportion of total public- and private-sector bank assets) of the top four domestic private-sector banks – Bradesco, Itau, Unibanco and Safra– increased from 23.7% in 1999 to 27.6% in 2000, a significant increase of 3.9 percentage points in just one year (table 4). The market share of these banks doubtless increased further after the recent acquisitions by Itau and Bradesco.

Furthermore, the major Brazilian domestic banks are regional leaders in Latin America, something that reflects both the size of the country's economy and the dynamism that enabled Brazilian banks to survive and even expand during the period of high inflation. In 1999, eight of the 15 largest domestic banks in Latin America were Brazilian (table 5), including the top four (two public-sector banks and two private-sector banks). Table 4 also shows that seven of the 12 largest private-sector banks in Brazil are owned by foreign institutions, including five top European banks, namely HSBC, ABN Amro, Santander (BSCH), Sudameris and BBV Banco (BBVA), and two American banks, Citibank and BankBoston, part of Citicorp and FleetBoston groups, respectively. By end-2000, the top 12 private-sector banks accounted for around 40% of total banking assets (including federal and state banks) and 78.3% of total private-sector banking assets. In December 2000, the five big domestic private-sector banks (Bradesco, Itau, Unibanco, Safra and BBA) had 28.8% of total assets between them, while the seven big foreign banks had 21.1%. Domestic private-sector banks are still hegemonic in Brazil, therefore, although the relative share of foreign banks has increased a great deal in recent years. If the large Latin American countries are compared, it transpires that the market share of foreign banks is much smaller in Brazil than in Argentina and Mexico.[12]

[11] The term "state banks" is used in this section to refer to banks whose main owners are the governments of Brazilian states, while "federal banks" are those whose main owner is the federal government.

[12] According to Correa (2002, p. 11), the percentage share of total banking sector assets held by foreign banks was 48.6% in Argentina (1999) and 80% in Mexico (2001), while in Brazil, according to our data (see table 3), the 2000 figure was 27.4%.

TABLE 4

Brazil: Share of total banking sector assets controlled by the top 20 banking conglomerates, 1999-2000[a]

(*Millions of reais and percentages of total banking sector assets*)

Banking conglomerate	Ownership[b]	Millions of reais (2000)	% of total assets (2000)	% of total assets (1999)
Banco do Brasil	FE	128 486	15.99	17.78
CEF	FE	126 080	15.69	17.01
Bradesco+BCN+Credireal+Baneb+Boavista	DP	87 503	10.89	10.10
Itau+Bemge+Banestado+Banerj	DP	67 757	8.43	6.74
Santander+Banespa	FO	53 103	6.61	2.95
Unibanco+Bandeirantes+Credibanco+Dibens	DP	43 605	5.43	4.41
ABN Amro Real+Bandepe	FO	29 809	3.71	3.31
Safra	DP	22 632	2.82	2.45
BankBoston	FO	22 425	2.79	2.60
HSBC	FO	20 942	2.61	2.55
Citibank	FO	20 184	2.51	1.94
Nossa Caixa	ST	18 475	2.30	2.15
Sudameris+América do Sul	FO	15 332	1.91	1.95
BBA Creditanstalt	DP	10 451	1.30	1.26
BBV	FO	8 122	1.01	0.96
Banrisul	ST	7 723	0.96	0.88
Votorantim	DP	7 483	0.93	…
Mercantil de São Paulo	DP	6 935	0.86	0.77
Lloyds TSB	FO	6 917	0.86	…
Chase Manhattan	FO	5 329	0.66	…

Source: Prepared by the author with data from the Central Bank of Brazil.

[a] The table includes only deposit-taking institutions in Brazil (commercial banks, multiple banks and *caixas*).
[b] FE: federal bank; DP: domestic private-sector bank (more than 50% of shares in domestic hands); FO: foreign bank; ST: State-owned bank.

