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LATIN AMERICA AND THE CARIBBEAN**



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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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... 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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**KEYWORDS**

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# Less volatile growth? The role of regional financial institutions

*José Luis Machinea and Daniel Titelman*

**T**he volatility of economic growth in the countries of Latin America and the Caribbean has been exacerbated by a lack of suitable instruments for smoothing external shocks. Difficulties with the provision of emergency financing and the development of financial markets capable of trading government securities that incorporate better contingency mechanisms have contributed to economic volatility. To identify routes towards progress with these two issues in the Latin American context, the present article examines the role that could be played by regional and subregional financial institutions, always bearing in mind that while these can supplement global institutions, they cannot supplant them.

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# I

## Introduction

Since the Asian crisis of 1997, it has been more widely recognized that the volatility of international financial markets is an important factor in the business cycles of emerging economies, as it creates new disequilibria in domestic economies and magnifies existing ones. The countries of Latin America have been no exception, since the shocks caused by volatility in external financial markets have been one of the main causes of growth volatility. Thus, the impact that natural resource prices have had for decades on the region's business cycle has now been compounded by international financial markets. Although natural resource prices have once again been making a large contribution to Latin America's economic boom in recent years, a longer-term view shows that capital movements are the factor that has most influenced economic cycles over the last three decades.

The financial volatility of the region's countries has been exacerbated by the lack of suitable mechanisms for providing emergency financing to countries experiencing balance-of-payments financing problems as a result of external shocks. The lack of an emergency financing network at the regional and international level has led countries to move towards a policy of self-insurance consisting essentially in the accumulation of international reserves, which is very far from being the most efficient option for protecting against the vagaries of the world economy. In recent years there has been a flurry of proposals for reforming world financial institutions and markets. However, the strategies developed to improve global financial arrangements have underplayed the potential role of regional financial institutions.

With a view to identifying more efficient ways of coping with external shocks in the Latin American context, this article discusses the role that could be played by regional financial institutions, without forgetting that these need to be seen as supplementing global institutions rather than replacing them.

In relation to such institutions, the primary focus of this article is on the potential for extending the geographical coverage of the Latin American Reserve Fund (FLAR). It then goes on to discuss the need to stimulate the development of financial markets for government securities with characteristics that make contingencies easier to cope with.

The ability of a reserve pool to cushion the impact of external shocks depends on the "insureds" not all being affected by these simultaneously. At first sight, a correlation analysis of such shocks in 10 Latin American economies indicates that, indeed, the countries are not thus affected and that it would accordingly be possible to extend the regional coverage of the Latin American Reserve Fund. The correlation ratios for detrended series of international reserves tend to be low or non-significant, terms-of-trade correlations do not show a clear pattern either, and private capital inflows present correlations that are positive but generally not close to unity. In addition, a regional fund could help to curb mechanisms of crisis transmission between countries, thereby reducing the correlation between them.

By joining a reserve pool, countries benefit from access to a larger volume of reserves and, depending on the individual case, a possible reduction in the volatility of these. The estimated coverage ratio, which combines both effects, suggests that countries whose reserves have low volatility in relation to their size would have few incentives to join a reserve pool. Of the 10 countries examined in this paper, those with the lowest reserve volatility, Chile and Colombia, would be reducing their levels of coverage by joining a reserve pool because both would have lower effective reserves than if they self-insured, resulting in incentive problems.

Moves towards regional financial development involving the issuance on international markets of government securities incorporating better contingency mechanisms, such as bonds indexed to gross domestic product (GDP), bonds indexed to commodity prices and local currency-denominated government bonds indexed to domestic inflation, have been hindered by coordination problems, lack of credibility and failures of transparency and surveillance. For progress to be made in this area, it is proposed that subregional development banks and the Latin American Reserve

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□ The authors are grateful for the comments of Oscar Altimir, Reynaldo Bajraj and Cecilia Vera.



Fund should join the Inter-American Development Bank and the World Bank in their efforts to stimulate these markets.

Lastly, further financial integration will require greater macroeconomic coordination. Progress by the Latin American countries in this area, which has been very limited, could be stimulated by soft forms

of coordination that do not pursue the most ambitious goals but recognize that the process had to be gradual. Information-sharing and the creation of supranational forums for policy debate seem to be a good starting point. Over time, strengthening coordination would involve setting convergence targets for a set of macroeconomic variables.

## II

### Growth volatility

Despite the region's improved growth rate over recent years, the longer-term picture is discouraging. In the 1980-2006 period, the growth rate was low (2.4% a year on average) in relation both to the region's own past and to the behaviour of other developing countries (table 1). As well as being low, growth rates have been extremely volatile. Indeed, real volatility in the region has increased substantially since the 1980s and is, on average, more than twice as high as in the rest of the developing world (figure 1). Higher volatility has exacerbated uncertainty and adversely affected saving and investment decisions, and the resultant negative effects on the growth rate have hit lower-income sectors hardest (ECLAC, 2000 and 2004).

The factors behind the increased volatility of growth in the region are both internal and external. Internal factors include procyclical macroeconomic policies, low saving and investment rates and shallow financial markets.

TABLE 1

**Annual growth rates, selected periods**  
(Average annual rates)

	Developed economies	Developing countries	Latin America (19 countries)
1980-1990	3.1	3.3	1.1
1990-2006	2.4	4.8	2.9
1980-2006	2.6	4.3	2.4

Source: ECLAC.

In particular, financial markets in most of the region's countries are still oriented towards the short term and focused essentially on banking operations,

while capital markets are very underdeveloped. In addition, they are still highly dollarized and credit rationing and high real interest rates are widely encountered. Consequently, the expansion of financial activities has not translated into the development of financial intermediation instruments that could help to increase liquidity and mitigate the fluctuations of economic activity. The result has been that financial markets have tended to accentuate economic cycles (figure 2).

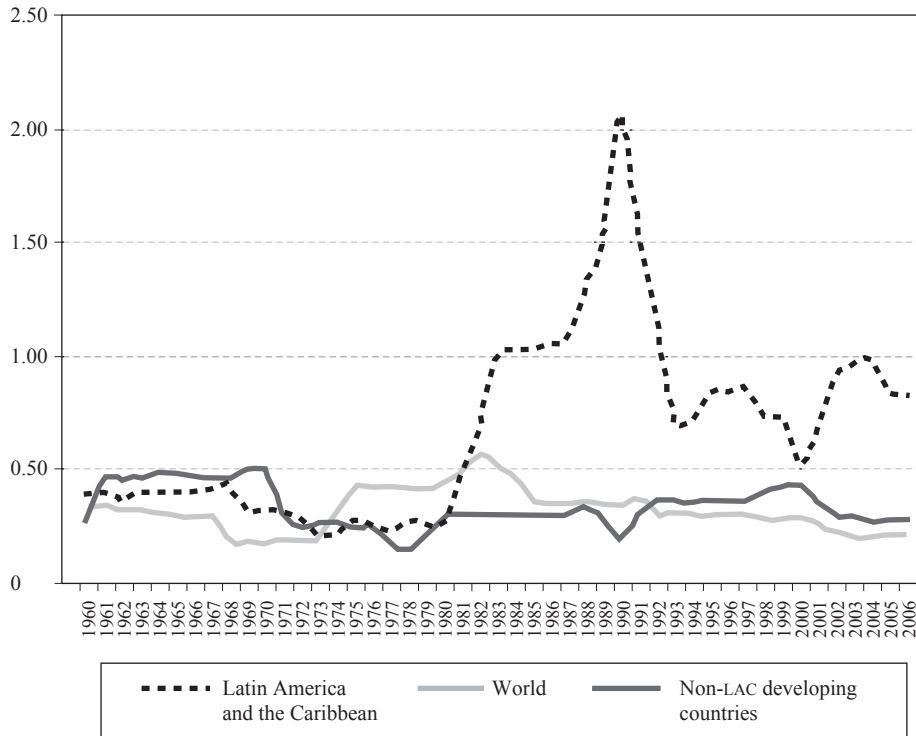
As well as being a response to domestic factors, GDP volatility has been closely associated with external shocks (Ffrench-Davis, 2005; ECLAC, 2000, 2001 and 2004).

Throughout much of the region's history, these shocks were associated with variations in the terms of trade. In recent decades, however, the volatility of financial markets has replaced commodity price movements as the main source of external shocks, a tendency that became more pronounced during the 1990s. This was due to two concurrent factors: an increase in the size and volatility of capital flows and a reduction in the volatility of the terms of trade, the latter being associated with the diversification of exports in most of the region's countries (ECLAC, 2004; López-Monti, 2005). Consequently, although the terms of trade have played a central role in Latin America's economic recovery in recent years, over the last three decades it is capital movements that have been the main external factor in the region's volatility (figure 3).

The impact of capital movements on growth volatility is not something peculiar to Latin America. The fact is that volatility and contagion were among the main characteristics of the rapid expansion of worldwide financial flows in the 1990s, channelled through the

FIGURE 1

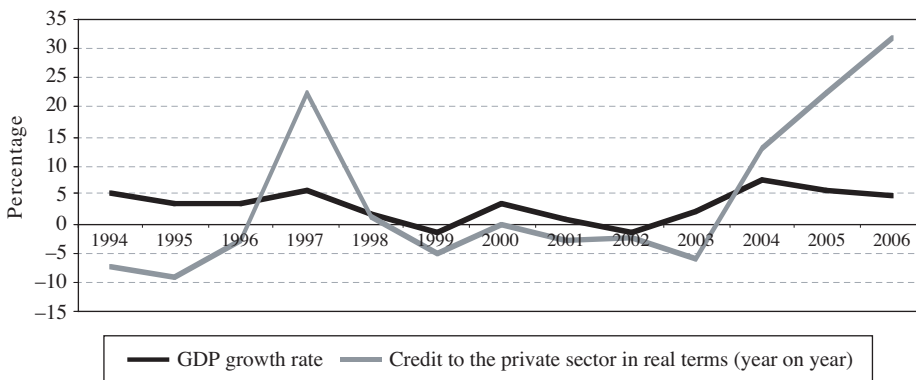
**Latin America and the Caribbean, world, and developing countries:  
Volatility of growth rates**  
*(Coefficients of variation, 10-year moving averages)*



Source: ECLAC.

FIGURE 2

**Latin America (seven countries): Credit to the private sector and economic activity**  
*(Average for seven countries of Latin America)<sup>a</sup>*

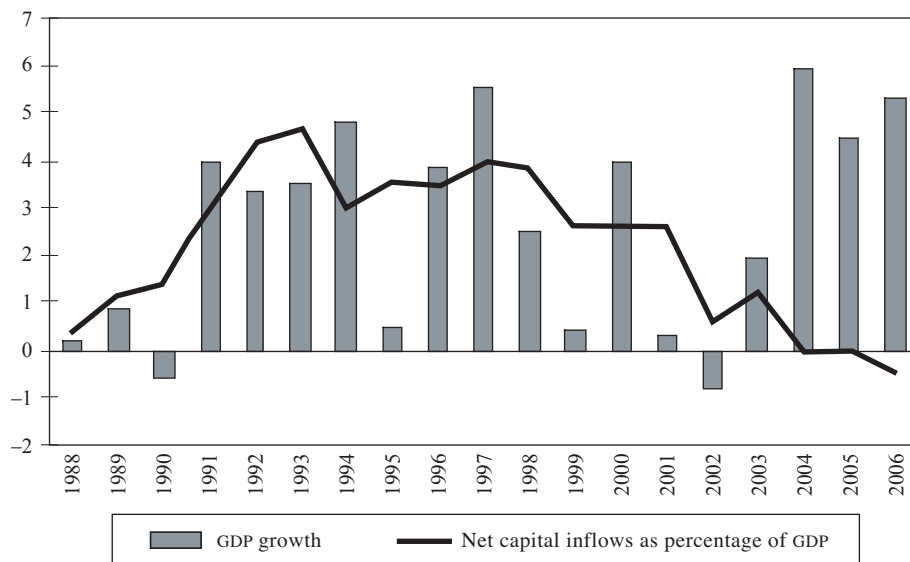


Source: ECLAC and IMF (various years).

<sup>a</sup> The seven countries are Argentina, Brazil, Chile, Colombia, Mexico, Peru and the Bolivarian Republic of Venezuela.

FIGURE 3

## Latin America and the Caribbean: GDP growth and financial flows



Source: ECLAC.

TABLE 2

Latin America and the Caribbean: External financing sources, 1990-2006<sup>a</sup>  
(Percentages of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
A. Debt	0.7	1.4	2.9	2.7	0.7	2.1	0.9	0.7	1.4	-1.1	-0.9	-0.3	-1.2	-0.6	-2.0	-2.3	-1.7
Loans <sup>b</sup>	-0.1	0.6	0.9	-1.2	-2.2	2.3	-0.7	0.0	-0.1	-1.9	-0.9	-0.2	-0.6	-0.4	-1.5	-2.4	-1.7
Bonds	0.8	0.8	2.0	3.9	2.9	-0.1	1.5	0.8	1.5	0.8	0.0	0.0	-0.5	-0.2	-0.5	0.1	0.0
B. Investment	0.8	1.6	1.6	2.3	2.6	1.8	2.8	3.5	2.9	4.1	3.4	3.4	2.8	2.1	2.1	2.4	1.2
Direct	0.6	1.0	1.0	0.8	1.5	1.5	2.2	2.9	3.1	4.6	3.6	3.4	2.7	2.0	2.2	2.1	1.2
Equity	0.2	0.6	0.6	1.6	1.1	0.3	0.6	0.6	-0.2	-0.5	-0.2	0.0	0.1	0.1	-0.1	0.4	0.0
C. Other <sup>b</sup>	-0.1	0.1	0.0	-0.2	-0.4	-0.3	-0.1	-0.2	-0.4	-0.2	0.2	-0.4	0.8	-0.3	-0.1	-0.1	0.0
D. Worker remittances	1.0	1.0	1.1	0.9	0.9	1.0	0.9	0.9	1.0	1.2	1.2	1.5	1.9	2.1	2.2	2.2	2.1
Total capital inflows plus remittances (A+B+C+D)	2.4	4.0	5.6	5.8	3.9	4.7	4.5	4.9	4.9	4.0	4.0	4.2	2.7	3.3	2.2	2.2	1.6
Total capital inflows (A+B+C)	1.5	3.0	4.5	4.8	3.0	3.7	3.6	4.0	3.9	2.8	2.8	2.7	0.8	1.2	0.0	0.0	-0.5

Source: ECLAC, with information from the IMF.

<sup>a</sup> Calculated on the basis of gdp in current dollars. The 2006 data are preliminary estimates.

<sup>b</sup> Includes the capital account plus errors and omissions.

banking system and through the bond, share and financial derivatives markets. Despite macroeconomic and institutional reforms in the Latin American countries and internationally, these phenomena have persisted and capital flows into Latin America and other developing regions remain volatile (Ocampo and Martin, 2003; Caballero, Cowan and Kearns, 2004).

### III

## Responses to external vulnerability

Everything suggests that the region will remain exposed to external shocks, whether these derive from variations in the terms of trade or fluctuations in capital movements. This is why the countries have sought to reduce their vulnerability to such potential shocks.

In effect, greater fiscal discipline and a regionwide current-account surplus have positively affected all indicators relating to short-term liquidity needs. These include the ratios between short-term external debt and international reserves, between external debt and exports<sup>2</sup> and between public debt and GDP.<sup>3</sup> These improvements, which have reduced the region's vulnerability to external shocks, should not make us forget that capital movements are volatile by nature, or that a number of countries still have balance sheet problems, mainly relating to currency mismatches in the financial structures of businesses, financial institutions and the public sector. Again, while the public debt/GDP ratio has fallen, a number of countries

As table 2 indicates, the sharp fluctuations in capital inflows since 1990 have been due essentially to debt and portfolio investment trends. Foreign direct investment (FDI) has also fluctuated, but it has been far more stable than all other forms of financing except immigrants' remittances, which rose steadily to reach 2.2% of regional GDP in 2005.<sup>1</sup>

still have public debt levels close to 50%, which seems quite high (figure 4).

One characteristic of the policies brought in to reduce external vulnerability has been the increasing use of self-insurance, either through large increases in international reserves or, in some cases, through the creation of stabilization funds. Maintaining international reserves as an insurance mechanism has proved costly and inefficient, since returns on reserves are lower than those on other, less liquid assets. Furthermore, the inadequacy of infrastructure and social services means that the opportunity cost of holding reserves can be high.

The logic of self-insurance rests on the fact that, during the 1990s, global financial institutions and markets had no mechanisms for providing emergency loans to supply liquidity for balance-of-payments financing and thus help protect countries from the vagaries of capital flows. In addition, the crises brought to light the failings of the International Monetary Fund (IMF) and its slowness in providing assistance to emerging economies, perhaps because the scale of the problem far exceeded the resources and capabilities available. In most cases, however, the lack of assistance can be put down to an attitude that treated adjustments in the region's economies as a one-size-fits-all response to external shocks.

