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Explanatory notes

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., 2004/2005.

(-) Use of a hyphen between years (e.g., 2004-2005) indicates reference to the complete period considered, including the beginning and end years.

The word "tons" means metric tons and the word "dollars" means United States dollars, unless otherwise stated. References to annual rates of growth or variation signify compound annual rates. Individual figures and percentages in tables do not necessarily add up to the corresponding totals because of rounding.

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The purpose of the *Review* is to contribute to the discussion of socio-economic development issues in the region by offering analytical and policy approaches and articles by economists and other social scientists working both within and outside the United Nations. Accordingly, the editorial board of the *Review* extends its readers an open invitation to submit for publication articles analysing various aspects of economic and social development in Latin America and the Caribbean.

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The renewed currency of Raúl Prebisch

Rubens Ricupero

This article begins with a brief evocation of the main features of the legacy left to us by Raúl Prebisch, not only from the strictly intellectual point of view, but also as a model of humanism. It then goes on to deal with the present situation of the world, with special emphasis on trade, and highlights the return of a war economy mentality and the instability reigning in the oil market, both of which militate against the greater investment needed in order for the world economy to grow at a satisfactory rate. It notes that in spite of all this, in the present circumstances there has nevertheless been some recovery of growth and revitalization of trade. Finally, it analyses the structural changes which have taken place or are under way in the world trade system and, in particular, the extent to which those changes resemble those that Prebisch hoped for or fall short of his expectations.

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I

Introduction

In this article I should like first of all to recall what, in my opinion, are the main features of the legacy left to us by Raúl Prebisch, not only from the strictly intellectual point of view, but also as a model of humanism. Secondly, I should like to refer to what we might call the "here and now" —the present situation, what is going on in the world of today— with special emphasis on trade, which is my main area of experience. Due to the circumstances of my diplomatic life, my long-standing link with trade has been perhaps my most outstanding characteristic, unlike my four predecessors in UNCTAD. They did not have direct experience with the General Agreement on Tariffs and Trade (GATT), as I did in my posts as chairman of the GATT Council and the GATT Contracting Parties and as a negotiator, and this experience has perhaps helped me to develop a different outlook which can only be gained through experience in the realities of negotiating trade agreements.

Thirdly, I will review the structural changes which have taken place or are under way in the world trade system, and especially the extent to which those changes resemble those that Prebisch hoped for, or else fall short of his expectations. Finally, by way of a brief conclusion, I will say a few words about the present situation of Latin America, which is where I come from and where I hope to be living again very soon and to keep on collaborating with ECLAC from closer at hand.

II

Prebisch's intellectual and humanistic legacy

"…when we contemplate the times we are living in today it is hard to be optimistic. I believe, however, that we must keep up our struggle, which does not only concern the international context but also our own countries. It is not just a question of a new international economic order but of a new economic, social and ethical order at the national level too. These are the great problems that we must solve in Latin America, though they will entail harsh sacrifices" (Prebisch, 1983).

These were Raúl Prebisch's closing words, on 6 July 1982, at the end of the series of lectures organized by UNCTAD in his honour in Geneva. They highlight what I consider to be the most important aspect of all that he has bequeathed to us: his ethical and moral commitment to promoting the social interests of Latin Americans.

I used another quotation from the same lecture at the beginning of my address at the seminar organized by ECLAC in Santiago, Chile, to commemorate the centenary of Prebisch's birth. I entitled that address "The Globalization of Raúl Prebisch", explaining that I was using the term globalization in a dual sense: "first, to describe Prebisch's personal and intellectual progression towards an increasingly universal dimension: from his native Argentina to Latin America, and from there to the world economic system as a whole, in UNCTAD. Second, to suggest that one of the best ways of remembering this great Latin American is to try to imagine what globalization would be like had it followed his design and intentions, rather than turning out as it has, generating and provoking a growing movement of massive rejection …" (Ricupero, 2001).

What I want to refer to now is not the process of evolution which led Prebisch's thinking to extend to increasingly broad areas, to the point where it covered the whole of the world economic system, but to the

□ This article reproduces the text of a master class delivered by the author at the Economic Commission for Latin America and the Caribbean (ECLAC) in Santiago, Chile, on 27 August 2004 as part of the Fourth Raúl Prebisch Memorial Lecture Series.

way that thinking remained valid over time, and the constant updating it has undergone: what we might call its renewed currency. This is not to say that he never made a mistake, that his ideas were timeless, or that we should forget what he himself said in his contribution to *Pioneers in Development*: that "my thinking on development has gone through successive stages under the influence of changing conditions and the broadening of my own experience" (Prebisch, 1984).

Far from allowing himself to be immobilized by immutable ideologies or ideas, "What is noteworthy" says Jagdish N. Bhagwati, "is the way he has been able to interact with his economic and political environment and thus grow as an economist" (Bhagwati, 1984).

The ongoing currency of an idea is not measured by drawing up a balance-sheet of hits and misses, but rather by the ongoing relevance of the topics and concerns it deals with, and perhaps more by the questions it raises than the answers it gives. Thus, all the main themes of Prebisch's future work and of the debate in progress today were already present in *The Economic Development of Latin America and its principal problems* (Prebisch, 1949): the centre-periphery dualism; his "splendid terminology", as Bhagwati called it; and the vital importance of technical progress, the link between foreign trade and development, foreign investment, import substitution, interdependence, and commodity prices.

Another basic factor in the influence of Prebisch's example was also clearly visible in that now-distant study: the emphasis he places on making the actual prevailing conditions the starting point for creating a vision adapted to the circumstances of space and time. As he wrote at that time: "The reflective knowledge of external matters must not be confused with mental subjection to alien ideas, from which we are only very slowly learning to free ourselves" (Prebisch, 1949). Thirty-three years later, in Prebisch's lecture at UNCTAD in 1982, he was to return to this approach: "In those years of the Great Depression, a phenomenon of intellectual emancipation began in Latin America which involved looking at the theories of the "centre" with a critical eye. Not with an attitude of intellectual arrogance —for those theories nevertheless have great value— but with a realization that they need to be subjected to critical study. (…) it is this critical study which makes us strive to seek our own paths to development —paths that do not involve imitating anyone— and to try to understand those conditions and meet the economic, social and moral demands of development —in other words, paths based on equity" (Prebisch, 1983).

He never gave up his attitude of consistently trying to judge theories in terms of their practical results, making that a test of their viability. His references to what was going on in the world —in the countries of the "centre", in the United States, and most often of all, in Latin America— made him a thinker who was always open and willing to accept change, new developments and self-criticism. Living as he did in the same years when Ortega y Gasset coined his famous phrase "man is himself and his circumstances", he was an outstanding embodiment of the American condition as well as of his own personal and national situation.

In this sense, it is strange that in his essay on his "five stages" (Prebisch, 1984) he does not enlarge on his own experience of "globalization" (corresponding to the fourth stage: that of his period in UNCTAD), and this did not escape the attention of two of the commentators on that text (Albert Fishlow and Jagdish N. Bhagwati). This should not be seen, however, as a reflection of a stronger sense of frustration or failure regarding that stage in his intellectual career, since his last texts on Latin America at the time of the military dictatorships and the debt crisis in the "lost decade" of the 1980s were not exactly filled with hope either. The explanation, I believe, is simply that he had to return every time to the Latin American environment in order to nourish his understanding of the world on the basis of a reality which he knew so well. His Latin American roots were so deep that this became a habit, perhaps unconsciously, to such a point that in a text intended in principle for an international audience and dealing with the developing countries and the periphery as a whole, at the end he moved from the general (the international level) to the specific, saying "These are the great problems that we must solve in Latin America, though they will entail harsh sacrifices" (Prebisch, 1983), as though those problems were not the same on other continents.

In the same text, he expressed his regret that "when these great years of prosperity came and we allowed ourselves to be dazzled by the centres, this effort to seek our own ways was interrupted" (Prebisch, 1983). In a surprising preview of some present trends, he criticized the fact that "the mutual trade initiatives among the countries of the region were considerably weakened because we believed that a new era was dawning for the world in which exports of manufactures to the centres would solve the great problems of the external bottleneck ….. We let ourselves be seduced, as is perhaps only natural, by the consequences of the prosperity of the centres. The pendulum swung to the other extreme: no more import substitution, no more mutual trade efforts, our whole future lay in outward-oriented growth and in taking advantage of the markets of the centres" (Prebisch, 1983).

These words describe what is happening today even better than what was happening in 1982, which was to be marked, a few months after the UNCTAD meeting in July of that year, by the beginning of the long external debt crisis of the region, with the Mexican collapse in October and the ensuing lost decade or decade and a half. It would not be hard to find further examples of Prebisch's extraordinarily perceptive and almost prophetic foresight and his capacity to predict many phenomena which are now of more obviously decisive importance than they were when he described them.

Instead of making an exhaustive list, however, I will now highlight two fundamental and permanent aspects of Prebisch's intellectual legacy. The first is what might be called his attitude towards the world: his search for a truly Latin American path, based on our own actual situation, as one of his main criteria for critically appraising and adapting imported theories and therapies.

The second is what lies at the root of the criticisms he levelled against the excesses committed in the Latin American governments' radical change of course in the 1980s, which he sums up as follows: "…. looking around us, we have turned our backs on a policy which, in my opinion, with all its undoubted defects and faults, we should have continued to follow, taking advantage of our accumulated experience in order to perfect it" (Prebisch, 1983). The reason for his rejection of what he called "conventional theories" was that they took no account of the social structure and its continual changes. Apart from the shortcomings he identified in the explanatory capacity of conventional theories, even with respect to the economic system of the centres, what seemed most serious to him was that, when applied to Latin America, those formulas would make it necessary to leave out "the great mass of the population which industrialization had reached only to a very incipient extent" (Prebisch, 1983).

The process of marginalization begins with the frantic imitation of the centres' advanced forms of consumption by the elite social groups of the Latin American periphery. Thanks to the enormous disparities in income distribution, those groups were able to rapidly assimilate the centres' forms of consumption. This occurred "to the detriment of the accumulation of reproductive capital, which is the only thing that can solve our problems of social exclusion: that is to say, the fact that great masses of the population are relegated to the bottom of the system, with low incomes, very low productivity, and a large number of unemployed, because not enough reproductive capital has been accumulated to increase the employment and productivity of the masses" (Prebisch, 1983).

That description of the Latin American situation was penned exactly 22 years ago: the space of a generation. We would all like to be able to say that it is no more than that: something from the past, now overtaken by progress, that ultimately belongs to a time which is now on the way to oblivion. Can we still maintain such a position, however, when we read the *Preliminary Overview of the Economies of Latin America and the Caribbean 2003* (ECLAC, 2003), published in December of last year? This overview contains the following words, which deplore the fact that, in spite of the growth registered in 2003, the region's per capita GDP remained flat, at a level 1.5% below that of 1997: "The six years of negative per capita growth caused social damage that will take time to reverse. There are 20 million more poor Latin Americans in 2003 than there were in 1997. Unemployment has increased by two percentage points during this period and is now at 10.7%" (ECLAC, 2003). Elsewhere, the same publication informs us that in that same year, 44% of the region's population was living in poverty.

I am well aware, of course, that these disturbing figures are the result of a particularly adverse set of factors including, among others, the financial collapse in Argentina in 2001 and the economic and social consequences of the political problems in Venezuela and other countries. I am also well aware that they represent a region-wide average and that there are comforting exceptions in which countries have significantly reduced poverty and increased growth thanks to sound macroeconomic policies, as in the case of Chile, which all of us admire. It is likely, too, that the more promising growth prospects in 2004 and, I hope, the coming years in general will soon bring positive results in terms of reducing unemployment.

Nevertheless, there are undeniable realities which cannot be ignored and which make it possible to argue that Prebisch's views continue to be valid today.

Thus, armed with this legacy which permits us to take a clear-cut stand, with a moral commitment to socially equitable development and with a critical intellectual attitude devoid of ideological prejudices and based on our real situation, we will now close this section and go on to the next one, inspired by another exhortation of Prebisch, which formed the title of the lecture he gave in Medellín shortly before his death: "It is imperative to renew our ideas".

III

The here and now

This article is based on the Prebisch lecture I delivered at ECLAC on 27 August 2004, three years after the events held at ECLAC to commemorate the centenary of Prebisch's birth. On that first occasion, I spoke on 28 August 2001, exactly 15 days before the terrorist attacks that changed the world on 11 September of that year.

Of course I had then no idea of what was going to happen in the world or the changes that would take place from that moment. I will not try to make an exhaustive list of those changes, but will merely refer to a few of them which have had an influence on the world economic and trade situation, which is my main subject.

I should like to note first of all that what has really changed is that we have once again come to live in a war economy. In some respects, it sometimes seems that we have gone back to the 1970s, when the war economy due to the Vietnam conflict combined with other factors which are not present today, such as inflation.

At the present time, we have at least two conditions which are similar to those prevailing at that time: a war economy, once again combined with great instability in the oil markets. When I speak of a war economy, what I mean is that we have now left behind us the mental atmosphere in which the prevailing idea was that what mattered was economic globalization. Between the fall of the Berlin Wall and the terrorist attacks of 11 September, the factors which were considered important were the market, globalization, and the facilitation of all kinds of transactions. We have now passed from that mental attitude to another which is dominated by the concern for security. The United States claims that it is engaged in a war on terrorism, and we have no idea when that war will end. In less than three years we have had a war in Afghanistan and another in Iraq, and we are already reading in the newspapers that there are plans, not to go to war, but to destabilize countries such as Iran. These are serious plans announced in such respected papers as the London *Times*.

This is a period of almost constant mobilization, in which one conflict leads not to peace but to a new conflict, with ever-increasing use of human, military and financial resources. How will all this end? I have no idea, and I do not wish to make any predictions. I am simply noting the fact that there is a war economy, whose first consequence is the excessive strengthening of the State and its powers. The State is being strengthened vis-à-vis the market and civil society, and it is being strengthened because military, strategic, security and political considerations have become a question of life or death. As Napoleon said, "the intendancy goes on": the economy, trade, finance, etc. must all go on.

The State lays out resources to strengthen its security. This is why, in the United States electoral campaign, concern over the fiscal deficit is less important than strategic concerns. This is why extraordinary increases in budget allocations are approved in order to create new capabilities in respect of external or internal security. It thus represents a far-reaching change. I do not know how long it will last, but in my opinion, it is incompatible in the long term with the original idea of globalization.

What was the idée-force of globalization? It was the belief that while frontiers would continue to exist, they would become irrelevant because transactions, which would be increasingly easy, would not be carried out from one side of a border to the other (cross-border transactions) but would leapfrog them (trans-border transactions), like the electronic transactions effected over the Internet, which are not registered by any kind of customs authority. That was the conviction underlying globalization: that goods would transcend frontiers, as would companies (but not workers, for this was never added), loans and investments.

If the excessive concern with security lasts too long, it will not put an end to globalization, but it will raise more obstacles to it. Anyone who has visited the United States recently knows what I am talking about, so not many more examples are needed. There has been a radical and important change: a return to the spirit of a war economy. What happened in an area of high strategic value for oil production obviously has an impact on the price of that product. Among the many reasons (explicit or implicit) given in order to explain the war in Iraq —the existence of weapons of mass destruction, possible links with terrorist movements— there was always the idea that a pacified, democratic Iraq would be one more guarantee of a steady supply of oil. This reason too has proved to be false, however, because now the frequent interruptions in Iraq's oil production are one of the factors behind the volatility of oil prices, together with the increased demand of countries such as China, the problems in Russia over the Yukos company, the political problems in Venezuela, and especially the worst nightmare of all: the growing instability of Saudi Arabia.

Saudi Arabia alone produces over 10% of the world's oil. In 1979, when the revolution of the ayatollahs caused the withdrawal of Iranian oil from the market, even though the volume of Iran's oil production is not comparable with that of Saudi Arabia the price per barrel soared to a level which would be equivalent to US$ 100 today. What would happen if something similar took place in Saudi Arabia? I am singling out these two factors, the war economy and oil, for a very simple reason: they both affect the sense of security of those who have to take investment decisions.

The world economy will only grow at a satisfactory rate if the level of investment is increasingly high. In a situation like that of the present, where the main concern is insecurity and the unpredictability of a war economy and of oil prices, no major new investment trends are to be expected. I believe this is an extremely important factor in the present situation, although there are many others to which I will not refer here. Even so, we have been fortunate in that, after the brief recession in 2001, which followed, among other things, the big rise in oil prices in 2000, the world economy nevertheless began to recover to the point where there are already growth estimates of around 4% for this year. This is largely due to the growth of China and India and the recovery of the United States economy, although the latter is already beginning to raise doubts because of the less promising results of the second half of 2004 and the enormous increase, by over US$ 9 billion, in the trade deficit of that country in June.

This climate of growth has brought with it a revival of world trade, which, after an exceptional year in 2000, with growth of over 13%, followed by a contraction of –1% in 2001 and some signs of recovery in 2002, turned in a growth rate of 4.5% in 2003. The excellent *Preliminary Overview of the Economies of Latin American and the Caribbean 2003*, published by ECLAC in December of that year, showed how this growth has enabled Latin America to post several new records for export growth, a trade surplus of US$ 41 billion, and a current account surplus of US$ 6 billion. The publication in question indicates that nearly all the countries, with a few notable exceptions, turned in a good performance. We have already seen the first fruits of this recovery in trade, and the tendency has been further accentuated this year. The most conservative estimates —such as those of the World Trade Organization (WTO)— indicate that trade could grow by 7% in 2004. The most recent data of the Organisation for Economic Co-operation and Development (OECD) point to growth rates of 8.6% this year and possibly 10.2% next year, provided the factors affecting world growth, such as oil, do not cause too many problems.

It is true that, at least in many continents and regions, this growth is explained largely by changes in exchange rates and the prices of goods and services. This is not so in Latin America, and still less in Asia, but in Western Europe much of the growth is due rather to factors connected with exchange rates and prices. Nevertheless, it must be acknowledged that 2004 has been an exceptional year in terms of trade, and the future prospects are good too, as shown by the figures for next year announced by OECD.

We find ourselves up against a paradox, however: how is it that in a year in which almost everything is going so well, only the trade negotiations are going badly? Normally, when the world economy is growing and there is a recovery in most commodity prices, the natural situation is for such negotiations to make progress. We have recently observed, however, that on the contrary there were problems in the Cancún negotiations last year and in the Geneva negotiations this year, which made no progress right up to the last moment, raising fears that no agreement would be reached. The negotiations on the Free Trade Area of the Americas (FTAA) have practically ceased to exist, at least in the form in which they were originally proposed, and FTAA is no longer the same scheme that was originally proposed 10 years ago. The negotiations between MERCOSUR and the European Union have likewise made little headway. Some free trade agreements have been signed, such as the one between Chile and the United States, but none of them could be called a landmark in terms of important issues. The agreement between Australia and the United States, for example, has had practically no immediate positive impact in thorny areas such as agriculture.

What is the explanation for this apparent contradiction? In my opinion, the explanation is very simple: the problems are political rather than economic or trade-related. Thus, the trade negotiations in GATT, which concentrated for many years on tariffs for industrial goods, have practically run out of steam, because the easy issues have already been dealt with, and what is left is much more difficult. The hard-core issues concerning protectionism —what was called at Geneva the unfinished business of the Tokyo and Uruguay Rounds (i.e., the unfinished business of all the rounds)— remain to be solved.

GATT was able to make rapid progress in the 1950s, 1960s and 1970s because it left out the most difficult issues: agriculture, textiles, clothing, and footwear and leather products. All these products were isolated and made subject to special rules.

Progress has been made in the sectors where all the parties have wanted to make headway, but sooner or later it will be necessary to deal with the most fundamental problems. These issues were left aside for a very good reason, because they are extremely complex, and now that the day has come to tackle them, all those concerned are beginning to realize that the challenge is very great indeed; not something that is going to disappear after the United States elections. With regard to agriculture, for example, I am quite sure that the difficulties will be very great and will last for many years. This is due not only to the reluctance of Europe and the United States, but also of big developing countries such as China, India, etc.

This problem of the current situation had an encouraging result a few weeks ago: a framework agreement which merely served to stop the negotiations from coming to a halt altogether. In reality, if one analyses the real content of this agreement, it must be acknowledged that it is extremely minimalist. Its main advantage is that it avoided the worst: i.e., it prevented the Doha Round from dying in its tracks. That Round was due to end in late 2004. If it had not even been possible to agree to keep on negotiating, it would have starved to death for want of encouragement. The agreement which has been reached, which is built on a number of creative ambiguities, makes it possible for the negotiations to be resumed next year. This type of ambiguity exists in the agricultural sector, in the so-called three pillars of agriculture. With regard to export subsidies, the idea is accepted that some day, in an uncertain and unknown future, they must be eliminated. But when? No-one knows, and the objective can only be attained if there is parallel progress regarding other forms of subsidies, credits, food aid, etc.

With regard to internal agricultural support measures, although it is true that agreement has been reached in principle on limits which must not be exceeded, it is also true that it has been agreed, at least in principle, to take quite a flexible view on the so-called "blue box",[1] thus opening up the possibility of allowing countries like the United States to legalize through the negotiations what they lost under the dispute settlement system. The agreement does not say in as many words that this will happen, but it does leave open that possibility.

With regard to access to markets for agricultural products, everything remains to be done. The agreement on industrial products is quite vague, and it does not lay down any rules for defining whether negotiation in some sectors where tariffs would be reduced to zero should be obligatory or voluntary. Some five, six or seven key questions remain to be settled in the negotiations, and it is impossible to predict the result.

In spite of all the foregoing, however, the agreement is undoubtedly a positive step forward and represents the most that could be achieved at that moment. It makes it possible to keep the multilateral system alive, since thanks to it the negotiations can be resumed with greater enthusiasm, once an unfavourable political situation has been left behind. I believe there is a reasonable possibility that these negotiations will finish, not in 2005 but, at least in terms of their fundamental aspects, at the end of 2006. The negotiating mandate giving the Executive the United States Trade Promotion Authority expires on 1 June 2005, but it contains an almost automatic renewal clause for two years, i.e., up to June 2007. In my opinion, the most likely outcome is that the negotiations will be successful and there will be steady progress. In other words, I would wager that the results will be moderately positive in the not too distant future.

[1] The term "blue box" refers to internal aid measures to limit production which are specifically devoid of any reduction commitments, according to the bilateral agreement between the United States and the European Union.

IV

Structural changes in the international trade system

I will now analyse what I consider to be the main structural changes, not in the areas of political issues or security, but specifically in the trade system. I will not try to deal with everything that Prebisch proposed, but will concentrate on some fundamental aspects of his thinking, in order to determine how and how far they have evolved in practice.

I shall refer first of all to the **world trade system**: what did Prebisch expect from the institutionalization of this system? Secondly, I will deal with the export of manufactures, and thirdly with the real reciprocity —not the merely legal or apparent reciprocity— displayed with regard to the developing countries and the "special and differentiated treatment" under the Generalized System of Preferences. I will also deal with the question of services, although these were not part of Prebisch's concerns. Finally, I will make some remarks on a matter which he anticipated very well: interdependence.

I should like to make it clear that what I will be doing is simply to set forth the problems, because I do not really have many proposals to make for their solution. That is the challenge we will all have to face in the future. The first problem is that of the international or multilateral trade system. I will take as my starting point the great report that Prebisch presented to the first session of UNCTAD 40 years ago, in 1964. In that report, Prebisch said that GATT was far from attaining the universality it needed in order to be really effective and international. At that time, the members of GATT numbered a little over 60. Furthermore, as he said, GATT was not a supranational organization capable of adopting rules that would prevail over national laws. In that respect, there has been rapid progress, since in 1995 the World Trade Organization (WTO) was set up at the meeting in Marrakesh, although it did not have the features that Prebisch had envisaged for an organization of that type. Nevertheless, the WTO is an organization which has some supranational features and comes close to universality, although it is not yet completely universal. China recently became a member, but countries such as Iran have not yet been admitted, and political reasons prevent the initiation of negotiations for this. Saudi Arabia and the Russian Federation are not members either, and various countries of the former Yugoslavia, as well as Vietnam, are still in the negotiating stage. Even so, the WTO currently has 149 members, which is pretty reasonable in terms of universality. In this sense, it can be said that the vision set forth in Prebisch's report has been turned into reality.

With regard to the second point, **the export of manufactures**, there is no point in repeating what everybody already knows. For Prebisch, the solution to the problems of developing countries such as those of Latin America is industrialization, combined with the possibility of exporting more and more manufactures to the centres. His constant struggle was aimed at opening up the markets of the centres so that the manufactures of countries on the periphery could have access to them, and he criticized the reluctance of the centres to open up their markets for the products of mature industries. This is an interesting case in which Prebisch's expectations have largely been fulfilled, but the results have not been all that he hoped for.

Today, over 70% of the exports of the developing countries as a whole are manufactures, albeit with differing degrees of technological content. The developing countries' share in global trade in manufactures is very high and is growing all the time.

This phenomenon has brought with it two main problems, however: first, there is a high degree of concentration of those exports, and second, the export of manufactures has not always brought the benefits that Prebisch expected from technological progress and the increase in productivity and value added.

The first of these problems is clearly visible in the case of China. Everyone knows that China currently tends to attract all the mature industries of the world. The North Americans, for example, have already transferred to China whole segments of their manufacturing sector which no longer enjoy protection in the United States. The products of those industries are no longer manufactured in the United States, but United States companies produce them in China with

Chinese labour. The same occurs in the case of many other products in which China has advantages, especially in terms of labour costs, with the result that entire industries have migrated to China.

The case of Brazil is well known. In the 1970s, Brazil was the main exporter of footwear to the United States. Today, however, Brazil provides only 6% of United States imports of footwear, while China provides over 60%. To some extent, the transfer of mature industries has also acted to the detriment of other developing countries. It is not only a question of the Mexican maquila industry, where it is well known the Mexico has lost 250,000 jobs in this sector in recent years. Other countries, such as Vietnam, are also following the same path. In other words, it may be said that the phenomenon of increased exports of manufactures has basically been concentrated in East Asia. Even among the other Asian countries, there is now a tendency to transfer those industries to China and Vietnam. Taiwan, for example, is holding on to research and design activities in the field of electronic goods but increasingly manufacturing its physical products in mainland China rather than on the island. This phenomenon has done nothing to benefit Latin America.

The second problem is that it is not enough to export manufactures with a high content of technology: what really matters is the value added in such exports. What is the increase in what might be called the index of value added in the manufacture of export products? What has happened is that many countries which export technologically sophisticated products do so basically on production lines in which they import the inputs, assemble them, and then re-export them. This is what occurs in the maquila firms, but it is not the only case in which the actual value added is relatively insignificant.

The contribution to the local economy made by this type of activity does exist, and it is positive in terms of employment, wages and other aspects, but it has nothing to do with Prebisch's dream of real technological progress that spreads to the whole of the economy. In a way, these activities tend to be enclaves within an economy and have few linkages with the other sectors.

What has happened in this respect in comparison with what was envisaged in the 1960s? In those days, economists did not have any clear idea of a phenomenon to which we are completely accustomed today: that production would cease to be of a national nature. Through the transnational corporations, production has come to be broken down into stages, which these firms allocate to their various subsidiaries for the production of particular goods or services in order to obtain economies of scale through specialization. What is strange is that this phenomenon has been ignored for so long, because in Latin America we were witnesses of the beginning of this tendency long before anyone talked about globalization. When I was a young man, I lived in Buenos Aires as the officer in charge of the Brazilian trade office. At that time, Brazil still exported to Argentina the same products as in the nineteenth century —pinewood, yerba mate, bananas and coffee— and this began to change thanks to an idea put forward by ECLAC and Prebisch: the Latin American Free Trade Association (LAFTA), which was formed as a result of the 1960 Treaty of Montevideo. That treaty opened up the possibility of negotiating what were called sectoral integration agreements. What happened, however, was that we Latin Americans did not have continental-level firms. Our firms were national, local, provincial and those who took full advantage of the treaty were companies like IBM, Olivetti or Burroughs, which made use of these agreements by dividing up their production lines and manufacturing some things in Mexico and others in Argentina or Brazil. This was the beginning of what would later become one of the two great motive forces of globalization. One was the revolution in telecommunications and information technology, while the other was the internationalization of production and distribution chains.

What Prebisch had in mind when he advocated the transfer of mature industries to Latin America was a national system of integrated production. He had not anticipated that this would take place as it did. It may be added that there is something we have always lacked and still do not have: an awareness of the need to promote services. We are now witnessing an extraordinary phenomenon in this respect in India, which is already exporting over US$ 15 billion in services through external subcontracting, software and the operation of call centres.

Some Caribbean countries are also doing this, but in Latin America we are still not really prepared to take advantage of the great potential of services.

The developing countries talk a lot about manufacturing but very little about services, which is a sector in which all of them are very vulnerable. India, for example, is very concerned about this, because in this field there are no clear legal commitments designed to protect subcontracting. If tomorrow a country like the United States or France decides to take measures against external subcontracting, those measures will not be considered illegal, because among other things —and this is a really ironical situation— few of the developing countries have adhered to the Tokyo Round agreement on public sector purchases, which is where protectionist-minded politicians now want to impose limits.

Today, both ECLAC and UNCTAD are working harder in this respect and addressing problems to which we had perhaps failed to pay due attention: i.e., those on the supply side of the production system. Through the important work of Fernando Fajnzylber, ECLAC put forward the issue of changing production patterns with social equity. Even so, not much progress has been made in this field either in changing production patterns or in equity.

Undeniably, we are tending to go back to the past in terms of exports. There are some worthy exceptions, but in general we are returning to a situation of specialization in products based on natural resources. The case of Brazil is typical. Except for some examples such as the sale of aircraft by EMBRAER, Brazil's main export successes are in the field of agro-industry (basically agriculture and stock-raising).

Another issue of a more structural nature is that of trade blocs. This was not one of the subjects dealt with by Prebisch: quite to the contrary. He wanted to achieve the integration of Latin America and of the developing countries in general. Until recently, there was a great deal of talk about how the world was on the way towards splitting up into three great trade blocs: Europe, with the Euro as its currency; ourselves and the United States in the Western Hemisphere, with the dollar, and the Asians, with Japan and the yen. This has only occurred in part, however. The great bloc which has really arisen is that of the Asians with the United States. The real situation of the world trade system and the world system of payments is that the Asians are growing thanks to the United States market and are buying dollars and Treasury bonds so that the North Americans can continue to be not so much lenders of last resort as consumers of last resort.

We have reached a very curious situation of symbiosis. Someone said that today there are only two kinds of developing countries. In the first category are those that finance their development by exporting to the United States and building up reserves which prevent the depreciation of their currencies vis-à-vis the dollar, while at the same time protecting them from the volatility of world financial resources. These are Asian countries, especially China and of course Japan, which is one of the main members of this group. The other category of developing countries, which includes the Latin American countries, comprises those that do not manage to finance their needs with their exports and have to do so by resorting to indebtedness.

This system has some disturbing features, since it is based on the almost unlimited capacity of the United States to absorb all the world's imports. I always compare that country with the black holes in astronomy. The United States is receiving 10% of world saving. Nothing like this has ever been seen before. It is the great consumer, while at the same time it is financed by the other countries. It has a trade deficit of over 5% of its GDP which continues to grow in spite of the relative depreciation of the dollar vis-à-vis the European currencies. Thus, it is the Europeans who are paying for all this. This is the real situation, rather than the blocs referred to in the past. The fact is that the United States has never accepted regional limits on its actions. Among the free trade agreements it has signed are treaties with Jordan, Morocco, and with African countries under its special "African Opportunity Act". The United States does not accept the idea that Africa is the backyard of the European countries, and it is disputing that situation inch by inch.

Prebisch envisaged **reciprocity in real, and not merely legal, terms**. This means a form of reciprocity which takes account of the differences in level of development and economic structure between countries. This gave rise to his idea of the Generalized System of Preferences, which was established at the first session of UNCTAD but which has not been adopted in the way that he expected.

Prebisch wanted the system to be multilateral, and not a unilateral system in which each country discusses and decides how it wants the preferences to be. All these ideas are now under heavy pressure in two different directions. There is a growing tendency towards the multiplication of bilateral or regional free trade agreements; these agreements almost always completely or largely ignore the differences in level of development and impose a more legalistic type of reciprocity. In addition to this phenomenon, there is another point which must be taken into account: the fact that Prebisch's thinking, or that of UNCTAD in 1964, which saw the developing countries as a compact, almost undifferentiated universe, does not correspond to the new realities of the world.

One of those new realities is the appearance on the scene of China: something that no-one could have imagined back in 1964, on the eve of the Cultural Revolution. Is China a developing country, or is it rather a developed country with a capacity to compete in line with very special economic rules? Generally speaking, the Asia-Pacific phenomenon stands at the other extreme from the so-called less developed countries: the 50 countries which are the poorest of the poor, the indigents of the world. In order to enter this category of the United Nations, it is necessary to be so poor that of the 35 countries of the Western Hemisphere, which of course includes Latin America, only Haiti is among those 50, out of which 34 are African, while East Timor has been the last country to join this group. Clearly, these countries are heterogeneous and they are very different from the Latin American countries, both in their history and their economic structure. Many of them have a practically subsistence-level agricultural economy. They are at a very different stage from that of the Latin American countries. What I am about to say will upset some developing countries, but this differentiation will sooner or later be reflected in the trade rules.

It is very difficult to imagine how countries like China, India, Brazil, Argentina and others can receive the same treatment as Burundi, Benin, Chad, Rwanda, Tanzania or Bhutan. Differentiation is one of the great challenges that is facing us. I could say a great deal more on this problem, but here I will limit myself to noting that this is one of the issues that were not clearly identified or dealt with in Prebisch's agenda.

I would not like to close my analysis of the changes in the world trade system without at least mentioning two fundamental matters. One is that we are witnessing **a change in the very bases** of the multilateral trade system. This system developed from the nineteenth century onwards on the basis of the principle of non-discrimination and the most-favoured-nation clause, which are expressed in the first two articles of the General Agreement on Tariffs and Trade. The proliferation of free trade agreements which exploit in a very dangerous way the terms of article 24 of the General Agreement, however, has permitted the continual erosion of that principle. In order to justify this erosion, it is claimed that free trade agreements are the elements with which to build a trade system which is totally free of hindrances. In reality, however, this is not the case, since very often those treaties create hindrances that did not exist before. To give only one example: the North American Free Trade Agreement has established rules of origin for textiles or automobile parts which did not exist before and which constitute new hindrances to the free flow of goods.

I witness this trend with great concern because, as a former Chairman of the Contracting Parties of GATT, I feel that it is my duty to defend the multilateral trade system. I also find it a matter of serious concern that, out of the whole trade of the United States, over 40% is governed by rules on preferences.

Anyone who speaks of such rules is automatically talking about rules that are discriminatory, for a very simple reason: "preference" means choosing one country or thing over another. Such differentiation is therefore automatically discriminatory. I often get the impression that what is happening today with regard to the system of trade is rather similar to what happened between 1971 and 1973, when a series of *ad hoc* spot decisions taken unilaterally by President Nixon practically wiped out the bases of the Bretton Woods system, at least as regards two of its cornerstones: a system of reasonably stable exchange rates, and full and free convertibility between the dollar and gold. The institutions set up as a result of Bretton Woods have survived: the International Monetary Fund (IMF) is still there, but we now have a system of fluctuating exchange rates which has nothing to do with what was agreed upon in the Articles of Agreement of the IMF in 1944. The IMF is now something else, a completely different system, and I fear that something similar is happening with the multilateral trade system. It is not that the system is going to die away, but it is being radically changed.

The second matter is **the idea of interdependence**, which was so important to Prebisch, who continually insisted that it was in the interest of the North —for its own benefit, of course— to promote the industrialization of the South. Prebisch always persisted with this idea: that progress —the industrialization of the South— would create an ever-growing demand for the sophisticated products and technology of the North which would represent an additional source of demand. This is currently being proved in the case of China, to a spectacular extent. No-one could ever deny that this is the role that China is now playing, above all with respect to Japan. It is well known that one of the main causes of the recent improvement in Japan's position is its export trade with China, which is growing extraordinarily fast. The same is also true not only with respect to the United States and many Asian countries, but also Argentina and Brazil, for which China has recently been the recipient of 10% and 7% of their exports, respectively. This role that the growth of the South can play in terms of boosting world trade is not in the least to the detriment of the North, since it helps to increase the demand for the goods of countries like the United States.

It is interesting, for example, to observe what is happening in the case of South Korea and also Malaysia and other Asian countries. For these nations, over the last two or three years China has become their main market, surpassing that of the United States. It might even be thought that they could do without the latter country, but that is not so, for in the final analysis the United States will always be important. What does China import from South Korea? It imports different kinds of electronic components that the Chinese then use on their assembly lines, incorporate in finished products, and re-export to the United States. Thus, at the end of the line there is the great "black hole" of the United States market. Once again, we have this gigantic bloc to take into account, so that South-South trade is not an alternative, but something that exists side by side with North-South trade.

V

By way of conclusion

In conclusion, I should like to quote a statement by Prebisch which I always like to recall, because it forms part of the final section of his report to the first session of UNCTAD, 40 years ago. It has a great deal to do, not so much with the matters dealt with in this article, as with the underlying problems. As you will have noted, in most cases I have not offered solutions but instead have set out the problems that we will have to face.

Prebisch (1964) said in this respect: "Realism is also foresight, and an elementary sense of foresight should cause us to interpret the trend of the events that are occurring in the developing world". For this, he went on, the pages of his report were "an act of faith regarding the possibility of persuading and compenetrating with these ideas where it is necessary to penetrate and where there is a possibility of giving rise to constructive reactions".

He concluded his exhortation as follows:

"The facts are there, it cannot be denied. And if the ways of facing them suggested here are not acceptable, then we must seek other ways which are. Because the problem is inescapable. The world had never had to face it in this form or in these dimensions. Nor had the world ever had the enormous possibilities it now has to solve it, however, or the conviction —which is growing every day— that it is also possible to act in a conscious and deliberate way on the forces of technology and economics in pursuit of grand designs".

(Original: Spanish)

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Method and passion in Celso Furtado

Luiz Carlos Bresser-Pereira

The method that Celso Furtado used was essentially historical; his passion —a measured passion— was for Brazil. In the second half of the twentieth century no intellectual contributed more than him to the understanding of Brazil. He was committed to its development, frustrated with its incapacity to achieve it, and always acute in analyzing the economic and political challenges that the country successively faced. In order to demonstrate these ideas, this paper presents a broad review of Furtado's work.

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I
Introduction

If there was an intellectual who, in the second half of the twentieth century, gave a most decisive contribution to the understanding of Brazil, I would not hesitate in stating that that person was Celso Furtado. He did not merely offer economic explanations for our development and underdevelopment. More than that, he situated Brazil in a world context, analyzed its society and its politics, and offered solutions for the major problems it faced. In order to achieve this task, as ambitious as it was frustrating —because, ultimately, Brazil fell short of his great expectations— Furtado used method as well as passion. He was rigorous in his method, but this did not prevent him from viewing with passion the subject matter of his studies, which has always been a republican project of life as well: the development of Brazil.

One of the books by Carlos Drummond de Andrade (2000) is called *A Paixão Medida* (The Measured Passion). This oxymoron, so deftly used by that great poet, helps us to understand Celso Furtado. The passion is strong, making his work and life full of energy and desire for economic and political transformation, but it is a measured passion which weights costs and trade-offs —as economists usually do— and does not overlook political restrictions.

Celso Furtado was an economist devoted to development theory and to the analysis of the Brazilian economy. In those two areas he always thought independently, using mainly the historical method rather than the logical-deductive one. He had a powerful ability to infer and deduct, but he always started from the observation of reality, avoided starting from general assumptions on human behaviour, and tried to infer his theories from that reality and its historical evolution.

In this paper I will not try to make a general evaluation of Celso Furtado's work, but will only focus on three elements in it. One element is well known —his independence of thought— but the other one (the method) has not been studied much, while the third (the passion) is present in some form in all the analyses of his work, but always appears in a measured way, through expressions such as his love for Brazil and his personal and intellectual integrity. Furtado is all this, but he is much more. His struggle for the development of Brazil and for overcoming backwardness in his home region —the Northeast of Brazil— was conducted with a degree of intensity and determination that only passion could explain.

II
Theoretical independence

Celso Furtado was a development economist. He was part of the group of 'pioneers' of modern development theory, along with Rosenstein-Rodan, Prebisch, Singer, Lewis, Nurkse, Myrdall, and Hirschman.[1] His theoretical contributions focused on the understanding of the process of economic development and underdevelopment. And to achieve this, he used in the first place, as we will see, the most suitable method for the study of development: the historical-inductive one. But, before examining the method he used it is important to highlight the theoretical independence that characterizes his intellectual path.

Furtado used the economic theory he learned from the classics, especially Ricardo and Marx, and also Keynes. He owed little to the neoclassics. He should not be taken for a Marxist or a Keynesian, however. He learned with the classics and with Keynes, but he had an independent line of thought and always prized this independence above everything. He is identified with Latin American structuralism, inasmuch as he was one of its founders.[2] But we must keep in mind that

[1] The 'pioneers of development' were identified by Gerald Meier and Dudley Seers in two books: Meier and Seers (1984), and Meier and Schultz (1987).

[2] Love (1998) incisively highlights Furtado's role as co-founder of Latin American structuralism, although Furtado has always insisted that Raúl Prebisch should be given this honour.

structuralism is not nor has it pretended to be an all-encompassing economic theory. It was an influential economic doctrine in Latin America in the 1950s and 1960s because it offered an interpretation for the underdevelopment of countries which, in the mid-twentieth century, were going through the transition from pre-capitalist or mercantile forms to industrial capitalism, and it presented their government leaders with a consistent development strategy.

The theoretical independence of Furtado's thought enabled him to use the theories he considered relevant to solve the problems presented by the interpretation of the economic facts he had to face. Marxism was important for him to the extent that it offered a powerful view of history and capitalism, but Marx's contribution to economic theory was less significant. When describing how he learned from Marxism in France, in the late 1940s, he says: *The remarkable view provided by Marx on the genesis of modern history cannot leave indifferent a curious mind. Yet his contribution in the field of economics seemed less important for someone familiar with Ricardo's thought and acquainted with modern economics* (Furtado, 1985, p. 31)

On the other hand, he did not believe in pure economic theory, whether neoclassical or Marxist. Furtado was never interested in this aspect of economic theory. For him, economic theories existed in order to solve actual problems. From his point of view, economics is *an instrument to penetrate social and political realms and further the understanding of history, particularly when it was still displayed as present before our eyes* (Furtado, 1985, pp. 15 and 51).

But how does Furtado seek to understand the world around him? Not by applying any system of economic thought uncritically. Nothing is more opposed to Furtado than the stereotyped thought of orthodox intellectuals, whatever type of orthodoxy they adopt. He wanted to see the world with his own eyes; to use the instruments of economic analysis without losing his own freedom of thought and creation, which was his greatest asset. As observed by Francisco Iglesias: *it is absurd to point to him as neoclassical, Marxist or Keynesian: labels that are frequently assigned to him. From every author or trend he takes what he considers to be correct or adaptable to Brazilian or Latin American reality. He adopts the models that seem correct to him, without orthodoxy, and does not try to apply them mechanically to different cases* (Iglesias, 1971, p. 176).[3] Furtado did not try in this manner to reconcile those theories, nor was he being undefined, as suggested by those who want a single, integrated view of economic theory: he was only saying that one school of thought may be more useful than another, depending on the problem faced. As for Keynes, Furtado was, as noted by Bielschowsky (1988, p. 60), an 'atypical Keynesian' because he generally characterized underdevelopment as a problem of shortage of saving. Shortage of demand would apply primarily to developed countries. Nevertheless, when describing the development process, instead of adopting the attitude —typical among the pioneers of development— of considering the concentration of income as a condition for the beginning of development, Furtado assigned wage growth a fundamental role in ensuring an increase in aggregate demand and the capitalists' own profits. At this point he was already being fully Keynesian.

His concern with the independence of his thought became clearly apparent when he decided to leave Rio de Janeiro and work in Santiago, at ECLAC, which had just been created. At that time, ECLAC was still an empty project. Furtado did not know Prebisch, who had not yet formulated his view of the development of Latin America. Even so, he decided to join ECLAC, in order to *escape the siege, gain an open horizon, even if I had to wander in search of a lost Atlantis.* He makes this statement in *A Fantasia Organizada* (The Organized Fantasy) (Furtado, 1985, p. 50), and goes on to manifest his conformity with Sartre and his philosophy of responsibility, according to which if we based our real choices only on reason, there would be no choices, and everything would be predetermined.

By deciding to go to Santiago, Furtado was telling himself that his own life was not predetermined. And he was thus consistent with his broader view of society and the economy. Since he never believed that a single economic theory was able to explain everything, he always rejected all kinds of determinism as well: whether Marxist determinism, based on the 'laws of history', or the neoclassical variety, based on the principle of rationality, which, by postulating the maximization of interests, leaves no room for decisions

[3] It may seem surprising to consider Furtado also as a neoclassical, but this is what we see, for instance, in Mantega (1984, p. 90): *In the first place, there is a certain imprecision and even a good dose of indecisiveness in this thinker, who wavers between classical and neoclassical fundamentals, for me irreconcilable.*

or choices.[4] On the contrary, if in the debate between determinism and voluntarism Furtado committed a sin, it was the sin of voluntarism, expressed in his belief in the ability of human reason to impose its will on the economy and society through planning, and, more broadly, in the key role he always attributed to decisions when it comes to thinking about the macroeconomic system. The market has a fundamental role, but the decisions taken are no less important. This view is very clear in *Criatividade e Dependência na Civilização Industrial* (Creativity and Dependency in Industrial Civilization) (Furtado, 1978, p. 18), where he asserts: *The profile of an economic system is defined on the basis of the identification of the centers from which emanate those decisions, destined to harmonize the initiatives of the multiple agents who exert power in different degrees.*

This rejection of determinism, including the determinism of the market, is related to the individualism and idealism of this great intellectual who decided to intervene in reality. He started from the conviction that he was part of an intellectual elite, of an *intelligentsia*, that would be able to reform the world. In this field, his master was Karl Mannheim. As Furtado says: *By following Mannheim, I had a certain idea of the intelligentsia's social role, particularly in periods of crisis. I felt myself to be above the determinants created by my social insertion and was persuaded that the challenge consisted in inserting a social purpose in the use of such a freedom* (Furtado, 1978, p. 19).

Gerard Lebrun, in his analysis of *A Fantasia Organizada*, points out Furtado's idealistic voluntarism, expressed by his unshakeable belief in planning – planning that would totally eliminate the unpredictability of decisions. "*Well,*" observes the philosopher, "*his idea of power (in a democracy, of course) seems so abstract, so well adjusted, a priori, to his ideal of a neutral planning, that he apparently hardly conceives that the planner might become a technocrat*" (Lebrun, 1985).

As a matter of fact, this outstanding economist of whom we are speaking is a scientist, but also a bureaucrat in the best sense of the word, a Statesman, a public policymaker who only ceased to be inserted in the State apparatus when the military dictatorship suspended his political rights. Celso Furtado started his professional life in the DASP (Public Service Administrative Department), as a public administration technician. He went beyond that phase to become an economist and a university professor, but he never gave up believing in the rationalizing power of bureaucracy, including middle-level bureaucracy. He often said that the sole social group that was able to act as an interlocutor with international powers was the State bureaucracy. And for him it was essential to strengthen the bureaucracy in democratic regimes in order to maintain public policies and the effectiveness and legitimacy of the State power. As he says in *A Fantasia Desfeita* (The Faded Fantasy): *The process of bureaucratization does not only mean the growth of the State apparatus, it also means significant changes in political processes. By increasing the effectiveness of power, bureaucratization consolidates it at lower levels of legitimacy* (Furtado, 1989, p. 185).

With this line of thinking, Furtado is faithful to what he learned from such different thinkers as Mannheim, Sartre and his teacher Cornu.[5] In capitalist democracies intellectuals may free themselves from ideologies and use their freedom to intervene in the world in a republican way. He knows that this is always a relative freedom, that we may build our own lives, but we cannot have any illusions regarding the social and political determinants to which we are subject. For great intellectuals such as Furtado, the dialectics between freedom and socially conditioned behaviour can be more conscious and, if accompanied by the virtue of courage, as in his case, this will be more favourable to freedom, but only more favourable, no more than this: nobody escapes his circumstances.

Intellectual courage is expressed primarily in moments when it is necessary to differ from one's environment and group. In 1962, right in the middle of the country's political radicalization, Celso Furtado published *A Pré-Revolução Brasileira* (The Brazilian Pre-Revolution). After praising the humanistic nature of Marx's work, Furtado does not hesitate to declare: *Since Marxism-Leninism is based on the replacement of one class dictatorship with another, it would be a regression, from a political point of view, to apply it to societies which have reached more complex forms of social coexistence, that is, to modern open societies* (Furtado, 1962, p. 27).

[4] The deterministic nature of neoclassical thought was shaken only when microeconomics textbooks began to include game theory – that is, decision theory. But by then their authors were taking the healthy attitude of relativizing the maximizing postulate of neoclassical theory.

[5] Quoted by Furtado (1985, p. 31).

Likewise, in the *Plan Trienal 1963-1965* (Triennial Plan, 1963-1965) (1963) he did not hesitate to propose a fiscal adjustment and a strict monetary policy, although he knew that he would be called 'monetarist' by the groups that supported the Goulart administration.

The use of freedom gains its full meaning in Furtado because it is marked by the gift of creativity. Furtado's contribution to economic theory and to the analysis of Brazilian and Latin American economies may be explained in terms of method, but it is primarily the result of an enormous personal ability to think and create. Furtado knew this, and it is certainly not by chance that the epigraph of one of his books is a quotation from Popper in which he acknowledges that *scientific discovery is impossible without faith in ideas which are of a purely speculative kind, and sometimes even quite hazy*.[6]

Creativity was to be one of the bases of his intellectual independence from orthodoxy. Lebrun (1985), writing on *A Fantasia Organizada*, remarks: *It is the odor of heterodoxy that makes this book even more fascinating and makes Celso Furtado a great writer, as well as a thinker*. As observed by Bourdieu (1983, p. 145) if in economic theory there is a "doxy" —a set of assumptions that antagonists regard as evident— there is also an orthodoxy and an heterodoxy. The heterodox intellectual does not deny his science's most general assumptions, but refuses to subordinate his thought to the dominant one. The Right and the conventional economists insist on giving heterodoxy a negative meaning, identifying it with economic populism, but, in fact, to innovate in economic theory and analyses almost always involves some heterodoxy. To be heterodox is to develop new theories, often from the identification of new historical facts that modify a certain economic and social setting and make pre-existent theories inadequate. When Celso Furtado opted to use mainly the historical-inductive method, and when he became one of the two founders of Latin American structuralism, he was opting for heterodoxy and for independence of thought. In the next section, I will briefly present my view of the two methods used in economic theory, after which I will continue my analysis of the method used by Celso Furtado.

III

Two methods in economics

Orthodoxy, or neoclassical mainstream, is primarily logical-deductive. It intends to deduce the balanced operation of market economies from the sole assumption that economic agents maximize their interests. If we classify sciences as adjectival or methodological, there is no substantive science more logical-deductive than neoclassical economic science, in spite of the statements that it is a positive science. Paradoxical as it may seem, not even physics is as logical-deductive. The supremacy of the logical-deductive method is such that I always recall the observation of a former student who had just returned from a scholarship in a foreign university. When I told him that, for me, in certain fundamental areas, such as macroeconomics and economic development, the economist should use predominantly the historical-inductive method instead of the logical-deductive one, he immediately replied: "but in economics, the logical-deductive method is always dominant; we don't study history, we study economic theory". For him, as for the whole of neoclassical thought, economic theory is by definition logical-deductive.

Economic theory is abstract by definition, and cannot be confused with history. In economics we try to find models, theories, to explain the stability and variation of economic aggregates, the short-term economic cycle and development, inflation or deflation and the balance of payments, and the variation of relative prices, of interest rates and of the exchange rate. The subject matter of economic theory is therefore clear, as it is clear that the aim is to generalize with respect to the behaviour of relevant variables, and, through this generalization, to be able to predict the behaviour of economic variables. Therefore, it is important to acknowledge that, depending on the subject discussed, the most appropriate method will sometimes be the logical-deductive one, and sometimes the historical-inductive one.

[6] Epigraph to the *Prefácio a Nova Economia Política* (Preface to New Political Economy) (Furtado, 1976a).

In another paper, I advocated the idea that macroeconomics cannot be reduced to microeconomics because the former uses predominantly the historical-deductive method whereas the latter uses the logical-deductive method. The statement that the advance of knowledge depends on the joint use of the two methods is part of the introductory classes in philosophy. In the process of knowing, individuals make permanent use of induction and deduction, one following the other and vice versa. Induction and deduction are not, therefore, methods of knowledge, or, more precisely, opposite mental operations. They are complementary. This does not mean, however, that sciences use one method or the other with the same intensity. Mathematics, for instance, is only logical-deductive, while sociology is mainly historical-inductive. In mathematics everything is deduced from a few identities; in sociology and the other social sciences, with the exception of the neoclassical variant of economics (recently extended to political science), the observation of social facts and their evolution in time is the fundamental method of research, although the researcher is permanently forced to also use the deductive method to perform his analysis.

Therefore, I am not corroborating the belief —predominant in the nineteenth century— that the use of the inductive method would distinguish true science, which would begin with the observation of facts and the execution of experiments to ultimately arrive at general laws. As Hume's 'problem of induction' made clear, we may infer general laws from induction, but the inferences thus performed do not thereby become logically demonstrated.[7] The historical-inductive method does not exclude the logical-deductive one. In macroeconomics and in the theory of economic development, however, it takes precedence over the logical-deductive method, whereas the opposite is true for microeconomics.

I consider the neoclassical theory of general equilibrium a remarkable contribution to the understanding of how market economies operate. But this does not mean that the whole of economic theory can be subordinated to it. A second branch of economic theory —macroeconomics— cannot be reduced to microeconomics because one deals with the behaviour of economic agents and the other with economic aggregates – this is only a definition. Microeconomics, or, more precisely, the general equilibrium model that serves as its basis, approaches economy from a logical-deductive perspective, deducing the way by which resources are allocated and income distributed in a market economy from a single assumption: the rational behaviour of the agents concerned. Macroeconomics, on the other hand, was born and continues to bear its greatest fruits when it observes the behaviour of economic aggregates, verifies how this behaviour tends to repeat itself, and generalizes therefrom, building models or theories. Subsequently, macroeconomists try to find a logical reason, a microeconomic fundamental for the behaviour of macroeconomic aggregates, but at most they will find *ad hoc* explanations. The neoclassical hope of reducing macroeconomics to microeconomics cannot be achieved, because the methods prevailing in each of those branches of economic science are different.[8] It is likewise impossible to reduce the third major branch of economic theory —the theory of economic development— to microeconomics or macroeconomics. In this case, the core of the thinking is still classical, just as the core of microeconomic thinking is neoclassical, and the core of macroeconomic thinking is Keynesian.

Economic theory tries to explain and predict the behaviour of economic variables. It is necessary, however, to determine the variable in which we are interested. If we want to understand and predict the behaviour of prices and the allocation of resources in the economy, microeconomic theory, with its logical-deductive basis, will be more effective; if we want to understand the distribution of income in the long run in the capitalist system, the reversal of classical theory, by placing the profit rate as given and the wage rate as a residue, will have a higher predictive power; if, on the other hand, we want to understand the behaviour of economic cycles, Keynesian-based macroeconomics will be the instrument par excellence; and finally, in order to understand the dynamics of development, classical history-based development theory will be the one with the highest power of explanation and prediction.

According to this reasoning, it is impossible to have an absolutely integrated view of economic science. Economic science has three major branches:

[7] See Blaug (1980, pp. 11-12). This author uses Hume's problem of induction to reduce its role in economic theory. Like most economists, he presumes that there is only "one single" economic theory, and therefore the predominant use of one method or the other, depending on the approach —microeconomic, macroeconomic, or of economic development— makes no sense for him.

[8] See Bresser-Pereira and Tadeu Lima (1996).

microeconomics, macroeconomics, and development theory. Each one of them provides us with a view of the operation of the economic system from a certain perspective, using one prevailing method. Of these three branches, only in microeconomics is the logical-deductive method dominant, and rightly so. It was this method that made it possible to build the microeconomic models of partial and general equilibrium, which constitute one of the major scientific achievements of universal thought. Through this method we can understand how a market economy allocates resources. Yet the theory of economic development —which explains the growth process of capitalist economies in the long run— and macroeconomics —which shows how economies behave in the economic cycle— although using the logical-deductive method, were built from the observation of historical phenomena. Smith and Marx, who founded the first of these, observed the transition from pre-capitalist forms to capitalism, and theorized on the basis of that observation. The classical theory of income distribution also has a historical nature, although, with the change in the behaviour of the wage rate from the mid-nineteenth century on, it only continued to make sense when it was inverted: the long-term profit rate proved to be stable enough to be considered constant, and therefore it is possible to predict that the wage rate will increase with productivity as long as technical progress is neutral. Keynes and Kalecki, who were responsible for the appearance of macroeconomics, began with the observation of the economic cycle after the First World War, and theorized from there on: they also primarily used the historical-inductive method. Ricardo's great contribution to the theory of economic development —the law of comparative advantages in international trade— was a great logical-deductive effort, but even in this case it was based on the observation of what happened in England and took into account the business interests of that country, rather than the rational behaviour of its economic agents.

Friedman's criticism of Keynesian macroeconomic policy —the discovery that through adaptive expectations the economic agents would partly neutralize that policy— started rather from the observation of reality, although it has an obvious microeconomic foundation. This criticism did not invalidate macroeconomic policy but limited its scope. When, however, macroeconomic theory detached itself from reality and radicalized the logical-deductive approach, as happened with the rational expectations hypothesis, we have an absurd and empty theoretical construct, despite its apparent consistency, which transforms economic theory into a mere ideology. According to this distortion of economic theory, macroeconomic policies would be completely ineffective, since they would be neutralized by the agents' rational expectations. Well, this assertion contradicts daily experience, in which we see the economic authorities of all nations actively involved in economic policy. The radical use of the logical-deductive method led theory to ignore historical reality. For some time during the 1980s, economic policymakers in the ministries of finance and in the central banks accepted the radical version of monetarism proposed by the rational expectations hypothesis, but since the beginning of the 1990s they have abandoned monetarism and started to adopt the pragmatic strategy of inflation targeting.

Another common distortion that arises from the pretension of using the logical-deductive method to explain all economic phenomena is that resulting from the insistence on employing a certain model when reality does not conform to it. At that moment, economic theory becomes an obstacle rather than an instrument for the analysis of what is happening. When economists manage to overcome this obstacle and actually think, analyzing the new facts that demand new analyses, they are forced to abandon the pre-existent models. In this case, as observed by Tony Lawson, *the only thing that remains intact is an adherence to formalist and, therefore, deductivist closed systems of modeling* (Lawson, 1999, pp. 6-7). [9]

Therefore, I view with skepticism the attempts to unify microeconomics, macroeconomics and development theory. Those approaches are not mutually reducible, because they start from different methods. To want to unify them is mere intellectual arrogance: an arrogance that results in the impoverishment of economic theory. There is no need to find a model that unifies everything. We can perfectly well use one theory or the other, according to the point that we are trying to explain. A strictly neoclassical form of macroeconomics is a contradiction: it is macroeconomics without the very object of that discipline: the economic cycles. A purely neoclassical theory of economic development makes still less sense, since the general equilibrium model is essentially static.

[9] Lawson adds: *Mainstream's insistence in the universal application of formalist methods presumes, for its legitimacy, that the social world is closed everywhere, that event regularities are ubiquitous.*

When the neoclassical economists finally arrived at a compatible model of development —the Solow model— this represented, substantively, only a small advance over what Smith, Marx, Schumpeter and the pioneers of development theory of the 1940s and 1950s had taught us on development. The same may be said of the Keynesian model of development of Harrod and Domar. The main merit of both models was the fact that they were consistent with their corresponding theories, rather than the fact of explaining the development process. The Solow model eventually proved to be more useful, not because of that logical-deductive consistency, but rather because —since it was based on a Cobb-Douglas function— it made it possible to conduct a great deal of empirical research, not precisely historical, but predominantly inductive.

IV

Furtado's method

One of the ways in which Furtado evidenced his independence of thought was the fact that he remained faithful to the historical-inductive method, even though orthodoxy, over the last eighty years, became more and more logical-deductive. Of course, he made abundant use of his logical-deductive ability, but he always did so on the basis of the historical facts and their tendency to repetition, rather on a presumption of rational behaviour. As an economic historian, it was natural for him to use predominantly the historical-inductive method, but he also continued to do so when he took on the role of a theorist on development and underdevelopment.

I am not suggesting, therefore, that Furtado belongs to Gide's German historicist school, or to Veblen's American institutionalism. Those schools were characterized by their rejection of economic theory and by their efforts to analyse economic facts on a case-by-case basis, whereas Furtado used the available economic theory and tried to make it advance in the understanding of economic development.

Even as an economic historian, Furtado was, above all, an economist rather than a historian. He does not recount the history of the Brazilian economy, he analyzes it. No one made use of economic theory more brilliantly to understand the evolution of the Brazilian economy than Furtado in his *Formação Econômica do Brasil* (The Economic Formation of Brazil) (1959). As Francisco Iglesias, a historian, remarked: although this is a book on economic history it is a book *from an economist's point of view... in this analysis of economic processes one arrives at a great simplicity, at an ideal model, at forms that sometimes look as if they were abstract. This is what happens in many parts of Celso Furtado's book; the rigor of construction of this book is such that... it makes its reading difficult for those who lack a vast store of historical information and a certain knowledge of economic theory* (Iglesias, 1971, pp. 200-201).

Along the same lines, Lebrun points out: *history, as it is practiced by Celso Furtado, is only worthwhile for its extreme* ***accuracy*** *(author's emphasis)... This is his method: no assertion that is not based on facts or on statistical data*. But, I would add, data that are used with great intelligence and deductive ability. One of the features that makes *Formação Econômica do Brasil* a masterpiece of history and economic analysis is Furtado's ability to deduce, from the scarce available data, the other variables of the economy and their dynamic behaviour. But, in doing that, Furtado is not abandoning the primacy of the historical-inductive method. He is only showing his ability to combine his creativity with his logical rigour in order to present, from the available data, a general picture of the historical evolution of the Brazilian economy which is as yet unsurpassed. *Formação Econômica do Brasil* is for me the most important book published in the twentieth century on Brazil, because in it Furtado was able to use economic theory and the other social sciences not to describe, but to analyze the economic history of Brazil.

I will give an example of his independence and method in that book. From chapter 16 on, Furtado is writing about the nineteenth century. It should be noted, however, that although he had just participated in the founding of Latin American structuralism in Santiago, Chile, he was not led by imperialist explanations of our underdevelopment, and declares, with respect to the 1810 and 1827 privileged agreements with England: *the common criticism made* *of these agreements, that they precluded Brazilian industrialization at that stage, seems to be unfounded* (Furtado, 1959, p. 122). On the basis of the country's export data and terms of trade, he observes that the first half of the century was a period of stagnation: in fact, per capita income fell from US$ 50 to US$ 43 (at the exchange rate of the 1950s). The next fifty years, however, showed great expansion, thanks to the increase in exports and the substantial improvement in the terms of trade. Once again the analysis starts from some historically verified facts, in order to infer the economy's general behaviour and, of course, to connect it with the social aspects. The landowners are not undifferentiated, as they are usually seen. The new ruling class of coffee growers was very different from the old patriarchal class of the sugar plantations. It had commercial experience, and therefore the interests of production and trade were intertwined. On the other hand, he devotes four chapters to the problem of labour, stressing the importance of immigration and wage labour. This may seem obvious, but it deserves emphasis to show that he was an author who did not transform the economy into mere abstractions, but thought of it as a historically situated political economy.

I will take my second example from his groundbreaking theoretical book: *Desenvolvimento e Subdesenvolvimento* (Development and Underdevelopment) (Furtado, 1961). In chapter 1, he summarizes his broader methodological view, and remarks that economic theory must be at the same time abstract and historical: *The effort towards higher levels of abstraction must be followed by another effort, which tries to define, based on historical realities, the validity limits of the inferred relationships. The fundamental duality of economic science —its abstract and historical nature— appears, therefore, in its entirety in the theory of economic development.*

According to Furtado, the fact that economics is taking on a more and more abstract nature is because, from Ricardo on, its aim has been virtually limited to the study of the division of the product, leaving in the background the issue of development. He points out, however, *economic development is a phenomenon with a sharp historical dimension* (Furtado, 1961, p. 22). He was to repeat this statement many times throughout his vast work, because it is a key issue in his thought. After introducing the "mechanism of development", in which he presents a few abstractions required for the understanding of development, in chapter 3 he gives one of the most remarkable analyses I know of "The historical process of development". In this chapter, which was not included later on —in my opinion, due to an error of judgment— and which was thus lost during the transformation of *Desenvolvimento e Subdesenvolvimento* into the more systematic and didactic *Teoria e Política do Desenvolvimento Econômico* (Theory and Politics of Economic Development) (Furtado, 1967), he shows how the way the economic surplus is used determines the outcome of the development process. In pre-capitalist systems, the surplus was primarily used for war and for building religious temples. With the advent of capitalism, the surplus obtained by merchants was transformed into capital accumulation, which was henceforth to be intrinsic to the economic system. With the industrial revolution, however, capitalism spread to the sphere of production. In a world of ever more rapid technical progress and increasingly widespread competition, the reinvestment of profits no longer satisfies the businessman's desire for increased profits, but becomes a condition for the survival of enterprises. Development becomes self-sustainable: *When the production surplus of the social organization becomes a source of income, the accumulation process will tend to become automated ... The strategic points of this process are the possibility of increasing productivity and the appropriation of the fruits of this increase by minority groups* (Furtado, 1961, pp. 120-121).

The idea is simple yet powerful. But we should not imagine that Furtado would present only its bare bones. What he does is to present a historical process through which we see how development emerges side with side with capitalism, and with all the complex social, institutional, and cultural changes which are inherent to it. The economic phenomenon of productivity increase is a key issue, but it is intrinsically connected with the emergence of new social classes and new institutions.

The importance of institutions, which became a key issue for the study of development in the 1990s, was already clear for Furtado in *Desenvolvimento e Subdesenvolvimento*. He explains, for instance, the economic decline that follows the collapse of a pre-capitalist empire such as the Roman Empire in terms of the collapse of the Roman State apparatus, of its military power, and of its long-matured institutions. The surplus was appropriated by Roman citizens, and particularly by the patricians, through the collection of tribute from the colonies, and this gave rise to extensive trade underwritten by Roman law. When this whole system collapsed, economic decline was inevitable.

Furtado says in this respect: *The destruction of the enormous administrative and military machinery that constituted this Empire had profound consequences for the economy of the vast area it occupied ... Once the administrative and military system was dismantled, the security conditions that made trade possible disappeared; on the other hand, with the disappearance of tributes, the main source of income of urban populations, who lived on subsidies or rendering services, was over* (Furtado, 1961).

Institutions are therefore of fundamental importance, but they do not occur alone. First of all, they are part of the State, which, in the Roman case, took on the form of an Empire. Second, it is not just a question of ensuring economic activity —trade— but of making feasible a way of appropriating the surplus. In the absence as yet of capitalism and surplus value or capitalist profit, the surplus is appropriated by force, through tributes.

Development in the historical sense of the word only occurs when the expansion of Islamism forces Byzantium to turn to Italy. Powerful trade economies are then formed in the Italian city-states, and alongside the aristocracy, or in its place, a new bourgeois class appears. And this trade promotes political integration, which is eventually to lead to the emergence of national states. In this case, institutions emerge rather as a consequence than as a cause of development. Furtado is explicit about this, and remarks that whereas in the Roman Empire political integration led to trade and development, in Europe it was long-distance trade, adventurous and insecure, that caused political integration. This latter, however, would soon become a decisive factor of development itself.

Institutions and their stability are fundamental for development —especially the greatest of them all, the nation-state, from which the others depend. In this case Furtado was not being original, since there is a broad consensus about this. He adds, however, that the capitalist system will not only produce the nation-state, but will tend to adopt democratic institutions. This view appears clearly in his next book, *A Dialética do Desenvolvimento* (The Dialectics of Development) (Furtado, 1964), in which he criticizes the Marxist idea that in bourgeois society the limitations on freedom derive from the need to defend the privileges of the class that owns the capital goods. On the contrary, he says, democracy arises from capitalism and from the increasing institutional stability it provides. Such stability not only leads the bourgeoisie to adopt democracy as the political regime, but also ensures the system's economic dynamism. According to Furtado: *The reason for the progress of liberties in democratic capitalist societies was their increasing institutional stability. The revolutions that were directly caused by class struggles in Western Europe completed their cycle in the third quarter of the nineteenth centur ... Now, this institutional stability is due to the existence of a powerful class —the owners of the capital goods— with broad vested interests to protect ... The progress of civic liberties in bourgeois societies resulted less from the effective participation of the working class in political decisions than from the confidence that the capitalist class acquired in a setting of flexible political institutions* (Furtado, 1964, p. 45).[10]

Furtado's political economy, always based on the historical method, is remarkable. Not only development, but also democracy derives from capitalism. The workers' struggle will play a fundamental role not only in furthering democracy but also in ensuring, through the fight for better wages, the growth of aggregate demand, as profits grow. In the process of developing bourgeois democracy, which is initially just liberal, the essential role lies with the bourgeoisie itself and with the institutional stability it achieves. Perhaps this institutional stability is due less to the broad vested interests to be protected, and more to the fact that the bourgeoisie is the first social class that was able to appropriate the surplus without direct use of force to levy tributes and enslave colonized populations –which led it to become an agent of the liberal rule of law and to become open to the advance of democratic institutions. But in any case it is remarkable to observe the analysis of the role of the capitalist class in achieving institutional stability, a stability that promotes development, which, in turn, strengthens the democratic trends existing in society, thus establishing a virtuous circle of self-sustainable development.

For Furtado, the historical method is a key element in his analysis of development, inasmuch as it enables him to combine a grand overall view of the historical process with the specificities of each moment and each country. At the same time, the ability to predict facts, which is required from every social theory, is present here through the analysis of the historical process of development, insofar as the

[10] In the *Prefácio à Nova Economia Política*, Furtado (1976a) once again gives the classical concept of the economic surplus a fundamental role in his analysis of the process of capitalist accumulation.

abstract definition of development, as the increase in productivity from capital accumulation and from the incorporation of technical progress, acquires historical substance, that is: it is complemented by political, institutional, and social elements. Development is not just capital accumulation but is also the incorporation of technical progress, which depends on the class structure, the political organization, and the institutional system. Therefore, there is no development outside history, and there is no economic development without political and social development.

By adopting the historical method, Furtado approaches Hegel's dialectics and Marx's historical materialism, although remaining independent of them, primarily because he attributes a greater role to human will: *The importance of dialectics for the understanding of historical processes derives from the fact that history ... cannot be reconstructed from the multiple phenomena that are part of it.* However, through it man *intuits in the historical process this all-encompassing view that is able to give multiplicity a unity*. Marx boldly adopted this dialectical principle when he divided society into infrastructure and superstructure, and into two social classes. This strategy, says Furtado, *had an extraordinary importance as a starting point for the study of social dynamics... However, it is necessary to admit that, at this level of generality, an analytic model is hardly worth while as an instrument of practical orientation. And the purpose of science* —he concludes, evidencing the pragmatism that has always guided him— *is to produce guidelines for practical action* (Furtado, 1964, pp. 14-15 and 22).