TABLE 5

Latin America: Top 15 banks, 1999[a]

Ranking	Bank	Country	Total assets *(millions of dollars)*
1	Banco do Brasil	Brazil	70 684
2	Caixa Econômica Federal	Brazil	68 441
3	Banco Bradesco[b]	Brazil	60 199
4	Banco Itau[c]	Brazil	33 241
5	Banco Nacional de México (Banamex)	Mexico	32 498
6	Bancomer	Mexico	27 497
7	Unibanco	Brazil	20 121
8	Banca Serfin	Mexico	19 055
9	Banco de la Nación Argentina	Argentina	17 751
10	Banespa	Brazil	15 617
11	Banco Internacional (Bital)	Mexico	13 248
12	Banco de Galicia	Argentina	12 519
13	Banco Safra	Brazil	10 077
14	Banco del Estado de Chile	Chile	9 400
15	Nossa Caixa - Nosso Banco	Brazil	8 635

Source: *Euromoney*, 2000.

[a] Total assets criterion.
[b] Including Credireal, BCN and Baneb.
[c] Including Bemge, BFB and Banerj.

V

The expansion strategies of the major european banks: BSCH, BBVA, HSBC and ABN Amro

As we saw in section III, Grubel's theory of internalization does not apply to the recent wave of multinational bank expansion into the retail banking markets of emerging countries. This is certainly the case with the European banks –BSCH, BBVA, HSBC and ABN Amro– that expanded into Brazil during the 1990s by buying local retail banks, since most of their customers are Brazilian, i.e., do not have any previous connection with the parent firms in the home countries of these banking groups.

According to Focarelli and Pozzolo (2000), banks operating in countries with larger, more profitable banking sectors should be able to export their superior skills and should thus be more likely to expand their activities abroad. Indeed, all the biggest European banks in Latin America –BSCH, BBVA, HSBC and ABN Amro– have recently increased market share in their home countries through mergers and acquisitions, attaining leading (or at least important) positions in these markets.[13] Expanding abroad is not only a source of earnings diversification for these banks, but also a way to strengthen their position in the European banking market under the competitive pressure of economic and monetary union.

There are some common and some distinctive features in the strategies of the biggest European banks in Latin America. One obvious common feature is that all of the top four are big universal banks that chose to invest abroad as a business expansion strategy. In 1997, overseas income represented more than 35% of these banks' total revenues (Nellis, McCaffery and Hutchinson, 2000, p. 57), and this relative share has increased in the case of the Spanish banks, owing to their recent acquisitions in Latin America.

All these financial groups are seeking to expand their activities in Europe, examples being HSBC in France[14] and ABN Amro in Italy. They also have a presence in other Latin American countries, but it is an uneven one, as table 6 shows. The total assets of the 20 largest foreign banks in the region are largely accounted for by just three banks, BSCH, Citibank and BBVA, which owned 44.8% of all foreign bank assets in Latin America in 1998 (ECLAC, 2000, p. 61). Interestingly, these are among the few banks in the world to have achieved leading positions outside their natural markets. They have increased their market share further since 1998 with the acquisition of some large local banks, examples being the takeovers of Bancomer by BBVA (June 2000), Serfin (May 2000) and Banespa (November 2000) by BSCH, and Banacci (May 2001) by Citigroup.[15] Furthermore, they are the only banks with an extensive network of branches in the region's six largest countries. Although ABN Amro has investments in various Latin American countries, it is only in Brazil that it has a relatively important presence, particularly since it purchased Banco Real in 1998. HSBC assets are concentrated in the three main countries of Latin America: Mexico, Brazil and Argentina.

Table 6 also shows that Citibank (part of Citigroup) became the second biggest foreign bank in Latin

[13] To mention only the more recent and important M&As involving these banks, HSBC bought Midland in 1992, lifting the group's total assets from £86 billion in 1991 to over £170 billion in 1992 and creating one of the largest financial organizations of its kind in the world; ABN merged with Amro in 1991 and took the lead in the banking market of the Netherlands; Santander merged with Banco Central Hispano (itself the product of a merger between Banco Central and Hispano) in 1999, becoming the largest Spanish financial group; subsequently, BBV (the product of a merger between Bilbao and Vizcaya) merged with Argentaria, forming the second largest Spanish financial group. Thus, the Spanish banking sector became one of the most highly concentrated in Europe, forming a sort of duopoly as the market share of the two largest institutions grew from 33% in 1987 to 50% in 1996 (ECLAC, 2000, p.158). This proportion has recently grown even further.