The financial vulnerability of the Latin American countries has also been heightened by the lack of deep, liquid financial markets at the national, regional and international levels, which has hindered the development of securities with better cyclical properties than foreign currency-denominated bonds. It has proved very difficult to interest investors in government securities such as GDP-indexed bonds, bonds indexed to international prices for leading export products, and local currency-

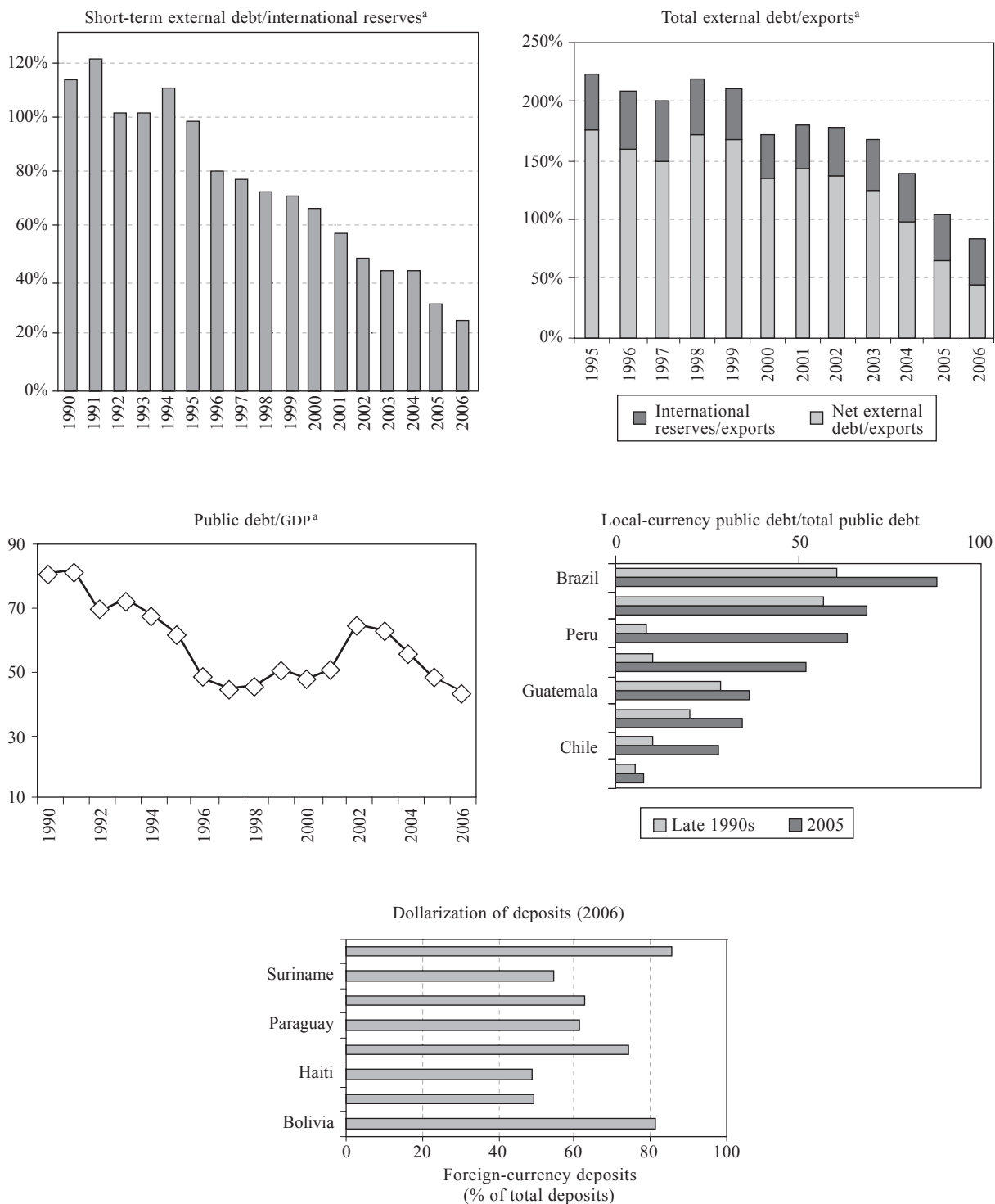
<sup>1</sup> Although changes in capital movements are usually calculated in terms of GDP, it should be emphasized that their impact on economic activity depends on their effect on the current account, owing to the import adjustments they generate. Thus, the more open a country's economy, the smaller the adjustments in the real exchange rate and economic activity level that will be needed to balance the current account (Calvo, Izquierdo and Talvi, 2003).

<sup>2</sup> This is not true, however, of a number of countries in the Caribbean where the ratio between external debt and exports has not fallen but remains very high.

<sup>3</sup> These indicators present a similar pattern in the region to that of developing countries in other regions. In almost all emerging economies, short-term debt has declined on average while the ratio between short-term external debt and reserves has improved. In addition to all these indicators, the region has moved towards flexible exchange rates in recent years, and this too has reduced vulnerability to external shocks (ECLAC, 2006a and 2006b; Machinea and Kacef, 2006).

FIGURE 4

Latin America and the Caribbean (selected countries): Vulnerability indicators



Source: ECLAC (2006a).

<sup>a</sup> Latin America and the Caribbean.

denominated bonds.<sup>4</sup> The lack of instruments of this type has heightened financial volatility.

In view of all this, there have been a number of proposals for reforming global financial institutions and markets (Ocampo, 2002; Caballero, 2003; Calvo, 2005). However, strategies for improving global financial arrangements have underestimated the role that can be played by regional financial institutions in solving these problems.

More active involvement for regional institutions is justified on a number of counts. First, the contagion effect produced by financial crises has major repercussions throughout the region. Second, regional agreements have resulted in increased intraregional trade and investment flows. Third, macroeconomic ties have strengthened and the externalities generated within a given country by the macroeconomic policies of its neighbours are greater than they used to be (Ocampo, 2006; Culpeper, 2006; Machinea and Rozenwurcel, 2006).

Given all this, regional and subregional funds acting as 'lenders of last resort' could usefully complement

the work done by the IMF in this way (Mistry, 1999; Agosin, 2001). Since the Asian crisis of 1997, in fact, there have been growing calls for regional financial cooperation to establish mechanisms that might prevent the outbreak of new financial crises. Specifically, the main demands have been for emergency lending and the development of deeper, more liquid financial markets. Recent examples are the Chiang Mai Initiative (Thailand), launched in 2000 and involving both the creation of a short-term liquidity facility via a network of bilateral currency swaps, and the creation of an Asian bond market with a view to establishing a fully fledged regional bond market.

In what follows, we shall concentrate on the contribution of existing regional financial institutions in Latin America to emergency financing and the development of financial instruments as means of stabilizing financial flows into developing countries and reducing their vulnerability.

## IV

### Financial integration in Latin America

#### 1. Reserve pooling

The Latin American countries have been building up reserves since the early 1990s (figure A.1 in the appendix). This is largely due to the need to protect their economies from possible changes in the external context, particularly variations in capital flows. A heightening of this tendency since 2002 has been reflected in a large rise in the ratio of international reserves to short-term debt, which is one indicator of an economy's ability to cope with external shocks. Meanwhile, the reserves/imports ratio has not risen greatly, suggesting that the countries are not building up reserves as a way of protecting themselves against trade risks (figure 5).

What is now the Latin American Reserve Fund (FLAR) was created in 1978 as the Andean Reserve Fund

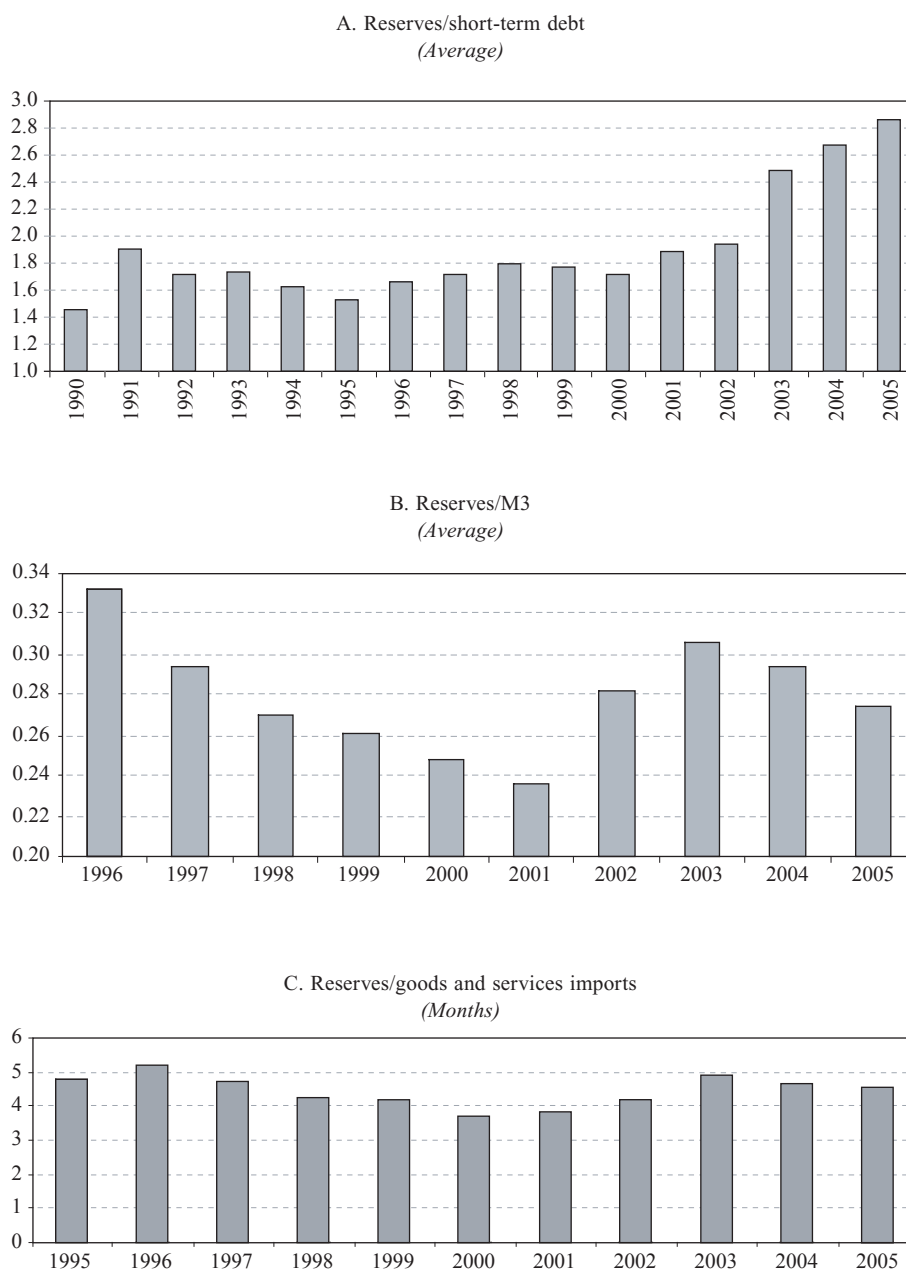
to serve the countries of the Andean Community. Only a few of the region's countries are FLAR participants: Bolivia, Colombia, Costa Rica, Ecuador, Peru and the Bolivarian Republic of Venezuela. The fund acts as a credit cooperative that uses a variety of credit facilities to lend to member countries' central banks in proportion to the capital they have contributed.<sup>5</sup> FLAR

<sup>4</sup> High yields on the bonds indexed to the level of economic activity in Argentina that were issued at the time of the debt restructuring may change this perception and make it easier to sell this type of instrument in future.

<sup>5</sup> (i) Credits for balance-of-payments support are issued for a three-year term, with a one-year grace period, capped at 2.5 times the paid-up capital (except for Bolivia and Ecuador, where it is 3.5 times the paid-up capital), and their approval requires the consent of the board of directors; (ii) credits for restructuring the external national debt are issued for a three-year term, with a one-year grace period, capped at 1.5 times the paid-up capital, and their approval requires the consent of the board of directors; (iii) liquidity credits are issued for a term of up to one year, capped at 1.0 times the paid-up capital, and their approval requires the authorization of the chief executive officer; (iv) standby credits are issued for a term of up to six months, capped at 2.0 times the paid-up capital, and their approval requires the authorization of the chief executive officer; (v) treasury credits (repos) are issued for a term of from one to thirty days, capped at 2.0 times the paid-up capital and 50% collateralized, and their approval requires the authorization of the chief executive officer.

FIGURE 5

## Latin America and the Caribbean (18 countries): Reserve ratios



Source: ECLAC, on the basis of World Bank, *Global Development Finance* (various years) and *World Development Indicators* (various years).

TABLE 3

**Latin America: Disbursements by the Andean Reserve Fund/Latin American Reserve Fund and exceptional financing by the International Monetary Fund<sup>a</sup>**  
(Millions of dollars)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
<b>Disbursements</b>																											
<i>Total<sup>b</sup></i>	15	18	39	53	158	364	686	284	440	291	251	390	390	451	20			234	34		494	125				156	
Bolivia				39	53	53	30	165	190		28	96	121	48	20												
Colombia						50	529	85																			125
Ecuador					105	67	127	34	250		93	54	117					234	34		494						
Costa Rica																											156
Peru	15	18				195				20	130	240	129	403													
Venezuela (Bol. Rep. of)										271			23														
<b>Exceptional financing by the International Monetary Fund</b>																											
<i>Total<sup>b</sup></i>	145	267	261	62	358	532	147	121	224	49	169	1 052	1 906	449	57	897	186	26	557	244	46	23	165	72	98		
Bolivia	38	11	96		27	19			135		91	58	31	31	51		44	26	49	23	46	23	15	24			
Ecuador						218	40	86	89	49	78	20	32	25			142						150	48	98		
Costa Rica			27	20	62		119		35					76	6												
Peru	107	229	145		331	176	107									897					221						
Venezuela (Bol. Rep. of)											974	1 843	317					508									
<i>y<sup>b,c</sup></i>	0.1	0.1	0.1	0.9	0.4	0.7	4.7	2.3	2.0	5.9	1.5	0.4	0.2	1.0	0.4		9.0	0.1		10.7	5.4						

Source: Titelman, 2006.

- <sup>a</sup> The Latin American Reserve Fund accounting year runs from July to June, whereas the International Monetary Fund uses calendar years.
- <sup>b</sup> Latin American Reserve Fund contingency financing is not broken down by country because it is zero for every year. The same applies to disbursements for debt restructuring purposes, except for 1995 and 2003, when funds worth US\$ 200 million and US\$ 156 million were disbursed to Ecuador and Costa Rica, respectively. Latin American Reserve Fund disbursements do not include countries that had zero disbursements for any reason throughout the 1978-2004 period.
- <sup>c</sup> International Monetary Fund disbursements do not include the reserve tranche.

has three objectives: (i) to provide financial support for its member countries' balances of payments; (ii) to improve the terms for its member countries' reserves investments; and (iii) to help harmonize its member countries' monetary and financial policies.

FLAR has been quite successful in providing short-term financing to its member countries. Between its creation and the end of 2003, FLAR disbursed credits worth a total of US\$ 4.9 billion, consisting chiefly of credits for balance-of-payments support and liquidity credits. During the worst years of the 1982-1984 debt crisis, FLAR increased its resource contributions significantly. This was also done in the 1996 and 1998-1999 crises (table 3). During the period from 1978 to 2003, FLAR contributed resources equivalent, on average, to 60% of the amount of IMF exceptional financing provided to the Andean Community countries (Titelman, 2006).

An important feature of FLAR financing is its speed and timeliness. Depending on the type of credit,

loan approvals require the authorization of either the board of directors, which is made up of member countries' central banks, or else the chief executive officer. This arrangement has resulted in speedy and timely financing, giving FLAR an operational advantage over the IMF. This fact was not necessarily reflected in the amounts of resources provided, but rather in the relevance of the credits. The sense of ownership that countries feel towards FLAR is reflected in the preferred creditor status its member countries have given it. The countries' central banks must register any loans granted by FLAR as liabilities in their international reserves account, thereby providing an additional guarantee of repayment. The preferred creditor status of FLAR is reflected in its present Moody's rating of Aa2 and its Standard & Poor's rating of A+.

One of the benefits for countries that join a reserve pool is that they gain access to increased reserve holdings. When their debt capacity with FLAR is added to the member countries' international reserves,



TABLE 4

**Latin America (six countries): Influence of the Andean Reserve Fund/Latin American Reserve Fund on financial vulnerability, March 2003**  
(Short-term debt/international reserves)

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Bolivarian Republic of Venezuela
Subscribed capital	234	469	234	234	469	469
Paid-up capital	157	313	133	157	313	313
IMF quotas	233	1 053	222	414	878	3 721
Short-term debt	370	3 800	1 499	2 316	2 335	3 720
Reserves	893	10 844	1 497	1 004	9 721	12 107
Short-term debt/international reserves (percentages)	41	35	100	231	24	31
Short-term debt/increased international reserves (percentages) <sup>a</sup>	26	33	82	149	22	29

Source: Titelman, 2006. Prepared by the author using official data from the countries, FLAR and the IMF.

<sup>a</sup> The quotient of short-term debt over increased international reserves is calculated by adding to international reserves the country's capacity for borrowing from FAR/FLAR, this being 2.5 times the paid-up capital except in the cases of Bolivia and Ecuador, where it is 3.5 times.

the short-term debt/international reserves ratio drops significantly in some cases (Bolivia, Costa Rica and Ecuador) (table 4).

The fact that FLAR has played a quite successful role in providing short-term balance-of-payments financing to its member countries raises the question as to the feasibility of expanding its membership. A first element to consider is the correlation of external shocks across countries. High positive correlation ratios weaken the arguments for a reserve pool, as most contributing countries, being similarly affected by external shocks, would need to draw on the fund simultaneously. However, even in the presence of positive correlations, reserve pooling can still be useful if shocks affect different countries with different intensities, since this allows some of the reserves of countries experiencing lower effects to be lent to countries suffering more severe effects.<sup>6</sup> Furthermore, lending at the onset of a liquidity squeeze could prevent or cushion a crisis in a given country and thus reduce contagion in others. Lastly, the ability of FLAR to borrow from financial markets can also help to overcome shocks that have similar effects on the different countries.

Coefficients of correlation between international reserves, private capital inflows and the terms of trade were calculated for the 1990-2005 period across a sample of 10 countries to obtain an initial assessment of correlation. The actual FLAR countries (Bolivia, Colombia, Costa Rica, Ecuador, Peru and the Bolivarian Republic of Venezuela) were supplemented by Argentina, Brazil, Chile and Mexico. The results are summarized in table A.1 of the appendix.

Correlation coefficients between the countries' international reserves are significant (at a 5% level) in 32 out of 45 cases and tend to be quite high. These coefficients may, however, be magnified by the fact that, as previously mentioned, all countries in the sample show an upward trend in reserve accumulation during the period considered (figure A.1 in the appendix). To tackle this issue we used the Hodrick-Prescott filter to detrend the series. Correlation coefficients dropped significantly for most countries, and some coefficients lost significance (only 17 out of 45 were significant at the 5% level). When the exercise is done using annual changes in international reserves, correlations tend to be low and non-significant.

The size of external shocks is not fully reflected in international reserve movements, however, since their effects on the level of these reserves are influenced by countries' exchange-rate policies. This has become even truer in recent years owing to the regional trend

<sup>6</sup> Differences in impact depend not just on the scale of the shock in different countries, but also on the production structure and macroeconomic conditions of each.

towards greater currency flexibility, which facilitates adjustment via relative prices when shocks of this kind occur. Despite this shift towards greater formal currency flexibility, there are clear constraints on large exchange-rate movements. Apart from the impact on inflation and real wages, adjustments of this type affect the balance sheets of companies and the public sector, owing to the significant level of dollarization in a number of economies. In other words, when there are large currency mismatches between the assets and liabilities of the financial sector or the productive sector, a considerable depreciation over a short period will have a strong adverse impact on GDP. Consequently, the level of international reserves still has a key role to play in smoothing external shocks and averting these negative effects.