I took these passages from *Dialética do Desenvolvimento* (Furtado, 1964), a book which he wrote in the midst of the crisis of the Goulart Administration, after resigning from the Special Ministry of Planning, and remaining only in charge of SUDENE (Northeast Development Agency). Among his autobiographical books this is perhaps that which received his greatest attention: a full summary.[11] In *A Fantasia Organizada* (Furtado, 1985), he clearly states that one of his purposes was to delimit the utilization of Marxism and dialectics in the analysis of development. And by doing so, he restates his commitment to the rigour of scientific method: *The second goal (of **Dialética do Desenvolvimento**) would be to determine the scope of dialectics, which had come into fashion again with Sartre's **Criticisme**, while manifesting that its use wouldn not exempt us from applying the scientific method with rigor in the approach to social problems*. (Furtado, 1989, p. 182).

To adopt the scientific method with rigour, however, does not mean to adopt analytical models based on the assumption of the stable equilibrium, as it is so common in economics. To analyze development we need dynamic models, such as the 'cumulative principle' proposed by Myrdal. More generally, Furtado concludes: *Even if we had made progress in modeling, we must admit that, to build models, we always start from a few intuitive hypotheses on the behaviour of the historical process as a whole. And the most general of those hypotheses is the one provided by dialectics, by which historical aspects are something that is necessarily in course of development. The idea of development appears as a hypothesis that organizes the historical process —as a 'synthesis of several determinations, unity in multiplicity', in Marx's words— through which it is possible to achieve an efficient effort of identification of relationships between factors and of selection of those factors in order to reconstruct this process through an analytic model* (Furtado, 1964, p. 22).[12]

With this exemplary text —which shows Furtado's elegance and ability of synthesis in expressing his thought— he makes clear his conception of the historical and dialectical nature of the scientific method he adopts. I could have begun the analysis of his method with this quotation, but I preferred to use at the end, thus concluding my analysis with his own words.

[11] See Furtado (1989, pp. 182-190).

[12] The quotation from Marx comes from his *Contribution to the Criticism of Political Science* (Marx, 1970).

V
Passion

In the way Celso Furtado worked with economic science there is not only a rigorous method, there is also passion. There are great expectations, and the corresponding frustration. Usually reason and emotion are seen as opposites. However, this is a misguided way of understanding the process of thought. Great scientists were very often people passionate about their work, their research. The really great economists were almost always passionate not only about their science, but also about its results. Some of them fell in love with the achievement of economic stability, others, with a fairer distribution of income, and most of them, with the development of their country.

Furtado's passion was the development of Brazil: a passion that was fed by the belief that this development was within the reach of his country at the historical moment when he graduated as an economist, in the late 1940s. World War II had just come to an end. New theories of economic development were appearing. A great hope was beginning to take shape before the eyes of the young man from Paraíba who had just gained his Ph.D. in economics in France (1948): Brazil, already in the course of rapid industrialization, would overcome the structural imbalances of its economy and, with the help of economic theory and economic planning, would reach the level of a developed country.

Only this passion —the passion for the idea of the development of Brazil— explains the strength of his thought, particularly in his first books, from his first fundamental paper on the Brazilian economy —"Características Gerais da Economia Brasileira" (General Characteristics of the Brazilian Economy) (Furtado, 1950)— and his first book —*A Economia Brasileira* (The Brazilian Economy) (Furtado, 1954)— up to *Dialética do Desenvolvimento* (Furtado, 1964), written at a moment when hopes began to be shattered by the imminence of the crisis. All these works have a theoretical strength and a power of analysis that do not derive just from the creativity of their author, from his great culture, from his independence of thought, and from his preferential use of the historical-inductive method: they are clearly part of a life project identified with the project of development. In *Os Ares do Mundo* (The Airs of the World) (1991) he makes it clear that his life project was directly related to the conviction that he developed in the late 1940s that *a favourable international scenario —a consequence of the Great Depression of the 30s and of the world conflict of the 40s— had opened a crack through which perhaps we could sneak in to achieve a qualitative change in our history* (Furtado, 1991, p. 63).

This qualitative change was the industrialization and the development of Brazil. But, says Furtado, recalling 1964, when he arrived in Chile as an exile, already by then he was convinced that, although *the intellectual has, as a characteristic, the boundless ability of devising reasons to live*, his life project, which was based on the existence of that crack, was ultimately *an illusion ... that was now vanishing* (Furtado, 1991, pp. 45 and 63). The fantasy was gone.

His hopes had been high, but his disenchantment and frustration were even greater, and they were going to be expressed in his next book, *Subdesenvolvimento e Estagnação na América Latina* (Underdevelopment and Stagnation in Latin America) (Furtado, 1966): a dense and pessimistic book that later proved to be mistaken, as the Latin American economies entered a new development cycle. That mistake, however, would eventually prove to be a relative success. The development cycle that was then beginning was artificially financed by the foreign debt-a debt that made the Latin American economies prisoners of international financial capital and eventually led them into the great crisis of the 1980s and the near-stagnation that continues to date. I say "relative success" because the book's key assumption, which is influenced by Marx and Keynes, still seems to me to be ill-placed. He considered that the stagnation or the development at very low rates was due, on the one hand, to the increase in the capital-labour ratio, and on the other hand to the decrease in the product-capital ratio, as a result of the capital-intensive nature of the investments made and their allocation to consumer durables. In those conditions, he felt, capital productivity would go down.[13] This theory underestimates, in my opinion, the increased technical progress, which saves not only

[13] See Furtado (1966, p. 80).

labour, but also capital, that is to say, it is a type of technical progress that increases the efficiency of capital.

In *Subdesenvolvimento e Estagnação na América Latina* (1966) the idea already appears that the concentration of income was preventing the operation of capitalism's virtuous circle, caused by the rise in wages as productivity increases. In two books, Furtado answered his critics, indirectly. In *Análise do Modelo Brasileiro* (Analysis of the Brazilian Model) (Furtado, 1972) he incorporates into his thought, with great elegance and accuracy, the new dependency theory that had come out from the critique of his works. This did not prevent him from clearly restating, in *O Mito do Desenvolvimento* (The Myth of Development) (Furtado, 1974), his theory on the consumption shortage that would occur in the long run. The concentration of income of the middle and upper classes would not solve the problem of demand in the development process. As he puts it: *My basic assumption is that the system has not been able to spontaneously produce the profile of demand that could assure a steady growth rate, and that long-term growth depends on government exogenous actions ... Although those two groups (the big companies and the modernized minorities) have convergent interests, the system is not structurally prepared to generate the kind of expansion of demand that is required to ensure its growth.*

Now, this theory, as Keynes showed when he criticized Say's law, is valid in the short run for explaining the economic cycle. And in my opinion it is only valid in the long run to the extent that the development rate attained in that time lapse depends on keeping the demand in constant tension with supply in the short run. The new model of technocratic-capitalist development that was then being established in Brazil, producing industrialized underdevelopment, eventually failed, but not due to a problem of lack of demand, but rather to an irresponsible excess of foreign indebtedness.

Hope was still present for Celso Furtado when, in 1968, before the adoption of Institutional Act N° 5, which definitively established the dictatorship in Brazil, he was invited by the Brazilian House of Representatives to present his views on what could be done. He could not resist the opportunity, and wrote *Um Projeto para o Brasil* (A Project for Brazil) (Furtado, 1968a), in which he proposes the resumption of development through a substantial increase in the tax burden and public savings. However, if once again there was hope —the refusal to accept dependency and underdevelopment— pessimism persisted. The pessimistic analysis of the situation of Brazil was so consistent with the one in *Subdesenvolvimento e Estagnação da América Latina* that the first criticisms of that perspective's claims that the resumption of Brazilian development was taking place thanks to the concentration of income in the middle and upper classes, which created a demand for luxury consumer goods, were made on the basis of the analyses made in those two books.

The optimistic passion that had fed his actions now became the great frustration of someone who recognized not only that he no longer directly influenced the country's destiny, but that the country itself had lost the ability for endogenous development. The economic theory he used now became debatable as it involved a twofold pessimism: on the one hand regarding the ability of underdeveloped economic systems to achieve capital-intensive technical progress and not merely capital-saving progress or at least a neutral situation (i.e., not involving a decrease in capital productivity), and on the other hand, regarding the ability of supply to create demand in the long run.

His pessimism appears in the following quotation, taken from *Os Ares do Mundo*, in which he recalls his first months of exile in Santiago: *I couldn't escape the idea that history is an open process, and that it is naive to imagine that the future is absolutely contained in the past and in the present. But, when every relevant change is a result of the intervention of external factors, we are confined to a setting of strict dependency ... The trends that appeared in Brazil led to the thought that significant changes would no longer be the result of the action of endogenous factors* (Furtado, 1991, p. 63).

Um Projeto para o Brasil was Furtado's last clear manifestation of hope.[14] His work from then on, according to Francisco de Oliveira, "may be called 'philosophical'" (de Oliveira, 1983a, p. 23). I would say that it becomes serene, to the extent that exile, first in Chile, then in the United States, in England, and finally, for a long time, in France, imposes emotional detachment. On Latin America, Furtado was still to publish in 1969 a fundamental work, *Formação Econômica da América Latina* (The Economic Formation of Latin America) (Furtado, 1969), but

[14] In *O Brasil Pós-Milagre* (Brazil After the Miracle), Furtado still shows hope, when, after mentioning the bad governments of the 1970s, he writes two sections in which he looks to the future: "Os Desafios dos Anos 80" (The Challenges of the 80s) and "Esboço de uma Estratégia" (Outline of a Strategy) (Furtado, 1981a, pp. 56-90).

afterwards he became once again interested in the analysis of the historical process of development, and in the changes that the international economy was undergoing.

He returns to the development process in *O Mito do Desenvolvimento* (Furtado, 1974), *Pequena Introdução ao Desenvolvimento*: *Enfoque Interdisciplinar* (A Small Introduction to Development: Interdisciplinary Approach) (Furtado, 1980), "Underdevelopment: to Conform or Reform" (Furtado, 1987a) and in many other works. The changes in the world economy are analyzed, however, in a 1968 paper, "A Preeminência Mundial da Economia dos Estados Unidos Pós-Guerra" (The Global Pre-eminence of the United States Economy in the Post-war Period) (Furtado, 1968b). In 1981, in the first issue of the *Revista de Economia Política*, of which he became one of the sponsors (along with Caio Prado Jr. and Ignacio Rangel), he published the article "Estado e Empresas Transnacionais na Industrialização Periférica" (The State and the Transnational Corporations in the Industrialization of the Periphery) (Furtado, 1981b). All his other works on the subject were later to be gathered together in *Transformação e Crise na Economia Mundial* (Change and Crisis in the Global Economy) (1987b) and *O Capitalismo Global* (Global Capitalism) (1998).

In the 1970s Furtado once again took an active part in international meetings at which the developing countries demanded "a new international division of labour". This movement was successful for a while, but, with the foreign debt crisis, and the neoliberal wave that took over Washington and the world from the beginning of the 1980s, this project did not bear the expected fruits either. This was the beginning of the great crisis of the 1980s for Latin America, and in its presence, Celso Furtado's passion returned as strongly as his indignation. His books *Não à Recessão e ao Desemprego* (No to Recession and Unemployment) (Furtado, 1983) and *Brasil: A Construção Interrompida* (Brazil: The Interrupted Construction) (Furtado, 1992) are the evidence of such indignation.[15]

His return from exile and his participation in the Sarney administration, as Minister of Culture, did not change his feelings of frustration and indignation.[16] But in 1999, when stability was restored and there were signs of some resumption of development, hope returned, although he remained a strong critic of the economic policy of the Cardoso administration. In his last book up to the time of writing this paper, *O Longo Amanhecer* (The Long Sunrise) (Furtado, 1999), he expresses his disenchantment strongly: *At no other moment in our history was the distance between what we are and what we wanted to be so great*. He restates his criticism of globalization, which, through irresponsible foreign indebtedness, led the country to the great crisis, but he observes that globalization itself and its lack of control are not to blame for our inability to resume development, but rather the way our elites have reacted to it, by deciding to *uncritically adopt an economic policy that privileges transnational companies, whose rationality can only be assessed in the setting of a system of forces that goes beyond the specific interests of the countries that are part of it*. An example of this alienation is the proposal made by ECLAC itself, in February 1999, for the dollarization of Latin American economies: a process that, according to that international organization, was already quite advanced (Furtado, 1999, pp. 18, 23 and 26).

In his short speech at a seminar held in São Paulo in his honour, "Reflections On the Brazilian Crisis" (Furtado, 2000), his criticism is not only directed against governments, but against the Brazilian elites in general. He particularly rejects the *explanations (for the nearly-stagnation) that pretend to ignore the moral responsibilities of the elites*. In face of the expressions of support for dollarization that were then current in the press (today probably forgotten in view of the Argentine crisis), he remarks that *"if we surrender to dollarization, we will revert to semi-colonial status*.

As in his last book (1999), however, in this paper we see that hope is back at last. In the book, in which there is a section whose title is "What is to be done?", he stresses the need to reverse the process of

[15] Between those two books he wrote his three remarkable autobiographical books which I already mentioned: *A Fantasia Organizada* (1985), *A Fantasia Desfeita* (1989), and *Os Ares do Mundo* (1991).

[16] In 1984 Furtado publishes a collection of essays under the title *Cultura e Desenvolvimento em Época de Crise* (Culture and Development in an Era of Crisis), whose key subject was still the crisis in the Brazilian economy, but which probably inspired President José Sarney to invite him to accept the post of Minister of Culture. I was a fellow-minister of his, between April and December 1987, when I was Minister of Finance. He was enormously concerned about the fact that the democratic government was not only unable to cope with the crisis, but actually made it worse. He felt as helpless as he was concerned, because he was in a ministry which, while it enabled him to give me strong support when I needed it, did not allow him to modify the direction of the Brazilian economy. Eventually, I served for only a short time in the administration, and I was not able to stabilize the Brazilian economy either.

concentration of income, to invest in human capital, and, above all, to cope with the problem of globalization by strengthening the national State, which is *the privileged instrument for dealing with structural problems* (Furtado, 1999, pp. 32-34). In his brief speech he restates one of his key ideas: the importance of political creativity. *Only political creativity impelled by collective will can enable us to break the impasse* (Furtado, 2000, p. 4).[17]

The great master always continued to think along those lines. I don't always agree with him, as should have become apparent at some point in this paper, but I have always admired him. Celso Furtado was one of my masters, when —still very young— I became interested in economics. I still learn from him. His contribution to the understanding of Brazil is unparalleled; his analysis of development and underdevelopment is a landmark in contemporary thought. In this text, which is not a general overview of his work, I have merely tried to define a few points regarding the author, the political economist: Furtado never made compromises with respect to his independence of thought; his method has always been rigorous and mainly historical-inductive; and he never ceased to regard and think with passion of Brazil and his Northeast.

(Original: English)

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[17] In this paper I have not been concerned with eliminating prejudices regarding Celso Furtado. In view of this last quotation, however, I feel that it should be noted that one should not infer from it that Furtado was a partisan of State control – the usual accusation the Right Wing habitually makes against someone who defends the importance of a reconstructed State, able to promote the country's economic and political development. There still are a few partisans of State control, but he was definitely not one of them. In a debate promoted by the newspaper *O Estado de São Paulo*, for instance, Furtado said: *The point is, therefore, to abandon the old idea that the State should solve all problems. We know perfectly well that when the State controls everything, few control the State* (Furtado, 1976b, p. 39).

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Mexico's market reforms in historical perspective

Juan Carlos Moreno-Brid and Jaime Ros

This paper examines Mexico's main economic policies and problems during the last two centuries. Focusing on episodes of radical shifts in development strategy concerning the role of the market and the State, it argues that Mexico's real obstacles to development have often been misperceived, and such misperception may be occurring today. This argument is tested, initially, by reviewing the causes of Mexico's economic stagnation during most of the nineteenth century. The period of economic expansion between 1940 and 1981, which ended with the collapse of the oil boom in 1981 is also examined. A critical review is made of the radical shift in development strategy implemented in the mid-1980s in response to the external debt crisis associated with the apparent exhaustion of the strategy of import substitution and State-led industrialization. Finally, some thoughts are presented on the current challenges faced by the Mexican economy when, after more than 15 years of macroeconomic reform, it seems stuck in a low-growth situation.

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I

Introduction

This paper looks at Mexico's development policies and problems from a historical perspective. It reviews long-term trends in the Mexican economy, with particular attention to some past episodes of radical shifts in development strategy and in the role of the market and the State, especially in the last twenty years. A major theme is that the real obstacles to economic development have often been misperceived in the past and that the same may be happening at present. The paper is organized as follows. After a brief introduction, section II reviews the debates on the causes behind Mexico's long period of economic stagnation during most of the nineteenth century. Section III examines the long period of expansion of the Mexican economy that began with the *Porfiriato*,[1] in the late nineteenth century, and ended with the collapse of a short-lived oil boom in 1981. Section IV focuses on the performance of the Mexican economy after the radical shift in development strategy in the mid-1980s. The paper ends with some thoughts on the challenges facing the Mexican economy today, when after almost two decades of far-reaching economic reform it is still not able to embark on a process of sustained rapid growth. Even worse, for the first time in its modern history it is about to experience three successive years of absolute decline in its real per capita GDP.

II

The market reforms in the nineteenth century

By the end of the 18th century Mexico was probably one of the most prosperous regions in the world. It was surely one of the wealthiest Spanish colonies in America, with an economy whose productivity was possibly higher than that of Spain herself. Output per capita (in 1800) was around half that of the United States, and Mexico's economy was less agricultural, with an advanced mining industry and a significant manufacturing sector. The value of the country's exports was similar to that of its northern neighbour, even though the total output produced was around half (Coatsworth, 1978). Several of the conditions for rapid capitalist development were in place. The creation of an industrial labour force —that 'most difficult and protracted process' by which the population's ties to the land are broken (Gerschenkron, 1952)— although far from complete, was probably more advanced than in many European countries (especially in Central and Eastern Europe). The relatively high share of manufacturing in total output in 1800 (22.3%, see table 1)[2] also indicates the presence of a critical mass of native industrial entrepreneurs (table 1).

1. Mexico's Century of Decline (1780-1870): obstacles to economic development

This favourable position of the Mexican economy began to deteriorate in the last few decades of the 18th century, however. Although the exact moment at which this deterioration began is a matter for debate, it is generally agreed that Independence did nothing to prevent the stagnation of the economy during the half century that followed. Thus, between 1800 and

□ This paper is an extended and revised version of an essay published by the authors nearly ten years ago, at the time that the North American Free Trade Agreement (NAFTA) was put in place (see Moreno-Brid and Ros, 1994). It was presented at the Latin American and Caribbean Economic Association (LACEA) meeting in Cholula, Mexico, on 10 October 2003. The authors wish to acknowledge the valuable research assistance of Rubén Guerrero and the comments on a previous version made by Ted Beatty, Rolando Cordera, Amitava Dutt, Julie Lennox, Ajit Singh, Carlos Tello, Samuel Valenzuela and Jeff Williamson. The opinions expressed herein do not necessarily coincide with those of the United Nations.

[1] Mexican historians give this title to the 33-year dictatorship of Porfirio Díaz (1877-1910).

[2] According to INEGI (1985), in 1790 the share of manufacturing employment was 10%.

TABLE 1

Mexico: Gross domestic product per capita and by sector, 1800-1910

	1800	1845	1860	1877	1895	1910
Per capita GDP at constant 1900 prices (index 1800 = 100)	100.0	78.4	70.9	85.0	128.8	190.2
% of GDP						
Agriculture[a]	44.4	48.1	42.1	42.2	38.2	33.7
Mining	8.2	6.2	9.7	10.4	6.3	8.4
Manufacturing	22.3	18.3	21.6	16.2	12.8	14.9
Construction	0.6	0.6	0.6	0.6	0.6	0.8
Transportation	2.5	2.5	2.5	2.5	3.3	2.7
Commerce	16.7	16.9	16.7	16.9	16.8	19.3
Government	4.2[b]	7.4	6.8	11.2	8.9	7.2
Other	1.1	–	–	–	13.1	12.9

Source: Coatsworth (1989), tables 4 and 5.

[a] Includes livestock, forestry and fishing.
[b] Excludes net fiscal remittances to the Spanish Treasury. Total government revenues, including these remittances, amounted to 7.8% of colonial income.

TABLE 2

Mexico: Total and per capita GDP and population, 1820-1998

	1820	1870	1913	1950	1973	1990	1998
Per capita GDP[a]	759	674	1 732	2 365	4 845	6 097	6 655
GDP gap (Mexico/United States)	0.60	0.28	0.33	0.25	0.25	0.26	0.24
		1820-1870	1870-1913	1913-1950	1950-1973	1973-1998	
Per capita GDP growth rates (%)		–0.2	2.2	0.9	3.2	1.3	
Total GDP growth rates (%)		0.4	3.4	2.6	6.4	3.5	
Population growth rates (%)		0.7	1.1	1.8	3.1	2.2	

Source: Maddison (2001).

[a] Dollars at 1990 international prices.

approximately 1860 —at the time when the United States and other now developed economies were recording unprecedented rates of economic growth— the total product of Mexico fell by 5% and per capita income declined by as much as 30%. Between 1820 and 1870, Mexico's per capita income fell from 60% to 28% of that of the United States, and has since then fluctuated between 24% and 33% (table 2).

Why didn't independence and the emergence of a national State provide greater stimuli to economic development? Perhaps the most important reason was the prolonged period of political instability and continuous struggle between the conservative and liberal factions.[3] Half a century of civil and international wars annihilated the potentially beneficial effects of independence, while at the same time curtailing the resources needed for the State and the private sector to support the recovery of the mining sector and improve the transport infrastructure in a country where the lack of natural communications and the resulting high transport costs had highly adverse effects on the division of labour and regional specialization (Coatsworth, 1990).

[3] In the 55 years between independence and the *Porfiriato,* the presidency changed hands 75 times (Haber, 1989). The most disastrous consequence of the prolonged civil strife was the loss to the United States of half of the national territory in the mid-19th century. Fifty years after the 1848 Treaty which ended the United States-Mexico war, and also after the beginning of the California "Gold Rush", the mineral output of the lost territories alone exceeded Mexico's total GDP (Coatsworth, 1978).

Independence eliminated the fiscal burden on the gold and silver extracted from the colony. This had been a substantial burden —estimated by Coatsworth at 7.2% of total output around 1800— much higher, for example, than the burden of British colonialism on its North American colonies. Yet the end of Spanish rule also brought some unexpected costs for the mining sector that partly offset the removal of this burde.[4] As a consequence, silver production fell to less than one-fifth of its initial level between 1812 and 1822, and the mining sector did not recover its pre-independence level of production until the 1860s (Cárdenas, 1985). The depression of silver production had, in turn, other important consequences for the economy. Besides the contraction of all the activities linked to the mining sector, it implied a reduction in the volume of international trade and a decrease in the means of payment available in the domestic economy (Cárdenas, 1985). This aggravated the consequences of the capital flight brought about by the exodus of Spanish miners and merchants, and thus the general lack of financial capital which characterized this period up to the 1860s, when the first commercial banks were founded.

The abolition of restrictions on foreign trade also turned out to be a mixed blessing. While generally regarded by economic historians as beneficial for the Mexican economy, the end of trade restrictions accelerated the diversion of Mexican foreign trade away from Spain and towards the emerging industrializing powers in the North Atlantic: a trend which had very harmful effects on domestic manufacturing and, therefore, on the main activity that could have compensated for the decline of the mining sector. Several studies have documented how exposure to United States and British competition led to the collapse of the wool textile industry at the turn of the century and to the prolonged decline of cotton textiles throughout the first half of the 19th century. Trade openness towards the Atlantic economy and foreign competition —which in fact started in the period of *'comercio libre'* and *'comercio neutral'* introduced by the Bourbon reforms— also appears to have deepened the fragmentation of local markets and the cleavage between, on the one hand, a mining and agricultural North trading with the rest of the world and, on the other, a manufacturing Centre and agricultural South plunged into economic depression (Thomson, 1986).

In addition, little progress was made in other areas. The colony had been one of the regions in the world with the sharpest social and regional disparities: a caste society, in fact, where access to employment as well as geographical and occupational mobility were restricted on the basis of ethnic distinctions, and where a number of institutional arrangements tended to increase, rather than reduce, the gap between the private and social benefits of economic activity. Although some changes did take place with independence,[5] many of these had little effect in a backward social and political order. The ultimate reason is probably the nature of the foundational act of the post-independence State: the fact that having begun and been defeated as a popular insurrection —feared by both the Spanish and Creole conservative elites— independence came eventually to Mexico through 'a virtual *coup d'état* by the colony's Creole elite, carried out largely to separate Mexico from the liberalizing process under way in the mother country' (Coatsworth, 1978).

This had several consequences. Institutional modernization was *de facto* and sometimes *de jure* slow. A new civil code was only produced in 1870 —almost 50 years after independence— and even then nothing replaced a repudiated commercial code. The colonial mining code remained almost intact until 1877. Modern banking and patent laws were non-existent. In spite of the provisions of the Constitution, taxes and restrictions on domestic trade remained.

The system of government preserved the arbitrary nature of political power in colonial times. Economic success or failure depended directly on the relationship between the enterprise and the political authorities (Coatsworth, 1978, p. 94). In sum, while economic activity remained 'State-centered', in the sense that 'every enterprise was forced to operate in a highly politicized manner', the State, compared to colonial

[4] Not only were the direct effects of the independence wars on mining production highly disruptive, but they also involved the loss of low-cost guaranteed supplies of mercury (essential for processing low-grade ores) that Spain had provided from its big State-owned mine at Almadena.

[5] Ethnic distinctions in access to employment, justice and fiscal treatment —which, among other things, had severely restricted capital and labour mobility— were formally abolished; many corporate privileges, including most of the guilds, were eliminated, while corporate property rights were limited to the Church and the Indian communities and town councils. The number of royal monopolies on the production and distribution of many commodities was reduced and their activities regulated; efforts were also made to modernize the judiciary and revise archaic judicial codes.

times, had in fact been weakened and was unable to remove the obstacles to economic development resulting from the decline of mining activity, foreign competition, and the lack of transport infrastructure and financial capital. Economic and industrial stagnation therefore followed, as a consequence of the persistent lack of markets and their fragmentation.

2. Liberal misperceptions in the mid-nineteenth century?

This list of obstacles to economic development in 19th century Mexico is equally significant for what it excludes. Thus, recent revisionism by economic historians suggest that two of the traditional culprits —the land tenure system and the economic power of the Church— were not in fact among the major causes of economic stagnation during this period.

The system of land tenure and agricultural production had been organized since the 17th century into large estates called ‘haciendas’. While highly inequitable and, to this extent, socially and macroeconomically inefficient, the hacienda system was far from a semi-feudal organization that encouraged waste and misallocation of resources. Recent research has produced a new image of the hacienda as a capitalistic and technologically dynamic undertaking with an economic rationality comparable to that of a modern agricultural enterprise, and one which extensively exploited its comparative advantages —economies of scale, and access to external credit and information on new technologies and distant markets.[6] A ‘division of labour’ had, in fact, been established through time between the hacienda and other forms of agricultural production —small landowners, tenant farmers or Indian villagers— whereby each of them had specialized in those products and crops where they enjoyed a competitive advantage: cattle, sheep, wool, food grains, *pulque*, sugar and sisal in the haciendas, and fruits, tomatoes, chiles, silk and small animals such as pigs and poultry in the villages and small-scale producers.

A similar revisionism of traditional judgments applies to the Church as an economic institution. By the middle of the 19th century, the Church had become the country’s largest single landowner and an important lender in the emerging financial markets. With respect to its first role, according to Coatsworth (1978 and 1990) several studies suggest that Church haciendas were at least as well managed as private haciendas; and, in any case, after independence most of these estates were rented to private farmers and hacienda owners, so that their efficiency did not depend on Church administration. On the other hand, the Church appropriated the tithe *(‘diezmo’)*, a 10% tax on gross output, levied mainly on agricultural and livestock production. Like any other tax, the tithe reduced the profitability of agricultural production and probably discouraged it (although some authors have doubts about this).[7] More important, however, is the use to which these revenues were put. Far from financing wholly ‘unproductive’ expenditures, the Church invested a considerable portion of its revenues (including also private donations and net income from its various properties) in loans to private entrepreneurs with no legal or practical restrictions to prevent recipients from investing in factories rather than haciendas or other activities. In doing this, it lent at below-market interest rates —usually at a rate of 6% on loans secured with real property. Because it dominated the mortgage-lending market, this probably had the effect, in turn, of bringing market interest rates down. As Coatsworth (1978) has put it, the Church acted like a modern development bank, raising the rate of capital accumulation above what it would have been in the absence of the tithe.

If this revisionist approach by economic historians is correct, then some of the main elements of the liberal economic programme —free trade, the privatization of corporate and public property, and the liberalization of the land market— were largely misdirected from a strictly (and admittedly narrow) economic development perspective. The first (free trade) probably gave a further stimulus to the decline of local manufacturing —and to the ‘ruralization’ of the labour force— as the expansion of railways in the late 19th century sharply reduced the natural protection provided by traditionally high transport costs. The second, the privatization of corporate property, had the effect of destroying the major, and for a long time practically the only, banking institution in the economy; while the third, the

[6] See, among others, Van Young (1981 and 1986).

[7] See, in particular, García Alba (1974) and Coatsworth (1978). The reason is that the effect of the tithe in pushing labour and capital out of private agriculture was probably very small because the Church itself, and the Indian villages, produced a major portion of the country’s farm products and livestock. In any case, the net effect on GDP was probably positive, since differences in productivity between private agriculture and the rest of the economy suggest that non-agricultural activities were already more productive than agriculture.

liberalization of the land market, was to contribute to further land concentration and, eventually, to the social explosion of 1910.

This does not mean, of course, that the conservative faction was any better. Although some of its members, Lucas Alamán in particular, had the merit of pioneering the first, and short-lived, industrialization efforts in the 1830s —through industrial protection and the creation of the first public development bank (*Banco de Avío*) to finance the development of the textile industry—[8] the social and political forces that supported them tended to perpetuate the same arbitrary centralism of political power that had had such harmful effects on economic development since colonial times.

As a result, the coalition that could have forged a developmental State did not emerge, and in its absence, some of the main obstacles to economic development remained in place. The liberals who could and were willing to carry out the country's political and social modernization were also furiously anti-Statist in economic terms; while the only ones who favoured economic modernization through an interventionist State were the conservatives, who were strongly opposed to political and social modernization. It would take a social explosion and a popular revolution in the early 20th century to bring these two requirements for economic development into a less conflictive relationship.

III

The traumatic emergence of a Gershenkronian developmental State

1. The *Porfiriato*: political stability and the emergence of a unified national market

In practice, modern economic growth began in the late 19th century.[9] In 1895, 72% of the population lived in rural areas and more than 80% of those aged ten and above could not read or write (table 3). In 1877, when Porfirio Díaz seized power, 42% of Mexico's GDP was generated by rural activities and only 16% by manufacturing (table 1). In the following two decades, a turnaround in Mexico's long-term decline gradually became evident. The barriers to economic recovery were brought down by the transformation of the international economic environment and the internal changes in Mexico's political and economic structure that took place under the dictatorship of Porfirio Díaz (1877-1910), a 33-year period of political stability aptly named the *Porfiriato* by Mexican historians.

Melding a liberal political background with conservative economic goals, the *Porfiriato's* ideology is summarized in the positivist slogan of "Order and Progress". Order was considered a *sine qua non* for economic growth. The end of the military and political struggles that had plagued Mexico since its independence was seen as an essential pre-condition for business confidence and the recovery of private investment. Strengthening of the central government was efficiently pursued, and by combining the use of force and alliances with relevant groups, Díaz was able to take full hold of the political structure.

Progress, for its part, meant transforming Mexico into an industrialized nation by effectively addressing some of the traditional barriers to economic recovery, such as the lack of transport infrastructure and financial capital.[10] To foster the expansion of the railway network, the State awarded concessions and financial incentives. The subsidies granted for railway construction amounted to 50% of the total cost. The expansion of the railway system enormously amplified the size of the market, brought down local and regional trade barriers, and intensified competition.[11] This effect

[8] Another figure worth mentioning is Estevan de Antuñano, a creole industrialist, whose many pamphlets best articulated the case for protectionism and industrialization.

[9] For statistics of economic growth during the *Porfiriato*, see Beatty (2001), Rosenzweig (1965), and Solís (2000).

[10] The importance of these obstacles to economic development was well recognized at the time. In the words of Matías Romero: "This nation…has in its soil immense treasures of agricultural and mineral wealth, which cannot currently be exploited due to the lack of capital and communications.." (cited by Rosenzweig, 1965).

[11] The railway system expanded from 900 km to 19,000 km in the 1880s. According to Coatsworth's estimates, this brought an 80% reduction in freight costs per kilometer between 1878 and 1910.

modernization was felt in many areas, reversing a century of decline, and from 1877 to 1910 Mexico's per capita GDP increased at an annual average rate of 2.1%.[14] The railroad boom benefited some traditional activities —such as mining—[15] and at the same time helped in the creation of new activities whose production scales and capital intensity had made them unprofitable in the absence of a unified national market. Indeed, underlying this modernization was Mexico's first wave of large-scale industrialization. Through import substitution in textiles, beer, paper-making, cement and steel, manufacturing output increased at an average rate of 3.6% per annum from 1877 to 1910 (Coatsworth, 1989). Manufacturing changed from being an artisanal activity, carried out in small handicraft workshops, to a productive process undertaken in large-scale plants. The rural areas were also deeply transformed in their social and economic structure. Based on a diagnosis of the rural sector as unproductive, with most agricultural output distributed through non-market channels, the Díaz administration promoted an accelerated process of redistribution of federal and communal land to private development companies and wealthy individuals. Such privatization would promote large-scale commercial cultivation. By 1890, 20% of Mexico's total area was held by less than 50 individuals or companies. By the early 1900s, 95% of all arable land was in the hands of 835 families (Manzanilla Schaffer, 1963).

By the early 1900s, however, this pattern of development started to show symptoms of exhaustion. From 1903 on, real wages began to decrease in a systematic and persistent way. Droughts in 1907 reduced the output of food products, and furthermore increased their prices. By 1910, the cumulative decline in real wages was 26% relative to 1903. Although there were no clear signs of famine, poverty was widespread, especially in rural areas.[16] At the same time, the use of force to repress labour and suppress political opposition became more frequent and eventually unsuccessful. By 1910, the system's unequal distribution of benefits and access to power reached its limit. The emerging middle classes excluded from political decisions, and the workers and peasants marginalized from the benefits of economic growth, were successful in developing a triumphant coalition under the banners of political democracy, agrarian reform and labour rights.

What had gone wrong? Clearly, the *Porfiriato's* 'primary contradiction' was in its results: the growing imbalance between rapid economic growth, on the one hand, and the slow pace of political and social progress on the other. Porfirio Díaz had set out to make Mexico into a modern industrial nation, but by 1910 only 28% of Mexicans could read and write, and life expectancy at birth was not much more than 30 years (table 3). With two-thirds of its population still living in rural areas, Mexico had still a fundamentally backward economy and, overall, a backward society. Moreover, while the emergence of a national market had broken through some of the barriers of stagnation, the limited role of the State proved insufficient to overcome the still enormous obstacles to economic development.[17]

2. Revolution and the consolidation of a developmental State

In 1910 the "Pax Porfiriana" came to a dramatic close with the Mexican Revolution. Once more, the absence of social consensus became the fundamental obstacle for Mexico's development. The construction of a stable social pact would be fully achieved only three decades later.

The most violent stages of the Mexican Revolution ended with the adoption of a new Constitution in 1917. Political unrest continued for the next ten years —marked by the killing of important figures such as Zapata, Carranza and Obregón, and numerous uprisings— but the scale of the armed struggle diminished significantly. The 1917 Constitution redefined the legal framework for land ownership and labour relations. It placed the nation over and above private property in matters regarding land, water and subsoil resources; established the right to form trade unions, a system of minimum wages, eight-hour workdays within a six-day workweek, and equal pay for equal work; and included agrarian reform through the expropriation of large land holdings and the

[14] See Bortz and Haber (2002).
[15] Mining would most likely have remained abandoned without the railway expansion, as neither the necessary capital inputs for its development nor the commercialization of mineral products would have been profitable.
[16] As noted by Haber (1989), the extent of poverty was such that the increase in the price of maize due to a bad harvest was capable of reducing workers' consumption of manufactures by enough to provoke a crisis in the cotton garment industry.

[17] Public investment never amounted to more than 5% of total investment, and only 7% of public expenditure was directed at capital formation purposes.

allocation of this land to '*ejidos*', a land tenure system combining collective ownership with private exploitation of the land.

A fundamental move towards the consolidation of social peace and political stability was the creation of the Partido Nacional Revolucionario (PNR) in 1929.[18] Renamed Partido de la Revolución Mexicana (PRM) in 1938 and Partido Revolucionario Institucional (PRI) in 1946, this official party encompassed all the important social forces of the Mexican Revolution and soon became a functional vehicle for political control and the only legitimate arena in which to settle political differences. By the 1940s, the age of Caudillos was over, and Mexico's particular form of institutionalized authoritarian control had begun.

The process of consolidation of political power after the Revolution was accompanied by an expansion in the policy instruments available to the government.[19] Under the presidency of Cárdenas (1936-1940), the public sector expanded further, with the creation of several development or financial entities. Most important, the oil industry was nationalized and agrarian reform began to be implemented on a massive scale. Fiscal policy became counter-cyclical and budget deficits were run to boost productive and social investment. Public expenditure was reoriented away from military and administrative spending. The highway system increased sevenfold, reaching 9,900 km by 1940. In addition, temporary flotation of the exchange rate led to a depreciation of the peso in real terms.

With the turnaround in the conduct of government policies and the extraordinary recovery in the terms of trade in silver and oil (the country's main exports), Mexico resumed growth in 1933-34. The first new round of investment since the *Porfiriato* began in manufacturing and was concentrated in new textile activities. Manufacturing became the most dynamic sector of the economy.

3. The post-war Golden Age of industrialization (1940-1980)

In the process of achieving hegemony, the Mexican State arrived at a strong conviction that it should play an active role in investment and production if Mexico was to develop. By the late 1940s, it controlled fundamental resources and had increased the number of its policy instruments significantly. Public investment expanded systematically (table 4) and was oriented towards urban and industrial development. Additional incentives such as tax concessions were used to promote manufacturing activities. Investments in education and welfare maintained their share in federal expenditure. The industrialization drive also came hand in hand with a deepening of trade protection, and by 1947 protectionism had been officially adopted as a government intermediate objective.

A complete overhaul of the economy and society took place between 1940 and 1980. Mexico's economy grew at a sustained pace of 6.4% per annum in real terms, while per capita GDP grew by 3.2% per annum. Manufacturing became the engine of growth, with rates of growth of production of 7.4% per annum from 1940 to 1955, and it further accelerated its pace of development from 1957 to 1970, expanding at annual rates of 8.9%, with the dynamic domestic market as its major source of demand. The country was transformed from an agrarian one into an urban, semi-industrial society. Between 1940 and 1980, the share of manufacturing in the product rose from 15.4% to 24.9% (table 5) and the share of the population living in urban areas soared from 35% to 66%, while total population increased from 20 to 70 million people (table 3). Literacy rates nearly doubled, reaching 83%

TABLE 4

Mexico: Investment rates, 1900-1980

Year	Total investment (% of GDP)	Public investment (% of GDP)
1900	10.1	0.5[a]
1910	10.1	0.4
1921	10.1	…
1930	9.4	2.2
1940	9.3	3.5
1960	17.2	5.2
1980	24.8	11.4

Source: ECLAC and INEGI.

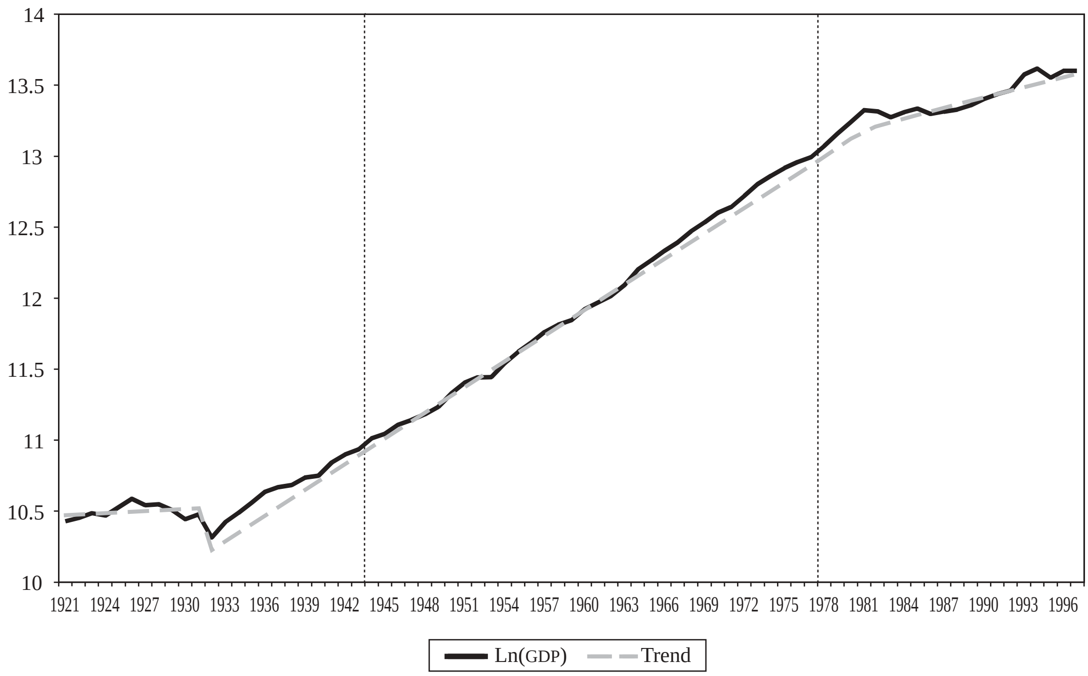
[a] 1895.

[18] For detailed accounts of the creation of the PNR and its role in long-term political stability, see Newell and Rubio (1984).

[19] The Bank of Mexico was established in 1925, and started to operate as a central bank in the early 1930s as a response to the Depression. By then, the National Agricultural Credit Bank had been established, and the creation of other banks followed. In 1933, the Budget Ministry created the National Finance Entity, which was soon to become the Nacional Financiera: the first fully-fledged development bank and the financial pivot for industrial and other long-term investment.

FIGURE 1

Mexico: Gross domestic product, 1921-1997



Source: Solís (2000).

in 1980. The average number of years of schooling of the adult population jumped from 2.6 to 7.1, and life expectancy at birth increased 24 years to 65 (table 3). Despite these improvements, however, the benefits of growth were far from being evenly distributed. By the end of the period, 20% of the population received more than 50% of total disposable income, while 58% of Mexicans were still living in a state of poverty.[20] Thus, at the end of Mexico's Golden Age, poverty and inequality were still major problems to be solved.

The macroeconomic performance from 1940 to 1970 was undoubtedly impressive, and the strategy on which it was based tackled important obstacles on the road to Mexico's development. However, it ignored or underestimated the magnitude of other obstacles.

The first of these obstacles arose from the neglect of agriculture, which, after 1965, faced serious difficulties in expanding production. Its rate of growth in the second half of the 1960s fell below the pace of population expansion. Among the factors explaining this decline were the dual character of the sector, the adverse trend in the prices of agricultural goods relative to manufacturing goods, and the continuous decline of its share in public investment after the 1950s. All these elements contributed to an increase in poverty, a contraction of the potential domestic market, and a loss of social cohesion which led to emergent social instability.

Secondly, while trade protection proved a valuable instrument for promoting growth and import substitution in many sectors, there was no explicit policy, either from the private or the public sector, to strengthen over time the economy's export potential. Neither was it clear whether the policy as it stood could complete the most difficult phase of import substitution involving high-technology capital goods.

Finally, tax reforms systematically aborted, and public finances became increasingly dependent on external debt.[21] So too did the balance of payments,

[20] Less conservative estimates put this figure as high as 63% (see Hernández Laos, 1989).

[21] By 1972, the debt/GDP ratio and the debt-service/exports ratio had both reached 18% (compared to 1% in 1946). While these magnitudes did not yet imply a serious macroeconomic imbalance, they reflect the dynamic evolution of foreign indebtedness during the period.

TABLE 5

Mexico: Structure of GDP, 1895 – 2002
(Percentages)

	1885	1910	1926	1932	1940	1955	1970	1970	1980	1980	1990	2000-2002
	(based on 1960 prices)							(based on 1980 prices)		(based on 1993 prices)		
Agriculture[a]	29.1	24.0	19.7	24.1	19.4	18.3	11.6	12.2	9.0	7.1	6.7	7.6
Mining	3.0	4.9	9.3	7.2	6.4	4.8	4.8	2.5	3.3	1.4	1.5	2.1
Industry	9.0	12.3	14.7	13.3	18.7	22.1	29.7	30.1	31.9	25.0	24.1	27.0
(Manufacturing)	(7.9)	(10.7)	(11.6)	(10.2)	(15.4)	(17.5)	(23.3)	(23.7)	(24.9)	(19.2)	(19.6)	(21)
Services	58.9	58.7	56.3	55.4	55.5	54.7	53.9	55.2	55.8	66.5	67.6	63.3
Total	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*

Source: Banco de México and INEGI.

[a] Includes livestock, forestry and fishing.

which became more and more vulnerable to short-term capital flows, with their potentially destabilizing influence. As long as the Golden Age of world economic growth continued, misperceptions regarding the potential importance of these issues could remain. Unfortunately, this Golden Age was coming to an end.

4. “Shared development”, the oil boom and the debt crisis

Insofar as the administrations of the 1970s did not solve these obstacles, they could, and did, become painfully costly. The new Echeverría administration which took office in late 1970 had as a central point of its political platform the claim that the ‘stabilizing development’ strategy of the 1956-1970 period had failed to address the fundamental problem of inequality. A new strategy of ‘shared development’ was therefore proposed in which the benefits from economic growth would be more evenly distributed. In practice, however, the policies adopted failed to fulfill this objective.

Temporarily, the strategy did have the intended impact on the functional distribution of income. Gil Díaz (1987) shows that the share of labour in the net national product went up from 40% in 1970 to 43% in 1972-1974 and reached 49% in 1976. In addition, GDP achieved an average rate of growth of 6.1% per annum. Unfortunately, these achievements were accompanied by the emergence of severe macroeconomic imbalances.

This was due to a number of reasons. On the external front, the collapse of the world’s Golden Age took its toll on the Mexican economy. The first oil price shock found Mexico as a net importer of oil and, together with the decline in external demand, tightened the balance of payments constraints on growth. Moreover, the increase in domestic inflation rates to the 20% range, the expansion of public investment, and a fixed exchange rate tripled the trade deficit between 1970 and 1975. The model of industrialization also began to show some signs of exhaustion. Investment was carried out to modernize plants in old sectors already exposed to foreign competition, but failed both to increase exports significantly and to deepen import substitution in the capital goods sector. Insofar as tax reform was not addressed, public revenues lagged behind. The fiscal deficit climbed from 2.5% of GDP to 9.9% between 1971 and 1976, and was increasingly covered through monetary expansion and external debt (which increased at an average annual rate of 40% from 1973 to 1976).[22] In addition, private enterprise did not find fertile ground in the ‘shared development’ rhetoric, and soon the economy’s expansion was being driven exclusively by public spending. Eventually, the situation worsened significantly as a result of capital flight. Notwithstanding the increase in import controls and tariffs, balance of payments pressures forced the government to depreciate by nearly 100% in 1976, thus abandoning the exchange rate parity that had remained fixed for more than 20 years.

[22] The belief that development, especially social development, could be accelerated while sacrificing fiscal discipline was rightly criticized by orthodox economists at the time. See Solís (1977) for a forceful statement of this view.

Despite the severity of the 1976 crisis, in a year or so the economy's prospects were completely turned around with the announcement of Mexico's vast oil resources. Their exploitation and sale in the international market brought a swift and strong recovery. The trade deficit was brought under control again, averaging 1.5% as a share of GDP. The term profile of foreign debt was restructured and, for a while, new indebtedness did not grow noticeably. An ambitious industrialization plan was launched on the assumption of a sustained long-term increase in the price of oil. Manufacturing investment soared, boosted by public and private entrepreneurship, and GDP growth reached rates of 8% to 9% per annum between 1978 and 1981. A major tax reform was also carried out in this period, and these changes reduced some of the inequities of the Mexican tax system.[23]

However, with the benefit of hindsight, there were already some worrying signs by the late 1970s. The inflation rate had reached a plateau of around 18% and did not show any signs of going down. Interest payments were increasing as nominal rates in the international credit markets floated upwards in an unprecedented way. Few investments were directed to the export sector, although two exceptions are worth noting: the motor-vehicle industry —where a new generation of plants was being built with state-of-the-art technology, explicitly designed to compete in world markets— and the petrochemicals sector, where the public sector was investing heavily.

IV

The shift in the balance between the market and the State since the mid-1980s

During the 1980s, the Mexican economy was subject to two major external shocks: the 1982 debt crisis which increased debt service and curtailed new external finance, and the 1986 oil price shock which dramatically cut off a major part of the country's main source of foreign exchange and fiscal revenues. These external shocks brought to an end the long period of rapid economic expansion.

By the early 1990s the foreign exchange and fiscal gaps that were opened by the debt crisis and the oil shock had been closed after a succession of orthodox and heterodox attempts at stabilization. In the meantime, a 'great transformation' had been taking place, if we may appropriate the expression that Polanyi used to refer to events of a different scale. Balance of payments liberalization and the North American Free Trade Agreement (NAFTA) have closely integrated the economy with that of the United States, both in terms of trade and capital flows. Foreign participation in the economy has increased through direct investments in new plants, as well as mergers and acquisitions, following the elimination of restrictions on foreign ownership. State banks and public enterprises have, with few exceptions, been transferred into private hands. Privatization revenues, together with debt relief (under the 1989 Brady Plan) and fiscal adjustment, allowed the government to reduce its debt, as a proportion of GDP, to rather low levels by international standards. A market-oriented rural economy emerged following far-reaching changes in the land tenure system, price policies, and the privatization or elimination of State enterprises and their substitution by a combination of subsidies and public programmes. In sum, a massive reform process was carried out with a view to giving a larger economic role to the private sector and greater scope to market forces, and to accelerating integration into the international economy.[24]

[23] An adjustment for inflation was introduced in personal income taxation, and a value-added tax and a new corporate income tax were established. The tax base broadened as loopholes were closed, and the whole administrative and control process was simplified. The contribution of the one to five minimum wage bracket to labour income tax collection went down from 58% in 1978 to 28% in 1981, while the contribution of the highest wage bracket —more than 15 minimum wages— went up from 8% to 25% of the total. For a detailed description, see Gil Díaz (1987).

[24] For a detailed review of the reform process, see Lustig (2002). For an excellent in-depth analysis of the changing pattern and eventual decline of the Mexican Presidents' authoritarian role in the design and implementation of economic policy, see Cordera and Lomelí (2000).

1. Privatization and economic efficiency

The case for greater selectivity in State participation in the economy and, indeed, for disengagement by the State from a number of productive activities, has been based on macroeconomic grounds: a government with limited access to credit markets, pressing social needs to be met, and a private sector with ample financial resources abroad ready to be invested in previously State-dominated activities which do not have a high social priority. The case is certainly extremely powerful. But this is so for macroeconomic reasons related to the special conditions of the 1980s and has less significance for the long-term growth potential of the economy, beyond the promise (which so far largely remains just that) of a considerable expansion in human capital investments made possible by the huge privatization revenues.

There is also, of course, the more traditional microeconomic case for privatization based on the notion that greater participation by the private sector will bring about improvements in the overall efficiency of investment. If the latter is a positive function of the share of private investment in overall investment, then part, if not all, of the fall in the overall rate of accumulation could be compensated by a shift in the composition of investment. As shown in table 6, there was indeed a dramatic shift in the composition of investment during the 1980s: the share of the private sector in total fixed investment rose from 56% in 1980-1981 to 76% ten years later and then to 84% by the late 1990s.

The first point to be made in addressing this issue is to recognize that the efficiency of overall investment does not depend only on its private/public sector composition, but also on the rate of investment itself, which affects investment efficiency through its consequences on the age distribution and the structure of the capital stock (residential/non-residential, net investment/depreciation). Now, as clearly shown also in table 6, the shift in the private/public composition of investment was a result of the absolute decline in

TABLE 6

Mexico: Structure of gross fixed capital
(Billions of 1993 pesos and percentages)

	Investment									
	Total			Public			Private			
	GDP	Billions	% of GDP	Billions	% of total investment	% of GDP	Billions	% of total investment	% of GDP
1980	948.6	206.3	21.8	88.8	43.0	9.4	117.5	57.0	12.4
1981	1 029.5	239.8	23.3	108.8	45.4	10.6	131.1	54.6	12.7
1982	1 024.1	199.6	19.5	88.3	44.2	8.6	111.3	55.8	10.9
1983	988.4	143.1	14.5	56.5	39.5	5.7	86.6	60.5	8.8
1984	1 022.1	152.3	14.9	58.8	38.6	5.8	93.5	61.4	9.1
1985	1 044.5	164.3	15.7	59.3	36.1	5.7	105.0	63.9	10.0
1986	1 012.3	144.9	14.3	50.9	35.1	5.0	94.0	64.9	9.3
1987	1 029.8	144.7	14.1	44.6	30.8	4.3	100.1	69.2	9.7
1988	1 043.0	162.5	15.6	40.6	25.0	3.9	121.9	75.0	11.7
1989	1 085.8	171.9	15.8	43.5	25.3	4.0	128.4	74.7	11.8
1990	1 142.0	194.5	17.0	48.4	24.9	4.2	146.1	75.1	12.8
1991	1 190.1	215.8	18.1	48.7	22.6	4.1	167.2	77.4	14.0
1992	1 232.3	239.2	19.4	47.1	19.7	3.8	192.2	80.3	15.6
1993	1 256.2	233.2	18.6	47.3	20.3	3.8	185.9	79.7	14.8
1994	1 312.2	252.7	19.3	64.9	25.7	4.9	187.9	74.3	14.3
1995	1 230.6	179.4	14.6	44.6	24.8	3.6	134.9	75.2	11.0
1996	1 293.9	208.9	16.1	38.0	18.2	2.9	170.9	81.8	13.2
1997	1 381.5	252.8	18.3	41.8	16.5	3.0	211.0	83.5	15.3
1998	1 449.3	278.8	19.2	38.7	13.9	2.7	240.1	86.1	16.6
1999	1 503.5	300.3	20.0	42.9	14.3	2.9	257.4	85.7	17.1
2000	1 602.3	334.4	20.9	54.5	16.3	3.4	279.9	83.7	17.5
2001	1 597.2	314.9	19.7	47.5	15.1	3.0	267.5	84.9	16.7
2002[a]	1 611.7	310.9	19.3	50.9	16.4	3.2	260.0	83.6	16.1

Source: ECLAC and INEGI.

[a] Preliminary figures.

the rate of public investment, rather than of an absolute increase in private investment: as a fraction of GDP, in the early 1990s the latter was still at approximately the same levels as ten years earlier, and it was only 3 to 4 percentage points higher in 2001-2002. Thus, if the share of private investment in overall investment increased, this was largely due to the collapse of public investment rates. Unless the productivity of public investment was actually negative —and nobody to our knowledge has argued this— the efficiency losses resulting from the absolute fall in the overall rate of investment are bound to outweigh any efficiency gains brought about by the shift in its composition. The rise in the capital/output ratio since 1982 is fully consistent with this conclusion.

In addition, the relationship between the efficiency and the composition of overall investment is undoubtedly more complex than generally assumed. It is likely to have the shape of a Laffer curve, with low efficiency levels being consistent with both too high and too low shares of public investment. This is so because public investment itself, as much recent empirical research suggests,[25] positively affects the productivity of private investment, and thus at low levels of public investment further reductions can bring about losses rather than gains in overall efficiency. Given the sharp contraction of public investment during the 1980s, and the fact that the microeconomic efficiency gains and performance improvements of the newly privatized enterprises are yet to be seen in most cases, the question arises as to whether the economy moved to the wrong side of the Laffer-type curve. In such circumstances, an increase in public investment in areas with high social returns and high positive externalities for the productivity of private investment is the best way of addressing the problem of investment efficiency.

2. Trade liberalization, productivity and growth

The results of the trade policy reform are also controversial. Let us look first at the static efficiency gains expected by classical trade theory.[26] One of the striking features of the Mexican transition towards a liberalized trade regime is the smoothness of the microeconomic processes of resource reallocation. The absence of massive reallocation processes is revealed by the fact that current trends in the trade pattern and industrial structure are largely an extrapolation of the past. Beyond a few exceptions —such as the rapid expansion of labour-intensive maquiladora exports in the 1990s— the reallocation processes have witnessed an extrapolation of past trends in the trade and industrial patterns marked by the increasing importance of heavy intermediate goods, consumer durables and capital goods. The counterpart of this smoothness and of the lack of reversal in the direction of structural change in manufacturing is, however, that the classic efficiency gains expected from trade liberalization cannot be very large. For those expecting a large, painful but greatly beneficial reallocation of resources in favour of traditional exportable goods, which are labour- and natural resource-intensive, the experience with trade liberalization to date must have been, in reality, very disappointing.

In our view, two major factors explain these developments. First, and perhaps paradoxically, the adjustment to the debt crisis and declining terms of trade in the 1980s, and then later the adjustment to the 1994-1995 financial crisis, forced macroeconomic policy to provide unprecedented levels of 'exchange rate protection' which facilitated the adjustment of industrial firms to a more open economy. The second is simply Mexico's successful import-substitution experience in the past and the advanced stage that intra-industry (and intra-firm) processes of specialization and trade had already reached by 1980, including those in the capital-intensive, large-scale manufacturing industries which have been partly responsible for the export boom of the last two decades. The industrial policy reforms of the late 1970s, especially in the automobile industry, gave a further impulse to those processes. The incentives provided later by a very competitive exchange rate and by the mid-1980s trade reforms thus fell on already fertile ground. The outstanding export performance of Mexico's manufacturing is therefore, to a large degree, a legacy of the import substitution period and highlights in a very real sense its success: it did indeed lead to an irreversible change in the economy's structure of comparative advantages.

What were the dynamic effects of trade liberalization on productivity and growth performance?[27] In the

[25] In the literature on public capital, see the studies by Aschauer (1989a, 1989b, 2000), Deno (1988), Munell (1990), and Easterly and Rebelo (1993), among others.

[26] For a detailed discussion of resource reallocation processes see Ros (1992) and, in particular, Moreno-Brid (1988) for an analysis of a most important aspect of these processes: i.e., the restructuring of the automobile industry and its role in the 1980s manufacturing export boom.

[27] For a more detailed analysis, see Ros (1992 and 1993).

economy as a whole, labour productivity has stagnated since the early 1980s (compared to a trend growth rate of the order of 4% per annum between 1950 and 1973 (table 7), and this applies to the periods both before and after the 1985 trade reform. At the same time, growth in manufacturing productivity shows a recovery in the post-trade liberalization period since 1985 compared to the first half of the decade. Although it is difficult to disentangle it from other effects, including those of privatizations, industrial policy and a declining real exchange rate from 1988 to 1994, the contribution of trade liberalization to productivity growth appears to have been positive in a number of manufacturing industries where it has facilitated a greater degree of intra-industry (and intra-firm) specialization or has shaken out less efficient producers. However, the benefits of the greater penetration of imports, in terms of productivity performance, become much more doubtful in other cases, which also show a rapid displacement of local producers resulting from increased exposure to foreign competition. Here, the result of import penetration has been a worsening of both output and productivity performance, whether compared to historical trends or to the period immediately preceding trade liberalization.

Thus, while liberalization in the fields of trade (and foreign investment) have resulted in fast export and labour productivity growth in a limited number of sectors, overall economic growth has remained problematic. GDP growth finally resumed at relatively fast rates from 1996 to 2000, but it did so in an exceptionally favourable international environment, and the recovery turned out to be short-lived. The renewed appreciation of the peso eventually slowed down the export boom, and the recession of the United States economy starting in 2001 put an end to the short period of export-led growth. Since 2001 the economy has stagnated and income per capita is very likely to fall in 2003 for the third consecutive year. Rapid and sustained economic growth is yet to be seen.

This experience raises serious doubts about the ability of the current industrial structure to generate self-sustaining growth. The counterpart of the processes of intra-firm and intra-industry trade specialization is that many, if not most, exporting sectors and firms, while dynamic, lack domestic linkages and a number of other industries have witnessed a ‘disintegration of linkages’.[28] Moreover, the increasing dominance of the maquiladora industry in export activities is a motive for concern. The maquiladora industry is characterized by a low potential for productivity growth: the counterpart of its high capacity of employment absorption. As the real exchange rate has appreciated again in the recent past and dollar wages have increased, profit margins have declined in the face of low and stagnant labour productivity. This, together with the United States recession, has put a brake on the expansion of production capacity and output in the maquiladora sector and has led to a sharp decline in employment starting in the third quarter of 2000. In the absence of productivity growth, the maquiladoras constitute a sector that can only expand on the basis of low wages. Given the tendency of wages to increase in other sectors along with productivity gains, the maintenance of the ‘internal competitiveness’ of the maquiladoras, i.e., their capacity to attract resources from the rest of the economy, would require a continuously undervalued currency.[29]

TABLE 7

Mexico: Employment, working hours and labour productivity

	1950	1973	1990	1998
GDP per person employed[a]	7 685	18 399	20 747	20 810
Labour productivity[b]	3.6	8.9	10.1	10.0
Employment, as a percentage of the population	30.8	26.3	29.4	32.0
	1950-1973	1973-1998	1973-1990	1990-1998
Growth of GDP per hour worked[c]	4.1	0.5	0.7	–0.04

Source: Maddison (2001).

[a] In 1990 international dollars.
[b] GDP per hour worked (1990 international dollars per hour).
[c] Annual average compound growth rate.

3. Financial liberalization, the capital surge and the financial crisis

If the efficiency and productivity effects of the market reforms have been unable to make up for the loss of

[28] Dussel (2000) illustrates this with a case study of the pharmaceutical industry, where the share of locally produced raw materials fell from around 80% in the late 1980s to around 20% in 1998.
[29] For an analysis of the performance of the maquiladora industry in the 1990s, see Frenkel and Ros (2003).

growth potential during the 1980s, what about their effects on external capital inflows and the prospects for increasing the rate of accumulation by these means? Would the shift in the market/State balance bring about a permanently higher flow of external savings —significantly greater than historical rates— that would allow an increase in the rate of accumulation, despite the sharp decline of the domestic savings rate? Such was the optimistic outlook of many observers in the early 1990s, for whom Mexico —a model reformer and successful emerging market— would turn into a Latin American economic miracle. These optimistic expectations reached their peak when NAFTA was approved in 1993.

The market reforms and positive external shocks, such as the fall in foreign interest rates in the early 1990s, together with the beginning of the NAFTA negotiations, contributed in three main ways to a capital surge from 1990 to 1993 (Ros, 1994). The first was the liberalization of domestic financial markets. The second was a drastic reduction in the country risk premium —an improved image of Mexico as a 'good place to invest'— as a result of the debt relief agreement, the fall in international interest rates and the repayment of foreign debt, financed by the large privatization revenues of 1991-1992. The third, which interacted with the reduction of country risk, was the real appreciation of the peso and the very high interest rates that prevailed in the initial stages of the anti-inflation programme of late 1987.

The size and composition of capital inflows, which were heavily biased towards short-term portfolio investments, had three consequences for the economy. First, the continuous appreciation of the real exchange rate, which was taking place in the midst of a radical trade liberalization process, produced a profit squeeze in the tradeable sectors of the economy, with negative consequences for investment (Ros, 2001). Second, as a result of the difficulties in intermediating the massive capital inflows, an allocation of resources biased towards consumption rather than investment (Trigueros, 1998) reinforced the decline in the private savings rate, while the bias towards the production of non tradeable goods, together with the real appreciation, resulted in slow economic expansion. Third, increasing financial fragility, due to the concentration of the inflows in highly liquid assets, accompanied a progressive deterioration of the banking system balance sheets (Trigueros, 1998).

These trends should have given rise to legitimate concern in the field of economic policy. They did not do so, however. By 1993, the current account deficit reached levels of the order of 6-7% of GDP, and by early 1994 the capital surge was over. Throughout 1994 the authorities financed the massive current account deficit through the depletion of international reserves. Clearly there was an incorrect diagnosis by the government of the causes of the macroeconomic disequilibria, as it was considered that the pressure on the reserves and the dilemmas facing policy makers were temporary and would be corrected without the need for depreciation of the exchange rate. Thus, no significant depreciation of the exchange rate was implemented, on the grounds that it would rekindle inflation and would 'give alarming signs to the market', augment capital flight and trigger a balance of payments crisis. That policy was slowly but steadily being perceived as non-sustainable by investors in Mexico's capital and money markets, however. In the course of the year, the Bank of Mexico not only had to authorize increases in the interest rates on CETES (Treasury Certificates) and *Tesobonos* (Mexican Treasury Bonds), but also had to allow for greater guarantees on the rates of return on government paper payable in local currency but tied to the nominal exchange rate with the United States dollar. In any case, the foreign exchange reserves kept being depleted, ultimately forcing the authorities to perceive that their macroeconomic policy was unsustainable. At the end of 1994, scarcely a year after NAFTA came into effect, the Mexican economy was in the midst of a financial crisis and on the brink of the worst recession since the Great Depression of the 1930s. Moreover, the country had been experiencing instability and political violence throughout 1994, starting with the armed revolt of the Zapatistas in January (on the same day that NAFTA came into effect).

The boom and bust cycle that culminated with the 1994-1995 banking crisis was a consequence, at least in part, of excessive reliance on financial deregulation and capital market liberalization (Clavijo and Boltvinik, 2000; Lustig, 2002; OECD, 2002). The aftermath of that cycle was a bankrupt banking system whose bailout added some 20 percentage points of GDP to the public debt and left those households and firms—mostly small and medium-sized enterprises with no access to foreign finance— virtually without access to bank credit. It is ironic that the banking sector returned to a situation of credit rationing characteristic of the era of financial repression that preceded the financial liberalization of the late 1980s. This situation has been an obstacle to faster growth and has also reinforced the dual structure of the productive sector.[30]

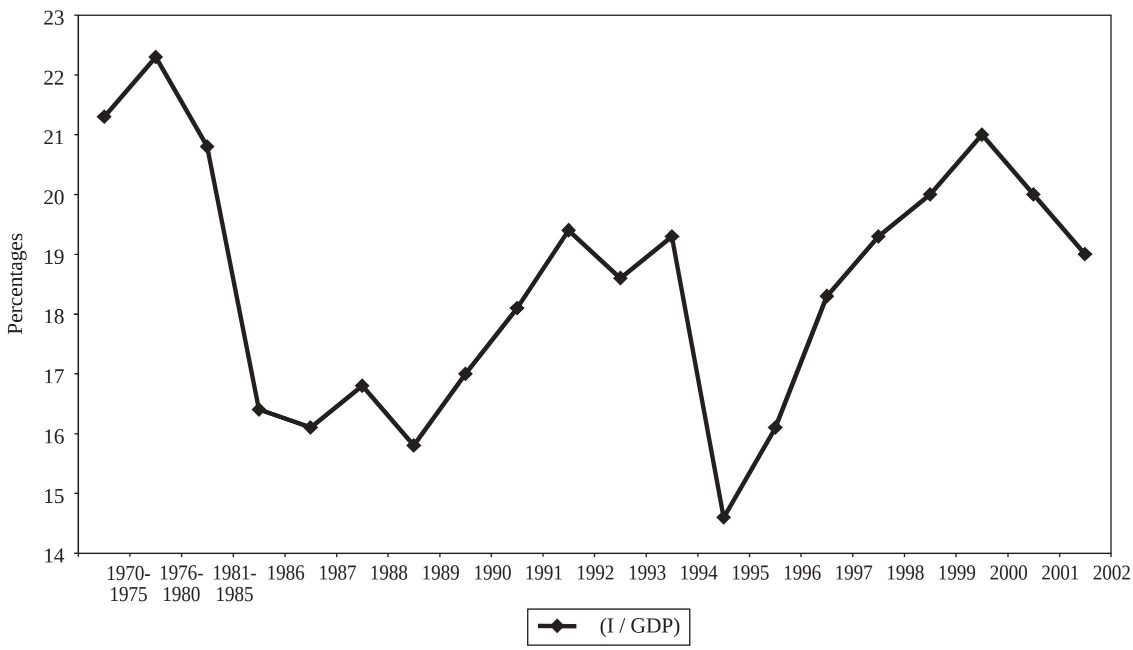
4. Recent growth and investment performance

After the decline of 6.2% in real GDP in 1995 —the sharpest drop in more than fifty years— economic growth resumed in 1996-2000. However, its expansion abruptly stopped in 2001-2002 and per capita GDP actually declined in real terms. On average, from 1985 to 2002, GDP expanded at an annual rate of 2.2%, or barely half a percentage point above the rate of population growth. Furthermore, the most recent figures indicate that Mexico's per capita GDP remained stagnant in 2003. Thus, at the end of that year, in constant dollars it was little more than 20% of the U.S. per capita GDP: a gap almost 10 percentage points wider than in 1981 and similar to the level recorded fifty years earlier. In other words, in these five decades the Mexican economy has so far failed to "catch up" in any significant way with its northern neighbour in terms of real per capita GDP.

Crucial to the slowdown in Mexico's rate of economic expansion has been the weak investment performance.[31] The failure of capital formation to grow at a fast pace —after the years of decline during the debt crisis— has impeded the expansion and modernization of productive capacity and simultaneously restricted the growth of aggregate demand. Indeed, gross fixed investment followed a path similar to that of GDP in real terms. It increased rapidly during the oil boom, then collapsed in 1982-1987, and began a slow recovery in 1988 (figure 2). This rebound gained some strength in 1990–1992 in response to the favourable expectations associated with the beginning of the NAFTA negotiations, only to be cut short in 1995, but it vigorously resumed

FIGURE 2

Mexico: Investment/GDP ratio, 1970-2002[a]



Source: Prepared by the authors from table 4 of Mattar, Moreno Brid and Peres (2003), on the basis of ECLAC and INEGI data.

[a] The figures for 1970-1988 were calculated on the basis of data in 1980 constant pesos; figures for 1989-2001 were based on data in 1993 constant pesos.

[30] Giugale, Lafourcade and Nguyen (2001) and Dussel (2000) document how the credit decline affected large firms and small and medium-sized enterprises differently and the large and increasing gap between the export performance of these two types of enterprises.

[31] For a extensive analysis of the performance of investment in Mexico's manufacturing sector after the macroeconomic reforms see Moreno-Brid (1999) and Mattar, Moreno-Brid and Peres (2003).

in 1996–2000. However, in 2001-2002 investment again fell in real terms. In synthesis, during the last two decades the investment process has been wanting.