[14] According to HSBC's *Annual Review* (HSBC, 2000, p. 3), acquisition of the French bank Crédit Commercial de France (CCF) "was a major step forward for our wealth management strategy and gives us a substantial platform in the euro zone". Indeed, with 692 branches, CCF is one of the largest banks in France.

[15] In 2000-2001, Mexico saw a sweeping reorganization of foreign banking operations that sharply altered its financial system, with BSCH acquiring Grupo Serfin for US$ 1.56 billion, BBVA putting up US$ 1.85 billion to merge its Mexican operations with Grupo Bancomer, and Citibank acquiring Grupo Banacci, Mexico's leading financial institution, in a transaction totalling US$ 12.5 billion.

TABLE 6

Latin America: Largest foreign banks by assets, September 2000
(*Millions of dollars*)

Bank	Origin	Argentina	Brazil	Mexico	Chile	Colombia	Venezuela	Total	%
BSCH[a]	Spain	26 130	28 682	20 100	30 200	1 376	2 556	109 044	33.99
Citibank[b]	United States	10 429	8 798	42 590	6 350	1 137	686	69 990	21.81
BBVA	Spain	9 174	5 004	37 300	4 900	2 811	3 700	62 889	19.60
BankBoston	United States	11 350	9 315	358	6 800	108		27 931	8.71
HSBC	United Kingdom	5 016	9 126	15 202				29 344	9.15
ABN Amro	Netherlands	2 801	15 581	154	2 900	110	95	21 641	6.75
Total		*64 900*	*76 506*	*115 704*	*51 150*	*5 542*	*7 037*	*320 839*	*100.00*

Source: Prepared by the author with data from Sebastian and Hernansanz (2000, p.37), Banco Santander (2002) and *Gazeta Mercantil* (2001).

[a] Including Banespa, with data from September 2000.
[b] Including Banacci, with data from December 2000.

America after purchasing Mexico's leading financial institution, Banacci. Although Citibank has been present in all the major Latin American countries for a long time, only in Mexico does it have market leadership. Historically, only Citibank and, more recently, HSBC have pursued a global retail banking strategy by establishing a presence in different countries and continents, although they have tended to focus on credit card and banking services for an urban professional class without attempting, at least until Citibank's recent acquisition of Banacci group, to enter the mass retail market as the Spanish banks have been doing. Their businesses in Latin America thus have a quite different focus from those of the Spanish banks, as Guillén and Tschoegl (1999, p.10) emphasize: "The Spaniards are competing in the lower and middle-income (LMI) markets where they come into competition with the largest domestic banks. The only foreign bank that had previously made forays into Latin America comparable in its geographic scope was Citibank. By contrast to the Spanish banks, Citibank traditionally focused on the upper-income market, frequently referred to as the A, B, and C1 segments."

The really big European investors in Latin America are the two large Spanish banks, BSCH and BBVA, which have recently developed an aggressive strategy of expansion in the region. Between them, they have more than US$ 170 billion of assets in Latin America, representing about 55.8% of the total assets of the top six foreign banks in the region (table 6). After purchasing Banco Serfin in Mexico and Banespa in Brazil, BSCH became the largest private-sector bank in the region, with assets of more than US$ 100 billion. It is also the leading foreign bank in Argentina, Brazil and Chile, while BBVA is the leader in Colombia and Venezuela and ranks second in Mexico. The difference between BSCH and BBVA in terms of total assets in Latin America is due mainly to Brazil, where BSCH recently bought Banespa while BBVA has only a small market share.

ABN Amro in the Netherlands and BSCH and BBVA in Spain achieved substantial growth in their domestic markets by pursuing M&A-based strategies aimed at attaining leadership positions at home. This policy allowed them to increase their competitiveness and reach the size necessary for them to expand abroad. After (or while) consolidating their position in their domestic markets they extended their operations in other countries, probably preparing themselves for an increase in European competition as a result of economic and monetary union. ABN Amro, BSCH and BBVA are large banks in highly concentrated small or medium-sized systems that are increasingly expanding their operations into other geographical markets, since domestic alternatives are limited.