In view of this, we supplemented our analysis of international reserve dynamics by examining correlations in terms-of-trade and capital flow movements between countries, although changes in capital flows are also influenced by exchange-rate policy. As for the terms of trade, correlation coefficients between countries do not present a consistent pattern. What emerges is a combination of negative and positive coefficients of differing sizes; only 15 of the 45 coefficients are positive and significant — unsurprisingly, since a review of the terms of trade in Latin American countries over recent years shows that tendencies have been heterogeneous. The terms of trade have worsened in the Central American countries (by 12% on average between 1990 and 2005), while they improved by an average of 31% in the South American countries over the same period. Furthermore, the positive average for South America includes a number of countries where the terms of trade have deteriorated.<sup>7</sup>

The conclusions for private capital inflows are similar to those for the terms of trade: there is no clearly defined pattern here either. Positive coefficients are not close to unity in most cases, and most of them are small and non-significant. In general, negative correlations are not significant either. These results

<sup>7</sup> Although the terms of trade are a good indicator of real external shocks, they are difficult to estimate in the short term. A more transparent, quickly obtainable and thus useful indicator for the purposes of emergency financing access are the prices of the commodities exported by the region's countries. Using export prices as a proxy, the analysis shows a more consistent pattern of correlation between countries (27 positive and significant coefficients out of a total of 45 for the 1990-2005 period), although in a number of cases these coefficients are not close to unity (see appendix).

agree with those reported by Urrutia (2006) and Agosin (2001) for another sample of Latin American countries. In a similar framework, Machinea (2003) calculated that coefficients in the MERCOSUR countries were mainly positive but small and, in some instances, non-significant.

The results suggest that expanding the membership of the Latin American Reserve Fund to the new countries considered in the correlation analysis would be feasible, and that countries would not experience financial shocks that were similar or of the same severity. In addition, a regional fund could help to curb mechanisms of crisis transmission between countries.<sup>8</sup>

The need to accumulate international reserves partly depends on their volatility. This being so, reserve pooling benefits member countries by giving them access to a larger volume of reserves or reducing average volatility. Countries whose international reserves are low in relation to their volatility will usually benefit from pooling with countries that have larger reserves. The opposite also holds true, of course, with countries whose international reserves are of low volatility suffering adverse effects by pooling with countries where volatility ratios are higher.

Following Williams, Polius and Hazel (2001) and Eichengreen (2006), we calculated the degree of protection implied by international reserves in view of their size and variability. Equation 1 defines coverage for a country *i* as the ratio between reserve holdings and their variability. Coverage increases as international reserves rise or as their volatility falls:

$$C_i = \frac{R_i}{\text{Var}(R_i)} \quad (1)$$

where  $R_i$  is the average level of reserves during a given time period and  $\text{VAR}(R_i)$  is their variability during the same time period. When a country joins the reserve pool, it will gain access to higher reserve holdings but it will also be affected by the volatility in other countries' reserves. Country *i* will benefit from pooling if the variability of the pool is lower than that

<sup>8</sup> Agosin (2000) calculates that if a reserve fund were endowed with 15% of the reserves of the 11 countries in the region (including all the large countries except Mexico), it could provide financing to cope with capital outflows equivalent to the entire short-term foreign debt of all the countries under the arrangement.

of its individual reserves, or if the increased access to reserves outweighs the higher variability of the pool. The coverage ratio for country *i* becomes:

$$C_i = \frac{\left( R_i + \sum_{j \neq i} \rho R_j \right)}{\text{Var} \left( R_i + \sum_{j \neq i} \rho R_j \right)} \quad (2)$$

In this equation,  $\rho$  is the degree of pooling  $0 \leq \rho \leq 1$ ,  $R_i$  is the total reserves of country *i* and  $R_j$  is country *j*'s reserves. That is, with partial pooling, country *i*'s total access to reserves equals all its own reserves plus the partially pooled reserves of all other members of the pool.

Table 5 shows the mean, standard deviation and volatility coefficient of international reserves in the 10 countries analysed for the period 1990-2005. The volatility coefficients range from 0.56 for Mexico to 0.19 for Chile. Table 6 summarizes the coverage ratios calculated using equation (2) for different values of  $\rho$ . The results show that the countries with the lowest reserve volatility, Chile and Colombia, would lose coverage by joining the reserve pool, since both would experience a decline in effective reserves as compared to self-insurance. The rest of the countries improve their

situation with pooling. Mexico is one of those gaining the most, followed by Ecuador and Peru. These three countries are the ones that have the highest volatility coefficients. These results imply that expanding the membership of the Latin American Reserve Fund is not straightforward, and that there might be incentive problems for countries with high reserves relative to their volatility if they were to join the fund.

TABLE 5

**Latin America (10 countries):  
Reserve variability, 1990-2005<sup>a</sup>**

	Mean	Standard deviation	Variation coefficient
Bolivia	1 226	447	0.36
Colombia	9 916	2 443	0.25
Costa Rica	1 478	479	0.32
Ecuador	1 634	656	0.40
Peru	9 109	3 480	0.38
Venezuela (Bol. Rep. of)	16 034	5 277	0.33
Argentina	18 597	6 445	0.35
Brazil	43 106	14 342	0.33
Chile	14 832	2 829	0.19
Mexico	35 425	19 825	0.56

Source: Prepared by the author using data from the IMF (various years).

<sup>a</sup> The measure of volatility used was the variation coefficient (the ratio of the standard deviation to the mean).

TABLE 6

**Latin America (10 countries): Coverage ratios, 1990-2005**

	p=0	p=0.1	p=0.2	p=0.3	p=0.4	p=0.5	p=0.6	p=0.7	p=0.8	p=0.9	p=1
Bolivia	2.74	3.38	3.41	3.41	3.42	3.42	3.42	3.42	3.42	3.42	3.42
Colombia	4.06	3.69	3.57	3.52	3.49	3.47	3.45	3.44	3.44	3.43	3.42
Costa Rica	3.09	3.44	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.42
Ecuador	2.49	3.38	3.41	3.41	3.42	3.42	3.42	3.42	3.42	3.42	3.42
Peru	2.62	3.12	3.25	3.32	3.35	3.37	3.39	3.40	3.41	3.42	3.42
Venezuela (Bol. Rep. of)	3.04	3.38	3.44	3.45	3.45	3.44	3.44	3.44	3.43	3.43	3.42
Argentina	2.89	3.47	3.56	3.56	3.54	3.51	3.49	3.47	3.45	3.44	3.42
Brazil	3.01	3.29	3.43	3.49	3.51	3.50	3.49	3.48	3.46	3.44	3.42
Chile	5.24	4.28	3.92	3.74	3.64	3.57	3.53	3.49	3.46	3.44	3.42
Mexico	1.79	2.18	2.48	2.71	2.90	3.04	3.15	3.24	3.31	3.37	3.42

Source: Prepared by the author using data from the IMF (various years).

## V

**Financial development**

Imperfections in the financial market have held back the financial integration of Latin American economies with international markets (Ocampo and Martin, 2003; ECLAC, 2000; Calvo, 2002; Caballero, 2003). The lack of suitable instruments for hedging and insuring against the risk of a sudden halt in capital flows and a sharp alteration in the terms of trade (such as bonds indexed to output growth or the price of export goods) has a very high economic cost for the Latin American countries.<sup>9</sup> Furthermore, the two tend to compound each other, since a deterioration in the terms of trade adversely affects borrowing conditions. The result is that the financial markets intensify the economic cycle instead of smoothing it.

Exchange-rate flexibility does not solve the problem, moreover, because emerging economies, and Latin American ones in particular, are highly dollarized. The large currency mismatch that is still a feature of the region makes it difficult to use the exchange rate as a mechanism for adjusting to external shocks, owing to the impact on the balance sheets of companies and the public sector (Eichengreen and Hausmann, 1999).

This is why a number of financial market development proposals call, first, for a larger role for external borrowing in domestic currency and, second, for debt servicing to be tied to the evolution of the economy when borrowing is in foreign currency. Particular proposals of this type include domestic inflation-indexed local-currency bonds, GDP-indexed bonds and bonds indexed to commodity prices (Borensztein and Mauro, 2004; Shiller and Griffith-Jones, 2006; Caballero, 2001). Since these securities are still unattractive to private investors, the task of developing markets for them has proved very slow and difficult. Coordination problems, lack of confidence in national policies and problems of transparency and surveillance are some of the factors holding back the creation of markets of this kind, and international and regional financial institutions need to be actively involved in supporting and facilitating this.

In the Latin American context, there are a number of regional and subregional actors that could give a major impetus to the development of such markets. Regionally, there are the Inter-American Development Bank (IDB) and the World Bank. A number of analysts have proposed that the IDB should lend to Latin American countries in their own currencies by issuing inflation-linked local-currency securities (Fernández Aria and Cowan, 2005; Eichengreen, Hausmann and Panizza, 2005).

In the last two years, the IDB has been promoting the issuance of local-currency securities in Brazil, Chile, Colombia and Peru (table 7). The investor base has been domestic as well as international, and the securities are listed on both local and international markets, which contributes to the price discovery process by creating tension between the two types of market. Also, the bonds add value to international capital markets by providing AAA risk-rated assets denominated in local currency to international investors, who can then allocate currency risk separately from credit risk. By issuing debt in local currency, the IDB helps to improve the countries' balance sheets and contributes to domestic financial markets by introducing best practices, providing risk diversification opportunities to domestic investors, and providing liquidity to the bond and swap markets.

At the subregional level, subregional development banks and the Latin American Reserve Fund could play a similar role.<sup>10</sup> Since the 1990s, subregional banks have increased their funding for the subregions. The Andean Development Corporation (ADC) contributes around 56% of the total resources approved by development banks for the Andean Community countries. Indeed, the ADC has become the main source of financing for the Andean countries, accounting for 68% of all lending approved during 2002. The Central American Bank for Economic Integration (CABEI) has also increased its lending, albeit to a lesser extent and not

<sup>9</sup> Calvo (2005) calculates the output cost of capital reversal at around 5% of GDP in the year that follows the onset of the event. Crane (2005) calculates smaller effects of some 1% to 2% of GDP.

<sup>10</sup> Eichengreen (2006) proposes that FLAR should help to support the development of a market in local-currency government securities indexed to domestic inflation or GDP. This would involve changes to the fund's fiduciary responsibilities.

TABLE 7

## Latin America: IDB issues in Latin American currencies

	Date of Issue	Currency	Amount	U.S. dollar equivalent	Coupon	Maturity
Brazil	11 May 2004	Real	550 million	94 million	0	5 years
Brazil	14 December 2004	Real	200 million	73 million	IGPM + 6.26%	5 years
Colombia	23 June 2004	Peso	120 billion	44 million	CPI + 0.54% (issued at discount)	7 years, payable
Colombia	10 March 2005	Peso	168 billion	73 million	CPI + 3.95%	7 years, payable
Chile	25 August 2005	Peso	36.3 billion	65 million	2.15% in development units (UF)	5 years
Peru	19 May 2006	Nuevo sol	65.2 million	20 million	6.09375%	2 years

Source: García (2006).

so systematically. Compared with the World Bank and IDB, CABEI has contributed an average of around 40% of the total financing approved by these institutions for the Central American countries, peaking at 57% in 2003. The Caribbean Development Bank (CDB) accounted for around 30% of total loans approved by multilateral development banks between 1992 and 2002 (table 8).

The subregional development banks have a much higher investment rating than their member countries.<sup>11</sup> This gives them a solid base for complementing IDB efforts in providing highly rated innovative local-currency assets to international investors.

Developing a securities market like the ones proposed involves major demands in terms of statistical information and the transparency of economic policy management. Greater macroeconomic coordination between the region's countries can thus boost the development of regional financial markets. Unfortunately, progress with macroeconomic cooperation and coordination in Latin America has been limited, although more has been done in the Central American Common Market than in the Andean Community or MERCOSUR. Remembering the difficulties of the past, not only are measures needed to enhance regional integration in different areas of trade and infrastructure

(ECLAC, 2006b, chapter IV), but in the macroeconomic sphere there is also a need for periodic meetings, information-sharing, harmonization of statistics and the creation of supranational forums for policy debate.<sup>12</sup> Although information-sharing is a restricted form of coordination that does not directly influence macroeconomic performance, it does help countries to become better acquainted, gain a deeper understanding of one another's characteristics and situations and adopt a common outlook, all of which is a far cry from the current situation in the Latin American integration process (Machinea and Rozenwurcel, 2006). Stricter coordination would require the establishment of convergence goals for a set of macroeconomic variables. In the regional context, targets would have to be set for the budget deficit, inflation, the current-account deficit and short-term debt. Some of these targets could also provide the basis for the conditionality of the Latin American Reserve Fund, in the event that countries had to meet convergence targets to receive assistance. Given the need to establish feasible objectives, it must be asked how strict the rules would have to be. A degree of flexibility is required to cope with unexpected crises, but excessive flexibility can undermine the credibility of commitments. Despite this, as we have already pointed out, the benefits of

<sup>11</sup> Moody's has given ratings of Aa2 to the Andean Development Corporation, Aaa to the Central American Bank for Economic Integration and Baa1 to the Caribbean Development Bank.

<sup>12</sup> Some progress has been made in this field through the ECLAC Macroeconomic Dialogue Network (REDIMA). See Cárcamo (2005).

TABLE 8

**Loans approved by development banks, 1995-2004<sup>a</sup>**  
(Millions of current dollars)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
a) Andean Community countries										
IDB + World Bank	2 133	1 924	1 392	2 996	2 558	2 152	1 917	1 559	4 124	2 329
ADC	2 258	2 314	2 900	2 673	2 182	2 323	3 198	3 290	3 304	3 503
b) Central American Common Market countries										
IDB + World Bank	876	626	593	1 233	1 027	513	1 079	1 043	513	760
CABEI	358	569	532	932	336	330	572	680	681	800
c) CARICOM countries										
IDB + World Bank	345	506	176	189	334	270	310	326	242	221
CDB	92	73	51	117	137	179	85	108	185	94

Source: Titelman (2006).

<sup>a</sup> IDB: Inter-American Development Bank; ADC: Andean Development Corporation; CABEI: Central American Bank for Economic Integration; CDB: Caribbean Development Bank.

issuing securities with better cyclical properties ought to be an incentive to macroeconomic discipline and policy coordination.

All this means that the countries need to accept some loss of sovereignty and show strong political will to back up the necessary coordination efforts. This is particularly true for the larger countries in the agreement, for which the loss of autonomy is more costly (IDB, 2002, chapter 7). When economic interdependence between the members of an integration agreement is highly asymmetrical, the larger partners

have the responsibility to provide leadership in order to move the integration process forward.

It is worth recalling that one of the mandates of the Latin American Reserve Fund is to encourage macroeconomic coordination between its members, which means that assistance at times of crisis and the issuance of securities with the characteristics described could provide incentives to carry the process forward. However, there is no substitute for political will on the part of the countries.

## VI

### Conclusions

External factors, especially those associated with capital movements, have been among the main causes of the volatility experienced by the region in the last three decades. The scale of the crises associated with this volatility has led to more responsible economic policy-making in recent years, and indicators relating to short-term liquidity needs have improved accordingly. In addition, mechanisms of self-insurance via the accumulation of international reserves, which tend to be costly and inefficient, have become an instrument for confronting external shocks.

If the effectiveness and efficiency of the region are to be improved and its vulnerability to external

shocks thereby reduced, two things are important: the ability to obtain financing at reasonable rates in an emergency, and the development of markets for financial instruments that can help to reduce this vulnerability.

The present article argues that regional bodies can make an important contribution to these two objectives. A good example of the first is the Latin American Reserve Fund which, while it only covers a few countries, has been able to supply short-term financing to its member countries with good results. Since its creation, the fund has contributed resources equivalent on average to 60% of IMF exceptional

financing to the Andean Community countries. Among the most important features of FLAR lending are its speed and timeliness.

Would it be possible to include more of the region's countries in this fund? An analysis of the correlation between different variables that can be regarded as indicators of external shocks shows that extending the geographical coverage of the Latin American Reserve Fund would indeed be feasible. In other words, although the region's countries are affected by similar financial shocks and there is evidence of regional contagion, the expanded FLAR could operate effectively if it carried out emergency lending to more countries in the region. The correlation coefficients of detrended series of international reserves tend to be low and non-significant (only 17 out of 45 are significant at the 5% level). Terms-of-trade correlations do not show a clear pattern either. There is a mixture of negative and positive coefficients of smaller and larger magnitudes, with only 15 of the 45 coefficients being positive and significant. Private capital inflows show positive correlations, but they are generally not close to unity. These results coincide with those reported by Urrutia (2006), Machinea (2003) and Agosin (2000).

Pooling international reserves offers participant countries two possible benefits: access to increased reserve holdings, and a possible reduction in reserve volatility. Estimates for 10 of the region's economies show that countries with more volatile international reserves would tend to benefit from a reserve pooling arrangement. Conversely, lower-volatility countries such as Chile and Colombia would be worse off. This implies that there would be incentive problems for countries with reserves that are high relative to their volatility.

When it comes to markets in government securities incorporating more economic variables, we find that the development of markets in local currency-denominated

domestic inflation-indexed bonds, GDP-indexed bonds and commodity price-indexed bonds has been a slow and difficult process because of coordination problems, lack of confidence in the countries' policies, and problems of transparency and surveillance. The proposal of this paper is that subregional development banks, together with the Latin American Reserve Fund, should complement the current efforts of the IDB and World Bank to promote the creation of markets for instruments of this type.

Deepening financial integration creates needs and incentives for stronger macroeconomic coordination. One way to speed up the slow progress seen in the region would be to combine 'soft' coordination with information-sharing and the creation of supranational forums for policy debate, which would enable countries to become better acquainted and improve their understanding of one another. A stricter form of coordination would mean establishing goals for the convergence of a set of macroeconomic variables. Given that one of the mandates of the Latin American Reserve Fund is to promote macroeconomic coordination, the convergence targets could also provide the basis for the conditionality of the fund, if compliance with the targets were a prerequisite for requesting countries to receive assistance from it.