The disappointing performance of investment gives grounds for concern over Mexico's future economic growth. What are the causes behind it? Were there any limitations or shortcomings in the macroeconomic reforms that failed to consider or misperceived the nature of key determinants of Mexico's investment process? Recent research on the topic has identified a set of factors that help explain Mexico's poor investment performance (Mattar, Moreno-Brid and Peres, 2003).

First, the reforms were adopted in a stagnant economy with severely rationed access to foreign or domestic capital and finance. The adverse economic environment was aggravated by the fall in public investment, because "crowding in" between public and private investment has historically been more important than "crowding out" effects (UNCTAD, 2003).

In addition, the reforms had the explicit goal of eliminating all types of incentives, including measures to promote domestic investment (both aggregate and in specific sectors). No attempt was made to orient domestic spending towards investment as opposed to consumption expenditure. Such explicit refusal to promote investment was combined with the uncertainty inherent in any radical change in development strategy. Not surprisingly, such uncertainty was far from favourable to investment, thus leading to the postponement or interruption of investment projects. The elimination of sectoral incentives had an especially strong adverse impact on manufacturing investment, given that manufacturing had traditionally been the most favoured sector under the previous development model based on import substitution and State-led industrialization. This lack of incentives —exacerbated by the intense and sudden competition from imports— reduced manufacturing's relative rate of return, which in turn curbed investment. The appreciation of the real exchange rate in 1988-1994 vis a vis the United States dollar further conspired against investment in manufacturing and, more generally, in the tradeable goods sectors as a whole. While real exchange-rate appreciation can encourage fixed investment in developing countries by lowering the relative prices of imported machinery and equipment, it also shifts relative prices in favour of non-tradeables, inducing a reallocation of labour and investment away from the production of tradeable goods and services. This latter effect appears to have predominated in the Mexican case.

5. State reform and the tasks of development policy

The other side of market reform is the retreat of the State and its restructuring. By shrinking in size, there is a better chance that the State will be able to do a better job in its priority tasks. Or so the argument goes. However, the mere fact that the State is smaller does not necessarily mean that it will be more effective. The tax burden in Mexico continues to be extremely low by international standards (OECD, 2002). At 12% of GDP in the late 1990s, tax revenues are below those of Latin American countries with similar per capita income and well below those of OECD countries. As a result, the fiscal accounts continue to be highly vulnerable to changes in oil income, which still represents around a third of total government revenues. Together with the loss of policy instruments and the reorientation of monetary policy from growth to purely stabilization objectives, as well as the volatility of external capital flows, this gives rise to a major macroeconomic problem, since it contributes to pro-cyclical macroeconomic policies that exacerbate the negative effects of shocks on economic activity.

Nor is the State necessarily more efficient. Despite (or perhaps because of) its massive character, Mexico's fiscal adjustment did not encourage greater internal efficiency of the public sector. Especially before 1985, fiscal adjustment was, by and large, achieved through deep cuts in public investment and the real salaries of public employees: hardly the best way of improving the efficiency of the State and its bureaucracy. Moreover, the retreat of the State has gone well beyond areas where the private sector has a comparative advantage. In fact, public infrastructure investment has been the main victim of fiscal adjustment in the context of falling oil prices. Giugale, Lafourcade and Nguyen (2001) strikingly illustrate with two figures the close correlation between oil price declines, fiscal deficit cuts and reductions in public investment (the correlation coefficient between the last two was 0.82 over the period from 1980 to 1997). As a result, public investment was barely 3% of GDP in 2001-2002, compared with 5% in 1994 and 10% in 1980-1981 (table 6). It is also clear that, despite some positive recent trends in social spending, State disengagement has not served its main stated purpose: the expansion of social infrastructure. The main contribution of privatization revenues was to support stabilization efforts (very effectively, no doubt) by temporarily compensating for the fall in the inflation tax and strengthening the capital account of the balance of payments through the financial assets that the private sector had to bring back home to purchase the public enterprises on sale.

The implications of all this are more important than is generally acknowledged because the priority tasks of the State —social policy in particular— are today far more formidable than in the past. This is so for several reasons. There is, first, the accumulated backlog of unmet social needs and the legacy of increased inequality from the 1980s. In the face of slow growth in agriculture and the expansion of the urban informal sector, the recovery of social spending in the 1990s has not prevented an increase in the number of poor and a persistently high level of inequality in income distribution. Lustig (2002) shows that income inequality, as measured by the Gini concentration coefficient, increased quite sharply from 1984 to 1989 (around four percentage points) and then fell from 1989 to 1994 (although remaining slightly above its 1984 level). Since then, however, the OECD (2002) estimates show a slight increase in income inequality between 1994 and 2000, with the Gini coefficient rising from 0.477 to 0.481. Poverty rates (both extreme and moderate) show a similar behaviour across time, while the number of poor shows a continuous increase through 1994.

Secondly, there are at least two ways in which the present development pattern is exacerbating social disparities. The State's retreat from agriculture and the reform of the land tenure system may have brought private capital and prosperity to some rural areas, but they have also inadvertently tended to impoverish large masses of rural workers in a similar way that agricultural modernization under the *Porfiriato* did deliberately and on a much more massive scale. There has been a clear difference between the behaviour of the commercial sector producing exportable goods —which benefited from and responded positively to the reforms (exports have grown by 70% during the first five years of NAFTA)— and the ejido sector which has not done so (imports grew by 60%, adversely affecting this sector which largely produces importable goods). Today, this sector barely survives through increasing integration into off-farm activities, with about 40% of its income coming from non-farm sources, including remittances (Giugale, Lafourcade and Nguyen, 2001). As those authors acknowledge, the overall stagnation of agricultural output and the persistency of rural poverty are related to the reforms themselves. The downward trend in real agricultural prices throughout the 1990s was strengthened by the removal of trade protection (and exchange rate overvaluation in the early part of the decade). The elimination of extension programmes and technical assistance has affected a large proportion of small producers. The retreat of the State from distribution was followed by the domination of marketing channels by oligopolistic intermediaries who depress the prices obtained by producers, affecting particularly the poorest areas. In the absence of competitive markets, and without proper consideration of the large regional diversity and income heterogeneity of the Mexican countryside, liberalization did not yield the expected benefits.

On the other hand, the benefits of greater integration with the international economy, and with the United States in particular, are also being very unevenly distributed within the country. Greater integration has been accompanied by a substantial increase in the wage premium on skilled labour, with a resulting relative decline in unskilled labour incomes: a major cause of persistent inequality. As documented by Godínez (2000) and Dussel (2000), general regional trends from 1970 to 1985 pointed towards a de-concentration of economic activity (away from the main industrial centres in the metropolitan area of Mexico City, Nuevo León and Jalisco) and convergence of regional income levels. Since 1988, however, a process of divergence has been taking place, especially as the northern states linked to export activities have been rapidly increasing their share in national income. By contrast, the relatively poor South (with the exception of Quintana Roo, which has benefited from the expansion of tourism) has been lagging behind. These regional trends are clearly linked to the economy's structural changes, such as the lagging cereal agriculture, expanding export sectors of agro-industrial products, fruit and vegetables, and the rapidly growing export-oriented manufacturing activities in the Northern and Central areas. Just as in the late 18th century the 'opening of North Atlantic trade' exacerbated the 'fragmentation of regional markets', there is today a tendency towards a deepening of regional disparities, especially between a prosperous north increasingly integrated with the United States economy and a poor and backward south plunged into agricultural stagnation.

Finally, but no less importantly, by abandoning the trade and industrial policy instruments that have worked successfully in the past without seeking effective replacements for them, current development strategy encourages the exploitation of present rather than potential comparative advantages. The basic task of development policy —the task of changing and enhancing the present endowment of resources and, over time, shifting the pattern of comparative advantages towards higher value-added, technology-intensive activities— now falls entirely, in the absence of an industrial policy, upon social policies. A proportionate response to this challenge could improve the situation more than the application of an active industrial policy with little social policy, but our point is that the challenge itself is much bigger and the response remains to be seen. In contrast, a less than proportionate response would lead to freezing the present stage of development - getting stuck in the relatively unskilled and poorly paid activities that form part of the production processes of capital-intensive industries. This is a far from desirable prospect for a country that needs to grow fast in order to raise the living standards of its 100 million people.

V

Concluding remarks

All this leads us to the final and most important aspect of the overall reform process, regarding which we can only pose the following questions: Is the shift in the market/State balance a sign that, after having reduced economic backwardness through State-sponsored industrialization, the use of a different set of ideas would be more appropriate in the new stage: a shift that would be the natural companion of the transition from Gerschenkronian to Schumpeterian entrepreneurship? Or is it still the case that ‘to break through the barriers of stagnation in a backward country, to ignite the imaginations of men, and to place their energies at the service of economic development, a stronger medicine is needed than the promise of better allocation of resources…’? (Gerschenkron, 1952). Dealing with these questions falls outside the scope of this paper, and of the wisdom of its authors. But on the answers to them depend Mexico’s longer-term prospects for rapid economic development.

What we can say, however, is that the origin of the adjustment problems and the new problems created by the reform process are not being adequately perceived in current development policy. First, the notion that the crisis was brought about by the exhaustion of past development strategies should not be taken for granted, even though we would be very far from defending every single aspect of past development strategies. Secondly, the solution to the new obstacles may require more and better, rather than less, State participation in the economy. As we have tried to show, the source of these new problems must be sought in part in the retreat of the State in such areas as public infrastructure investment. But as a result of the shift in ideological climate, very little attention is being given to these problems and to what government policy can do about them, while at the same time too much is expected from the efficiency gains of market reforms. Is it the case that, just as occurred a century and a half ago, the real obstacles to economic development are being misperceived?

(Original: English)

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An appraisal of a quarter-century of structural pension reforms in Latin America

Carmelo Mesa-Lago

This article gives a comparative description of three different general structural pension reform models applied in 12 Latin American countries, analysing their key concepts. In its main part, it analyses and suggests policies to deal with the 11 challenges that must be faced in such reforms: the decline in labour force coverage; the growing failure to pay contributions; the faults due to imperfect competition among pension fund management companies; the continuing high level of administrative costs; the accumulation of capital, yet without solid evidence that this has had a positive impact on national saving; the high and prolonged fiscal cost of the transition; the potential development of the capital market but a lack of diversification in the investment portfolio; the variable real returns on investment; the lack of evidence that pensions are higher under the private than under the public system; the accentuation of gender-based inequities, and the erosion of solidarity.

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I

Introduction

In mid-2004 there were 12 Latin American countries which had carried out or approved structural reforms of social security pensions whereby the former "public" systems were totally or partially "privatized". Such reforms have already been operating for 23 years in Chile and between 6 and 12 years in six other countries. There is no other region in the world, including Central and Eastern Europe, which has witnessed changes of such scope and depth (Müller, 2002). The Latin American reforms have not only influenced similar processes in various other countries, but have also been reflected in the agendas of international and regional financial organizations such as the World Bank and the IDB, as well as posing challenges for international and regional bodies specializing in social security, such as the International Labour Organisation (ILO), the International Social Security Association (ISSA), the Inter-American Conference on Social Security (CISS), and the Ibero-American Social Security Organization (OISS). A recent book noted in this respect: "Never in the history of social security has so much been changed in so little time" (Madrid, 2003, p. 13).

First of all, this article gives a brief comparative description of the three different general models applied in the region, together with the diverse features of the reforms in the 12 countries, according to the legislation in force. Using the statistics available for nine countries and sometimes for all 12, the central part of the article analyses and suggests policies that could be used to deal with the 11 challenges that the reforms must face: the level of labour force coverage; the degree of compliance in the payment of contributions; the faults due to imperfect competition among the management companies; management costs; the accumulation of capital and its impact on national saving; the fiscal cost of the transition; the development of the capital market and the degree of diversification of the investment portfolio; the real returns on investment; the level of pensions; gender-based inequities, and solidarity.

Generally speaking, the countries have adjusted the reforms to their financial, economic, social, political and social security conditions. Some, however, have mechanically copied a presumed universal model which cannot work due to the lack of some essential elements. Countries which have not yet committed themselves to a particular reform process should carefully study the experience of the 12 countries which have made structural reforms in this respect (with all their successes and failures) before deciding whether to make structural or parametric reforms and, if they decide on the former, before seeking to apply a generic model they should adapt it to their own conditions.

II

The key concepts involved, and a general description of the reforms

1. Public and private pension systems

Public and private social security pension systems are defined in this study in the light of their four fundamental elements: contributions, benefits, system of financing, and form of management. The public system is characterized by: undefined contributions, defined benefits, an unfunded (pay-as-you-go) or partial collective capitalization (PCC) system of financing, and public management. In contrast, the private system is characterized by defined contributions, undefined benefits, a full individual capitalization (FIC) system of financing, and private management, although this can also be of other types: private, public or mixed (Mesa-Lago, 2004b).

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2. Structural and non-structural reforms

Structural reforms completely transform the public system, replacing it wholly or partially with a private one. Non-structural or parametric reforms seek to strengthen the public system financially in the long term by raising the age of retirement or the level of contributions, applying stricter calculation formulas, or other measures.[1]

The 12 structural pension system reforms in Latin America follow three different models: substitutive, parallel or mixed systems. The first part of table 1 shows the countries applying each of these models, the date when the new system came into operation, and its four basic characteristics. The second part of that table shows the countries that still have public systems and their four basic characteristics.

The substitutive model has been applied in six countries: Chile (which pioneered this approach, in 1981), Bolivia and Mexico (1997), El Salvador (1998), the Dominican Republic (implemented gradually between 2003 and 2006) and Nicaragua (where its initiation was postponed in 2004). In this model, the public system is closed down (no new affiliates are allowed) and replaced by a private system; its four basic characteristics are those already mentioned, except in Mexico, where its management is multiple, and the benefits may be defined or undefined.[2] Of 22

TABLE 1

Latin America: Models and characteristics of pension reforms, 2004

Model, country and date of initiation of reform	System	Contributions	Benefits	System of financing	Management
Structural reforms					
Substitutive model	Private	Defined	Undefined	Full individual capitalization	Private[a]
Chile: May 1981					
Bolivia: May 1997					
Mexico: September 1997					
El Salvador: May 1998					
Dominican Republic: 2003-06					
Nicaragua: 2004					
Parallel model					
Peru: June 1993	Public or	Undefined	Defined	Unfunded[b]	Public
Colombia: April 1994	Private	Defined	Undefined	Full. indiv. capitaliz.	Private[a]
Mixed model					
Argentina: July 1994	Public and	Undefined	Defined	Unfunded[b]	Public
Uruguay: April 1996	Private	Defined	Undefined	Full. indiv. capitaliz.	Multiple
Costa Rica: May 2001					
Ecuador: 2004					
Parametric reforms or unreformed					
Brazil[c]	Public	Undefined	Defined[d]	Unfunded or collective partial capitalization	Public
Cuba					
Guatemala					
Haiti					
Honduras					
Panama					
Paraguay					
Venezuela[c]					

Source: Prepared by the author on the basis of the legislation of the 12 countries.

[a] Multiple in Mexico, the Dominican Republic and Colombia.
[b] In Peru, Argentina and Uruguay, but collective individual capitalization in Colombia and Costa Rica.
[c] Parametric reforms recently introduced or under way.
[d] Defined contribution in part of the private sector programme in Brazil (notional accounts).

[1] For more on reform policies, see Madrid (2003) and Mesa-Lago and Müller (2004).

[2] In Mexico, all those who were insured when the reform was enacted have the right, when they retire, to choose the best pension between that offered by the public system of defined benefits (now closed) and that offered by the private system, based on individual accounts. This concession has given rise to serious uncertainty about the fiscal cost of the transition, and was being debated in 2004.

countries which have carried out structural reforms of the pension system, only one outside Latin America has introduced a substitutive system (Mesa-Lago and Hohnerlein, 2002).

The parallel model has been applied in two countries: Peru (1993) and Colombia (1994). In this model, the public system is not closed down, but is reformed (completely in Colombia and only partially in Peru), a new private system is established, and the two systems compete with each other. The public system has its four typical characteristics, except than in Colombia the system of financing is partial collective capitalization instead of an unfunded system. The private system also has its four typical characteristics, except that in Colombia the management is multiple. No country outside Latin America has followed this model, possibly because of its complexity.

The mixed system has been applied in four countries: Argentina (1994), Uruguay (1996), Costa Rica (2001) and Ecuador (as of August 2004 it had not yet come into operation because of an unsettled legal action against its applicability). This model combines a public system, which is not closed and provides a basic pension (first pillar) with a private system which offers a supplementary pension (second pillar). The public pillar has its four typical characteristics, as does the private pillar, except that the management of the latter is on a multiple basis in all four of the countries. This is the most widely adopted model outside Latin America and is applied in at least 12 Western and Eastern European countries (Mesa-Lago and Hohnerlein, 2002; Müller, 2002).

The other eight Latin American countries have kept their public systems, with the characteristics detailed in table 1. Brazil made parametric reforms in 1998-1999 (including a system of financing based on notional accounts in the general system for private workers), and another parametric reform of the system for public employees is currently in the process of approval in Congress (Schwarzer, 2004). Venezuela approved a structural reform (total substitution), but this was abolished by the present government, which approved parametric reforms in 2002 (LOSSS, 2002). In Panama, workers, employers and the government agreed to carry out a parametric reform with the aid of the ILO in 1998, but the government whose term of office ended in 2004 postponed its application, aggravating the actuarial imbalance and giving rise to an accounting imbalance for the first time (Mesa-Lago, 2003a). Structural or parametric reforms have been considered in Guatemala, Honduras and Paraguay. There has been no public discussion on reform in Cuba and Haiti, but the first of these countries is considering a parametric reform, which had not yet been approved as of March 2004.[3]

III

The beneficial effects of structural reforms

Structural reforms have had many beneficial effects, including:

i) the unification of different systems in a number of countries (Bolivia, Costa Rica, Chile, El Salvador and Peru), which strengthens unity and makes possible portability, although segmentation persists in other countries (Argentina, Colombia and Mexico);
ii) equalization of conditions of access and rules for the calculation of pensions in most of the systems (except for the armed forces in all countries except Costa Rica), which has had a positive impact on equality of treatment;
iii) the introduction in some countries of access conditions (such as retirement ages) which are more in keeping with life expectancy at retirement, thus strengthening long-term financial sustainability;
iv) the establishment of a much closer relation between contributions and the size of the pension, as well as opening up the possibility for middle- and high-income groups to save substantial sums that could enable them to receive higher pensions;
v) State guarantees for the payment of pensions currently being paid in all countries, as well as recognition of the contributions made under the public system and a minimum pension in the private system, in most of the countries;

[3] See Mesa-Lago (2003b, 2004a and 2004c).

vi) elimination of the public system's monopoly position and the introduction of competition (although in many countries this is not functioning properly);
vii) substantial accumulation of capital in the pension funds (although this must be balanced by the fiscal cost during the transition);
viii) increased efficiency in key aspects such as registration, individual accounts, the provision of periodic information to insured persons, and rapid processing of pensions;
ix) the possibility introduced in Chile for insured persons to select an investment fund of their choice from among various alternatives; and
x) the creation of technical bodies endowed with relative independence for regulating and supervising the pension system (although this aspect varies among the countries).

With respect to the elimination of the public system's monopoly position and the introduction of private actors in pensions management, it may be noted that the importance taken on by the private sector vis-à-vis the public sector varies considerably from one country to another, because of the different reform models adopted. At the end of 2002, 100% of insured persons were enrolled in the private system (or the private component of a mixed system) in Bolivia, Mexico and Costa Rica; between 91% and 98% in Chile, El Salvador and Peru; and 80% in Argentina (table 2, last column). Changing from one system to another depends not only on the virtues of the private system but also on other variables:

i) the insured person's freedom to choose whether to stay in the public system or move to a private or mixed system, as well as that person's age and income in some countries;
ii) the legal benefits and incentives provided by the State to encourage change, as well as the publicity made;
iii) the rate of return of the public system as compared with the rate of return on investment (returns on capital) in the private system, and
iv) the length of time the reform has been in effect.

In Bolivia, Costa Rica and Mexico there was no freedom of choice, as the law obliged all insured persons to move to the private system. Furthermore, in the six countries which adopted the substitutive model, as well as in two of the countries with a mixed model (Costa Rica[4] and Ecuador), new insured persons entering the labour force are obliged to enroll in the private system or component. When the reform has already been in effect for a long time (as in the case of Chile, where it has been in operation for 23 years), the obligation to enroll imposed on those entering the labour market, together with the gradual retirement of those insured persons who stayed in the public system, means that a high proportion of affiliates are in the private system. In El Salvador, Nicaragua and the Dominican Republic, the younger affiliates of the pension system, who were in the majority, were obliged to move to the new system (which largely explains the enrollment figure of 91% in El Salvador).

In Chile and Peru, there were strong incentives to make the change, as contributions under the private system were lower than in the public system; furthermore, it was laid down that insured persons who moved to the private system could not return to the public one. In Argentina, those entering the labour market are free to choose between the public and mixed systems, but workers who do not take a decision are automatically assigned to the mixed system and those who move from the public to the mixed system cannot return to the former, so that 80% are in the mixed system.[5] Publicity has also been a crucial factor in the change, since the private system has promised higher pensions and lower management costs than those of the public system, as well as protection against government interference.[6] In contrast with the other seven countries, the public system in Colombia (parallel model) still has 55% of the total insured population, while that of Uruguay (mixed model) has 49% (table 2), since the public sector has been strengthened. In Colombia, insured persons are free to change from one system to the other every five years.[7] In Uruguay, the government gave insured persons over 40 a time limit for choosing between the reformed public system and the mixed system, and most of them preferred the former; furthermore, only those with more than a certain level of income can join the mixed system.

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[4] Costa Rica is a unique case, because there the law obliges all insured persons (both at the time of reform and in the future) to enroll in the mixed system, so that all of them are in both the public system (the first and most important pillar) and the private system (the second pillar, which provides a supplementary pension).

[5] Because of the economic crisis in 2001-2002 and the subsequent deterioration in the pension fund, a debate is currently under way in Argentina on whether the mixed system should be retained or whether those enrolled in it should be able to return to the public system.

[6] See sections 4 and 9 of chapter IV below.

[7] Initially, they were allowed to change every three years, but in 2002 this period was extended to five years, and moreover affiliates are not allowed to change during the ten years before retirement (LRP, 2002).

TABLE 2

Latin America (nine countries): Distribution of affiliates in public and private or mixed systems, 2002

Model/Country	In both systems (thousands)	Public system		Private system	
		Thousands	% of total	Thousands	% of total
Substitutive					
Chile	6 879	171	2	6 708	98
Bolivia	761	0	0	761	100
Mexico	29 421	0	0	29 421	100
El Salvador	1 087	94	9	993	91
Parallel					
Peru	3 134[a]	140[a]	4	2 994	96
Colombia	10 460	5 744[b]	55	4 716	45
Mixed					
Argentina	11 316[cd]	2 210	20	9 106	80
Uruguay	1 216	600[de]	49	616	51
Costa Rica[d,e]	1 175	1 175	100	1 175	100
Total	*65 468*[f]	*1 153*	*15.2*	*56 490*	*84.8*

Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones (AIOS, 2002a and 2002b); Administración Nacional de la Seguridad Social, Argentina (ANSES, 2002); Banco Central de Uruguay (BCU, 2002); Comisión Nacional del Sistema de Ahorro para el Retiro, Mexico (CONSAR, 2002 y 2003); Superintendencia de Administradoras de Fondos de Jubilaciones y Pensiones, Argentina (SAFJP, 2003a and b); Superintendencia de Administradoras de Fondos de Pensiones, Chile (SAFP, 2003a and b); Superintendencia Bancaria de Colombia (SBC, 2003); Superintendencia de Banca y Seguros, Peru (SBS, 2002); Superintendencia de Pensiones, Costa Rica (SP, 2002a, 2002b and 2003); Superintendencia de Pensiones, Valores y Seguros, Bolivia (SPVS, 2002 and 2003), and Superintendencia de Seguridad Social, Chile (SSS, 2002).

[a] Author's estimates.
[b] January 2003.
[c] Includes the undecided.
[d] All the insured persons in the second pillar (private system) are also in the first pillar (public system).
[e] No figures available on the number of affiliates in the public system; the table shows the number of active contributors, but the total number of insured must be greater.
[f] Costa Rica is counted only once.

IV

The challenges that structural reforms must face

Structural reforms have failed to bring about some important beneficial effects that they were supposed to generate.[8] This section will analyse 11 challenges that those reforms face, using legal information from the 12 countries studied and statistics from the nine countries which have already made these reforms. Policy recommendations for dealing with those challenges will also be formulated, and issues which call for further research will be identified.[9]

1. Decline in labour force coverage

Before the structural reforms, Latin American public systems could be classified in three groups, according to the time when the pension system was introduced

[8] There is a worldwide debate on the supposed effects of structural pension reforms. See Orszag and Stiglitz (2001), Barr (2002) and Mesa-Lago (2002 and 2004b).

[9] For greater details, see Mesa-Lago (2004a).

TABLE 3

Latin America (12 countries): Percentage of labour force covered by both systems (public and private) before the reform and in 2002, and sectors difficult to cover, 2000
(Percentages)

Model/Country	Coverage before the reform: Contributors and year	Coverage in 2002		Self-employed workers[a]	Incidence of poverty[b]
		Affiliates	Contributors		
Substitutive					
Chile	64 (1980)	111	58	15	21
Bolivia	12 (1996)	23	11	46	61
Mexico	37 (1997)	72	30	20	41
El Salvador	26 (1996)	40	19	31	50
Dominican Republic	30 (2000)	...	...	31	30
Nicaragua	16 (2002)	...	16	35	68
Parallel					
Peru	31 (1993)	28	11	38	48
Colombia	32 (1993)	59	24	36	55
Mixed					
Argentina	50 (1994)	69	24[d]	18	25
Uruguay	73 (1997)	77[e]	60[e]	19	10
Costa Rica	53 (2000)	65[f]	48[f]	18	21
Ecuador	21 (2002)	...	21	34	61
Average[c]	*38*	*63*	*27*	...	*42*

Source: Mesa-Lago (2004a).

[a] Percentage of the employed urban labour force made up of unskilled low-productivity self-employed workers in 1999-2000.
[b] Percentage of the total population in 2000; in Ecuador and Uruguay, percentage of the urban population.
[c] Weighted by the author, using the population with pension coverage; the poverty figure is that estimated by ECLAC for the region as a whole.
[d] Excludes part of the active contributors in the public system.
[e] Public system, year 2000.
[f] June 2003.

and the degree of coverage of the labour force (Mesa-Lago and Bertranou, 1998): i) the pioneers, where coverage ranged from 63% to 81% in 1980 (Uruguay, Argentina, Chile and Costa Rica);[10] ii) the intermediate countries, where coverage ranged from 26% to 42% (Mexico, Peru, Colombia and Ecuador), and iii) the latecomers, where coverage ranged from 12% to 20% (Bolivia, El Salvador, Nicaragua and the Dominican Republic). Reformers assert that the private system offers two types of incentives for affiliation which do not exist or have deteriorated in the public system: ownership of an individual account and the principle of equivalence (a close relation between the contributions paid and the amount of the pension received); they also assume that these incentives will also lead to an increase in labour force coverage.

Table 3 shows the percentage of the labour force covered by the two systems (public and private), although it excludes some groups of insured persons with separate programmes, such as the armed forces in all countries except Costa Rica, public employees in some countries (the employees of most of the provinces of Argentina, for example) and other small groups. If these groups were included, the percentage of the labour force covered would increase. In its two central columns, the table gives two estimates of coverage in 2002 based on total affiliation, that is to say, all the workers who have enrolled in the system, and active contributors (affiliates who paid a contribution in the last month). It may be noted that the coverage based on total affiliation is approximately twice as large as the coverage based on active contributors.

[10] Costa Rica belongs to the second group in terms of the date of establishment of its system, but to the first group in terms of labour force coverage and degree of development of the system.

Among the pioneering countries, Chile has 111% labour force coverage if the total affiliation is used as the basis, which shows that this leads to over-estimation of the coverage; moreover, that figure excludes a further 26% of the labour force made up of 3% insured under the armed forces programme and 23% of the population estimated as not having any insurance coverage, so that this would give a total of 137%. If the number of active contributors is used as the basis, however, labour force coverage in Chile drops to 58%.

The estimates of coverage based on the number of active contributors before the reform and the number in 2002 show that coverage has gone down in all countries. Thus, the weighted average of coverage in nine countries decreased from 38% before the reform to 27% in 2002 (table 3). This comparison over-estimates the coverage before the reform in most of the countries, however, because it does not take account of whether the contributor was active in the last month, as the 2002 figures do, but is based on longer periods (Mesa-Lago, 2004e). Nevertheless, two normalized statistical series for Chile based on the number of active contributors indicate that coverage diminished from 79% in 1973 to 62% in 1975 and 58% in 2002 (Arenas de Mesa and Hernández, 2001; SAFP, 2002a; table 3). A similar series for Argentina shows a decline from 35% in 1994 to 26% in 2002 (Hujo, 2004). A serious challenge is that coverage goes down to half if only active contributors are considered, and to one-third in the case of Argentina, because of the severe crisis in that country. This means that it is essential to develop more accurate statistics on coverage than the existing ones, in order to determine more exactly who is covered and who is not, as well as the characteristics of the latter, in order to design mechanisms for increasing the level of inclusion. The most serious challenge faced by pension systems, whether public or private, is how to stop the fall in coverage in the formal sector and how to extend coverage in the informal sector. In the last 25 years, Latin America has witnessed an ongoing increase in informal employment, and this is getting even worse with the transformation of the labour market (greater labour flexibility) due to globalization and growing worldwide competition (Bertranou, 2001). The informal sector grew from 42% of Latin American urban employment in 1990 to 47% in 2001, due to the reduction in formal employment and the growth in self-employment activity and employment in micro-enterprises and domestic service (ILO, 2002b). Independent or self-employed workers, the main component of the informal sector, are on the increase in the region, but their insurance coverage is far below that of dependent (salaried) workers; the percentage of independent workers in the total labour force is lower in the countries in the pioneering group and higher in the intermediate and latecomer groups, which makes their inclusion even more difficult in the countries of the latter two groups. Furthermore, the enrollment of independent workers is voluntary in all the countries except Argentina and Uruguay.[11] A legal mandate calling for coverage would not necessarily solve the problem in most of the countries (especially those in the intermediate and latecomer groups), because of the high percentage of independent workers, their unstable employment and low incomes, the lack of employers' contributions, and serious obstacles in the areas of registration, collection of contributions and compliance. Other groups which it is difficult to incorporate are peasants and agricultural workers without a steady employer, domestic servants, workers without contracts, and unpaid family members.[12]

The protection of the poor sectors through the granting of social assistance pensions is another challenge for the reforms. In 2000, the average proportion of the total population of the region below the poverty line was 42% and showed an upward trend. The State grants social assistance pensions to the population not covered by social insurance in Argentina, Costa Rica, Chile and Uruguay, which are the countries with the broadest coverage and lowest incidence of poverty (10%-25% of the population) in the region, as shown in the last column of table 3. But these pensions are not necessarily guaranteed to all those who need them, because they are subject to the fiscal resources available, and there is a waiting list in most of these countries. As a percentage of the total population, the number of social assistance pensions was very small in 2000-2001 (ranging from 0.9% in Argentina to 2.3% in Chile), but it has been shown that these pensions have a notable positive impact in the reduction of poverty and indigence (Bertranou, Solorio and Van Ginneken, 2002). The 2001-2002 crisis in Argentina, however, reversed these advances in that country: in 2002 the Ministry of Labour, Employment and Social Security estimated that the incidence of

[11] Colombia, Costa Rica, Ecuador and the Dominican Republic have laws making it compulsory for independent workers to enroll, but they have not yet been implemented.
[12] See Mesa-Lago (2004e).

poverty had risen to 50% of the population and 22% of pensioners (MTESS, 2003).

The other eight countries do not currently grant social assistance pensions of the conventional type, and all of them have a low level of coverage (difficult to extend) and high levels of poverty (between 30% and 68% of the population). The reform in Bolivia included the creation of a social assistance programme (Bonosol) which was to provide one annual flat sum to Bolivians over 65, to be financed from a collective capitalization fund fed with the dividends from privatized enterprises, but that sum was paid only for a few months in 1997; the programme was then replaced with Bonovida, which provided one flat sum at the end of 2000, and finally the Bonosol programme was reintroduced in 2002 and granted 420,000 benefits in 2003 (Mesa-Lago, 2004a). The reform laws approved by Costa Rica in 2000, Ecuador in 2001 and Colombia in 2002 provide for social assistance pensions, but as of mid-2004 they had not yet been implemented or there was no information that effective protection was being given; in the Dominican Republic, a "subsidized" non-contributory pension has been announced for indigents, disabled persons, unmarried mothers and the destitute unemployed and was due to be put into effect in 2004 but was not.[13] The World Bank is now giving strong support for a "first pillar" to prevent poverty through an unfunded public system that supplements but does not distort or take the place of the private system (Gill, Packard and Yermo, 2003).

Whatever their type or model, pension reforms should give priority to the extension of coverage of independent workers who are difficult to incorporate. Social security should adapt to processes of change in the labour market and new ways of incorporating informal workers should be designed. It is of fundamental importance to give priority to the prevention of poverty, for which purpose countries should study the possibility of granting social assistance pensions focused on the elderly poor; it has been estimated that this would cost only a tiny fraction of the gross domestic product (GDP).

2. The growing level of failure to comply with the payment of contributions

Most of the structural reforms have eliminated or reduced the compulsory contributions by employers and have increased the workers' contribution. Argentina, Costa Rica, Ecuador and Mexico have not legally changed the respective contributions of workers and employers, but Argentina halved the employers' contributions, through exemptions and bonuses, and in 2001 it also halved the workers' contribution, although this has been increasing again since 2003. Costa Rica reassigned the existing contributions to other programmes. Ecuador raised the workers' contribution for those earning more than a certain level of income, and Mexico increased the State contribution based on the payroll. Chile, Bolivia and Peru eliminated the employer's contribution, while six countries increased the workers' contributions: Bolivia, Colombia, El Salvador (almost fivefold), Nicaragua, Peru and the Dominican Republic. Uruguay slightly reduced the employer's contribution and correspondingly raised that of the worker. Only three countries have increased the employer's contribution: Colombia, Nicaragua and the Dominican Republic. In most of the countries, the elimination or reduction of the employer's contribution has led to an increase in the worker's contribution and/or the fiscal cost.[14]

It is argued that the ownership of individual accounts and the principle of equivalence in the private system will also encourage prompt payment of contributions, since the higher the total amount of contributions (and the higher the return on the individual accounts), the greater will be the accumulated fund and hence the higher the pension.[15] On the other hand, increasing the worker's contribution could lead to disincentives for enrollment and compliance with payments. Table 4, which is based on the percentage of total affiliates who were active contributors in 1998-2003, suggests that the disincentives have been stronger than the incentives in this respect. According to this table, the lower this percentage, the greater the degree of non-compliance; with one exception, there has been a downward trend in the degree of compliance in all the countries. In 2003, the degree of compliance ranged from 33% in Argentina (the lowest because of the

[13] Workers' Protection Law, Costa Rica (LPT, 2000); Definitive Social Security Law, Dominican Republic (LDSS, 2001); Social Security Law, Ecuador (LSS, 2001) and Pension Reform Law, Colombia (LRP, 2002).

[14] LPT (2000); Law on the System of Saving for Pensions, in Nicaragua (LSAP, 2000); LSD (2001); LSS (2001), and Mesa-Lago (2004a).

[15] For a critical analysis in this aspect, see Uthoff (2002).

TABLE 4

Latin America (9 countries): Percentage of total affiliates who are active contributors[a] in the private systems, 1998-2003

Model/Country	1998	1999	2000	2001	2002	2003
Substitutive						
Chile	52,8	53,4	50,9	53,7	51,0	49,1
Bolivia	...[b]	...[b]	...[b]	47,0	46,9	44,5
Mexico	63,4	60,2	57,9	44,7	41,7	40,6
El Salvador	67,2	63,7	55.2	53,2	47,6	45,0
Parallel						
Peru	45,6	45,7	41,7	41,2	39,4	39,2
Colombia	51,8	50,7	49,4	48,7	47,6	47,7
Mixed						
Argentina	48,9	44,3	39,1	29,0	33,2	33,5
Uruguay	67,4	58,7	53,9	53,2	45,1	52,7
Costa Rica				...[c]	...[c]	74,2
Average[d]	*57,9*	*55,5*	*51,0*	*43,5*	*42,1*	*41,8*

Source: AIOS (1999-2003a); for Colombia, SBC (1999-2003).

[a] Affiliates who have paid contributions in the last month (December), except in Mexico, where the period considered was the last two months in 1998-2000; in 2003, the period considered was the month of June.

[b] Up to 2001, contributors were considered to be those who had at least one contribution registered since the beginning of the system.

[c] The system began in May 2001, and up to 2002 contributors were considered to be those who had at least one contribution registered during the last year.

[d] Average estimated by the author, using the total number of affiliates and the total number of contributors.

crisis) to 74% in Costa Rica (the highest level, but this could be due to the way the period of contribution was defined). The weighted average of total affiliates who were active contributors in the nine countries went down from 58% to 42% between 1998 and 2003: in other words, 58% were not active contributors in 2003. In Chile, the level of fulfillment decreased steadily from 76% in 1983 to 49% in 2003, and in Argentina it sank from 73% in 1994 to 33% in 2003 (SAFP, 1983 and 2003; Hujo, 2004).

The foregoing shows that not only have the reform's presumed incentives to improve compliance with payments not worked, but the level of non-compliance has actually got worse. More research into the causes of such non-compliance is needed in order to be able to design suitable remedies, but in any case pension reforms should carefully weigh the implications of eliminating or reducing the employer's contribution in order to avoid a situation where the financial burden on the insured persons (or the fiscal cost) increases, with all its adverse effects. It should be borne in mind that this problem is also faced by the public systems, and is largely due to the growing proportion of the labour force transferring from the formal to the informal sector because of the growing flexibility of labour and the greater use of subcontracted labour without a contract on a part-time or other basis. Non-compliance increases in proportion as affiliates change from formal employment with insurance coverage to jobs that do not have such coverage.

There is also evidence that evasion and arrears (payment delays) by employers have risen to significant levels in some countries. In Chile, for example, employers' arrears of insurance contributions increased six-fold between 1990 and 2002, amounting in the latter year to US$ 526 million, or 1% of the total value of the pension fund, 43% of which was unrecoverable because of the bankruptcy of the firms involved (Mesa-Lago, 2004a). More effective measures must therefore be taken to reduce evasion and arrears by employers: the legal figure of social security offences should be established, with severe penalties for offenders, there should be tighter inspection, using electronic means, in order to detect delinquent employers promptly, and specialized fast-moving courts should be set up with jurisdiction over this problem. Costa Rica has the fullest and strictest legislation on failure to comply with such payments, and the highest percentage of affiliates who pay their contributions punctually. Two different forms of collection are used by the countries: in Argentina, Costa Rica, Ecuador, Mexico, the Dominican Republic and Uruguay, collection is centralized, while in Bolivia, Chile, Colombia, El Salvador, Nicaragua and Peru it is carried out by the pension fund management companies; there does not appear to be a relationship between the form of collection and the degree of compliance. Finally, the World Bank notes that once they have earned the right to a minimum pension, most insured persons stop contributing because they prefer other alternatives that are less risky, have a lower cost, and provide greater liquidity, such as investing in a dwelling, a family enterprise, life insurance, and the education of the children (Gill, Packard and Yermo, 2003). If this type of conduct is indeed observed, ways should be explored for changing people's attitude through incentives and disincentives.

3. Serious flaws due to competition among pension fund management companies

The whole basis of the private system is competition, because this does away with the monopoly situation of the public system and, it is hoped, will promote greater efficiency, thus giving rise to two beneficial effects: reduction of the management costs and a better rate of return on investments. It is assumed that the management companies will compete for affiliates and that the latter will have the necessary information and skills to choose the best companies, i.e., those charging the lowest commission and offering the highest rates of return, because this will mean that the insured person's individual account and his/her pension will be higher. There is evidence, however, that competition is not working, or working imperfectly, in most of the countries.

Competition depends to a large extent on the size of the market of insured persons: the more there are of these, the more pension fund management companies there will be, and vice versa. Thus, in mid-2003 Mexico had 30 million insured persons and 12 management companies, Chile had 7 million and seven companies (only six since March 2004), Peru had 3 million and four companies, El Salvador had 1 million and three companies (in mid 2004 only two were left), and Bolivia had 809,000 insured persons and two management companies[16] (table 5). Costa Rica, however, with 1 million insured persons, has nine management companies, the highest number after Argentina and Mexico, which have 30 and 9 times as many insured persons, respectively. This may partly be due to the fact that Costa Rica, like Colombia and Uruguay, has a multiple management system rather than only private companies, and also in Costa Rica the system has only been operating for a few years. Historical statistics show that in all the countries the number of management companies first of all rises and then falls due to mergers: in Argentina the number of companies went down from 25 to 12; in Chile from 21 to 7; in Mexico from 17 to 12; in Colombia from 10 to 6; in Peru from 8 to 4; in Uruguay from 6 to 4, and in El Salvador from 5 to 2.

Countries with a very small number of insured persons should not automatically copy the systems of big countries, because there is a serious risk that competition, which is the essential basis of the private system, will not work in these conditions. Small countries will also have to decide whether there should

[16] The Bolivian Government initially divided up all the insured persons between the two companies according to affiliates place of residence and prohibited them from changing from one company to the other until 2002; as of mid-2004 a planned third management company had not yet started operations.

TABLE 5

Latin America (9 countries): Competition among management companies in the private system, 2002-2003

Model/Country	Affiliates (thousands), 2003	Number of management companies, 2003	Percentage of affiliates in the three largest management companies, 2002
Substitutive			
Chile	6 883	7[a]	79
Bolivia	809	2	100
Mexico	30 381	12	44
El Salvador	1 034	3[b]	100
Parallel			
Peru	3 100	4	76
Colombia	5 013	6	66
Mixed			
Argentina	9 275	12	57
Uruguay	626	4	87
Costa Rica	1 104	9	82

Source: Data on affiliates and number of management companies were taken from AIOS (2003a) and SBC (2003); concentration of management companies: BCU (2002), CONSAR (2003), SAFJP (2003), SAFP (2003), SBC (2003), SBS (2003), SP (2002b and 2003) and SPVS (2003).

[a] Went down to six in March 2004.
[b] One of the management companies went bankrupt in 2004.

only be private pension fund management companies, as in half of the countries, or multiple management types, as in the other half, because the latter system will make possible greater access of the administrators to the market. Another important issue is that of exclusive dedication, that is to say, that the management companies can only operate in the management of pension funds and will have to create their own nationwide infrastructure (buildings, equipment, personnel), which is extremely costly. It has therefore been suggested that countries which have a very small number of insured persons should consider the possibility of allowing the management companies to use the infrastructure of other institutions such as banks, insurance companies or financial establishments, subject to the necessary caution and separation of interests, in order to reduce costs and facilitate greater competition. This measure was incorporated in the pension reform of the Dominican Republic, and at the end of 2002 there were six pension fund management companies already approved and three more pending, in spite of the small number of insured persons (Mesa-Lago, 2004a).

Even in countries which have a considerable number of management companies, competition may be affected by excessive concentration. The last column of table 5 shows the high level of concentration of insured persons in the three largest management companies at the end of 2002. It may also be noted that Mexico has the lowest level of concentration because the law provided that no management company could have more than 17% of the total number of insured persons in the first four years of the reformed system, and not more than 20% since the end of 2001. It may be argued that if the three largest companies are the best, then such concentration is not negative, but a study on Chile shows that, consistently over time, it is not the three largest management companies which charge the lowest commissions and provide the highest rates of return.

There are three reasons why insured persons choose these three companies, even though they are not the best: i) most of those persons do not have the information or the skill to make a suitable choice; ii) they are influenced by the publicity campaigns of the management companies, which usually project an image of security and solidity, but do not provide insured persons with simple comparative information on commissions and rates of return so that they can identify the best management companies; and iii) many insured persons are enrolled by sales representatives or promoters, who receive a commission from the management company every time they transfer an affiliate to them and who are therefore interested in changing affiliates from one company to another without this necessarily being in the affiliates' best interests.

The World Bank has found serious flaws in pension fund competition: i) the industry is oligopolistic and has a captive clientele whose contributions are retained until the insured persons retire; ii) there is a high and growing degree of concentration which is already a source of concern and may be even more so in the future; iii) in order to reduce operating costs, the restrictions on the number of times per year that an insured person can change his management company[17] have institutionalized what was already a de facto oligopoly and reveal collusion and the development of a powerful cartel; iv) the evidence in Latin America clearly shows that competition among management companies for relatively small market shares only generates higher commissions, and v) the pension fund management industry in the region is anything but a good example of competition (Gill, Packard and Yermo, 2003, pp. 43-44, 112, 174 and 176).

In view of this diagnosis, it is essential that the bodies responsible for supervising the system should play a more active role in promoting competition in this market, reducing entry barriers, and encouraging the formation of new management companies, as well as strictly regulating the work of promoters and establishing rules to ensure truthful publicity. The supervisory bodies and/or associations of management companies should assign more resources to improving the information provided so as to make it understandable to affiliates, publishing lists of management companies in the mass media, listed according to their levels of commissions and net rates of return, and educating users so that they can make an informed rational choice. The possibility should be studied of reducing concentration by imposing a percentage ceiling on the affiliate shares of management companies, as is done in Mexico.

4. High management costs

Competition is supposed to reduce management costs, but it has already been seen that in many countries proper competition does not exist. The management cost has two components (the commission and the premium), and is usually fixed on the basis of the insured person's wage (as a percentage or a flat rate) or, in some cases, on the basis of the balance in the individual account or the return on investment. The commission is paid to the management company for its management of the individual account, the investment of the funds, and the handling of the old age pension, and is paid entirely by the insured person (except in Colombia, where the employer shares in its payment). Part of the commission consists of the premium which is passed on by the management company to a private insurance company in order to cover the insured person against death or disability risks (except in Mexico and Colombia, where this is done through the public system).

Table 6 shows the management cost (commission plus premium) as a percentage of the insured person's wage, but comparison may be a complex matter, as there may be different commissions which are difficult to unify into a single average. The lowest total cost is

[17] In six countries (Bolivia, Costa Rica, El Salvador, Mexico, Nicaragua and the Dominican Republic) affiliates can only change once per year, and in three countries (Argentina, Colombia and Uruguay) they can change twice per year. Chile and Peru are the countries with the greatest freedom to change.

TABLE 6

Latin America (11 countries): Management cost as a percentage of wages in the private system, 2003

Model/Country	Deposit in individual account	Management (commission plus premium)[a]	Total deduction	Management cost (%)	
				Deduction	Deposit
Substitutive					
Chile	10.00	2.26	12.26	18.43	22.60
Bolivia	10.00	2.21	12.21	18.10	22.10
Mexico	6.78	4.14	10.92	37.91	61.06
El Salvador	11.02	2.98	14.00	21.28	27.04
Dominican Republic[b]	5.00	2.00	7.00	28.57	40.00
Nicaragua	7.50	3.00	10.50	28.57	40.00
Parallel					
Peru	8.00	3.51	11.51	30.50	43.88
Colombia	10.00	3.50 [d]	13.50 [d]	25.93	35.00
Mixed					
Argentina	4.75	2.25	7.00	32.10	47.37
Uruguay	12.19	2.81	15.00	18.73	23.05
Costa Rica	4.50	[e]	...	...	...
Average[c]	*8.52*	*2.87*	*11.39*	*26.00*	*36.21*

Source: AIOS (2003a), except for the data on Colombia, which are based on SBC (2003) and on Nicaragua and the Dominican Republic, which are based on LSD (2001) and LSAP (2000), respectively. Averages calculated by the author.

[a] The commission is paid to the old-age pension management company, while the premium goes to the insurance company which covers the disability and death risks (the premium is paid to the public system in Mexico).
[b] In addition to the cost shown, 30% will be charged on the surplus of the annual return on the investment; the percentage for the individual account will gradually be increased to 8% over five years, the management cost will not change, the total deduction will increase to 10%, and the cost over the deduction will be reduced to 20%.
[c] Unweighted average for ten countries (excluding Costa Rica).
[d] 0.5% goes to the Minimum Pension Guarantee Fund, the total deduction for that Fund will increase to 1% in 2004, plus 1% more in 2005-2006 for the individual account, giving a total of 15.5% (this could be increased by a further 1% in 2008 if the economy grows).
[e] There is no commission on the wages, but a percentage on the gross return on the investment.

in the Dominican Republic (2%), but in addition there may be a charge of up to 30% on the return on investment and 0.1% for the supervisory body (LDSS, 2001). The second lowest total cost is in Bolivia (2.21%), because there is no competition or publicity; for this reason, the part of the commission which goes to the management company is only 0.5%, but the premium of 1.71% is the second highest in the region. The highest total costs are 3.50% in Colombia (1.92% of commission and 1.58% of premium); 3.51% in Peru (2.27% and 1.24%), and 4.14% in Mexico (2.50% and 1.64%). In Costa Rica there is no charge based on the member's wage, but there is a commission of between 6% and 10% on the return on the fund's investments, so as to provide an incentive for the improvement of that rate of return. In El Salvador, the management cost of the public system before the reform (as a percentage of the worker's wage) was 0.5%, and this increased to 2.98% in 2003 with the introduction of the private system (Mesa-Lago, 2004a).

Commissions and premiums have displayed different tendencies over time. Commissions range from 1.45% to 2.27% (except in Bolivia and the Dominican Republic), so that they represent the main component, and while they have fluctuated over time, in most of the countries they have not shown a downward trend. Premiums range from 0.67% to 1.27% (except in Bolivia and Colombia), so that they are the lesser component, and they have gone down in almost all the countries. Commissions therefore account for most of the total cost and are the reason why this has not decreased significantly, which is one of the biggest challenges faced by structural reforms in the region. In Chile, the percentage level of the total cost rose from 2.44% in 1981 to 3.6% in 1984, but declined to 2.26% in 2003, which is only slightly below the 1981 figure, after 22 years of reform (Acuña and Iglesias, 2001).

The lowest management cost, as a percentage of the total salary deduction in mid-2003, was 18% in Bolivia, Chile and Uruguay, while the highest costs were in Mexico (38%) and Argentina (32%). The non-weighted average of management costs as a percentage of total deductions in the 11 countries was 26% in 2003. If the management cost is calculated with respect to the deposit, however, the average cost rose to 36,21% (last column in table 6). The existing projections indicate that many insured persons will not save enough to finance their pensions, and the high management costs will aggravate this problem; if management costs were reduced, a larger portion of the contributions would be deposited in the individual accounts and could help to finance the pensions and reduce the fiscal cost of financing minimum pensions (Uthoff, 2002). Some supporters of structural reform now admit that the management costs are high and that competition alone (even if it operated effectively) would not ensure their reduction.[18] Management costs are concentrated in marketing, publicity, sales representatives' commissions,[19] frequent changes by affiliates from one management company to another, and staff wages.

Fixing the management cost as a percentage of the payroll does not provide any incentive to reduce that cost, and only two countries (Bolivia and the Dominican Republic) have established a low ceiling for it, which could be a possible alternative and could be adjusted if it were found that it did not offer sufficient incentives. Another option would be to fix the cost as a percentage of the balance in the individual account or the return on investment; with regard to the latter, the results obtained in Costa Rica should be carefully studied. At all events, the supervisory body must ensure that the saving through the reduction of management costs really is passed on to affiliates through lower commissions.

5. Accumulation of resources in the pension fund, yet without sufficient evidence of positive effects on national saving

It has been claimed that pension reform will promote a big accumulation of capital in the pension fund and will increase national saving (World Bank, 1994; Preamble of the Mexican pension reform law). The first column of table 7 confirms the first assumption, although there are notable differences between countries.

The amount accumulated in the pension fund varies according to the length of time the system has been in operation, the number of insured persons, the size of the economy, the level of wages, and the return on investments. The Chilean reform has been in effect for 23 years and has built up the biggest fund. In Mexico, the reform has only been in effect for 5½ years, but it has already accumulated the second biggest fund (88% of the size of the Chilean fund), because the Mexican economy is the second largest in Latin America and Mexico has the largest number of insured persons.[20] In Argentina, which is the third

TABLE 7

Latin America (9 countries): Fund accumulated and gross real return on the investment, 2003

Model/Country	Fund accumulated, June 2003		Average real annual rate of return (%)[b]
	Millions of dollars	As a % of GDP[a]	
Substitutive			
Chile	39 672	60.6	10.30
Bolivia	1 261	17.2	17.10
Mexico	34 963	5.6	10.40[c]
El Salvador	1 309	9.2	10.86[d]
Parallel			
Peru	4 541	8.2	6.57
Colombia	5 350[e]	6.2[e]	7.33
Mixed			
Argentina	15 607	15.6	10.45
Uruguay	1 149	1.7	15.00
Costa Rica	218	1.4	7.00

Source: Data on accumulation and accumulation as a percentage of GDP were taken from AIOS (2003a); in the case of Colombia, they were estimated by the author on the basis of SBC (2002). Data on the rate of return were based on BCU (2002), CONSAR (2003), SAFJP (2003a and 2003b), SAFP (2003), SBC (2002), SBS (2002), SP (2002b and 2003) and SPVS (2003).

[a] The percentage of GDP represented by the accumulated fund depends not only on the amount accumulated but also on the size of the GDP.
[b] From the beginning of the system up to the end of 2002.
[c] CONSAR reports a net rate of return of 7.95%.
[d] The author has estimated 8.36%, based on the nominal rate of return and the average annual inflation rate.
[e] December 2002.

[18] See the reference to Holzmann and Valdés Prieto in Holzmann and Stiglitz (2001); see also Gill, Packard and Yermo (2003).
[19] In Chile, the proportion spent on this was 26% in 1983 and 28% in 2000, according to Acuña and Iglesias (2001).

[20] The biggest pension fund built up in Latin America was that of Brazil in 2003 (US$ 80 billion, or 18% of GDP), even though it is a voluntary programme providing supplementary pensions. This large figure is due to two reasons: Brazil is the largest economy in the region, and both the employer and the employee contribute to this fund.

economy of the region, the pension fund in 2001 was 60% of the size of the Chilean fund after only 8½ years of operation of the reform, but the crisis reduced it to only 39% in 2003.

The foregoing figures only take account of the resources accumulated in the individual accounts, but not the fiscal cost of the transition (see section 6 below). The World Bank (1994) has maintained that pension reform will promote national saving, which in turn will boost economic growth, promote employment, and eventually make it possible to pay better pensions. Chile is the only country whose reform has been in effect long enough to test this assumption, and most of the studies made in this respect have come to negative conclusions. Holzmann (1997), in a general equilibrium econometric exercise, deducted the fiscal cost of the reform (negative) from the saving in private pension schemes (positive) and concluded that the impact of the reform on national saving was negative in 1981-1988 and that no direct positive impact could be shown in 1989-1996; he therefore warned the Latin American countries not to cherish too many hopes that the reform would increase national saving. Arenas de Mesa (1999) followed a similar methodology, but using a partial equilibrium model for 1981-1997, measuring the factors and the results in annual percentage points of GDP: the saving deposited in the individual accounts averaged 2.7% for the period, but the fiscal cost averaged -5.7%, so that the net result averaged -3%, that is to say, dissaving. Arenas de Mesa also projected that in the first five years of the twenty-first century the situation would change and saving would be slightly greater than the fiscal cost, so that the net result would be positive and would continue to grow thereafter, but as it would probably take 20 years to offset the negative balance of the previous 20 years, 40 years would be needed for there to be a net positive impact on national saving. Acuña and Iglesias (2001) deducted the "transitory deficit on social security pensions" (but excluding the deficit caused by social assistance, minimum and armed forces pensions) from private pension saving, and likewise obtained a net negative average result (-2.7%) for 1982-1997, which is somewhat smaller than that calculated by Arenas de Mesa because the latter included all the fiscal costs of the reform.

Haindl Rondanelli (1997), in contrast, concluded that the reform had had a positive impact on national saving in 1990-1994, but he based his calculations on the overall tax burden rather than the direct fiscal cost of the reform; using his own figures, if he had deducted the average cost of the public system deficit (-4.6%) from the average private pension saving (3.1%) he would likewise have obtained a negative result of –1.5%, even excluding the other fiscal costs of the reform. Corbo and Schmidt-Hebbel (2003), taking into account only the operating deficit and the recognition bond (excluding minimum, social assistance and armed forces pensions), estimate that national saving increased by 2.3% of GDP in 1981-2001 thanks to the reform.[21]

Although an increase in national saving would be desirable and important, it should not be a central objective of structural reform, since so far there is no solid empirical evidence to back up this supposed effect.

6. Substantial and prolonged fiscal cost of the transition

It is claimed that the fiscal cost of the reform will gradually decline and will finally be eliminated in the long term. This cost is difficult to measure and compare between countries, because of the different components included and the different methodologies used, but according to rough estimates, in 2000 this cost (as a percentage of GDP) was 6% in Chile (after 20 years of reform), 4.5% in Argentina and Uruguay, 2% in Bolivia and 1.5% in Colombia; it was not possible to obtain figures for Mexico and Peru (Mesa-Lago, 2004a). The World Bank has projected a fiscal cost for Argentina, Bolivia and Colombia in 2040 which is far above the projections made by those countries before the reform; for Mexico and Peru, the Bank's projections indicate a growing fiscal cost between 2001 and 2040, and only in Uruguay are the Bank's projections for 2040 lower than those made by the country before the reform (Gill, Packard and Yermo, 2003). The policies adopted by the countries to tackle this fiscal cost have been very different: Chile took suitable measures, it generated a fiscal surplus before the reform, and its economic policies have had a good deal of success in the long term, but Argentina did not make any provisions for the situation, its projection of the fiscal cost was only half the actual cost, and its economic policy caused the crisis of 2001-2002.

There are three components of the fiscal cost during the transition, and all of them are financed by the State, with few exceptions: the deficit of the public system, the recognition bond, and minimum pensions

[21] For other opinions, see Kiefer (2004).

TABLE 8

Latin America (12 countries): Fiscal cost of the reform in the 12 countries which have adopted it, 2004

Model/country	Financial responsibilities of the State		
	Covers public system deficit	Pays recognition bonds	Guarantees a minimum pension
Substitutive			
Chile	Yes	Does not have a ceiling, is adjusted to inflation, earns 4% real annual interest, requires previous contributions	Yes
Bolivia	Yes	Does have a ceiling, is not clear whether it earns real interest, requires one month of previous contributions	No
Mexico		No	Yes
El Salvador		Does not have a ceiling, is not adjustable to inflation, earns real interest equal to the rate of inflation, requires previous contributions	Yes
Nicaragua		Does not have a ceiling, is not adjustable to inflation, does not earn interest, requires one year of previous contributions	Yes
Dominican Republic		Does not have a ceiling, is adjustable to inflation, earns 2% real interest, requires previous contributions	Yes
Parallel			
Peru	Yes	Does have a ceiling, is adjustable to inflation, does not earn interest, requires 4 years of previous contributions	No; since 2002 only for affiliates since 1945
Colombia		Does have a ceiling, is adjustable to inflation, earns 3% real annual interest, requires 3 years of previous contributions	Yes (with limitations)
Mixed			
Argentina	Yes	Does not have a ceiling, is adjustable to inflation, requires 30 years of previous contributions (is paid by the first pillar (the public system)	Yes (paid by the first pillar (the public system)
Uruguay	Yes	No	
Costa Rica	No	No	
Ecuador	Yes	No	

Source: Prepared by the author on the basis of the legislation of the 12 countries.

Fuente: Elaboración del autor sobre la base de la legislación de los 12 países.

(table 8). In addition, in some countries the State grants certain guarantees and social assistance pensions which further increase the fiscal cost. Since the present section, which is based on Mesa-Lago (2000), refers to legal and not statistical aspects, it gives information on the 12 countries which have adopted pension reforms.

Of the 12 countries considered, Costa Rica is the only one where the State does not have to pay the deficit of the public system, because the system of financing, based on partial collective capitalization, is capable of financing that deficit. This fiscal burden varies in line with the implicit pension debt, that is to say, the present value of long-term obligations, which includes the payment of currently payable and future pensions. In unfunded or partial collective capitalization financing systems there is always an implicit pension debt, but the reform model adopted may make that debt explicit, generating an immediate fiscal cost corresponding to the total debt, or it may postpone all or part of the debt. In the substitutive model, the public system is closed completely, and the whole of the implicit pension debt immediately becomes explicit, so that pensions currently being paid and those generated by the few persons who remain in the public system have to be financed by the State. This is because 100% of the insured persons (Bolivia and Mexico) or 91%

to 98% of them (El Salvador and Chile, respectively) have moved to the private system and ceased to contribute to the public system, which is left with almost all the pensions but no contributors, or very few, thus generating a deficit. In the parallel model, the implicit pension debt becomes explicit in the private system but not in the public one, whose implicit pension debt is postponed; as the public system still has insured persons who pay contributions (much more in Colombia than in Peru), the fiscal cost is reduced, at least for a time. In the mixed model, the implicit pension debt becomes partially explicit in the second pillar (private system) but not in the first pillar (public system), in which it is postponed.

In 8 of the 12 countries the State has to pay a recognition bond (or certificate of recognition or compensatory benefit, or the like), equivalent to the value of the contributions accumulated in the public system, to all the insured persons who have transferred to the private system. Four countries do not give such bonds: Mexico (because of the choice given to insured persons when they retire, as already explained) and Costa Rica, Ecuador and Uruguay (because in a mixed model the insured persons do not move, but remain in the first pillar, which pays them a basic pension). In 2002, the bond given in Bolivia was limited; in Peru it had been given to only half of the insured persons who changed from one system to the other, and in El Salvador its calculation and issue were five years behind (Mesa-Lago, 2004a). No information is available for Ecuador.

In 10 of the 12 countries the State guarantees a minimum pension to all affiliates of the private system whose individual account is insufficient to finance a pension of that level: the State has to pay the difference. In order to be eligible for a minimum pension, prior contributions for a minimum of between 20 and 35 years are required. Bolivia does not guarantee a minimum pension; Peru has only been granting it since 2002, and even then only to persons who were already insured before 1945, and El Salvador places considerable restrictions on eligibility (Mesa-Lago, 2004a).

In four countries (Argentina, Colombia, Chile and Uruguay) the State offers a further two guarantees: if a pension fund management company cannot guarantee the minimum rate of return on the individual account, the State makes up the difference, and if a management company or insurance company goes bankrupt, the State assumes responsibility for the payment of the pensions in question (in Uruguay, these guarantees are given only to persons insured in the public management company, which partly explains why it has 38% of the total number of insured persons). In the Dominican Republic, the law makes the State responsible for any fault or non-fulfillment that occurs in the private system.

In all the countries there is a trade-off over the fiscal cost. The State tries to reduce this cost, either by not granting recognition bonds or minimum pensions, or by granting them, but subject to restrictions (not providing for readjustment, imposing a ceiling, or demanding prior contributions, for example). These cuts have been made in the various countries after the experience of the Chilean system, which has been the most generous of all, but has also been the most costly from the fiscal point of view. Reducing the fiscal cost adversely affects the welfare of the insured persons, however, since they do not receive recognition bonds or minimum pensions, or else these are subject to restrictions. Chile has the most generous benefits during the transition, but it also has the highest fiscal costs, while Bolivia has lower fiscal costs but also (together with Peru) the most limited rights for the beneficiaries.

The fiscal cost of the transition under a structural reform (as well as the implicit pension debt) should be projected in a professional and careful manner, because it can last for between 40 and 70 years, depending on the country's demographic characteristics and the age of the pension system. The projections should be subjected to an external audit and should be made public so that they can be examined by domestic experts and international organizations. A basic condition for the success of a structural reform is fiscal discipline, especially in the case of governments which already have a fragile fiscal position. Fiscal discipline and the generation of a surplus, or at least fiscal balance, are essential prerequisites if pension reform is to be sustainable. Reforms must also be made in the areas of finance, banking and taxation and in the insurance industry in support of the pension reform, while it is also necessary to identify the sources for the financing of the fiscal cost and to design effective economic policies to meet that cost. In-depth research is needed on the impact that the fiscal cost of the structural reform can have on income distribution.

7. While financial markets may be developed, there may be a lack of diversification in the investment portfolio

It is claimed that pension reform will help to develop capital markets, create new financial instruments and diversify the investment portfolio of the pension fund in order to hedge against risks. The study by Holzmann (1997) on Chile concluded that the pension reform has indeed helped to make the financial markets more liquid and mature, and that the empirical evidence coincides with the assumption that such reform has contributed to the development of the financial market and a more diversified portfolio. It warned, however, that this evidence does not constitute convincing proof that the pension reform has been the decisive factor in the development of those markets since the mid-1980s, because that development may have been due to other factors unconnected with the reform. The World Bank also maintains that the markets have been deepened, due at least in part to the pension reform, but in countries where there have been parallel macroeconomic reforms, such as Chile, it is extremely difficult to isolate the effect of one specific reform (Gill, Packard and Yermo, 2003). Corbo and Schmidt-Hebbel (2003), in contrast, consider that the contribution of pension saving flows to the development of the Chilean financial market has been quite robust and recommend the most radical possible structural reform to accentuate that effect.

There is a long-standing debate on whether it is necessary to have a capital market before a structural reform or whether this is not an essential prerequisite, since the reform itself will have a positive effect on the development of that market. Although this is not the place to settle that controversy, the fact is that small countries such as Bolivia, El Salvador, Costa Rica and Uruguay did not have a capital market before their reforms, or else it was only very incipient and small, with few investment instruments, and those of a highly concentrated nature (El Salvador adopted the law creating and regulating the capital market shortly before the reform began). And indeed it is precisely these countries which have least diversified the composition of the pension fund investment portfolios.

The percentage distribution of the portfolio by instruments as of mid-2003 indicates that most of the countries are still very far from reaching a satisfactory level of diversification (table 9). In Uruguay, Bolivia, Argentina, El Salvador, Mexico and Costa Rica, between 57% and 90% of the portfolio is in public securities, the vast majority of them debt paper. Only in Peru and Chile do public securities have a clearly minority share, while in Colombia the share of these securities is 49.4%; Chile took 17 years to bring this proportion down from 46% to 29%, thanks largely to the actions of the supervisory body. In most countries, the bulk of the investment is in public securities, and if these have shown a good rate of return this is only because the State has paid high interest rates on its debt

TABLE 9

Latin America (9 countries): Distribution of portfolio by types of financial instrument, 2003
(Percentages)

Model/Country	Public securities	Financial institutions	Non-financial institutions	Shares	Mutual and other funds	Foreign issuers	Others
Substitutive							
Chile	29.1	30.4	7.2	10.9	2.4	19.9	0.2
Bolivia	68.1	10.3	19.0	0.0	0.0	1.2	1.4
Mexico	85.4	3.4	11.3	0.0	0.0	0.0	0.0
El Salvador	84.0	12.0	3.6	0.4	0.0	0.0	0.0
Parallel							
Peru	13.0	33.2	13.1	31.2	0.8	7.2	1.6
Colombia	49.4	26.6	16.6	2.9	0.0	4.5	0.0
Mixed							
Argentina	75.9	3.5	1.3	8.2	1.6	8.3	1.1
Uruguay	57.2	37.1	3.4	0.0	0.0	0.0	2.3
Costa Rica	89.5	5.1	4.7	0.0	0.7	0.0	0.0
Average[a]	*57.4*	*16.2*	*8.0*	*7.1*	*1.3*	*9.7*	*0.4*

Source: AIOS (2003a), except for Colombia, for which the data were taken from SBC (2003).

[a] Excluding Colombia.

paper (as for example in the case of Argentina up to the end of 2001), but this is costly for the economy, cannot be kept up in the long term, and is risky.[22] This latter aspect was observed in Argentina in 2002, when the economic crisis and devaluation of the exchange rate caused a drastic fall in the value of the pension fund and an increase in the concentration of the portfolio in public debt paper. The supervisory body played an active role in this process, because in the course of 2001 it cooperated with the government to persuade management companies to agree to convert instruments which were expressed in dollars and were tradeable on international markets into "guaranteed loans" at a lower interest rate; subsequent decrees made it obligatory to invest the product of bank certificates of deposit and cash in debt paper, and in 2002 the government converted the "guaranteed deposits" into pesos, so that the subsequent devaluation considerably reduced the value of the pension funds' portfolio (ILO, 2002a; Hujo, 2004).

Shares are one of the favourite instruments for diversifying the portfolio, and if the capital market indeed develops there will be many shares in which the pension funds can invest. Only in Argentina, Chile and Peru, however, is a significant proportion of the portfolio invested in shares (between 8% and 31%); in El Salvador and Colombia the proportion is very small (0.4% and 2.9%, respectively), and in the rest of the countries it is zero. If there are no suitable possibilities for investing in the domestic market, an alternative would be to invest in foreign financial instruments, but some countries prohibit this, since they consider it against the national interest. In Chile, 20% of the portfolio is invested in overseas instruments, the corresponding figures for Bolivia, Colombia, Peru and Argentina are between 1% and 8%, and the proportion is zero in the other countries studied.

Small countries which have no capital markets or where these markets are only incipient must establish and consolidate them before undertaking a structural reform. It is essential to develop a capital market, regulate it, generate confidence in it, create new local instruments and allow investment in foreign instruments, subject to a suitable ceiling. Countries which plan to invest the pension funds mainly in public debt paper where there is a danger of default should not make a structural reform, since the risk for the private sector would be overwhelming. The pension fund supervisory body must play an important and independent role in the task of promoting diversification of the portfolio, in collaboration with the supervisory bodies for the capital market (Chile has had a positive experience and Argentina a negative one in this respect).

8. The variable net real return on investments

Another assumption of the reform is that it will generate a high rate of real return on investment. The statistics support this assumption, although the results vary between countries and also vary according to the period used for the calculations. The last column of table 7 shows the average real annual rates of return (adjusted for inflation) from the time when the system began to operate up to the end of 2002: 17% in Bolivia; 15% in Uruguay; 10% in Chile, El Salvador, Argentina and Mexico; and 7% in Colombia, Costa Rica and Peru. These are gross rates of return: i.e., they do not deduct the cost of the commission, so that the net return will be lower: for example, the rates were 10.4% gross and 7.95% net in the case of Mexico. In 1981-2000, the gross rate of return of the pension fund in Chile averaged 11.9 percentage points less than the Selective Share Price Index (IPSA) of the Santiago Stock Exchange and 3.8 points more than the average interest rate on deposits, but with much greater volatility (Acuña and Iglesias, 2001). In 1993-2000, the pension fund in Peru had an average rate of return below that of bank deposits or Brady Bonds (Gill, Packard and Yermo, 2003).

The foregoing figures refer to the average for the whole period since the reform came into effect, but if we take only the period up to the mid-1990s the average is much higher, while for the period since 1995 it is much lower, because of the 1995, 1998 and 2001 economic and stock exchange crises. Thus, for example, the average rate of return in Chile was 13.8% in 1981-1994, compared with 4.4% in 1995-2002 and negative average rates of –2.5% in 1995 and –1.1% in 1998 (SAFP, 2002a and 2003). In Argentina, the average was 19.7% in 1994-1997, compared with 7.2% from mid-1997 to mid-2001 and negative rates (–13.7%) from December 2000 to December 2001 (SAFJP, 2003a and 2003b). These fluctuations in rates of return involve a serious risk: if the insured person retires at a peak period in the securities market, his pension will be good, but the amount accumulated in his individual

[22] In El Salvador, the real rate of return fell from 14% in 1999 to 2.4% in 2002, mainly because of dollarization and a cut in the interest paid by the State (Mesa-Lago, 2004a).

account may go down considerably during a crisis, especially if this is prolonged (as in Argentina in 2001-2002).