Although the structural constraints were (and are) in some ways similar for all European banks, and these constraints were determinants in the international expansion of some financial groups, each group has its own distinct business philosophy and distinct internationalization strategy.

HSBC is one of the largest banking and financial services organizations in the world. Like Citigroup, HSBC Group is a global universal bank with around

9,500 offices in 79 countries and territories in Europe, the Asia-Pacific region, the Americas, the Middle East and Africa. The group moved its domicile from Hong Kong to London only recently, in 1992, after the Midland acquisition. HSBC is still strongly rooted in Asia, in spite of its worldwide presence. However, this has been changing over the last decade. Its strategy of "managing for value" emphasizes the group's balance of business and earnings between the older, mature markets and faster-growing emerging markets.[16] In 2000, the group made 48.2% of its profits in Asia, 39% in Europe, 9.6% in North America and 3.2% in Latin America (HSBC, 2000). The recent expansion into Latin America, like other investments in different regions, seems to have been motivated by the strategy of risk diversification through geographical diversification to make the bank less dependent upon Asia. It is interesting to note that HSBC itself significantly toned down its plans to challenge local market leaders, bombastically announced when it took over Bamerindus in Brazil. The original, aggressive talk from HSBC officials about occupying all market niches and reducing the price of bank services across the board has given way to the more cautious view that price wars would damage everyone (Carvalho, 2000, p. 160).

ABN Amro's two most important markets are outside the Netherlands. These are the United States Midwest and Brazil, but the group has a presence in a number of countries around the world. According to its 2000 annual report, North America contributed 44% of group profits outside the Netherlands, and Latin America and the Caribbean 24.1%. These data reveal the importance of North and Latin America for the group's earnings outside the Netherlands. In 2000, the ABN Amro board of directors decided that the bank would operate in the retail market only in the Netherlands, the United States and Brazil, the strategy being to end these operations in countries where the group was not large enough to compete. Accordingly, the Dutch bank sold its retail commercial banking units in nine countries, including Argentina, Ecuador, Morocco and Sri Lanka. Recently, it announced that it was going to sell its commercial banking subsidiaries in Chile (to BankBoston), Kenya (to Citigroup) and Venezuela (to Banco del Caribe) (*Gazeta Mercantil*, 2001, p. B2). ABN Amro has traditionally been a universal bank, combining commercial, corporate, private and investment banking. In Brazil, before the purchase of Banco Real, which was the Dutch group's largest acquisition to date and the largest ever in Brazil,[17] ABN Amro concentrated on private and corporate banking and to a lesser degree on retail banking, although its largest source of earnings was automobile financing. Thus, by purchasing Banco Real, a big retail bank, ABN Amro became a truly universal bank in Brazil, with different lines of business and the ability to compete with the large local retail banks. The operation allowed ABN Amro to consolidate its strategy of specializing in Latin American pension fund management and personal insurance, areas where Banco Real was strong. To counter competition from foreign banks locally, the bank is pursuing a fairly aggressive expansion strategy through organic growth, involving an extension of its branch network and acquisition of small, healthy banking franchises.

The Spanish banks BSCH and BBVA have the advantages of experience in dealing with instability owing to Spain's recent history, greater cultural affinities with Latin America, and some familiarity with the region, as most of the big Spanish banks have had offices, branches or small subsidiaries in Latin America since the 1970s or early 1980s. Both groups are mainly concentrated in Spain and in Latin America[18] where, together with Citicorp, Banco Santander, Banco Bilbao Vizcaya and Banco Central Hispano, they have been the largest foreign banks since 1995. Interestingly, while BSCH is the largest foreign bank in Brazil, with a 6.61% market share (total assets criterion) in 2000, BBVA has only a modest share of about 1% in Latin America's largest market. One possible explanation for the more cautious approach of BBVA since expanding overseas is that the group is consolidating its activities and seeking to cut costs and increase efficiency throughout the BBVA system, including Latin America.

The long-term approach of the Spanish banks meant that they continued to expand their presence in Latin America despite the financial turbulence of 1997-1999, in contrast with other foreign financial institutions

[16] The 1999 acquisition of Republic New York Corporation and Safra Republic Holdings reinforced HSBC's presence in some highly developed countries, namely the United States, Switzerland and Luxembourg.