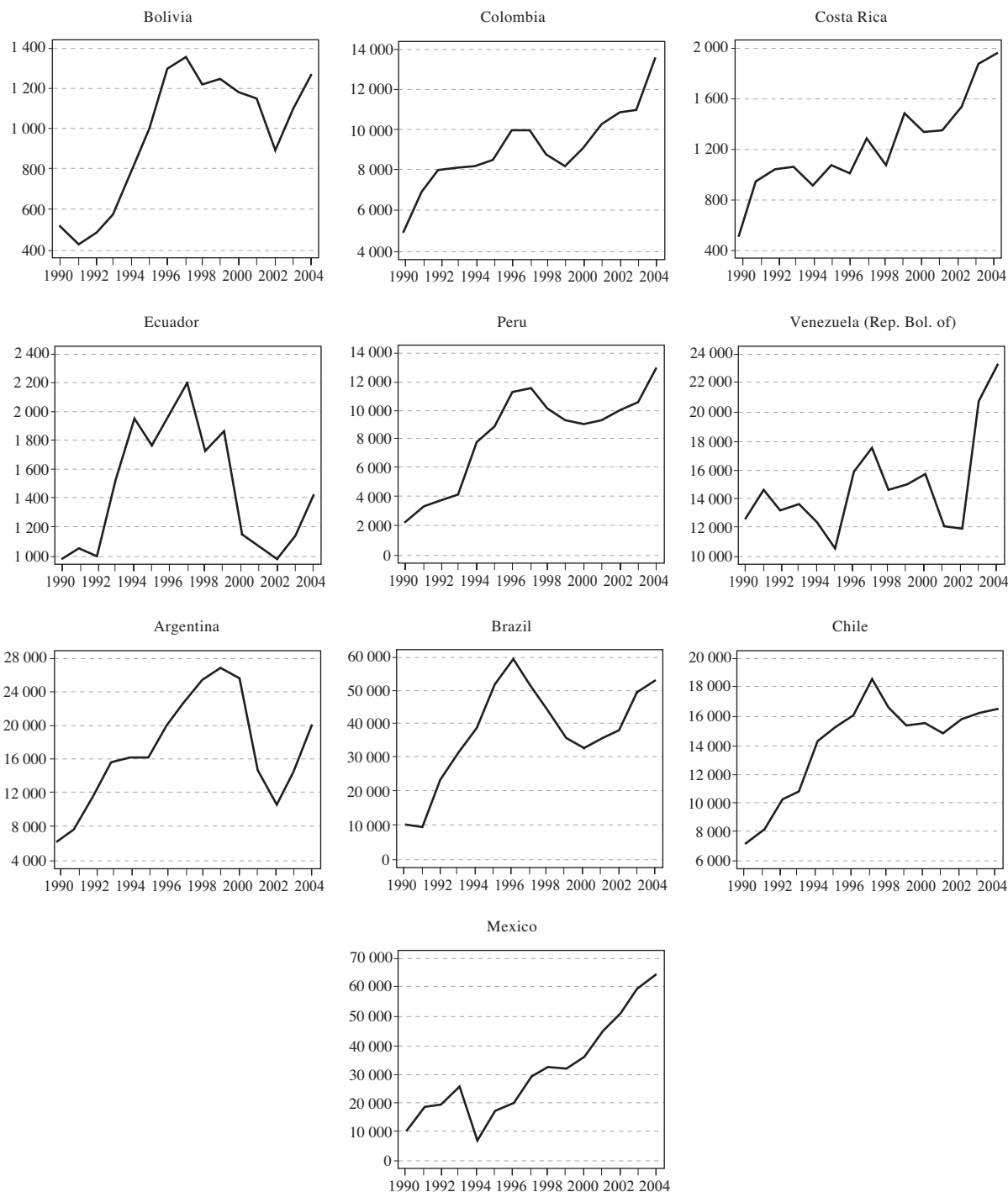
Lastly, it should be stressed that regional financial agreements supplement global arrangements but do not replace them, and a guiding principle in regional financial integration processes should be that of additionality vis-à-vis the global financial architecture. By the same token, subregional development banks and the Latin American Reserve Fund need to coordinate with other international financial institutions to promote financing instruments that are designed to further the countries' financial development.

*(Original: English)*

## Appendix

FIGURE A.1

**Latin America (10 countries): Trends in international reserve stocks**  
*(Millions of dollars)*



Source: World Bank, *Global Development Finance* (various years).



TABLE A.1

## Latin America (10 countries): Simple correlation coefficients, 1990-2005

## International reserves

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Venezuela (Bol. Rep. of)	Argentina	Brazil	Chile	Mexico
Bolivia	1									
Colombia	0.8551*	1								
Costa Rica	0.8308*	0.8117*	1							
Ecuador	0.7626*	0.7554*	0.5083	1						
Peru	0.9446*	0.9168*	0.7862*	0.8463*	1					
Venezuela (B.R.)	0.7572*	0.7962*	0.7978*	0.5710*	0.7071*	1				
Argentina	0.7426*	0.3941	0.4904	0.6151*	0.6075*	0.5103	1			
Brazil	0.6184*	0.6256*	0.2749	0.8111*	0.7437*	0.3914	0.4711	1		
Chile	0.7966*	0.6984*	0.4902	0.8484*	0.8875*	0.4307	0.6240*	0.8867*	1	
Mexico	0.7559*	0.8526*	0.9330*	0.4522	0.7428*	0.7669*	0.2684	0.2565	0.4048	1

## Detrended international reserves

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Venezuela (Bol. Rep. of)	Argentina	Brazil	Chile	Mexico
Bolivia	1									
Colombia	0.3574	1								
Costa Rica	0.2353	-0.1345	1							
Ecuador	0.5483*	0.5803*	-0.1267	1						
Peru	0.7117*	0.6669*	-0.0954	0.8067*	1					
Venezuela (B.R.)	0.6101*	0.5173*	0.5682*	0.3378	0.4624	1				
Argentina	0.8084*	0.1220	0.5063	0.4328	0.4710	0.5854*	1			
Brazil	0.4098	0.6420*	-0.3467	0.6969*	0.7810*	0.2738	0.1907	1		
Chile	0.4747	0.6663*	-0.1628	0.7167*	0.8698*	0.3371	0.3114	0.8385*	1	
Mexico	-0.1100	0.0102	0.4509	-0.3114	-0.3423	0.3637	-0.0955	0.3391	-0.4069	1

## Variation of international reserves

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Venezuela (Bol. Rep. of)	Argentina	Brazil	Chile	Mexico
Bolivia	1									
Colombia	0.3841	1								
Costa Rica	0.1101	-0.1271	1							
Ecuador	0.4514	0.2692	0.0280	1						
Peru	0.4341	0.6731*	0.0211	0.5594*	1					
Venezuela (B.R.)	0.6537*	0.3088	0.4575	0.3736	0.3505	1				
Argentina	0.6474*	0.0433	0.3283	0.3615	0.2506	0.5736*	1			
Brazil	0.2402	0.3420	-0.3035	0.2013	0.3577	0.1751	0.1000	1		
Chile	0.2197	0.4682	-0.0026	0.3032	0.7161*	0.1869	0.1471	0.5546*	1	
Mexico	0.0057	-0.0830	0.3695	-0.0592	-0.3289	0.2609	-0.0213	-0.2044	-0.4694	1

Continued on the following page

Table A.1 (continued)

## Terms of trade

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Venezuela (Bol. Rep. of)	Argentina	Brazil	Chile	Mexico
Bolivia	1									
Colombia	-0.3857	1								
Costa Rica	-0.0265	-0.5212*	1							
Ecuador	-0.4364	0.8548*	-0.3141	1						
Peru	0.1353	0.4311	0.1345	0.3264	1					
Venezuela (B.R.)	-0.2040	0.9195*	-0.6262*	0.8300*	0.4396	1				
Argentina	-0.5025	0.7688*	-0.2849	0.6323*	0.4609	0.6951*	1			
Brazil	-0.5120	0.2333	0.4063	0.2700	0.2989	-0.0237	0.4723	1		
Chile	-0.2032	0.8929*	-0.5168*	0.7543*	0.5623*	0.8779*	0.6892*	0.2755	1	
Mexico	-0.6184*	0.8073*	-0.4232	0.8840*	0.0798	0.7219*	0.6421*	0.3617	0.7373*	1

## Export prices

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Venezuela (Bol. Rep. of)	Argentina	Brazil	Chile	Mexico
Bolivia	1									
Colombia	0.5243*	1								
Costa Rica	0.0070	-0.3307	1							
Ecuador	0.4632	0.9092*	-0.3639	1						
Peru	0.8071*	0.7441*	0.1447	0.6413*	1					
Venezuela (B.R.)	0.4704	0.8792*	0.5519*	0.9102*	0.5932*	1				
Argentina	0.5756*	0.5880*	0.3737	0.4233	0.8231*	0.3032	1			
Brazil	0.6666*	0.5601*	0.4638	0.4212	0.8108*	0.2344	0.8566*	1		
Chile	0.7595*	0.8658*	-0.0446	0.7182*	0.8900*	0.6754*	0.6998*	0.7918*	1	
Mexico	0.2650	0.8808*	-0.3315	0.8635*	0.5191*	0.8606*	0.3494	0.3781	0.7017*	1

## Capital flows

	Bolivia	Colombia	Costa Rica	Ecuador	Peru	Venezuela (Bol. Rep. of)	Argentina	Brazil	Chile	Mexico
Bolivia	1									
Colombia	0.2769	1								
Costa Rica	-0.0359	-0.4145	1							
Ecuador	0.3048	0.4135	-0.1336	1						
Peru	0.1488	0.5593*	-0.4953	0.0972	1					
Venezuela (B.R.)	0.3965	0.0319	-0.2219	-0.1989	0.1681	1				
Argentina	0.6836*	0.3872	-0.5573*	0.0972	0.4093	0.4964	1			
Brazil	0.6046*	0.6547*	-0.1858	-0.0183	0.4382	0.3278	0.5000	1		
Chile	0.4935	0.4956	-0.3870	0.1212	0.6923*	0.0766	0.5912*	0.6294*	1	
Mexico	0.2735	-0.3849	-0.0200	0.0505	0.2172	0.0372	0.2922	-0.2847	0.3460	1

Source: Prepared by the authors with data from the World Bank (various years) and ECLAC.

\* Coefficient significant at a 5% level.

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**KEYWORDS**

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# Fiscal federalism in Brazil: an overview

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**A**lthough the states and municipalities that comprise the Brazilian Federation have considerable autonomy in raising their own tax income and spending public funds, this is not the outcome of a planned decentralization process. The improvement in fiscal indicators at the subnational-government level since the promulgation of the Fiscal Responsibility Act has made a major contribution to the success of the country's macroeconomic stabilization policy. Nonetheless, the Federation is seen as a major stumbling block for reform of the tax system. As a contribution to the debate on federative balance in the division of fiscal responsibilities, this paper makes a diagnostic study of the federative framework and recent institutional changes, and proposes a new federative agenda.

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# I

## Introduction

The fact that the Brazilian Federation is characterized by pronounced fiscal decentralization, has led to accusations that it hinders economic stabilization. Yet stabilization was finally achieved under the Real Plan, implemented in June 1994, without the federative structure being significantly altered.

The scant commitment shown by Brazil's subnational governments<sup>1</sup> towards formulating and implementing healthy macroeconomic practices (in which respect it differs little from other federations) has also been seen as obstructing the consolidation of stability. Nonetheless, starting in the late 1990s Brazil embarked upon a profound reform of its public finances, in a process that culminated in a fiscal responsibility law that surpassed all other federations in the degree of transparency and austerity it demands of federated members. The situation has been reversed to such an extent that better primary and nominal results

achieved by the states and municipalities (along with State-owned enterprises) have recently compensated for a deterioration of those indicators at the central (federal) government level.

In recent years, the Federation has ceased to act as a disrupting factor in the "economic order", and now actually contributes to the success of short-term macroeconomic policy (at least with regard to the management of surplus and debt targets). A structural issue remains unresolved, however, along with attendant difficulties and distortions: the Federation is still viewed by many as the chief obstacle to reforming the economy, as if the federative division of tax revenues had been frozen since implementation of the system defined by the 1988 Constitution. This idea is false, however, for financing and public expenditure trends have changed significantly in recent years.

# II

## Conditioning factors

### 1. Economic setting

Brazil is the world's tenth largest economy in terms of gross domestic product (GDP),<sup>2</sup> has the fifth largest population (184.2 million inhabitants) and is fifth also in terms of land area. Following a long period

of stagnation in the nineteenth century, its economy grew faster than any other country in the world between 1870s and 1970s, while also undergoing far-reaching structural change. The pace of growth was particularly rapid after World War II, but it has slowed dramatically over the last 26 years. As a result, Brazil's per capita income (US\$ 7,450) is still 86th in the world ranking,<sup>3</sup> it ranks 63rd in the Human Development Index (0.792),<sup>4</sup> and its income distribution is among the most unequal on the planet (a Gini coefficient of 0.544 in 2005).

Accustomed to vigorous output and employment growth and rapid structural changes, and wishing to bring about a substantial improvement in social conditions

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□ This article, which draws on data available up to September 2006, is based on a paper presented at the International Conference on Federalism at the Forum on Federations (Mont-Tremblant, Canada, October 1999). The opinions expressed herein are the exclusive responsibility of the authors and not of the institutions to which they are affiliated. The economists Rafael Barroso, Beatriz Meirelles and Kleber Castro helped to prepare the analysis and update the statistical database.

<sup>1</sup> In this paper, the term "subnational governments" will be used to refer to government authorities both at the state level, including the Federal District, and at the municipal level.

<sup>2</sup> In 2005, GDP was US\$ 796 billion, at current prices converted using the current exchange rate, according to the Organization for Economic Co-Operation and Development (OECD).

<sup>3</sup> According to the World Bank ranking of countries for 2002, using per capita GDP calculated on a purchasing-power-parity basis.

<sup>4</sup> Human Development Report (UNDP, 2005).

among the poorest segments of the population, Brazil, at the start of this new century, has been impatiently striving to regain the momentum of growth without compromising the price stability achieved at such cost 12 years ago.

For three fifths of the recent period of economic semi-stagnation (1980-2006), the country endured an acute process of hyperinflation, which was overcome only in the mid-1990s after at least eight unsuccessful attempts. Since then, reforms have been introduced to regain development with stability, and the State's role in economic life has been redefined. The economy has become more open to international trade and financial flows, and social and industrial policies have been retargeted —along with the fiscal and federative system, the topic of this article.

Improving fiscal federalism in Brazil is essential, both to maintain economic stability and to resume sustainable development, since the formulation and implementation of more appropriate economic policies depend, among other things, on the structure and harmonization of internal and external taxation.<sup>5</sup>

## 2. Historical setting

In a country without major cultural conflicts arising from linguistic, religious or even ethnic identities, the Brazilian Federation was created in 1891 as a response to regional differences and administrative needs spanning a continent-sized land area. This federation was not the outcome of any “bottom-up” coalition, but was created by a “top-down” decision to divide a unitary state. In terms of the tax system, the move to federation mainly benefited the more developed provinces of the south and southeast, especially São Paulo where the new export sector was concentrated. It is no coincidence that that state headed the republican movement and led the republic in its early days. One of the main objectives was to obtain greater freedom of movement to levy local taxes on foreign trade.<sup>6</sup>

<sup>5</sup> See Oates (1999) for an up-to-date overview of fiscal federalism, covering both theoretical principles and international experiences.

<sup>6</sup> A feature of the Brazilian tax system that contrasts with that of the United States has been highlighted by Professor Alcides Jorge Costa: ever since the colonial period, the intermediate level of government in Brazil has always managed to uphold its own right to tax exports, including those of industrial products. In contrast, property taxation has always been derisory, especially in rural areas, which was usually assigned to the federal jurisdiction. For example, in 2005, the states raised about R\$ 8.8 billion from vehicle property tax – 36 times more than the R\$ 240 million that central government collected from rural land tax.

In return, the less developed regions were offered more-than-proportional representation in the National Congress.

Since its creation, the Brazilian federative system has experienced clearly defined cycles of central-government contraction and expansion.<sup>7</sup> Between 1891 and 1930, under the “Old Republic” and at the height of the primary-economy/coffee-exporting boom, the federal government was relatively weak, and its relative share of national public expenditure shrank from about three quarters to a half. At the same time, the proportion of total state government income generated by São Paulo expanded from just over 10% to nearly 40%.

This was followed by a cycle of centralization between 1930 and 1946, which began with the revolution of 1930 (*Revolução de 30*). This phase accompanied the global economic depression and culminated with the Getulio Vargas dictatorship (the “New State”). Centralization of power in the hands of the federal government made it possible to complete the unification of the domestic market and strengthen the foundations of industrialization. In that period, the federal authorities' share in the inter-governmental division of public expenditure increased from 50% to 55%.

At the end of the World War II, the redemocratization of the country and new democratic Constitution of 1946 inaugurated a new decentralization phase; and central government once again absorbed about 50% of total national public expenditure in the following decade.

The advent of the military regime in 1964 ushered in a two-decade phase of resource centralization (table 1), which was useful both for fiscal reform —in the first half of the period, with the concentration of income and control of expenditure in the hands of central government— and for the political and social control that the regime needed. In 1983, at the height of centralization, the federal government share in disposable tax revenue peaked at almost 70%, broadly matching its share in the federative division of national public expenditure.

The weakening of the military regime combined with the winds of political openness to moderate central power in the first half of the 1980s, and this trend was reaffirmed in the second half of that decade with redemocratization and the drafting of a

<sup>7</sup> The statistics on the division of revenue or expenditure between the different spheres of government discussed in the following paragraphs are based mainly on Goldsmith (1986).

TABLE 1

**Brazil: Tax burden and its federative division, 1960-2005**  
(Percentages)

Year	Tax burden (Percentage of GDP)	Direct collection <sup>a</sup>				Disposable tax revenue <sup>b</sup>			
		Central government	States	Municipalities	Total	Central government	States	Municipalities	Total
1960	17.41	64.0	31.3	4.7	100.0	59.5	34.1	6.4	100.0
1965	18.99	63.6	30.8	5.6	100.0	54.8	35.1	10.1	100.0
1983	26.97	76.6	20.6	2.8	100.0	69.8	21.3	8.9	100.0
1988	22.43	71.7	25.6	2.7	100.0	60.1	26.6	13.3	100.0
1991	25.24	63.4	31.2	5.4	100.0	54.7	29.6	15.7	100.0
2005	38.94	68.4	26.0	5.6	100.0	57.6	25.2	17.2	100.0

Source: Afonso and Meirelles (2006).

<sup>a</sup> Direct collection = Revenue collected directly by each sphere of government from its own tax jurisdictions in each state or region.

<sup>b</sup> Disposable tax revenue = Direct collection (own tax jurisdictions) plus or minus constitutionally mandated revenue transfers, including: (i) those granted by the central government, which include cash transfers from the State Revenue Sharing Fund (FPE), the Municipal Revenue Sharing Fund (FPM), the Export Compensation Fund (FPEX), the revenue-insurance generated by the Sales Tax on Merchandise and Services (ICMS), and complementation of the Fund for the Maintenance and Development of Basic Education and Professional Development of Teachers (FUNDEF); and (ii) transfers granted by the the states —25% of ICMS/FPEX and 50% of the Motor Vehicle Ownership Tax (IPVA), in addition to redistribution from FUNDEF. The municipalities' disposable income consists exclusively of federal and state transfers.

new Constitution (1987-1988). When the National Constituent Assembly began to operate, disposable tax income was no longer so highly concentrated in central government hands: the federal share had been reduced to about 60%,<sup>8</sup> contrary to popular belief prevailing both in Congress and among government authorities (including at the federal level) and the press.

Moreover, against a backdrop of prolonged hyperinflation and failed stabilization programmes, the weakness of the previous tax system became clearly visible, as the national tax burden shrank from about 25% of GDP in the early 1970s to 22% in 1988.