This risk is reduced in mixed models, because they combine two systems: one with guaranteed defined benefits and another with undefined benefits, but more time and research are needed to prove this point, and in any case it requires suitable diversification of the portfolio. The measures suggested in the previous section for the diversification of the portfolio would serve as the basis for ensuring that the rate of return of the fund would be less dependent on the interest rates on public securities, and this would improve the degree of compensation for risks.

9. There is no proof that pensions in the private system are higher than in the public system

The reforms have promised that the private system will pay better pensions than those of the public system, but it is difficult to verify this important promise because of the lack of up-to-date statistics which are comparable between the two systems. Two Chilean experts stated in a study published late in 2001 that "the latest information published by the Office of the Superintendent of Pension Fund Management Companies (AFPs) is for June 1992", that is to say, at that time it was almost ten years out of date. That information indicated that the average levels of private pensions as compared with public ones was as follows in the different categories: 43% higher in old age pensions, 68% higher in disability pensions, 42% higher in widows' pensions, and 9% lower in orphans' pensions (Acuña and Iglesias, 2001, p. 27). These data are partly contradicted by the following data[23] on the average level of private pensions (March 2002) as compared with the average for public pensions (December 2001): private old age pensions (63% of all pensions) were 24% lower than public ones; disability pensions (7% of the total) were 15% higher; survivors' pensions (28% of the total) were 110% higher, and the weighted average for all private pensions was only 3% higher than the corresponding average for public pensions.

In Argentina, the two statistical publications of the supervisory body do not include figures on the level of pensions in the private system. Moreover, projections indicate that the changes made during the 2001-2002 crisis (including the halving of contributions and the conversion of financial instruments expressed in dollars into devalued pesos) will reduce the benefits of an average pensioner with 30 years of contributions by 65% (ILO, 2002a). In Colombia, public pensions have a higher rate of return than capital in the private system, which is one of the reasons why the majority of insured persons have stayed in the public system (Kleinjans, 2004).

It is too soon to predict whether private pensions will be higher than public ones in the future, because the private system is not yet mature: in 2002 it paid only 20% of total pensions in Chile. It is relatively easy to determine the replacement rate in the closed public system, since it is based on defined benefits (in Chile it was estimated that it was between 61% and 80% in 2000), but it is much more difficult to determine what that rate will be in the private system, since it depends on multiple variables: age of entry into employment, growth rate of wages, density of contributions and rate of return on the pension fund, for example. Simulations made in Chile, based on different assumptions for those variables, display enormous differences in their results (Bertranou and Arenas de Mesa, 2003). In 1988-2001 the lifetime income received showed considerable variations from one year to another, due to the different replacement rates obtained by the different cohorts as a result of the unstable interest rates prevailing in that period (Gill, Packard and Yermo, 2003).

In Chile, the beneficiaries receiving the minimum pension (in both the public and private systems together) amounted to 43% of the total number of pensioners in the two systems in the year 2000; the minimum pension was equivalent on average to 70% of the minimum wage and 24% of the average wage in the private system; both percentages had shown a downward trend between 1990 and 2000. It is estimated that approximately half of the affiliates of the private system (35% of the men and 60% of the women) will receive a minimum pension (Arenas de Mesa and Hernández, 2001). Surveys made in Argentina in 2001 indicate that, in the population of economically active age, 33% of the men and 45% of the women had little or no hope of fulfilling the requirements for obtaining a minimum pension (Bertranou and Arenas de Mesa, 2003). Based on surveys carried out in the metropolitan areas of Santiago and Lima in 2000, the World Bank estimates that in Chile 30% of the male and 50% of the female affiliates do not comply with the requirements for

[23] Based on statistics for 2001 provided to the author by the National Institute of Social Security (INP) and data in SAFP (2002a).

receiving a minimum pension, while in Peru the corresponding percentages were 30% and 60%, but the gap against gaining access was greater than in Chile (Gill, Packard and Yermo, 2003). These percentages would have been even higher if the surveys had been on a national scale and included rural and smaller urban areas.

Historical statistical series should be published comparing the averages for private and public pensions broken down by categories. Comparative research is also needed on the replacement rates in the private and public systems.

10. Increase in gender-related inequity

Structural reforms and private systems have accentuated gender-related inequity. There is information from various countries that shows that women have smaller social security coverage than men and that their pensions are smaller due to causes both outside and within the social security system. The external causes correspond to labour-related characteristics of women such as: their lower rate of labour participation and higher rate of unemployment than those of men, wage discrimination, their proportionately greater employment in unskilled work (domestic service, the informal sector, part-time work and independent work at home without a contract); furthermore, such occupations are poorly paid and are usually not covered by social security. The result is that women accumulate fewer contributions than men during their working life and therefore have a lower density of contributions. On the other hand, the life expectancy of women is between four and five years more than that of men, so that the period their pensions have to cover is longer (Bertranou and Arenas de Mesa, 2003; Mesa-Lago, 2004a).

The causes of the gender-related inequity stemming from within the social security system are to be found in both the public and the private systems. A problem common to both systems is that women often retire earlier than men: five years earlier, for example, in five private systems. This, together with their greater life expectancy at birth, means that women draw their pensions for between nine and ten years longer than men, on average. The private systems accentuate the gender inequity in three ways: i) they demand a minimum number of contributions in order to receive the minimum pension (20 years in Chile and 25 years in El Salvador, for example), and most of them have increased the number of years of contributions required in order to obtain a pension (from 15 to 25-30 years in the Dominican Republic, for example), thus making it even more difficult for women to obtain pensions; ii) they base the pension on the contributions made throughout the entire active working life, instead of only taking into account the last few years, as the public systems do, which adversely affects women because their contribution density is lower than that of men; and iii) they apply mortality tables which are differentiated by gender in respect of lifetime incomes and programmed withdrawals, so that the amount accumulated in the individual account is divided by the average life expectancy; consequently, women's pensions are lower than those of men, and even more so if they retire earlier (although there is some degree of compensation in the case of married women, since the lifetime income takes into account the life expectancy of the spouse). It is argued that this form of treatment is actually fairer, because it avoids cross-subsidies between the sexes, but it is not fairer when one takes into account the fact that women pay the whole cost of raising their children, because Latin American pension systems do not award any credits for that work (in Chile, the pre-reform pension legislation granted women one year for each live child). A positive measure in the reforms has been the equalization of the normal retirement age for both sexes in seven of the countries (Bolivia, Costa Rica, Ecuador, Mexico, Nicaragua, the Dominican Republic and Uruguay), which makes it easier for women to accumulate more contributions and a larger fund in their individual accounts, for distribution over a retirement period which is five years shorter. This does not compensate for the longer life expectancy of women, however.

The combined effect of the above factors on differences between the sexes may be seen in the case of Chile: in 2001-2002, for example, the amount accumulated in the individual accounts of women was only between 32% and 46% of that accumulated by men; the replacement rate of women was between 52% and 57%, while the rate for men was between 81% and 86%, and the average pension of women retiring at 60 was 60% of that of men, or 87% if they retired at 65 (SAFP, 2002b; Bertranou and Arenas de Mesa, 2003). According to the World Bank, in all the countries which have made pension reforms, women continue to obtain lower rates of return than men (Gill, Packard and Yermo, 2003, pp. 62-64). In theory, mixed systems should tend to make up for gender inequity more than substitutive systems, depending on the relative importance of the two pillars, because the first (public) pillar would reduce such inequity, while the second (private) pillar would accentuate it. In Costa Rica, the compensatory effect should be greater than in other countries, because the pension paid by the first pillar is the main element and the second pillar is supplementary to it. The opposite would be the case in Argentina.

Policies to reduce gender inequities should be aimed at the root causes of these problems. With regard to the external causes, measures should be taken to promote stable and productive employment for women; to increase investment in women's training at the national and the enterprise levels; to ensure social security coverage in the occupations in which most women work (domestic service, independent work); to ensure that the principle of equal pay for equal work is rigorously applied; to ensure that contributions continue to be paid during maternity leave or periods when women are receiving unemployment benefits (where these exist); to permit shortening of the prenatal period of maternity leave and a corresponding extension of the postnatal period, in order to give women more time to look after their newly-born children; and to make it obligatory to provide day nurseries in firms above a certain size or to establish a public programme to provide these services at reduced rates through fiscal contributions. With regard to the causes within the pension system, measures should be taken to equalize the normal age of retirement in countries where it is still different for men and women, raising that age for women gradually over a period of time when necessary, and to allow early retirement subject to the payment of a smaller pension calculated actuarially.

11. Disappearance or erosion of solidarity

In the private system, the principle of solidarity is replaced by the principle of strict equivalence between the contributions paid and the pension received, thus reproducing the inequalities existing in the labour market and in wages, eliminating inter-generational income distribution, and transferring the redistributive function to the State (i.e., outside the pension system) through the guaranteeing of a minimum pension and the granting of social assistance pensions.

The reforms have introduced (or in some cases maintained) redistribution mechanisms which are mostly of a regressive nature: i) exclusion of insured persons who are in separate special programmes (the armed forces in almost all the countries and public employees in some); these insured persons generally have middle- or high-level incomes, do not contribute under the general system, but enjoy generous benefits and fiscal subsidies; ii) the virtual exclusion in most countries of independent workers and other groups in the low-income informal sector, as well as the poor; iii) accentuation of gender inequalities; iv) elimination of the employer's contribution and an increase in that of the worker; v) a greater proportional reduction in the tax burden of high-income insured persons, because of the deferment of tax payments on the contributions they deposit in their individual accounts; vi) the very high management costs of the system, which are paid for entirely by the insured persons and generate profits for the management companies but reduce the amount deposited in the individual account and future pension, affecting in particular low-income affiliates; vii) the fixed commission charged by some management companies, which represents a larger proportion of the contributions of low-income workers than those of high-income affiliates, thereby disproportionately reducing the deposit in the individual account and the size of the pension of low-income workers; viii) the inter-generational inequalities caused by the subsidy paid by the older affiliates, who have borne the brunt of the cost of installing the new system, to the younger affiliates, who bear a smaller burden, and ix) the fiscal cost of the transition, which implies a transfer to the middle- and high-income groups of insured persons which is financed from national taxes, often levied on consumption and paid by the whole population, including those who are not insured; this effect becomes even worse as coverage goes down. See in this respect Arenas de Mesa (1999); SAFP (2002b); Gill, Packard and Yermo (2003); Kiefer (2004), and Mesa-Lago (2004a).

The elements of solidarity and progressive redistribution effects claimed for the system are usually exogenous to it. The minimum pension financed by the State and financed from national taxes does not generate redistribution among the affiliates of the private system, but between taxpayers and insured persons who do not meet the requirements for receiving such a pension; a considerable part of the current insured persons will make use of this guarantee, and their pensions will not usually be in line with the cost of living. Social assistance pensions, which are also the responsibility of the State, are only granted in a third of the countries that have made structural reforms, and while they have a progressive effect (reduction of poverty) this is not financed by those insured in the private system but by the whole population. In 1981-2000, the fiscal cost of the social security system in Chile averaged 5.7% of annual GDP, of which 5.3% was to cover the cost of the transition (operating deficit, recognition bond and minimum pensions) but only 0.4% was for social assistance pensions (Arenas de Mesa and Benavides, 2003). There are two important exceptions. In Colombia, insured persons whose wages are four times the minimum wage pay a contribution of 1% to the Pension Solidarity Fund (with an additional contribution of 0.2% to 1%, in proportion as income rises from 16 to 20 times the minimum wage); the first 1% is designed to extend the coverage of independents and other groups whose socio-economic situation prevents them from forming part of the social security system, while the remaining percentage is intended to cover social assistance pensions (LRP, 2002). In the Dominican Republic, employers pay 0.4% of the payroll into a Minimum Pension Solidarity Fund which is to finance minimum pensions under the contributory system (LDSS, 2001). The equalization of access conditions is positive, but exceptions have been made for some privileged systems, which do not contribute under the general system, enjoy generous benefits, and receive fiscal subsidies; it also leaves out the vast majority of independent workers and other low-income groups.

The absence of solidarity can be offset by integrating the privileged groups into the general system or eliminating the fiscal subsidies they receive, using these resources to help to incorporate low-income workers, to extend the coverage of social assistance pensions, and to adopt the measures suggested earlier to reduce gender inequity. Countries could also introduce a solidary contribution to be paid by high-income workers and/or employers (as in Colombia or in the law approved in the Dominican Republic) or a solidary contribution levied on very high pensions (as provided for in the law which is in the course of approval in Brazil); the resources thus collected would be used to extend the coverage of low-income groups and social assistance pensions. The flat-rate commission charged by some pension fund management companies should be eliminated, and the possibility that the cost of commissions should be shared with employers (as in Colombia) should be discussed. The high fiscal costs of structural reform should be offset by the need for resources to provide social protection for low-income and poor groups.

(Original: Spanish)

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International trade and global poverty

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In the light of the extent of global poverty and the challenge presented by the Millennium Development Goals for its reduction, this article analyzes one of the clearest and most effective ways of reducing poverty: trade liberalization —especially agricultural trade— by the industrialized countries. 75 percent of all the poor worldwide are in the rural sector of the developing countries, and the agricultural products that these countries could sell face protectionist barriers —tariffs, non-tariff measures, subsidies— imposed by the industrialized countries. This article examines the topic in detail, both globally and as to specific products, and presents —based on several studies— the benefits that trade liberalization in industrialized countries would bring to developing countries, emphasizing the great impact that this liberalization could have on poverty reduction.

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I
Introduction

For a reader not versed in economic matters, the title of this article could raise more than one question: what is the relation between international trade and poverty and marginalization in the developing world? What is the connection between the images of products being loaded and unloaded in ports and airports, or the crossing of frontiers by trucks and freight trains, and the vast poverty-stricken rural areas in Africa, Latin America, Eastern Europe and Asia? We hope that these pages will shed some light on the close link between global poverty and the rules currently governing international trade.

This article begins by addressing poverty-related topics: the Millennium Development Goals, the recent evolution of global poverty and its main characteristic: its rural dimension. It then deals with international trade issues, such as agricultural subsidies in the industrialized countries and several agricultural products which are severely affected by the protectionism imposed by these countries. Finally, it presents estimates as to the impact that the eradication of the main protectionist measures in agriculture would have on the reduction of global poverty. These estimates are the work of several specialized institutions, mainly the World Bank.

II
The Millennium Development Goals

In September 2001, the United Nations presented a road map for the implementation of the Millennium Declaration adopted by its 189 member States a year earlier, in order that globalization could be fully inclusive and equitable. This plan involved a commitment by governments and the United Nations, including the institutions arising from the Bretton Woods Conference (the International Monetary Fund (IMF) and the World Bank) and the World Trade Organization (WTO), among others, to work toward those goals. It was based on the Millennium Development Goals and sought to achieve sustainable development through the eradication of poverty and the improvement of a number of social indicators.

The Millennium Development Goals are as follows:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria, and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development.

Each of these goals is associated with the attainment of a specific target and includes the definition of measurement indicators to monitor and assess the results. Thus, the goal of eradicating extreme poverty involves halving, the number of poor people, defined as those whose income is less than one dollar a day, between 1990 and 2015.

We will focus the analysis on this first goal, since it is somehow a prerequisite for the attainment of the other goals, and we will answer the following two questions: What have been the poverty trends between 1990 and 2000?; and How is poverty expected to evolve toward 2015?

III

Poverty trends in the developing countries

Poverty trends between 1990 and 2001 vary according to the definition of poverty applied. If the poor are considered to be those living on less than one dollar a day —that is to say, those in a situation of extreme poverty— then during that period there was a significant reduction in the number of poor: from 1,219 million to 1,101 million. On the other hand, if the poor are considered to be those living on less than two dollars a day, then the number increased from 2,689 million to 2,733 million over that period (World Bank, 2004a).

Even more important is that fact that under both these definitions of poverty the regional dispersion is rather significant. The only region in which poverty went down was Asia; in the other regions the number of poor increased. Thus, under the definition based on an income of less than one dollar a day, the number of poor in Asia went down from 934 to 712 million between 1990 and 2001, whereas in Africa it rose from 233 to 321 million over the same period, and in Latin America it went up, albeit only slightly, from 49 to 50 million. If we consider the people with an income of less than two dollars a day, over the same period the number of poor in Asia went down from 2,075 to 1,927 million, while in Latin America it increased from 125 to 128 million.

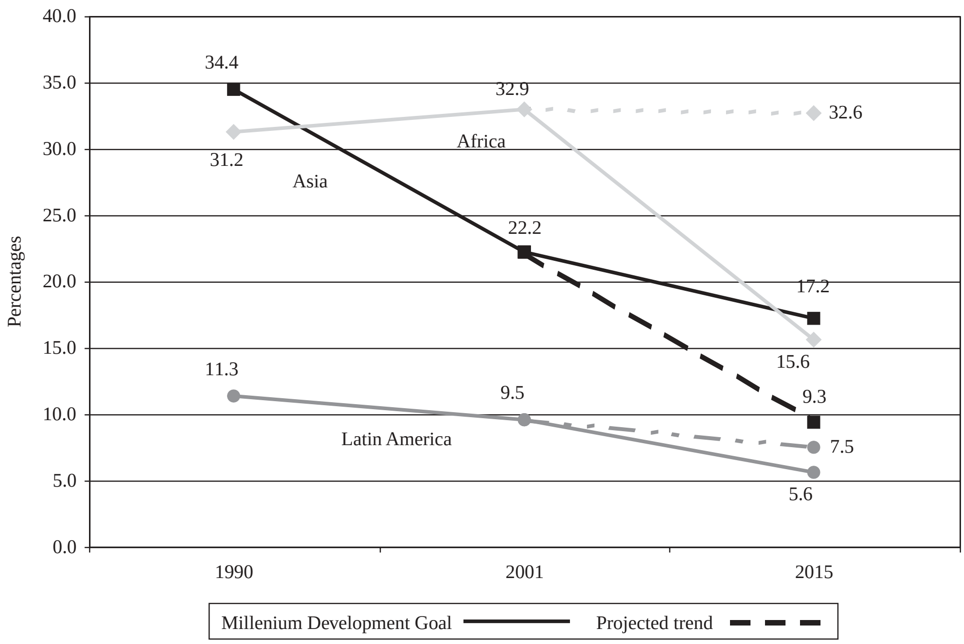
Poverty rates show better results. Thus, the percentage of poor in the developing countries fell from 27.9% in 1990 to 21.3% in 2001, considering the definition of an income of less than one dollar a day, and from 61.6% to 52.8% under the definition of less than two dollars a day.

Figure 1 shows that poverty rates are not only falling in Asia but also in Latin America. In 2001 it was estimated that 22.2% of the population received less than one dollar a day in Asia, which represented

FIGURE 1

Three regions:[a] Extreme poverty rates in developing countries

(Percentage of people living on less than one dollar a day)



Source: World Bank (2004a and 2004b).

[a] For the purposes of this analysis, Africa includes Sub-Saharan Africa, the Middle East and North Africa.

a significant reduction compared with 1990; however, this rate was higher than the 9.5% registered in Latin America, where poverty had gone down slightly from 11.3%. Over the same period, the percentage of the population in extreme poverty rose from 0.5% to 3.7% in Eastern Europe and from 31.2% to 32.9% in Africa.

It is interesting to consider the levels of poverty rates expected in 2015. The number of poor worldwide would continue to fall, reaching 809 million in the case of those with less than one dollar a day and to 2,320 million in the case of those with less than two dollars. It is estimated that the number of poor will continue to fall rapidly in Asia and to increase in Africa. In Latin America and Eastern Africa, the number would fall from the 2001 levels, although only slightly in the Latin American region.

According to these projections, the rate of extreme poverty worldwide in 2015 would be 13.3%, which would mean achieving the goal of halving the number of poor from the 1990 level (27.9%).[1] By regions, extreme poverty rates would be 32.6% in Africa, 9.3% in Asia, 7.5% in Latin America and 1.4% in Eastern Europe. Only Asia would reach the Millennium goal, with a rate equivalent to almost a quarter of that registered in 1990. As noted, Latin America would not manage to reduce its extreme poverty rate to 5.6%, which is the sought-for target.

Table 1 shows the number of poor over the whole period considered, i.e., from 1990 to 2015.

TABLE 1

Developing countries: Evolution of poverty, 1990-2015

(Variations, in millions of people)

	People living on one dollar a day	People living on two dollars a day
Total	*–410*	*–369*
Asia	–590	–597
China	–304	–611
Rest of the world	180	228
Latin America	–2	–8
Eastern Europ	5	–13
Africa	177	249

Source: World Bank (2004a and 2004b).

We can note that in the 25 years from 1990 to 2015, extreme poverty in Asia would fall by 590 million people (over half of them Chinese), but it would grow still further in Africa whereas in Latin America it would hardly fall.

In 1990, for every poor African or Latin American there were over three poor Asians. In 2001 this ratio went down to 1.8. By 2015 there will be only 0.74 Asians in extreme poverty for every poor person in the rest of the world. In 1990, eight out of ten in extreme poverty worldwide were Asians; by 2015 there will be only four. In other words, poverty is increasingly an African and Latin American phenomenon and less and less an Asian problem.

IV

The rural dimension of global poverty

An essential characteristic of global poverty is that three out of four poor live in rural areas (World Bank Institute, 2004). Consequently, we can only win or lose the war against poverty in the rural area.

Based on the data available on urban and rural income, we see that 63% of the population and 73% of the poor live in rural areas. This ratio is common to all regions. The level of rural poverty is high in all the developing countries, regardless of the income level. Most of the population in low-income countries is poor; however, in the least developed countries the poverty rate in rural households is almost 82%. The share of rural households in the total of poor households is falling due to urbanization, but it will still not fall below 50% before 2035 (World Bank, 2003).

A sustained rise in agricultural productivity in the developing countries is needed in order to reduce rural poverty. However, achieving this sustained rise is not only the developing countries' exclusive responsibility. On the contrary, for this to be possible it is essential

[1] In World Bank (2004c) a more optimistic situation is presented for 2015 in which the global goal would be more comfortably reached, with an extreme poverty rate of 12.5%. This projection is based on the assumption of an annual growth rate of GDP of 4.7% between 2004 and 2015.

to open up the agricultural markets of the industrialized countries, which are currently closed.

Without exception, all the industrialized countries block the free access of products from the developing countries and, in addition, in most of the cases, they distort world markets with subsidies to agricultural production and exports. Since rural poverty is the most endemic and painful form of poverty in the world, the barriers to free agricultural trade are essentially regressive. Consequently, there will be no appreciable reduction in global poverty unless economic growth of the developing countries is facilitated, but for many of them —especially the poorest countries— there will be no growth without technological advances in their agriculture.

As the poor mainly produce agricultural goods, along with other products that are labour-intensive (textiles, for example), it is obvious that the global trade order is biased against them. According to recent estimates, equitable global liberalization of trade could reduce the number of poor in the world by over 300 million people: that is to say, it would contribute with an additional 60% to what is projected in the 25 years ending in 2015 (World Bank, 2001a).

An end to protectionism has repeatedly been called for at the biennial meetings of the International Monetary Fund and the World Bank. For example, the final communiqué of the ministerial meeting of the Development Committee of April 2003 clearly stated that “It is essential for developed countries to do more to liberalize their markets and eliminate trade-distorting subsidies, including in the areas of agriculture, textiles and clothing, which are of particular importance for developing countries” (Development Committee, 2003).

V

Agricultural subsidies in the industrialized countries

The analysis of global trade protectionism is too broad a topic to be dealt with adequately in a few pages; therefore, in this article we will only present some of the vast evidence available on the unfair practices currently prevailing.

One of the most important inequalities observed in the world trade system, and that seriously impedes growth of the developing countries’ exports, is the high level of agricultural subsidies applied by the industrialized countries.

The Organization for Economic Cooperation and Development (OECD) estimates that farmers in its member countries received State support equivalent to 31% of their income in the period 2000-2002. The highest agricultural subsidies are those given in Switzerland (73% of farmers’ total income), Norway (68%), South Korea (66%) and Iceland (63%). Farmers in Japan receive 59% of their income in the form of subsidies, and in the European Union, 35%. United States farmers are below the average, receiving subsidies equivalent to 21% of their total income (OECD, 2003).

Table 2 shows subsidies as a percentage of farmers’ total income in the industrialized countries for their main exports. Those with the highest subsidies are rice, sugar, dairy products and meat.

TABLE 2

Industrialized countries: Subsidies on agricultural exports, 2000-2002
(As a percentage of producer’s income)

Maize	27%
Beef and veal	33%
Wheat	37%
Other cereals	41%
Mutton and lamb	45%
Milk	46%
Sugar	47%
Rice	81%

Source: OECD (2003).

These subsidies do not only have an impact within the industrialized countries, but also beyond their frontiers, depressing the income of poor farmers in the developing countries who produce these goods efficiently.

Agricultural subsidies in the OECD countries totaled more than US$ 300 billion per year in 1999-2001: that is to say, they represented more than six times the total direct aid given by the industrialized countries to poor countries. This amount includes both direct and indirect subsidies, and it is precisely the latter —restrictive “on the border" measures— that account for most of the total subsidies.

The volume of agricultural support was as follows: European Union, US$ 112.7 billion; United States, US$ 95.5 billion; Japan, US$ 64.8 billion; and the other OECD countries, US$ 56.6 billion. The main products benefiting from this support were meat (US$ 47.3 billion), milk (US$ 42.1 billion), rice (US$ 26.4 billion), wheat (US$ 17.4 billion), and maize (US$ 12.9 billion).

VI

The protectionist fortress

With regard to import duties or customs tariffs, the industrialized countries have built a real "protectionist fortress", levying taxes more heavily on the goods produced by the poor countries (agricultural products and textiles), as well as imposing numerous non-tariff barriers (quotas, import licences, anti-dumping duties and technical requirements) that in many cases are more burdensome than the tariffs themselves. In the case of tariffs, for example, the average customs tariffs on agricultural imports applied by the European Union is 20%, and 9% in the case of the United States.[2] In the case of textiles and clothing, the average tariff in the United States is 8.9%, while in the European Union it is 7.9% (Oxfam International, 2002). These figures contrast starkly with the average tariff of only 1% applied on imports by these countries reciprocally (*The Economist*, 2003).

The International Food Policy Research Institute (IFPRI) recently estimated the effects of that protectionist fortress on the exports of the poor countries. According to those estimates, the developing countries lose around US$ 40 billion per year due to the lower exports as a result of the agricultural protectionism of the industrialized countries. This means that, if those protectionist barriers did not exist, the agricultural exports of the developing countries would be three times higher.

The largest share of this loss corresponds to Latin America, which currently exports some US$ 32 billion dollars to the industrialized countries but could export more than US$ 46 billion. In other words, the annual loss to the region is over US$ 14 billion.

If we consider potential income from exports not materialized because of trade barriers, the developing countries lose a net income of around US$ 24 billion per year as a result of the agricultural protectionism of the industrialized countries: over half of this loss is due to the Common Agricultural Policy (CAP) of the European Union. The region most affected is Latin America, with an annual income loss estimated at US$ 8.3 billion (IFPRI, 2003). A pathetic example is that of the milk subsidies, shown in table 3).

If the total subsidies are divided by the number of cows, the annual subsidy per cow is almost US$ 1,000 in the European Union and over US$ 4,000 in Japan. This means that in the European Union each cow is subsidized at a rate of US$ 2.67 per day, while in Japan the rate is US$ 11.86 per day. These figures contrast sharply with the poverty levels in Sub-Saharan Africa, where 48% of the population lives on less than one dollar a day and 77% on less than two dollars. This contrast between the milk subsidies in the industrialized world and the poverty in the Third World is truly overwhelming.

A sad anecdote: the Netherlands Government —one of the most generous countries in the world in terms of international cooperation— has been supporting Tanzanian dairy products for over 20 years. Yet, at the same time, the European Union exports powder milk that is subsidized at three times the rate of the Dutch aid, thus further impoverishing this African nation.

TABLE 3

"I've got a milk cow … but not just any milk cow"

	Number of cows (millions)	Subsidy per cow (dollars)	
		Per year	Per day
European Union	33.8	975	2.67
Japan	1.6	4 328	11.86

Source: Estimates based on data from OECD. This type of comparison was not our idea; for example, a similar exercise can be found in Stern (2002).

[2] This figure conceals great tariff dispersion, with maximum levels of as much as 350%. For more information, see ECLAC (2003) and World Bank (2003).

The levels of protectionism faced by exporters from the industrialized countries and those from developing countries are extremely disparate, which further exacerbates the unfairness of global trade. As shown in table 4, Latin American agricultural goods accessing the markets of industrialized countries face an average tariff of 20.4%.[3] In contrast, the industrialized countries' exports of non-agricultural goods face an average tariff of 8.5% when entering the Latin American markets.

Thus, the main exports of the two groups of countries in question are subject to tariffs which differ by a factor of 2.4.

TABLE 4

Latin America and the industrialized countries: Disparity between average tariffs
(Levels of protection faced by exporters in each region)

	Importing region	
Exporting region	Latin America	Industrialized countries
Agricultural goods		
Latin America		20.4%
Non-agricultural goods		
Industrialized countries	8.5%	

Source: World Bank (2003).

VII

The poor face the highest tariffs

Table 4 shows that the exports by the poor of the developing countries —in this particular case, Latin America— to the industrialized countries face higher tariffs than those imposed by the developing countries on their imports from the industrialized nations. The liberalization of domestic trade generally benefits the poor because it facilitates the shifting of resources from capital-intensive to labor-intensive sectors.

The industrialized countries reciprocally apply tariffs of 1% on their manufactured goods but impose tariffs of 5% on similar imports from East Asia, 6% on those from the Middle East, and 8% on those from South Asia. Mongolia, for example, pays in tariffs to the United States a similar amount to that paid by Norway, even though it sells only 3% of what Norway exports to the United States. Can anyone claim that this system allows the poor to exploit their development potential?

Some comparisons made by Oxfam International, a British charitable organization, are very telling. The tariffs levied by the United States on imports from the developing countries can be as much as 20 times higher than those applied on imports from other rich developed countries. Last year, the average United States tariff on imports from Bangladesh was 14%, a total of US$ 301 million, although that country supplied only 0.1% of total United States imports. This amount was only slightly less than the total duties paid on imports from France, which were subject to a tariff of only 1% and represented 2.4% of total United States imports (Oxfam International, 2003).

The tariffs of the European Union severely discriminate against the developing countries. Its duties on imports from India were almost four times higher than those on imports from the United States and were more than eight times higher than those from Sri Lanka and Uruguay.[4]

[3] It cannot be denied that the developing countries also sometimes apply significant tariffs to agricultural goods. Thus, for example, the agricultural exports of Latin America pay tariffs of 42.1% in East Asia and 24.7% in Sub-Saharan Africa. For more information in this respect, see World Bank (2003).

[4] Oxfam International (2003).

VIII

The tariff scaling of the industrialized countries

One of the features of the tariff structure of the industrialized countries is that it strongly discourages production with higher value added, as seen in table 5.

This situation, which prevails in the European Union, the United States and Japan, also exists in the other industrialized countries. Canada's tariffs on processed food products, for example, are 12 times higher than those applied to products in the primary stage of processing.

The European Union's tariff is less than 4% on imports of yarn, but 14% on clothing.

The United States and the European Union apply zero tariffs on imports of cocoa beans, but up to 30.6% on processed products such as cocoa paste and chocolate. As a result, the developing countries produce over 90% of all cocoa beans but less than 5% of world chocolate production.

TABLE 5

Tariffs applied by the industrialized countries: The developing countries are condemned to export goods without value added

(Percentages)

Exports		Tariff applied by:		
		European Union	United State	Japan
Coffee	As raw material	7.3	0.1	6.0
	Processed	12.1	10.0	18.8
Cocoa	As raw material	0.0	0.0	0.0
	Processed	30.6	15.5	22.0
Sugar	As raw material	18.9	2.0	25.0
	Processed	36.4	17.7	[a]
Fruit	As raw material	9.2	4.6	8.7
	Processed	22.5	10.7	16.7

Source: World Bank (2003).

[a] Specific tariffs.

IX

The richest receive the biggest subsidies

1. Inequitable distribution of agricultural subsidies

The industrialized countries would benefit from the reduction of protectionism and agricultural subsidies, most of which go to large-scale farmers who earn more than the average family in the European Union, Japan and the United States. Protectionism and subsidies cost the average family US$ 1,000 per year in those regions because of the higher cost of food.

In many industrialized countries the average income of farmers is higher than the average national income: 250% in the Netherlands, 175% in Denmark, 160% in France and 110% in the United States and Japan.

The OECD estimates that only a quarter of every dollar spent on support ends up in the farmers' pockets: the rest goes to suppliers of inputs and owners of other factors of production. The most important result of these support programmes is that they inflate land prices.

A recent study (Environmental Working Group, 2003) reveals data that illustrate this inequitable distribution of agricultural subsidies. In the United States, the large farms are mainly responsible for the increase in the agricultural surpluses that are exported, getting therefore an even bigger share of the support. In 1995 the big received US$ 4 billion (55% of all federal agricultural subsidies), while in 2002 their share rose to US$ 7.8 billion (65%).

In the United States, 25% of the largest farms receive 89% of the subsidies, while the remaining 1.6 million farms in the country receive little support. In 2001, David Rockefeller and Ted Turner were among the recipients of agricultural subsidies.

In the European Union the way the support is distributed is not much different. The biggest farmers receive nearly 75% of the total support (OECD, 2003), while 4% of the farmers with the biggest farms receive 21% of the total. The farms following in size generate 17% of the agricultural production and receive 19% of the subsidies. The remaining two million farms produce little and receive only minimal support.

In Japan and Canada 25% of the largest farms receive 68% and 70% of the total support, respectively.

2. Anti-dumping measures

With regard to the impact of anti-dumping measures —another source of inequalities— box 1 provides an example concerning Vietnam, based on information from the World Bank (2003).

Because of the potential harm resulting from anti-dumping measures, as the one mentioned in the last paragraph of box 1, some countries have bilaterally agreed not to apply these measures. This was the case, for example, of the Free Trade Treaty signed between Chile and Canada in 1996.

3. Some protectionist measures that affect important agricultural products

Following is a brief account of some protectionist measures that affect the trade of agricultural goods that are of key importance in global production.[5]

a) *Cotton*

The world trade in cotton is severely distorted due to the policies applied. The world's biggest cotton producer, the United States, faces much higher production costs than African producers such as Mali or Burkina Faso.

The United States is the country that provides the greatest support to its cotton producers. Its 25,000 producers receive US$ 4 billion in government subsidies to produce cotton at a commercial value of only US$ 3 billion. Such subsidies depress the global market of this good, causing harm, among others, to the 11 million producers in West Africa. In 2001-2002 producer prices in the United States were 91% higher than in the world market.

Meanwhile, the European Union provides support in the amount of US$ 600 million per year to its own cotton producers, which shows that the price projections and exports of the developing countries —especially of Africa— would substantially improve if the industrialized countries reduced or eliminated their support to producers.

b) *Sugar*

Sugar is one of the most politically distorted commodities worldwide. Most of the OECD support to sugar producers is given in the European Union, Japan and the United States: US$ 6.4 billion, which almost equals the value of the total exports of the developing countries.

High import duties, together with subsidies, keep domestic prices of this product in the United States and the European Union at levels almost twice as much as those prevailing in the global markets.

The high domestic prices of sugar in the European Union, Japan, and the United States have encouraged

[5] Much of the information presented is from the World Bank (2003).

Box 1

A VIETNAMESE STORY

After embarking on a vigorous programme of non-Marxist reforms, Vietnam was one of the most successful examples of globalization in the 1990s. After having been an importer of rice, this country became the world second largest exporter of that product, as well as an actor in the world coffee trade.

After only a few years, half a million Vietnamese were estimated to live on catfish trade**,** promoted by private entrepreneurs. Vietnam captured 20% of the market for frozen catfish fillets in the United States, causing prices to fall and giving rise to concern in the Mississippi Farm Bureau.

As a result, the United States Department of Trade recently imposed tariffs of between 37% and 64% on Vietnamese catfish. The United States International Trade Commission gave its final verdict on 23 July 2000: it ruled that the unfair competition caused by Vietnamese dumping harmed the United States catfish industry and, therefore, the tariffs became permanent.

Something similar happened two years ago with Argentine honey.

The mere possibility of a country imposing anti-dumping measures causes a drop in exports to the countries applying such measures, even when the tariff applied is low. Thus, the mere threat of an anti-dumping duty may deter the export of goods to those markets.

high costs, inefficient local production, and the use of sugar substitutes. At the same time, they have reduced local consumption and made these countries, after being importers of almost half of the global sugar exports in the 1970s, become exporters in the 1990s.

The European Union subsidies make it economically feasible to produce sugar beet in Finland, which affects the poor but efficient sugar producers in tropical countries, who can hardly survive.

World sugar prices are now below the costs of the most efficient producers. The world sugar market has shrunk to a residual trade**,** with 80% of the global production sold at high prices in protected markets.

c) *Wheat*

A similar situation is observed in the wheat markets of the European Union, where high domestic prices have encouraged production. These countries have thus changed from being net importers of nearly five million tons per year in the 1970s to net exporters of 20 million tons in the early 1990s.

The subsidized wheat exports of the European Union continue to depress world prices. Wheat, which is one of the most heavily protected products in the EU, received production support averaging almost US$ 10 billion per year in 1999-2001, corresponding to a rate of protection of almost 50%.

d) *Peanuts*

Peanuts are one of the main oleaginous products. They are extensively cultivated in both the developing and industrialized countries, and provide subsistence and income to many poor peasants in the developing world, especially in Africa and Asia. It is estimated that in Senegal, for example, one million people (10% of the population) are engaged in their production and processing.

United States policy on peanuts, which was heavily distorted by high subsidies and prohibitive tariffs between 1930 and 2001, has been recently reformed, but it still maintains high and redundant tariffs.

The liberalization of peanut prices would bring significant net improvements in welfare for small agricultural economies such as those of Malawi and other West African countries.

The liberalization of the markets for products with value added —oil and food products— would translate into improvements in well-being in a number of African countries (Gambia, Malawi, Nigeria, Senegal, South Africa).

e) *Rice*

Rice is the most important food grain in the entire world. Its production and consumption are concentrated in China, India, and Indonesia.

Box 2
BRAZIL'S EPIC STRUGGLE

Although the international dispute settlement mechanisms must still be improved, they can —as they stand today— provide answers to situations of unfair competition in international trade. Such is the case of Brazil's struggle against United States' subsidies to its cotton producers.

In March 2003 the Brazilian Government complained against the United States before the World Trade Organization (WTO), arguing that the subsidies given by that country to its cotton producers —which totaled US$ 13.1 billion between 1999 and 2003— had caused severe harm to Brazil because of the drop in international cotton prices.

In April 2004, after considering the case for more than a year, a WTO dispute settlement panel concluded that the United States regularly exceeded the limit declared to the WTO for its cotton subsidies. In particular, the panel found that:

— The United States had used concealed export subsidies to evade its commitment to the WTO to reduce the subsidies, and
— The United States' domestic support subsidies for cotton in the trade year 2002/2003 had a significant depressive effect on prices, thus seriously prejudicing Brazil's exports. This means that the United States will have to reform its current practices. In the final verdict, announced in June 2004, the panel's preliminary findings were ratified.

Source: Based on data from Oxfam International (2004) and international organizations.

The support given to rice production amounts to over US$ 26 billion per year in the OECD, and to an astounding 700% of production costs in Japan (at world prices). Tariff scaling (from paddy to milled rice) is common practice in many countries, including those of the European Union, where the tariff on milled rice is prohibitive, except for small preferential import quotas guaranteed to a few countries. For example, the tariff applied to imports of milled rice in the European Union is 80%, compared with 46% for brown rice.

If global reforms were applied—elimination of all import barriers and all support measures—there would be a price increase of about 33%, and 90% in the case of medium and short grain rice. The producers in Cambodia, China and Vietnam would be the main beneficiaries, together with rice consumers in the high-income Asian countries.

Since the main rice producers are small farmers, the gains would also benefit the poor greatly.

4. Dispute settlement

Dispute settlement mechanisms are a means of correcting the above-mentioned inequalities. Box 2 gives an example of how to respond to unfair competition in international trade.

X

The geography of rural poverty

With trade liberalization, there would be a marginal displacement of agricultural production from north to south, and the seriously depressed world prices of many commodities would increase: by 10-20% for cotton, 20-40% for dairy products, 10-20% for peanuts, 33-90% for rice, and 20-40% for sugar (World Bank, 2003).

Four countries —Bangladesh, China, India and Indonesia— account for 75% of world rural poverty. It is in Asia, therefore, that the increase in rural income would have the biggest impact on poverty.

It is in the hands of the main industrialized countries which make up the Group of Seven to decide if the world will move toward equitable globalization.

XI

Protectionism and deterioration of the environment

Economic progress is indispensable to defeat poverty, but this progress must acknowledge that natural resources and bio-diversity are assets that must be preserved. Poverty will not be reduced unless the sustainability of the ecosystems is ensured, especially when increased production exerts more and more pressure on the environment and on resources that are not renewable.

It is a great contradiction that the industrialized countries, which usually lead the way in advocating such protection of the environment, are not consistent with this approach when it comes to the sustainability of their own rural economies, since they overload their already depleted croplands and demand a higher agricultural production out of it.

In this respect, it is worth mentioning the following quote from an article in the Financial Times: "...Subsidies for agriculture foster over-loading of croplands, leading to erosion of topsoil, pollution from synthetic fertilizers and pesticides, and release of greenhouse gases..."[6]

[6] Myers and Tickell (2003).

XII

The gains from trade liberalization

The World Bank has consistently pointed out the distortions in world markets caused by protectionism and has shown the benefits that trade liberalization would bring to exports, production, and above all, **to** the reduction of poverty.

About two years ago, the Bank carried out a simulation exercise intended to determine the benefits resulting from a Doha Round that eliminated import duties, export subsidies, and subsidies to domestic production, following a timetable to be completed by the year 2015 (World Bank, 2001a). According to the estimates (figure 2), the potential global gains from such an agreement would amount to more than US$ 800 billion a year, of which over two-third would be associated with agricultural liberalization; these gains would benefit both the developing and the industrialized countries, with the latter receiving approximately 40% of the gains.

Figure 3 shows the reduction in the number of poor that such liberalization would bring, further to the reduction as a result of the projected growth of the global economy without the elimination of import barriers.

The number of people living in extreme poverty in the developing world would be reduced by 110 million: i.e., by approximately 15% of the number of people living on less than a dollar a day estimated for 2015. The number of poor with an income of less than two dollars a day would go down by more than 300 million.

FIGURE 2

Potential gains from a Doha Round that eliminates tariff barriers toward 2015
(Billions of dollars per year)

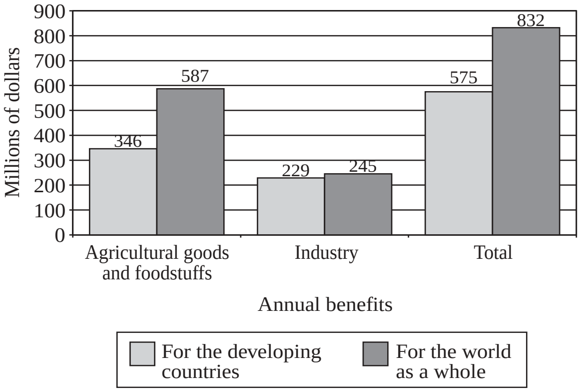
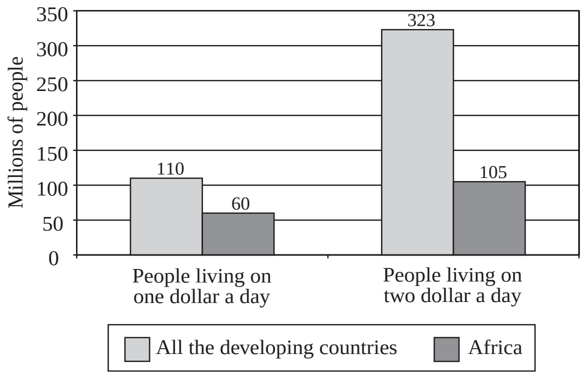


FIGURE 3

Developing countries: Trade liberalization – a powerful force for reducing world poverty
(Reduction in the number of poor, in millions of people)



The report entitled *Global Economic Prospects and the Developing Countries, 2004* (World Bank, 2003) includes and exercise based on a less optimistic estimate of the benefits from the Doha Round negotiations. The exercise aims to lower the “tariff ceilings” by setting maximum tariffs for agricultural products of 10% in the industrialized countries and 15% in the developing countries, while the ceilings for manufactured goods in industrialized and developing countries would be 5% and 10%, respectively.

This program, combined with the elimination of agricultural subsidies and quotas, could generate two-thirds of the gains resulting from a trade liberalization. If it were implemented gradually over a period of five years and there were a positive response in terms of investments, in 2015 it would generate an additional income of nearly US$ 350 billion for the developing countries. In turn, the industrialized countries would receive gains of US$ 170 billion.

As we can see, the benefits would be very considerable and the gains for the developing countries would be seven times greater than the concessional aid currently provided by the industrialized countries.

TABLE 6

Developing countries: Potential impact of liberalization of the agricultural trade of the industrialized countries
(In billions of dollars)

Region	Level of trade balance (exports less imports, or net exports) in 1997	Level of agricultural trade balance after trade liberalization of industrialized countries	Percentage increase in net agricultural exports (negative value corresponds to a reduction in net agricultural imports)
Africa South of the Sahara	7.4	10.7	45
Asia	12.3	22.8	85
Latin America and the Caribbean	31.7	46.4	47
Other developing countries	–31.0	–19.1	–38
All developing countries	20.4	60.8	198

Source: Data of the International Food Policy Research Institute (IFPRI, 2003).

The program in question would reduce world poverty by 8%, i.e., by 61 million people in extreme poverty and 144 million in the case of those currently living on less than two dollars a day.

Some analysts have expressed their concern over the imbalances among countries that could result from a trade liberalization that increased the international prices of agricultural goods and, in particular, they have stressed the negative impact this would have on countries that are net food importers.

Several studies have dispelled this concern. For example, the International Food Policy Research Institute (IFPRI, 2003) concludes that the elimination of protectionism and agricultural subsidies in the industrialized countries would bring about a threefold increase in the positive trade balance of the developing countries, with a favorable effect on all types of countries. Thus, table 6 shows that the net exporters of agricultural goods would increase their trade surpluses, while the countries which are net importers of such goods would reduce their trade deficits.

What is true is that the possibility of countries increasing their agricultural exports is indeed only "potential", and that it needs to be complemented with domestic supply-related measures, such as the improvement of the export sector infrastructure (roads, ports, customs facilities, etc.), and demand-related measures that consider modern marketing practices and the higher sophistication of consumers in the industrialized countries, who may tend to "differentiate" products according to their origin.[7]

XIII
Conclusions

We hope that this article, and in particular the figures presented on the benefits of trade liberalization, will clearly show the link between international trade and global poverty, which was not evident at first. We trust that the increasingly widespread acknowledgment of the damage done by protectionism will translate into concrete actions that will overcome the failure of the Ministerial Conference in Cancun in 2003 and unfreeze the Doha Round, paving the way toward a fairer relationship among the countries engaged in global trade.

We will conclude with a quote from the *New York Times*, one of the newspapers with the greatest impact on global public opinion: "Continuing on the present perverse course will feed social instability and environmental devastation throughout the developing world. It will mean increased illegal migration to fill agricultural and other jobs in richer countries, instead

[7] See, in this respect, the experience of Mexico, in World Bank (2001b).

of increased jobs and incomes in the third world. Any serious effort to combat extreme poverty, promote third world development must begin with a radical assault on agricultural subsidies. It must begin now...”.[8]

(Original: Spanish)

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[8] *New York Times* (2002).

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Public debt sustainability

Ricardo Martner and Varinia Tromben

Although in Latin America public debt-to-GDP ratios continue to be generally lower than in other emerging countries, it has nevertheless not been possible to avoid liquidity problems, which some authors attribute to the low level and high volatility of public revenue, the weakness of domestic financial systems, and the mediocre quality of fiscal institutions. This article also emphasizes some exogenous factors, however. The combination of low economic growth rates and devaluations in a context of dollarized liabilities has given rise to a huge "snowball effect", which is what has come to be called "original sin": the impossibility for an emerging country of borrowing abroad in its own currency. Although the effort to control the dynamics of the public debt will continue to be mainly at the internal level, the medium-term sustainability of that debt will depend on actions by international financial institutions aimed at improving the public debt conditions of emerging countries.

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I

Introduction

In 1998-2002, which has been called the "lost half-decade", the public debt grew considerably in a number of Latin American countries. On average, coinciding with the reversal of the macroeconomic cycle, central government public debt rose from 35.6% to 51.9% of GDP (excluding Nicaragua). This situation illustrates the ongoing vulnerability of public finances in Latin America: when capital flows fall drastically, public-sector borrowing requirements increase, both because the level of activity drops and because the local-currency cost of the public sector's external debt rises in countries with flexible exchange-rate regimes.

In addition to the cessation of payments by Argentina and the restructuring of the external public debt in Uruguay, there have been serious liquidity problems in many other Latin American countries, to such a point that there were no sovereign bond issues during much of 2002. Could this situation have been foreseen? Probably yes, because public finances have become very vulnerable to short-term conditions due to the combination of heavy short-term external borrowing and fixed or over-valued exchange rates. There is no doubt that an appraisal of debt sustainability cannot be separated from a country's capacity to generate foreign exchange and the solidity of prevailing exchange rate regimes.

Although many countries made significant efforts to reduce their indebtedness in the early 1990s, the simultaneous existence of high interest rates,[1] higher exchange rates (in cases where the public debt has a significant external component) and episodes of recession has had devastating consequences for public finances. In a number of countries, the fiscal budget has been caught up in an explosive spiral of increasing indebtedness —a "snowball effect" in which the debt generally absorbs a growing proportion of fiscal revenue.

The combination of scanty economic growth and sharp depreciations of the local currency, in a context of dollarized liabilities, has played a preponderant role in recent crises. Much of this "snowball effect" comes from "original sin",[2] which may be defined as the impossibility for an emerging country of borrowing abroad in its own currency or obtaining long-term loans in general, even on the domestic market. Incomplete financial markets are characterized by structural fragilities due to currency mismatches (when projects which generate resources in local currency are financed in foreign exchange) and maturity mismatches (when long-term projects are financed with short-term loans).

Original sin thus explains the "fear of floating" attitude characteristic of the authorities in the 1990s (Calvo and Reinhart, 2002). Exchange rate fluctuations have always been unavoidable, however, and generate strong wealth effects when there is a currency mismatch between assets and liabilities, which increases the risk of default by the public sector and severely limits the efficacy of monetary policy (Céspedes, Chang and Velasco, 2002).

Although, generally speaking public debt-to-GDP ratios —the usual indicators of the public sector's long-term solvency— have continued to be comparatively lower in Latin America,[3] the region has not managed to avoid the short-term liquidity problems which do so much harm to countries' credibility. In recent studies, this contrast is explained by the low level and high volatility of public revenue, the weakness of domestic financial systems, and the mediocre quality of fiscal institutions.

In the light of recent events, the International Monetary Fund (IMF) has given a central place among its concerns to the issue of the sustainability of the public debt and has prepared various studies on this subject.[4] A controversial conclusion of some of these and other studies is that, in order to be sustainable, the public debt of emerging countries should not be more than 25%-30% of GDP.[5] If this limit were applied, most of the Latin American countries would fall into the dubious category of "unsustainable", which would

[1] Attributable largely to the turbulence of credit markets and the procyclical bias of country risk evaluation agencies.
[2] This expression was first used by Eichengreen and Hausmann (1999).

[3] On average, according to estimates by the International Monetary Fund (IMF, 2003c), the public debt amounts to almost 70% of GDP in the emerging economies of Asia, 90% in those of Africa and the Middle East, and 55% in the transitional economies.
[4] See, for example, IMF (2003c).
[5] Various recent articles have come to similar conclusions: see, for example, Reinhart, Rogoff and Savastano (2003) and Goldstein (2003).

mean that they would have to generate substantial primary surpluses in the coming years in order to absorb the public debt overhang.

The country studies are a good deal more cautious, since they place their emphasis on structural questions when appraising the sustainability of the public debt.[6] As Ter-Minassian (2004) points out, sustainability is a probabilistic matter by its very nature, since the dynamics of the public debt depend on uncertain physical and macroeconomic events. Models can indicate the probable upper limits of the debt, but they cannot indicate what level of indebtedness is too high. This approach, which is much more flexible, avoids general conclusions on the optimum level of the public debt.

This article describes the main trends and accounting problems that prevent us from having a suitable comparative base for the analysis of the public debt (section II). It then analyses the various components of public debt dynamics, with special emphasis on the snowball effect and the procyclical bias of fiscal policy (section III). It then goes on to look at the factors which explain public debt crises, first of all quantifying the impact of currency mismatches on fiscal sustainability and then estimating an early warning model which makes it possible to calculate the likelihood of a debt crisis on the basis of fiscal and macroeconomic environment variables such as growth, the degree of economic openness and capital flows (section IV). Finally, it reviews the various proposals that have been put forward for improving the financing conditions of the public debt, with the aim of ensuring its long-term sustainability in middle-income Latin American countries.

II

Main trends and accounting aspects

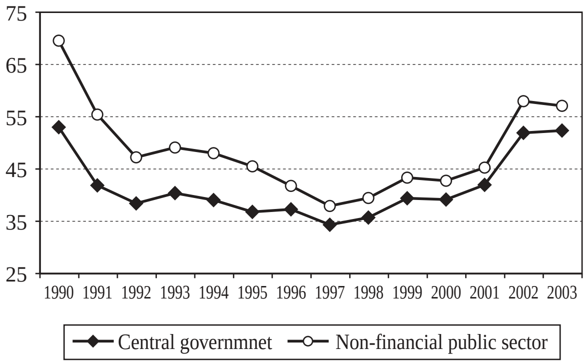
When we look at the trajectory of the average level of public indebtedness in Latin America and the Caribbean since 1990, we obtain a U-shaped curve (figure 1). The debt declines up to 1997 and then starts to rise again, but its 2003 level is lower than that of 1990, in the case of the non-financial public-sector debt. It is also observed that the levels of indebtedness of the central government and the non-financial public sector tend to converge, which reflects the limited borrowing capacity that subnational levels of government and public enterprises have had in the last few years.[7]

Tables 1 and 2 show the coefficients of public indebtedness, as a proportion of GDP, of the central government and the non-financial public sector. For the central government, the public debt-to-GDP ratio went down between 1990 and 2003 in 11 of the 19 countries of the region covered by the tables; in some of those countries (Chile, Ecuador, Mexico and the Dominican Republic up to 2002) the reduction was very significant. In seven countries, in contrast, this

FIGURE 1

Latin America and the Caribbean: Public debt stock, by institutional coverage, 1990-2003

(As percentages of GDP)



Source: ECLAC, on the basis of official information.

[6] See for example IMF (2003a).

[7] This evolution reflects the impact of the programmes supported by the IMF, which generally fix targets for the surplus and public debt that have a broad scope and include public enterprises. For an analysis of this question, see Martner (2003).

TABLE 1

Latin America and the Caribbean: Central government public debt stock, 1990-2003
(As percentages of GDP)[a]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Argentina				29.4	31.3	33.8	35.7	34.5	37.6	43.0	45.0	53.7	145.9	138.1
Domestic								8.9	9.8	13.1	15.2	20.9	54.2	59.9
External								25.6	27.8	29.9	29.8	32.9	91.6	78.2
Bolivia	65.1	52.9	51.5	63.5	64.3	61.8	54.9	57.9	57.4	61.1	62.6	71.7	74.9	82.2
Domestic				14.4	14.1	13.8	13.9	13.5	13.7	16.7	19.4	26.4	28.1	26.7
External	65.1	52.9	51.5	49.1	50.2	48.0	41.0	44.4	43.7	44.4	43.1	45.3	46.9	55.5
Brazil		12.8	12.1	9.5	12.9	13.3	15.9	18.7	25.0	30.1	31.0	32.8	35.6	36.9
Domestic		-2.2	0.8	1.8	6.5	9.8	14.3	16.7	20.8	22.2	23.5	24.5	23.1	26.7
External		14.9	11.3	7.7	6.4	3.5	1.6	2.0	4.2	7.9	7.5	8.2	12.5	10.2
Chile	45.4	38.8	31.7	29.2	23.5	17.9	15.1	13.2	12.5	13.8	13.7	15.0	15.7	13.3
Domestic	26.4	22.0	18.2	17.5	14.2	12.1	10.9	10.0	9.3	9.8	10.0	10.5	10.0	7.7
External	19.1	16.8	13.5	11.7	9.4	5.7	4.2	3.2	3.2	4.0	3.6	4.5	5.7	5.7
Colombia	14.8	14.0	15.0	14.5	12.7	13.9	14.4	17.8	22.1	29.5	36.9	44.3	50.7	51.9
Domestic	1.9	1.5	2.9	4.5	4.6	5.8	6.6	8.8	10.6	14.4	18.7	22.1	25.2	26.2
External	12.9	12.5	12.1	10.1	8.1	8.1	7.8	8.9	11.5	15.1	18.3	22.2	25.6	25.7
Costa Rica		28.5	23.3	24.3	26.8	28.7	33.2	30.0	39.5	35.2	36.6	38.6	40.8	40.0
Domestic		9.9	9.0	11.5	15.0	17.1	24.0	22.2	31.4	26.6	26.4	27.7	28.6	26.9
External		18.6	14.2	12.8	11.8	11.5	9.2	7.8	8.1	8.6	10.1	10.9	12.2	13.1
Ecuador	67.1	64.5	72.2	85.1	71.1	59.1	58.7	51.7	56.3	83.6	71.8	58.0	51.1	47.9
Domestic	1.9	2.1	1.5	2.7	7.7	7.3	8.8	7.0	10.5	18.1	17.8	13.3	11.4	11.1
External	65.2	62.5	70.7	82.3	63.4	51.8	49.9	44.7	45.9	65.5	54.0	44.7	39.7	36.8
El Salvador	45.7	41.7	43.1	44.3	41.7	37.3	37.8	36.2	33.3	26.0	27.4	31.1	36.0	38.0
Domestic				16.0	16.3	14.5	13.4	12.0	11.2	7.9	9.8	12.0	11.7	11.5
External	45.7	41.7	43.1	28.4	25.4	22.8	24.4	24.2	22.0	18.1	17.6	19.2	24.3	26.5
Guatemala	23.1	17.5	16.5	15.5	15.4	14.0	13.5	14.0	14.6	17.5	16.9	18.0	16.4	18.5
Domestic	10.2	7.8	7.2	6.9	6.5	5.3	5.3	5.4	5.0	5.8	5.8	5.6	4.5	5.6
External	12.9	9.7	9.3	8.5	8.9	8.7	8.2	8.5	9.6	11.8	11.2	12.4	11.9	12.9
Haiti							37.9	40.0	36.6	38.6	43.8	46.2	60.3	58.3
Domestic							12.6	12.0	11.1	12.1	13.6	14.8	17.5	17.4
External							25.3	28.0	25.5	26.5	30.2	31.5	42.8	40.9
Honduras[b]	109.9	82.3	81.5	96.4	105.7	95.0	90.3	80.9	75.0	78.8	70.2	70.7	73.0	71.9
Domestic												3.7	4.0	3.8
External	109.9	82.3	81.5	96.4	105.7	95.0	90.3	80.9	75.0	78.8	70.2	67.0	69.0	68.1
Mexico	46.5	38.1	28.1	25.3	35.3	40.8	31.1	25.8	27.8	25.6	23.2	22.5	24.0	24.7
Domestic	22.4	16.8	11.9	10.7	12.6	8.5	7.6	8.6	9.1	11.1	12.1	13.5	13.8	14.8
External	24.0	21.3	16.3	14.6	22.7	32.4	23.5	17.2	16.6	14.6	10.8	9.6	9.1	9.6
Nicaragua					304.5	252.4	141.1	206.9	197.0	183.8	175.9	179.0	194.4	193.8
Domestic					14.9	10.8	15.0	85.5	72.9	67.4	63.3	66.8	81.7	79.5
External					289.6	241.6	126.0	121.5	124.1	116.4	112.6	112.2	112.7	114.3
Panama	67.7	60.8	56.0	62.3	61.7	58.9	79.9	75.7	74.5	80.5	76.0	82.2		
Domestic	20.9	18.5	16.4	26.4	25.3	22.7	24.1	21.9	20.5	23.9	20.9	20.7		
External	46.8	42.3	39.6	35.9	36.4	36.3	55.7	53.8	54.0	56.6	55.1	61.4	56.2	56.2
Paraguay	13.1	12.0	8.9	10.1	7.3	10.1	10.0	11.1	13.4	22.3	26.2	33.3	46.4	37.7
External	13.1	12.0	8.9	10.1	7.3	10.1	10.0	11.1	13.4	22.3	26.2	33.3	46.4	37.7
Peru	52.4	60.9	59.6	63.6	53.4	47.8	45.1	31.8	40.3	47.1	45.3	45.1	47.3	48.4
Domestic									5.9	9.3	9.4	9.5	10.3	10.3
External	52.4	60.9	59.6	63.6	53.4	47.8	45.1	31.8	34.4	37.8	35.9	35.6	36.9	38.0
Dominican Republic[b]	84.7	60.6	49.2	47.8	37.5	33.2	29.2	23.9	23.1	20.9	19.0	19.6	24.0	40.2
Uruguay			26.8	24.1	23.3	22.3	22.0	22.6	24.0	26.2	31.9	41.9	98.7	97.9
Venezuela (Bolivarian Republic of)[b]							45.2	30.9	28.4	28.2	26.2	29.9	41.0	42.9
Domestic							3.9	3.1	3.2	4.6	7.7	11.1	12.5	14.8
External							41.3	27.9	25.2	23.6	18.5	18.8	28.5	28.1
Latin America[c]	53.0	41.8	38.4	40.3	39.0	36.7	37.2	34.3	35.6	39.3	39.1	41.9	51.9	52.3
Domestic	13.9	9.6	8.5	11.3	12.3	11.7	12.1	11.6	12.3	14.0	15.0	15.7	18.2	18.8
External	46.0	36.3	34.3	34.2	31.9	29.6	29.2	26.1	26.1	28.6	27.1	28.1	34.3	34.3

Source: ECLAC, on the basis of official information.

[a] GDP data at current prices and in local currency were used to calculate the indicators in this table. The exchange rate at the end of each period was used.
[b] Corresponds to the public sector.
[c] Simple average, not including the public debt of Nicaragua.

TABLE 2

Latin America and the Caribbean: Public debt stock of the non-financial public sector, 1990-2003
(As percentages of GDP)[a]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Argentina			27.6	30.0	31.8	34.4	36.4	35.4	38.2	43.5	45.6	53.7	162.5	138.1
Bolivia	88.9	75.8	75.0	87.7	90.2	87.1	78.0	71.2	69.8	73.5	74.3	82.0	85.6	92.4
Domestic				14.4	14.1	13.8	13.9	13.5	13.7	16.7	19.4	26.4	28.1	26.7
External	88.9	75.8	75.0	73.2	76.1	73.3	64.1	57.7	56.1	56.8	54.9	55.6	57.6	65.7
Brazil		38.1	37.1	32.5	30.0	30.6	33.3	34.4	41.7	49.2	49.4	52.6	55.9	58.2
Domestic		14.0	18.4	18.3	21.3	25.0	29.4	30.1	35.5	38.8	39.7	42.2	41.5	46.3
External		24.2	18.7	14.2	8.7	5.6	3.9	4.3	6.2	10.4	9.8	10.4	14.4	11.9
Chile	55.2	44.8	36.5	32.9	26.6	20.9	18.4	16.8	17.7	19.1	18.6	20.3	22.2	20.1
Colombia							22.9	26.8	29.3	38.7	44.3	48.7	57.1	55.3
Domestic							10.0	12.3	12.3	17.1	20.8	21.5	26.4	25.8
External							12.8	14.5	17.0	21.7	23.5	27.2	30.7	29.6
Costa Rica[b]		28.5	23.3	24.3	26.8	28.7	33.2	30.0	39.5	35.2	36.6	38.6	40.8	40.0
Domestic		9.9	9.0	11.5	15.0	17.1	24.0	22.2	31.4	26.6	26.4	27.7	28.6	26.9
External		18.6	14.2	12.8	11.8	11.5	9.2	7.8	8.1	8.6	10.1	10.9	12.2	13.1
Ecuador		74.2	81.2	85.1	77.6	64.7	64.4	56.6	61.9	92.0	79.7	63.4	55.6	51.8
Domestic		2.1	1.5	2.7	7.7	7.3	8.8	7.0	10.5	18.1	17.8	13.3	11.4	11.1
External		72.1	79.7	82.3	69.9	57.4	55.6	49.6	51.4	73.9	62.0	50.1	44.2	40.7
El Salvador										29.0	30.1	34.0	39.1	41.3
Domestic										7.9	9.8	12.0	11.7	11.5
External										21.1	20.4	22.0	27.4	29.8
Guatemala	33.2	24.8	22.3	20.4	19.4	17.5	16.3	16.5	17.3	20.2	18.9	19.4	17.5	19.5
Domestic	10.2	7.8	7.2	6.9	6.5	5.3	5.3	5.4	5.0	5.8	5.8	5.6	4.5	5.6
External	23.0	17.0	15.1	13.5	12.9	12.3	10.9	11.0	12.2	14.5	13.1	13.8	13.0	13.9
Haiti							43.3	45.3	41.1	42.7	49.1	50.7	66.6	64.4
Domestic							12.5	11.7	11.0	12.0	13.5	14.7	17.4	17.5
External							30.8	33.6	30.1	30.7	35.6	36.0	49.2	46.9
Honduras	109.9	82.3	81.5	96.4	105.7	95.0	90.3	80.9	75.0	78.8	70.2	70.7	73.0	71.9
Domestic												3.7	4.0	3.8
External	109.9	82.3	81.5	96.4	105.7	95.0	90.3	80.9	75.0	78.8	70.2	67.0	69.0	68.1
Mexico	45.1	32.4	21.8	18.8	31.2	35.8	25.8	20.7	22.6	21.0	18.1	18.1	21.4	21.9
Domestic	17.8	13.8	7.1	7.0	4.2	-0.7	2.9	6.3	8.0	10.5	9.3	12.0	16.5	18.1
External	27.3	18.6	14.7	11.9	27.0	36.5	22.9	14.4	14.6	10.5	8.7	6.1	5.0	3.9
Nicaragua					422.3	349.6	209.6	217.3	212.7	204.7	201.7	205.3	213.8	213.0
Domestic					6.7	9.9	15.5	29.6	26.5	22.2	28.2	41.9	50.3	48.7
External					415.7	339.7	194.2	187.6	186.2	182.5	173.5	163.4	163.5	124.1
Panama	123.4	114.2	89.9	97.8	94.5	95.8	84.0	78.2	75.8	79.8	77.2	83.3	76.0	74.8
Domestic	17.8	14.8	15.1	25.1	23.3	21.2	21.8	19.8	18.6	22.1	21.2	21.2	19.4	14.2
External	105.6	99.5	74.8	72.7	71.2	74.5	62.2	58.3	57.2	57.8	55.9	62.1	56.6	56.2
Paraguay	32.4	27.3	21.0	19.1	16.0	15.7	14.9	16.3	19.3	29.0	29.3	36.6	50.7	40.6
Peru[b]	52.4	60.9	59.6	63.6	53.4	47.8	45.1	31.8	40.3	47.1	45.3	45.1	47.3	48.4
Domestic									5.9	9.3	9.4	9.5	10.3	10.3
External	52.4	60.9	59.6	63.6	53.4	47.8	45.1	31.8	34.4	37.8	35.9	35.6	36.9	38.0
Dominican Republic	84.7	60.6	49.2	47.8	37.5	33.2	29.2	23.9	23.1	20.9	19.0	19.6	24.0	40.2
Uruguay			34.4	30.3	30.9	29.0	27.9	27.8	28.6	30.9	35.9	46.7	106.0	104.1
Domestic			4.1	3.5	3.9	3.3	3.0	4.1	4.6	7.7	8.6	15.6	25.4	22.5
External			30.3	26.7	27.0	25.7	24.9	23.7	24.0	23.2	27.3	31.1	80.6	81.6
Venezuela (Bolivarian Republic of)							45.2	30.9	28.4	28.2	26.2	29.9	41.0	42.9
Domestic							3.9	3.1	3.2	4.6	7.7	11.1	12.5	14.8
External							41.3	27.9	25.2	23.6	18.5	18.8	28.5	28.1
Latin America[c]	69.5	55.3	47.2	49.0	48.0	45.4	41.7	37.8	39.4	43.3	42.7	45.2	57.9	57.0
Domestic	11.9	10.4	8.9	11.2	12.0	11.5	12.3	12.3	13.3	15.2	16.1	16.9	18.4	18.2
External	67.8	52.1	46.4	46.7	46.4	44.0	36.5	32.0	31.7	33.5	31.9	31.9	37.5	37.7

Source: ECLAC, on the basis of official information.

[a] GDP data at current prices and in local currency were used to calculate the indicators in this table. The exchange rate at the end of each period was used.
[b] Corresponds to the central government.
[c] Simple average, not including the public debt of Nicaragua.

coefficient increased sharply, while in Bolivia it remained more or less unchanged.

The trend of the public debt-to-GDP ratio in 2001-2002 in Argentina and Uruguay warrants special mention. In both cases, the sharp rise in the ratio following the devaluations of these countries' currencies clearly illustrates the "original sin" hypothesis. In Argentina, the convertibility regime undoubtedly artificially reduced the size of the public debt relative to GDP. This indicator increased almost threefold as from 2002, after the devaluation and the deepening of the recession, although it could also be argued that the medium-term equilibrium exchange rate should be lower than the level registered during 2002. The reverse situation was observed in Ecuador, because the persistence of inflation in a dollarized regime pushed up the real exchange rate, thus reducing the burden of the public debt on the economy in relative terms.

In the case of the non-financial public sector (table 2), few differences are observed compared with the central government, except in the case of Brazil. There, the net public debt in 2003 was 36.9% of GDP at the central government level and 58.2% at the level of the non-financial public sector. This difference is due largely to borrowing by subnational levels of government.

There is a great deal of heterogeneity as regards public debt data. The *Government Finance Statistics Manual* published by the IMF defines the public debt in the following terms: "Debt consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. Thus, all liabilities in the GFS system are debt except for shares and other equity and financial derivatives" (IMF, 2001, p. 129). It should be noted that the *Manual* recommends treating future liabilities of the social security system and contingent liabilities as memorandum items rather than as public debt.