[17] In July 1998, ABN Amro purchased a 40% stake in Banco Real for US$ 2.2 billion. Banco Real was the fourth biggest domestic private-sector bank in Brazil. It also acquired two state banks: Banco do Estado de Pernambuco (1998) and Paraiban (2002), both of which have a large presence in the north-east of Brazil.

[18] In 2000, BSCH obtained 34% of total net income from Latin America, which accounted for 37% of group assets (*The Banker*, 2001, p. 69), while in the same year BBVA had 32.6% of its assets in Latin America, according to its 2000 annual report.

that chose to pull out of the region. They have been very active in marketing new deposit products such as lottery-linked accounts, sometimes without waiting for them to be fully regulated, which testifies to their capacity for innovation. This has enabled them to respond more dynamically to the challenges of the Latin American banking market, bringing in banking skills that have served them primarily in the mass retail market of their home country. Latin America became an important strategic market for the Spanish banks as they sought to offset the decline of net interest income in Spain resulting from the lower interest rates that came with EMU convergence. To sustain and support a competitive position that would enable them to ward off hostile bids from competitors, they looked beyond their own borders for new markets (Calderón and Casilda, 2000, p. 76).

The two Spanish banks did not just focus on commercial banking but diversified into other financial activities that included investment banking, insurance and, in particular, pension fund management, so that by 1999 they controlled between them 45% of the private pension fund market in Latin America. The recent penetration of Spanish banks in Latin America is ground-breaking in that "rather than playing the traditional role of working alongside non-financial firms as they further their internationalization process (providing financing and financial services to such firms), [they] have aggressively expanded their core activity –commercial banking– with a view to building a presence in as many markets as possible" (ECLAC, 2000, p. 164). The other novelty is that they "are acquiring some of the largest domestic banks in their target countries and entering the general commercial and mass retail market" (Guillén and Tschoegl, 1999, p. 3).

Broadly speaking, while the two major Spanish banks are similar in terms of age, size and their focus on retail banking, they differ in terms of control, management style and strategic posture. Consequently, they have followed slightly different strategies in Latin America, although in both cases the aim is to dominate as many national markets as possible. Indeed, Banco Santander (and later BSCH) has sought to attain a strong, homogenous presence in Latin America. The group's emphasis in the region has been on banks that are strong in investment banking and on the acquisition from the outset of shareholdings large enough to provide both ownership and full management control. It has generally put its brand on the banks purchased.[19] According to Guillén and Tschoegl (1999, pp. 14 and 15), "Santander has been most assertive about its Latin American expansion primarily because of its strong capital base, prior investment banking experience in the region, and the strong personality and leadership of its chairman – who likes to make expeditious and far-reaching decisions. Numerous press reports confirm the contrast between Santander's 'presidencialista' style and BBV's 'team style' of management, which our interviewees singled out as a key difference between the two banks."

As for BBV (later BBVA), its expansion was initially based on small shareholdings or minority stakes (providing the project was large enough) and on partnerships with local banks, which were then gradually built up over time. Although this approach has not always ensured ownership, the bank has progressively gained a greater degree of management control over companies in the group. More recently, the strategy of BBVA seems to be to consolidate M&As already done, with a view to cutting costs and improving efficiency in the group as a whole.

[19] Before its merger with Banco Santander, Banco Central Hispano focused its Latin American strategy on the acquisition of majority stakes in association with a strategic partner, which in most cases was left to manage the business.

VI
Conclusions

In the recent wave of banking internationalization, financial institutions have not just followed up their existing relationships –serving mainly home-country customers– but have integrated more deeply into local markets. Therefore, although the pattern of international bank shareholdings has historically followed that of economic integration between countries, the actual pattern of expansion today depends on a wider range of factors than just the degree of overall integration. In this connection, Grubel's theory of internalization –

which states that the ability to draw on information and personal contacts between banks and a manufacturing firm's parent in a foreign country at very low cost is the main source of comparative advantage for multinational banks– does not apply to the recent wave of foreign bank expansion in the retail banking markets of emerging countries. This at least was typically the case in Latin America and Brazil in the 1990s, as the customers of some European banks –BSCH, BBVA, HSBC and ABN Amro– were mainly local and had no previous connection with the banks' parents firms in their home countries.