Since the 1970s, the banners of fiscal decentralization and a weakening of central power have held a prominent place in the ideology and process of the country's re-democratization. The movement achieved major success in the final phase of the authoritarian regime in the first half of the 1980s. In the second half, the new Constitution (1988) gave another vigorous boost to transfers. The share of the main federal taxes, i.e. Income Tax (IR) and the Industrial Products Tax (IPI), which was paid into the State and Municipal Revenue

Sharing Funds (FPE and FPM) grew from 18% to 44% between 1980 and 1990. If all constitutionally mandated transfers are included, the portion transferred amounts to 47% of IR and 57% of IPI. The comparative figure in 1980 was just 20%.<sup>9</sup>

Following promulgation of the 1988 Constitution, subnational government tax capacity was also strengthened and consolidated (figure 1). In the case of the states, for example, the tax base of state-level ICMS was extended, with the new tax absorbing five old federal taxes. Rates were also made more flexible, as was the corresponding administration, which was entirely delegated to the states themselves. Revenue transfers from this tax to the municipalities were also increased by 25%. Revenue raised by the municipalities themselves also grew, and they more than doubled their share of the total tax revenue collected in the country: from 2.7% of the overall tax burden in 1989 to 5.6% in 2005 (figure 2).

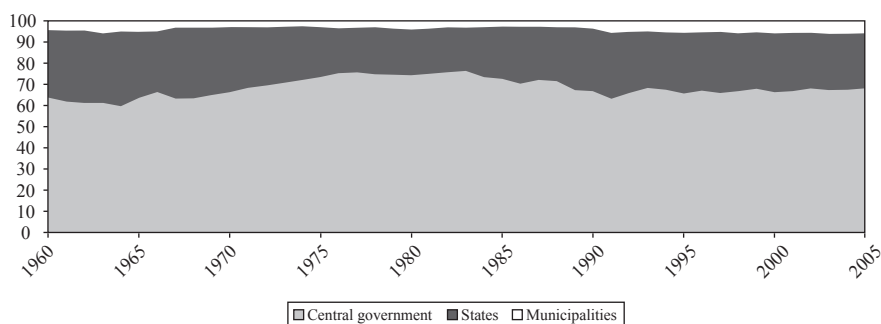
<sup>8</sup> See Serra and Afonso (1991).

<sup>9</sup> Of this, 3% is channelled to regional banks in the north (Banco da Amazônia, BASA), northeast (BNB) and centre-west regions. In the latter case, as there is no regional bank, the account is managed as a sinking fund by Banco do Brasil, for regional loans; 10% of IPI revenue is paid into a state fund to compensate for the fact that ICMS is not levied on exported manufactured products.



FIGURE 1

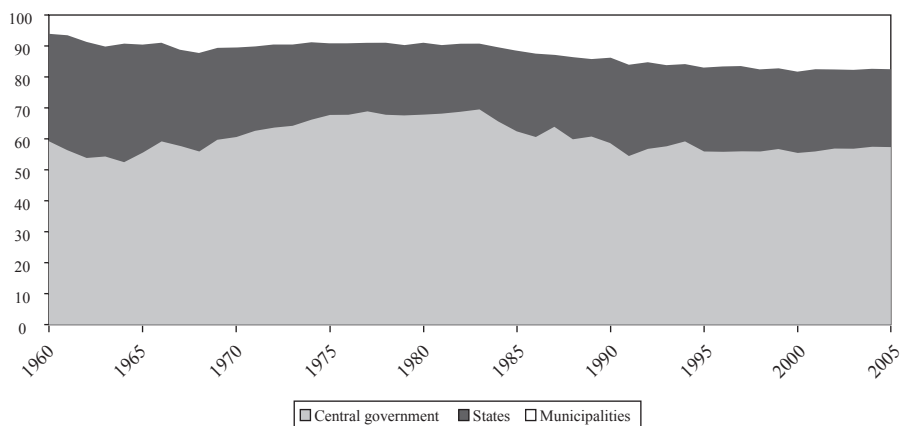
**Brazil: Federative division of direct tax revenue, 1960-2005**  
(Percentages)



Source: Afonso and Meirelles (2006).

FIGURE 2

**Brazil: Federative division of disposable tax revenue, 1960-2005**  
(Percentages)



Source: Afonso and Meirelles (2006).

This phenomenon was accompanied by an increase in the national tax burden, which was far more pronounced in the more developed regions: rising in 2005 to 36.7% of GDP nationally;<sup>10</sup> 48.7% and 42.2% in Rio de Janeiro and São Paulo, respectively; and 22.7% and 24% in the north and northeast (table 2).

<sup>10</sup> Statistics on the regionalization of tax revenues show a national consolidation that is slightly less than the amount of revenue indicated by the national accounts methodology, which includes federal revenue items for which there is no information by state of origin.

In vertical terms, which is the main focus of fiscal federalism, nearly all relative gains have benefited the municipal sector, with the states' position altering little, especially in terms of disposable tax revenue (own tax revenue plus or minus constitutionally mandated transfers). In horizontal terms, the additional resources were mostly destined for state and municipal governments in the less developed regions, thereby reversing the heavy concentration of revenue and GDP pertaining to the more developed regions, in the distribution of disposable tax income and expenditure. Both trends will be shown in the next section.

TABLE 2

## Brazil: Regional distribution of own tax revenue, 2005

Regions and states	Total tax revenue		Direct tax revenue <sup>a</sup> (R\$ million)							
	Percentage of GDP <sup>b</sup>	Per capita (real per inhabitant)	Total		Federal		State		Municipal <sup>c</sup>	
			A	B	C	D	E	F		
<b>Brazil</b>	<b>36.7</b>	<b>3 857</b>	<b>710 283</b>	<b>100.0</b>	<b>478 499</b>	<b>100.0</b>	<b>195 496</b>	<b>100.0</b>	<b>36 288</b>	<b>100.0</b>
<i>More developed regions</i>	<i>37.2</i>	<i>5 047.8</i>	<i>532 252.5</i>	<i>74.9</i>	<i>364 985.8</i>	<i>76.3</i>	<i>136 951.7</i>	<i>70.1</i>	<i>30 315.0</i>	<i>83.5</i>
<i>Southeast</i>	<i>41.2</i>	<i>5 613.4</i>	<i>440 486.4</i>	<i>62.0</i>	<i>310 118.2</i>	<i>64.8</i>	<i>105 593.6</i>	<i>54.0</i>	<i>24 774.6</i>	<i>68.3</i>
Minas Gerais	28.2	2 638.4	50 754.7	7.1	27 179.4	5.7	20 601.5	10.5	2 973.8	8.2
Espírito Santo	40.2	4 252.4	14 492.1	2.0	8 027.5	1.7	5 886.5	3.0	578.2	1.6
Rio de Janeiro	48.7	7 504.1	115 435.0	16.3	91 888.9	19.2	18 224.4	9.3	5 321.7	14.7
São Paulo	42.2	6 424.1	259 804.6	36.6	183 022.5	38.2	60 881.2	31.1	15 900.9	43.8
<i>South</i>	<i>25.5</i>	<i>3 402.3</i>	<i>91 766.2</i>	<i>12.9</i>	<i>54 867.6</i>	<i>11.5</i>	<i>31 358.1</i>	<i>16.0</i>	<i>5 540.5</i>	<i>15.3</i>
Paraná	25.5	3 066.9	31 469.6	4.4	19 415.1	4.1	10 087.5	5.2	1 967.0	5.4
Santa Catarina	26.2	3 455.7	20 271.4	2.9	11 758.3	2.5	7 196.4	3.7	1 316.7	3.6
Rio Grande do Sul	25.1	3 690.7	40 025.2	5.6	23 694.1	5.0	14 074.3	7.2	2 256.8	6.2
<i>Less developed regions</i>	<i>35.2</i>	<i>2 274.3</i>	<i>179 037.1</i>	<i>25.2</i>	<i>113 512.9</i>	<i>23.7</i>	<i>58 544.5</i>	<i>29.9</i>	<i>6 979.6</i>	<i>19.2</i>
<i>North</i>	<i>22.7</i>	<i>1 489.4</i>	<i>21 886.7</i>	<i>3.1</i>	<i>10 250.6</i>	<i>2.1</i>	<i>10 461.6</i>	<i>5.4</i>	<i>1 174.5</i>	<i>3.2</i>
Acre	23.3	1 177.0	787.4	0.1	291.9	0.1	459.0	0.2	36.5	0.1
Amazonas	26.4	2 858.5	9 238.8	1.3	5 152.4	1.1	3 677.3	1.9	409.1	1.1
Pará	18.6	971.1	6 768.3	1.0	2 963.0	0.6	3 327.4	1.7	477.9	1.3
Rondônia	22.3	1 539.0	2 360.9	0.3	742.4	0.2	1 513.4	0.8	105.1	0.3
Roraima	27.0	1 442.5	564.0	0.1	252.4	0.1	274.1	0.1	37.5	0.1
Amapá	17.4	1 121.5	666.2	0.1	289.6	0.1	341.1	0.2	35.5	0.1
Tocantins	28.8	1 150.3	1 501.1	0.2	558.8	0.1	869.4	0.4	73.0	0.2
<i>Northeast</i>	<i>24.0</i>	<i>1 258.3</i>	<i>64 182.6</i>	<i>9.0</i>	<i>30 333.2</i>	<i>6.3</i>	<i>29 774.1</i>	<i>15.2</i>	<i>4 075.3</i>	<i>11.2</i>
Maranhão	24.9	709.5	4 330.1	0.6	2 073.9	0.4	1 968.8	1.0	287.4	0.8
Piauí	23.1	702.9	2 105.9	0.3	844.7	0.2	1 115.7	0.6	145.5	0.4
Ceará	26.8	1 169.0	9 469.1	1.3	4 592.2	1.0	4 118.8	2.1	758.1	2.1
Rio Grande do Norte	23.2	1 315.8	3 951.4	0.6	1 571.0	0.3	2 086.7	1.1	293.8	0.8
Paraíba	20.7	982.2	3 530.9	0.5	1 488.4	0.3	1 828.9	0.9	213.6	0.6
Pernambuco	26.2	1 641.2	13 807.4	1.9	6 392.2	1.3	6 478.1	3.3	937.1	2.6
Alagoas	20.8	887.7	2 676.3	0.4	1 080.4	0.2	1 366.3	0.7	229.6	0.6
Sergipe	25.5	1 890.8	3 719.3	0.5	1 213.0	0.3	1 479.9	0.8	1 026.4	2.8
Bahia	22.6	1 490.6	20 592.3	2.9	11 077.4	2.3	9 331.0	4.8	183.9	0.5
<i>Centre-west</i>	<i>64.3</i>	<i>7 140.9</i>	<i>92 967.7</i>	<i>13.1</i>	<i>72 929.2</i>	<i>15.2</i>	<i>18 308.8</i>	<i>9.4</i>	<i>1 729.8</i>	<i>4.8</i>
Federal District	150.8	30 379.5	70 875.3	10.0	64 285.3	13.4	5 689.4	2.9	900.6	2.5
Goiás	22.8	1 862.2	10 463.7	1.5	4 512.6	0.9	5 602.6	2.9	348.6	1.0
Mato Grosso	24.0	2 411.8	6 760.1	1.0	2 312.2	0.5	3 967.3	2.0	480.6	1.3
Mato Grosso do Sul	20.6	2 150.4	4 868.5	0.7	1 819.0	0.4	3 049.5	1.6		

Source: Prepared by the authors on the basis of data from the Treasury (STN, various years), the Ministry of Welfare and Social Assistance, the Federal Economic Fund, the National Economic Policy Council, and the Brazilian Geographical and Statistical Institute (IBGE).

- <sup>a</sup> Direct collection = Revenue collected directly by each sphere of government from its own tax jurisdictions in each state or region.
- Central government revenue includes taxes (on foreign trade, capital and income, production); fees; social, economic and welfare contributions; and contributions to the Unemployment Insurance Fund (FGTS). The information per state is distorted for some taxes, because revenue collection is not the responsibility of an establishment or branch; and figures for the Federal District consolidates revenues obtained directly by the Federal Government or those of national scope.
  - State revenue collection includes the state-level ICMS, IPVA, the Inheritance and Gift Tax (ITCD), fees and other items. Municipal revenue includes the Urban Real Estate Tax (IPTU), the Tax on Services (ISS), the Tax on Property Transfer between Living Persons (ITBI), fees and contributions for improvements.
  - Municipal tax revenue pertaining to the Federal District corresponds to revenue obtained by the district government from IPTU, ISS, and ITBI.
- <sup>b</sup> State-level GDP at current prices estimated on the basis of 2003 shares.
- <sup>c</sup> Municipal revenue was reported by the Treasury on the basis of a 4,164-city sample, encompassing about 87% of the Brazilian population.

### III

## Analysis of the federative framework

An updated diagnosis of the situation of the Brazilian Federation<sup>11</sup> can be summarized in the following five points.

### 1. A system that is still evolving

The federative system in Brazil, a country whose economic frontier is still expanding, is still not physically complete, irrespective of the conflicts and conceptual issues that remain. Evidence for this is the fact that two new states were created in the 1970s (Mato Grosso do Sul and Rondônia), and another three following the National Constituent Assembly (Amapá, Roraima and Tocantins). All five of these new states are in less developed regions in the centre-north of the country. The National Constituent Assembly also put the Federal District in the same category as other states, by giving it full representation in the National Congress and its own legislative assembly, police and judicial system.

Moreover, the decentralising impetus of the 1988 Constitution gave the municipalities constitutional status as quasi-members of the Brazilian Federation. Initially, this encouraged the creation of new municipalities, as the total number rose from just over 4,000 to 5,564 in 2005.<sup>12</sup> In 1996, it was necessary to make a constitutional amendment to slow down this proliferation, by requiring that new municipalities be approved by popular plebiscite encompassing both territories —i.e. the territory being considered for emancipation and also the territory of origin.<sup>13</sup>

<sup>11</sup> See Affonso (1994) for a more detailed analysis of fiscal decentralization in Brazil.

<sup>12</sup> A study made by the Industrial Development Studies Institute (IEDI, 2006) estimates the “political cost” of the municipalities (i.e. the minimum amount of expenditure required to operate the federated municipal entity) at around R\$ 10 billion or 0.6% of GDP.

<sup>13</sup> Constitutional Amendment No. 15, of December 1996, succeeded in halting the creation of new municipalities, despite being generic and depending on the passing of a complementary law. From 1997 to 2005, only 57 were created, and these are covered by the previous legislation, since all of their processes had begun before the constitutional amendment was passed.

### 2. Vertical decentralization

In relation to the tax burden, the states and municipalities directly collected 31.6% of total taxes levied in Brazil in 2005. Once the constitutionally mandated distribution of revenues had been accomplished, subnational governments controlled 42.4% of national tax revenue, including social and pension fund contributions (table 1).

On the expenditure side, and contrary to popular belief about the Brazilian public sector, the states and municipalities exercise clear predominance in the government actions and services that most serve the population, apart from expenses in respect of financial charges and social benefits. According to the national accounts (the most recent official figures are for 2003), state and municipal governments accounted for 71% of the payroll of active civil servants in the country, in addition to 75% of other financing expenses and 85% of fixed investments (table 3 and figure 3).<sup>14</sup> Central government predominates only in the case of personal transfers, mainly consisting of pension benefits, and interest payments on the public debt, in which it accounted for about 85% of the consolidated government expenditure at all levels.

The trend of primary government expenditure in the period since the National Constituent Assembly dispels any doubts regarding decentralization, since it matches the redistribution of tax revenues even though the process has unfolded without proper planning or coordination. Whereas in 1988, central government absorbed 44% of all government demand for goods and services (including labour), by 2003 this proportion had fallen to 27% (table 3). In recent years, the distribution of overall expenditure reflects the reaction of central government to the rapid growth of expenditures on income transfers, particularly social benefits (pensions and social assistance), and interest on the public debt.

<sup>14</sup> This situation has been accentuated by a drastic downsizing of the State enterprise sector (not counted in the calculations made in this paper). This resulted from the rapid privatization process of the 1990s, particularly in the federal domain (e.g. telecommunications, mining, iron and steel, petrochemicals, electric power, rail transport and the road network).

TABLE 3

**Brazil: Federative division of public expenditure in the national accounts, 1988, 2000 and 2003**

Government level	Period	Main non-financial expenses							
		Intermediate consumption <sup>a</sup>		Remuneration of employees (active) <sup>b</sup>		Gross fixed capital formation		Total expenditure	
		Percentage of GDP	Percentage of total	Percentage of GDP	Percentage of total	Percentage of GDP	Percentage of total	Percentage of GDP	Percentage of total
Federal <sup>c</sup>	1988	2.6	55.3	3.2	40.5	1.1	34.4	6.9	43.7
	2000	2.0	32.0	3.0	32.7	0.5	26.6	5.5	31.8
	2003	1.7	25.4	2.9	29.3	0.3	15.5	4.9	26.6
State	1988	1.2	25.5	3.3	41.8	1.2	37.5	5.7	36.1
	2000	1.9	31.4	3.9	41.7	0.6	32.8	6.4	37.1
	2003	2.3	33.3	4.1	41.4	0.7	39.2	7.1	38.2
Municipal	1988	0.9	19.1	1.4	17.7	0.9	28.1	3.2	20.3
	2000	2.2	36.6	2.4	25.6	0.8	40.6	5.4	31.1
	2003	2.8	41.3	2.9	29.2	0.8	45.3	6.5	35.1
Consolidated general government	1988	4.7	100.0	7.9	100.0	3.2	100.0	15.8	100.0
	2000	6.1	100.0	9.3	100.0	1.9	100.0	17.3	100.0
	2003	6.8	100.0	10.0	100.0	1.7	100.0	18.5	100.0

*Source:* Prepared by the authors on the basis of IBGE (2003). This is the latest year for which the final volume of national accounts is available.

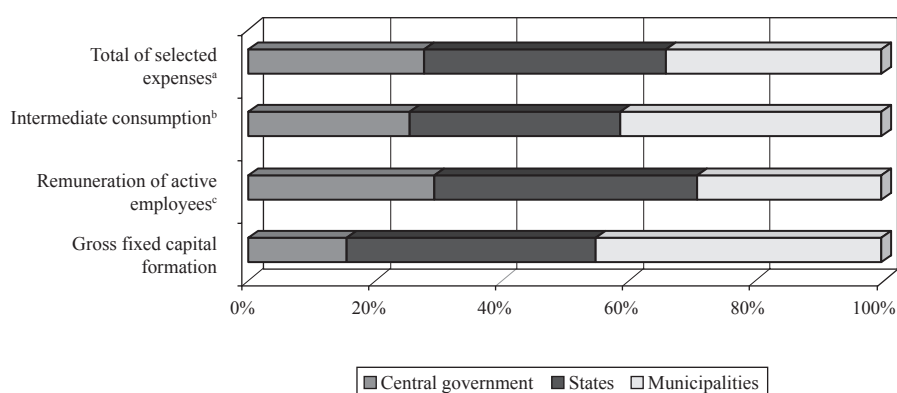
<sup>a</sup> Intermediate consumption includes direct purchases of goods and services for current operations.

<sup>b</sup> A deduction was made for what the IBGE refers to as “imputed social contributions”, corresponding to the financing of civil servant pension contributions.

<sup>c</sup> Includes social security - general regime, managed by the National Social Security Institute (INSS) and the Unemployment Insurance Fund (FGTS).