In addition to the importance of contingent liabilities in some cases, the following classification problems may also be noted:

i) *Consolidation of data within the same sphere of government.* The *Manual* does not make any reference to the treatment of central government debt with institutions belonging to other spheres of government of the same State (for example, social security funds or housing cooperatives which are holders of treasury bonds), so that some countries present both consolidated data (sometimes as net indebtedness) and unconsolidated data. Which is the appropriate information? Some consider that what is important is the recording of the debt, regardless of the nature of its holder, since the obligation to pay exists in all cases. Others, however, consider that consolidation (for example, between social security funds and the central government) reflects a recognition of the fact that financial flows within the public sector do not have the same macroeconomic effects as borrowing by that sector from the private sector. At all events, doubt remains about the best methodology to use at the central government level, which is what most of the data refer to. The problem disappears, of course, if the coverage is expanded to embrace general government or the non-financial public sector.

ii) *Integration of central bank debt.* In some cases, liabilities are included, but not assets (international reserves), leading to inflation of the debt in countries with a significant monetary base.

iii) *Differentiation between direct and indirect public debt.* Should not the granting of loan guarantees and other types of backing be considered as a contingent liability rather than a certain public debt?

iv) *Domestic public debt.* Three countries of the region (Honduras, Paraguay and the Dominican Republic) do not publish official data on their domestic public debt.

As regards the composition of the debt, the data show a clear tendency to make more intensive use of domestic debt instruments, which should reduce countries' exposure to exchange rate fluctuations, at least in the case of instruments which are not indexed to the dollar. Among the countries which have followed this trend are Brazil, Colombia, Costa Rica and Mexico.

In the IMF and World Bank guidelines on public debt management (World Bank/IMF, 2001), it is stated that the "main objective" of such management is "to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium- to long-run, consistent with a prudent degree of risk". In this respect, the use of a theoretical framework of asset and liability management for administering the public debt is a useful method (box 1), since the cost and risk analysis of the portfolio of public-sector debt instruments is directly linked with fiscal income. In this analysis, the characteristics and

Box 1

PUBLIC DEBT MANAGEMENT STRATEGIES

Debt management strategies that involve excessive reliance on foreign-currency or short-term loans (including those with variable interest rates) are very risky. For example, while foreign-currency debt may appear, ex ante, to be less expensive than local-currency debt with the same maturity (since the latter may involve higher liquidity risk and liquidity premiums), it could prove to be costly in volatile capital markets or if the currency depreciates. Furthermore, the choice of exchange-rate regime can affect the links between debt management and monetary policy. Foreign-currency debt may appear to be cheaper under a fixed-exchange-rate regime because the regime limits exchange-rate volatility. However, such debt can prove to be very risky if the exchange-rate regime becomes untenable.

A framework should be developed to enable government debt managers to identify and manage the trade-offs between cost and risk in the debt portfolio. Debt managers usually handle various types of risks; an important role of the debt manager is to identify these risks, assess (to the extent possible) their magnitude, and develop a preferred strategy for managing the trade-off between expected cost and risk. This means that debt managers should have access to a range of financial and macroeconomic projections. In order to assess the risks, they should regularly conduct stress tests of the debt portfolio on the basis of the economic and financial shocks to which the government —and, in more general terms, the country— are potentially exposed, including the risk that the government will not be able to roll over its debt and be forced to default, since this situation has costs that affect more than just the government's budget. Moreover, debt managers should consider the interactions between the financial situation of the public sector and that of the financial and non-financial sectors in times of stress in order to ensure that the government's debt management activities do not exacerbate risks in the private sector. In general, the models used should make it possible to undertake the following types of risk analysis:

- Project debt-servicing costs over the medium/long term on the basis of assumptions regarding factors that affect debt-servicing capacity, such as new financing requirements, the maturity profile of the debt stock, the interest rates and currencies of new debt, projected future interest rates and exchange rates and the behaviour of relevant non-financial variables (such as commodity prices).
- Generate a debt profile consisting of key risk indicators for the existing and projected debt portfolios over the projected horizon. These indicators should include the ratio of short-term to long-term debt and of foreign exchange to local-currency debt, the currency composition of the foreign-exchange debt, average debt maturity and the profile of maturing debts.
- Calculate the expected cost of debt in terms that are relevant to the government's objectives (for example, in relation to the effects of the debt on the public budget).
- Calculate the real risk of future debt-servicing costs by summarizing the results of stress tests formulated on the basis of the economic and financial shocks to which the government and the country are potentially exposed.
- Summarize the costs and risks of alternative strategies for managing the government's debt portfolio to provide a basis for making informed financing decisions.

In countries with well-developed financial markets, debt managers typically follow one of two courses: either they periodically determine what debt structure is desired and use this to guide new issues of debt instruments for the subsequent period or they set strategic benchmarks to guide the day-to-day management of the government's debt portfolio. These benchmarks are generally expressed as numerical targets for key portfolio risk indicators, such as the ratio of short-term to long-term debt or the ratio of foreign-currency to local-currency debt. The key distinction between these two approaches is the extent to which government debt managers operate in financial markets on a regular basis to ensure that those benchmarks are reached.

Source: World Bank/IMF (2001).

risks of cash flows are examined and, as far as possible, liabilities with similar characteristics are chosen in order to minimize the possibility of liquidity constraints due to maturity and currency mismatches.

Since the 1980s crisis, public debt management has been a constant concern for the Latin American and Caribbean countries. Accounting difficulties still exist, however, in terms of definition and coverage. Risk rating agencies show a systematic bias, since they always use the highest figures in making their assessments and often include some contingent liabilities. Thus, for example, Brazil's unconsolidated public-sector debt represented more than 70% of GDP in 2002, while the consolidated debt was only slightly over 50% of GDP. Although the goal agreed upon with IMF refers to the second of these indicators, most of the analysts use the first one.

In the absence of a homogeneous methodology that permits a complete accounting of assets and liabilities, the usual practice should be to record, for comparison purposes, the gross consolidated public debt of the general government (i.e., without including the central bank or public enterprises). Indebtedness in respect of contingent liabilities, even if those contingencies are highly probable, should be listed separately.

III

Public debt dynamics

The sustainability of the public debt is equivalent to the long-term solvency of the government. The dynamics of the public debt may be broken down according to the following definition:

$$D_t = D_{t-1} - SG_t + SF_t \qquad [1]$$

where D is the public debt stock, expressed in local currency, SG is the overall government balance, the subscript t corresponds to the current year, and SF is the stock/flow adjustment that ensures consistency between net indebtedness and variation in the public debt stock.[8] The stock/flow adjustment includes a number of variables, such as the variations in the public debt due to exchange-rate fluctuations in the local currency and between the currencies in which the debts are denominated, government acknowledgement of debts owed by the rest of the economy, and other statistical discrepancies, which in some cases can represent the accounting registration of "skeletons in the cupboard".[9]

The equation can be presented in such a way as to use the primary balance[10] as an indicator:

$$D_t = D_{t-1}(1+r) - SP_t + SF_t \qquad [2]$$

where SP is the primary balance and r is the implicit real interest rate, calculated as debt interest payments expressed as a percentage of the debt stock in the preceding period.[11] As regards GDP (Y_t), the equation may be reformulated as follows, where n corresponds to the real growth rate of the economy:

$$\frac{D_t}{Y_t} = \frac{D_{t-1}}{Y_{t-1}} . \frac{1+r}{1+n} - \frac{SP_t}{Y_t} + \frac{SF_t}{Y_t} \qquad [3]$$

Reordering the terms, we have:

$$\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = -\frac{SP_t}{Y_t} + \frac{D_{t-1}}{Y_{t-1}} \cdot \frac{r-n}{1+n} + \frac{SF_t}{Y_t} \qquad [4]$$

or, if the lower case letters represent proportions of GDP:

$$\Delta d = -sp_t + d_{t-1} \cdot \frac{r-n}{1+n} + sf_t \qquad [5]$$

[8] For an example of the application of this methodology to the European countries, see European Commission (2003).
[9] One example has been the acknowledgement of commitments in respect of pension system benefits.
[10] The primary balance is defined as the global balance, less outlays in respect of interest payments on the public debt.
[11] The implicit interest rate should be understood as an approximation to the real interest rate paid by the country. Using the spread between the interest rates on sovereign bonds issued by countries of the region as compared with the rates on United States treasury bonds may be misleading, because it only expresses the interest rate paid at a given moment, whereas what is being analysed here is a balance which includes all the debts generated in the past.

Debt dynamics (Δd) are then separated into three components: the primary balance (*sp*), the "snowball effect" (that is to say, the effects of the interest burden on the accumulated debt stock) and the stock/flow adjustment (*sf*). We will analyse the first two of these components in detail below.

1. The procyclical bias of fiscal policy

In the recent debate, there has been broad acceptance of the criterion of the unhindered operation of automatic stabilizers in normal circumstances, as a guiding criterion in fiscal policy. This principle was adopted by ECLAC quite some time ago, when it recommended the use of a structural indicator of the public balance instead of the effective balance (ECLAC, 1998). If this were so, the public debt-to-GDP ratio would be constant throughout the macroeconomic cycle.

It has been observed, however, that the fiscal policy of various countries of the region displayed an anomalous form of behaviour in the 1990s, resulting in a rise in the public debt-to-GDP ratio even in periods when growth was higher than the trend levels.[12] One way of analysing this bias is to compare the changes in the cyclically adjusted public balance with the GDP gap (figure 2). If the automatic stabilizers had operated symmetrically, that is to say, if discretional policies had been neutral throughout the economic cycle, then the points should be spread along the abscissa axis. In the case of countercyclical policies, the points should be located in the upper-right and lower-left quadrants. If the points are concentrated in the upper-left and lower-right quadrants, this shows a tendency to apply procyclical discretional policies.

In Latin America and the Caribbean, examination of 45 episodes of variation in the global public balance adjusted for the business cycle shows that 12 of them were neutral with respect to the cycle, in 25 cases fiscal policy exhibited a procyclical tendency, and only 8 cases reflected a countercyclical form of behaviour. To be more exact, in 13 of the 17 cases in which GDP grew at a higher rate than the trend level, the change in the cyclically adjusted public balance was negative, which reflects an expansionary fiscal policy. In contrast, when the economies grew at a slower rate than the medium-term trend, the change in the cyclically adjusted public balance was positive in 12 of the 16 episodes in question, reflecting a restrictive fiscal policy.[13] Similar conclusions are reached when we analyse the changes in the cyclically adjusted primary public balance (also called the non-financial balance). These exercises illustrate the usual form of behaviour of the fiscal authorities of Latin America and the Caribbean, which is of course not much different from that of other countries.

Figure 3 compares the economies' position in the cycle (for the same 45 episodes) with the changes in the public debt, at the central government level.

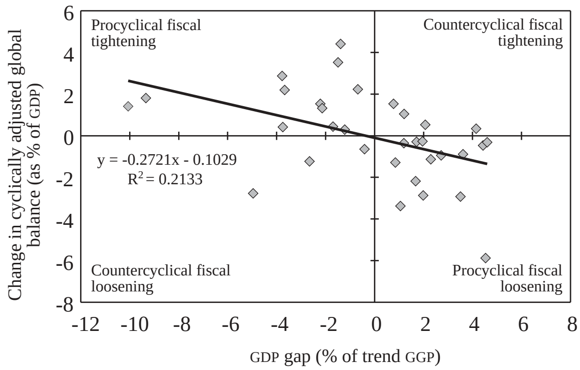
In this case, there are 15 significant countercyclical episodes of reductions in the public debt in the context of a positive GDP gap, with particularly notable cases including those of Chile (1992-1998), Ecuador (1991-1998), Peru (1994-2000), Mexico (1990-1994 and 1998-2001) and the Bolivarian Republic of Venezuela (1991-1993 and 1997-1998), among others.

There were other episodes of reductions in the public debt in the context of a negative GDP gap, especially in the Dominican Republic (1990-1996), Uruguay (1990-1991) and Paraguay (1990-1991). In a number of episodes there was an increase in the public

FIGURE 2

Latin America and the Caribbean: Procyclical policy episodes, 1990-2001

(Changes in the cyclically adjusted global balance and the GDP gap)



Source: Martner and Tromben (2003). Only episodes in which the absolute values of the annual average GDP gap and the annual average change in the cyclically adjusted balance were over 0.25% for two years or more were included. The central government coverage was used.

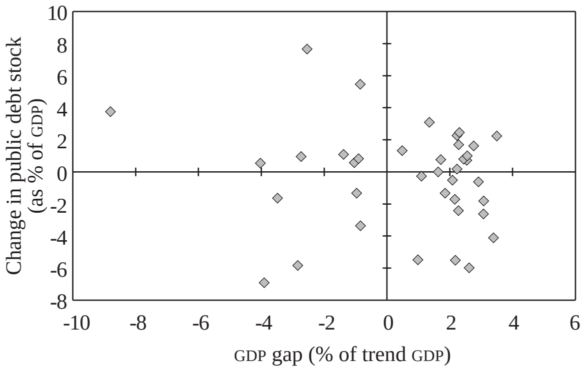
[12] A study on the evolution of the cyclical and structural components of the public debt in terms of the GDP gap between 1970 and 1997 in the member countries of the European Union reveals the existence of a procyclical bias in fiscal policy (European Commission, 2001).

[13] In this case, countries generally have no option but to adjust, so that it is more a question of a result than of a policy.

FIGURE 3

Latin America and the Caribbean: Procyclical financial policy episodes, 1990-2001

(Changes in the central government public debt stock and the GDP gap)

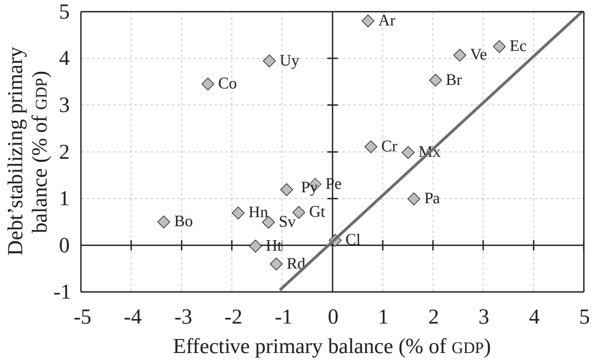


Source: Prepared by the authors. Only episodes in which the absolute values of the annual average GDP gap and the annual average change in the public debt stock were over 0.25% for two years or more were included.

FIGURE 4

Latin America and the Caribbean: Effective and debt-stabilizing primary balances

(Average for 1998-2002, as % of GDP)



Source: Prepared by the authors.

debt in boom periods, which has naturally resulted in greater fiscal vulnerability during recent recessionary situations. The case of Argentina (1996-1998) is particularly clear in this respect, with an increase in the debt at rates higher than the medium-term growth rate for several years running. In recent years the same thing has occurred, albeit on a smaller scale, in Brazil (1995-1998), Colombia (1994-1998), Costa Rica (1998-2001) and Paraguay (1993-1998).

The countries that gained degrees of freedom during the 1990s by reducing their public debt burden during periods of economic buoyancy were better prepared to cope with the reversal of the cycle. During 1998-2002, some countries systematically registered negative primary balances, causing a build-up of debt —this time countercyclical— which was equally dangerous. Figure 4 shows, for each country, as an average for the 1998-2002 period, the effective primary balance and the primary balance required to stabilize the public debt, calculated as the standard short-term sustainability indicator developed by Blanchard, Chouraqui and others (1990). The required primary balance is calculated as that which stabilizes the public debt balance as a proportion of GDP.

In terms of equation [5], it is assumed that $\Delta d = 0$, $sf = 0$, thus giving the primary balance needed to stabilize the public debt:

$$sp_t = d_{t-1} \cdot \frac{r-n}{1+n} \qquad [6]$$

In this way, a significant negative difference may be observed between the two concepts, except in the cases of Chile, the Dominican Republic, Mexico and Panama. The gap (to reach the isoline on the figure which represents the meeting point) averaged more than five points of GDP in Colombia and Uruguay, and more than three points in Argentina and Bolivia. In this way, we seek to quantify the primary balance needed to stabilize the public debt, as if this were a policy variable independent of the macroeconomic environment. The problem with this kind of indicator is that it does not take account of the wealth effects which result, for example, from changes in relative prices reflected both in the snowball effect and in the stock/flow component.

2. The snowball effect

The objective of reducing the public debt is thus practically unattainable in a situation of low growth and high interest rates. In Latin America during 1990-2002, the maximum snowball effect reached 4.5 points of GDP, associated with a public debt stock of 55.1% of GDP (table 3). The highest levels registered were 12.2 points of GDP in Ecuador, 8.8 points in Argentina, 8.5 points in the Bolivarian Republic of Venezuela, and over 5 points in Brazil, Honduras and Mexico. In contrast, the maximum average for the same period came to 3.8 points of GDP, with a much higher public debt balance of 72.8% of GDP.

Figure 5 gives a quantitative expression of debt dynamics as a proportion of GDP (Δd), separating the contribution of the primary balance in relation to GDP

TABLE 3

Latin America and the Caribbean and the European Union: Magnitude of the snowball effect

	Maximum of snowball effect snowball effect	Public debt associated with maximum	Cumulative snowball effect	Change in public debt
	1990-2002		1998-2002	
Latin American countries	*4.5*	*55.1*	*9.4*	*17.5*
Argentina	8.8 (2002)	145.9	24.0	108.3
Bolivia	1.3 (2001)	61.1	2.5	17.5
Brazil	5.6 (1998)	25.0	17.7	10.6
Chile	0.4 (1999)	13.8	0.5	3.2
Colombia	4.3 (1999)	29.5	17.3	28.6
Costa Rica	4.4 (1996)	33.2	10.5	1.3
Ecuador	12.2 (1999)	83.6	21.3	–5.2
El Salvador	0.9 (2002)	36.0	2.5	2.7
Guatemala	1.0 (2001)	18.0	3.5	1.8
Haiti	0.6 (2001)	46.2	–0.1	23.6
Honduras	5.9 (1994)	105.7	3.4	–2.0
Mexico	6.4 (1995)	40.8	9.9	–3.8
Panama	3.7 (2001)	83.3	5.0	0.2
Paraguay	2.3 (2002)	46.4	5.9	33.1
Peru	4.7 (1992)	59.6	6.5	7.0
Dominican Republic	0.4 (2002)	24.0	–2.0	0.9
Uruguay	10.3 (2002)	98.7	19.7	74.7
Venezuela (Bolivarian Republic of)	8.5 (2002)	41.0	20.4	12.6
European Union	*3.8*	*72.8*	*3.2*	*–7.2*
Belgium	7.2 (1993)	138.2	13.5	–13.5
Denmark	6.4 (1993)	78.0	11.6	–10.7
Germany	2.7 (1996)	59.8	9.7	–0.1
Greece	2.8 (1993)	110.1	0.3	–1.1
Spain	1.7 (1996)	68.1	–3.6	–10.8
France	3.0 (1993)	45.3	5.4	–0.5
Ireland	1.1 (1992)	100.2	–19.5	–22.5
Italy	9.9 (1993)	118.1	11.0	–9.6
Luxemburg	0.2 (2002)	5.7	–0.6	–0.6
Netherlands	4.3 (1993)	79.3	2.3	–14.4
Austria	2.5 (1993)	61.8	7.1	3.0
Portugal	5.1 (1993)	59.1	–1.6	3.1
Finland	3.9 (1993)	55.9	2.0	–5.9
Sweden	4.7 (1996)	73.5	7.5	–15.3
United Kingdom	1.7 (1992)	39.2	2.4	–9.1

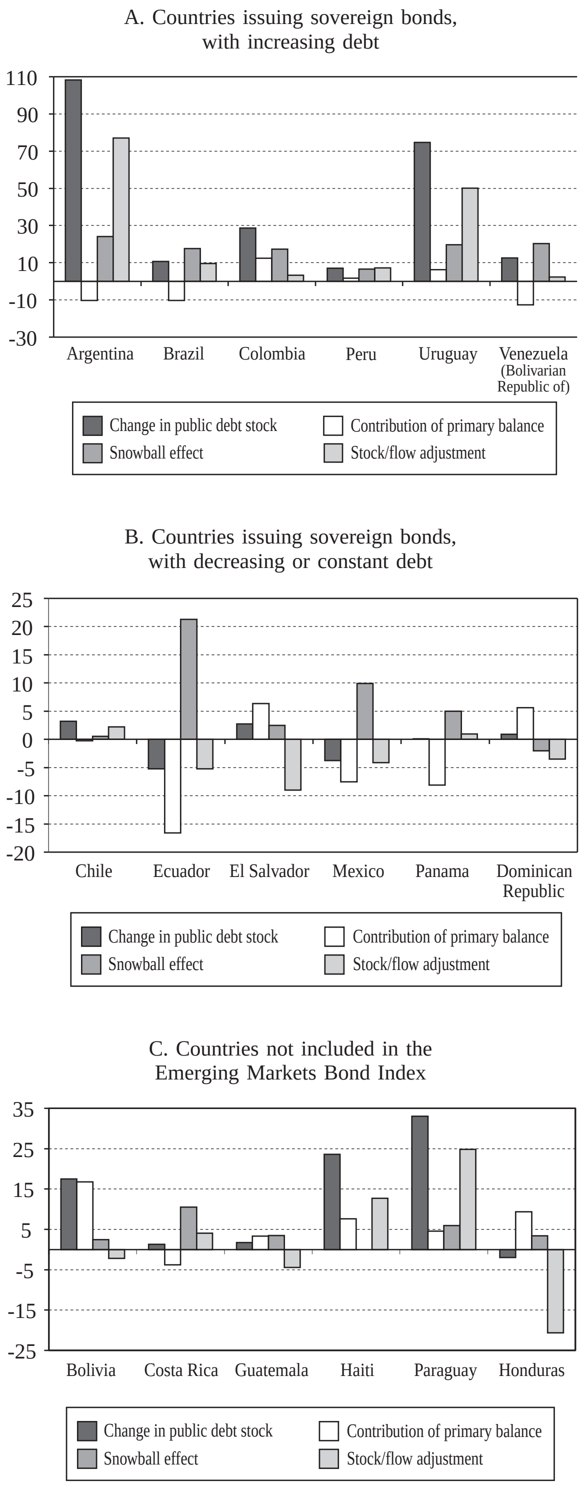
Source: For the Latin American countries the figures were prepared by the authors on the basis of ECLAC data. For the European countries the data were taken from European Commission (2003).

(*-sp*), the snowball effect and the stock/flow adjustment (*sf*). This breakdown covers the period from 1998 to 2002, with the countries divided into three groups. Group A consists of the countries that have issued sovereign bonds, which therefore have access to international capital markets, and whose public debt increased. Group B comprises the countries which have access to capital markets but whose public debt has gone down or remained unchanged. Group C consists of the countries which are not included in the J.P. Morgan Emerging Markets Bond Index.

In the first group, the main source of increase in the public debt was the devaluation in 2002, which is reflected, above all, in the size of the adjustment in wealth in Argentina and Uruguay. In Brazil, the primary surplus accumulated during the period was not enough to offset the exogenous increase in the public debt. In Colombia, these exogenous factors came on top of persistent primary deficits. In Peru and the Bolivarian Republic of Venezuela, the increase in the public debt was slight and is attributable exclusively to this kind of factor.

The case of Brazil is instructive. This country began to generate systematic primary surpluses from 1999 on. The Fiscal Responsibility Act, passed on 4 May 2000, established primary surplus targets for the

FIGURE 5
Latin America: Public debt dynamics, 1998-2002



Source: Prepared by the authors on the basis of ECLAC data.

following three budget years. Even so, the effort made in 1998-2002 to build up a primary surplus of over 10 points of GDP failed to contain the growth of the public debt, due to low economic growth and the deterioration in financing terms. The establishment (agreed with IMF) of primary balance targets instead of global balance or debt targets represented a great achievement in itself, since it made it possible to separate the fiscal objective from fluctuations in interest and exchange rates. As this meant that the global deficit and the public debt were higher than expected between 1999 and 2002, the reversal of the poor financial conditions seen from 2003 on is thought to represent the beginning of a virtuous circle leading to a reduction in the public debt-to-GDP ratio. Thus, the public debt ceases to be a binding short-term target, since it is recognized that its trend depends on exogenous factors.

In group B, there was a decline in the public debt in Ecuador, Mexico and Panama, while in the other countries the public debt-to-GDP ratio remained relatively constant. In El Salvador, there was an intense positive wealth adjustment due to the recent dollarization process. In Ecuador it was necessary to accumulate primary surpluses of almost 17 points of GDP to achieve a reduction of 5 GDP points in the country's public debt over the period, which affects to the strong negative impact of the snowball effect; as in El Salvador, there was a wealth adjustment due to the dollarization process. In the Dominican Republic, the decline in the public debt as a proportion of GDP was completely reversed by the financial crisis of 2003. Thus, the consolidated public debt balance came to 40% of GDP in 2003, whereas in 2002 this indicator had been only 24%. In the cases of Mexico and Panama, the fiscal authorities managed to neutralize the negative impact of the snowball effect by generating primary surpluses. The total absence of a snowball effect is very noteworthy in Chile, which is a country that has maintained very low levels of public debt and interest rates.

In group C, the snowball effect was much smaller, except in the case of Costa Rica. In Bolivia, Guatemala, Haiti and Honduras, the implicit interest rate was relatively low. In these countries, much of the external finance is concessional financing provided under the support programmes of international lending agencies. In Honduras, the external debt reduction initiative was reflected in a strong wealth adjustment.

In countries that have increased their indebtedness, events which have nothing to do with public debt dynamics or stock/flow adjustments have been very important, reflecting strong variations in relative prices and the recognition of contingent debts[14] of other levels of government or of the financial system.[15] These factors, which illustrate the pressures placed on the central government to assume debts of other economic agents, endanger the sustainability of the public debt from one day to another and result in bigger adjustments than planned, with the consequent negative effects for the economy as a whole. These anomalies can only be combated by strengthening fiscal institutions and those responsible for regulating the financial systems.

IV

Factors underlying fiscal crises

As we can see, the primary balances needed to stabilize the public debt are extremely volatile owing to sharp variations in interest rates exchange rates, and economic growth rates. Although the above analysis shows the importance of exogenous factors, it does not make it possible to identify the factors which set off fiscal crises. This is what we will seek to investigate below.

1. An indicator of currency mismatches

Currency mismatches correspond to a situation where the currency composition of the assets of a country or sector differs from that of its liabilities, so that the net balance is sensitive to variations in exchange rates. In Latin America, the public debt is generally expressed in foreign currency, while government revenue depends largely on domestic output. This situation gives rise to a currency mismatch in the public-sector balance, causing fiscal sustainability to be very sensitive to exchange-rate movements.

In order to analyse fiscal sustainability, Calvo, Izquierdo and Talvi (2002) propose an indicator which incorporates the currency composition of the debt and GDP. The public debt, as a proportion of GDP, is defined as follows:

$$d = \frac{D}{Y} = \frac{D^{NT} + eD^{T}}{Y^{NT} + eY^{T}} \qquad [7]$$

where e is the real exchange rate (defined as the relative price between tradable and non-tradable goods); D^{NT} is the debt in terms of non-tradable goods; D^{T} is the debt in terms of tradable goods, Y^{NT} is output in terms of non-tradable goods; and Y^{T} is output in terms of tradable goods (approximated by exports). The measure of the currency mismatch between the public debt and GDP is then calculated as $(D^{NT} / eD^{T}) / (Y^{NT} / eY^{T})$. This measure can take any value between 0 and 1. If that value is close to 0, the public debt is totally external (or denominated in foreign currency) or the tradable GDP is infinitesimal, so that devaluation leads to a proportional deterioration in fiscal sustainability. If the value is close to 1, there is a perfect match in the currency composition of the public debt and the product. In this case, devaluation has no effect on fiscal sustainability. Table 4 gives two calculations of measures of the currency mismatch of the public debt and GDP: in the first one, the external debt is defined as the debt in terms of tradable goods, while in the second the domestic debt denominated in foreign currency is added.

This indicator may not seem appropriate in dollarized countries such as Ecuador and El Salvador, while does show a high degree of mismatch in Argentina, Brazil, Colombia, Peru, Uruguay and the Bolivarian Republic of Venezuela. The majority of these countries have relatively low degrees of trade openness (measured as exports-to-GDP) compared with their levels of external public indebtedness. Mexico and Chile are in a better position.

The public-private composition of exports is also important, although in recent years many countries have been collecting taxes on the export of certain primary commodities and royalties in the mining sector, which tends to reduce the public sector's currency mismatch. What would be the ideal value of this

[14] The 2005 Brazilian Budget Guidelines Act, for example, provides for the recognition of “skeletons” (debts of the housing finance system, among others) amounting to close to 0.8 GDP points per year up to 2007.
[15] For a recent estimate of the fiscal costs of the financial system crises, see IMF (2003a).

TABLE 4

Latin American countries: Public debt mismatch measurements, 2002

	External debt/ total public debt (%)	Exports/GDP (%)	Public debt mismatch[a]	Public debt mismatch[b]
Argentina	62.8	27.7	0.23	0.12
Brazil	35.2	15.5	0.34	0.08
Chile	36.5	34.5	0.91	0.03
Colombia	50.3	17.5	0.21	0.20
Ecuador	77.7	25.4	0.10	…
El Salvador	66.9	26.7	0.18	…
Mexico	39.7	27.2	0.57	0.57
Peru	78.2	16.4	0.05	…
Uruguay	74.8	21.6	0.09	…
Venezuela (Bolivarian Republic of)	67.1	29.0	0.20	…

Source: Prepared by the authors.

[a] This measure takes account only of the external public debt.
[b] This measure also includes the domestic debt expressed in foreign currency.

indicator? If it were equal to 1, countries could pay off their external obligations in a single year if they devoted the whole of their exports to that purpose. This situation is not very plausible, however. Perhaps an indicator close to 0.5 would show a reasonable balance between the country's capacity to generate foreign exchange and its public-sector indebtedness.

The public debt mismatch indicator becomes less favourable if we also take into account the domestic debt expressed in foreign currency.[16] In Brazil, for example, 30% of the total domestic debt is indexed to the exchange rate. In Mexico, the domestic public debt is expressed entirely in local currency. The traditional indicators of sustainability thus do not serve to reflect the crucial problem represented by currency mismatches.

1. The probabilistic nature of fiscal sustainability

As noted earlier, the assessment of fiscal sustainability is by its very nature probabilistic. A comparative view permits this matter to be approached by estimating fiscal policy reaction functions (IMF, 2003c) or probabilistic models (Manasse, Roubini and Schimmelpfenning, 2003). In the first case, the primary fiscal balance depends on the level of public debt in the preceding period and on other factors such as the economic cycle, inflation and commodity prices. This approach makes it possible to estimate a primary balance target for each country which depends on the level of indebtedness but also on exogenous conditioning factors.

Another way of assessing sustainability is by estimating the probability of a fiscal crisis. According to the methodology developed by Manasse, Roubini and Schimmelpfenning (2003), it is assumed that a country is in a fiscal crisis if it is classified as being in default by Standard and Poor's, or if it has received the disbursement of over 100% of its quota during the first year of an agreement with IMF.

In a sample of 12 Latin American countries, 25 debt crisis episodes were identified during 1970-2002 according to the above criterion. Table 5 shows the averages for some of the variables used in the estimates and the values of the associated parameters for the 12 countries in question over the period 1980-2002.

During the 1990s the average total public debt was 47.5 points of GDP when the countries were in crisis and 30.8 points in "normal" circumstances (when the variable is the external public debt, the respective amounts are 42.1 and 25.4 for 1980-2002). These figures doubtless form the basis for the recommendation to keep the public debt within the range of 25-30 points of GDP. It is worth recalling that this reasoning only holds true if future external conditions are expected to be as unfavourable as those prevailing in the last two decades.

[16] In the case of Chile, this indicator is distorted. The main creditor of the Treasury (as far as the domestic debt is concerned) is the Central Bank of Chile, and this debt is expressed in dollars and is of a long-term nature.

TABLE 5

Latin America: Results of estimates

	Average values of variables			Regression results		
	All	No crisis	Crisis	Marginal effect	Logit coefficient	z value
Fiscal variables						
Total public debt/GDP (1990-2002)	38.7	30.8	47.5			
Public debt interest payments/GDP	2.9	2.1	3.5	0.06	0.33	2.01
Short-term debt/GDP	9.1	7.6	10.2	0.012	0.07	1.82
Short-term interest/GDP	0.5	0.5	0.6			
Primary balance/GDP	1.0	0.6	1.3			
External variables						
External public debt/GDP	35.1	25.4	42.1	0.009	0.09	2.03
Current account balance/GDP	–2.4	–3.2	–1.8			
Financial account balance/GDP	0.9	3.7	–1.1	–0.029	–0.16	–2.71
Foreign direct investment (net flows)/GDP	1.9	2.6	1.3			
Reserves/GDP	7.7	8.8	7.0	–0.023	–0.12	–2.64
Interest on external debt/GDP	3.3	2.9	3.7			
Interest on external debt/exports	15.2	13.2	16.6			
Other variables						
Trade openness/GDP	52.2	53.9	50.9	–0.003	–0.02	–2.98
Real GDP growth (%)	2.4	2.8	2.1	–0.024	–0.13	–1.72
Inflation (%)	138.0	20.2	226.5			
Constant					–2.44	–2.6
Crisis indicator lag				0.762	4.42	7.3

Source: Prepared by the authors.

Liquidity variables, such as the short-term external public debt, the current account balance and the net flow of foreign direct investment, measured as a percentage of GDP, are significantly different when countries are in a crisis situation. Thus, for example, the financial account balance is equivalent to 3.7% of GDP in normal periods and –1.8% of GDP in crisis periods.

With regard to fiscal variables, it can be seen that interest payments on the debt and the short-term debt are higher in times of crisis. This result is probably endogenous, because maturities tend to be shorter and interest rates higher when payment difficulties are expected. The primary balance is higher in times of crisis, which reflects the (procyclical) adjustment effort made by governments in Latin America.

Finally, table 5 shows the result of the regressions, using a probabilistic model.[17] The coefficients have the expected signs and are significant. The calculations show that the marginal effects of liquidity variables, such as the capital account balance, interest payments on the debt, and international reserves as a proportion of GDP, are greater than those connected with solvency variables, such as the external debt-to-GDP ratio. The degree of trade openness and the real growth rate are also important: the first of these incorporates an explanatory factor for currency mismatches, while the second captures the importance of the snowball effect in crisis periods. Finally, it may be noted that the lagged explanatory variable is of great importance. This points up the difficulty that countries have in extricating themselves from debt crises, probably due to “reputation” effects which prevent a rapid return to normality.

[17] Using panel data for 12 Latin American countries which have access to capital markets for the issue of sovereign debt instruments, a binary choice (logit) model was estimated in order to identify the variables and maximum levels that cause countries to enter into a debt crisis.

V

How can public debt sustainability be ensured?

The results set forth in this article provide various clues to possible policy options for ensuring medium-term solvency. Naturally, countries must adopt laws or rules that ensure large enough primary surpluses to keep the public debt under control. A good deal of progress has been made in this respect, with the adoption of medium-term criteria that ensure control over public spending.[18] In this sense, the "reaction function" of the countries of the region for coping with debt dynamics have improved substantially in the last few years.

The need for a suitable safety margin indicates that the fiscal authorities should set their indebtedness indicators well below current levels. As the exogenous component of the debt is very high, thus generating snowball effects which threaten macroeconomic stability, the alternative is to prolong the adjustment processes indefinitely until a "safe" target can be reached in which the public debt-to-GDP ratio is not more than 30%. It is true that this alternative represents the "long way round" for melting the snowball.

There are other possible roads, however, if international financial institutions decide to take a hand in the matter. In addition to initiatives aimed at strengthening mechanisms for preventing and solving crises,[19] two recent proposals are particularly interesting.

As proposed by Eichengreen, Haussman and Panizza (2002), one way of securing "redemption" from original sin would be for international financial institutions to issue debt in a new unit of account comprising an index of a basket of developing-country currencies. Those institutions would lend in the new unit of account, or alternatively in the currency of each country, in proportion to the new unit of account's share in the basket. The institutions would thus act as intermediaries in the process of issuing sovereign bonds in local currency. This would eliminate the currency-mismatch effects generated by the loans, which would thus become a solution instead of a further source of imbalance.

The other proposal is designed to ensure the sustainability of debt by reducing the snowball effect in public finances. Thus, for example, Borensztein and Mauro (2002) argue that most debt crises are produced by a slackening of the economy's growth rate. Countries could protect themselves by issuing bonds indexed to GDP growth. This mechanism would help to reduce the procyclical bias of fiscal policy, since interest payments would decline during periods of recession and would increase in boom times, thus ensuring a sustainable public debt trajectory.

In general terms, a process that combines the systematic generation of primary surpluses, self-insurance mechanisms —such as stabilization funds or schemes for the prepayment of debt in periods of economic buoyancy or when interest rates are low— and improvement of financing terms seems to be the only way to achieve greater public debt sustainability.

In view of the devastating effects of public debt dynamics in a recessionary environment, it seems clear that, in addition to domestic efforts to generate primary surpluses on a regular basis, substantial contributions are also needed from international financial institutions in order to lower financial costs in middle-income countries, relax conditionality when appropriate, provide orderly procedures for restructuring the external debt, and promote mechanisms to encourage sovereign bonds issues indexed to a basket of currencies and to the countries' payment capacity.

(Original: Spanish)

[18] For an analysis of the macro-fiscal rules in force in the region, see Martner (2003) and ILPES (2004).

[19] See, for example, the proposals contained in Martín and Ocampo (2003).

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The relations between different levels of government in Argentina

Oscar Cetrángolo and Juan Pablo Jiménez

This article deals with the fiscal and financial relations between the national government and the provincial governments in Argentina during the last 15 years, identifying the factors which help to explain the high degree of conflictivity of those relations. In view of the institutional roots of the conflict, a historical review is made in order to place the recent problems and future discussion in a long-term context. First of all, the development of federalism in Argentina and the evolution of the various forms of autonomy of the provinces is examined, followed, in the central section of the document, by a review of the options that have dominated the changes in the functions and incomes of the different levels of government in recent decades. Those options have to do not only with the distribution of taxes but also with the process of decentralization and the changes in functions among levels of government.

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I

Introduction

It is well known that the benefits of a modern federal system of government are linked with the effective functioning of the democratic institutions. In Argentina, however, since those institutions came into effect again in 1983 the debate has centered almost exclusively on the possibility of approving a new system of distribution of taxes, and little progress has been made in the analysis of a more mature form of fiscal federalism which would provide a better quality of life all over the country. Still worse, it has not even been possible to achieve a stable system of distribution of taxes. Ten years ago, a Constituent Assembly agreed on the need for a new system, but it has never been possible to reach a consensus on this matter. Transitory pacts, bilateral agreements (often secret) and mutual mistrust have taken the place of the transparent and stable rules, confidence and complementarity needed in a modern federal system prizing consensus above conflict.

The recent crisis and the decisions taken to cope with it undoubtedly involve a change in the relations between levels of government which affects both the distribution of resources and income and the allocation of functions and indebtedness of each of those levels. It has therefore become necessary to rethink the problem, seeking the roots of the reasons for past difficulties and the key to the construction of a more stable system under the new circumstances.

This article analyses the conflictive financial relationship between the national government and the provinces over the last 15 years in order to identify the factors that can explain the difficulty in generating a stable system of relations between the two levels: a system of which the Co-participation Law is only a part. In view of the institutional roots of this problem, a long-term historical review must be made in order to place the recent problems and the future discussion in a suitable context.

In line with this idea, the following section presents the historical roots of the conflict between the different levels of government, analysing the process of development of the federal State as a limitation on the autonomy of the provinces and the special history of tax distribution systems in Argentina. Subsequently, the central part of the document examines the relations between the different levels of government over the last 15 years, with regard to both functions and resources. That section goes into greater detail not only on the options for the distribution of taxes but also those regarding the process of decentralization and change of functions among the different levels of government.

II

The allocation of functions among levels of government

Argentina, like the United States, Switzerland and Australia, belongs to the group of countries whose Constitutions define the respective federal and concurrent powers, leaving all the residual powers not elsewhere specified in the hands of the provincial governments. Thus the National Constitution of Argentina lays down that the provinces shall keep for themselves all those areas of competence not allocated to the federal government. As Bidart Campos (1993) notes, this indicates that for the provinces competence in any given matter is the rule, while for the federal government it is the exception. The federal government has exclusive responsibility for external relations,

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money issue, internal and external navigation, and defence. Competence is shared, however, in a number of areas such as the administration of justice, primary education and social security. Consequently, the constitutional framework is not very clear as regards the functions and responsibilities of each level of government, and this has made possible various process of reallocation of functions in recent decades. These processes, which have not always been very orderly and transparent, have made the relations between the national government, the provinces and the municipalities even more complex.

The National Constitution delegates to each province the definition of its own municipal system. The Constitutions of the various provinces and the organic municipal laws establish different areas of competence for the municipalities, but in practice these differences have diminished. The main actions and policies of the local governments are connected fundamentally with basic urban services such as garbage collection services and public lighting.

1. Public expenditure and its allocation among the different levels of government

The lack of a clear division of responsibilities for expenditure among the various levels of government is usually the main source of conflict among them, as well as leading to inefficient and unequal use of resources. Whereas some functions (such as defence) cause little discussion about the level of government that should provide them, others, such as education and health, have given rise to different ways of dealing with them in different countries over the last few years. Quite apart from the usual recommendation that overlapping of functions should be avoided, most often the various responsibilities of the public sector are shared among the different levels of government.

Unlike other countries, in Argentina the processes of devolving or decentralizing expenditure to the subnational levels of government cannot be viewed as an advance by those levels compared with the powers of the central government. Although on the one hand it may be noted that with each new legislative instance the coefficients of distribution in favour of the provincial governments have increased, on the other hand the processes of decentralization of expenditure, since they have not been accompanied by concomitant changes in the resources made available, have involved strong (military or civil) central governments and unequal negotiating power.

As also occurred towards the end of the 1970s, the process of fiscal decentralization which prevailed in the educational and health reforms of the early 1990s were exclusively motivated by the national government's decision to modify the financial relations with the provinces and municipalities in its own favour. Both the transfer of health and primary educational establishments in the first of the above-mentioned decades and that of hospitals and secondary schools in the early part of the latter decade were explicitly motivated by the desire to modify effective co-participation. Furthermore, no specific resources were envisaged to cover the financing of decentralized services, nor were any compensatory mechanisms designed before the transfers.

The decentralization policy has resulted in heavy costs in terms of "social cohesion". In the fields of both health and education, a wide range of local responses can be identified as regards the way the process has been adopted and its results in terms of equity and efficiency. The lack of coordination from the central level has permitted great heterogeneity of the forms of conduct at the provincial and municipal levels, depending largely on the prior configuration of each system and the sectoral policy adopted in each locality in response to the decentralization process. These responses are also strongly conditioned by the financial constraints, which affect each local area in very different ways. Thus, the possibilities of improving the decentralized social services are delimited by the degree of socioeconomic and productive development in each subnational area of jurisdiction and its financial capacity. Likewise, the development potential of each such jurisdiction is determined to a large extent by the state and level of its human and cultural capital, which is directly linked with its population's possibilities of gaining access to good levels of education and health.

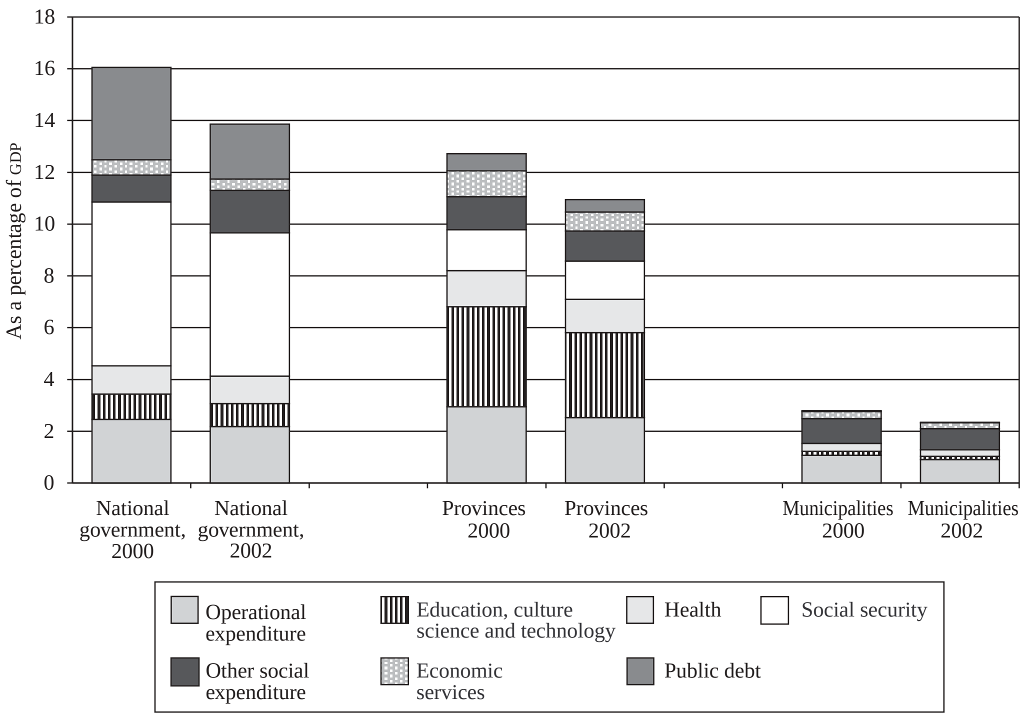
There are no special fiscal and financial mechanisms associated with the distribution of fiscal revenue between the central government and the provinces which can be equated with national standards in terms of the provision and quality of education or health. Under the present policy design, this raises a difficult dilemma: if it is desired to apply nationwide programmes or policies and priorities, aimed at more equitable provision of education and health in the different provinces of the country, this will eventually call for additional funds from the national budget, but if this option is not viable from the fiscal point of view, this will adversely affect any actions to secure such improvement. As a result, the provision and quality of education and health will tend to depend too much on the availability of economic and fiscal resources in the different jurisdictions in question.

Moreover, the decentralization of social services has led to changes in the way these fiscal constraints are manifested. Since the structure of expenditure of the provinces has come to be increasingly dominated by social services, the efforts to put their finances on a sounder basis undertaken by the different provincial jurisdictions which have been faced with fiscal and financial problems necessarily had to consider the possibility of reducing their health and education outlays. Furthermore, since almost all of the expenditure in these fields is concentrated on the payment of salaries, in some provinces these efforts have given rise to episodes of serious social conflict. In order to deal with these problems, attempts have therefore been made to apply reforms in the health and education sectors aimed at improving the organization and management of social expenditure.

As a result of the processes of change in the country's fiscal structure, the national government has increasingly centered its outlays on social security, health services for the elderly, and debt service. The provinces, for their part, have done so in the fields of education and health, while the municipalities have concentrated on different urban services. Simplifying the problem to the extreme, it could be said that the national government has concentrated its budget on dealing with problems of the past (usually established rights which it is difficult to alter), while the provinces have concentrated their efforts on the future. Indeed, the national government has used the financial needs of the pension system as an argument to put pressure on the provincial governments to agree to give up resources to ensure the financing of the social security system. As a result, both the provinces and the municipalities are now co-financing that system. In order to illustrate this point, figure 1 shows the level and composition of the expenditure of the different levels of government for the years 2000 and 2002 (i.e., before and after the end of the convertibility programme). This figure confirms the above-mentioned characteristics of the functional structure of expenditure by levels of government.

FIGURE 1

Argentina: Composition of public expenditure by function and level of government, 2000 and 2002



Source: Prepared by the authors on the basis of data from the Ministry of Economic Policy.

2. Allocation of taxation powers, and financial imbalance between the different levels of government

With regard to the financing of the different levels of government, the National Constitution (article 75, paragraph 2) delimits the taxation powers of the national government and the provinces, laying down that indirect taxes shall be concurrent between both levels, except in the case of import and export duties, which are an exclusive prerogative of the national government (article 4). In principle, direct taxes are exclusively provincial, but the national government has the right to use them for a limited time if defence, common security and the general good of the State so require.

In practice, most taxes are collected by the national government and the provinces share in them. The provinces, however, collect four important taxes themselves (on real estate, motor vehicles, stamps and gross income) which cover some 40% of their expenditure; the rest is financed through transfers from the central government and indebtedness.

In this sense, Argentina is no exception to international trends: the share of the subnational levels of government in total resources has not grown commensurately with their expenditure, thus leading to a growing gap between expenditure and resources at the subnational level.

For reasons of efficiency, the literature usually recommends that subnational levels of government should not use taxes whose bases are highly mobile and subject to major cyclical variations. This clearly limits the decentralization of income tax, whether on persons or companies. In the case of consumption taxes, tax administration considerations (economies of scale in collection and difficulties regarding trade between different areas of jurisdiction) likewise make their decentralization inadvisable. Wealth taxes are free from all these problems, but they usually generate amounts of revenue which are insufficient for financing the outlays of subnational levels of government in heavily decentralized countries.

The allocation of taxes between the different levels of government has to strike a balance between two sometimes opposing objectives. On the one hand, the theory of fiscal federalism holds that the subnational levels of government can better respond to the preferences of the inhabitants in those areas where local taxes can internalize the cost of the provision of a given amount of goods and services by the local government.

On the other hand, there are various reasons why it is difficult to give national governments sufficient powers of taxation to finance the growing provision of goods and services by those governments. Consequently, although it is agreed in theory that there should be a certain degree of symmetry between responsibilities for expenditure and taxation powers, in practice there are few taxes that can be decentralized without a serious loss of efficiency and equity.

This trade-off between two sometimes opposing objectives can be mitigated by suitable tax coordination between levels of government. Furthermore, a properly designed system of transfers which lays down explicit objectives and provides suitable incentives can offset the habitual difficulty of subnational tax systems in financing the responsibilities assigned to them. Nevertheless, as we shall see in following sections, this task can come up against many obstacles.

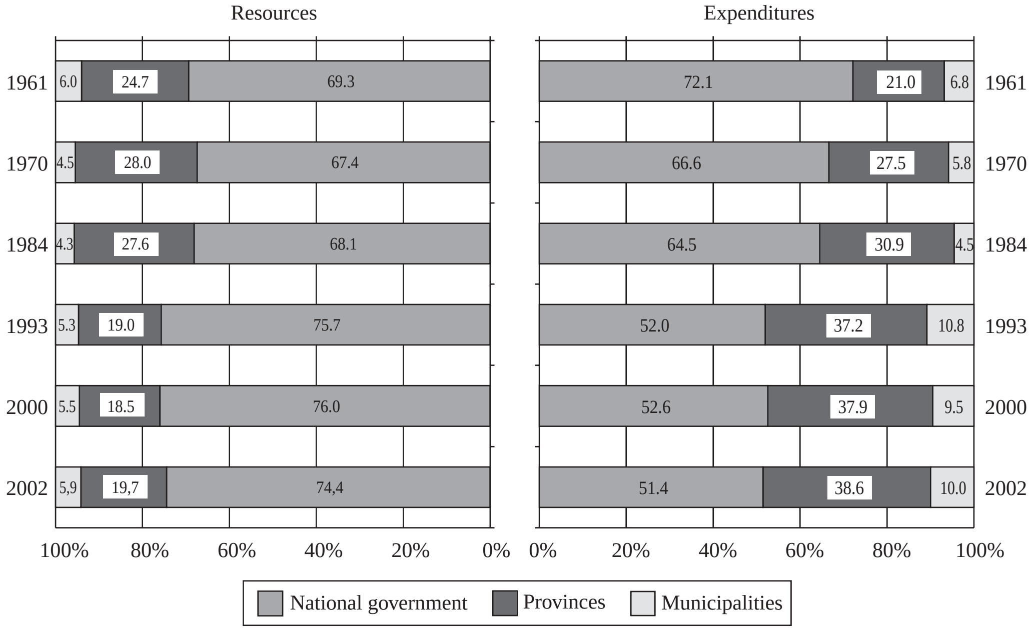
Taking a long-term view, it may also be noted that this inter-jurisdictional financial imbalance must also be considered as an element which has made the relations between the national government and the provinces even more conflictive. As may be seen from figure 2, the imbalances between the expenditure structures and tax and non-tax resources of the jurisdictional areas were only very slight up to the 1980s.[1] Since then, however, the increased concentration of resources administered by the national government and the decentralization of outlays have given rise to heavy pressure on the tax revenue distribution systems because the national government accounts for three-quarters of the resources but only about half the consolidated outlays. Before the decentralization of schools and hospitals in the late 1970s, the national government collected and spent fairly similar proportions of the total.

Finally, it is considered important, in order to complete the analysis of sources of financing, to take into account the degree of autonomy of the provinces and the availability of tax resources of their own, and

[1] Unfortunately, it is no easy task to reconstruct long-term fiscal statistics in Argentina. In preparing figure 2 we used several publications of the Ministry of Finance, which have presented the information according to various different methodologies over time. In this case, we tried to transform the data in accordance with one homogeneous method and we selected the years in the light not only of the changes in the levels of decentralization of resources and outlays but also of the availability of the information. The resources considered include not only tax resources but also non-tax revenue (rates and charges for services provided), in order to give a better idea of municipal financing.

FIGURE 2

Argentina: Percentage structure of resources (tax and non-tax) and outlays, by level of government[a]



Source: Prepared by the authors on the basis of data from the Ministry of Finance.

[a] The resources correspond to the tax and non-tax resources administered by each level of government. The outlays are classified according to the level of government which made them. In the case of public enterprises, interest payment and the primary deficit were also considered as outlays of the corresponding level.

to briefly consider their differences in productive capacity, the dynamics of their real economies, and some specific economic development problems of the different jurisdictional areas.

Recent studies suggest that the convergence of per capita income among the countries of the European Union has not been accompanied by a similar convergence within the subnational jurisdictions. On the contrary, the differences in per capita income between those areas has increased in Italy, Germany and France (Decressin, 1999). A similar finding is made in respect of Latin America by Silva (2003). However, it must be borne in mind that the size of such disparities varies considerably from one country to another. Thus, in Argentina the per capita income of the province of Santa Cruz (the richest in this respect) is 8.6 times that of Formosa (the poorest); in Brazil, the per capita income of the Federal District is 7.2 times that of the state of Maranhão; in Mexico it is 6.2 times higher in the Federal District than in Chiapas, but in Canada the per capita income of the richest state is only 1.7 times that of the poorest. These big disparities in subnational terms not only affect the design of equalization schemes, but also place a limit on certain decentralization exercises. They are also reflected in different tax bases for financing a given supply of goods and services by the subnational public sectors, as well as in different capacities of the government apparatus. All this helps to emphasize the importance of the mechanisms for transfers to the subnational levels of government, which will be dealt with in the following section.

III

The federal fiscal structure in Argentina and co-participation in tax revenue: historical roots of the conflicts and areas of consensus between the different levels of government

1. Historical roots of the conflicts between jurisdictions

For a long time after Independence, there was tension in Argentina between the two predominant tendencies in the efforts to constitute a State (a confederation of independent provinces and a federation with leadership at the national level), which was reflected in a series of pacts and agreements.[2] Only in the second half of the nineteenth century was it decided, with the 1853 Constitution, to adopt a federal form of government with leadership at the national level. The tension over the autonomy of the provinces continued, however (Botana, 1993). Since 1935, the relations between the national government and the provinces have mainly concerned the distribution of tax resources, with few efforts to coordinate expenditure and indebtedness. In this section we will deal specifically with the distribution of revenue and the systems of co-participation in taxes.

The disputes about co-participation in taxes are usually identified with conflicts about the financing of the activities of the different levels of government. The history of co-participation systems only reflects the third (and undoubtedly the best known) of the stages through which these disputes passed. Before, from the middle of the nineteenth century up to 1890, the tax sources of the different levels of government were clearly defined: the resources of the national government came basically from foreign trade, while the provinces relied on taxes on the production and consumption of specific goods. Later, between 1890 and 1935, with the creation of national consumption taxes which were superimposed on those levied by the provinces, there was a second stage, that of "de facto concurrency".[3]

The system of co-participation in taxes began in 1935, with the adoption of laws designed to increase the amount of resources collected by the national government in order to cope with the financial difficulties caused by the fall in revenue from foreign trade during the 1930s crisis.

Subsequently, in the 1950s, the system of co-participation which remained in effect until 1973 was developed. This was characterized by the application of various laws which laid down the distribution of the different taxes and defined three different mechanisms for their distribution. It was only from 1973 onwards that the co-participation system was governed by a single law: Law No. 20.221. The system laid down in this law was novel in two ways: it involved a single system of distribution of the taxes subject to co-participation, and it laid down secondary distribution coefficients in which redistributive concerns were given some importance. These features made this system an obligatory point of reference every time new tax distribution arrangements are discussed.

Later, the macro-fiscal crisis of the early 1980s caused serious financial problems for the provincial governments. With new democratic governments at both the national and provincial levels, the conflict between the two levels reached such a point that, when the period of validity of Law No. 20.221 came to an end, it was not possible to agree on a new system of distribution for the next three years (between 1985 and 1987), and it was only in the last of these years, after the defeat of the national governing party at the polls, that it was possible to negotiate a temporary system (Law No. 23.548) which is still in force today, albeit with many amendments.

2. Systems of distribution in the long term

Generally speaking, the long-term evolution of the systems of co-participation in the taxes collected by the national government was marked by three simultaneous

[2] The Federal Pact of 1831 was a clear expression of the desire for a confederation.
[3] For more details in this respect, see Porto (1990), Presman (1992) and Cetrángolo and Jiménez (1998).

trends: the increase in the number of sub-national jurisdictions included; the growing incorporation of national taxes in the total amount of resources to be shared, and the increase in the primary distribution coefficient.[4]

The first of these trends is shown in table 1, in which it can be seen that of the 24 provincial jurisdictions which now exist (including the city of Buenos Aires), only 14 had participated in the formation of the federal State. These were provinces which had formed part of one or another of the areas of government into which the Kingdom of Spain had organized the territory of what is now the Argentine Republic, so they were all prior to 1853 and, of course, to the adoption of the first tax distribution laws, towards the mid-1930s.

The remainder of the current provinces correspond to the so-called National Territories (previously under the jurisdiction of the Buenos Aires authorities), thus forming a unitary country entirely organized on the federal system but of enormous area (especially after the "Conquest of the Desert" in the 1880s), with nine sub-national governments coming under the central authorities.[5] Table 1 also shows the relative weight, in terms of population and the generation of wealth, achieved by these territories which were of little importance in these two respects 150 years ago. The provinces created during the 1950s, plus Tierra del Fuego, now account for rather more than 12% of the total population of the country and generate a similar proportion of the total GDP. The city of Buenos Aires, which was declared autonomous in 1994, belonged to the province of the same name in the mid-nineteenth century.

Table 1 also provides a striking picture of one of the outstanding features of the federal system and the economy in Argentina: the heavy concentration of wealth in a very few jurisdictions. The origins of the conflict between the "Port" and the interior of the country continue to be reflected, with a few variations, in an economy where 60% of the product is concentrated in only two jurisdictions (the City and Province of Buenos Aires), while 80% is concentrated in only five jurisdictions (the previous two plus Córdoba, Santa Fe and Mendoza). At the other extreme, nine provinces with less developed production structures do not even account for 7% of GDP together.[6]

TABLE 1

Argentina: Year of creation and relative importance of the provinces of Argentina

Jurisdiction	Year of creation	Population structure (% of population in 2001)	Economic structure (% of GDP in 2002)
Created before 1853			
Buenos Aires	1820	38.1	32.7
Catamarca	1821	0.9	1.1
Cordoba	1820	8.5	8.1
Corrientes	1821	2.6	1.2
Entre Rios	1821	3.2	2.1
Jujuy	1834	1.7	0.8
La Rioja	1820	0.8	0.5
Mendoza	1820	4.4	3.9
Salta	1821	3.0	1.6
San Juan	1820	1.7	0.8
San Luis	1820	1.0	1.0
Santa Fe	1815	8.3	8.1
Santiago del Estero	1820	2.2	0.9
Tucuman	1821	3.7	1.8
Subtotal		*80.0*	*64.6*
Created in the 1950s			
Chaco	1951	2.7	1.2
Chubut	1955	1.1	2.1
Formosa	1955	1.3	0.5
La Pampa	1951	0.8	1.0
Misiones	1953	2.7	1.2
Neuquen	1955	1.3	2.9
Rio Negro	1955	1.5	1.4
Santa Cruz	1955	0.5	1.8
Subtotal		*12.1*	*12.0*
Created in the 1990s			
City of Buenos Aires	1994	7.7	22.7
Tierra del Fuego	1990	0.3	0.7
Subtotal		*7.9*	*23.4*

Source: Prepared by the authors on the basis of information from the Federal Investment Council (1996), the National Institute of Statistics and Censuses (INDEC) and the ECLAC Office in Buenos Aires.

The second of these trends may be seen in table 2, which shows the transition from a primitive, fragmented system involving only three of the taxes collected by the national government to a unified set of systems

[4] An exception to this trend was the 1967 reform, in which the primary distribution coefficient was reduced.

[5] At that time, a portion of the provinces of Salta and Jujuy also formed part of a National Territory, the Territorio de Los Andes. See Botana (1993), p. 241.

[6] According to estimates made by the ECLAC Office in Buenos Aires for the *Panorama Económico Provincial*, which is available on the web site of that office. For more information, see Gatto and Cetrángolo (2003).

seeking to put order in the distribution of almost all the taxes collected by the General Department of Taxes (DGI). Figure 3, for its part, shows the relative importance of the taxes incorporated into the total amount subject to co-participation.

With regard to the third of the above trends, table 3 shows the evolution of the distribution coefficients between 1935 and 1988. Up to 1972 the information shown corresponds to only one of the co-participation systems that were operating at the same time, because

TABLE 2

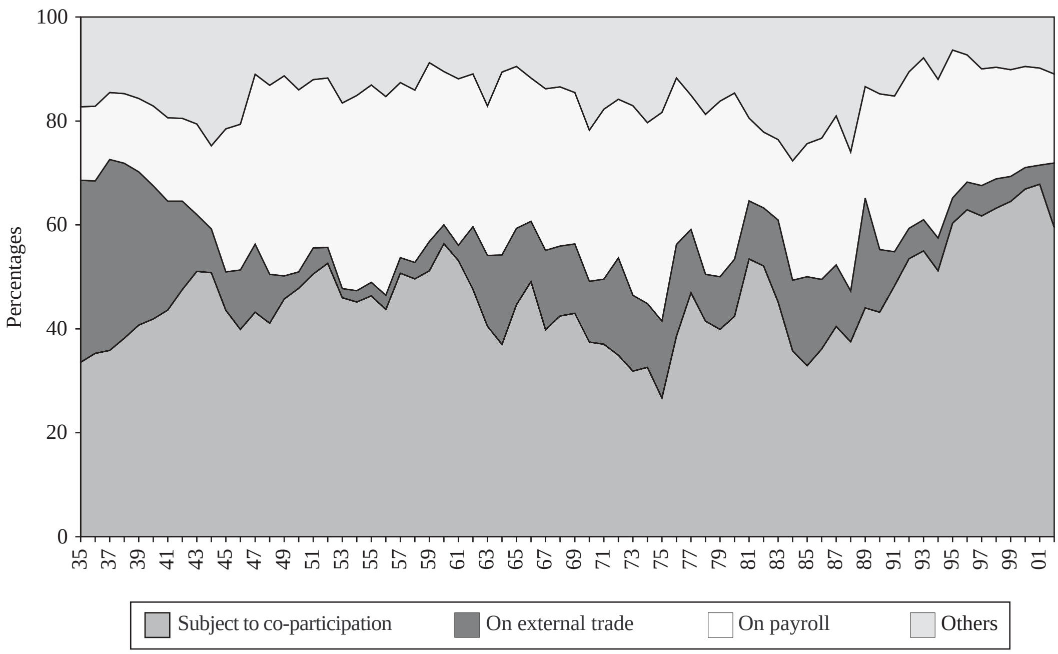
Argentina: Incorporation of taxes into the co-participation system

Year	Law	Taxes incorporated
1935	12 139 12 143 12 147	Internal taxes. Sales taxes. Income taxes.
1946	12 956	On windfall profits.
1951	14 060	Tax on the transfer of assets without payment.
1973	20 221	Taxes on land fit for agricultural use, regularization of net worth, foreign exchange, motor vehicles, real estate, lubricants, plus any taxes established as indirect taxes by the national government in the future. Will also include taxes levied for a specific purpose, once the objective of their application has been fulfilled.
1988	23 548	All existing or future national taxes, with the exception of: i) import and export duties; ii) taxes whose distribution is dealt with in other systems; iii) those established for a specific purpose and already in effect when this law was adopted. Once the purpose of their creation has been fulfilled, however, they will be incorporated into the system.

Source: Cetrángolo and Jiménez (1998).

FIGURE 3

Argentina: Percentage distribution of national tax resources, 1935-2002



Source: Prepared by the authors on the basis of data from the Ministry of Finance and Cetrángolo and Jiménez (1995).

TABLE 3

Argentina: Evolution of primary distribution coefficients up to 1973[a] and Federal Co-participation System since then
(Percentages)

Laws	Period	National government	Provinces and Municipality of the City of Buenos Aires
12.143 y 12.147	1935-1946	82.5	17.5
12.956	1947-1958	79.0	21.0
14.788	1959	66.0	34.0
	1960	64.0	36.0
	1961	62.0	38.0
	1962	60.0	40.0
	1963	58.0	42.0
	1964-1966	54.0	46.0
	1967	59.2	40.8
	1968-1972	61.9	38.1
20.221	1973-1980	46.7	53.3[b]
	1981-1984[c]	48.5	51.5[d]
23.548	1988	42.34	57.66[e]

Source: Cetrángolo and Jiménez (1998), on the basis of the legislation.

[a] System according to Law No. 12.143 and Law No. 12.147 (and amendments).
[b] Includes 1.8% for the municipality of the City of Buenos Aires, financed by the national government and the Regional Development Fund.
[c] A deduction was made from the co-participation funds for the benefit of the social security system.
[d] Includes the Regional Development Fund.
[e] Includes contributions from the National Treasury.

the others did not operate with fixed coefficients. This table clearly shows the growth in the provinces' participation in the primary distribution of resources subject to co-participation over time, except in the period from 1967 to 1972, when the Parliament was not functioning.

An analysis of the share of resources for the provinces within the total tax revenue collected by the national government does not show an upward trend since 1935, however, as the above two long-term trends (the growing incorporation of taxes in the amount subject to co-participation and the increase in the primary distribution coefficients) would suggest. On the contrary, this evolution has been erratic.

The causes of this phenomenon are to be sought in the great changes that have taken place in the structure and level of taxation in Argentina over time. The development of the social security system has undoubtedly been one of these causes, together with the cyclical fluctuations in tax pressure on foreign trade and the evolution of the other systems of allocation of taxes for specific purposes.

3. The federal tax co-participation system over the last 15 years

The 1980s began with the failure of the attempt to build a solid but dynamic system of co-participation in tax resources and ended with the approval of a new system which was described as provisional from its inception. Thus, towards the end of 1987 Law No. 23.548 was adopted, providing for a transitory system of distribution of tax resources between the national government and the provinces.

The new system involved substantial changes in the primary distribution of tax resources (between the national government and the provinces) and the secondary distribution (among the provinces). In the first case, the provinces obtained a bigger share in the distribution of funds, because the percentage distributed to the provinces was the highest since 1935 (when the first co-participation system was adopted) and the list of taxes included in the amount of resources subject to co-participation was expanded, extending even to taxes that might be established after the approval of the law in question.

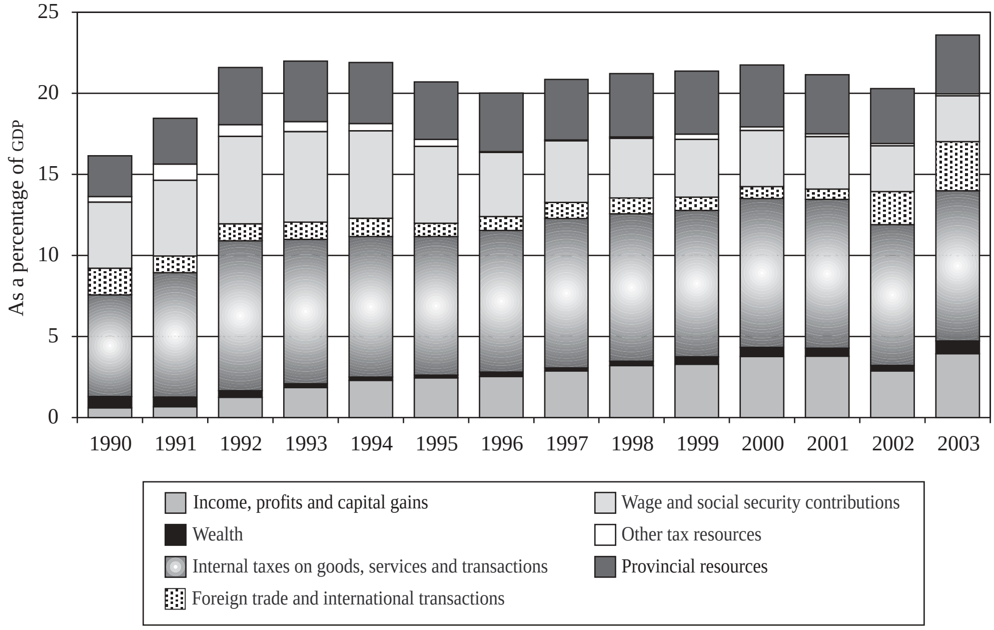
With regard to the secondary distribution, the main difference from the previous system (Law No. 20.221, in force from 1973 to 1984) is the elimination of all explicit criteria for determining the distribution coefficients. In the previous system, the distribution was determined through a combination of clearly defined criteria (population, development gap, dispersal of population). In contrast, under Law No. 23.548 the coefficients are based on the distributions effectively carried out between 1985 and 1987, when there were no rules governing co-participation and —even more important— when distribution was effected according to the needs of each jurisdiction and the bargaining power of its government and legislators, although the distribution inherited from Law No. 20.221 was taken as a basis.[7]

Since Law No. 23.548 came into force, the evolution of tax revenue has been strongly influenced

[7] Over time, the different systems have increasingly been incorporating redistributive criteria at the level of the secondary distribution, to the detriment of criteria at the primary level. Consequently, the shares of the jurisdictions with the greatest tax collection capacity have been losing relative importance. This subject was dealt with in detail in Cetrángolo and Jiménez (1995).

FIGURE 4

Argentina: Level and structure of total tax revenue, 1990-2003



Source: Prepared by the authors on the basis of data from the Ministry of Finance and the ECLAC Office in Buenos Aires.

by the way the global economic situation has evolved. In the first half of the 1990s there was considerable simplification of the structure of the resources subject to co-participation, but this situation was partially reversed from the middle of the decade on, when new emergency taxes had to be introduced in order to cope with successive episodes of macro-fiscal crisis.

Figure 4 shows the evolution of revenue in the 1990s. It may be seen that the tax burden was relatively constant between 1992 and 2002 (a period in which tax changes and the introduction of new taxes barely managed to keep up the level of the total burden), but there was a spectacular increase in 2003. This evolution also reflects changes in the tax structure due to an initial trend towards simplification of the system, with relative growth of revenue from the value added tax (IVA)[8] and, to a lesser extent, profits tax.[9] Subsequently, in the second half of the decade, there was a sharp fall in revenue from payroll taxes.

In contrast with this trend, the system of distribution of tax revenue has reached a level of complexity and fragility almost unparalleled in any other period of Argentine history. As we will see, the concentration of revenue in taxes which are subject to co-participation by current law has led to a struggle for the allocation of these funds and a search for ways of getting round the law. Since 1996, the increase in the revenue subject to co-participation under Law No. 23.548 has not been reflected in an increase in transfers to the provinces but has been used to offset the loss of resources from payroll taxes that should have gone to the central government.