Furthermore, the recent process of banking internationalization has to be understood in the broader context of Latin American deregulation in the 1990s, which created an opportunity for foreign companies to enter key sectors of the economy such as banking, telecommunications and utilities. This was due both to the privatization of State-owned companies, including banks, and to the easing of legal restrictions on the presence of foreign banks in domestic banking sectors.

According to Focarelli and Pozzolo (2000), banks operating in countries where the banking sector is larger and more profitable should be in a position to export their superior skills, and should thus be more likely to expand their activities abroad. Indeed, all the biggest European banks in Latin America –BSCH, BBVA, HSBC and ABN Amro– have recently increased their market share at home through mergers and acquisitions, attaining leading (or important) positions in these markets. Expanding abroad is not only a source of earnings diversification for these banks, but also a way to strengthen their position in the European banking market under the competitive pressure of economic and monetary union.

There are some common features in the strategies of the biggest European banks in Latin America. ABN Amro in the Dutch market, and BSCH and BBVA in the Spanish market, grew substantially by following merger and acquisition-based expansion strategies in their domestic markets with a view to positioning themselves as leaders there. This policy allowed them to increase their competitiveness and grow large enough to expand internationally. Thus, after consolidating their position in the domestic market they extended their operations abroad, probably preparing themselves for an increase in European competition in the context of economic and monetary union. ABN Amro, BSCH and BBVA are large banks in highly concentrated small or medium-sized systems that are increasingly expanding their operations to other geographical markets, since domestic alternatives are limited. On the other hand, HSBC, one of the largest banking and financial services organizations in the world, has a more global internationalization strategy.

Compared to the other big Latin American countries, Brazil's policy on foreign bank investment has been successful in the sense that its selectiveness prevented domestic private-sector banks from being "swallowed up" by foreign ones. As a result, private-sector domestic banks are still hegemonic in Brazil compared to foreign ones. The events in Argentina in 2001 and 2002 demonstrate the problems that an economy faces during an economic and financial crisis when the financial system is dominated by foreign banks. By contrast, domestic private-sector banks in Brazil performed well during the turbulence of 2001-2002, and this has helped the Brazilian economy to mitigate the effects of the regional crisis. On the basis of the Brazilian experience, therefore, one possible policy recommendation for emerging countries is that a strong private-sector domestic banking sector can be an important factor in preventing a currency crisis from turning into a financial crisis.

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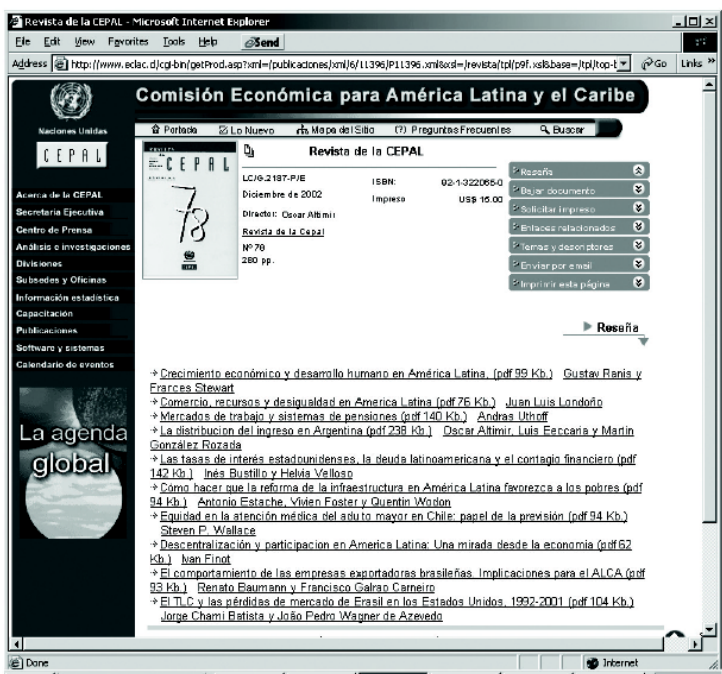

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Preliminary overview of the economies of Latin America and the Caribbean, 2002, LC/G.2196-P/I, United Nations Publication, Sales No. E.02.II.G.126, ECLAC, Santiago, Chile, December 2002, 125 pages.