FIGURE 3

**Brazil: Federative division of primary public expenditure, 2003**



*Source:* Prepared by the authors, using data from the Brazilian Geographical and Statistical Institute (IBGE).

<sup>a</sup> Governments include decentralized administrations, but not productive State enterprises. Central government includes social security.

<sup>b</sup> Intermediate consumption includes other direct purchases of goods and services.

<sup>c</sup> Excluding what the IBGE refers to as “imputed social contributions” corresponding to the financing of civil servant pension contributions.

TABLE 4

Brazil: Regional distribution of subnational disposable tax income,<sup>a</sup> 2005

Regions and states	States			Municipalities				Subnational = states + municipalities				
	Disposable income			Transfer. Federal/ disposable income	Disposable income			Federal transfers/ disposable income	Disposable income			Federal transfers/ disposable revenue
	% of GDP <sup>b</sup>	Real per capita	Millions of real and % of total <sup>c</sup>		% of GDP <sup>b</sup>	Real per capita	Millions of real and % total <sup>c</sup>		% of GDP <sup>b</sup>	Real per capita	Millions of real and % total <sup>c</sup>	
	A	B	C	D	E	F	G	H	I	J	K	L
Brazil	7.7	808.4	114.780	22.8	4.3	456.1	62.737	40.0	12.0	1 264.6	177.517	29.0
			<b>100.0</b>				<b>100.0</b>				<b>100.0</b>	
Brazil except São Paulo	8.1	606.8	72.3	29.8	4.8	441.7	75.6	46.3	13.0	1 191.1	73.5	35.9
<b>More developed regions</b>	<b>6.5</b>	<b>875.0</b>	<b>62.0</b>	<b>9.8</b>	<b>3.6</b>	<b>486.6</b>	<b>61.1</b>	<b>29.8</b>	<b>10.0</b>	<b>1 361.5</b>	<b>61.6</b>	<b>17.0</b>
<i>Southeast</i>	6.5	884.8	46.6	7.9	3.5	476.3	44.5	26.3	10.0	1 361.0	45.9	14.3
Minas Gerais	7.7	723.6	9.3	15.3	4.8	453.2	10.4	43.0	12.6	1 176.8	9.7	25.9
Espírito Santo	11.1	1 170.7	2.7	17.0	6.5	687.2	2.8	37.8	17.5	1 857.8	2.7	24.7
Rio de Janeiro	4.4	672.1	6.9	7.8	2.4	376.5	6.9	17.7	6.8	1 048.7	6.9	11.4
São Paulo	6.7	1018.3	27.7	4.6	3.3	507.4	24.4	20.3	10.0	1 525.7	26.5	9.8
<i>South</i>	6.3	846.4	15.3	15.7	3.9	516.5	16.6	76.7	10.2	1 363.0	15.8	24.6
Paraná	6.4	774.1	5.3	18.3	4.1	491.4	6.0	42.5	10.5	1 265.6	5.6	27.7
Santa Catarina	6.5	862.6	3.4	14.6	4.0	530.6	3.7	38.6	10.6	1 393.2	3.5	23.7
Rio Grande del Sul	6.2	906.1	6.6	14.2	3.6	532.7	6.9	36.7	9.8	1 438.7	6.7	22.5
<b>Less developed regions</b>	<b>11.1</b>	<b>719.2</b>	<b>38.0</b>	<b>44.0</b>	<b>6.4</b>	<b>415.4</b>	<b>38.9</b>	<b>55.9</b>	<b>17.6</b>	<b>1 134.7</b>	<b>38.4</b>	<b>48.3</b>
<i>North</i>	14.1	927.8	9.2	55.4	6.3	411.5	7.2	54.9	20.4	1 339.3	8.5	55.3
Acre	36.6	1847.9	0.8	80.0	9.1	460.4	0.4	69.8	45.7	2 308.3	0.7	77.9
Amazonas	8.6	932.0	2.0	29.1	4.1	442.4	1.7	34.2	12.7	1 374.4	1.9	30.8
Pará	10.5	549.5	2.6	48.9	6.8	353.0	2.9	59.6	17.3	902.5	2.7	53.1
Rondônia	16.2	1 117.8	1.2	47.3	6.7	462.6	0.8	46.5	22.9	1 580.4	1.0	47.1
Roraima	44.8	2 395.1	0.6	79.7	10.3	550.9	0.3	70.2	55.2	2 945.9	0.5	77.9
Amapá	30.0	1 935.7	0.8	87.7	4.9	315.7	0.2	73.8	34.8	2 251.4	0.6	85.7
Tocantins	33.6	1 345.2	1.2	71.4	14.1	563.4	0.9	72.1	47.7	1 908.7	1.1	71.6
<i>Northeast</i>	11.6	606.5	20.8	48.4	7.6	399.7	24.3	62.1	19.2	1 006.2	22.0	53.8
Maranhão	17.6	502.2	2.1	67.1	12.8	364.4	2.6	76.4	30.4	866.6	2.3	71.0
Piauí	20.0	607.8	1.2	65.4	13.5	411.8	1.5	74.3	33.5	1 019.6	1.3	69.0
Ceará	11.8	516.2	2.8	48.4	8.6	374.1	3.6	62.8	20.4	890.4	3.1	54.4
Rio Grande do Norte	13.9	786.5	1.6	51.0	8.1	460.7	1.6	61.7	22.0	1 247.2	1.6	55.0
Paraíba	13.6	647.9	1.6	59.1	9.0	425.6	1.8	71.3	22.6	1 073.6	1.7	63.9
Pernambuco	9.7	608.7	3.4	38.9	5.9	370.6	3.7	54.4	15.7	979.3	3.5	44.8
Alagoas	15.1	644.6	1.3	59.9	9.6	411.4	1.5	69.7	24.8	1 056.0	1.4	63.7
Sergipe	12.9	958.3	1.3	61.8	6.0	442.5	1.0	62.8	18.9	1 400.8	1.2	62.1
Bahia	9.0	595.6	5.5	33.9	6.3	416.6	6.9	53.8	15.4	1 012.2	6.0	42.1
<i>Centre-west</i>	8.3	925.5	8.1	19.7	4.3	481.6	7.5	36.5	12.7	1 407.1	7.9	25.5
Federal District	5.5	1 117.6	1.8	9.4	1.9	385.3	1.1	6.6	7.5	1 502.9	1.5	8.7
Goiás	9.8	800.5	3.0	20.6	4.4	359.1	2.4	56.2	14.2	1 159.6	2.8	31.6
Mato Grosso	9.6	964.6	1.8	28.0	6.7	677.3	2.3	32.5	16.3	1 641.9	2.0	29.9
Mato Grosso do Sul	9.5	989.3	1.5	19.8	6.2	642.4	1.7	33.0	15.6	1 631.7	1.6	25.0

Source: Prepared by the authors on the basis of data from the Treasury (STN, various years), the Ministry of Welfare and Social Assistance, the Federal Economic Fund, the National Economic Policy Council, and the Brazilian Geographical and Statistical Institute (IBGE).

<sup>a</sup> Disposable tax revenue = Direct collection (own tax jurisdictions) plus or minus constitutionally mandated tax transfers, including (i) those granted by the central government, which include cash transfers from FPE, FPM, FPEX, the revenue-insurance generated by ICMS, and complementation of FUNDEF; and (ii) transfers granted by the states – 25% of ICMS/FPEX and 50% of IPVA, in addition to redistribution from FUNDEF. The municipalities' disposable income consists exclusively of federal and state transfers.

<sup>b</sup> State GDP at current prices estimated on the basis of 2003 shares.

<sup>c</sup> For Brazil, first line, columns C, G and K, the amount is expressed in millions of real at current prices.

TABLE 5

**Brazil: Regional distribution of population, income and political representation, 2005**

Regions and states	Population		Gross domestic product (GDP) <sup>a</sup>		GDP per capita	Conditions of life	Distribution of seats		
	Millions of inhabitants	Percentages	R\$ million	Percentages	R\$/Inhabitant	Index = 100	Chamber of Deputies	Senate	Congress
<b>Brazil</b>	<b>184.2</b>		<b>1 937 598</b>		<b>10 521</b>	<b>0.766</b>	<b>513</b>	<b>81</b>	<b>594</b>
							%	%	%
<i>More developed regions</i>	<i>105.4</i>	<i>57.3</i>	<i>1 429 341</i>	<i>73.8</i>	<i>13 556</i>	<i>0.799</i>	<i>49.9</i>	<i>25.9</i>	<i>46.6</i>
<i>Southeast</i>	<i>78.5</i>	<i>42.6</i>	<i>1 069 192</i>	<i>55.2</i>	<i>13 625</i>	<i>0.791</i>	<i>34.9</i>	<i>14.8</i>	<i>32.2</i>
Minas Gerais	19.2	10.4	179 972	9.3	9 356	0.773	10.3	3.7	9.4
Espírito Santo	3.4	1.9	36 083	1.9	10 588	0.765	1.9	3.7	2.2
Rio de Janeiro	15.4	8.4	237 046	12.2	15 410	0.807	9.0	3.7	8.2
São Paulo	40.4	22.0	616 091	31.8	15 234	0.820	13.6	3.7	12.3
<i>South</i>	<i>27.0</i>	<i>14.6</i>	<i>360 149</i>	<i>18.6</i>	<i>13 353</i>	<i>0.808</i>	<i>15.0</i>	<i>11.1</i>	<i>14.5</i>
Paraná	10.3	5.6	123 264	6.4	12 013	0.787	5.8	3.7	5.6
Santa Catarina	5.9	3.2	77 462	4.0	13 205	0.822	3.1	3.7	3.2
Rio Grande do Sul	10.8	5.9	159 422	8.2	14 700	0.814	6.0	3.7	5.7
<i>Less developed regions</i>	<i>78.7</i>	<i>42.7</i>	<i>508 257</i>	<i>26.2</i>	<i>6 456</i>	<i>0.713</i>	<i>50.1</i>	<i>74.1</i>	<i>53.4</i>
<i>North</i>	<i>14.7</i>	<i>8.0</i>	<i>96 415</i>	<i>5.0</i>	<i>6 561</i>	<i>0.725</i>	<i>12.7</i>	<i>25.9</i>	<i>14.5</i>
Acre	0.7	0.4	3 382	0.2	5 055	0.697	1.6	3.7	1.9
Amazonas	3.2	1.8	34 941	1.8	10 811	0.713	1.6	3.7	1.9
Pará	7.0	3.8	36 375	1.9	5 219	0.723	3.3	3.7	3.4
Rondônia	1.5	0.8	10 573	0.5	6 893	0.735	1.6	3.7	1.9
Roraima	0.4	0.2	2 088	0.1	5 340	0.746	1.6	3.7	1.9
Amapá	0.6	0.3	3 839	0.2	6 462	0.753	1.6	3.7	1.9
Tocantins	1.3	0.7	5 217	0.3	3 998	0.710	1.6	3.7	1.9
<i>Northeast</i>	<i>51.0</i>	<i>27.7</i>	<i>267 195</i>	<i>13.8</i>	<i>5 238</i>	<i>0.676</i>	<i>29.4</i>	<i>33.3</i>	<i>30.0</i>
Maranhão	6.1	3.3	17 411	0.9	2 853	0.636	3.5	3.7	3.5
Piauí	3.0	1.6	9 120	0.5	3 044	0.656	1.9	3.7	2.2
Ceará	8.1	4.4	35 392	1.8	4 369	0.700	4.3	3.7	4.2
Rio Grande do Norte	3.0	1.6	17 053	0.9	5 679	0.705	1.6	3.7	1.9
Paraíba	3.6	2.0	17 072	0.9	4 749	0.661	2.3	3.7	2.5
Pernambuco	8.4	4.6	52 619	2.7	6 254	0.705	4.9	3.7	4.7
Alagoas	3.0	1.6	12 857	0.7	4 264	0.649	1.8	3.7	2.0
Sergipe	2.0	1.1	14 573	0.8	7 409	0.682	1.6	3.7	1.9
Bahia	13.8	7.5	91 099	4.7	6 594	0.688	7.6	3.7	7.1
<i>Centre-west</i>	<i>13.0</i>	<i>7.1</i>	<i>144 647</i>	<i>7.5</i>	<i>11 110</i>	<i>0.737</i>	<i>8.0</i>	<i>14.8</i>	<i>8.9</i>
Federal District	2.3	1.3	47 006	2.4	20 148	0.844	1.6	3.7	1.9
Goiás	5.6	3.1	45 863	2.4	8 162	0.776	3.3	3.7	3.4
Mato Grosso	2.8	1.5	28 158	1.5	10 046	0.773	1.6	3.7	1.9
Mato Grosso do Sul	2.3	1.2	23 619	1.2	10 433	0.778	1.6	3.7	1.9

Source: Prepared by the authors, on the basis of data from the Brazilian Geographical and Statistical Institute (IBGE) (population and GDP); the United Nations Development Programme (UNDP) (Human Development Index for 2000); and Congress (number of parliamentarians).

<sup>a</sup> State GDP at current prices, estimated on the basis of 2003 shares.

Indicators of tax decentralization in Brazil, measured by indices of the share of subnational governments in total income and expenditure, in addition to their autonomy in collecting taxes and preparing their budgets, places the country in a similar position to the most developed federations; among developing countries it is definitely the furthest ahead in terms of autonomy.<sup>15</sup>

It is worth noting that Shah (1994) developed an index subnational government autonomy that measures the proportion of expenditure financed with internal resources or with funding received from third parties, but without earmarking. In a group of 10 countries, including both rich and poor, Brazil displays the highest index, surpassing even those of the United States, Germany and Canada.

### 3. Horizontal decentralization

Alongside vertical decentralization in the distribution of public funds, a far-reaching process of horizontal deconcentration of revenue has been instigated.

The concentration of federal tax revenue in the more developed regions is matched by a scheme for distributing federal taxes in which the subnational governments of less developed regions receive proportionally more (see the updated position as at 2005 in table 4). This does not take account of the larger share of direct social spending on basic social measures obtained by those regions.

The regional deconcentration of tax revenue is well illustrated by the case of São Paulo. This is the most populous and developed unit of the federation; it holds 22% of the country's population and produces 31% of national output, thereby generating a per capita income that is 45% higher above the national average (table 5). The State of São Paulo collected about 37% of all tax revenue in Brazil in 2005; its smallest share was state taxes (31%), which reflects the partial adoption of the destination principle in the incidence of ICMS in inter-state transactions; its largest shares (38% and 44%) correspond to federal and municipal taxes, respectively.

As a result, the tax burden in São Paulo represented 42% of state GDP, compared to a national average burden of 36.7%. This difference also shows through in the measurement of per capita tax revenue, since the average collected in São Paulo was about R\$ 6,500, compared to the national average of R\$ 3,900 (see again table 2).

Shifting the analysis away from direct tax revenue and on to effectively available income —i.e. once the constitutionally mandated redistribution of taxes between governments has been calculated— shows that São Paulo had 26.5% of the disposable revenue of all state and municipal governments across the country in 2005 (table 4) —nearly 5 percentage points less than that state's share in the generation of national GDP. This difference precisely illustrates the degree of regional deconcentration promoted by the Brazilian tax system.<sup>16</sup>

The relative importance of state and municipal income, measured as a proportion of the income of each state, also reveals the progress of regional deconcentration. In 2005, the available income of subnational governments in São Paulo was just 10% of the state's GDP, whereas the average in the three least developed regions was equivalent to 18% of regional output (table 4).

The same analysis can be extrapolated from the isolated case of São Paulo to the distribution between geographic macro-regions, in which the comparison between the division of the population and the economy on the one hand, and tax revenues on the other, further highlights the decentralizing nature of the system (figure 4).<sup>17</sup>

Subnational governments in the three least developed macroregions account for 38% of all disposable tax revenue (own revenue, plus or minus mandated tax transfers) in those spheres of government, i.e. 12 percentage points more than their 26% share in national GDP. In the southeast region, these percentages are 46% and 55%, respectively.

To visualise decentralization more clearly, it is possible to compare the actually disposable revenue of the governments of each federated unit with their respective GDP (see the regions in figure 5 and the breakdown by state in table 4 above). The national

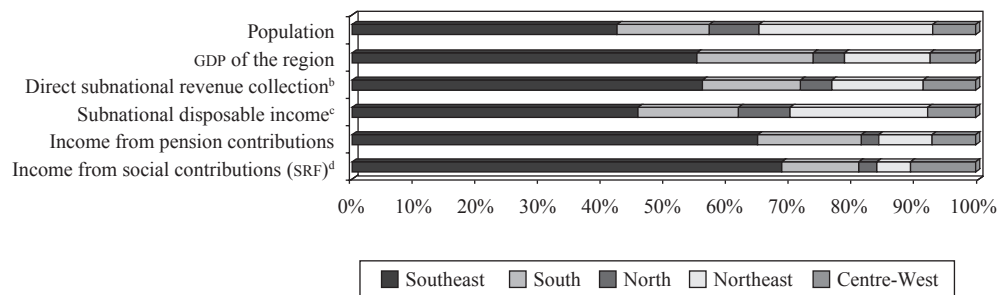
<sup>15</sup> The index of the share of subnational governments in direct tax collection is unprecedented among like-sized economies. It is similar to the indicators displayed by the world's most developed federations such as Canada, Australia, Germany and the United States; and it exceeds those of unitary states with administrative decentralization strategies such as France and England.

<sup>16</sup> This difference will shrink somewhat once the direct revenue collected from other state taxes and municipal taxes has been calculated, the amount of which in São Paulo should exceed that of the rest of the country.

<sup>17</sup> See breakdown in table 2, table 4, and further on in table 5.

FIGURE 4

**Brazil: Regional distribution of population, gross domestic product and subnational tax revenue, 2005<sup>a</sup>**



Source: Prepared by the authors, using data on population and GDP at basic prices from the Brazilian Geographical and Statistical Institute (IBGE); and tax revenue data from the Treasury, Federal Internal Revenue Department (SRF), Ministry of Welfare and Social Assistance and the National Economic Policy Council. Data on the population, GDP and direct tax revenue are from 2005, while other data relate to 2004.

- <sup>a</sup> Tax revenues: aggregates of the states and municipalities in each region.  
<sup>b</sup> Direct revenue includes taxes within own jurisdiction.  
<sup>c</sup> Disposable income also includes tax transfers granted by Central government.  
<sup>d</sup> SRF = Data from the Federal Internal Revenue Department.

index in 2005 was 12%; in the two most developed regions, the share was equivalent to just 10 percentage points of GDP, whereas in the centre-west it rises to about 13%, and in the northeast and north, 20%. Dispersion between states is even more pronounced and exceeds 30% of GDP in some states in the northeast and north. The extreme case of Roraima has a tax income equivalent to 55% of local GDP (see again table 4).