To sum up, the main features of transfers to the provinces in the 1990s were as follows: a sharp rise in the early years of the decade; a simultaneous increase in the proportion of specific allocations in the total transfers to the provinces, to the detriment of co-participation; stagnation of the total amount of transfers since 1992, regardless of changes in the total amount collected, and —partly related with this— the replacement of payroll taxes with taxes collected by the General Tax Directorate in the financing of the national government's needs.

The struggle for resources between the different areas of the national and provincial public sectors was so great that there are now almost no taxes which are not allocated, at least in part, for some specific purpose. In response to these pressures, the national authorities

[8] Included in internal taxes on goods, services and transactions.
[9] Included in the taxes on income, profits and capital gains.

negotiated specific allocations (especially for the social security system) to cover expenses that would otherwise have had to be paid by the National Treasury or transferred expenditures to other levels of government (schools and hospitals, for example). The result was a change in the "effective distribution" in order to arrive at a tax distribution system based on multiple "patches". These "patches" have been growing in variety and size over the years since the current law on co-participation was approved.

Late in 1999 the Federal Commitment was signed, establishing a fixed sum for the year 2000 of 1,350 million pesos and a three-year average with a minimum level of 1,364 million pesos as from 2001. Later, in November 2000, another Federal Commitment was signed between the national government and the provinces under a new programme known as "guaranteed cover". This agreement replaced the mobile averages with fixed sums for the following years, until a new co-participation law was approved.

The macroeconomic and fiscal situation sharply deteriorated from mid-2001 on. As from the third quarter of that year, the difficulties in obtaining financing obliged the national government to adopt a programme aimed at achieving month-to-month fiscal stability through a strict accounting rule called "zero deficit". As part of the same programme, the national government negotiated with the provinces a "Second Addendum" to the November 2000 Federal Commitment, providing for a reduction in transfers of the order of 13%, and a voluntary debt swap scheme was put into effect. From then on, the different levels of government had serious difficulties in fulfilling their obligations, and in various jurisdictions serious delays in the payment of salaries reappeared. Furthermore, the practice of paying commitments with bonds spread rapidly, and a wide variety of means of payment began to be used. The failure of the "zero deficit" programme and an accumulation of political and social factors resulted in a profound political crisis which was reflected in the removal from office of various ministerial teams.

4. Crisis and new circumstances

On 27 February 2002, after the end of convertibility, the national government carried out a new round of negotiations with the subnational levels of government aimed at agreeing on new rules for the transfer of resource to the provinces, the target deficit, and debt renegotiation. These involved some basic commitments, including the abandonment of fixed amounts of transfers and their replacement with the coefficients laid down in the current legislation, plus 30% of the tax on credits and debits; the renegotiation of the provinces' debts with the aim of converting them into debts in pesos; the establishment of a limit of 15% on the allocation of co-participation resources for payment of the service on the restructured debts; the reduction of the fiscal deficit of the jurisdictions, and limitations on provincial indebtedness.

Within the framework of this Federal Agreement, the national government signed bilateral agreements with some provinces. In 2002 agreements were signed with 17 provinces, and in 2003 with 15 jurisdictions. The Ministry of the Economy has signed what it calls Orderly Financing Programmes with each of the provinces, under which it provides them with finance each month to cover the agreed financial deficits and the debt service on the public debt for the current year.

The signing of the February 2002 agreement enabled the provinces to improve their relative fiscal position in two ways: first, through the return to the system of automatic resource distribution by coefficients which was in effect before the 1999 Federal Commitment, in a context of increases in price levels (in 2002) and the product (in 2003), and second, through the lower debt service payments due to the debt swaps and the 15% limit placed on the allocation of co-participation resources for debt service.

Consequently, with the aim of illustrating the overall changes in fiscal policy resulting from the crisis, it may be noted that there has been a considerable fiscal improvement, basically for three reasons: the smaller debt service payments, the lower level of remunerations and social security benefits (both in real terms and as a percentage of GDP), and the increase in revenue due largely to the incorporation of windfall resources only partially subject to co-participation (export duties and the tax on cheques). This has made possible a considerable improvement in the primary results of all the levels of government and, hence, somewhat greater leeway for increasing social assistance expenditures designed to relieve the serious social situation.

With regard to the level and structure of expenditure, figure 1 (in section II.1 above) shows the changes in the different levels of government after the end of the convertibility programme and the subsequent crisis. If we compare the data for 2000 and 2002, we see that —apart from the decline in expenditure of all three levels of government led by the reduction in public debt interest payments (which went down by 40.4% at the national government level)— the only item which registers an increase is that corresponding to "other social expenditure" of the national government (57.4%). This item includes the Unemployed Heads of Household Programme. The remaining items of expenditure were influenced by the sharp fall in real public sector wages and in the real value of social security benefits.

As a reflection of a speculative nature, perhaps consideration could be given to the possibility of an incipient process of recentralization of functions based on three elements: i) the rescue of the provincial governments by the central government, through the renegotiation of the provinces' debts with a ceiling on the allocation of provincial resources, implies a transfer of responsibilities to the national government; ii) the introduction of assistance programmes for emergency situations (in view of the structural characteristics of the Argentine economy, the employment situation and the limitations of social security) can only be interpreted as a first step in a direction which will undoubtedly become more evident in the years to come; and iii) some programmes of the national government are dealing with shortcomings that the budgets of the provinces were not able to solve during the crisis. This latter element is particularly evident in the public health area, through the distribution of medicines (the "Remediar" programme) or the allocation of transfers, subject to the fulfillment of programme goals (along the lines of counterpart donations), in order to finance mother and child attention in the relatively less developed provinces.

IV

Political conflict and institutional weaknesses in the financial relations between the national government and the provinces

Inevitably, many references have been made in this article to the forms and magnitude of the underlying political conflict in the relations between levels of government in Argentina. In the opening sections we mentioned the origins and development of these tensions. We also referred to some aspects of these conflicts during the last 15 years, in which macroeconomic imbalances and the social security crisis have been the clearest causes of the difficulties in solving the problems pending in the financial relations between the different levels of jurisdiction.

Our view is that the period under analysis was one in which the national government exhausted all the sources of financing other than the tax resources subject to co-participation. The struggle among the different levels of government, which occurred at a time when there was a high level of political conflict and macroeconomic crisis, has also been accompanied by great institutional weaknesses in the field of federalism. This has been at once a cause and a consequence of the problems of the period in question.

As Bardhan (2001) notes, when institutional weakness is the result of serious distributive conflicts, this makes it difficult for both the national and local levels of government to fulfill public policy objectives. Out of the many manifestations of these weaknesses in the federal organization of Argentina, we would like to briefly refer to those which have been most obvious during the last 15 years: the proliferation of emergency agreements instead of stable resource distribution systems, and the institutional weaknesses as regards regulation of the indebtedness of the subnational levels of government.

1. The proliferation of emergency agreements instead of stable resource distribution systems

A characteristic feature of the relations between the national government and the provinces while Law No. 23.548 was in force is the predominance of the relations between executive levels of authority over what is laid down in the legislation. This is reflected both in the emergency agreements between levels of government to modify what is laid down in the relevant legislation, and in the discretionary settlement of specific situations affecting some jurisdictions by the national government. An extreme example of the institutional tension which has prevailed in the relations between jurisdictions, and which has run counter to the parliamentary solutions arrived at after negotiations between the executive authorities concerned, is the requirement by the 1994 Constituent Assembly that a new system of tax distribution should be negotiated and agreed upon. This has never been complied with by the executive authorities, however.

In the course of the period studied, various pacts or agreements have been negotiated and signed to deal with the many difficulties faced, ranging from the financing of the social security system to the renegotiation of the debt. All these involved agreements between executive authorities which modified the distribution of resources laid down in that co-participation law.

In the previous section we mentioned the multiplicity of makeshift solutions or patches which have modified the system until it has reached its present level of intricacy and irrationality. Many of these were implemented through legislative changes, but others —the most important— have given rise to legislative changes after agreements between executive authorities. Whenever this has happened it has left ample room for a form of negotiation in which political aspects have prevailed and elements have been incorporated which have not always been clearly expressed.

As a result of these agreements, plus the many changes made in the distribution of the different taxes subject to co-participation, the distribution of resources has become a chaotic set of varied ad hoc distribution mechanisms which have been multiplying over the years. The multiplicity of distribution mechanisms is not a response to a similar multiplicity of objectives, but is the result of a mass of conflicts and struggles. According to the legislation, it should be a formula based on a single distribution coefficient for all the taxes subject to co-participation (or at least it should allow very few exceptions, and even then only of a temporary nature), but in fact it has become a complex matrix linking those taxes with various different objectives through percentages and fixed sums which are a faithful reflection of the distributive struggle over the public accounts.

Three basic forms of pressure on the distribution system may be observed. First, there is the allocation of co-participative resources proper in order, mostly, to the need to provide more finance for the social security system. Second, there is the allocation of those resources to finance the infrastructure, historically from taxes on hydrocarbons and energy. Finally, there are the struggles for the distribution of resources within the national budget. All this would appear to indicate that, apart from the struggle between the national government and the provinces, there are also sectoral struggles which it is sought to solve through the allocation of different taxes for specific purposes.

2. Institutional weaknesses as regards regulation of the indebtedness of the subnational levels of government

During the second half of the 1990s, successive national policy decisions gave the provinces the possibility of gaining easier access to internal and external sources of finance. Since the credit market situation was favourable to this change, there was a considerable increase in the provinces' indebtedness, which reached a high point late in 2001.

During the 1990s the provinces' indebtedness was governed by a series of rules of different scope and institutional origin.[10] Most of the provinces had limits, laid down in their own constitutions, on the permissible level of indebtedness. These restrictions included mechanisms for the authorization of indebtedness, restrictions on the use of the funds thus obtained (for example, the prohibition of their use to finance current expenditure), or limitations on the level of debt service.[11]

At the same time, there was also a set of regulations on the indebtedness of the provinces in the national legislation. The reform of the Charter of the Central Bank of the Argentine Republic prohibited the granting of credits from financial entities to the public sector without the authorization of the Minister of the Economy. Resolution 1075/93 of that Ministry laid down that in the case of foreign-currency loans, the provincial governments needed special approval for operations with the financial system. This Resolution also established an automatic debt service payment mechanism through direct access to the co-participative

[10] Article 124 of the National Constitution gives the provinces the power to sign international agreements, subject to certain requisites, stating that the provinces "can also sign international agreements provided the latter are not incompatible with the foreign policy of the Nation, do not affect the faculties delegated to the Federal Government or the public credit of the Nation, and are signed with the knowledge of the National Congress."

[11] For a detailed analysis of this subject, see Cetrángolo, Jiménez and others (2002).

resources deposited by the national government in the accounts of provincial governments. This mechanism facilitated access to the financial markets by the provinces, by providing a reliable guarantee, but the fact that it was not applied with the aim of ensuring the financial solvency of the jurisdictions in question encouraged over-indebtedness in some cases. Only with the implementation of the Financial and Fiscal Assistance Programme early in 2000 and the Orderly Finance Programmes in 2002 was it possible for this mechanism to be used in a group of provinces as an effective means of limiting indebtedness in order to comply with the reduction of imbalances agreed upon between each provincial government and the national government.

The indebtedness mechanism used by the provinces since the early years of the 1990s, using the transfers of co-participative resources as a guarantee, has had two effects: on the one hand, it has encouraged growing indebtedness of the provinces by facilitating access to credit markets, while on the other, it has sharply restricted the provision of social goods and services by the provinces, by modifying the provincial budgetary process. The provinces have lost their capacity to establish budget priorities month by month, since payment of creditors is carried out automatically; consequently, they have to find additional finance to cover their operating expenses in each period.

Table 4 shows the percentages of co-participation resources allocated for debt payments in 2001, before the cessation of payments. It clearly shows the very limited budget leeway available to some provinces for covering their operating expenses after paying the debt service. Subsequently, with the signing of the February 2002 agreement, a 15% limit was established for the amount allocated to service renegotiated loans, with the national government making itself responsible for commitments over and above that percentage.

TABLE 4

Argentina: Co-participation transfers allocated to debt payment, 2001

(As a percentage of the total transfers to each province)

Jurisdiction	%
Buenos Aires	1.6
City of Buenos Aires	0.0
Catamarca	57.2
Cordoba	2.8
Corrientes	55.4
Chaco	39.0
Chubut	29.5
Entre Rios	22.8
Formosa	68.2
Jujuy	91.8
La Pampa	2.4
La Rioja	50.8
Mendoza	60.5
Misiones	48.6
Neuquén	9.2
Rio Negro	97.3
Salta	73.5
San Juan	41.3
San Luis	27.5
Santa Cruz	4.7
Santa Fe	4.0
Santiago del Estero	36.6
Tucuman	85.3
Tierra del Fuego	37.9

Source: Prepared by the authors.

V

Final remarks

In this article we have shown that the problems currently besetting the federal organization of Argentina are the result of the juxtaposition of structural problems, of the reforms made in the 1990s, and the crisis which followed the end of convertibility. We have emphasized the importance of taking into account the political and institutional aspects of the problem, which have been influenced by a combination of elements in which institutional weakness is the counterpart and reflection of a strong political struggle about federal matters, whose origins may be traced back to the formation of the Argentine nation.

The dynamics of the political and institutional conflict have been further increased by the characteristics of the prolonged macroeconomic crisis which, with periods of greater or lesser tension, has dominated Argentine history in recent decades. With regard to the subject of this article, the dominant features of the conflict have been the course of the social security crisis and its growing needs for finance, and a tax structure which is insufficient to finance properly the public policies that the different levels of government are trying to carry out.

We have seen that as long as the national public sector was able to obtain additional finance to cover the new demands of public policies, the expansion of government activities which accompanied the development of Argentina did not enter into conflict with the functioning of the federal system of the country. But when the macroeconomic crisis got worse, the sources of financing not subject to co-participation (customs revenue, the inflation tax, fuel taxes, payroll taxes, the social security surplus, indebtedness, privatization operations) were exhausted, a fiscal crisis broke out (impelled by indebtedness and the social security crisis) and the conflict over the distribution of the resources subject to co-participation became increasingly serious and complex.

The exhaustion of sources of financing not subject to co-participation for coping with the new functions that the national government has had to assume, the increase in the number of subnational jurisdictions participating in the distribution of resources, and the growing imbalance between outlays and resources among the jurisdictions were structural factors which, together with the typical characteristics of the last few decades (crises at the macroeconomic level and in the social security system and the ongoing political struggle), explain the high level of conflict which has dominated the financial relations between the national government and the provinces.

In the 1990s an important role was played by problems of another type, connected with the implementation of a macroeconomic programme with a fixed exchange rate, whose priority now needs to be reviewed. The urgent need to improve the international competitiveness of the tradeable goods sectors gave rise to a debate on the reform of provincial taxes on gross income, which were the main source of income of their own for the provinces. While not denying the importance of this matter, it is open to question whether the degree of urgency assumed by this question at that time continues today, now that the macroeconomic programme provides for a very different configuration of relative prices; nevertheless, work should be continued on this matter, albeit without the degree of urgency of that time.

Likewise, consensuses were reached in the 1990s which must now be revised. Unfortunately, the possibility of introducing a system with new distribution criteria for increases in the amount of revenue collected —an initiative which was widely supported in those years— now calls for agreements which are more difficult to reach: whether the levels to be respected are nominal or real, and, at all events, what price index to use.

It is worth noting that, in the light of the difficulty in finding a solution for the problems deriving from the absence of an explicit, stable and transparent resource distribution mechanism, the expectations raised by the constitutional commitment to agree on a new system have led to pressures to incorporate in that system —already difficult to agree on— new items that make this exercise even more complex. Thus, items have been added such as the new fiscal institutions, the need to redefine and harmonize the powers to levy taxes, the absence of fiscal rules, and the development of instruments to soften the effects of economic cycles.

There are, however, two structural problems which, as already noted, represent a serious weakness of the way the federal system functions in Argentina but unfortunately have not been sufficiently debated: the problems of financing compensatory social policies, and the imbalances in the product between the different provinces. In the first case, efforts should be made to correct the shortcomings observed in the past process of decentralization of social expenditure, especially in the fields of health and basic education. Under the pressure of urgent fiscal needs, the national government finally lost interest in compensatory policies and those aimed at coordinating social expenditure, with a consequent heavy adverse impact on equity. In order to solve these problems, it is necessary first of all to design suitable sectoral policies, as was done in the 1990s in the field of education as is now being discussed in the field of health. If these initiatives are to be successful, however, the future system of transfers must take these policies into account and include their financial needs in the debate.

In the second case, there are big disparities in the product of the different provinces. In view of the enormous development gap observed between the different provinces of Argentina, it cannot be imagined that fiscal correspondence (i.e., that the subnational governments should finance their expenditure from their own resources) is the solution to problems of incentives. It is unthinkable that the least developed provinces could ensure a supply of public goods similar to that of the more highly developed provinces without assistance from the national government (and not only financial assistance). This in turn leads us to the problems of the promotion of production development and the role of local governments.

It is also necessary to identify the problems that will characterize the new economic situation. The end of convertibility was accompanied by a reformulation of the functions of the different levels of government. There are four features which must be taken into account in this respect:

— The changes in the tax structure, which have played a significant part in achieving a considerable primary surplus of tax resources not subject to co-participation (customs revenue) or those only subject to a low level of co-participation (bank credits and debits).
— The growing importance of social assistance expenditure in the national finances.
— The announcement of new changes in the social security system.
— The process of debt renegotiation and the transfer to the national government of much of the provincial debt burden.

It is hard to imagine a debate on a new system of distribution between the national government and the provinces which tries to arrive at a medium-term agreement without first of all making a pronouncement about the probability that these phenomena will persist and that —as everything seems to indicate— the large budget items earmarked, for example, for social assistance[12] and the new transfers to the provinces to support the provision of public health services (the "Remediar" and mother and child insurance programmes) will be maintained in the future. If this is so, then this will mean that we are witnessing a new redistribution of functions which will require a new examination of the questions of federalism and transfers between the different levels of government. The reformulation of the social security system, for its part, may be associated with the introduction of social assistance pensions for elderly persons who can not provide proof of 30 years of formal employment. These expenditures will undoubtedly grow and will have to be paid by the national government.

Another element which we should not forget concerns the functioning of the macroeconomic level in coming years and its impact on the finances of the different levels of government. The particular fiscal situation prevailing today is supported by a set of relative prices in which the high exchange rate makes it possible to collect some windfall taxes not subject to co-participation, while the fall in public sector wages and social security benefits in real terms has made possible a considerable fiscal surplus (as well as financing new functions). The exceptional nature of this situation makes it necessary to be very careful about introducing new resource distribution rules which may be affected in the near future.

In recent months, however, the debate on a possible co-participation law has been resumed and the possibility of effectively achieving this has been discussed. Bearing in mind the analogy frequently drawn between the current distribution system and a labyrinth, in some cases the well-known phrase of Leopoldo Marechal seems to have been resorted to in order to try to find a new magic way out: "all labyrinths have a way out upward".[13]

The new situation requires a flexible form of federalism which meets the different demands of each province and can be adapted to the changing circumstances of the Argentine economy. It is not necessary to seek an instrument which tries to solve all the problems at once. It would be advisable, instead, to discuss, agree upon and implement different solutions for specific problems which, in time, can clear the way for the solution of problems that are harder to tackle. The construction of a modern form of federalism is a task that must be continued every day, and the approval of some particular law cannot magically solve long-standing problems.

(Original: Spanish)

[12] Especially the Unemployed Heads of Household Programme.

[13] "Laberinto de amor", a poem published by Sur in 1944.

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The relations between different levels of government in Brazil

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Brazil is now one of the most decentralized federative countries in the world, with the special feature that its decentralization is not the result of an economic strategy, but of a political initiative of the 1988 Constitution. The distribution of income and expenditure between the different spheres of government —central, state and municipal— shows the considerable relative importance of the subnational levels of government. Decentralization has not prevented extraordinary progress in the structural reform of the Brazilian public finances in recent years. The Fiscal Responsibility Law consolidated a process of change in fiscal "culture", reversing the tendency towards primary deficits and growing indebtedness. The central government has formulated dynamic social policies and shared programme execution with the subnational governments, particularly in fundamental education, basic health services and social assistance. What the Brazilian federation now needs to do is not to reconstruct itself, but to improve itself still further, through greater transparency in public actions and accounts and more investments to modernize management.

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I

Introduction

This article analyses the nature of intergovernmental financial relations[1] within the Brazilian federation's advanced process of decentralization. The analysis centers on the effects of these relations on fiscal and macroeconomic policy management and the provision of public goods and services in recent years.

The case of Brazil is particularly interesting because it departs widely from the theoretical models and experience of most countries, where decentralization is generally a process planned and coordinated by the central government, as Shah (2003) rightly notes, and the financial transfers between the different levels of government —central, state and municipal— are normally for purposes related with general or sectoral public policies. In Brazil, these transfers are designed above all to ensure the fiscal and financial autonomy of the subnational levels of government.

After the present introduction, the article refers briefly to the special features of Brazilian federalism (section II); describes the most salient features of the system of intergovernmental financial relations (section III); assesses the recent behaviour of the public deficit and indebtedness from the point of view of economic policy (section IV); likewise assesses the new role of intergovernmental relations in the areas of education, health and social protection in terms of the services provided (section V); and in the conclusions (section VI) it analyses options for improving the system and advocates investment in the modernization of public management, rather than trying to reduce the constitutional allocations (*vinculações*) of given percentages of the budgetary resources, in order to improve the system's performance.

II

Federalism, Brazilian style

The federalism of Brazil is marked by conditioning factors that must be taken into consideration from the start when analysing its fiscal aspects.[2] Wiesner (2003, p. 76) sums this up by saying that, for various reasons, the decentralization of Brazil is a special case, with special normative and institutional characteristics.

This country, which is of continental dimensions and has 177 million inhabitants, is a democratic federation in every sense. Early in 2003, for the first time in four decades, a directly elected civilian president was succeeded by another who was not only elected under the same conditions but was also his bitterest opponent.[3] Furthermore, in the largest states of the federation, governors were elected who were members of parties in opposition to that of the federal government.

The most outstanding feature of the Brazilian fiscal system is that its decentralization is not based on political and economic policies formulated and implemented under the orders of the federal government. On the contrary, most of the intergovernmental

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[1] In this article, "intergovernmental" means the mutual relations between the federal (central), intermediate (state) and local (municipal) levels of government in the Federative Republic of Brazil.

[2] For recent detailed analyses of Brazilian federalism, see Rezende and Afonso (2002), Serra and Afonso (2002) and Rezende and Oliveira (2003), among others. We also suggest consulting the specialized website http://www.federativo.bndes.gov.br/.

[3] The formation of a transitional cabinet and the political and administrative smoothness of the change of president were internationally praised. The University of Notre Dame even presented an award to the two presidents involved in recognition of this.

relations cannot be established or modified by the federal political and economic authorities according to their own arbitrary wishes.

In Brazil, the main political option for decentralization was adopted by the Constituent Assembly which drafted and approved the Constitution which has been in force since October 1988. This was the basic framework for the process of re-democratization after twenty years of military dictatorship. The idea which prevailed in the Constituent Assembly was that the reduction of the fiscal and financial power of the central government and the corresponding strengthening of that of the state and municipal governments —especially in the less developed regions— should form a kind of financial arm of a broader political movement.

The "federative pact" is a principle which has always been invoked but has never really been formulated as such. It is based on the detailed text of the Constitution regarding the tax system, in which exclusive powers of taxation are assigned to each of the three spheres of government: specifically, important indirect taxes are assigned to the subnational levels of government (a sales tax on goods for the states and a tax on services in general for the municipalities). The text of the constitution details a series of basic rules for the collection of subnational taxes, which ensure great autonomy for the levels of government in question. It does the same with regard to the constitutional distribution of taxes, even specifying the percentages applicable, the limitations of the use of the resources in question, and in some cases detailed criteria for their apportionment.

The situation is not very different with regard to the respective areas of competence in terms of responsibilities and expenditures. Although the Constitution also indicates some division of attributions among levels of government, in practice there is overlapping of activities, due above all to the great differences between regions, not only in terms of economic and social conditions but also the executive capacity of the state and municipal public administrations. At all events, it is important to note that most of the subnational public expenditure does not correspond to tasks delegated by upper spheres of government. The lower spheres of government assume such expenditures —even when there is no official act or law formally giving them responsibility for such outlays— in order to take care of the interests and needs of the local community. In spite of the lack of an institutional mechanism explicitly imposing such responsibility, like that for tax income, public expenditure was increasingly decentralized from the 1988 reform onward.

Under the National Constitution, the states and municipalities enjoy broad autonomy as regards levying their taxes and collecting other forms of income, making expenditures, and even hiring public employees, defining their salaries, and contracting debts. The budgets and corresponding rendering of accounts are submitted to the legislative powers of the subnational governments themselves and do not depend on *ex ante* or *ex post* authorizations or evaluations by the federal government. The so-called voluntary transfers and possible loans obtained from federal bodies are exceptions and therefore have little weight in the present fiscal system. The subnational governments also have a reasonable amount of leeway with regard to larger federal transfers connected with fundamental education and public health programmes,[4] which operate as what are called "general purpose subsidies".

These initial observations aim to cover the main institutional elements conditioning the Brazilian fiscal system which must be taken into account when analysing intergovernmental relations. Decentralization is not the result of public policy options adopted by the government, nor is it a mere fiscal strategy within overall economic policy. Instead, it has a higher rank, intimately linked with the permanent structure with which the Brazilian federation has always been endowed in the Constitution, since the federative form of organization of the State was adopted in the very first Constitution of the Republic, in the late 19th century.

[4] In Brazil, since 1996 education has been organized in two levels: i) basic education, which comprises pre-school education (0-6 years of age), compulsory fundamental education (7-14 years of age), and secondary education (15-17 years of age), and ii) higher education.

III

An outline of the relations between the different spheres of government

Among the federative countries of the world, Brazil displays one of the most advanced levels of fiscal decentralization, whatever the standard used. Strangely enough, Brazilians do not see it in this way, especially in political circles, where there are more and more protests against the centralization of the fiscal system.[5] This perception may reflect the changes in the general thrust of the federal distribution of tax revenue defined by the 1988 Constituent Assembly but little publicized and discussed in the country as yet.[6]

The division of the main fiscal flows and stocks among the different levels of government —central, state and municipal— highlights the considerable relative importance of the subnational levels.

The states and municipalities directly collect 31% of the high global tax burden, which was estimated to amount to 35.5% of the gross domestic product (GDP) in 2003 (table 1). After the transfers provided for by the Constitution, this relative proportion rises to 41%. According to the national accounts, this amount is almost equal to the proportion of total fiscal expenditure (41.1% of GDP in 2002) corresponding to the subnational levels of government. In the case of the distribution of expenditure, the aggregate result conceals great differences by category: the federal government is responsible for 80% or more of expenditure for social benefits (14.7% of GDP) and interest on the debt (nearly 10% of GDP in 2003), while the state and municipal levels are responsible for 70% of the payroll for active public employees (10.1% of GDP) and 82% of gross fixed capital formation (2.2% of GDP).

According to the official methodology for analysing the net public sector debt and its financial needs (which, unlike the previous data, include state enterprises), a little over a quarter of the primary surplus (4.3% of GDP in 2003), 30% of the expenditure, including interest, and almost 40% of the net public sector debt (58.2% of GDP in December 2003) corresponded to the sub-national levels of government.

The national accounts make it possible to prepare a complete updated picture of the intergovernmental flows registered in the public administration accounts. The latest data released by the IBGE refer to the financial year 2002. They cover the constitutional distribution of revenue and the other transfers allocated in the same way in those accounts. They include both regular transfers and those made in connection with the Fund for the Maintenance and Development of Fundamental Education and the Upgrading of Teachers (FUNDEF), the Unified Health System (SUS) and also the federal commitments in respect of support for the government of the Federal District and the former Emancipated Territories (now the states of Amapá and Roraima). They also include the so-called voluntary transfers, authorized only for special purposes but always included in the budget of the transferring government.[7]

The total flow of resources among the three spheres of government is considerable, amounting in 2002 to 7.8% of GDP (table 2). This is equivalent to a little over one-fifth of total national tax income and, when other items are also taken into account, to almost 18% of the current income of the governments and 16% of total fiscal expenditure. As a general rule, the transfers are from the upper spheres to the lower ones. The balance between the amount granted and the amount received is positive, even in the case of the states: 1.1% of GDP, equivalent to 10% of their own budgets.[8]

[5] This was also the main theme of the electoral campaign of the present President, who laid stress on his promise to review the federative pact —in order to increase the income of the subnational governments— as the feature differentiating his tax reform project from others.

[6] These changes became clearer in the two-year period 2003-2004: the statistical evidence indicates a growing federal share of direct tax revenue and available income. The data for 2004 given in this article were taken from budgets which were adopted months before the beginning of the financial year, so that the actual results may naturally be considerably different.

[7] The annual balance sheets of the various units of the three spheres of government referred to throughout this article are prepared by the National Treasury Ministry (STN) and are consolidated under the title *Finanças do Brasil*. They are available on the Internet website of that ministry (http://www.tesouro.fazenda.gov.br/estados_municipios/index.asp).

[8] Exceptionally, with the creation of FUNDEF horizontal transfers increased, even involving a redistribution of resources between state and municipal governments, as described below.

TABLE 1

Brazil: General aspects of the Brazilian federation, by the three spheres of government[a]

Spheres of government		Units	Tax resources[b]: Direct collection (%)	Tax resources[b]: Available income (%)	Public expenditure[b]: Activel staff (%)	Public expenditure[b]: Social benefits (%)	Public expenditure[b]: Fixed capital formation (%)	Public expenditure[b]: Total (including surplus interest) (%)	Financial needs and net indebtedness: Primary surplus (%)	Financial needs and net indebtedness: Interest (responsibilities (%)	Financial needs and net indebtedness: Net debt (%)
Central	Unión	1	68.8	59.0	30.0	85.0	17.6	57.8	73.1	70.7	61.2
Intermediate	States	26+1	26.6	24.9	43.2	12.9	41.4	25.5	23.7	25.0	34.3
Local	Municipalities	5 532+27	4.6	16.1	26.8	2.1	41.0	16.6	3.2	4.3	4.6
Total		5 586	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
As % of GDP			35.5	35.5	10.12	14.67	2.20	41.08	–4.3	9.5	58.2
Year			2003	2003	2002	2002	2002	2002	2003	2003	2003

Source: Prepared by the author on the basis of data from the Brazilian Geographical and Statistical Institute (IBGE), the Central Bank of Brazil and the Ministry of Finance.

[a] Political organization: state sphere (26 states plus the Federal District); local sphere (5,560 municipalities officially established and receiving federal transfers, 26 capitals, 5,532 municipalities in the interior), and the Federal District.
[b] The tax resources and public expenditure include social security (with extra-budgetary funds such as the Unemployment Insurance Fund-FGTS) but exclude business activities.
[c] Financial needs and net debt: measured above the line (IMF methodology). Include the Central Bank in the case of the Union and state enterprises in each sphere of government (unlike other items).

TABLE 2

Brazil: Structure of intergovernmental financial relations, 2002[a]

Intergovernmental flows[b]	Amount: Billions of reales	Amount: % of GDP	Amount: % of total	As % of expenditure: Gross (%)	As % of expenditure: Own expenditure (%)	As % of income: Gross (%)	As % of income: Own expenditure (%)	As % of income: Tax income (%)
Expenditure[c]	104 936	7.80	100.0	16.0	19.0	14.9	17.7	22.3
Union	73 570	5.47	70.1	18.7	23.0	17.1	17.1	22.3
States	30 784	2.29	29.3	17.9	21.8	17.0	23.1	25.9
Municipalities	582	0.04	0.6	0.6	0.6	0.6	2.0	2.9
Income[d]	104 936	7.80	100.0	16.0	19.0	14.9	17.7	22.3
Union	103	0.01	0.1	0.0	0.0	0.0	0.0	0.0
States	45 026	3.35	42.9	26.2	31.9	24.9	33.8	37.9
Municipalities	59 807	4.44	57.0	64.6	65.0	64.4	201.1	294.2
Balance	(0)	0.00	0.0	0.0	0.0	0.0	0.0	0.0
Union	(73 467)	–5.46	–70.0	–18.7	–23.0	–17.1	–17.1	–22.2
States	14 242	1.06	13.6	8.3	10.1	7.9	10.7	12.0
Municipalities	59 225	4.40	56.4	64.0	64.4	63.8	199.2	291.3

Source: Prepared by the author on the basis of data from IBGE (2003, table 39).

[a] Transfers do not only include those corresponding to the constitutional distribution of tax income, but also other regular transfers (from FUNDEF and SUS) and voluntary transfers.
[b] The intergovernmental flows correspond to the difference between gross or own income and expenditure.
[c] Expenditure includes intermediate consumption, payment of employees, subsidies, social benefits, interest and gross fixed capital formation.
[d] Income includes taxes, property rents and sundry income.

On the side of the transferring governments, there is a concentration of 70% of the flows in the Union, which transferred an amount equal to 5.5% of GDP in 2002 and consumed one-fifth of its global fiscal expenditure, equivalent to 22% of its tax revenue or 17% of all that it collected. Although the states account for the remaining 30% of transfers, these too weight quite heavily in their budgets, since they represent about a fifth of their expenditures, or a quarter if only direct tax revenue is considered.

On the side of the recipient governments, in 2002 the municipalities benefited more than the states (4.4% versus 3.3% of GDP): the transfers they received were three times the size of their direct tax revenue and double their own income, so that 65% of the municipalities' expenditure was financed with the money transferred. The states, for their part, received transfers equivalent to one-third of their own income, covering a quarter of their expenditure.

It may be noted that this diagnosis of the sub-national governments as a whole involves significant variations between the different government units, mainly because of the profound economic and fiscal inequalities. The extent to which each unit depends on transfers —especially from the funds for sharing in the income from federal taxes— is directly related with its level of development. Consequently, when the evolution of their own income is very different from that of resources transferred from other levels, the characteristics of the sub-national finances are also very different.

After this more global diagnosis of intergovernmental financial relations, we will concentrate our analysis on the tax system, since the constitutional distribution of income (6.3% of GDP in 2002) accounts for 80% of the total transfers between levels of government.

Although a deeper reform of areas of competence in terms of taxes has not been made, the global tax burden has increased considerably, and continues to do so, after the serious external crisis suffered by the country at the end of the 1990s. In order to cope with this crisis, an austere fiscal stability programme was adopted, based on a sharp rise in federal taxes. Between 1998 and 2003 the global tax burden increased from 29.6% to 35.5% of GDP.

This increase coincided with a renewed centralization of direct tax revenue, although this was partially offset by intergovernmental transfers. Before the radical decentralization provided for in the 1988 Constitution, the Union directly collected 70% of national taxes (22.4% of GDP). In 1991, this proportion went down to 63%, but after the creation of the Real, the introduction and/or increase in social contributions allowed it to rise to 69% in 2002-2003.

There was also a slight change in the trends in available tax income, which includes the revenue collected by the spheres of government themselves plus (or less) the income from the constitutional distribution of tax income among the different spheres.

From a historical perspective, the states have lost much relative importance. In 1960 they received 34% of national tax income, but as they were the spheres most affected by the centralization of the military government, this proportion went down to 22% by 1980 (table 3). Eight years later, when the last major constitutional reform was approved, the greater political openness enabled them to recover five percentage points. Their share even rose to 29% in 1991, but from that time on it went down steadily, so that in 2003 it is estimated that the states received only a quarter of national tax income, which is less than in 1988. It should be noted that the loss was only in terms of their percentage of tax resources received, since in absolute terms the volume of tax income received by the states grew faster than GDP (as did the tax burden). It should also be noted that the fiscal war over the sales tax on goods and services (ICMS) is one of the reasons why the performance of this tax was inferior to that of the expansion in indirect federal taxes.

The municipalities, in contrast, were the main beneficiaries of the tax reform, increasing their proportion of national taxes received from 11% to 17% in the first ten years of operation of the new system (to such a point that some persons asked whether, in practice, the reform was not giving rise to a federation of municipalities).[9] As from the external crisis of the late 1990s, however, the federal advance brought with it marginal losses for the municipalities, which were receiving 16% of national tax income at the end of 2003 (table 4).

The only reason why the situation of the local levels of government did not deteriorate in recent years was that they obtained an increasing share of state tax income through the redistribution effected by FUNDEF. Account should also be taken of the increasingly large transfers by the SUS, which, as they are not of a structural nature, are not included in table 4. Nevertheless, there are discrepancies according to the category of municipalities, due to the big differences in the financing model. Note in particular, for example, the recent reduction in the Municipal Participation Fund (FPM), which affects above all the smaller municipalities and those located in the poorest areas of the interior.[10] In

[9] This was the main subject that Afonso and de Mello (2002) had to address at a conference of the International Monetary Fund (IMF) on comparative federative experiences.

[10] When the local balance sheets for 2002 are grouped in categories according to the number of inhabitants, it is seen that the FPM accounts for almost 60% of the available tax income or half of the current income of the municipalities with fewer than 5,000 inhabitants. As the population grows, this dependency goes down, but even in the case of cities with 50,000 to 100,000 inhabitants the FPM alone represents a quarter of the available tax income and one-fifth of current income.

TABLE 3

Brazil: Evolution of tax income by spheres of government, selected years between 1960 and 2004[a]

	Tax burden (% of GDP)				Composition (% of total)			
	Federal	State	Local	Total	Federal	State	Local	Total
Direct collection								
1960	11.10	5.50	0.80	17.40	64.0	31.3	4.8	100.0
1980	18.50	5.40	0.70	24.60	75.1	22.0	2.9	100.0
1988	15.79	5.94	0.65	22.40	70.5	26.5	2.9	100.0
2002[b]	24.39	9.47	1.68	35.54	68.6	26.7	4.7	100.0
2003[b]	24.42	9.45	1.63	35.49	68.8	26.6	4.6	100.0
2004[c]	24.99	9.46	1.74	36.18	69.1	26.1	4.8	100.0
Available income								
1960	10.40	5.90	1.10	17.40	59.4	34.0	6.6	100.0
1980	17.00	5.50	2.10	24.60	69.2	22.2	8.6	100.0
1988	14.00	6.00	2.40	22.40	62.3	26.9	10.8	100.0
2002[b]	20.56	9.06	5.92	35.54	57.9	25.5	16.7	100.0
2003[b]	20.94	8.83	5.73	35.49	59.0	24.9	16.1	100.0
2004[c]	21.42	8.90	5.87	36.18	59.2	24.6	16.2	100.0

Source: Prepared by the author on the basis of data from the Getulio Vargas Foundation (FGV)/IBGE, national accounts, the National Treasury Ministry (STN), the Federal Inland Revenue Secretariat, IBGE, the Ministry of Social Security and Assistance, the Federal Economic Fund, the National Council on Finance Policy, and *Finanças do Brasil* (STN, various years).

[a] The methodology used is that of the national accounts, which includes taxes, charges and rates —such as the Provisional Contribution on Financial Movements (CPMF) and the Unemployment Insurance Fund (FGTS)— as well as the active debt and interest. Direct collection corresponds to tax collection by the relevant levels of government themselves. Available income corresponds to the amount collected, plus (or less) that corresponding to the constitutional distribution of tax income.
[b] Preliminary estimates.
[c] Budget of the Union.

2003, the FPM was reduced by 16% compared with the previous year and stood at less than 20 billion reales —the smallest amount transferred in a year since 1995.[11]

The Union, which had suffered the serious initial effects of the introduction of the present tax system —its share in national tax revenue went down from 62% in 1998 to less than 55% in 1991 (its worst year)— recovered considerably (to 59%) in 1994, the year in which the real was created. Subsequently its share began to go down again, sinking to 56% in 1998. From then on, two movements with the same origin increased the national tax burden and also the proportion corresponding to the Union, whose share in 2003 came to 59%, only three points below the level registered in 1988, before the last major amendment to the Constitution, thus mitigating somewhat the trend towards decentralization in the distribution of tax revenue (table 5); it should not be forgotten that the marked increase in the total tax mass greatly benefited the subnational levels of government.

The tax policy of the present federal government gives an unprecedented degree of priority to the collection of social contributions which are not shared with other spheres of government. This acts to the detriment of the relative and absolute importance —at constant values— of the revenue from income tax and, above all, from the taxes on manufactured products, which are distributed through the participation funds.

If we compare the revenue from income tax and the tax on manufactured products, which form the basis of the FPE and the FPM, with the revenue from the four main social contributions —the Contribution for the Financing of Social Security (COFINS), the Social Integration Programme (PIS), the Social Contribution on Net Profits (CSLL) and the Provisional Contribution on Financial Movements (CPMF)— we

[11] The contraction in the FPM caused serious financial problems in the small municipalities of the interior. Over 2,000 of them were unable to pay the “thirteenth month” bonus to their employees in December 2003. This contraction speeded up the deterioration in local finances already observed in the balance sheets for the previous year. 44% of the municipalities (2,423) ended 2002 with fiscal deficits, according to the Brazilian Institute of Municipal Administration (IBAM, 2003), the highest proportion being observed in the case of cities in the North and Northeast.

TABLE 4

Brazil: Annual distribution of available tax income, by spheres of government, 1988-2004[a]

Years	As % of GDP				As % of total			
	Federal	State	Municipal	Total	Federal	State	Municipal	Total
1988	13.96	6.03	2.42	22.40	62.3	26.9	10.8	100.0
1989	14.73	6.03	3.36	24.13	61.1	25.0	13.9	100.0
1990	16.95	7.94	3.89	28.78	58.9	27.6	13.5	100.0
1991	13.78	7.47	3.96	25.21	54.7	29.6	15.7	100.0
1992	14.23	7.03	3.73	24.98	57.0	28.1	14.9	100.0
1993	14.90	6.81	4.07	25.78	57.8	26.4	15.8	100.0
1994	17.65	7.47	4.64	29.75	59.3	25.1	15.6	100.0
1995	16.52	8.00	4.88	29.41	56.2	27.2	16.6	100.0
1996	16.30	8.04	4.75	29.09	56.0	27.6	16.3	100.0
1997	16.62	8.18	4.76	29.56	56.2	27.7	16.1	100.0
1998	16.66	7.89	5.09	29.64	56.2	26.6	17.2	100.0
1999	18.08	8.25	5.39	31.71	57.0	26.0	17.0	100.0
2000	18.53	8.63	5.52	32.67	56.7	26.4	16.9	100.0
2001	19.58	8.86	5.70	34.14	57.4	25.9	16.7	100.0
2002[b]	20.56	9.06	5.92	35.54	57.9	25.5	16.7	100.0
2003[b]	20.94	8.83	5.73	35.49	59.0	24.9	16.1	100.0
2004[c]	21.42	8.90	5.87	36.18	59.2	24.6	16.2	100.0
Variation 2003/1998								
as % of GDP	6.98	2.80	3.31	13.09	53.3	21.4	25.3	100.0
Relative variation	50.0%	46.5%	136.8%	58.4%				
Variation 2004/1998								
as % of GDP	7.46	2.87	3.45	13.78	54.1	20.8	25.0	100.0
Relative variation	53.5%	47.7%	142.5%	61.5%				

Source: As in table 3.

[a] The methodology used is that of the national accounts, which includes taxes, charges and rates —such as the Provisional Contribution on Financial Movements (CPMF) and the Unemployment Insurance Fund (FGTS)— as well as the active debt and interest. Available income corresponds to the amount collected, plus (or less) that corresponding to the constitutional distribution of tax income.

[b] Preliminary estimates.

[c] Budget of the Union.

TABLE 5

Brazil: Increase and division of the global tax burden in the period after the Constituent Assembly, 1988-2004[a]

Period		Increase in burden		How much of the increase went to each sphere of government?					
				As % of GDP			As %		
		As % of GDP	Per phase (% total)	Union	States	Municipalities	Union	States	Municipalities
After the Constituent Assembly	1988-2003	13.09	100	6.98	2.80	3.31	53	21	25
Before the Plano Real	1988-1993	3.38	26	0.95	0.78	1.65	28	23	49
Immediately after the Plano Real	1993-1998	3.86	29	1.76	1.08	1.02	46	28	26
After the exchange rate crisis	1998-2003	5.85	45	4.27	0.94	0.64	73	16	11
Administration of Pres. da Silva (two years)	2004-2002	0.65	100	0.85	–0.16	–0.05	132	–24	–8
After the Constituent Assembly	1988-2004	13.78	100	7.46	2.87	3.45	54	21	25

Source: As in table 3.

[a] The methodology used is that of the national accounts, which includes taxes, charges and rates —such as the Provisional Contribution on Financial Movements (CPMF) and the Unemployment Insurance Fund (FGTS)— as well as the active debt and interest. Available income corresponds to the amount collected, plus (or less) that corresponding to the constitutional distribution of tax income. For 2002-2003 preliminary estimates were used, and for 2004, budget projections.

see that the aggregate amounts were practically the same in 1994 and 2002. In those eight years, there was a difference of only five percentage points, which was due to the fact that the income from contributions grew faster than that from taxes. There was a rapid change in 2003, however, when the income from those contributions exceeded to income from taxes by 13 percentage points. In the 2004 budget, the difference is expected to rise to 27%: a 25% increase in only two years.[12]

Whereas initially decentralization led to the municipalization of public resources, the recent advance by the federal government in its share of national tax resources (while not forgetting that the global tax burden also increased) means that the relative importance of the state governments in this respect went down, reflecting the tendency to centralize direct tax collection and, to a lesser extent, the income available as from the 2003-2004 period.[13] Consequently, if it is considered that the federation is going through a crisis, then this would be a structural crisis at the intermediate levels of government (and, at this time of smaller transfers from the participation funds, a crisis in the situation of the subnational levels of government, especially in the case of small municipalities, which depend to a large extent on those transfers).

IV

The new fiscal culture

The greater or lesser decentralization of the fiscal system has not been an obstacle to the achievement of notable progress in the structural reform of the Brazilian public finances in recent years. Monetary stability was attained with the 1994 Plano Real and was consolidated in spite of the decentralized federation. The same thing occurred in the case of fiscal stability, which was achieved through a new economic policy, applied in the late 1990s, which was based on a system of inflation targets, a fluctuating exchange rate, and responsible fiscal management.

The existence of a system of intergovernmental relations which mobilizes a considerable flow of resources for the purpose of vertical and horizontal decentralization of the tax system did not prevent the above-mentioned economic policy from being formulated and implemented, even taking into account the demands for the faithful fulfillment of the fiscal targets, increased primary surpluses even in the case of the subnational levels of government, and the restrictions on the respective levels of net indebtedness. Nor did it affect the changes in strategy as regards tax policy —including the increase in the global tax burden already referred to— or the policies regarding expenditure (greater austerity in terms of the payroll, the social security of public employees, and investments) or the improvement and decentralization of social policies. The latter include both universal policies (education and health) and the new programmes of targeted assistance, for whose application close collaboration between different spheres of government was of fundamental importance.

Behind this turnaround in the fiscal, economic and social spheres, there was a process of restructuring of

[12] The joint revenue from income tax and the tax on manufactured products increased by almost 42 billion reales between 1994 and 2002, compared with the increase of around 46 billion reales in the main social contributions (COFINS, PIS, CSLL and CPMF). This means that the base for the participation funds contracted in relative terms. The situation has changed a great deal between 2002 and 2004, however. According to the federal government's own budget, revenue from the two taxes in question will go down by almost 10 billion reales (-0.75% of GDP), while the income from contributions will increase by some 18 billion reales (+0.86% of GDP). Thus the ratio between the two aggregates will rise from 97% in 1994 and 102% in 2002 to 113% in 2003 and 127% in 2004. This is the main evidence of the relative weakening of the base of the participation funds.

[13] Late in December 2003, a constitutional amendment was approved which was supposed to promote reform of the tax system on the basis of the draft submitted by the new government at the end of April. The proposed modifications are far from reformulating the system, however. The amendment basically addresses the most pressing needs to maintain the fiscal adjustment by extending until 2007 the collection of the Provisional Contribution on Financial Movements (CPMF) and the mechanism for the budgetary delinking of the Union (the so-called DRU), which represents 20% of the freely usable contributions. The reform did not affect any form of tax collection powers and changed intergovernmental relations only very slightly. It introduced the distribution of a quarter of the economic contribution on fuels in order to finance investments in transport (Contribution for Intervention in the Economic Field-CIDE).

the State which culminated in the approval of the Fiscal Responsibility Law —applicable to all three spheres of government— in mid-2000. Rather than initiating modifications, this Law consolidated the existing changes. *Made in Brazil* is a legal device almost without parallel in other countries. Much more important than the Law itself was the change in mentality it provoked, which made it possible to create greater awareness of the need for macroeconomic stability, on which there is now a practically complete national consensus.

Generating primary surpluses and keeping the public debt under control are the most important aspects of the fiscal policy of a country obliged to apply a rapid and vigorous fiscal adjustment in order to meet its debt obligations and weather a succession of external crises. These crises occurred throughout the second half of the 1990s and, more recently, in the second half of 2003, because of the expectation over the Presidential elections.

In short, up to the mid-1990s the country suffered a process of uncontrolled indebtedness of the states and municipalities, sometimes induced by the economic policy itself, and in some cases even without proper recording of the debts. After the creation of the Real, the federal government embarked on a new and definitive process of renegotiation and assumption of all debts by the National Treasury –even those with banks and those in respect of movable property. In return, among other things, a fiscal adjustment programme was signed with each state and municipality, which included performance goals and the prohibition of new indebtedness until the total debt was reduced to a national maximum level. The programme also provided for the payment to creditors of a monthly debt service quota as a fixed proportion of current income and —as the main condition— the provision of solid guarantees (blocking and automatic withholding of constitutional transfers and own income).

One day after the process of signing the series of debt refinancing programmes was completed, the Fiscal Responsibility Law was published, prohibiting the granting of new credits by the Union and the signing of new agreements regarding what had already been renegotiated (with the sole exception of guarantees for foreign loans, provided there was sufficient and suitable collateral). In the view of some, this provision alone was sufficient to ensure the success of the Law. Indeed, once the umbilical cord between the federal government and the subnational governments had been cut, this made it possible to combine autonomy and responsibility for the first time in the history of the Brazilian Federation. It may be noted that it is no easy matter to amend this Law, which is a complementary law, because this would require the assent of an absolute majority of each chamber of the Congress.

As from 2000, there was a considerable ongoing flow of payments in respect of the renegotiated debt. There were very few cases in which some state or municipal government failed to pay the monthly installment on the debt. In any case, this would result in the blocking of that government's resources by the Treasury. Since the access of the larger subnational governments to the credit market was practically eliminated and the service payments of the renegotiated debt were regularized, the states began to generate substantial and growing primary surpluses.

After the serious external crisis of the late 1990s, the country signed a series of agreements with the IMF. The target for the primary surplus began with 3.1% of GDP in 1999, rising to 3.75% of GDP at the beginning of 2002. After the crisis of confidence caused by the Presidential campaign, this percentage went up to 3.8% and later 4.25% of GDPL: a target which the new federal government extended until 2006. The country systematically managed to comply with these requirements, but the situation evolved differently in the case of the net debt, because of the continuation of the process of recognition of liabilities (the so-called "skeletons") and because of the effects of the rise in real interest rates and currency devaluation. Thus, the first target for the net debt was its reduction from 53% of GDP —after the spectacular devaluation of the currency— to 46.5% at the end of 2001.

In the adjustment of financing needs, in accordance with the methodology defined by the IMF, 1998 was the last year in which the subnational governments registered primary deficits, although the GDP went down by 0.2% because of the poor results of the states. The following year, there was a primary surplus of +0.2%, which continued to grow in subsequent years until it reached 0.9% of GDP in 2003 (exceptionally, in the period from January to November). The results surpassed the goal which had been set: at the end of 2003 the net debt was 913 billion reales, which was well below the limit of 955 billion agreed with the IMF.

On the other hand, the drastic increase in 2003 in interest rates on the public debt (9.5% of GDP) ate up the whole of the increase in the primary surplus and gave rise to the biggest nominal deficit in the decade

(5.2% of GDP), seriously prejudicing the National Treasury (table 6).

The state and municipal components of the net debt (table 7) evolved less favourably at the turn of the decade, not because of the generation of a deficit or the past placement of paper at excessive spreads, but because of the recognition of old debts which had not been properly recorded and, above all, because the element used for indexing the refinancing contracts with the Treasury —the general price index-internal supply (IGP-DI) calculated by the Getulio Vargas Foundation— was much higher than the consumer price indexes, mainly because it is more sensitive to exchange rate devaluation.

Thus, the net debt of the subnational governments increased from 14.1% to 18.3% of GDP between 1998 and 2001, after the conclusion of the refinancing process with the Treasury. In 2003 this proportion rose to 19.3% of GDP, but the increase was not due to primary deficits but to the correction of debts renegotiated with the Treasury (table 7), for which an over-inflated index (the general price index) was used in periods of currency devaluation. This does not affect the amount paid by the subnational governments, which is calculated as a proportion of their income, but it can lead to an increase in the amount that must be refinanced at the end of the period originally contracted.

TABLE 6

Brazil: Public sector finance needs[a]
(As a percentage of GDP)

	1998	1999	2000	2001	2002	2003
Nominal finance needs	7.46	5.78	3.61	3.58	4.59	5.16
Central government	4.93	2.7	2.27	2.11	0.75	4.06
States	1.8	2.68	1.81	1.93	3.25	1.50
Municipalities	0.22	0.47	0.27	0.1	0.58	0.27
State enterprises	0.51	–0.07	–0.74	–0.56	0.01	–0.66
Nominal interest	7.47	8.97	7.08	7.21	8.48	9.49
Central government	5.48	5.03	4.13	3.94	3.12	6.59
States	1.39	2.84	2.23	2.53	3.89	2.28
Municipalities	0.44	0.52	0.4	0.37	0.73	0.39
State enterprises	0.16	0.58	0.32	0.37	0.74	0.23
Primary result	–0.01	–3.19	–3.47	–3.63	–3.89	–4.32
Central government	–0.55	–2.33	–1.86	–1.83	–2.37	–2.53
States	0.41	–0.16	–0.42	–0.6	–0.64	–0.78
Municipalities	–0.22	–0.05	–0.13	–0.27	–0.15	–0.12
State enterprises	0.35	–0.65	–1.06	–0.93	–0.73	–0.89

Source: Prepared by the author on the basis of data from the Central Bank of Brazil (time series).

[a] Positive figures indicate a deficit and negative figures a surplus.

TABLE 7

Brazil: Net public sector debt, 1998-2003[a]
(As a percentage of GDP)

	1998	1999	2000	2001	2002	2003
Total	*41.71*	*48.68*	*48.77*	*52.63*	*55.49*	*58.53*
Central government	25.00	29.80	30.57	32.79	35.32	37.23
States	12.23	13.94	13.96	16.20	16.25	17.71
Municipalities	1.92	2.15	2.09	2.08	2.20	2.47
State enterprises	2.56	2.79	2.15	1.56	1.72	1.13

Source: Prepared by the author on the basis of data from the Central Bank of Brazil (time series).

[a] Includes both internal and external debt.

It is interesting to observe the differences in behaviour between the states, which are much more heavily indebted and are also obliged to achieve larger primary surpluses, and the municipalities. Although the budget of the former is not even twice that of the latter, the primary surplus demanded from the states (0.9% of GDP up to November 2003) is almost seven times larger than that generated by the municipalities (0.1% of GDP). The same proportion is observed in the case of indebtedness: 17.4% of GDP for the states, compared with only 2.4% of GDP for the municipalities.

The concentration of state and municipal debt in the federal government (almost 95% of the total) is another striking feature: at the end of 2003 the total amount of debt renegotiated by the National Treasury came to 16.5% of GDP (263.5 billion reales), 91% of which corresponded to the state governments.

Once again, the differences between the different units of government are very evident, since some are much more heavily indebted than others (over half the municipalities of Brazil have not contracted any bank debts at all, for example). Consequently, the improvement in the fiscal results is a generalized phenomenon, whatever the size of the federated entities or the region they belong to.

In short, decentralization has not prevented the formulation and implementation of a far-reaching policy of fiscal austerity.[14] The heavy intergovernmental transfers, which formed both the basis for the calculation of the debt service quotas and a guarantee for the retention and transfer of net values, helped directly and decisively to make the subnational governments take part in the national fiscal programme. The transfers make it possible to increase the size of the quotas to be paid and to ensure the payment of the subnational debts renegotiated with the Treasury, which represent almost the whole of the total amount owed by the states and municipalities.

In spite of their significant and growing loss of participation in the distribution of national tax revenue, in 2003 the states generated a primary surplus equivalent to 9% of their available tax income: not much less than the 12% achieved by the federal government, which has a bigger and more diversified income base. In the case of the municipalities, the surplus corresponded to only 2% of that income. The states are making a big sacrifice in order to pay —and pay dearly— for the sins of previous administrations marked by budgetary and financial imbalance.[15]

V

Dynamic social policies and associations between different spheres of government

The intergovernmental relations most strongly developed in Brazil since the mid-1990s were those related with the fields of finance and association for the provision of services, against the background of the greater efforts reflected in the adoption of dynamic and creative social policies. The two most representative cases were the reform of the financing of fundamental public education and subsequently of the health system, which involved the assumption of the obligation to assign those areas certain percentages of the available resources, the modification of the apportionment criteria for the main transfers of tax revenue, and an increase in the contributions made by the federal government, in order to induce greater and more effective participation by the states and municipalities.

It should be noted that such relations are not always of a financial nature, since they do not necessarily involve movements of resources between the different levels of government. This is so, for example, in the case of the new social protection and assistance programmes. Generally speaking, their financing is federal (sometimes complemented with finance or parallel programmes in some states and municipalities), but the subnational governments play an important role in the implementation of the services

[14] Araújo (2003, pp. 74-75) found that the fiscal adjustment of the state governments in the late 1990s was based largely on cuts in expenditure.

[15] The same conclusion was reached by authors such as Guardia and Sonder (2004).

provided or their follow-up and evaluation (for example, they make a census of the population benefited and check up that families are complying with their obligations).

1. Fundamental education: redistribution of state resources

The most important change in intergovernmental financial relations was the establishment of a constitutional obligation to allocate resources for the maintenance and development of education. In September 1996 a constitutional amendment created FUNDEF in order to modify the system for the financing of fundamental education.[16]

In practice, a transitory decision was taken that for ten years every unit of the federation should allocate to FUNDEF 60% of the quarter of state and municipal tax income that the Constitution obliged those units to spend on education. It is a kind of reservation of resources (a specific allocation from within the larger allocation) resulting from 15% of the federal transfers of the participation funds[17] corresponding to each state, plus 15% of the respective states' own revenue from the sales tax on goods and services (ICMS), for subsequent allocation to the FUNDEF of each state (in reality there is not just one FUNDEF but 27). While 85% of the participation funds is distributed among the subnational governments according to normal apportionment criteria and 85% of ICMS is divided between the state (three quarters) and its municipalities (the remaining quarter, according to a predetermined formula), the funds collected by the FUNDEF of each state are divided between the state government and those of the municipalities according to the number of students enrolled in the fundamental educational establishments maintained by each federated unit.

As well as redistributing resources among the subnational governments, the Union also undertook to provide a compensatory supplement when a state's own funds were not sufficient to attain a minimum level of expenditure per student per year. The aim of this federal subsidy was to make it easier to secure the approval and support of the subnational governments for the proposal, but it subsequently became irrelevant to the functioning of FUNDEF. Ever since it came into operation in 1998, the base level for the subsidy was set below the national average, and subsequently it was adjusted less than the nominal growth of the tax income feeding the Fund; thus, the coverage of the compensatory supplement was considerably reduced (eight states were benefited in the first year, but only four in 2003) and the financial outlays went down (the corresponding expenditure went down even in nominal terms during the period in question, falling from around 500 million reales to some 300 million).

Thus, FUNDEF represents an innovative instrument which is still unique in the Brazilian fiscal system, because it involves a far-reaching periodic (annual) redistribution of resources either vertically (from the states to the municipalities) or horizontally (between municipalities). The size of the school system of each unit of government has become the only (and decisive) criterion for defining this new form of intergovernmental financial relations in the country, and it consequently directly influences the increase in the provision of services. Unfortunately, it has also led to the commission of some statistical frauds. Although only a few isolated cases have been denounced, this has led to the strengthening of controls and joint measures —sometimes even of a penal nature— by the Ministry of Education, the Public Accounts Tribunals and the Ministry of Justice.[18]

Since the financial health of the municipalities is generally better than that of the states, the same process has been accompanied both by the decentralization of the corresponding resources and expenditures and by much more rational resource distribution criteria than those applied to the FPM (which were based on population brackets with excessively high minimum and excessively low maximum values).

Although the federal government finally took on a dominant role in the planning, formulation, coordination and evaluation of the new policy on the financing of education, this did not change in any way the responsibilities of the states and municipalities with regard to the provision of services. Decentralization took place by voluntary adhesion, as a natural process in which the local spheres took over the role previously played by the state. Municipalization was not imposed by the constitutional amendment which set up FUNDEF,

[16] Constitutional Amendment No. 14 of 12 September 1996.

[17] The FPE, the FPM, the Compensation Fund on exports of manufactured goods (FPEX), and the Kandir Law.

[18] In this respect, the Ministry of Education works with the state prosecutors to detect possible irregularities and take measures against those responsible; since 2003 it has published on the Internet a text entitled "Subsidies to the Ministry of Justice for the Monitoring of FUNDEF" (http://www.mec.gov.br/sef/fundef/pdf/fundef.pdf).

and much less by the federal government, but was induced by the changes in intergovernmental financial relations.

The constitutional allocation of resources to FUNDEF has considerable weight in the overall Brazilian fiscal picture: in 2003 it mobilized 25.2 billion reales, equivalent to 1.6% of GDP and over 11% of available subnational tax income. The vertical redistribution was very significant, since the municipalities received 51% of the total amount mobilized (the difference was greater in the case of the distribution of income from the sales tax on goods and services, 75% of which went to the states and only 25% to the municipalities).

In financial terms, this means that without FUNDEF the tax income available to the states would be 4.8 billion reales higher (0.3% of gdp). This was the amount (5.5% of their original income) which the states lost to the municipal governments in a single year, 2003. In that year, 26 state governments redistributed income to their municipalities through FUNDEF.[19]

These figures give some idea of the degree of decentralization caused in the provision of this service. In physical terms, the great advance in municipalization was evident, even before the creation of FUNDEF. In 1997 the municipalities accounted for 40.7% of total enrolment in the public school system, and this figure rose by ten percentage points in the following five years.

The most important form of evaluation therefore refers to the increase in the number of children in school: practically universal coverage has been achieved in fundamental education. Between 1997 and 2001, the rate of enrolment of children between 7 and 14 years of age rose from 87.5% to 96.3%.[20]

FUNDEF has been analyzed in the most diverse professional fields. Abreu (2003), for example, discussed the possible options for financing the expansion of basic education[21] in the country and the operational aspects of funds of this type, especially as regards the coverage of expenditure that they should accept. In principle, those who support the expansion of fundamental education consider that, in order to increase the budget available for its final activities, FUNDEF should not cover expenditures in connection with retired teachers or complementary actions such as the distribution of school meals and books or the transport of students. The fiscal managers of the governments naturally hold the opposite position, since the broader the list of expenditures accepted, the greater their freedom of action in the fields of the budget and financial execution.

Now that a good deal of experience has been accumulated, the discussion is centered on another challenge: the transformation of the transitory constitutional rule on FUNDEF into a permanent rule. The same thing happens with regard to the new challenges that are arising and which may even be derived from the earlier successes. In the case of fundamental education, once a child is already going to school, the next great objective is to improve the quality of the education provided and —in so far as possible— increase the number of hours of schooling, especially in the poorest regions. In the case of secondary education, it will be necessary to be able to meet a sharp, rapid rise in demand, because of the larger number of children completing their fundamental education.[22] In the case of pre-school education, what is needed is to expand the current low level of coverage, although it will be difficult to attain universal coverage, because the cost per child is high and exceeds that of the following levels.[23]

The problem is how to finance the expansion of the levels of education which are not covered by FUNDEF. It is no use trying to repeat the successful system of redistribution of that Fund, because pre-school education is the responsibility of the municipalities, while the states are responsible for secondary education. The tendency is rather that the Union should be called upon to play a more active role in financing the new areas of expansion of education, which is what it finally did in a somewhat

[19] In regional terms, the effects of the redistribution of state income to the municipalities were more marked in the less developed regions. In the Northeast, because of FUNDEF the available income of the state governments went down by almost 8%, while that of the respective municipalities increased by nearly 15%. In the South and Southeast, the variations were around 3% and 6%, respectively. Taking isolated cases, the repercussions of decentralization were greatest in the states of Ceará (a drop of 11% in the state government's income), Alagoas and Maranhão (-9%) and Rio de Janeiro (-8%). The government of the state of São Paulo was the least affected by the creation of FUNDEF: it lost only a little over 1% of its available income through redistribution, while its municipalities received an increase of around 3%.

[20] The federal government publishes detailed annual reports on the financial and physical effects of FUNDEF. See the website of the Ministry of Education: http://www.mec.gov.br/sef/fundef/default.shtm.

[21] See footnote 4 for a definition of basic education and its components (pre-school, fundamental and secondary).

[22] Between 1997 and 2001, total enrolment in secondary education increased by 71%.

[23] During the period in question, total enrolment in pre-school education increased by 20%.

marginal way through FUNDEF. This is inevitable, especially in secondary education, where it is most urgent to increase the number of school places, since the fiscal crisis of the states prevents most of them from meeting these commitments.

2. The Single Health System (SUS): reforms induced by the federal authorities

The 1988 Constitution provided for universal access to public health through the introduction of a single decentralized health system known as SUS. In order to gain an idea of the social impact of this system, it may be noted that currently 28.6% of the population of Brazil uses exclusively the SUS, 61.5% complements it with another system, and only a small minority of 8.7% never use it at all.

The federal government has always played a predominant role in its financing and also in the provision of health services, both directly and through a network of service agreements, once medical assistance was linked to the social security system itself. Health policies never clearly defined the function of each sphere of government in all this. Thus, for example, the big hospitals of Rio de Janeiro were mostly federal, while those of São Paulo belonged to the state government. Although there was a single health system, it was marked by overlapping of functions and a high level of centralization of financing and management.

As from the mid-1990s, however, as the finances of the Ministry of Health were strengthened, a firm policy of decentralization of activities and services was established, once again with the idea of delegating to the municipalities the entire management of the system in their respective territories. This was achieved in almost 600 municipalities (in 16 states it continues to be in the hands of the state government), while a further 5,000 have already assumed responsibility for running basic health attention services. The management of the federal health units was gradually transferred to the state sphere and —preferably— to the municipalities. These levels of government assumed responsibility for the contracting and payment of services supplied to the ambulatory and hospital system subject to service agreements, including non-profit-making entities (such as the *santas casas*) and private firms. The federal government was responsible for ensuring their financing.

Once the federal budget of the Ministry of Health had been reorganized and the financial flows to the programmes in question had been placed on a regular basis, the federal government supported a constitutional amendment —proposed by the Labour Party, then in the Opposition, and practically unanimously adopted in 2000— which authorized the transfer of its own tax revenue to the SUS, subject to a complementary Law and compulsory five-yearly evaluations.[24] This amendment laid down, on a temporary basis, that federal expenditure in this respect should be the same as the year before, adjusted by the nominal variation in GDP. In the case of the states and municipalities, a timetable was set for the gradual allocation to the SUS, as from 2004, of an increasing proportion of the income from state and municipal taxes, until that proportion reached 12% and 15%, respectively. There is nothing to prevent a future complementary Law from altering those percentages or changing the form of allocation (for example, by requiring each government to apply a per capita value from its own income).

We can thus see that this form of allocation is different from that for education, firstly because the calculation criteria do not figure in the permanent text of the Constitution, and secondly because they do not modify the apportionment criteria of the transfers. The implementation of this initiative has given rise to doubts and discussions, especially about its scope, since the dividing line is very thin in the case of sounder financial practices and assistance offered to public employees. There are also discussions about the basis used for both the federal allocation criteria and the respective estimates of GDP.

The data provided by the Ministry of Health (2003, p. 5) give us an idea of the enormous magnitude of the SUS: ambulatory attention involves more than 63,000 units and nearly 153 million procedures per year, while hospital attention covers more than 5,800 units, with 441,000 beds and nearly 11.7 million admissions per year. Of these admissions, 2.6 million correspond to births, 83,000 to cardiac surgery, and 60,000 to cancer surgery.

Once the process of regularization of traditional health assistance had been completed, the federal government began to establish and expand basic health services. Once again, the subnational governments were enlisted as partners and were made responsible for the execution of most of the corresponding actions, such as the hiring of doctors, nurses and auxiliary personnel for the family health programmes and the

[24] Constitutional Amendment No. 29 of 13 September 2000.

appointment of community health agents, and the purchase of medicines, vaccines and other actions forming part of the periodic per capita transfer of responsibility for providing a minimum level of basic health attention.

Thus, the active health policy included, among other things, the expansion of the Family Health Programme (PSF), free access to the main medicines, expansion of the number and coverage of vaccinations, expansion and improvement of the quality of prenatal care (there was an increase of 89% in the number of prenatal consultations between 1997 and 2001) and high levels of investment in the rehabilitation and technological modernization of the physical infrastructure of the SUS. According to the impressive data of the Ministry of Health (2003, p. 5), which show the enormous scope of the system, 1 billion basic medical attention procedures were carried out, 251 million laboratory tests were made, and 8.1 million ultrasonic examinations were carried out. The development of the SUS brought it to 90% of the cities of Brazil, where by the end of 2002 55 million persons had been attended and over 17,600 family medical teams were in operation.

Unlike what happened in the case of education, in the health sector federal financing still predominates and there is no fund which unifies the allocation of resources and still less carried out horizontal or vertical redistributions, as FUNDEF does.[25] Although there are important intergovernmental financial relations, these are in only one direction: from the federal government to the subnational governments.

According to the Ministry of Health (2003, p. 9), 74% of its budget corresponds to transfers to lower units. There are two main lines of transfer, and although in the budget they figure as transfers between levels of government, in practice they correspond rather to income for services rendered, either directly or through agreements. The first of these lines is connected with the supply of services through the SUS network of suppliers under agreements.

The second line concerns basic health attention services. Part of these go through the subnational accounts as a traditional transfer, especially in the case of the municipalities. Since the transfers are on a regular basis and the apportionment criteria are predetermined according to technical definitions, these movements are more similar to distributions of income than to typically voluntary and irregular transfers (furthermore, the Fiscal Responsibility Law excluded transfers to the SUS by the latter sphere). Sometimes the resources for primary assistance are paid directly by the federal government to professionals and other contract suppliers, although the management of the services is the responsibility of the local authorities.

With the growing decentralization promoted by the SUS, the transfers corresponding to this system have taken on a fiscal dimension which is as important as many of the sources of distribution of tax revenue. For the subnational governments receiving these transfers, the amount received from the SUS in 2002 was 7.9 billion reales: equivalent to 0.6% of GDP, nearly 4% of the available tax income, and 15% of the total federal taxes distributed.