The economies of Latin America and the Caribbean contracted by 0.5% in 2002. As a result, per capita GDP for the year was below the level recorded in 1997, completing a "lost half decade". The average growth rate in the region was influenced by the performance of the South American economies, and especially Argentina, Uruguay and Venezuela, but there was a loss of dynamism in almost all the countries. The regional unemployment rate reached an all-time high of 9.1% of the labour force, in spite of a significant increase in informal employment. Social conditions deteriorated concomitantly, and 7 million people across Latin America and the Caribbean joined the ranks of those living in poverty in 2002.

The adverse external environment was a determining factor in this poor economic performance. There were, in particular, three major elements whose effects varied from country to country. The first was the deterioration in financing conditions which, although widespread, had a particularly strong impact on the Mercosur economies in terms of both the cost and volume of external resources. In fact, the net transfer of external resources amounted to an outflow of US$ 39 billion for the year. The second was the loss of momentum in the United States economy in 2001-2002, which particularly affected Mexico, Central America and parts of the Caribbean. The third was the worsening terms of trade of the non-oil-exporting economies, which lost ground in this respect for the fifth year running.

The response capacity of domestic economic policy was very limited. Most of the countries deployed tight monetary policies in order to shield their currencies from exchange-rate pressures. Fiscal policy was also contractionary in most instances, as it was directed at keeping public debt on a sustainable path. In most cases, real exchange rates were the sole factor stimulating competitiveness in the real sector of these economies. The countries that enjoyed enough room for manoeuvre –carried over from previous years– to pursue countercyclical economic policies were the exception to the rule.

Inflation rose to 12%, which represented a setback with respect to the 6% posted in 2001. The increase was attributable almost exclusively to currency devaluations, since wage behaviour was generally aligned with changes in productivity. In most cases, however, the upswing in inflation resulted from one-off surges, and the pace of price increases is expected to ease in 2003.

Even though average GDP growth for 2002 was weak, it did gather momentum over the course of the year, and the region posted a positive rate for the final quarter. This trend towards a moderate upswing should continue into 2003, when the region's economy is expected to grow by 2.1%.

Other publications

Road maps towards an information society in Latin America and the Caribbean, LC/G.2195 (CONF.91/3), ECLAC, document prepared as part of the Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the World Summit on the Information Society (Bávaro, Punta Cana, Dominican Republic, 29 to 31 January 2003), 70 pages.

The concept of an "information society" refers to a paradigm which is profoundly changing the world in which we live at the beginning of this new millennium. This transformation is being driven primarily by new ways of creating and disseminating information using digital technologies. Information flows, communications and coordination mechanisms are being digitized in many different sectors of society, and this process is gradually giving rise to new ways of organizing society and production. While this form of "digital conduct" is becoming an increasingly global phenomenon, it has its origins in what are, for the most part, mature industrial societies. Indeed, the adoption of this technology-based paradigm is strongly correlated with any given society's degree of development. However, technology is not only the child of development (as it derives from the development process), but is also, to a large extent, its parent (since it is also a tool for development).

For Latin America and the Caribbean, the question of how to employ this emerging paradigm to achieve broader development goals and to integrate the region more fully into the global information society is an issue of paramount importance. In order to tackle the challenging task of integrating the paradigm of the information society into the development agenda, ECLAC is seeking to address three key questions:

i) *What kind of "information society" is desired?* Based on an analytical framework developed by ECLAC for the consideration of the many complex issues involved in the construction and operation of an information society, it is of vital importance to determine the purpose and aims of all lines of action oriented towards the transition to an information society. The first chapter of the study lays the groundwork for such an analysis.

ii) *What are the basic characteristics and regional particularities of the transition towards an information society in Latin America and the Caribbean?* To understand what paths the region can follow in making the transition to an information society, the second chapter reviews some of the specifically regional features of the current process.

iii) *What policies can support the transition towards an information society?* The third and final chapter proposes a positive agenda for Latin America and the Caribbean in the transition to an information society.

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