The pronounced regional redistribution of disposable tax income reflects federal revenue transfers to the states and municipalities. In 2005, for example, almost R\$ 740 per person was transferred to governments in the north region, whereas those in the southeast received just R\$ 195 per person (figure 6). In the latter region, and in the south, for every *real* collected through IR or IPI, 14 cents were returned through revenue sharing funds (FPM and FPE).<sup>18</sup>

<sup>18</sup> In the State Revenue Sharing Fund (FPE), the south-southeast share was limited to 15%, under the law (approved in 1989) that adopted a fixed prorating scheme instead of a formula weighted by the inverse of income per capita. The updating of this parameter threatened to reduce the relative weight of the least developed regions which, by growing proportionally more in the 1970s and 1980s, had closed the gap between them and the higher-income regions.

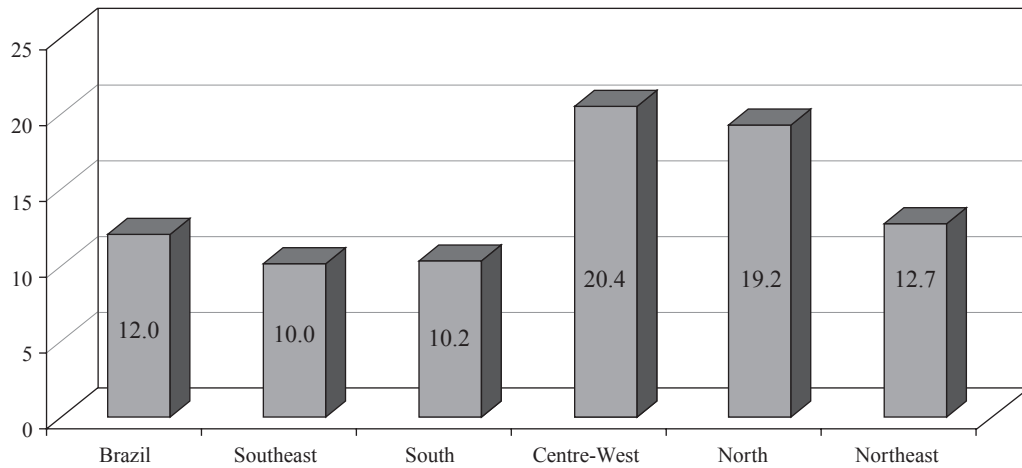
In the specific case of São Paulo, for every *real* of revenue earned from IR and IPI, just six cents flow back to the state through the FPM and FPE. In absolute terms, São Paulo collected R\$ 53.2 billion from IR and R\$ 12.3 billion from IPI in 2005, and received back R\$ 3.6 billion from the FPM and just R\$ 255 million from the FPE in that year.

Lastly, it is worth mentioning the trend of disposable tax revenues in subnational governments during the post-National Constituent Assembly period. The available data confirm the more favourable trend in the less developed regions. Considering only revenue from the main taxes and federal transfers (on the same basis as presented in table 4 above) it is possible to compare real growth rates in the period 1988-2005: the disposable resources of subnational governments increased by 4.3% per year, with the south growing more or less at the national rate. Regions with disposable resources that outpaced this annual rate were the northeast where growth was 5%, the centre-west (6%) in the north (7.6%); in contrast, growth in the southeast was just 3.3%. The wealthiest of the country's 27 states (São Paulo) recorded the smallest growth of just 2.7% per year, while, at the other end of the spectrum, Maranhão and Piauí saw their resources increase by roughly 6% per year.



FIGURE 5

**Brazil: Subnational disposable tax revenue<sup>a</sup> by region, 2005**  
*(As a percentage of gross domestic product)*

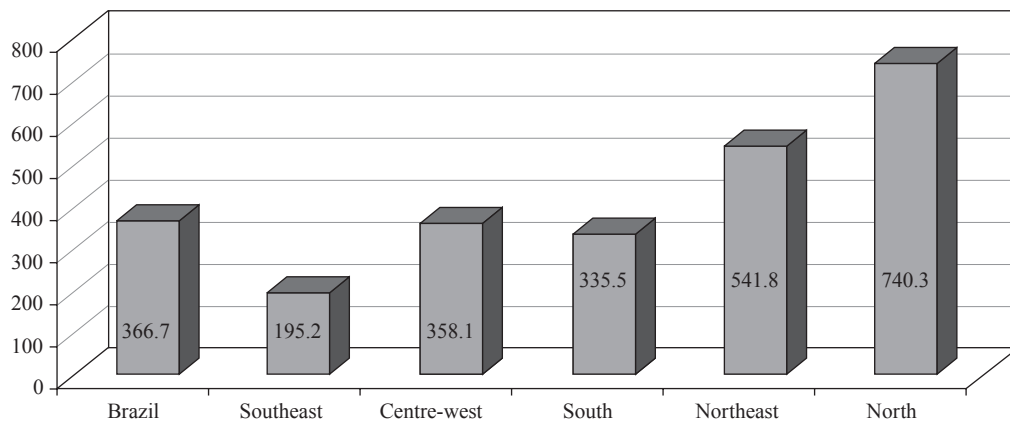


Source: Prepared by the authors using data from the Treasury, National Economic Policy Council (tax revenue) and the Brazilian Geographical and Statistical Institute (IBGE) (GDP at basic prices).

<sup>a</sup> Disposable tax revenue includes the revenue raised directly by the states in each region plus the respective transfers of federal and state taxes.

FIGURE 6

**Brazil: Transfers of federal taxes per capita to the regions,<sup>a</sup> 2005**  
*(In real)*



Source: Prepared by the authors, using data from the Treasury and the Brazilian Geographical and Statistical Institute (IBGE).

<sup>a</sup> Includes constitutionally mandated revenue transfers from central government to the states and municipalities in each region.

#### 4. Government powers

Although the chapter of the Federal Constitution that deals with the tax system and the complementary laws that regulate it is very precise and highly detailed in terms of the jurisdictions and the distribution of tax revenues at each of the three levels of government, the chapter on governmental powers is much vaguer and fails to establish a clear distribution of tasks between the different spheres.

Measures overlap in certain areas (such as the environment) and are lacking elsewhere (e.g. security). Central government has not managed to satisfactorily fulfil its coordination function, and subnational governments adopt autonomous policies. Although, on the one hand, central government and even certain states are curtailing their participation in investments and ongoing programmes, they are not transferring staff or assets to state or local units. Among other effects, this generates an unforeseen increase in aggregate public expenditure.

Another constitutional factor that served to make fiscal relations more rigid within the federation were provisions that imposed the unified labour regime for civil servants in the three spheres of government, together with the guarantee of early and comprehensive retirement pensions in the public sector, and the granting of statutory status to all civil servants covered by private-sector labour laws (Consolidated Labour Laws). The latter responded to the proposal and effort made at the time by *Centrão*, a grouping that encompassed some of the more conservative members of parliament during the Constituent Assembly of 1987-1988. The proposal naturally attracted support from left-wing parties (linked to civil servant unions).

In any event, the structure of federal government financing and expenditure continued to redistribute resources between regions — as revealed by comparing the regional distribution of the sources and uses made of federal government resources, especially those earmarked for basic social measures. A pronounced regional redistribution of resources can also be seen in the direct execution of federal expenditure: suffice it to compare data on the regional composition of the collection of social contributions and those of the main social programmes funded from those sources. For example, the southeastern region collected roughly two thirds of all contributions, but receives significantly smaller percentages of total central government expenditure on certain basic social measures: 21% of rural pension payments and 34% of ongoing benefits

both from social assistance and primary health care programmes. In the northeastern region which collects just 6% of social contributions nationwide, the share in the aforementioned programmes amounts to 37% in the case of pensions, 47% in social assistance, and 36% in health.

The same pattern occurs in social security overall (the private-sector workers regime), in which the income derived from payroll levies is concentrated in the most developed states, while the distribution of pension benefits is regionally much more disperse.<sup>19</sup> In 2004, the northeast absorbed 8.3% and 20.2% of revenue and expenditure, respectively, while the equivalent figures for the state of São Paulo were 43.2% and 30.7%. In the overall calculation, the highly redistributive role of the current social security regime is revealed by the average benefit paid as a proportion of per capita GDP. While this is currently equivalent to about 49% in the southeast, it soars to 80% in the northeast. In some states, the average benefit even exceeds their respective per capita income: 132% and 122% in the states of Maranhão and Piauí, respectively.

#### 5. Redistribution in parliamentary representation

In the political domain, the Brazilian federative system also promotes considerable redistribution of power in terms of parliamentary representation.

The Federal Senate, based on the United States model, consists of equal representation of three senators per state. A group of states that account for 43% of the Brazilian population (in the north, northeast and centre-west) holds 74% of the seats (table 5). The Brazilian Senate reviews and votes on all legal bills and constitutional amendments passed by the Chamber of Deputies, and has power of veto. It also has a number of exclusive powers, such as approving ambassadors and the heads of several government organizations, and setting borrowing limits for states and municipalities (and exceptions therefrom). The Senate, which is considered the upper chamber, only has less power than the lower chamber in one respect: government bills enter Congress through the Chamber of Deputies, which then has the final word when the Senate returns

<sup>19</sup> The main sources of these data are *Anuario Estadístico de la Previsión Social* and *Boletín Estadístico de la Previsión Social*, both published by the Ministry of Welfare and Social Assistance (MPAS).

them with amendments. Representation in the Chamber of Deputies is also not proportional to the population of the states, since the maximum number of deputies per state is capped at 70 and the minimum is eight. Overrepresentation is concentrated in sparsely populated states in the north, while underrepresentation occurs in the southeast. In the extreme cases, to elect a deputy in the most populous state requires 16 times more votes than in the country's least populous state.

## IV

### Recent institutional changes

To contextualise the analysis more clearly, it needs to be borne in mind that in Brazil, as in all federations, the subnational spheres of government have less of an obligation to concern themselves with macroeconomic variables relating to price stability, the fiscal deficit, external trade or the balance of payments.<sup>20</sup> The major challenge that the Brazilian Federation faced following the Real Plan was how to reconcile greater or lesser fiscal decentralization with rational economic policy goals at the national level.

Following the Real Plan, the newly won stability and the need to project a positive image of the Brazilian economy abroad meant that economic policy focused on controlling the public deficit, and hence on federative relations. Until the mid-1990s, there was major concern about the role of the states and municipalities in the lack of control over the fiscal deficit, given their large weight in the public sector, asymmetry in the distribution of rights and duties between the three spheres of government, the existence of state banks that financed the deficits, and the possibility of issuing debt bonds for the same purpose. Another contributory factor was the direct political influence exerted on the National Congress by governors and mayors, in an electoral and party system such as the one that prevails in Brazil. Despite having exclusive constitutional power to control public borrowing, in practice the Senate has seldom acted to restrain this area.

Moreover, unlike what happens in federations such as the United States, the Brazilian central government

According to Stepan (1997), these representational imbalances are a key component of democracy-constraining federal systems, of which Brazil is the most notable case. Although they date back to the founding of the Republic, the imbalances became more pronounced in the post-World War II period and even more so following the creation of six new states and promotion of the Federal District into a state for all practical purposes.

has always acted (without exception) as lender of last resort, thereby encouraging subnational governments to behave more permissively in the fiscal domain. The roots of this phenomenon date back to the tradition of the centralized State, and reflect cultural and political factors such as the party system and congressional representation.

Attempts to improve the federative system in the 1990s led the federal government to adopt a series of conciliatory measures, without ever losing sight of the historical recommendation made by Tocqueville (1957, p.156): "*The federal system was created with the intention of combining the different advantages which result from the magnitude and the littleness of nations.*" Those measures included changes in arrangements for renegotiating subnational debts, reform of the state-level ICMS (under the "Kandir Law") and the passing of the Fiscal Responsibility Act, among others. All of these initiatives were ways of dealing with the most urgent federative problems, within a gradual and prudent strategy for action, albeit one that is costly in financial terms.

With regard to the renegotiation of subnational debts, the expired and unpaid external debt dating back to the 1980s, together with domestic bank debt and debt in bonds, were all consolidated and taken over by the National Treasury in a succession of refinancing programmes. The last round of debt refinancing ended in 1999; the central government took over the debt of the states, which amounted to R\$ 132 billion (Law 9.496/97),<sup>21</sup> and, on the eve of the publication

<sup>20</sup> For a discussion on fiscal decentralization, price stability and macroeconomic policy, including the Brazilian case, see Afonso (1996) and Dillinger and Webb (1999); and for an international perspective see Spahn (1999).

<sup>21</sup> For further details on state debt refinancing agreements, see Mora (2002).

of the Fiscal Responsibility Act in May 2000, it took over the debts of 180 municipalities, totalling R\$ 16.4 billion real (Provisional Measure 1.811/99). As counterpart, the states and municipalities assumed debts with the Treasury that would be financed over a minimum 30-year period, with interest ranging from 6% to 9% per year, and monthly instalments capped at 13% of net income. Fulfilment was guaranteed by a constitutional amendment allowing the Treasury to withhold and offset any due and unpaid amounts from the constitutional transfers to which debtor subnational governments would be entitled, and to withdraw funds directly from the bank account that centralizes the financial transactions of the government in question. In exchange:

- (i) the federal government intervened in, liquidated, or sold most state banks to the private sector —as from 1994, all large states privatised, liquidated, or placed their banks under central bank administration;<sup>22</sup>
- (ii) the issuance of new debt in state or municipal bonds was suspended, under restrictions contained in refinancing contracts; and
- (iii) a wide-ranging process of State downsizing occurred at the subnational government level, particularly in the transport and electric power areas. From 1996 to 2003, stakes in 55 State enterprises were either privatised or sold, generating a total of US\$ 34.7 billion (of which US\$ 27.9 billion corresponded to the sale and US\$ 6.8 billion represented transferred debt).<sup>23</sup>

The design and approval of the Fiscal Responsibility Act was only possible following a refinancing and fiscal adjustment process in the main subnational governments.<sup>24</sup> One of the most far-reaching changes

produced by this legislation was to prevent new lending between governments or the refinancing of past debts, thereby breaking with a secular tradition of the Brazilian Federation. Only the final reckoning with the past could justify and permit the adoption of a new radical law that restricted all forms of borrowing between governments (even Treasury guarantees on external operations henceforth required real guarantees).

Implementation of the Fiscal Responsibility Act has been a gradual process, particularly in terms of correcting possible breaches of the limits. In the case of payroll expenditure, a period of over two years was allowed to reduce these to the permitted ceiling, and in the case of the consolidated debt, the limit for which is set by the Federal Senate, a 15-year period was envisaged for governments that had refinanced their debts with the Treasury to bring them in line. Moreover, following the practice adopted since the start of negotiations for debt refinancing, the federal government made credit lines available to support state and municipal investments in the modernization of revenue administration and also in fiscal management.

Another front in the process of institutional change in the federation involved the decentralization of responsibilities and powers.

In the education sector, for example, a systematic channelling of resources through FUNDEF was approved.<sup>25</sup> This was a temporary constitutional measure, passed in 1996 and enforced up to 2006. Its main purpose was to universalise the coverage of basic education,<sup>26</sup> and induce municipalities to take over an ever larger share of the public school network; and the inter-governmental revenue sharing system was amended for this purpose (in proportion to the number of students enrolled). The resources came to be earmarked to FUNDEF, based on the traditional allocation of taxes to education. A stimulus for setting up the fund was provided by central

<sup>22</sup> From 1997 to 2005, when the last state bank was privatized, 12 state banks were sold, including the two largest – Banco do Estado de São Paulo (Banespa) and Banco do Estado do Rio de Janeiro (Banerj) —in an operation that generated a total of US\$ 6.8 billion. The state banks of Piauí and Santa Catarina are still under central bank administration.

<sup>23</sup> Between 1991 and 2003, the total value of privatizations in the federal government domain amounted to US\$ 70.8 billion, of which US\$ 59.5 billion corresponded to direct proceeds and US\$11.3 billion to transferred debts (for further information see BNDES, 2004).

<sup>24</sup> The Fiscal Responsibility Act introduced a number of innovations in public governance, such as the obligation to keep expenditure and income in balance, and to include an annex of fiscal targets; in addition to the requirement to provide an emergency reserve in the budget law. Public-sector spending was also capped, the refinancing of state debts was disallowed, and it was decided that operations to anticipate budgetary income would be paid in the year in which they occurred.

<sup>25</sup> Under Constitutional Amendment No. 14, a fund was created in each state for a 10-year period, which would receive 15% of the amount of transfers from revenue sharing funds and the respective ICMS collection. In 2005, FUNDEF resources amounted to R\$ 32.7 billion. Unlike the criteria normally used in tax legislation for distributing these resources between the state and its set of municipalities, and in the municipal domain between the different municipalities, the prorating of each state fund is proportional to the number of students enrolled in the respective basic education network, with a view to promoting better distribution of spending capacity. In practice, governments that collected a lot but spent little on each student had part of their incomes redistributed to other governments.

<sup>26</sup> In Brazil, basic education is what is provided to children from seven to 14 years of age.

government, which transferred around R\$ 500 million per year in supplementary funding for states that spend less on basic education per student than the national minimum.<sup>27</sup>

In the health sector, the federal government firstly attempted to stimulate a strengthening of primary care programmes (e.g. those relating to nutritional deficiencies and basic pharmacy), leaving execution in the hands of state, and particularly municipal, authorities. A fund was set up to finance basic municipal measures, which made direct transfers under per-capita criteria through the Minimum Basic Care (PAB) programme. Subsidies were also given for the formation of family health teams, and full management of resources including their allocation, from primary through to tertiary care, was given to municipalities that have undergone training in public health. Transfers in basic health care programmes cost about R\$ 6 billion in 2005, of which the PAB alone received R\$ 2.3 billion.<sup>28</sup> Secondly, the most important institutional change required a constitutional reform (Amendment No. 29, of September 2000), with a view to requiring central, state and municipal governments to spend a minimum amount of tax revenue on the Unified Health System (SUS). Unlike what happens in the education sector, where the funding allocation is constitutionally mandated, in this case the issue was relegated to a complementary law. Until this legislation is published (which has not yet happened), the temporary regulation of the constitutional amendment requires the central government to adjust its expenditure on the SUS each year according to the nominal variation in GDP; and states and municipalities are required to invest at least 12% and 15%, respectively, of their tax revenue in the system.

The third issue concerns the approach to taxation, which in Brazil is closely linked to the federative issue. It is an age-old tradition in the country for the Constitution to establish exclusive tax jurisdictions for each sphere of government and provide highly

detailed regulations on the subject. This defines the “federative pact”, with little concern for the effect on the magnitude and distribution of expenditure that results from the predefined financing pattern.