The advance of municipalization is evident from the fact that 79% of these resources were received by local levels of government. The 6.3 billion reales received from the SUS in the total income of the municipalities is equivalent to 30% of their direct tax revenue and 38% of the FPM. As these transfers are closely linked to population distribution, two-thirds of them were for the benefit of the municipalities of cities with more than 100,000 inhabitants. Federal transfers under the SUS are undoubtedly the most important, constituting one of the largest sources of income of municipalities with over 500,000 inhabitants: they surpass those of the FPM by 74% and are equivalent to 19% of direct tax revenue and a little over 9% of available tax income.

This health policy has had very positive results, which may be summarized in the rapid and considerable decline in infant mortality, from 38.4 per thousand live births in 1994 to 28 per thousand in 2001. This amounts to a 27% reduction in the national average, notwithstanding the marked regional disparities (in the Northeast, despite a relative reduction which exceeded the national average, the figure was still 44 per thousand in 2001).

Periodically, reports are published on the activities of the SUS; among them is the recent report of the Ministry of Health (2003).[26] Various specialists and national and multilateral organizations have also made appraisals. Thus, for example, Medici (2003)

[25] Oliveira (2003, p. 268-269) also highlights this difference between the recent reforms of the SUS and FUNDEF.

[26] For a more detailed analysis, the Ministry provides an extensive Virtual Library on its website http://dtr2001.saude.gov.brl/bvs/biblioteca.htm.

made a specific analysis of decentralization for the Inter-American Development Bank (IDB) and Biasoto (2003) reviews the historical background with special reference to intergovernmental relations.[27]

Although great progress has been made in recent years, much remains to be done in order to expand the supply and improve the quality of public health services. Perhaps the main problem to be faced in the management of the SUS is to increase the productivity of the expenditure in this field.

At the macroeconomic level, we know that the best policy for reducing future expenditure on medical and hospital attention is to invest in more preventive measures, especially through the formation of new teams and the expansion of the coverage of family health programmes and community agents. At the microeconomic level, major improvements are needed in the control and quality of expenditure, for example through the long-overdue adoption of an electronic identity card for users and the use of electronic means in order to expedite purchases and reduce their cost.[28] Such changes must take account of the following factors: the magnitude of the task (suffice it to say that the data processing department of the system, DATASUS, handles one of the biggest data banks in the world); the pressing need to maintain and further develop the associations with the subnational governments, which is of vital importance for applying solutions at the macroeconomic and microeconomic levels, and, lastly, the fact that the system of obligatory percentage allocations of the subnational governments' own tax income is necessary in order to ensure a minimum contribution of basic resources by the federal government and in order to try to finance the expansion of the system with increasingly large contributions by the state and municipal governments.

3. Transfers of income: an incipient social safety net

The above-mentioned changes in general educational and health policies were followed by more dynamic social policies, when, at the beginning of the present decade, new assistance programmes were created which are targeted on the poorest sectors of the population. Some of these consist of programmes for the payment —by cards— of financial subsidies for children withdrawn from slave labour, in order to keep them in school (the Child Labour Eradication Programme-PETI); for the promotion of school enrolment and assistance for schoolchildren (the *Bolsa-Escola* scholarship programme); for the promotion of breast feeding and proper infant nourishment (*Bolsa-Alimentação)*, and for compensation of the effects of the withdrawal of household gas subsidies (*Vale-Gás*). After the reforms promoted by the new federal government, these programmes were placed under unified management under the name of *Bolsa-Família*; the criteria for eligibility and payment and the counterpart requirements for beneficiaries continue unchanged.

As a broader concept, the set of government actions involving the payment of social benefits was named Social Safety Net. These actions include other older programmes, some of them calling for some kind of contribution, such as those for unemployment insurance, the payment of a wage bonus for poorly-paid workers, and, most of all, the rural social security programme (in the rural sector, the vast majority of rural dwellers retired without attaining the actuarial minimum number of contributions).[29]

[27] The conclusions reached by Biasoto (2003, p. 49) are as follows: "Health policy has been marked in recent years by three different challenges. The first was the decentralization of health activities and services proposed by various sectors of society as part of the democratization process and carried forward by many managers of the system. The second was the transition from the assurance model to the universal access model, which also incorporated various elements of a federative nature, apart from the aspect of health assistance proper. The third was the great struggle. in the area of social security and the government budget, to guarantee federal resources for health and validate the allocation of resources in the three spheres of government. None of these contributed to the final design of the new institutions and policies. Nevertheless, the accumulation of experience, the consolidation of rights and the definition of fields of action created roots and fields of political negotiation. It can be said that the efforts of the federal and state authorities to recover their conditions for participation in the process is proof of the success of decentralization, which obviously has to reformulate new problems all the time" (translated from the original Portuguese).

[28] For an updated analysis of the Brazilian experience and the enormous potential for the control and reduction of costs through electronic purchasing channels, see Fernandes (2004).

[29] In order to gain an idea of the magnitude of the social protection provided by these programmes, it should be noted that in 2003 the unemployment insurance programme benefited nearly 4.6 million unemployed workers; the social assistance programmes (under the Organic Social Assistance Law-LOAS) provided a minimum monthly wage for 616,000 persons aged 70 or more or suffering from physical incapacity and 1,684,000 disabled persons aged 67 or more (with a total expenditure of 6.5 billion reales), and the rural social security programme provided an income for almost 6,734,000 rural retired persons (with a total expenditure of 20.1 billion reales), according to the budget execution figures of the Ministry of Planning, Budget and Management.

The most prominent innovation, which even attracted the attention of other countries, was that the benefits were not distributed in the form of goods (such as milk or food), but took the form of cash payments, preferably to mothers; the beneficiaries use magnetic cards to make withdrawals from bank cash machines and buy their staple needs directly from established local retailers as they see fit.[30]

The association with subnational governments has played a crucial role in the application and follow-up of these assistance programmes, because the local authorities and officials, especially of the municipalities, were vital for identifying, registering and subsequently following up the progress of the children and families assisted (table 8). Although the resources do not pass through the municipal accounts, they are nevertheless an important form of intergovernmental relations, in so far as the participation of the municipalities is of fundamental importance for defining and identifying the beneficiaries.[31]

In the poorest regions and localities of the country, the benefits paid by the income transfer programmes have come to play an increasingly large and important role in the local economies, since a considerable part of the local commerce has come to depend on the consumption of the beneficiary pensioners and families.

Although these programmes continued to operate normally in the period immediately after the change of administration in the federal government in 2003, doubts soon began to arise. The year began with the launch of *Fome Zero* (Zero Hunger), a new programme to combat the causes of poverty. There was a great deal of controversy, especially over the initial idea of distributing food instead of giving financial assistance, which was considered to be a backward step in terms of social policy. Because of many operational difficulties, the budget of the programme was drastically reduced from 1.7 billion reales to 416 million between 2003 and 2004.

Later on, the idea of unifying assistance programmes was put forward, but because of the criticisms that this would entail the loss of various control mechanisms (in such areas as vaccination or the frequency of school attendance), the federal government finally decided to unify only the records of the different assistance programmes (a measure which was already under way) under the title of *Bolsa-Família*. Although associations with the subnational governments had become more necessary than ever, by the end of 2003 no state had volunteered to join in the new federal programme.

Specialists in social programmes are increasingly worried by the perception, which seems to be gaining ground, that the new government authorities are more concerned with changing or trying to change the denomination or evaluation of programmes established by previous governments than with perfecting and expanding programmes that already existed and were giving results. Intergovernmental relations are a particularly decisive variable for the success of the existing programmes.

Everything seems to indicate that, instead of trying to reinvent the wheel in the field of social policies, it would be better to correct the distortions, increase the degree of association and improve control mechanisms: in other words, to improve the existing social programmes rather than trying to innovate —and innovate on a large scale— in something that the poor of Brazil need so much.

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[30] According to the newspaper *O Globo* of 9 February 2004:
"A study made by the Coordinator of the *Bolsa Família* programme shows that in cities with up to 75,000 inhabitants the resources transferred are equivalent on average to 16% of the FPM —in many cases the main source of income of the municipalities—. With respect to FUNDEF, whose resources are to be used only for education, the *Bolsa-Família* transfers are equivalent to almost 30% ..... In São Francisco (Minas Gerais) the amounts received by the programme represent 40% of the sum received by the municipality from the federal government. This is only 7.5% of the municipality's income,. but it will have direct consequences for the amount that the city will collect this year. In Damião (Pernambuco) the difference is even greater. This city is among the 10 cities where the arrival of the *Bolsa-Família* programme had the greatest effect on local income. The transfer to this programme now represents 20.1% of its inhabitants' income" (translated from the original Portuguese).

[31] In a summary evaluation of the implementation of this new mechanism for intergovernmental relations and the provision of social services, Almeida (2003, pp. 2-3) says:
"The agenda for the reform of the Brazilian social protection system did not emerge rapidly. It was a political and social project which involved debates, conflicts and an arduous learning process for many actors: the governments of the three levels of the federation, members of the opposition, and various organizations of Brazilian society. Moreover, ... it was gradually enriched with new issues and new ways of looking at old issues, throughout the 1990s ..... The reforms in social security, social assistance, basic health attention, education, housing and actions to relieve extreme poverty were its main aspects.
"The reform of the social protection system required changes in the institutions, many of them achieved through changes in the laws or, in many cases, the Constitution itself. This reform also involved, in the cases of health, social assistance and education, the transfer to the municipalities of powers and responsibilities of the federal government —and, to a lesser extent, of the state governments— and the construction of mechanisms for cooperation among the three levels of government" (translated from the original Portuguese).

TABLE 8

Brazil: Social actions carried out by the federal government in association with other spheres of government, 2003

Government actions	Ministry	Beneficiaries	Type of benefit	Number beneficiaries	Expenditure (millions of reales)
Social safety net					
Bolsa-Escola	Education	Children between 6 and 15 years of age in families with a per capita income of up to half a minimum wage	15 reales per child, for up to 3 children per family	5.4 million children	1,658.2
Vale-Gás	Mines and Energy	Families with a per capita income of up to half a minimum wage	7.50 reales per family	7.9 million	809.0
Bolsa-Alimentação	Health	Children of up to 6 years of age, pregnant women and nursing mothers, in families with a per capita income of up to half a minimum wage	15 reales per child, for up to 3 children per family	2.9 million children	355.1
Elimination of Child Labour (PETI)	Social Assistance	Children from 7 to 14 years of age engaged in unhealthy, heavy or degrading work and coming from families with a per capita income of up to half a minimum wage	25 reales per child in rural areas and 40 reales per child in urban areas	810,000 children	475.1
Young Development Agents	Social Assistance	Young people between 15 and 17 years of age living in low-income communities and coming from families with a per capita income of less than half a minimum wage	65 reales per young person	55,500 young people	55.9
Other actions					
School meals	Education	Children in pre-school and fundamental education, in public and charitable schools	0.60 reales per pre-school child and 0.13 reales per student in fundamental education	36.9 million	895.1
Medicines	Health	Population without access to strategic and exceptional medicines	Distribution of medicines	AIDS: 152,000 persons Tuberculosis, malaria and diabetes: 59.2 million Neurological ailments: 214,000	1,148.3
School books	Education	Fundamental educational establishments in the public system	Distribution of books	111 million	50.8
Fome Zero ("Zero Hunger": food purchase card)	Office of the President	Low-income families, initially in arid areas of the Northeast	50 reales per family	1.9 million families	633.0

Source: Prepared by the Ministry of Justice/Secretariat for the Federal Budget/Office of Senador Lucía Vania/Integrated Financial Management System of the Federal Government (SIAFI)/National Treasury, and Chamber of Deputies System.

VI

Conclusions: improvement yes, restructuring no

The findings of an evaluation of the effects of intergovernmental relations on macroeconomic management and the provision of public services are positive. In the first case, the Fiscal Responsibility Law firmly established a process of cultural change and emphasized the principle of autonomy within the federation: after the adoption of that Law, each unit of government became more responsible for its accounts and affairs. With regard to the provision of services, in the second half of the 1990s the federal government recovered its capacity to formulate and execute dynamic social policies and once again began to play the main role in their formulation, coordination and financing. In addition, wherever possible it delegated programme execution to the subnational governments or shared this responsibility with them, especially in the fields of fundamental education, medical and hospital attention (especially in respect of basic health attention), and in new social assistance programmes.[32] This does not mean that social problems are on the point of being solved, nor that the associations between levels of government with regard to social programmes do not call for review and correction.[33]

The present results were achieved even though intergovernmental relations in Brazil were not explicitly designed for these purposes. They do not provide for mechanisms for the apportionment and evaluation of the constitutional distribution of tax income (the main source of transfers) so as to make the distribution of income among the subnational governments not only ensures and rewards both the generation of primary surpluses and the containment of indebtedness within predetermined limits and also the provision of public services.

Although the Brazilian federal system does not permit direct specific intervention by the central government in the activities of the subnational governments, this has not prevented it from pursuing the principles of social control through the adoption of mechanisms for measuring the performance of the states and municipalities in the most diverse areas.[34] This is a field in which there is considerable room for progress in the production and publication of performance indicators with a reasonable degree of sectoral detail, in order to stimulate comparisons between the governments of similar regions and economies, with similar budgets and institutional frameworks, but always bearing in mind the profound disparities between regions. It should be understood, however, that such performance indexes will not serve

[32] For a brief analysis of comparative international experience, especially in the cases of education, health and social assistance, see de Mello (2003, pp. 24-25).

[33] In this connection, it is interesting to reproduce the conclusions of Wiesner (2003, pp. 76 and 80) on the case of Brazil, in his extensive recent analysis of fiscal decentralization in Latin America: Wiesner considered that the most noteworthy feature of the Brazilian case was the integral nature of its efforts and results in the following four interdependent processes: i) fiscal decentralization at the state and municipal levels; ii) market-oriented decentralization (such as privatization and regulation); iii) sectoral decentralization (in education and health, for example), and iv) its response to macroeconomic constraints in a globalized environment. It was also noteworthy, he considered, that Brazil together with Chile and to a certain extent Mexico, was increasingly forming an integrated institutional framework in order to provide a coherent normative context for all these demanding interrelated processes. This really was a great challenge. Finally, he said, Brazil was an example of how difficult but nevertheless possible that task could be, since that country had tackled an number of those problems and was now in a leading position among the Latin American countries, thanks to its correct approach. It was a country that was completely aware of the need for "integral and coherent policies".

[34] Souza (2004, p. 24) also arrives at a similar conclusion when he analyzes the new trends in terms of governance in the local Brazilian governments:

> "In this study we have shown that the Brazilian experience in terms of local governance has been marked by great institutional innovation and a complex system of intergovernmental relations, especially between the Union and the municipal governments. These innovations arose initially from the commitments assumed during the re-democratization process and subsequently from decisions taken by the governments themselves, both federal and local. Ultimately, in spite of the unequal capacity of the Brazilian municipalities to form part of this new system of institutions, there are some signs of change in the forms of local governance. Despite the greater participation of local governments in the provision of universal social services, however, it is not yet clear whether these new institutions will be sustainable without the financial support and leadership of the federal government" (translated from the original Portuguese).

for the calculation of the amounts to be transferred to subnational governments in the future.

The aim is that greater transparency of fiscal management should induce the local authorities to improve their performance in their respective communities.[35] In this context, the role of the central government should be aimed more at generating information to promote the debate, which should be taken to the forums with Constitutional powers to redefine intergovernmental relations (i.e., the National Congress).

Even if the central government has the power to link the provision of services to the amounts of resources distributed, its field of action is not as broad when a technical evaluation (even a simple one) is involved. Let us take the example of health. If, when the effectiveness of the use made by municipalities of the transfers for the provision of basic attention is evaluated, it is concluded that the performance of a particular municipality was worse than that of others (for example, infant mortality increased, instead of going down as it did in the rest of the region), this raises various problems. Should the federal government reduce or cut off future transfers? Could that locality, with fewer resources for investing in health, reverse a situation which had deteriorated even when its budget in that area was higher? Who should be punished for the poor performance evaluation? The municipal authorities, or the families who would continue to lose babies at birth? The same kind of doubts may arise with respect to education, social assistance, or other social areas.

Common sense indicates that, in the case of basic social services —which involve the ongoing provision of public services which are indispensable for the population, and especially its poorest strata— the punishment (or possibly reward) resulting from a performance evaluation should not affect the financing or expenditure on such activities, but other parts of the local budget (for example, by permitting greater access to credit for investments in infrastructure). Moreover, social recognition of the performance of local authorities is very important in a democratic regime in which elections are held every four years to appoint the Chief Executive and the legislatures of each state and municipality.

Finally, there are grounds for criticizing the idea which is beginning to spread among those responsible for national macroeconomic strategy that the best way to secure good fiscal performance and greater efficiency and efficacy in the provision of services is to eliminate the obligation to allocate certain percentages of budgetary resources for particular types of expenditure. This criticism is based essentially on the fact that there is no relation of cause and effect: in other words, neither establishing such allocations, nor much less eliminating them, can ensure good or bad performance in terms of expenditure.

It is not in the macroeconomic field that the most pressing fiscal difficulties are to be observed; consequently, it is not macroeconomic measures (such as the elimination of such allocations) which will make it possible to solve those difficulties. The biggest and most undeniable problems with regard to expenditure are connected with the management of activities and projects. The roots of both the distortions and their solutions are in what is called public sector microeconomics.

A consensual way to a solution is through the modernization of the public authorities. Some time ago, the initiative of modernizing all the spheres of government was taken up once again in Brazil, and successful results were obtained, especially with regard to electronic government (“e-gov”).[36] In this latter field, the advances made have been so numerous and considerable that they have received important international recognition from multilateral organizations, universities, and even private consultants (Comité Executivo do Goberno Eletrônico, 2003, pp. 42-43).[37] For some time past we have been asserting that the next step that should be taken after the Fiscal Responsibility Law is to take measures to give greater continuity to projects and actions to improve public management, and above all to deepen their effects (Afonso, 2002).[38]

[35] The potential interest of the population in such indicators may be seen from the amount of space devoted in the mass media to the recently published human development indexes by states and municipalities —and in some cases even by neighbourhoods— which tend to arouse greater interest through the comparison of local indicators with those for nearby federated units.

[36] For a first full analysis of the experience in e-government in different fields, organs and spheres of government, see Fernandes and Afonso (2001).

[37] Special mention may be made of the study by United Nations/ American Society for Public Administration (2002) which analyzes the experience in electronic government in over a hundred countries, with Brazil occupying the 18th position among the 36 most advanced countries in this respect (“high e-gov capacity”).

[38] We realize that this perception has not yet been fully assimilated by the new federal government, which, so far, has limited itself to declaring its confidence in that Law (although when it was approved by Congress in the year 2000 the Labour Party voted against it

In order to modernize such management it is necessary to train officials, secure the widespread adoption of planning and strategic management practices, invest heavily in informatics and take advantage of every opportunity offered by advances in that field, and promote those reforms in the legislature and judiciary, as well as in the thousands of subnational units of government. These measures have nothing to do with the elimination of obligatory allocations of resources, nor do they run counter to them. The successful experience in the field of electronic purchasing, which is still only used to a limited extent, should be rapidly extended to all the federal organs, the other State powers, and also the subnational governments. There is an enormous field for exploration as regards integrated tenders.

Since the last change of leadership in the federal government, it is frequently said that little has changed in the field of macroeconomic policy, but the same cannot be said of the microeconomic management of the State, in view of the lack of continuity in a series of initiatives[39] and the undeniable existence of flagrant problems in respect of social policies, with increasingly obvious setbacks.[40]

Fortunately, this disorder is conjunctural rather than structural, so that if the government recovers the political will to give priority and effectively implement the plans for the modernization of management practices it will be possible to start acting again soon and obtain results, especially because the new information and communication technologies increasingly offer more and better opportunities.[41]

The general conclusion is that the Brazilian federation needs to be improved, but not reconstructed.

(Original: Portuguese)

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unanimously and subsequently tried to have it annulled by the Federal Supreme Court). Moreover, the new government confuses structural reform with conjunctural measures, claiming that the best proof of its new commitment to fiscal responsibility is that it raised the primary surplus target —although the IMF did not ask it to do so— and exceeded that historical goal throughout 2003, with the Ministry of Finance preening itself on promoting cuts in expenditure for the first time.

[39] For example, there are operational difficulties in expanding and renewing the lines of finance for modernizing the fiscal management of the subnational governments. This is so in the case of the resources transferred by the IDB —as in the case of the establishment of a new stage of the National Programme of Support for the Fiscal Administration of the Brazilian States (PNAFE), or the implementation of its municipal version (PNAFEM) or even the contracting of other programmes for the Accounts Tribunals and the state planning and administration systems— or those established with their own resources by local banks (reducing the spread of the Municipal Tax Administration Modernization Programme —PMAT— of the National Bank for Economic and Social Development (BNDES).

[40] One symptom of these problems is the 80% reduction in the amount allocated for the child labour eradication programme in 2004, decided upon by the present federal government in its first budget, so that the allocation of only 100 million reales thus decreed will only permit coverage of some 200,000 children, compared with the 841,000 covered in 2003 and the target (established by that government itself) of eventually reaching 1.5 million children.

[41] The federal government already announced an ambitious management plan whose success would appear to be of more decisive importance for tackling the above-mentioned problems than more thorough-going changes in the institutional structure of the federation and finances (see Secretaría de Gestión, 2003).

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Tertiary sector employment in Latin America: between modernity and survival

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In the 1990s, around 90% of all new jobs in Latin America and the Caribbean arose in the tertiary sector. This article reviews the main theories about the expansion of this kind of employment, compares the recent evolution of the Latin American tertiary sector with global trends, and analyses the characteristics of the employment offered in the various branches making up the sector, as well as its underlying dynamics. The growth of employment in the Latin American tertiary sector is based on simultaneous processes of labour inclusion and exclusion. The first-named process reflects the growing role of some tertiary sector activities in systemic competitiveness and social reproduction, and is expressed in the generation of jobs of comparatively high productivity and quality. The second, however, is due to the pressures of the labour supply and gives rise to jobs that are usually of low productivity and quality.

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I
Introduction

The various branches of activity of the tertiary sector accounted for about 90% of the new jobs which were created in Latin America and the Caribbean in the 1990s, and at the end of that decade they represented 55% of total employment. In spite of its great weight in the labour market, however, tertiary sector employment has been studied less than agricultural employment and much less than employment in manufacturing.

One of the reasons for this is the high level of heterogeneity of employment in the sector. On the one hand, tertiary activities play an increasingly important role in the productive and social structures —for example, in terms of systemic competitiveness and the well-being of the population— and this has resulted in a growing demand for labour. Many of these activities offer favourable potential for social and labour-related development, since they provide jobs that usually require relatively small investments of physical capital and technology, place emphasis above all on human capital, and allow small and medium-sized enterprises to operate competitively. Furthermore, the tertiary sector is the main generator of good-quality employment for women. On the other hand, however, in the tertiary sector we find most of the low-productivity, poorly paid and poor quality jobs, because of the low entry barriers to certain activities such as personal services and trade. Women account for a high proportion of this segment, too.

This article analyses the recent dynamics of employment generation in the Latin American tertiary sector. To this end, section II makes a summary analysis of the definitions, classifications and theories on employment in this sector, with special emphasis on its heterogeneity and the fact that many definitions and classifications over-simplify the processes of employment generation and do little to help in their analysis. Particular stress is laid on the importance of taking a dynamic view of this sector's contribution to employment generation.

Section III compares the empirical evidence on the evolution of tertiary sector employment at the world level and poses the question of whether Latin America and the Caribbean have special characteristics in this respect and, in particular, whether the data support the theory that there is a fundamental difference between the evolution of tertiary employment in the industrialized countries[1] and that observed in the Latin American and Caribbean region (genuine versus spurious tertiarization).

In section IV it is shown that during the 1990s the great majority of new jobs arose in the tertiary sector, but many of those jobs were in low-productivity activities. At all events, there are great variations between the countries in this respect, mainly explained by differences in economic growth. There is also great heterogeneity among the different branches of the sector, so that an analysis is also made of the main characteristics of each branch and the dynamics determining employment growth. Finally, sector V presents some conclusions on the features of employment generation in the sector.

□ This article is based on Weller (2001), in which Nora Ruedi, Gloria Bensan, Laura Brunet and Ignacio Fiestas provided valuable collaboration and which contains additional empirical information. The views expressed here are the exclusive responsibility of the author and do not necessarily coincide with those of the organization to which he belongs.

[1] In this article, the category of "industrialized countries" is maintained, even though it has been argued that service activities are of growing importance in those countries, too. Be that as it may, the existence of a production structure with a relatively large, productive and homogeneous manufacturing sector continues to be an element distinguishing the countries in question, and the performance of that sector in terms of growth and productivity is a key variable for their overall economic performance (Pieper, 2000).

II

Definitions, classifications and theories

1. Definitions and classifications

The notion of a tertiary sector arose out of the desire to classify the economic activities. At first, it was defined as a residual, i.e. it consisted of all the activities that did not belong to the primary sector (agriculture, stock-raising, forestry, fisheries, mining) or the secondary sector (manufacturing, construction). In order to make the concept more precise, efforts were later made to characterize the sector in terms of common elements. Thus, emphasis was placed on some characteristics of tertiary activities which would differentiate them from those of the primary and secondary sectors: for example, their products would be intangible, non-transferrable and perishable, so that they could not be stored, and they would also be highly labour intensive because of the limitations on replacing labour with capital and technology.

Although these specifications help to understand the differences between many services, on the one hand, and the primary and secondary sectors, on the other, they are not valid for all the activities usually classed as tertiary. Moreover, as the most recent technological changes have increased the heterogeneity of the latter, the characteristics in question are less and less useful for distinguishing the tertiary sector from other sectors. It may be noted, in particular, that many services are increasingly transferable (such as financial, medical and educational services, as well as business services such as "back office" services, data processing and consultancy). This means that the difference between tradeable products, which traditionally come mainly from the primary and secondary sectors, and tradeable goods, which are traditionally not produced by the tertiary sector and construction, is increasingly unclear. Furthermore, the new technological resources create economies of scale and, for example, can partly take the place of the teacher in education. At the same time, many services have ceased to be perishable (thanks to storage devices) and their product (knowledge, etc.) serves to accumulate human capital. Lastly, there are many services which make increasingly intensive use of capital and technology (communications satellites, for example).

Thus, the most recent trends make it difficult to define tertiary activities on the basis of a set of common characteristics. At the same time, they increase the heterogeneity of those activities (especially with regard to the use of physical capital, technology and human capital). Consequently, rather than trying to impose a non-existent homogeneity on this set of activities, it is important to differentiate it more.

For this purpose, there are various proposed classifications of services. Rubalcaba (1997, p. 29 et seq.) mentions the following:[2]

— Distributive services, producer services, social services, personal services (Browning and Singelmann).
— Marketable services, services provided *in situ*, durable services and non-durable services (Nusbaumer).
— Permanent and temporary services, reversible and irreversible services, services provided privately and collectively, non-marketed and marketed services (Ochel and Wegner).

Like the definitions mentioned earlier, some of these classifications tend to be become obsolete or at least less clear with technological change and market integration. Thus, some services change from non-marketed to marketed or from non-durable to durable, while others do not fit clearly into the classifications. Although this does not detract from the importance of the disaggregation and reclassification efforts, the fact that the conditions and characteristics of services activities change with the passage of time highlights the importance of a dynamic perspective.[3]

2. Theories: the heterogeneity of the tertiary sector

a) *Genuine and spurious tertiarization*

Broadly, two main trends which increase employment in tertiary activities may be identified.

[2] Other forms of differentiation have been proposed by Gershuny (1987), Bhagwati (1987), Baumol (1985) and Ryten (1999).

[3] Krüger (1999) gives the example of meat pies, which were traditionally prepared at home but are now more often consumed in fast food restaurants or purchased frozen in the supermarket.

Firstly, in the industrialized countries the expansion of the tertiary sector is generally seen as a sign of the evolution of the productive structure and society in general. At least since the debate on the post-industrial society (Bell, 1973), it has been held that with the development of science and technology the proportion of manual and unskilled workers will go down, and most of the labour force will produce non-tangible goods and services. Knowledge will become the main factor for economic growth, and education and professional qualifications will be key elements for individual well-being and upward social progress. The contribution of tertiary activities to economic growth will increase both because of their growing share in the composition of GDP and their strategic role for improving the competitiveness of enterprises in other branches and of whole economies, through systemic competitiveness.[4] One expression of this trend is the outsourcing of certain activities and the subcontracting of specialized firms for the supply of particular services.[5] Much of the increase in tertiary employment in the industrialized countries since World War II is due to the expansion of these activities, which require high levels of skills. In the context of globalization, these processes tend to go beyond national frontiers, since although there may not be internationally integrated labour markets, the formation of transnational networks in production structures integrates occupations carried out in different places (Castells, 1997, pp. 260-268).

In addition to the growing role of services as a result of the evolution of the production structure, there are other dynamics affecting employment in this sector which operate at the household level. In this respect, an extension of Engel's Law has been adduced as one of the reasons for the long-term upward trend in employment in the sector (Appelbaum and Schettkat, 1995): thus, just as increasing household income leads to a reduction in the share of food in their expenditure, it also later leads to their saturation with durable manufactured goods, and services then begin to represent a growing percentage of household consumption. This hypothesis has been questioned by Gershuny (1987) and Wieczorek (1995): as there are major constraints on increasing the productivity of personal services, while the wages paid in those activities rise together with the general wage level, their labour costs tend to increase substantially. As a result, in the industrialized countries the tendency is rather towards a decline in the importance of household services and their replacement with own-account work (do it yourself activities, cleaning) and with the purchase of goods (prepared food, new products instead of repairs to old ones). At all events, it is undeniable that as household income improves, the proportion of services in household consumption increases, not only through market transactions but also in terms of services financed through their taxes or contributions (health, education, care of old people, etc.).

The new role of tertiary activities, both in the production process itself and in a broader sense of systemic competitiveness and socio-economic well-being, makes it necessary to get away from old concepts which draw a distinction between productive and non-productive work and consider that services, by facilitating consumption, belong to the non-productive category. When one considers how important services such as education and health are for systemic competitiveness, it is not appropriate either to maintain a similar distinction based on a new definition, such as that business services are productive and community, social and personal services are not (Giarini, 1995). In view of the changes which have taken place, the old definitions become obsolete, and this may help to overcome some specific labour exclusions, such as the traditional equation of productive work (in primary and secondary activities) with male labour and non-productive work (in tertiary activities) with female employment. Recognition of the new role of the tertiary sector would help to overcome the cases of discrimination based on such hierarchic differentiation (Krüger, 1999).

Secondly, some services have the lowest entry barriers of all branches of activity, due to their low or non-existent requirements for capital, land, technology and human capital, which enables them to serve as a "refuge" for a labour force which cannot find employment in more productive and better paid activities. Thus, the weight of informal activities is usually greater in the tertiary than in the secondary sector. These tendencies are obviously much more marked in Latin America and the Caribbean than in the industrialized countries, so that it has been suggested that the expansion of tertiary employment in the Latin

[4] See, for example, Giarini (1995) and different contributions in Giarini (1987) and in *Economía industrial* (1997), Wieczorek (1995), Willke (1999), and Altenburg, Qualmann and Weller (2001, pp. 29-33).

[5] Obviously, apart from the strategy of exploiting the advantages of specialization, another strategy seeks to increase competitiveness through the purchase of goods and services from other firms which have lower labour costs (due to lower wages, failure to comply with labour regulations, etc.).

American and Caribbean region represents spurious tertiarization rather than what might be called the genuine version promoted by the changes in industrial societies (Pinto, 1984; Carneiro, 1994). In Latin America and the Caribbean, these tendencies are considered to have become stronger in the 1980s —some authors talked about over-tertiarization, in the sense of the exhaustion of the informal sector's capacity to absorb labour (Verdera, 1994)— and according to ILO data they continued even during the 1990s, since not only was 90% of new employment concentrated in the tertiary sector, but 70% was in low-productivity services. This latter phenomenon has been called the "informalization of services" (Klein and Tokman, 2000, p. 16).

b) *The dynamics of tertiary sector heterogeneity*

In opposition to a polarized characterization of tertiary sector employment based on the differentiation between genuine and spurious tertiarization, it has been argued that also in Latin America and the Caribbean, at least up to the 1970s, there was dynamic generation of employment in skilled services which made a substantial contribution to the expansion of formal urban employment (Ramos, 1984). In this evolution, an important role was played by the marked presence of the public sector and —largely concentrated in this— of professionals of high educational level (Echeverría, 1985). As a result, up to 1980 in a group of eight countries, approximately 70% of tertiary employment was in the formal sector (Gatica, 1986).[6]

Comparing the Latin American evolution with the experience of the more advanced countries, Berry (1976) argues that, because of technological progress, at similar stages of development the primary and secondary sectors of Latin America and the Caribbean attained higher levels of productivity, meaning that they had less capacity to absorb labour, so that a larger percentage of employment was concentrated in the tertiary sector. Likewise adopting a historical perspective, Kaztman (1984, p. 101) holds that in Latin America, in a first phase, the increase in employment in the tertiary sector was the result of supply pressures generated by rural-urban migration, but subsequently it was due more to a close link with the industrialization process and the expansion of the access of the population to modern services.

De Oliveira and Ariza (1998, p. 112 et seq.) offer another dynamic interpretation of the evolution of employment. These authors link the different evolution of employment in the tertiary branches —according to the groups defined by Browning and Singelmann (1975) already referred to— with the different stages in the economic development of Mexico (which can be generalized, up to a certain point, to cover the economic evolution of the region as a whole), highlighting the branches which grew most because of the economic development characteristics of each stage, within the context of the overall growth of the tertiary sector:

— *In the agro-export development phase*, employment in personal services went down in relative importance, while employment in distributive and social services increased, as a result of growing territorial integration and growth of the public sector;
— *In the first phase of the import substitution stage*, employment in producer services expanded as a result of the growth and modernization of manufacturing, while it also increased in the case of personal services, in line with population growth;
— *In the phase in which the import substitution model was being consolidated*, employment in social services increased thanks to the growth of the public administration and investment in education and health;
— *In the years of crisis and economic restructuring*, there was a relative increase in personal services and trade to the detriment of social and producer services, due to the weak demand for labour by the sectors with the highest productivity and the concentration of new jobs in activities with low entry barriers.

Thus, it can be said that also in Latin America and the Caribbean, the historical evolution of tertiary employment was closely linked with the specific features of economic and social development.

In opposition to a dichotomous view —genuine tertiarization in the industrialized countries and spurious tertiarization in Latin America and the Caribbean— it may also be noted that, partly as a result of the foregoing, it has been found that the average labour productivity of tertiary activities, as a proportion of the average labour productivity of the economy as

[6] In contrast with the calculations of informality in the 1990s, Gatica (1986) does not include employment in micro-enterprises in informal employment. According to this author, the trends in the 1960-1980 period were not similar among the countries studied, because in five of them the informality of the tertiary sector went down, while in the other three it went up.

a whole, is usually higher in Third World countries than in the industrialized countries (Riddle, 1987). This finding —to which we will return later— questions the historical interpretation of Kaztman (1984), which claims that the expansion of tertiary sector employment was marked in its first phase by low levels of productivity, and that it was only in a second phase, more closely linked with industrialization, that more productive jobs were generated.

Finally, it has also been observed that also in the industrialized countries, a substantial segment of new jobs in the services sector is marked, among other things, by low levels of skills, low wages and labour instability: a tendency heightened by the decline in the demand for unskilled labour in manufacturing (Reich, 1993). It would appear that some previous trends, such as the decline in the importance of employment in personal services, are being reversed (Milkman, Reese and Roth, 1998). As a result, the occupational structure evolves in a polarized manner, with substantial growth in employment both at the bottom and at the top of the scale of skills.

It may thus be seen that in past decades there have been processes attributable to either one of the two great tendencies studied here: genuine tertiarization and spurious tertiarization. Consequently, greater disaggregation is required in their analysis. This is true both for the industrialized countries and for those of Latin America and the Caribbean, since in both groups of countries there are multiple tendencies, and although their relative weight varies, making a strict differentiation between the genuine tertiarization of the first-named countries and the spurious tertiarization of the latter is too simplistic.[7] The following section presents some data on tertiary sector growth tendencies at the global level and analyses the empirical evidence on the processes of genuine or spurious tertiarization in Latin America and the Caribbean.

III

A comparative view

As we said in the previous section, the growth in the proportion of employment accounted for by tertiary activities is a worldwide process, although it is based on a heterogeneous range of dynamics. Furthermore, this process is extremely dynamic, since between 1980 and 1997 the tertiary sector increased its share of total employment from 19.4% to 26.0% in Africa, from 46.0% to 55.1% in the Americas, from 34.6% to 43.0% in Asia, and from 42.9% to 55.6% in Europe.[8] For the four regions as a whole, the increase was from 34.4% to 43.6%. The regional comparison, like the theories on the growing role of the tertiary sector, give grounds for assuming that there is a positive relation between the material wealth of a society and the share of that sector in GDP and employment. Figure 1 confirms the relation between the share of the tertiary sector in employment and per capita GDP. This relation is not linear, however: there is a rapid increase in the sector's share until it reaches a level of 60%, with a per capita GDP of approximately US$ 6,000,[9] but from then on a slower rate of increase and subsequently a certain degree of stability around 70%, as from a per capita GDP of approximately US$ 17,000.[10]

When an economy which was initially predominantly agricultural diversifies, employment in secondary and tertiary activities expands rapidly. Of the 120 countries represented in figure 1, most are in this phase of rapid expansion: all the African countries (except for South Africa), two-thirds of the Asian countries, and half of the Latin American nations. Towards the end of this phase, when employment in the agricultural sector has already gone down markedly in relative terms, the expulsion of labour from that sector slows down, and in the following phase the

[7] It should be noted that there are also considerable divergences between countries in the regions, connected with their particular characteristics (see Gatica (1986) and Castells (1997)).

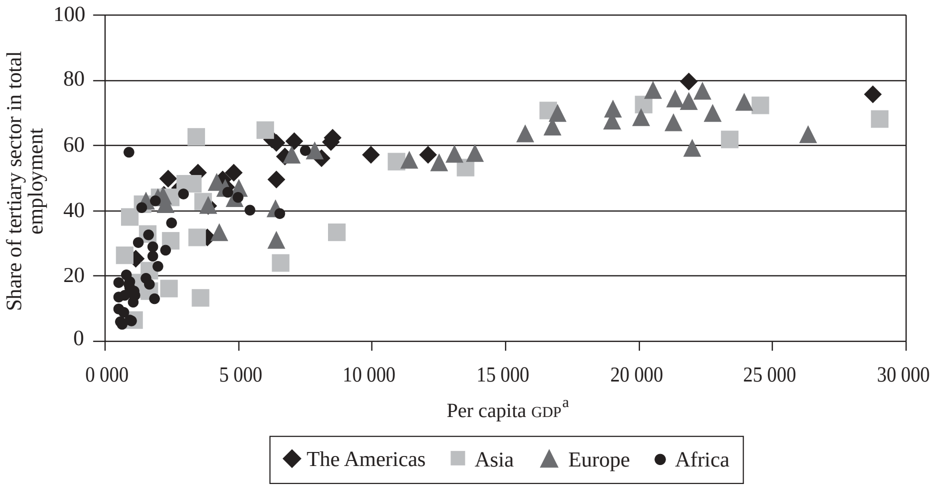
[8] This is a simple average of the countries in question: 50 for Africa, 29 for the Americas, 42 for Asia and 48 for Europe (calculated by the author on the basis of ILO, 1998, pp. 243-246).

[9] In 1997 dollars, calculated by the purchasing power parity method (World Bank, various years).

[10] In the different branches of activity in the tertiary sector there is greater dispersion of the relation between share of employment and per capita GDP. See Weller (2001, pp. 38-41) and section IV.3 of this article.

FIGURE 1

Four continents: Per capita gross domestic product and tertiary employment, 1997



Source: Prepared by the author on the basis of data from ILO (various years) and World Bank (various years).

[a] In 1997 dollars, at purchasing power parity.

expansion of tertiary employment continues, but more slowly. In the countries with a high per capita GDP, agricultural employment generally only accounts for a very small proportion of total employment, so that the differences between countries depend on the relative evolution of their secondary and tertiary sectors.

Figure 1 also shows that the countries of the Americas[11] have slightly higher levels of tertiary sector employment than the countries in other continents, for the same level of per capita GDP.[12] Indeed, if an exponential trend line is applied, the line for the Americas is located above those for Asia and Europe and —up to a per capita GDP of approximately US$ 7,000, which is that relevant for Africa— also above the line for the latter continent. It may be concluded that the Americas differ from the other continents in their comparatively rapid rate of tertiarization of employment. This is obviously the origin of the theory of spurious tertiarization.[13]

Is this situation reflected in the relative labour productivity of the tertiary sector? If the large share of the sector in total employment were due mainly to a spurious tertiarization process in Latin America and the Caribbean, then its average labour productivity would be below that of countries marked by genuine tertiarization. Obviously, this does not mean that the Latin American tertiary sector may not have a lower level of productivity than the industrialized countries, but this situation is due to the lower average productivity of the economy at the aggregate level rather than to a specific characteristic of the tertiary sector.

Figure 2 shows the share of the tertiary sector in employment and the GDP, for the same groups of countries. In the countries located above the 45º line, the tertiary sector has a higher average level of labour productivity than the average for the economy as a whole, whereas in the other countries its productivity is below that average level. The great majority of the countries and also of the countries of each continent

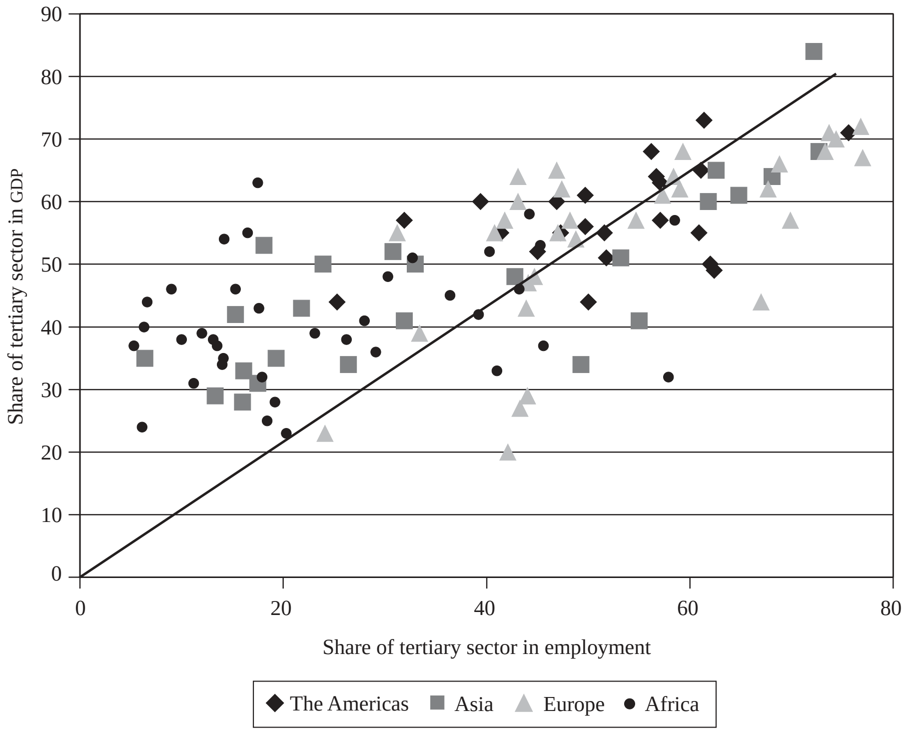
[11] The data for the Americas include not only Latin America and the Caribbean but also Canada and the United States; the trends for the region do not change, however, even if the latter two countries are excluded.

[12] This relatively high level is mainly due to the larger share accounted for by trade.

[13] The corollary of this high share of the tertiary sector in employment is obviously the feeble generation of productive employment in agriculture and manufacturing. Figueroa (1991) examines the factors corresponding to agriculture in this respect, while Berry (1976) and Tokman (1991) stress the fact that, in comparable phases of economic development, Latin American manufacturing had higher levels of productivity than the countries with early industrialization and hence less capacity to generate employment.

FIGURE 2

Four continents: The tertiary sector's share of employment and GDP, 1997



Source: Prepared by the author on the basis of data from ILO (various years) and World Bank (various years).

taken separately have an average level of productivity of the tertiary sector which is above the aggregate average. However, the relative labour productivity of the sector goes down in all the regions in proportion to an increase in the sector's share in employment and GDP, and for the whole set of countries it is equal to the aggregate average of the economy when a share of 57% of employment and GDP is reached.

The indices of spurious tertiarization in Latin America and the Caribbean mentioned above might give the impression that the average labour productivity of that region would tend to be lower than in other regions. However, as figure 2 shows, this is not so. The Latin American countries are in the upper part of the spectrum, slightly above the countries of other regions, and the decline in the relative productivity of the sector to the aggregate average for the economy also takes place later than in other regions: i.e., when the sector's share of employment and GDP reaches 60% of the total. Thus, although in Latin America and the Caribbean the average productivity of the tertiary sector is lower than in the industrialized countries, this productivity gap is smaller than in the other sectors, thus bringing the spurious tertiarization theory into question.

This does not mean that there may not be some elements of spurious tertiarization in the Latin American and Caribbean region, since in a context of high intra-sectoral heterogeneity a comparatively high level of average productivity may conceal a low-productivity segment. However, of the four regions considered, Africa would appear to be that which shows the highest indices of spurious tertiarization by levels of relative productivity, since its tertiary employment growth only generates a modest increase in the sector's GDP.

In short, the Latin American and Caribbean region shows evidence of processes of both spurious and genuine tertiarization, which is hardly surprising in view of the high level of intra-sectoral heterogeneity (see section IV.3 below). On the one hand, the large share of the tertiary sector, and especially of trade, in total employment reflects the heavy weight of activities with low entry barriers and low labour productivity. On the other hand, however, the segment of employment corresponding to activities with high relative labour productivity linked with the dynamics of economic growth —which therefore represent genuine tertiarization— also has an impact on the aggregate data for the sector, indicating that its presence in it is substantial.

IV

Tertiary sector employment in Latin America and the Caribbean

1. Recent trends

Previous studies (Weller, 2000, pp. 93 et seq.) have highlighted the fact that in the 1990s most of the new jobs in the region were created in the tertiary sector. Table 1 gives updated figures on the evolution of employment by branch of activity (in the period from 1990 to 1999) in Latin America and the Caribbean and compares them with the corresponding evolution in the OECD countries.

As may be seen from the table, there is a considerable difference between the annual growth rates of employment, which are obviously greater in the case of the Latin American and Caribbean countries than in those of the OECD. Rather than reflecting a highly dynamic increase in productive employment in the first group of countries, however, this reflects the fact that the labour supply grew much more dynamically in those countries than in the OECD nations (ILO, 1998, pp. 239-242). Consequently, more interesting than the absolute levels of employment generation is the relative evolution of the different branches of activity, in which surprising coincidences may be observed, although there are also some disparities.

TABLE 1

Latin America and the Caribbean and the member countries of the Organization for Economic Cooperation and Development (OECD): Annual growth of employment and contribution of new jobs in the 1990s, by branch of activity[a]

	Latin American and Caribbean countries[b]				OECD countries[c]	
	Weighted average		Median		Median	
	Growth	Contribution[f]	Growth	Contribution[f]	Growth	Contribution[f]
Agriculture, forestry and fishing	–0.4	–4.3	–0.3	–2.6	–2.6	–7.0
Manufacturing	1.2	8.3	1.2	9.0	–0.9	–6.3
Construction	2.8	7.8	3.1	6.5	1.2	9.2
Tertiary sector						
Trade, restaurants and hotels	4.0	32.7	5.7	33.8	2.0	25.9
Basic services[d]	4.4	10.8	4.2	8.9	0.4	6.3
Financial services, insurance, real estate and business services	6.0	12.3	5.6	11.1	3.7	33.2
Community, social and personal services	2.7	34.8	3.0	35.7	1.3	29.6
Others[e]	–2.1	–2.3	–1.4	–0.3	–2.5	–0.8
Total	*2.2*	*100.0*	*3.5*	*100.0*	*1.1*	*100.0*

Source: Prepared by the author on the basis of official data of the countries of Latin America and the Caribbean and data from ILO (various years) in the case of the OECD countries.

[a] For Latin America and the Caribbean, 1990-1999; for the OECD countries, 1990-1998.
[b] Up to 17 countries, depending on availability of data.
[c] 20 member countries before 1990.
[d] Includes electricity, gas and water and transport, storage and communications.
[e] Mainly mining.
[f] Total for contributions does not always add up to 100, because the figures are medians.

In both groups of countries there was a contraction in employment in primary activities (agriculture and mining), and the growth of employment in manufacturing was sluggish: slightly positive in Latin America and the Caribbean and slightly negative in the OECD countries. Of the branches not belonging to the tertiary sector, in both groups of countries only construction generated employment dynamically, at rates similar to those of the generation of employment in the economy as a whole.

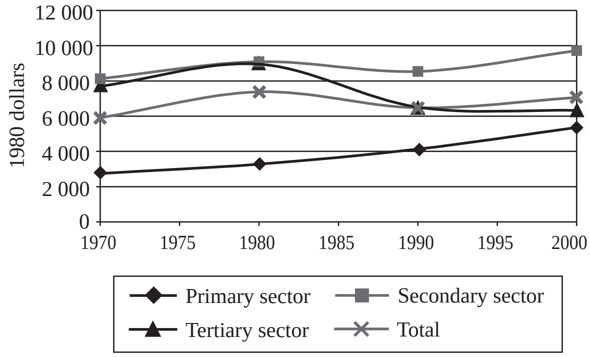
We thus see that in both groups of countries it was the tertiary sector which provided almost all the new jobs in the 1990s. The financial services, insurance, real estate and business services branch and the trade, restaurants and hotels branch registered the highest employment growth rates. The latter branch, in fact, contributed a third of the new jobs in Latin America and the Caribbean and a quarter in the OECD countries. There was a big difference between the contributions made by the financial services, insurance, real estate and business services branch in the two groups of countries: it was between 11% and 12% in Latin America and the Caribbean, but 33% in the OECD countries. This clearly shows the close linkages between this branch and the current processes of technological and productive restructuring led by the most highly developed countries.

Another branch which made an important contribution to new employment was that of community, social and personal services, in which employment grew slightly less than total employment in Latin America and the Caribbean and slightly more than it in the OECD countries. The only exception to the general coincidences at the sectoral level in terms of relative employment growth was basic services, in which employment grew rapidly in the Latin American and Caribbean region, but only feebly in the OECD.[14] Even so, these activities accounted for 6% of all new jobs in the OECD.

As noted in section II, some authors have asserted that in Latin America and the Caribbean a considerable part of the increase in tertiary employment in the post-war decades was linked with dynamic economic growth. Consequently, it is hardly surprising that in that period the average labour productivity of the tertiary sector amply exceeded the average for the regional

FIGURE 3

Latin America and the Caribbean: Evolution of labour productivity, 1970-2000



Source: Prepared by the author on the basis of data from Hofman (1999) and information from the countries.

economy as a whole (figure 3). During the 1980s crisis, the increase in the sector's share in the occupational structure became even faster, in view of the weakness of employment generation in the secondary sector and the concentration of new jobs in informal activities, many of them in the tertiary sector (Tokman, 1994). As a result, the average labour productivity of the tertiary sector fell sharply, thus interrupting the upward trend of previous decades. This decline was sharper than in the economy as a whole, and by 1990 the labour productivity of the sector had fallen to the average level of the economy as a whole.

During the 1990s, overall average labour productivity in Latin America and the Caribbean began to rise again, albeit without reaching the 1980 level. This rise, however, was concentrated in the primary and secondary sectors, whereas in the tertiary sector labour productivity continued to fall, although more slowly than in the 1980s. As a result, the average productivity of the tertiary sector fell below the average for the economy as a whole. This was due to the polarized generation of tertiary employment, with some highly productive activities generated on the one hand,[15] but many more low-productivity activities on the other. The following two sections will deal with these aspects in greater detail.

[14] A possible explanation for this is the considerable reduction in employment in ports and rail transport which occurred in many OECD countries due to the modernization of these transport systems.

[15] In wage-earning employment, between 80% and 95% of the most highly qualified occupational group (professionals, or professionals and technicians, depending on the information available) work in the tertiary sector. With regard to the concentration of new wage-earning jobs for persons of high educational level in the tertiary sector, see Weller (2000, pp. 160-162).

2. Recent patterns of evolution: the cases of Brazil, Chile and Mexico

Economic and production development trends strongly affect the composition and expansion of tertiary employment. In order to gain a better understanding of recent trends, this section will analyse the disaggregated evolution of tertiary employment in the 1990s in three countries of the region (Brazil, Chile and Mexico), using a slightly modified version of the methodology proposed by Browning and Singelmann (1975) and regrouping tertiary sector activities into five categories:

— Basic services: Electricity, gas and water, and communications (average educational level 10.3 years' schooling);[16]
— Distributive services: wholesale and retail trade, transport and storage (average educational level 7.7 years' schooling);
— Producer services: financial services, insurance, real estate and business services (average educational level 10.8 years' schooling);
— Social services: public administration, education, health, social assistance (average educational level 10.3 years' schooling);
— Personal services: restaurants and hotels, entertainment, domestic service, other personal services (average educational level 5.9 years' schooling).

There is an inverse relation between the average educational level of tertiary sector activities and their degree of informality. Thus, within the tertiary sector personal services have the highest level of informal employment, followed by distributive services.[17] Consequently, the "informalization of services" detected by Klein and Tokman (2000, p. 16) is connected with the expansion of those branches. Thus, although all these activities are inherently more or less heterogeneous,[18] an approximation can be made to the role played by the different services "between modernity and survival" on the basis of the average educational level, since the services with the highest educational requirements (basic, producer and social services) are connected with modernization processes, whereas those with low educational requirements (personal and distributive services) have low access barriers and hence correspond to the areas of survival employment.[19] It may be noted in this respect that in the literature on this subject the expansion of producer, social and basic services is generally interpreted as the main expression of the post-industrial society, while personal services are considered to be remnants of the proto-industrial structure and an expression (at least in the case of some personal services) of the social dualism which is said to be inherent in the information-based society. Distributive services combine activities related with dynamic change (such as transport) with others which are supposedly typical of less-industrialized societies (Castells, 1997, pp. 241-243).

When comparing the data given in table 2 it should be borne in mind that they reflect very different macroeconomic paths, which must obviously have an impact on the evolution of employment; thus, during the periods covered by the data, the GDP grew at annual rates of 2.7% in Brazil (1990-1998), 7.6% in Chile (1990-1996), and 3.3% in Mexico (1989-1998). Whereas Chile was going through an unprecedented period of economic expansion, Brazil and Mexico suffered serious crises in the early and mid 1990s, respectively. Moreover, in that decade the three countries followed different trade patterns: Mexico was becoming increasingly integrated with the United States economy, Chile was specializing in diversified exports of natural resource-based goods, and Brazil was combining the export of primary commodities with an orientation towards the regional market (Mercosur). In order to facilitate the interpretation of the data on the countries in question, table 2 also includes data on the most industrialized countries, the Group of Seven, taken from the study by Castells (1997).

An analysis of table 2 shows, broadly speaking, that in the three Latin American countries in question the share of social and producer services in employment is lower than in the G-7 countries, while that of distributive services registers similar levels and that of personal services is slightly higher, which is in keeping with the tendencies noted at the beginning of this section.

[16] The data on the average educational level in each category correspond to Brazil in 1998 and are only given by way of example; in Mexico the ratios are very similar (Weller, 2001, p. 47).
[17] See, for example, the data of Pollack and Jusidman (1997) on Mexico.
[18] Section IV.3 below deals with some aspects of the heterogeneity of the different branches of the tertiary sector.
[19] Although not all employment in the informal sector can be considered survival employment, there is a persistent negative correlation between economic growth and the expansion of the informal sector, which indicates that survival employment continues to predominate in that sector (see Weller, 2000, pp. 52 et seq.).

TABLE 2

Brazil, Chile, Mexico and the G-7 countries: Composition of tertiary sector employment
(As percentages of total employment)

	Brazil		Chile		Mexico		G-7 countries[a]	
	1990	1998	1990	1996	1989	1998	Share[b]	Trend
Basic services	1.1	1.1	1.1	1.6	1.0	1.2	...	...
Distributive services	20.5	21.6	21.8	21.8	20.2	22.2	20-25	Constant
Producer services	5.7	5.5	4.6	7.0	4.3	6.3	7-14	Strong upward
Social services	14.4	15.2	12.4	13.3	12.4	11.1	20-25	Upward
Personal services	14.4	16.2	16.1	15.1	12.0	14.9	10-14	Upward
Total tertiary sector	56.1	59.6	55.8	58.7	49.9	55.7	57-72	Upward
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	–

Source: Special tabulation of household surveys of the countries, and Castells (1997).

[a] Canada, France, Germany, Italy, Japan, United Kingdom, United States.
[b] At the beginning of the 1990s.

Coinciding with the variations in the data found by Castells for the G-7 countries, table 2 shows similarities but also important differences between the three Latin American countries. These countries register a considerable increase in the share of the tertiary sector in employment, which stood at between 56% and 60% at the end of the period.[20]

The dynamics vary significantly between one type of service and another. Between 1990 and 1996, a period of very high economic growth in Chile, that country displayed a pattern very similar to that of the most advanced countries: increases in the shares of the services linked most closely with modernization processes (social, producer and basic services), stagnation, albeit at a high level, in the case of distributive services, and a decline in the case of personal services, although the latter continued to have a higher share than in the G-7 countries. The expansion of employment in the tertiary sector in Chile greatly helped the tendency towards an upgrading of the occupational structure.

The evolution of employment in Brazil and Mexico, for its part, largely reflects the low growth in that period; in both countries personal and distributive services —more characteristic of survival employment— increased their shares. In Mexico, however, the share of employment in producer services also rose, which may have been due to the heavy restructuring of manufacturing, from which the demand for these services might have come. In Brazil, in contrast, employment in these services remained at a stable level, while in addition to the increase in personal and distributive services there was also a rise in the share of social services, possible in response to a major social policy effort.[21] Thus, in both Brazil and Mexico there were polarized processes in which an increase in survival employment prevailed, although at the same time new jobs were created in different activities requiring high levels of qualifications.[22] This polarized evolution of new tertiary employment in the Latin American region during the 1990s was more marked in the case of women than in that of men. Because of the high proportion of women in tertiary activities requiring a high level of education, their labour status registered a relative improvement, in the context of a global deterioration in the labour situation and the persistence of gaps compared with men.[23]

3. Employment characteristics in the different branches of activity of the tertiary sector

Regarding many employment characteristics, the tertiary sector as a whole compares favourably with the

[20] In the case of men, this share is lower and displays almost no differences between the countries (48%-49%); in the case of women it is higher and also varies more between the countries (67%-80%).

[21] Between the beginning and end of the 1990s, public social expenditure in Brazil rose from 18.1% to 21.0% of GDP, a level exceeded in Latin America only by Uruguay (ECLAC, 2001, p. 118).

[22] For a comparison of the patterns of employment generation in the north and south of Latin America during the 1990s, see Stallings and Weller (2001).

[23] See in this respect ILO (1999) and Gálvez (2001).

TABLE 3

Latin America and the Caribbean: Employment characteristics of the different branches of the tertiary sector
(Schematic presentation)

	Electricity, gas and water	Trade, restaurants and hotels	Transport, storage and communications	Community, social and personal services	Financial services, insurance, real estate and business services
Educational level	1. Medium 2. High	1. Medium 2. Low	1. Medium 2. Low	1. High 2. Medium	1. Low 2. High
Relative wage level	High	Medium low	Medium high	High	Medium high
Proportion of professionals and technicians	High	Low	Low	High	High
Proportion of women	Low	High	Low	Medium to high	High
Employment quality	High	Medium	Medium	High	Medium
Level of informality	Very low	High	Medium	Low	Medium
Size of firms	Large	1. Micro 2. SMEs	1. Micro 2. Large	1. SMEs[a] 2. Large	1. Large 2. SMEs

Source: Weller (2001), pp. 69-84.

[a] SMEs: small and medium-sized enterprises.

whole of economic activities, above all because of labour conditions in agriculture and construction (Weller, 2001, pp. 69-84). As noted in the previous analysis, however, there is great heterogeneity within the sector. Thus, the five branches of activity of the tertiary sector display considerable differences, shown schematically in table 3. These refer to educational level, wage levels, the proportion of professionals and technicians, the proportion of women, non-wage indicators of the quality of employment, the level of informality, and the prevailing patterns as regards the size of the firms in the different branches. If a branch has high levels of educational requirements and wage and non-wage employment quality, as well as a high proportion of professionals and technicians, this indicates that it is closely related with production modernization processes. In contrast, low levels of these indicators coincide with high levels of informality. The proportion of women employed has to do both with the recent increase in the demand for female labour, concentrated in some tertiary activities, and with the high share of informal tertiary employment in the occupational structure, especially of women of low educational level; the patterns of enterprise size also indicate some restructuring tendencies related with the greater or lesser expansion of the branches concerned.

The summary given in table 3 highlights the great heterogeneity of the tertiary sector. Since for reasons of space it is not possible to review the main characteristics of each of the branches,[24] the main tendencies influencing the expansion of employment in them will be analysed below.[25]

a) *Financial services, insurance, real estate and business services*

This is the branch of the tertiary sector whose evolution is most closely correlated with economic growth (Weller, 2001, pp. 40-41). Business support services have the highest weight in it and display dynamic processes of specialization and expansion. The present trend of a growing number of firms to concentrate their activities in the areas in which they have competitive advantages and to purchase other goods and services in one way or another from other suppliers has brought with it an increase in the demand for specialized services. In this context, many completely new activities have arisen, especially in the area of information technology, while others have

[24] For the quantitative information on which table 3 is based, see Weller (2001, pp. 69-84).
[25] For the growth of employment in each branch, see table 1.

grown in relative importance (publicity, for example). Sometimes the appearance of new enterprises has been accompanied by the closure of units in the purchasing companies, which have preferred to contract the corresponding services from specialized firms. This explains the strong presence of small and medium-sized enterprises (SMEs) in this branch, in which they even outnumber large firms. Although the performance of many firms in this branch is sensitive to the prevailing economic conditions,[26] it may be assumed that the business services category will continue to be a dynamic source of employment in the future.

In the case of financial services, another important activity in this branch, the simultaneous tendencies towards a strong expansion (including the development of new products) and labour-saving modernization, often in the context of processes of consolidation of the financial system, had less favourable implications for employment, especially in countries with a traditionally highly protected financial sector which was recently subjected to measures aimed at achieving greater openness.[27] Even so, financial services, insurance, real estate and business services were the branch, taken as a whole, where employment grew most in the 1990s. This is important, because within the tertiary sector this is also the branch which displays the best quality indicators in terms of educational levels, wages, non-wage job quality, etc. Both the internal transformation of this branch and its marked expansion were factors that resulted in strong demand for staff of high or intermediate educational level.

b) *Basic services*

These services include the electricity, gas and water branch and the transport, storage and communications branch.

In the 1990s, many countries modernized their electricity, gas and water and communications services. This process often took place in the context of privatization operations, which were generally accompanied by reductions in staff. On the other hand, the expansion of infrastructure and the rapid incorporation of new technologies and services helped to generate new jobs, often of quite high quality and requiring persons with a high educational level. At all events, however, this branch contributed relatively little to the generation of employment, because of its small size.

In the transport, storage and communications branch, transport accounts for the bulk of the jobs. The modernization of the transport infrastructure, which helped to further internal geographical integration, also favoured employment, especially in surface transport. The greater incorporation in the world economy and its impact on the expansion of foreign trade, together with the increase in purchasing power and the boost for domestic trade, also supported the generation of employment in this activity. On the other hand, in areas such as ports and rail transport, modernization processes, often linked with privatization, resulted at least temporarily in reductions in staff.

The composition of this branch (classified at the single-digit level of the ISIC)[28] is heterogeneous, because the occupational structure differs a great deal between transport and storage, on the one hand, and communications, on the other. Reflecting this heterogeneity, most of the employment in the branch is in micro-enterprises or large enterprises. In transport, there is an intermediate level of informality, although many of the corresponding activities cannot be considered as survival employment, because they require a certain amount of capital.

c) *Community, social and personal services*

These services form the largest and most heterogeneous branch of the tertiary sector, and in the 1990s they were the least dynamic in terms of employment growth (table 1). This was due largely to the smaller share of employment accounted for by the public sector, which is heavily represented in this branch.[29] Even so, this branch contributed a large percentage of the new jobs created, due partly to the increase in social expenditure in the decade in question, which favoured the main social services, such as education and health, and had an impact on both public and private employment. In this case, the new jobs were mostly of good quality, for persons of high

[26] This is reflected in the heavy loss of jobs in firms of the "new economy" in 2000 and 2001, especially in the United States. In those years, employment in this branch shrank in Latin America, too (ECLAC, various years).

[27] At the global level, the technological and organizational changes which took place in the 1990s, together with processes of concentration, led to a drop in employment in the financial sector (ILO, 2001a).

[28] ISIC: International Standard Industrial Classification.

[29] In the region as a whole, the public sector's share of urban employment went down from 15.5% in 1990 to 13.0% in 2000, with most of this decline being concentrated in the first half of the decade (ILO, 2001b, p. 61).

educational level (Weller, 2000, pp. 164 and 165). The improvement in income levels, together with changes in lifestyles and social life, also helped to increase the demand for certain community services (such as gymnasiums, swimming pools, tourist services, etc.). The growing income inequality and greater social segmentation stimulated the demand for labour for the provision of personal, household and community services, ranging from domestic service to gardeners, apartment building janitors and private security services. Some of these occupations are marked by low wages and poor non-wage quality. A significant part of the growth in the informal sector is concentrated in this branch, above all in personal services.

d) *Trade, restaurants and hotels*

Generally speaking, this branch —which is the third largest in Latin America and the Caribbean after community, social and personal services and the agricultural sector, and which generated almost a third of all new jobs in the 1990s— creates jobs with the most unfavourable characteristics in the tertiary sector, but even so it represents an important option for persons with intermediate and low educational levels; by and large, the wage employment it offers compares favourably with the agricultural sector and construction.

The expansion in employment in this branch during the 1990s came from various sources. First, trade in general, as an activity with low entry barriers, reflected the weakness of aggregate demand for labour, and in many countries there was an increase in informal activities such as street vendors;[30] because of this, the correlation between the share of this branch in total employment and the relative wealth of the corresponding economy is very weak (Weller, 2001, pp. 38-41). Second, wholesale trade was favoured by the greater economic openness, which gave a strong boost to exports and imports. Third, in the retail trade segment —which is much more important in terms of employment— there was an increase in demand due to the growth of real wages in the formal sector, the expansion of consumer credit, and the fall in the prices of some goods due to the greater trade openness. Fourth, this greater openness also gave a boost to supply by expanding the range of products available. Fifth, within this context retail trade underwent considerable changes, the most outstanding of which was the appearance of large-scale establishments such as supermarkets, hypermarkets and large covered shopping centres (malls), which were an influence in the “consumer culture” of the population, stimulating demand through the imitation effect. Sixth, the spread of bigger establishments created considerable competition for smaller establishments, so that in many countries employment in very small commercial enterprises grew only feebly. Finally, employment in the other major segment of this branch —hotels and restaurants— was favoured, like trade, by greater domestic demand and also shared in the expansion of tourism as an export service, which is increasingly important in a number of countries of the region.

V

Conclusions

The tertiary sector occupies an increasingly dominant place in the economic structure because of its growing importance not only in the generation of value added and employment but also in the field of support for enterprises in other sectors, due to the growing contribution of services to systemic competitiveness. Services also contribute to the accumulation of human capital, which is a key factor for improving productivity and long-term economic growth. Thus, the greater concern to satisfy basic social needs (education, health, care of the elderly, pre-school attention) stimulates the demand for services, many of which have traditionally been provided by the public sector but are now increasingly being supplied by private enterprise.

At the other extreme —because of the low entry barriers, especially in trade and personal services— the tertiary sector also includes the main activities which

[30] In Brazil and Mexico, around 15% of all jobs created in the 1990s corresponded to own-account (excluding professionals and technicians) or unpaid work in the trade, restaurants and hotels branch. This segment has the lowest educational levels of the whole tertiary sector (Weller, 2001, pp. 56-64).

allow segments of the population that are excluded from the dynamic areas of production to find employment for themselves. These segments include both those who do not have the qualifications required in the labour market and also new entrants to that market and persons who have lost their jobs.

With regard to Latin America and the Caribbean, it has been claimed that the big expansion in tertiary sector employment in that region reflects a spurious form of tertiarization in which low-productivity, poorly paid jobs prevail, and that this form of tertiarization is structurally different from the “genuine tertiarization” of the industrialized countries, which are becoming “post-industrial” societies. A comparison between the four continents examined in this article does provide some support for this theory, because of the large share of the tertiary sector in total employment, taking into account the level of income of the region. On the other hand, the fact that the average labour productivity of the sector is high in relative terms would appear rather to indicate a considerable presence of activities linked with modernization process and thus reflect genuine tertiarization. Consequently, although part of the expansion of tertiary sector employment is due to the low level of generation of employment in other sectors and labour supply pressures, this is not a decisive factor in the characteristics of the sector as a whole.

When talking about tertiarization in Latin America and the Caribbean, it is important always to bear in mind the simultaneous presence of both the spurious and genuine forms, in order to avoid inappropriate over-simplifications such as identifying tertiarization with informality or interpreting it exclusively as an expression of post-industrial modernization. Within the heterogeneity of the tertiary sector, historically activities linked with social and productive development have expanded to a greater or lesser extent according to the characteristics of the prevailing form of growth, whereas low-productivity employment has displayed an anti-cyclical pattern and has mainly increased in periods of low economic growth.

With regard to the 1990s (updating the periodization developed by Oliveira and Ariza (1998)), the evolution of tertiary employment in that decade may be summarized by saying that in the phase of reforms and greater economic openness the demand for producer services and distributive services increased, while the share of social and personal services in tertiary employment went down in relative terms, although they still grew substantially in absolute terms. In this context, the generation of employment in the sector was marked by multiple simultaneous processes of inclusion and exclusion of labour.[31]

These simultaneous processes were visible above all in the polarized generation of tertiary employment. On the one hand, during the 1990s some branches with favourable labour characteristics grew much more than others, in both the tertiary and other sectors. On the other hand, many of the new tertiary sector jobs generated were in low-productivity activities with unfavourable labour characteristics.

This polarization was also reflected in the characteristics of labour demand, which was biased in favour of staff of high educational level, and in the expansion of occupations demanding the highest qualifications. This could be a positive trend which would favour merit-based social mobility, since many occupations in the sector are characterized by strong demand for human capital not closely associated with high capital density. However, the high degree of segmentation of the educational system in many countries of the region could restrain the spread of this positive trend. Moreover, the weak demand for persons of low educational level has obliged many of them to try to find survival employment for themselves in activities with low entry barriers.

The labour polarization in the tertiary sector has been particularly marked in the case of women. The high and growing proportion of women in that sector and the overall expansion of the sector has favoured the incorporation of the growing female labour supply in productive activities. The demand for labour has been strongly biased towards women with intermediate or high levels of education, however, whereas less qualified women have had serious difficulties in finding good-quality employment.

(Original: Spanish)

[31] For an analysis of this concept, see Weller, 2001, pp. 13-20.

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Inequality in Central America in the 1990s

Juan Diego Trejos and Thomas H. Gindling

This study seeks to answer two questions: how and why has the distribution of labour income changed in Central America? and why does Costa Rica display greater equity? In order to answer these questions, a technique based on the estimation of earnings equations is used. The direction of the changes in inequality is not uniform and depends on the indicator used. Although only Costa Rica and Guatemala show an unambiguous deterioration in the 1990s, there are some phenomena common to all the labour markets studied that have contributed to increasing inequality. The most important of these is the increased dispersion of the number of hours worked, caused by increasing proportions of part-time and overtime workers in all countries. There are two main reasons for the lower relative inequality in Costa Rica: education is distributed more equally, and wage differences between rural and urban areas are smaller. These results suggest that public policies that universalize primary education and provide economic and social infrastructure to rural communities contribute to reducing inequality.

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I

Introduction

After the turbulent 1980s, which were marked by the debt crisis, political instability and armed conflicts, the Central American countries embarked on a set of economic reforms which accompanied and complemented the processes of pacification and restoration of democracy in several of them. These reforms were supported by the international financial organizations and the relevant agencies of the donor countries, especially the United States, and were in line with the so-called Washington Consensus, with different thrusts and degrees of intensity.

These reforms meant abandoning the style of development which had prevailed during the previous three decades and which was characterized by import substitution industrialization within the framework of a subregional common market, although there were big differences between the countries in terms of social and distributive policies and their initial situation in the process. This style of development was very successful in terms of growth in the 1960s, but it began to show signs of becoming unviable during the 1970s and collapsed with the debt crisis of the early 1980s. Costa Rica was the country which initiated the economic reforms first, in the mid-1980s, followed by Guatemala. The other Central American countries only began to make real progress in these efforts from the 1990s on.

The 1990s were marked by the resumption of economic growth in the subregion and the consolidation, albeit slow and incomplete, of a new outward-oriented style of development, the main driving force of which were exports to countries outside the subregion. The aim of the present study is to analyse the distributive changes which took place in that decade of economic reforms and pacification and to seek the reasons for the differences between countries and their evolution. In order to do this, special attention is paid to labour income, which is the main component in family income, and the causes of its distribution and evolution are studied. In conclusion, the main findings are recapitulated and their policy implications are identified.

II

The context: a small but heterogeneous region

Central America is small in size, population and economic capacity. As shown in table 1, it covers an area of 432,000 km^2, which is equivalent to nearly a quarter of the area of Mexico and only a tenth of that of the United States. In the year 2000, its total population was approximately 33 million persons: almost 6% of the population of Latin America. Its total Gross Domestic Product (GDP) in that year was US$ 50 billion at 1995 prices, equivalent to 3% of the Latin American GDP, 11% of the Mexican GDP, and less than 1% of that of the United States. Nicaragua is the largest country in the subregion, while Guatemala has the largest population and generates the largest total GDP. El Salvador is the smallest country, but the most densely populated, while Costa Rica has the smallest population. Half the population of Central America continues to live in rural areas, although in El Salvador and Nicaragua the urban population is beginning to register a slight majority.

The Central American subregion is also very heterogeneous. Using the most traditional indicator of relative economic development —the per capita GDP in 1995 dollars— in the year 2000 Costa Rica had twice the subregional average, with a level of over US$ 3,600. El Salvador and Guatemala were close to the subregional average, with a per capita GDP close to US$ 1,600 per year, while Honduras and Nicaragua had levels less than half the average, with a per capita GDP of less than US$ 700. These differences are maintained, although they become less marked, when the purchasing power parity is used (UNDP, 2002), and as may be seen from figure 1, there have been no substantial changes in the last twenty years.

The heterogeneity in the subregion is also expressed in the relative levels of social development, which in turn is partly the result of social investment which likewise displays major disparities and reflects

TABLE 1

Central America: Socio-economic indicators and their recent evolution, by countries

Indicator	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Subregion
Total population, 2000 (millions)	4.0	6.3	11.4	6.5	5.1	33.2
Proportion of subregional total (%)	12	19	34	20	15	100
Annual growth, 2000/1990	2.8	2.1	2.7	2.9	2.9	2.6
Percentage living in urban areas	50	60	40	53	56	51
Total area (thousands of km^2)	50.9	20.9	108.9	112.1	139.0	431.8
Proportion of subregional total (%)	12	5	25	26	32	100.0
Density (persons/km^2)	79	300	105	58	37	77
GDP in year 2000 (millions of 1995 dollars)	14 774	10 978	17 695	4 595	2 446	50 488
Proportion of subregional total (%)	29	22	35	9	5	100
Annual growth, 2000/1990	4.7	4.3	4.1	3.1	3.5	4.3
Per capita GDP in year 2000 (1995 dollars)	3 672	1 749	1 554	709	482	1 519
Annual growth, 2000/1990	2.1	2.2	1.4	0.3	0.6	1.6
Index of subregional average = 100	242	115	102	47	32	100
Social development in 2000[a]	0.820	0.706	0.631	0.638	0.635	0.670
Position among 173 countries	43	104	120	116	118	112
Trend 1990-2000	Improved	Improved	Improved	Improved	Improved	Improved
Per capita social expenditure, 1999 (1997 dollars)	622	82	107	57	57	147
Fiscal priority (% of public expenditure)	43	27	46	34	37	38
Macroeconomic priority (% of GDP)	17	4	6	7	13	8
Trend 1990-1999	Increased	Increased	Increased	Diminished	Increased	Increased
Poverty around 1999						
Poor persons (% of total)	20	50	61	80	70	59
Trend 1990-1999	Diminished	Diminished	Diminished	Unchanged	Diminished	Diminished
Total income inequality around 1999						
Gini coefficient (persons - per capita income)	0.47	0.52	0.58	0.56	0.58	...
Trend 1990-1999	Increased	Increased	Unchanged	Diminished	Unchanged	...
Labour market around 1999						
Net participation rate, men	75	72	81	80	79	78
Trend 1990-1999	Diminished	Diminished	Diminished	Increased	Increased	...
Net participation rate, women	36	42	42	41	39	40

Source: Prepared by the authors on the basis of data from ECLAC (2001, 2002 and 2003), UNDP (2002) and Trejos (2002).

[a] As measured by the UNDP Human Development Index (HDI).

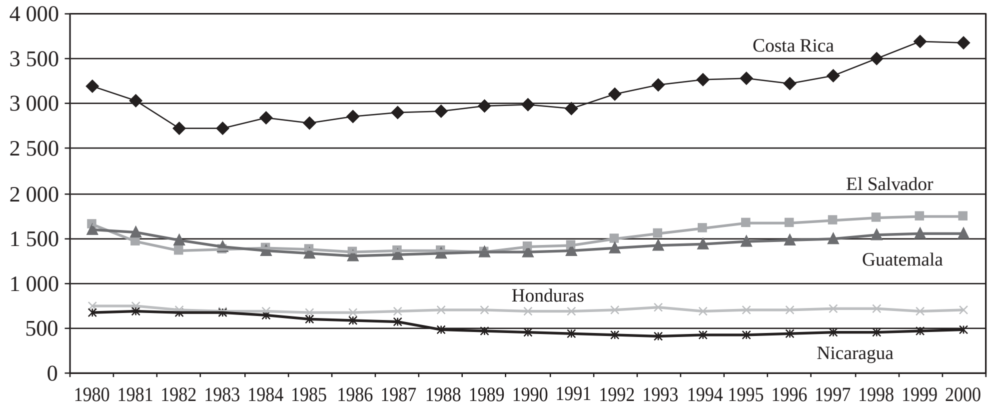
and increases the importance of the level of national income and the dissimilar distributive policies applied. Costa Rica has the highest per capita GDP, the highest level of social development,[1] the least inequality and the lowest poverty count, all of which is based on a long-standing social development policy which has high macroeconomic and fiscal priority; as we will see below, this country shows the synergies that can be obtained by investing in human capital: higher productivity, less inequality and less poverty. El Salvador occupies an intermediate position in terms of poverty, inequality and social development, while the other three countries are among the Latin American countries with the highest levels of poverty and inequality (ECLAC, 2002).[2]

[1] As measured by the Human Development Index (HDI) of the United Nations Development Programme (UNDP).

[2] The subregion is very vulnerable to natural disasters. These phenomena have hit the poorest countries hardest, as in the case of Hurricane Mitch in 1998. Several Central American countries have also suffered from serious armed conflicts, fostered by the big inequalities which existed, which further increased the gaps between them.

FIGURE 1

Central America: Evolution of real per capita gross domestic product
(Per capita GDP in 1995 dollars)



Source: ECLAC (2003).

The heterogeneity of the subregion is also observed in the labour market. Labour force participation rates are higher in the poorer countries, and have increased in all the countries because of the growing incorporation of women. Even so, except in El Salvador female participation continues to be only half that of men. The incidence of open unemployment ranges from 2% for Guatemala to 12% for Nicaragua. Only Costa Rica registered a slight increase in unemployment, which remained unchanged in the rest of the countries, except Nicaragua, where it went down to almost half of the high rate registered at the beginning of the decade. This diversity was also observed in the composition and characteristics of the employment generated. Costa Rica, and to a lesser extent El Salvador, had a more formalized labour market, with less weight of agricultural and low-productivity activities (traditional agriculture and informal sector), a higher proportion of wage-earning jobs, and a somewhat better qualified labour force. In the subregion as a whole, however, one-third of employment continues to be linked with agricultural activities, half of the employed persons are in low-productivity activities, 42% work as self-employed workers or unpaid family members, and half of all workers have not completed the first six grades of primary education.

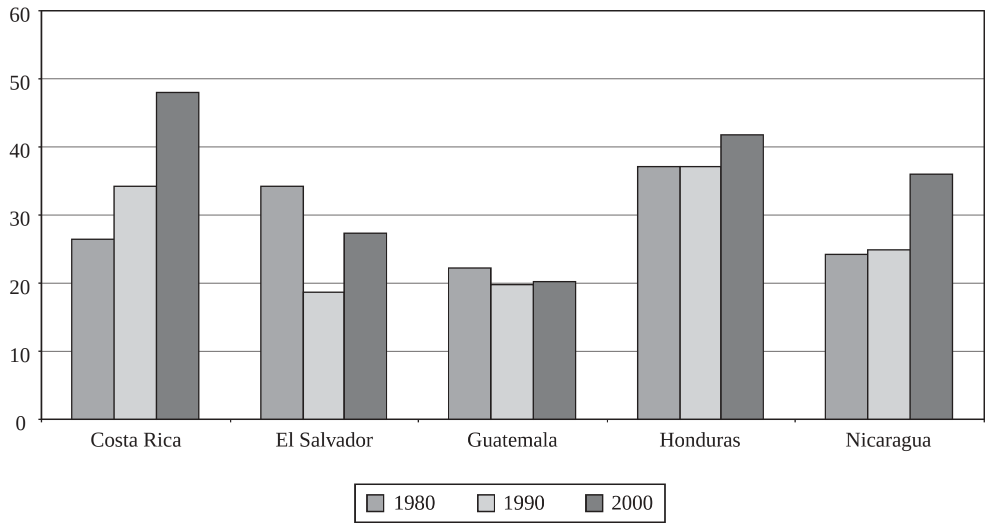
After a generalized contraction in the per capita GDP in the 1980s, the subregion grew quite steadily in the 1990s at an average annual rate of 4.2% (1.6% per capita), with increases in real social investment and improvements in the social development indicators (table 1 and figure 1). Even so, Guatemala, Honduras and Nicaragua have not yet managed to recover the level of GDP per capita already attained 20 years before; the countries which improved least in this respect were the same ones which were in the worst situation at the beginning of the 1990s, thus indicating a widening of internal gaps and heterogeneity.

Although all the countries of the subregion have undertaken economic reforms, there have been differences in the time when they applied them, their characteristics and their more general results. Costa Rica was the country which began economic reforms earliest (1985/1986), followed by Guatemala (1986/1987), Honduras (1990), Nicaragua (1993) and El Salvador (1993/1994). All initiated processes of greater trade openness, financial liberalization and fiscal reforms. Except for Costa Rica, all have progressed with major privatization programmes, but none have made significant reforms in labour legislation.[3] The aim of the reforms applied has been to reorient production from the domestic or subregional market towards the rest of the world. Figure 2 shows that in the 1980s exports only increased significantly (as a percentage of GDP) in Costa Rica, which was the first country in the subregion to initiate reforms. In the 1990s, however, the importance of exports also began to increase in the other countries of the subregion, especially El Salvador and Nicaragua, in connection with maquila activities.

[3] For measures of the magnitude of the reforms in Latin America, see Lora (2001) and Morley, Machado and Pettinato (1999).

FIGURE 2

Central America: Exports as a percentage of GDP



Source: ECLAC (2003).

III

The sources of labour income inequality

In order to study the causes of the differences in inequality between countries and over time, the distribution of labour income must be studied.[4] This is done for three reasons: first, because whereas the household surveys used measure total family income with differences in coverage as regards the items measured in each country and year, labour income is measured in a more homogeneous manner in each country and year and is of better quality.

Second, generally speaking, labour income contributes a very high proportion of total income and reflects a similarly high proportion of inequality (ECLAC, 2002). Székely and Hilgert (1999a), for example, calculate that labour income is responsible for a high proportion of total income inequality: 83% in Costa Rica (1997), 76% in El Salvador (1995) and 73% in Guatemala (1998). The inequality associated with labour income may also explain a high proportion of the changes in total income inequality. According to Székely and Hilgert (1999b), the changes associated with labour income can explain 100% or more of the changes in total income inequality in Costa Rica (1989-1997), El Salvador (1995-1998) and Honduras (1989-1998).

Finally, economic theory, and especially the progress made in econometric techniques, makes it possible to analyse more accurately the causes of changes in the distribution of labour income. Thus, in order to examine inequality in such income, use may be made of the theories on labour economics (such as the theory of human capital) and econometric techniques such as earnings equations.

[4] In order to obtain the fullest possible picture of the evolution of labour income distribution in the 1990s, we took into account the available estimates closest to the beginning and end of the decade for each country. The surveys used were: for Costa Rica, the Multi-purpose Surveys for 1990 and 1999; for El Salvador, the Multi-purpose Surveys for 1995 and 1999; for Guatemala, the National Socio-demographic Survey for 1989 and the Income and Expenditure Survey for 1998; for Honduras, the Permanent Multi-purpose Household Surveys for 1990 and 1999; and for Nicaragua, the National Household Surveys on Standards of Living for 1993 and 1998. These surveys were carried out in the months of July (Costa Rica), September (Honduras), February to June (Nicaragua 1993), April to September (Nicaragua, 1998), and the entire year (El Salvador and Guatemala).

1. Labour income inequality at the end of the 1990s

In order to analyse labour income inequality, the population of the countries is placed on a uniform basis by considering only employed persons aged 15 or more who report their income and hours worked. This means excluding those under 15 in all countries, as well as unpaid family members, who form an important group in Guatemala, Honduras, Nicaragua and, to a lesser extent, El Salvador. Workers who do not report income are also excluded. This latter point is important in Costa Rica, especially in the case of self-employed workers, who are probably under-represented in this analysis.[5]

Table 2 summarizes three indicators of relative inequality for employed persons aged 15 or more with known incomes, as well as sub-groups of these persons. The Gini coefficient is more sensitive to changes in the middle part of the distribution, while the Theil index provides information on changes in the upper part of the distribution and the variance of the income logarithm is more sensitive to what happens in the lower part of the distribution. Three groups of countries can be identified in the table. The first group corresponds to countries with low levels of inequality and includes Costa Rica. This country has the least unequal distribution, whatever the measure of inequality used or the sub-group of workers analysed.[6] The second group corresponds to countries with moderate levels of inequality and includes El Salvador. El Salvador has a higher level of inequality than Costa Rica, but lower than the other countries of the subregion. The last group corresponds to countries with high levels of inequality, including Guatemala, Honduras and Nicaragua. Guatemala appears as the country with the highest level of inequality when the Gini coefficient or the variance of the income logarithm are used, while Nicaragua shows the highest level when the Theil index is used.

It should be noted that when labour income inequality is analysed, the results depend on those who

TABLE 2

Central America: Labour income inequality indicators, by countries, at the end of the 1990s

(For employed persons aged 15 or more with known income and hours worked)

Measure of inequality and group of workers	Costa Rica 1999	El Salvador 1999	Guatemala 1998	Honduras 1999	Nicaragua 1998
All workers					
Gini coefficient	0.436	0.469	0.577	0.543	0.562
Theil index	0.347	0.412	0.701	0.583	0.705
Variance of income logarithm	0.775	0.779	1.436	1.203	1.039
Wage-earning workers[a]					
Gini coefficient	0.406	0.433	0.502	0.465	0.494
Theil index	0.306	0.338	0.502	0.427	0.528
Variance of income logarithm	0.620	0.644	0.964	0.774	0.669
Wage-earning workers[a], except domestic service					
Gini coefficient	0.388	0.419	0.499	0.450	0.486
Theil index	0.282	0.318	0.499	0.403	0.506
Variance of income logarithm	0.529	0.599	0.927	0.705	0.643
Urban area workers					
Gini coefficient	0.435	0.461	0.560	0.495	0.546
Theil index	0.337	0.402	0.630	0.484	0.647
Variance of income logarithm	0.774	0.777	1.308	0.926	0.949

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

[a] Excludes self-employed workers.

[5] As failure to report income and unpaid family labour are concentrated in agricultural activities and rural areas, these fields are probably also under-represented.

[6] These sub-groups are shown in order to see whether the different proportions of wage-earners and the different weights of rural areas in the countries studied may be influencing the results.

are working. In other words, they depend on the unemployment rate and the persons' decision whether or not to participate in the labour force. As already noted, in most countries there were no significant increases in unemployment in the period studied, and only Nicaragua registers a significant decline in unemployment that may be associated with the evolution of inequality considered below. Male participation rates did not register significant changes in that period, but female participation increased in all the countries. As we shall see below, this helps to explain the increase in the dispersion of hours worked and its impact on the increase in inequality.

2. The sources of inequality: Fields' decomposition

In order to examine the sources of labour income inequality, we used the techniques developed by Fields[7] and extended by Yun (2002), which makes it possible to decompose monthly earnings inequality into components attributable to changes associated with the personal and job characteristics of the worker. This decomposition technique is based on the estimation of traditional semi-logarithmic earnings equations:

$$lnY_{it} = \Sigma_j\, B_{tj}{*}X_{itj} + E_{it} = \Sigma_j\, B_{tj}{*}Z_{itj} \qquad [1]$$

where lnY_{it} is the logarithm of monthly labour income and X_{itj} are the variables j associated with person i in year t which can affect earnings. The coefficients B_{tj} measure the "prices" or wage premiums for each variable X. Thus, for example, the coefficient of years of schooling measures the increased wage that an employer must pay for a worker with one more year's schooling. The residual E_{it} is the part of the variation in earnings between workers which cannot be explained by the variation between the variables included in the equation.

The derivation of Fields' decomposition can be illustrated by using the variance of the logarithm of income as a measure of dispersion. In the light of the earnings equation, the variance of the logarithm of earnings can be written as follows:

$$\begin{aligned} Var(lnY_{it}) &= Cov(lnY_{it},\, lnY_{it}) = \\ &Cov(\Sigma_j\, B_{tj}{*}Z_{itj},\, lnY_{it}) = \\ &\Sigma_j\, Cov\,(B_{tj}{*}Z_{itj},\, lnY_{it}) \end{aligned} \qquad [2]$$

Dividing equation [2] by the variance of the logarithm of earnings, we have:

$$1 = \frac{\Sigma_j\, Cov(B_{tj}{*}Z_{itj}, lnY_{it})}{Var(lnY_{it})} = \Sigma_j\, S_{jt} \qquad [3]$$

The S_{jt} measure the proportion of the variance of the logarithm of income which is explained by each variable j in country or year t. Shorrocks (1982) has shown that if income (or the logarithm of income) can be described as the sum of different components, then the S_{jt} measure the contribution of each variable j to inequality for a wide range of measures of inequality (not only variance), including the Gini coefficient and the Theil index.[8]

Although the S_{jt} can be used to measure the contribution of each variable j to the level of inequality, in order to measure the impact of each variable on the differences in inequality between countries or over time it is necessary to use something more than the S_{jt}. This is because the magnitude of the differences in inequality between countries or over time (and sometimes even the direction of change) will depend on the measure of inequality used. Thus, in order to measure the contribution of each variable to the change in inequality, it is necessary to multiply the S_{jt} in each period or country t by the corresponding measure of inequality. Specifically, if $I(t)$ is the measure of inequality iu period or country t, the change in inequality between periods or countries 1 and 2 can be written as follows:

$$I(2) - I(1) = \Sigma_j\, \{I(2){*}S_{j2} - I(1){*}S_{j1}\} \qquad [4]$$

Equation [4] can be used to measure the contribution of each variable to the change in inequality between periods or countries.

The variables used to represent the characteristics of the labour market are: the logarithm of hours worked, and a set of binary variables representing the contribution or wage premium of working in the public sector (institutional sector), in formal or large enterprises (size of establishment) and in the different branches of industry (industry), where the mines and quarries branch is the control variable.[9] The

[7] See Fields (2003) and Fields and Gyeongjoon (2000).

[8] The decomposition only works is the variables are fully linearizable. This excludes the possibility of interactions among the variables on the right hand side of the equation.

[9] As the countries use different classifications of industrial branches, the information has been homogenized to correspond to the nine main divisions of the International Standard Industrial Classification of all economic activities (ISIC, rev. 2).

TABLE 3

Central America: Fields' decomposition of labour income inequality, by countries, at the end of the 1990s
(For employed persons aged 15 or more with known income and hours worked)

Measure of inequality and group of workers	Costa Rica 1999	El Salvador 1999	Guatemala 1998	Honduras 1999	Nicaragua 1998
Proportion of inequality explained by each characteristic (S_j)					
All characteristics	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
Education (years)	0.19	0.25	0.19	0.21	0.18
Sex (men = 1)	0.03	0.02	0.05	0.03	0.01
Zone (urban = 1)	0.01	0.03	0.03	0.05	0.02
Hours worked (log)	0.18	0.06	0.11	0.06	0.01
Institutional sector (public = 1)	0.02	0.05	0.00	0.01	-0.01
Size of establishment (6 or more = 1)	0.06	0.06	0.03	0.07	0.03
Experience (age-education-6)	0.00	0.00	0.00	-0.01	0.00
Industry (set of binary variables)	0.02	0.03	0.02	0.03	0.08
Residual	0.50	0.51	0.56	0.55	0.68

Source: Prepared by the authors on the basis of household surveys of the respective countries and years.

characteristics of persons include variables associated with human capital, such as years of formal education and years of potential experience, as well as two binary variables which reflect the wage premium received by men over women (sex) and residence in urban areas (zone).[10]

Table 3 shows the S_{jt} [equation 3], or the proportion of earnings inequality that can be explained by each variable associated with labour market and personal characteristics in each country.[11] The results show that in all the countries education is the main source of measured inequality, since it explains between 18% and 25% of total inequality. The differences in hours worked between different workers make dissimilar contributions in the different countries, although in general they tend to occupy second place as an explanatory factor. Costa Rica is the country where these differences have the greatest weight (18%), followed by Guatemala, where they are responsible for 11% of total inequality, about half the level of Costa Rica; in Honduras (6%), El Salvador (6%) and in Nicaragua they play only a marginal role (1%).

The differences between large (formal) and small (informal) enterprises are responsible for between 7% and 6% of total inequality in Honduras, Costa Rica and El Salvador. The differences between industries explain 8% of such inequality in Honduras. Individually, no other characteristic manages to explain even 5% of total inequality in any of the countries. This means that the inequality associated with all measured characteristics explains a maximum of 50% of total inequality (Costa Rica) and a minimum of 32% (Nicaragua), with the remainder being due to the residual of the earnings equation. The proportion of inequality due to this residual is the result of inequality between persons with the same education, sex, area of residence, hours worked, institutional sector, size of establishment, experience and industrial branch.

[10] The decomposition assumes a linear relation between years of education and logarithm of income. As Contreras (2003) notes, in Chile, as well as other countries, there is evidence that this relation may not be so. In order to take account of the possibility that the relation may not be linear, equations and decompositions were estimated using four binary variables for education (full primary, incomplete secondary, full secondary and higher education). The results obtained with this specification are very similar to the results presented in the body of this paper and do not alter the conclusions on the influence of educational distribution and performance on the degree and evolution of inequality and on the differences between countries. The linear specification originally proposed has therefore been maintained, and the basic results are presented in appendix A.

[11] For the earnings equations, see appendix A.

IV

The sources of changes in inequality in the 1990s

Analysis of the changes in inequality during the 1990s is a difficult matter, because household surveys became a generalized practice only at the end of that period. In the present section, the survey closest to the beginning of the 1990s available in each country is used in order to gain an idea of the evolution of inequality during the decade. Thus, the surveys used were the 1989 survey for Guatemala, that of 1990 for Costa Rica and Honduras, that of 1993 for Nicaragua and that of 1995 for El Salvador. The data on the early years of the decade likewise correspond to years close to the beginning of the structural adjustment programmes.

1. Changes in inequality of labour income distribution

Table 4 shows the inequality indicators for each Central American country, using data for the early years of the 1990s, and compares them with the indicators for the end of the decade already analysed in previous sections.

The data in table 4 indicate that inequality in the distribution of labour income unambiguously increased only in Costa Rica and Guatemala, since only in these countries did all three indicators of inequality increase. In this group, Guatemala displayed the biggest increase in inequality. In Nicaragua and Honduras inequality either increased or decreased, depending on the indicator used (figure 3). In Honduras, the variance of the logarithm of income increased, while the Gini coefficient and Theil index went down.[12] The variance

[12] This result is not due to the existence outliers in the data, because in Honduras the figures remained unchanged even when the poorest 1% of the distribution were eliminated in each year. It should be noted that the samples amounted to more than 1% of the population in Costa Rica and El Salvador, but were smaller for the other countries (Székely and Hilgert, 1999a). In the view of those authors, the smaller samples in Honduras, Guatemala and Nicaragua are reflected in greater statistical errors.

TABLE 4

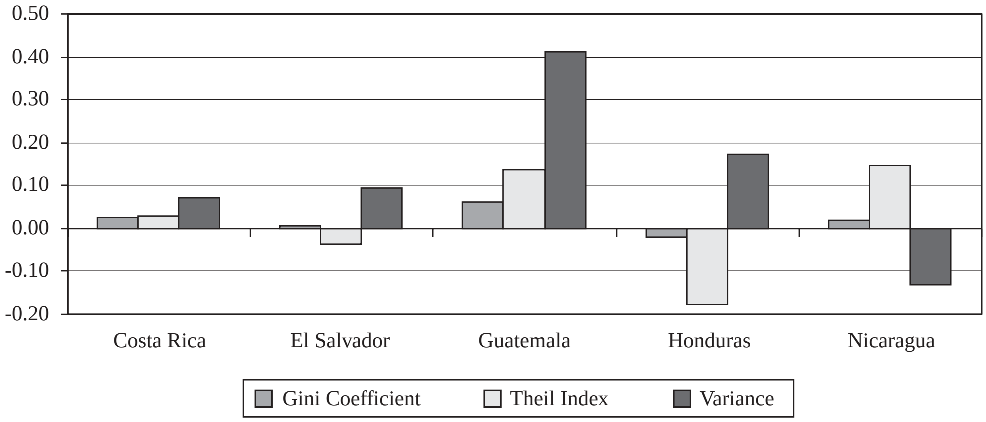
Central America: Evolution of labour income inequality, by countries, in the 1990s
(For employed persons aged 15 or more and reporting income, ordered by their labour income)

Indicator	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
Year of survey					
Around 1990	1990	1995	1989	1990	1993
Around 1999	1999	1999	1998	1999	1998
Gini coefficient					
Around 1990	0.410	0.462	0.517	0.562	0.542
Around 1999	0.436	0.469	0.577	0.543	0.562
Variation	0.026	0.007	0.060	–0.019	0.021
Theil index					
Around 1990	0.319	0.447	0.563	0.759	0.560
Around 1999	0.347	0.412	0.701	0.583	0.705
Variation	0.027	–0.035	0.139	–0.176	0.145
Variance of income logarithm					
Around 1990	0.703	0.686	1.025	1.029	1.171
Around 1999	0.775	0.779	1.436	1.203	1.039
Variation	0.072	0.093	0.411	0.174	–0.132

Source: Prepared by the authors on the basis of household surveys of the respective countries and years.

FIGURE 3

Central America: Variation in labour income inequality indicators in the 1990s



Source: Table 4.

in the logarithm of labour income, which is more sensitive to changes in the lower part of the distribution, went down in Nicaragua, while there were increases in the Gini coefficient, which is more sensitive to changes in the middle part of the distribution, and the Theil index, which is more sensitive to changes in the upper part of the distribution. This suggests that the labour income of workers at the bottom of the distribution increased more or went down less than that of workers in the middle of the distribution, while the earnings of the middle group did not increase faster than those of workers in the upper part of the distribution. The marked reduction in unemployment, associated with greater employment opportunities for less skilled workers, may be the reason for this evolution. Another possibility is that there is a problem with the data for Nicaragua; especially, that there are outliers in the data at the lower part of the distribution which may be responsible for the decline in the variance of the logarithm of income. In order to test this possibility, the poorest 1% were eliminated and the change in the variance of the logarithm was re-estimated. When this was done, the variance of the logarithm of labour income in Nicaragua increased between 1993 and 1998, which suggests that the decline observed in the variance of the logarithm of income may indeed be due to problems with the data.

The evolution thus described does not alter the order of the countries in the three inequality groups mentioned. Costa Rica remains the country with the lowest inequality and El Salvador stays in the intermediate group. Guatemala, Honduras and Nicaragua continue to be the countries with the highest levels of inequality in the 1990s, although their order within that group varies according to the year and the indicator used. When the Gini coefficient is used, Honduras was the most unequal country around 1990, while Guatemala was the most unequal at the end of the decade. Using the Theil index, Honduras was the most unequal in 1990, while Nicaragua was the most unequal at the end of the decade. Finally, using the variance of the logarithm of income, Nicaragua was the most unequal around 1990, while that position was occupied by Guatemala at the end of the decade.

In short, the data do not display a uniform pattern of evolution of labour income distribution in the 1990s; that pattern depends on the indicator used. Only Costa Rica and Guatemala show a clear deterioration of income inequality. Beneath these overall changes there are features which are common to the labour markets of all the countries, however. These phenomena can be identified by analysing the sources of the changes in labour income inequality.

2. Sources of labour income inequality at the beginning of the 1990s

Table 5 is a replica of table 3, using data for around 1990. At the beginning of the 1990s, education continued to be the variable which most influenced labour income inequality. Only in Costa Rica did the

TABLE 5

Central America: Fields' decomposition of labour income inequality, by countries, at the beginning of the 1990s
(For employed persons aged 15 or more with known income and hours worked)

Variables	Costa Rica 1990	El Salvador 1995	Guatemala 1989	Honduras 1990	Nicaragua 1993
Proportion of inequality explained by each characteristic (S_j)					
All characteristics	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
Education (years)	0.19	0.19	0.21	0.24	0.18
Sex (man = 1)	0.02	0.03	0.01	0.04	0.00
Zone (urban = 1)	0.01	0.05	0.03	0.04	0.06
Hours worked (log)	0.13	0.06	0.03	0.04	0.02
Institutional sector (public = 1)	0.04	0.03	0.02	0.02	–0.01
Size of establishment (6 or more = 1)	0.06	0.04	0.09	0.07	0.06
Experience (age-education-6)	0.01	0.00	–0.02	–0.01	–0.01
Industry (set of binary variables per branch)	0.03	0.06	0.09	0.01	0.09
Residual	0.52	0.54	0.56	0.55	0.61

Source: Prepared by the authors on the basis of household surveys of the respective countries and years.

number of hours worked continue to be the second most important source of inequality; in Guatemala and Nicaragua the wage gaps between industries are more significant on the whole, while in Honduras the wage gap by size of enterprise was the most important. This latter variable is also important as a factor of inequality in the rest of the countries of the subregion, while the weight of the residual in each country, or the part of inequality not explained by the incorporated variables, was similar both at the beginning and the end of the decade.

As already noted, in order to measure the contribution of each variable to the overall change in inequality, the S_{ij} for each period or country t must be multiplied by the corresponding measure of inequality [equation 4]. Table 6 shows the contribution of each variable to the change in one of the measures of inequality: the variance of the logarithm of labour income.[13] As shown in the table, in all the countries except Nicaragua three phenomena furthered the increase in labour income inequality in the 1990s: the changes related with education, hours worked and the residual. In Guatemala, the changes related with the worker's sex and experience also contribute to the increased inequality. In contrast, the changes related with size of enterprise and the industry in which the worker is employed promote a reduction in inequality in Guatemala and Nicaragua. The other variables have only a slight impact on changes in inequality.

3. Yun's decomposition: distinguishing the effects of differences in "prices" and the distribution of personal characteristics

Each variable can contribute to the differences in total inequality between countries or over time in two ways: because the "prices" (coefficients B_j) of those characteristics differ between countries or over time, or because the dispersion of those characteristics (changes in the dispersion of Z_j) differ between countries or over time. Thus, for example, table 6 shows that in the 1990s the changes related with education helped to accentuate inequality in most of the Central American countries. But this might have been because the price of education (the coefficient on the years of education variable) rose, or because inequality in the distribution of levels of education among workers increased. It would therefore be useful to be able to distinguish between changes in inequality caused by variations in the price coefficients and changes due to variations in the distribution of each Z_j. Yun (2002) derives an extension of Fields' decomposition for the variance of the logarithm of earnings which makes such separation possible. Following the logic of Juhn, Murphy and Pierce (1993), Yun (2002) constructed an "auxiliary"

[13] It should be recalled that when the variance of the logarithm of labour income is used as an indicator of inequality, this increases in all the countries except Nicaragua.

TABLE 6

Central America: Contribution of each variable to changes in the variance of logarithm *(S_j * VarLogY)*

(For employed persons aged 15 or more with known income and hours worked)

Variables	Costa Rica 1990/1999	El Salvador 1995/1999	Guatemala 1989/1998	Honduras 1990/1999	Nicaragua 1993/1998
Change in the variance of the logarithm	**0.08**	**0.10**	**0.41**	**0.17**	**-0.13**
Education (years)	0.02	0.06	0.07	0.01	–0.02
Sex (men = 1)	0.00	–0.01	0.06	0.00	0.01
Zone (urban = 1)	0.00	–0.01	0.02	0.02	–0.04
Hours worked (log)	0.05	0.01	0.13	0.04	–0.02
Institutional sector (public = 1)	–0.01	0.02	–0.01	–0.01	0.00
Size of establishment (6 or more = 1)	0.00	0.02	–0.04	0.01	–0.04
Experience (age-education-6)	0.00	0.00	0.03	–0.01	0.01
Industry (set of binary variables)	0.00	–0.02	–0.06	0.02	–0.03
Residual	0.03	0.02	0.23	0.10	–0.02

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

distribution, using the *B*s for period or country 2 and the *Z*s of period or country 1:

$$lnY_{i,aux} = \Sigma_j B_{2j}*X_{i1j} + E_{i1} = \Sigma_j B_{2j}*Z_{i1j} \qquad [5]$$

The change in the variance of the earnings logarithm may be written as:

$$Var(lnY_2) - Var(lnY_1) = [Var(lnY_{aux}) - Var(lnY_1)] + [Var(lnY_2) - Var(lnY_{aux})] = \Sigma_j [S_{jaux*}Var(lnY_{aux}) - S_{j1*}Var(lnY_1)] + [S_{j2*}Var(lnY_2) - S_{jaux*}Var(lnY_{aux})] \qquad [6]$$

$$= \Sigma_j [B_{2j}*DE(Z_{i1j})*Corr(Z_{i1j}, lnY_{aux})*DE(lnY_{aux}) - B_{1j}*DE(Z_{i1j})*Corr(Z_{i1j}, lnY_{a1})*DE(lnY_{a1})] + \Sigma_j [B_{2j}*DE(Z_{i2j})*Corr(Z_{i2j}, lnY_2)*DE(lnY_2) - B_{2j}*DE(Z_{i1j})*Corr(Z_{i1j}, lnY_{aux})*DE(lnY_{aux})] \qquad [7]$$

where the first line of equation [7] shows the contribution to the difference (between periods or countries) in the variance of the income logarithm by changes or differences in each of the coefficients, while the second line shows the contribution of the changes or differences in the variance of each Z_j.[14]

Table 7 and figure 4 show Yun's decomposition of the changes in labour income inequality (measured with the variance of the logarithm of labour income) in each Central American country during the 1990s.[15] A first result worthy of note is that in all the countries, except Nicaragua, an increase in the inequality of number of hours worked among workers (distribution effect) promotes an increase in inequality of earnings. The effect of the number of hours worked is greater in Guatemala and Costa Rica than in the other Central American countries.

The inequality in the number of hours worked increased because the proportion of workers with a full working day went down in each country, while the proportion of those with part-time and overtime employment increased[16] (table 8). The decline in the proportion of workers with a full working day was partly due to the increase in the participation of women in the labour force, because women work part-time more frequently than men. The increase in inequality of hours worked was also partly due to the increase in the proportion of workers employed in small enterprises, who are more likely to work part-time or overtime. The inequality in hours worked was also accentuated by the fact that there was a decline in the

[14] A possible problem of the earnings equations is selection bias, the traditional correction for which is Heckman's technique. The earnings equations have not been estimated with Heckman's correction, however, because it is not possible to integrate this technique with the decomposition proposed by Yun, which was used here.

[15] For an application of these techniques to Costa Rica, with a longer time horizon, see Gindling and Trejos (2004).

[16] By "overtime" we mean a working day longer than the legal or normal day, which in Central America corresponds to a working week of up to 48 hours. Thus, "overtime" corresponds to a working week of 49 hours or more. Part-time workers are those who work less than 40 hours a week.

TABLE 7

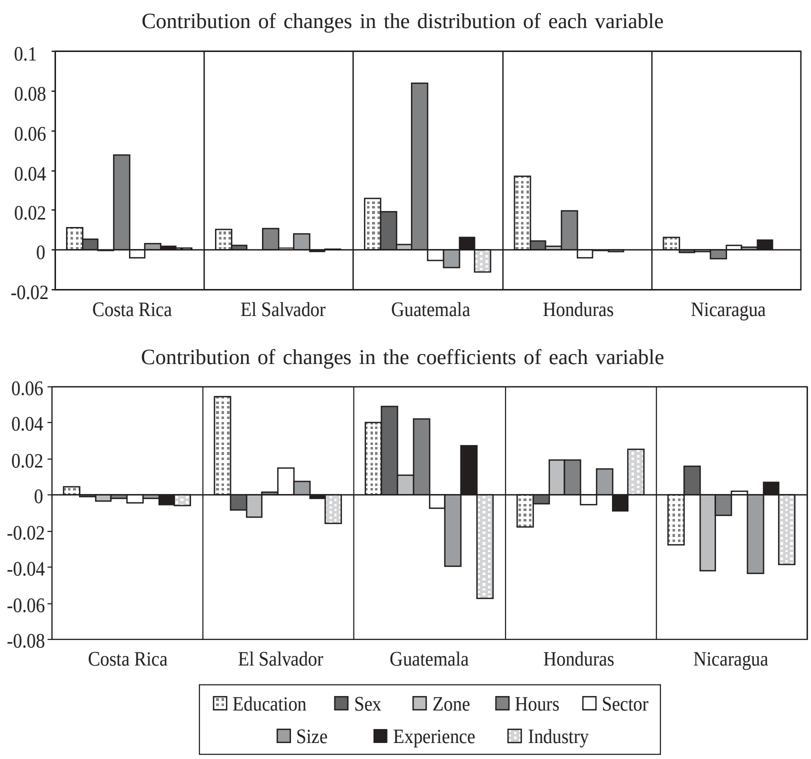
Central America: Yun's decomposition of the differences in labour income inequality
(For employed persons aged 15 or more with known income and hours worked)

Variables	Costa Rica 1990/1999	El Salvador 1995/1999	Guatemala 1989/1998	Honduras 1990/1999	Nicaragua 1993/1998
Contribution of changes in the coefficients (or "prices") of each variable					
Total price effect	**–0.02**	**0.04**	**0.07**	**0.04**	**–0.14**
Education (years)	0.00	0.05	0.04	–0.02	–0.03
Sex (men = 1)	0.00	–0.01	0.05	0.00	0.02
Zone (urban = 1)	0.00	–0.01	0.01	0.02	–0.04
Hours worked (log)	0.00	0.00	0.04	0.02	–0.01
Institutional sector (public = 1)	0.00	0.02	–0.01	–0.01	0.00
Size of establishment (6 or more = 1)	0.00	0.01	–0.04	0.01	–0.04
Experience (age-education-6)	–0.01	0.00	0.03	–0.01	0.01
Industry (set of binary variables)	–0.01	–0.02	–0.06	0.03	–0.04
Contribution of changes in the distribution of each variable					
Total distribution effect	**0.07**	**0.03**	**0.11**	**0.06**	**0.02**
Education (years)	0.01	0.01	0.03	0.04	0.01
Sex (men = 1)	0.01	0.00	0.02	0.00	0.00
Zone (urban = 1)	0.00	0.00	0.00	0.00	0.00
Hours worked (log)	0.05	0.01	0.08	0.02	0.00
Institutional sector (public = 1)	0.00	0.00	–0.01	0.00	0.00
Size of establishment (6 or more = 1)	0.00	0.01	–0.01	0.00	0.00
Experience (age-education-6)	0.00	0.00	0.01	0.00	0.01
Industry (set of binary variables)	0.00	0.00	–0.01	0.00	0.01

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

FIGURE 4

Central America: Yun's decomposition of the differences in labour income inequality



Source: Table 7.

TABLE 8

Central America: Changes in the proportions of all workers, by sex, sector and type of working day
(For employed persons aged 15 or more with known income and hours worked)

Change in the proportion of workers	Costa Rica 1990/1999	El Salvador 1995/1999	Guatemala 1989/1998	Honduras 1990/1999	Nicaragua 1993/1998
A. By type of working day					
Part-time (39 hours or less)	1.89	4.97	15.95	5.72	0.24
Full-time (40-48 hours)	–6.75	–5.67	–16.47	–7.28	–3.25
Overtime (49 hours or more)	4.86	0.70	0.51	1.56	3.01
B. By sex					
Men	–3.26	–4.84	–10.06	–7.52	2.23
Women	3.27	4.84	10.06	7.52	–2.22
C. By sector					
Small private firms	5.46	3.40	4.20	–0.32	–0.17
Large private firms	–0.40	–2.86	–0.98	2.29	7.82
Public sector	–5.02	–0.54	–3.23	–1.94	–7.66
D. By sex and type of working day					
Men, part-time	–0.58	2.78	5.65	1.71	0.44
Women, part-time	2.48	2.18	10.30	4.01	–0.20
Men, overtime	3.29	–2.24	0.01	0.08	3.56
Women, overtime	1.57	2.94	0.50	1.49	–0.54
E. By sector and type of working day					
Small private firms, part-time	2.48	3.90	13.80	4.74	–1.95
Large private firms, part-time	0.11	0.98	1.94	0.66	3.47
Public sector, part-time	–0.69	0.09	0.22	0.32	–1.29
Small private firms, overtime	3.71	0.99	–1.83	–1.42	1.77
Large private firms, overtime	1.46	–0.01	2.58	2.92	3.60
Public sector, overtime	–0.30	–0.28	–0.24	0.07	–2.36

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

proportion of workers in the public sector, where full-time workers predominate. This decline was a result of the economic reforms adopted in the subregion. In addition, the changes in the number of hours worked in each sector, sex or industry also helped to increase the proportion of workers with part-time or overtime jobs.

The increase in overtime jobs was mainly among workers in the larger private firms. In most of the countries the proportion of workers with overtime went down in the public sector, and in some countries in small enterprises too. The greater proportion of workers with overtime in large private firms may be the result of the economic reforms, which made it necessary to improve the productivity of the workers and the competitiveness of those firms.

At the other extreme, the increase in part-time workers was mainly in small enterprises (the informal sector). In the two countries where inequality of hours worked increased most —Costa Rica and Guatemala— there was a considerable increase in the proportion of women who work in small enterprises. This increase in the proportion of women workers and in the informalization of the labour force in Central America is described in Trejos (2002).[17]

Other results are also worthy of note in this respect (table 7): in all the Central American countries inequality in the distribution of education among workers promoted greater inequality in the distribution

[17] The increase in the proportion of part-time workers took place mainly in the industries producing non-tradeable goods. In all the countries, the industrial branches registering the biggest increases in part-time workers were commerce, construction and services. Only in Nicaragua was there an increase in the proportion of such workers in industries producing tradeable goods: manufacturing and agriculture. This latter feature means that the increase in the proportion of part-time workers was not due to subcontracting by large export firms to small enterprises or household workers.

of labour income. Furthermore, in Guatemala and Nicaragua there was an increase in the wage gap between men and women, which favoured an increase in inequality (in Guatemala) or offset part of the reduction in such inequality (in Nicaragua). In Costa Rica, El Salvador and Honduras, the wage gap between women and men remained generally unchanged between 1990 and 1999.

During the period in question, the wage gap between workers in large and small enterprises was narrowed in Guatemala and Nicaragua, did not change in Costa Rica, and widened in Honduras and El Salvador. This means that while differences between wages in large and small enterprises was an important source of inequality in Guatemala and Nicaragua at the beginning of the 1990s, by the end of the decade this was no longer so.

Finally, except in Honduras, wage differences between industries went down in the 1990s, thus helping to reduce inequality. Furthermore, in all the countries of the subregion the changes in the composition of workers in the different industries only had a very slight effect on the changes observed in the distribution of labour income. It has been suggested that trade liberalization will affect wage inequality though its effect on the composition of industrial employment and changes in the wage differentials between industries.[18] These results suggest that this effect does not go very far towards explaining the changes in Central American labour income inequality in the 1990s.

Furthermore, these results are in keeping with the findings of other studies,[19] which, using microsimulation methodology, have found that in most of the countries the economic reforms have been accompanied by greater labour income inequality, because of the insufficient creation of modern-sector jobs, which causes an increase in informal sector employment (it increases the dispersion of hours worked) and an increase in the relative wages of the most highly skilled workers (increases the premium for years of education).

V

Sources of differences in labour income inequality among the Central American countries

In this section, we will compare the sources of labour income inequality in Costa Rica with the corresponding sources in the other Central American countries. As Costa Rica has the relatively most equal distribution in the region, this country is a suitable point of reference. Table 9 shows the results of Yun's decomposition of the difference between Costa Rica and the other countries of the subregion in terms of inequality, as measured by the variance of the logarithm of labour income. The first block in the table shows the contribution of each variable to the observed difference, while the other two blocks show the separate contributions of the prices and the distribution of each variable to the difference in the indicator of inequality between Costa Rica and each of the other Central American countries. In this table, a negative value indicates that that variable or phenomenon helps to reduce the inequality in that country compared with Costa Rica, while a positive value means that that variable or phenomenon helps to increase the inequality in that country compared with Costa Rica.

There are three important elements which explain why earnings are distributed more equitably in Costa Rica than in any other Central American country: education, area of residence, and wage gaps by industry.

1. Education

The differences in the level of education among workers cause less inequality in Costa Rica than in the other Central American countries for two reasons. First, education is distributed better in Costa Rica. This may

[18] See Autor and Katz (1999), Katz and Murphy (1992), Koujianou and Pavcnik (2001) and Robertson (1999).
[19] Such as Ganuza, Paes de Barros and others (2001).

TABLE 9

Central America: Yun's decomposition of the differences in labour income inequality compared with Costa Rica, 1999
(For employed persons aged 15 or more with known income and hours worked)

Variables	El Salvador 1999	Guatemala 1998	Honduras 1999	Nicaragua 1998
Contribution of each variable to the differences in Var Ln y				
Difference in the variance of the logarithm of labour income	**0.01**	**0.66**	**0.43**	**0.27**
Explained by the variables used	**–0.01**	**0.25**	**0.15**	**–0.05**
Education (years)	0.04	0.13	0.10	0.04
Sex (men = 1)	–0.01	0.05	0.02	–0.01
Zone (urban = 1)	0.02	0.04	0.06	0.02
Hours worked (log)	–0.09	0.02	–0.06	–0.13
Institutional sector (public = 1)	0.00	–0.01	–0.01	–0.02
Size of establishment (6 or more = 1)	0.00	0.00	0.04	–0.02
Experience (age-education-6)	–0.01	0.00	–0.02	0.00
Industry (set of binary variables)	0.04	0.01	0.02	0.07
Residual	**0.01**	**0.42**	**0.28**	**0.32**
Contribution of changes in the coefficients of each variable				
Total price effect	**0.00**	**0.22**	**0.18**	**–0.01**
Education (years)	–0.02	0.10	0.08	0.01
Sex (men = 1)	0.00	0.04	0.02	0.00
Zone (urban = 1)	0.02	0.04	0.06	0.02
Hours worked (log)	–0.03	0.01	–0.04	–0.09
Institutional sector (public = 1)	0.02	0.00	0.00	–0.02
Size of establishment (6 or more = 1)	0.00	0.01	0.05	–0.01
Experience (age-education-6)	0.01	0.02	–0.01	0.01
Industry (set of binary variables)	0.02	0.02	0.02	0.07
Contribution of changes in the coefficients of each variable				
Total distribution effect	**0.00**	**0.03**	**0.00**	**–0.04**
Education (years)	0.07	0.04	0.03	0.03
Sex (men = 1)	0.00	0.01	0.00	–0.01
Zone (urban = 1)	0.00	0.00	0.00	0.00
Hours worked (log)	–0.05	0.01	–0.01	–0.04
Institutional sector (public = 1)	0.00	–0.01	0.00	0.00
Size of establishment (6 or more = 1)	0.00	–0.01	0.00	–0.01
Experience (age-education-6)	–0.02	–0.01	–0.01	–0.01
Industry (set of binary variables)	–0.01	0.00	0.00	0.00

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

be seen from the distribution effect of the education variable (table 9), and can be corroborated from the values of the standard deviation of that variable given in Appendix A, where the basic statistics of the earnings equations are summarized.

This result is due to the fact that the proportion of workers with very little education is higher in the other Central American countries than in Costa Rica. For example, the percentage of workers who have not completed their primary education is 20% in Costa Rica, 40% in El Salvador, 47% in Honduras, 48% in Nicaragua and 61% in Guatemala. As regards higher education, 16% of Costa Rican workers in the sample have some degree of university education, compared with 12% in El Salvador, 8% in Nicaragua and 5% in Honduras and Guatemala.

Another reason why education is a differentiating factor in labour income distribution between Costa Rica and the rest of the subregion has to do with returns to education (the "price" of education or the effect of an extra year of education on earnings). This effect is lower in Costa Rica than in any of the other countries of the subregion except El Salvador (table 9 and Appendix A) but is highest in the countries with the lowest average educational levels (Guatemala and Honduras). In El Salvador, the price effect of education reduces the level of inequality compared with Costa Rica, but this is more than offset by the more unequal distribution of education, so that the overall effect of education in El Salvador is that that country is more unequal in that respect than Costa Rica.

2. Area of residence

Rural or urban residence is also a contributory factor in the greater inequality of the rest of the Central American countries, compared with Costa Rica, because in those countries the wage premium received by urban workers is higher than that in Costa Rica. The measured differences in the proportion of urban workers (distribution effect) between countries do not play any part in the differences in inequality between Costa Rica and the other countries, although the proportion of workers living in urban areas is lower in Costa Rica. This suggests that there are elements in the internal production structure of the areas which could explain this result. We will return to this aspect later.

3. Wage gaps by industry

The third element which helps to explain the greater inequality of the rest of the Central American countries compared with Costa Rica is the set of binary variables which reflect wage differences between different industrial branches. The inequality due to wage gaps between industries is smaller in Costa Rica than in the rest of the subregion. The differences in inter-industry wage gaps are due mainly to the wage differences between agriculture and the other branches of industrial activity, which suggests that in the analysis and measurement of the effect of inter-industry wage gaps on differences in inequality, account should be taken of the interaction between inter-industry wage gaps and area of residence. Unfortunately, Fields' decomposition does not allow the interactions between variables to be measured adequately. Consequently, in order to examine those interactions, including that of enterprise size, we will directly analyze the coefficients of the earnings equations.[20]

Table 10 shows these coefficients, as well as the percentage of workers in each category. Eight categories have been defined in which area of residence, enterprise size and branch of industry interact: i) workers on small farms (including employees, managers or owners, and self-employed workers); ii); iii) managers or owners of large farms; iv) workers (including employees, managers or owners, and self-employed workers) in small non-agricultural rural enterprises; v) employees of large non-agricultural rural enterprises; vi) managers or owners of large non-agricultural rural enterprises; vii) workers (including employees, managers or owners, and self-employed workers) in small urban enterprises, and viii) workers in large urban enterprises.

The coefficients of the binary variables shown (table 10) come from an earnings equation which also includes the variables for education, sex, log of hours worked, sector and experience. The category of workers in large urban enterprises is omitted. Thus, the coefficients can be interpreted as the percentage difference between the earnings of the workers in each category and that of workers in large urban enterprises. As may be seen from table 10, in all the countries of the subregion employees of large non-agricultural rural enterprises earn less than workers in large urban enterprises but more than any other type of worker in rural areas. Likewise, employees on large farms earn less than employees of large non-agricultural rural enterprises, but more than workers on small farms. Except in Nicaragua, employees on large farms earn more than employees of small non-agricultural rural enterprises. Finally, workers on small farms (employees and owners) earn less than any other group.

In all the Central American countries, except Honduras, the owners of large rural enterprises, whether agricultural or non-agricultural, earn more than the workers in large urban enterprises. The proportion of owners in the total number of workers is small, however, so that it is unlikely that they have much influence on the global differences between urban and rural earnings. In all the countries, the proportion of rural workers in non-agricultural activities is high, and in Costa Rica and El Salvador it exceeds the proportion of rural workers engaged in agricultural activities.

The results presented in table 10 enable us to understand why the urban-rural wage gap is narrower

[20] The combined contribution of wage gaps due to area of residence, enterprise size and branch of industry to the differences in inequality between Costa Rica and the rest of the Central American countries is greater than the effect of wage gaps due to education in all the countries except one.

TABLE 10

Central America: Estimate of effects of interactions between zone, size and industry on labour income inequality, by countries, at the end of the 1990s
(For employed persons aged 15 or more with known income and hours worked)

Variables	Costa Rica 1999	El Salvador 1999	Guatemala 1998	Honduras 1999	Nicaragua 1998
Coefficients of different types of workers[a]					
Workers on small farms	–0.51	–0.59	–0.74	–0.95	–0.88
Employees on large farms	–0.15	–0.50	–0.49	–0.38	–0.44
Owners of large farms	0.22	0.91	2.28	–0.87	0.39
Employees of small non-agricultural rural enterprises	–0.31	–0.46	–0.56	–0.68	–0.26
Employees of large non-agricultural rural enterprises	–0.05	–0.16	–0.30	–0.17	–0.11
Owners of large non-agricultural rural enterprises	0.34	1.16	1.19	0.88	
Workers in small urban enterprises	–0.24	–0.27	–0.31	–0.34	–0.16
Percentage of workers in each category					
All workers	100.0	100.0	100.0	100.0	100.0
Workers in agricultural activities	17.1	9.8	28.6	25.6	21.6
Workers on small farms	10.1	3.9	16.7	21.9	14.3
Employees on large farms	6.8	5.9	11.7	3.6	7.0
Owners of large farms	0.1	0.0	0.2	0.2	0.4
Rural workers in non-agricultural activities	33.9	21.3	23.4	22.3	16.9
Employees of small non-agricultural rural enterprises	17.8	13.1	18.2	15.6	11.3
Employees of large non-agricultural rural enterprises	15.8	7.8	5.1	6.7	5.6
Owners of large non-agricultural rural enterprises	0.3	0.4	0.1	0.0	0.0
Workers in urban enterprises	49.0	68.9	48.0	52.1	61.5
Workers in small urban enterprises	21.1	32.5	30.4	26.8	34.8
Workers in large urban enterprises	27.9	36.5	17.6	25.3	26.7

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

[a] Percentage difference between earnings of each type of worker and that of workers in large urban enterprises.

in Costa Rica than in the other countries of the subregion.[21] First, the wage gap between workers in large non-agricultural rural enterprises and large urban enterprises is smaller in Costa Rica than in any other country. Second, the proportion of workers in large non-agricultural rural enterprises, which form the best-paid rural sector, is higher in Costa Rica than in any other Central American country. Third, the wage gap between workers in large urban enterprises and those in agricultural enterprises, whether large or small, is narrower in Costa Rica than in any other country of the subregion. Fourth, the proportion of workers on small farms is lower in Costa Rica than in the rest of Central America.

[21] In Guatemala it was possible to identify whether workers belong to an indigenous group. Although labour discrimination against indigenous persons did help to increase inequality in both 1989 and 1998, this discrimination does not explain the wage gaps between urban and rural areas. Adding a variable which indicates if a worker is indigenous or not does not reduce the contribution to inequality of area of residence, enterprise size or industrial branch.

It has been noted that El Salvador belongs to the second block, with a level of inequality which is greater than that of Costa Rica, but less than that of Guatemala, Honduras and Nicaragua. Why do the latter three countries display the greatest inequalities in labour income distribution? This is largely because the residual, or inequality due to unmeasured factors, is much higher in those countries than in Costa Rica and El Salvador (table 9, first block). Thus, for example, the inequality due to the residual (unmeasured factors) is sufficient by itself to explain why the inequality in Nicaragua is more marked than in Costa Rica and El Salvador. The impact of the residual on the earnings equations measures the part of inequality caused by variables which have not been included in the equation. Among the factors not included are the unmeasured differences between the household surveys of the countries. The differences in sample design, in the manner or defining and measuring the variables used —especially labour income—, in the quality of the information collected, in the extent of failure to respond, etc., are all aspects which may be reflected in the residual. It is also possible that differences in minimum wage systems may explain some differences due to the residual, if the legal minimum wage has greater coverage and is more effectively applied in Costa Rica and El Salvador than in the other Central American countries.[22] It is also possible that the inequality associated with indigenous groups, which cannot be measured in most of the countries, is greater in Guatemala, Honduras and Nicaragua.

In the case of Honduras, three phenomena contributed to the high level of inequality. First, the wage premium received by urban workers, or the urban-rural wage gap, is the largest of the entire subregion (Appendix A); its impact is so great that, if inequality were measured only for urban workers (table 2), Honduras would appear to have a degree of inequality similar to that of El Salvador. Second, the wage premium received by workers in larger or formal-sector enterprises is likewise higher than in any other Central American country. Much of this result may be due to a earnings gap between wage-earning workers and independent workers (owners or self-employed workers). Once again, if only wage-earning workers are considered (table 2), inequality in Honduras appears similar to that of El Salvador. Lastly, the wage gap (controlling for other measurable characteristics of human capital and the labour market) between men and women is larger in Honduras than in the other countries (Appendix A). This may be interpreted as a rough measure of discrimination against women in the labour market.

The similarly high level of inequality of labour income in Guatemala is likewise explained by three factors. First, the urban-rural wage gap is larger than anywhere else in the subregion except Honduras. Second, the wage gap between men and women is also one of the largest, again exceeded only by that of Honduras (Appendix). Lastly, the inequality associated with the number of hours worked is similar to that of Costa Rica and is more marked than in any other country (table 3). This is because Guatemala and Costa Rica have the highest coefficient of the variable for the log of hours worked (Appendix); in other words, workers' earnings increases more rapidly if they work overtime than in the rest of the Central American countries, and the inequality due to the distribution of hours worked is also very high (table 9).

Finally, two additional aspects are worthy of emphasis. First, the conclusions of this study are limited to those that can be justified on the basis of the information from household surveys, but it is possible that there may be other variables that are important causes of the differences in inequality between countries. In this respect, it was noted earlier that the wage gap between indigenous and non-indigenous workers is an important source of inequality in Guatemala, but no comparison can be made with the other Central American countries. In a recent World Bank study (Ferrari, Perry and others, 2004), evidence is presented that the differences between countries in respect of the wage gap between indigenous and non-indigenous workers explains a significant part of the overall differences in inequality between one country and another. Second, the information used and analyses made are limited to the 1990s, so that it is not possible to draw conclusions about the historical reasons for the patterns observed. For example, it has been found that the lower relative inequality in Costa Rica is due to a more equitable distribution of education and a smaller wage gap between urban and rural areas, also associated with greater and more equitable investment in infrastructure and in the provision of social services. The World Bank study referred to above concurs with these reasons and links them with historical roots of the socio-economic structure and the political transition of the late 19th century. Opposite historical reasons, it is said, explain the higher levels of inequality in Guatemala.

[22] Although only Costa Rica adjusts the legal minimum wage periodically (every six months), these two countries have the highest minimum wages in the subregion.

VI
Policy conclusions

In the 1990s, the changes in labour income inequality in the Central American countries were not all in the same direction; whether inequality increased or decreased depends on the country considered and the indicator of inequality used. Only Costa Rica and Guatemala show a clear deterioration in labour income inequality. Beneath these overall changes, however, there are a number of phenomena which are common to the labour markets in all the countries. The phenomenon which has had the most important adverse effect on labour income inequality is the decline in the percentage of workers with a full working day in each country and the concomitant increase in the percentages working part-time or overtime. This change increased the dispersion of the number of hours worked, thus accentuating labour income inequality. The decline in the percentage of workers with a full working day reflects the reduction in public sector employment in all the countries of the subregion. The increase in part-time workers, for its part, reflects the growing proportion of women in the labour force and the increasing importance of small private enterprises (the informal sector) as a source of employment, while the increase in workers with overtime is associated with the larger enterprises and their efforts to improve their productivity and profitability.

In the present study we also investigated the differences between the Central American countries, and in particular, why Costa Rica has a lower level of inequality than the others. One important reason for this phenomenon is that education is more equitable distributed in Costa Rica. Almeida dos Reas and Paes de Barros (1991), who presented a model on the expansion of education and inequality, concluded that the expansion of education reduces inequality if it takes place in educational levels in which workers earn less than the average income. If it is concentrated in educational levels at which workers earn more than the average wage, however, such as university education, such expansion helps to increase inequality.[23] This suggests that the policies aimed at the universalization of primary education applied in Costa Rica in the 1960s and 1970s were an important cause of the different levels of inequality found. Those policies lowered the proportion of workers without education or with only incomplete primary education and increased the proportion with full primary education. Likewise, in Costa Rica and El Salvador the return to education (the price of education) is lower than in Guatemala, Honduras and Nicaragua, where educational levels are very low. This suggests that the greater relative supply of workers of higher educational level in Costa Rica and El Salvador helps to reduce the relative price of education and, hence, improve income distribution.

It has also been found that wage differences between urban and rural areas are smaller in Costa Rica because in that country the workers in large non-agricultural rural enterprises (presumably of high productivity) earn more and form a larger proportion of rural workers than in the rest of Central America. Such results are consistent with the results and policy recommendations contained in López and Valdés (2000). In that study, which summarizes studies on rural poverty in various Latin American countries, including El Salvador, Guatemala and Honduras, evidence is presented that large rural enterprises pay more than other rural jobs, and furthermore, rural workers in Latin America are less dependent on agriculture than in almost any other place in the developing world. It is also suggested that in order to reduce rural poverty, the major part of public resources should be devoted to improving earnings and work opportunities in non-agricultural jobs in rural areas, and proof is presented that there is a correlation between the proportion of non-agricultural rural jobs with high productivity, on the one hand, and higher average levels of education and better rural infrastructure (such as roads, electricity, telephones, etc.) on the other. This suggests that Costa Rica's public policies of providing

[23] On the other hand, the expansion of education in levels of education higher than the average (i.e., which increases the proportion of workers earning more than the average wage and lowers the proportion of workers earning less than that amount) can either increase or decrease inequality. This type of expansion will increase inequality if there are only a few workers of high educational level, but it will reduce inequality if there are many workers of that level. This is an example of the famous Kuznets Curve.

even the remotest rural communities with electricity, telephones, education, health and transport infrastructure (all closely related with high-productivity non-agricultural rural activities), is also an important reason for the differences in inequality between Costa Rica and the rest of the subregion, and gives an idea of the kind of public policies that should be adopted in order to reduce poverty and inequality.

(Original: Spanish)

APPENDIX

Central America: Basic statistics of the earnings equations, by countries, at the end of the 1990s

(For employed persons aged 15 or more with known income and hours worked)

Variables	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua	
	1990	1999	1995	1999	1989	1998	1990	1999	1993	1998
Coefficients of the earnings equations										
Education (years)	0.087	0.089	0.064	0.081	0.093	0.112	0.116	0.106	0.087	0.094
Sex (men = 1)	0.278	0.270	0.307	0.241	0.313	0.464	0.479	0.469	0.136	0.323
Zone (urban = 1)	0.087	0.060	0.255	0.169	0.156	0.243	0.257	0.313	0.312	0.156
Hours worked (log)	0.573	0.571	0.421	0.423	0.488	0.562	0.353	0.415	0.244	0.172
Institutional sector (public = 1)	0.233	0.211	0.288	0.439	0.166	0.085	0.237	0.175	-0.102	-0.164
Size of establishment (6 or more = 1)	0.273	0.270	0.252	0.283	0.470	0.325	0.385	0.426	0.440	0.272
Experience (age-education-6)	0.033	0.027	0.030	0.037	0.033	0.054	0.046	0.039	0.039	0.041
Experience squared	–0.0004	–0.0003	–0.0004	–0.0005	–0.0004	–0.0007	–0.0005	–0.0004	–0.0005	–0.0005
Industry (set of binary variables)	sig	sig	sig	sig	sig	sig	sig	sig	sig	sig
R^2	0.486	0.503	0.460	0.494	0.441	0.443	0.450	0.450	0.387	0.324
Number of observations	9.704	13.152	10.365	19.824	12.747	11.615	12.293	10.778	4.806	5.978
Standard deviation of the independent variables										
Education (years)	4.06	4.06	5.14	5.03	4.33	4.61	4.21	4.47	4.64	4.66
Sex (men = 1)	0.45	0.47	0.49	0.50	0.44	0.48	0.46	0.48	0.49	0.48
Zone (urban = 1)	0.50	0.50	0.47	0.46	0.50	0.50	0.50	0.50	0.48	0.49
Hours worked (log)	0.46	0.56	0.41	0.47	0.35	0.58	0.47	0.56	0.58	0.55
Institutional sector (public = 1)	0.39	0.34	0.32	0.31	0.28	0.23	0.30	0.27	0.39	0.32
Size of establishment (6 or more = 1)	0.50	0.50	0.50	0.50	0.49	0.48	0.48	0.48	0.49	0.49
Experience (age-education-6)	14.36	14.12	15.68	16.00	16.25	17.20	16.23	16.26	15.15	15.52
Average value of the independent variables										
Education (years)	7.33	7.81	5.88	7.01	3.83	4.55	4.48	5.45	5.47	5.81
Sex (men = 1)	0.71	0.68	0.61	0.56	0.74	0.64	0.70	0.63	0.62	0.64
Zone (urban = 1)	0.46	0.49	0.67	0.69	0.44	0.48	0.48	0.52	0.64	0.61
Hours worked (log)	3.76	3.74	3.77	3.72	3.80	3.65	3.77	3.74	3.74	3.80
Institutional sector (public = 1)	0.18	0.13	0.11	0.11	0.09	0.06	0.10	0.08	0.19	0.11
Size of establishment (6 or more = 1)	0.57	0.51	0.53	0.50	0.39	0.35	0.35	0.36	0.40	0.40
Experience (age-education-6)	20.49	22.86	24.10	23.27	26.57	26.80	25.80	24.57	24.29	23.91

Source: Calculated by the authors on the basis of household surveys of the respective countries and years.

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Los sistemas de pensiones en América Latina (Pension systems in Latin America) "Cuadernos de la CEPAL" series, No. 90, LC/G.2262-P, United Nations publication, Sales No. S.04.II.G.129, ECLAC, Santiago, Chile, October 2004.

This book presents the results of studies and expert meetings carried out as part of the project on the gender impact of pension reform in Latin America, organized by the Women and Development Unit of ECLAC in 2001-2003, with financial support from the Netherlands Government.

The analyses deal with the evolution of the labour market, demographic structure and macroeconomic, legal and institutional changes, in terms of their consequences for gender equity. The case studies —on Bolivia, Colombia and El Salvador— reveal clear inequalities in the coverage and amount of pensions, which are particularly important when it is borne in mind that there are more elderly women than elderly men and that women draw their pensions longer than men because they retire earlier and live longer. On the one hand, the differences in the labour market are carried over to the pension system, so that gender segmentation (both vertical and horizontal) and the consequent concentration of women in informal, discontinuous, temporary and precarious jobs adversely affects their access to and permanence in the pension system. On the other hand, wage discrimination means that women receive lower pensions than men. Not everything is due to the labour market, however. The study of social security laws reveals some expressly discriminatory provisions. In all cases, they provide for the use of actuarial tables which make distinctions between male and female life expectancy in calculating the benefits. Thus, the greater life expectancy of women becomes an adverse factor which is still worse in countries where women retire earlier, since the smaller amount of resources accumulated, divided by a larger number of years, results in a lower pension.

The forms of direct and indirect discrimination present in pension systems are also analysed from the point of view of citizenship, and it is concluded that in many cases women still enjoy only an incomplete form of social citizenship. Even so, the women's movement in the region has not included the issue of social security equity on its agenda, which amply justifies the publication of these studies as a contribution to the discussion of a matter of such importance.

Gobernabilidad e integración financiera: ámbito global y regional (Governance and financial integration viewed at the global and regional levels), "Libros de la CEPAL" series, No. 80 (LC/G.2261-P), United Nations publication, Sales No. S.04.II.G.110, ECLAC, Santiago, Chile, October 2004).

The International Conference on Development Finance, held in Monterrey from 18-22 March 2002, was a landmark in the history of cooperation for development by the international community. In the preparations for the conference and during its proceedings, the 50 countries represented by their Heads of State and the more than 200 represented by their Ministers of Foreign Relations emphasized the importance of international cooperation and laid special stress on the new challenges deriving from the change in the sources of international finance, which are no longer official but are now mostly private.

This book places special emphasis on the vulnerability of the developing economies in view of the volatility of private sources of external finance, further accentuated by the limited capabilities of the fragile domestic financial systems of those countries and the weakness of the Bretton Woods multilateral institutions for forestalling and coping with international financial crises. The articles included in this publication call for decided efforts to redesign the international financial architecture and to seek ways of putting those ideas into practice.

In view of the geographical and political space in which this important international conference was held and the efforts made by the United Nations in this field, the studies making up this volume were prepared in ECLAC as part of the preparations for the conference. They deal with aspects of the design of the international financial architecture which should be taken into account in the areas of institutions, regulation and supervision of the financial and balance of payments sectors, and policies and instruments for the rapid solution of crises with the participation of the private sector. Special mention is made in this connection of the progress made at the regional level with the creation of the Latin American Reserve Fund and the role played by the regional and subregional development finance institutions, both in terms of the counter-cyclical nature of the finance provided and their contribution to development priorities. ECLAC considers that strengthening the regional links of the international financial architecture can help to obtain global public goods such as the stabilization and coordination of macroeconomic policies in which the financial agents have to operate. Moreover, such strengthening helps countries to act with a greater feeling of "belonging". The arguments justifying this position are duly analysed in the studies making up this book.

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