The first significant reform project proposed by the federal government in 1995 explicitly rejected the idea of recentralizing revenues. The basic aim was to unify national value-added tax legislation, halt the “tax war”, and create a federal tax identical to its state counterpart (with the same base, generating factor and legislation); and also to unify current social security contributions on the basis of value-added rather than total sales, again to avoid undermining the competitiveness of the economy. In the perspective of a value-added tax (VAT) model, with collection shared between the federal and state governments, the simultaneous application of two rates was envisaged, which would make it possible to implement the destination principle in inter-state transactions. This would avoid the evasion arising if the rate on merchandise destined for other states were merely eliminated; and it would also put an end to the bitter tax war between Brazilian states.<sup>29</sup> Nonetheless, the urgent need to generate a fiscal adjustment to address the grave external crisis caused the federal government to retreat in its reform initiative in Congress.

In 2003, the new federal government submitted a reform bill that essentially pursued the same long-term objectives. Once again, the changes failed to pass, because the economic authorities targeted their efforts on short-term measures, such as extending the Provisional Financial Transactions Tax (CPMF) and the de-linking of federal revenues.

Nonetheless, there have been significant changes in infra-constitutional legislation since the implementation of the *real*. Following major alterations such as the end of monetary correction in company balance sheets and the creation of a simplified federal taxation system for microenterprises and small businesses, the federal government supported changes to the state-level ICMS promoted by the “Kandir Law” and, subsequently, in social levies on sales (for the Social Integration Programme (PIS) and the Contribution to the Financing of the Social Security System (COFINS)).

<sup>27</sup> In addition, the states that suffer the largest losses from “municipalization” of the earmarked revenues promoted by FUNDEF were compensated with exceptional loans granted by the National Treasury.

<sup>28</sup> The impact of this measure was even greater in the municipal sector. With a guaranteed transfer of the minimum (PAB-fixed) of R\$ 10 per person per year for all Brazilian municipalities, many began to receive between two and nine times more from the federal government than they had previously been receiving under the normal system of the Unified Health System (SUS), which corresponded to the invoice value of services provided.

<sup>29</sup> This idea is in line with the ideals of the “dual VAT”, defended by Bird and Gendron (1997). The detailed system of the shared ICMS project, a subject of debate in Brazil and Argentina (also known as the “Little boat model” because of its treatment of interstate transactions), appears in Varsano (2000), and has been commented on and defended by McLure (1999) and Bird (2000).

From the federative standpoint, the measure with the most direct impact was Complementary Law No. 87 of September 1996, the “Kandir Law”, which abolished direct application of state ICMS to all exports, including primary and semi-manufactured products. State-level taxation of foreign sales was a centuries-old tradition in the country, dating back to inherited authorities, or *capitanias*; and the states only agreed to renounce their power to tax exports in exchange for financial support from the federal government. This was agreed upon at the time as a temporary system (lasting up to 12 years) in the form of a “revenue insurance” (i.e. funds would be transferred only to states that had suffered a loss of revenue, and in an amount that was proportional to the loss). This subsequently became a compensatory federal transfer (of about R\$ 4 billion per year), with pre-established prorating.

The “Kandir Law” ended up generating permanent points of friction that soured federative relations and undermined the competitiveness of the economy. Year after year the negotiation on transfers was left pending, since its approval in the federal budget requires clear principles for defining the overall amount of the transfers and also appropriate criteria for distributing the resources among the states that most needed them.<sup>30</sup> Secondly, the fact that the exemption was not automatic (without transfer to third parties or restitution in kind) meant that, depending on the state authorities in question, exports could accumulate large credit balances in respect of the state ICMS, which was contrary to the spirit of the law and also unconstitutional (since a partial reform in 2003 had incorporated into the Constitution the concept previously set out in the Kandir Law). Furthermore, the idea spread among state governments that exporting was harmful, because it failed to generate revenues yet involved expenses. Some state governors not only delayed or rejected the reimbursement of credits, but sometimes also resisted giving incentives and infrastructure support to new projects that mainly targeted the external market.

In the tax domain, it should also be noted that the federative arrangement of 1988 was amended as a result of a continuous drive by all federal governments in the period since the National Constituent Assembly, aimed at raising social security contributions and

other levies that did not involve sharing income with states and municipalities. This was due to the fact that the amount collected by the taxes was overstated in the constitutionally mandated distribution. Central government sought to exploit the same tax bases through levies that are not subject to revenue sharing, and which are also subject to fewer restrictions on the power to establish taxes (such as the annuality principle, which does not affect social security contributions).

The fact that roughly half of all revenue obtained from the two main federal taxes (IR and IPI) is transferred to other levels of government, led the central government to impose a social levy on enterprise profits (at a lower rate, but on a broader base than that of income tax levied on the same taxpayers). It also maintained and continuously and significantly increased taxes on sales and other revenues, which, prior to the National Constituent Assembly, were applied through the federal Social Investment Fund (FINSOCIAL). Subsequently, a tax on financial transactions, which had been in force in 1994 only, was reimplemented as the Provisional Financial Transactions Tax (CPMF). As these social levies are cumulative, they are generally harmful to the competitiveness of the economy. The recent attempt (in 2002-2003) to alleviate the accumulation of contributions to PIS and COFINS ended up adding to the tax burden because the new rate was incorrectly calibrated, either through the change in regime or through the expansion of the base for taxing imports without reducing taxation in the local market.

The historical trend of the structure of the Brazilian tax burden shows, firstly, a drastic reduction in the burden imposed by the only federal VAT-type tax: the Industrial Products Tax (IPI). Whereas in 1970, this tax raised an amount equivalent to 4.4% of GDP, in 1980 and 1990 the percentage had dropped to half; 10 years later (in 2000) it was no more than 1.6% of GDP, and in 2005 it was 1.2%, one of its lowest ever levels. In contrast, social contributions levied on income in general and sales (such as PIS or the Civil Servant Assistance Plan (PASEP), created in the early 1970s, and also COFINS, established in the early 1980s as the Social Investment Fund (FINSOCIAL)) grew vigorously following the 1988 reform. In 1980, revenue from PIS amounted to just 1% of GDP; in 1990, the two contributions (PIS and COFINS) collected 2.7% of GDP; in 2000, the joint burden was 4.4% of GDP, and in 2005 it attained the record level of 5.6% (of which 4.4 percentage points corresponded to COFINS). Including the 1.5% of GDP obtained from CPMF and the 1.3 percentage points raised with the levy on net

<sup>30</sup> Originally, an annex to the Kandir Law contained a detailed and innovative transfer scheme, known as “revenue insurance”, which ultimately was eliminated at the request of the states.

profits (CSLL),<sup>31</sup> the tax burden generated by the four contributions (PIS, COFINS, CSLL and CPMF) amounted to 8.4% of GDP in 2005. That was equivalent to over six times the revenue obtained from the federal IPI and exceeds that earned from state ICMS, or the federal IR.

The remarkable transformation described above, suggests that the process of gradual change and reasonable flexibility in federative relations has been abandoned, intentionally or otherwise. Public, macroeconomic and social policies clearly display fiscal recentralization —among other things to absorb the growing pressure of huge expenses generated by income transfers, which range from social benefits through to interest on the public debt.

The reality of recentralization also shows through in the control over state and municipal public borrowing. Despite the achievement of growing primary surpluses, the reduction and virtual elimination of subnational bank borrowing and, more importantly, the payment of all overdue monthly instalments, at April 2006 the net debt of states and municipalities and their respective debts with the central government amounted altogether to the equivalent of 19.1% of GDP, according to central-bank figures. Of that total, over 95% represented refinancing contracts with the Treasury.

The maintenance of such a high debt stock – not to say growing in recent years, depending on the year that is taken as a base for the evaluation – stems from a problem that was not foreseen when the refinancing programmes were designed. The exchange-rate regime in force immediately after the adoption of the *real* was fixed, or semi-fixed, and there was no hesitation in adopting the general price index (IGP-DI) as an indicator of the refinancing. Nonetheless, when the floating exchange-rate regime was established, the IGP fluctuated greatly and accumulated a much larger variation than the official index adopted in the inflation targeting regime —the extended national consumer price index (IPCA)— between 2000 and 2004. From that year onwards, the problem diminished with a new cycle of *real* overvaluation, but its reappearance seems inevitable when the exchange rate returns to its habitual levels.

In any event, the equilibrium in the refinancing contract has been lost, in particular because, in addition to over-indexation, the balances are also subject to real interest rates that annually have surpassed the economy's average real growth rate at least threefold. Consequently, although between 2001 and 2005, state

and municipal governments paid the National Treasury a cumulative amount of R\$ 70.1 billion solely in respect of the three main refinancing operations (Laws 9.496/97 and 8.727/93 and Temporary Measure 2.185), at 31 December 2005 they owed the absurd sum of R\$ 336.8 billion —R\$ 137.5 billion more than five years earlier.

As the monthly service on the outstanding state and municipal debt is calculated by the maximum set in proportion to current income (most of the time), the imbalance in the debt valuation mechanism produces an artificial capital and accounting effect, rather than an immediate financial impact. This compromises the transparency and governance of fiscal and macroeconomic policy in a way that tends to go unnoticed by those who are unaware of the details and subtleties of the settlement of the net debt and primary and nominal results. The fact that it alters stocks without affecting flows explains why it does not elicit more vehement protests from the state and municipal authorities. The federal economic authorities take advantage of the “over-correction” of credits to the states and municipalities, to disguise a more rapid expansion of federal debt, particularly in the form of bonds —in this case, without artificial effects, because it stems from the application of absurdly high real interest rates, particularly in comparison to international parameters.

A good illustration of this is the recent trend of fiscal outturns – given that the most important concept is the nominal deficit, since increasing the federal primary surplus while federal interest payments were growing even faster served little purpose. Between 2000-2002 and 2003-2005, the central government primary surplus grew from 2% to 2.8% of GDP, while nominal interest expenditure rose from 3.7% to 5.9%. Thus, the nominal deficit of that sphere of government almost doubled from 1.7% to 3.1% of GDP between the two three-year periods.<sup>32</sup> Nonetheless, taking the

<sup>31</sup> Social Contribution on Net Profits (CSLL).

<sup>32</sup> In other words, having been responsible for just 44% of the nominal deficit of the public sector between 2000 and 2002, central government has generated 84% of the deficit over the last three years. This is basically due to the federal share of expenditure on public debt interest, which rose from 49% to 71%. The interest rate variable is fundamental in explaining this trend. These central government expenses fell by 1.9 percentage points of GDP between 2000 and 2002, while growing by 3.56 percentage points of GDP between 2002 and 2005. In short, the role of central government has changed. Between 2000 and 2002 it bore the main burden of reducing the nominal deficit as a proportion of GDP (while the nominal deficit of subnational governments increased), but in the last three years this trend has been reversed.

public sector as a whole, there is a small reduction in the nominal deficit (from 3.9% to 3.7% of GDP between the two periods analysed), which is explained by a significant improvement in the results of State-owned enterprises and, especially, state and municipal governments (the subnational deficit fell from 3.1% to less than 0.3% of GDP between 1999 and 2005, and is approaching zero for 2006). In other words, the nominal deficit of the central government grew while those of subnational governments declined, which reinforces the impression that the Fiscal Responsibility Act was introduced for the sole purpose of bringing the states and municipalities into line.

Federative discoordination has also been growing over the division of responsibilities and jurisdictions. In the field of public social policies, the federal authorities have preferred to expand targeted benefit programmes, to the detriment of universal-type expenditures such as basic education and healthcare. Expenditure on pensions and social assistance is growing rapidly. In addition to the effects of the increase in the minimum wage, the number of new social benefits (granted to pensioners and beneficiaries of public social security systems) have far outpaced any measure of demographic growth, particularly in the cases of sickness subsidies and welfare benefits for income maintenance, including the merger in the *Bolsa-Familia* programme of the financial assistance granted earlier to families through the *Bolsa-Escola*, *Bolsa-Alimentação*, Eradication of Child Labour and *Vale-Gas* programmes. This orientation in itself would not generate major problems if, initially, there had been no demand for a new round of tax increases, especially through changes in COFINS. Secondly, the budgetary dilemma was aggravated, since maintenance expenses increased at growing rates and outstripped the growth in incomes, thereby further reducing room for productive investments, particularly in infrastructure.

The tendency of the Federal Government to provide direct assistance and benefits to the population has significant repercussions for federative relations—firstly because assistance was previously a typically local expense, but is now financed increasingly out of the federal budget. Although the municipalities act as partners (in registering and monitoring beneficiary families), they obviously do not perform this task with the same diligence or efficacy as when they are spending their own funds. The greatest problem, however, has been the lack of priority in universal social programmes, where state and municipal governments have a decisive role to play in expenditure execution,

particularly in the education and health sectors. Federal contributions to such programmes have not increased, and in some cases have shrunk (health). There are also serious risks in the very short term: FUNDEF will expire at the end of 2006, and Congress has not yet approved the budget for setting up another fund, the Basic Education Development Fund (FUNDEB). This new fund promises to increase the federal transfers since the Constitution establishes the *nominal* amount of the transfers without indicating where the resources will come from—i.e. retracing the path of conflict of interests that dogged the “Kandir Law”. In the health sector, the federal authorities have attempted to get around the mandatory spending defined by a constitutional amendment in 2000, by including in the accounts expenditures that are not in the health category, such as benefits paid by the *Bolsa-Familia* programme. At the same time, states and municipalities have increasingly been required to finance expenses in that area out of their own resources.

In the tax domain as such, the basic symptom of federative discoordination has already been noted: recent tax measures have maximized the option of increasing unshared contributions and benefits have been concentrated in taxes that are shared with the states and municipalities.

Between 2002 and 2005, the overall tax burden rose by 2.3 percentage points of GDP. The state-level ICMS accounted for 12% of that increase, and the weight of COFINS/PIS tripled this. Although the increase in tax revenue alleviated the budgetary effects, the federative division of disposable income (after taking constitutionally mandated transfers into account) shows a sharp increase in the federal share, which over the last five years has grown by 1.8 percentage points from 55.8% to 57.6% of total national tax revenue. Taking 1991 as the base (the year of the smallest federal share since the National Constituent Assembly), the total federal share increased by 2.9 percentage points and the municipal share by 1.5 percentage points, while the states' proportion shrank by 4.4 percentage points (see table 1 and figure 1 above).

From a longer-term perspective, after four decades the municipalities now hold the position that the states previously occupied as the dynamic hub of Brazilian federalism, to judge by the trend of the federative distribution of disposable tax revenue. The state government share has declined by 10 percentage points—in 1965, before the reform promoted by the military governments, the states received 35% of the overall tax revenue; four decades later, this figure had



fallen to roughly 25%. Over that lengthy period, the municipal government's share of total revenue increased from 10% to 17%.

As was to be expected, state governors detected the problem but chose to support solutions that ultimately proved ineffective. In the constitutional amendment promulgated in late 2003, subnational governments obtained the transfer of one quarter of the amount collected through the Contribution for Intervention in the Economic Domain (CIDE), although earmarked for investments in transport, given that the federal government had created this tax and was using it on a large scale. The revenue from this levy then dropped to one of the lowest levels of all federal taxes (possibly part of its incidence was shifted to COFINS, which is held entirely in the National Treasury). With regard to the project that is still underway from the same reform,

the supporters of municipalism chose to lobby for a one-percentage-point increase in IR and IPI destined for the Municipal Revenue Sharing Fund, payable in the last month of the year. Nonetheless, the bill has not yet been voted on and is being blocked by the federal government. When the latter published the temporary measure in 2005 to exempt investments, most of the incentives were provided to Income Tax on Legal Entities (IRPJ), which is not shared. Disagreements have also resulted in a delay and even cuts in transfers under the "Kandir Law", as noted above.

In short, the main objective of the framers of the 1988 Constitution, of promoting fiscal decentralization, ultimately produced an unmistakable trend towards municipalization and, most recently, a recovery in the relative importance of the federal government, while the states have been the major losers.

## V

### Towards a new federative agenda

The Brazilian fiscal federation is a faithful projection of the general framework of the country's economy, society and political system. It firstly displays high indices of subnational government participation in the direct generation and spending of tax revenues; in the execution of payroll, goods and services expenditure; and the administration of budgets with minimal interference from central government. Yet there is no planned and organised fiscal decentralization process to reconcile the redistribution of revenues and division of burdens. This serves to accentuate the complexity of federative relations, while conspiring against economic efficiency and undermining the quality of public services. Moreover, the difference in the tax burden between the more and less developed states of the federation is enormous.

The Brazilian Federation will have to face an extensive agenda of issues over the next few years. While longstanding "structural" problems remain unresolved, new challenges have arisen in recent years, including gradual recentralization. This has been most evident in the exercise of tax jurisdictions, where federal transfers are progressively being eroded (undermining the bases of revenue sharing funds and reducing transfers under the "Kandir Law"). The process has also affected expenditure execution, demoting a number

of programmes of structural measures implemented in partnership with local governments (e.g. health care), while promoting direct measures (such as popular pharmacy and hospital care). Because of these structural distortions and emerging fiscal problems, conflicts within the federation have increased.

Nonetheless, any recentralization of power in federal government hands, which would inaugurate a new cyclical phase in the historical course of the Brazilian Federation, is not supported by the federal government agenda. Such a process would be unviable from the political standpoint and also undesirable in terms of administrative efficiency and social welfare in a such a large, heterogeneous and populous country. Similar reasoning, with greater emphasis on the political conditions, would also prevent attempts to change the regional distribution of federal public resources of tax origin from being included in that agenda.

Where little or no progress has been made is in diminishing the "tax war" between the states, by manipulating the respective ICMS and granting benefits (particularly the return of the portion of the tax corresponding to other states) under the guise of subsidised loans and even shareholdings. The main effect of this manipulation was and is to effectively reduce disposable state income, as a whole, and increase

fiscal pressures from state governments on the central government —without considering the fact that the unregulated dispute over ICMS was certainly a decisive factor in reversing the historical trend towards regional deconcentration of the economy. The recent case of automobile assembly plants is emblematic: once the widespread granting of incentives was declared, the most developed states ended up exploiting the obvious advantages, such as their position in the market and better economic and social infrastructure.<sup>33</sup>

The consequences of the war over ICMS extend beyond the fiscal domain, because they are closely related to the course of industrial policies and external trade.<sup>34</sup> These in turn are essential for a robust revival of economic growth. It should be noted here that the economic and financial openness of the Brazilian economy in the 1990s, following at least six decades of inward-looking economic growth (protectionism and vigorous state intervention) have actually made federative relations more complicated. In a more open economy, there is less solidarity and greater divergence of interests and views on trade and industrial policy between the more and less developed regions.<sup>35</sup>

<sup>33</sup> A symptom of the slowdown in the historical and natural trend towards economic deconcentration is provided by a comparison between *real* GDP growth rates in the period following establishment of the real (in which the tax war intensified). Between 1994 and 2005, national GDP grew by a cumulative 29.7%, while the GDP of the state of São Paulo expanded by 31.5% (according to data from IBGE and the Data Analysis System Foundation of the State of São Paulo (SEADE), respectively). The economy of São Paulo far outpaced the national economy in the upswing phases (such as 2004 and 2005), and this more than compensated for the inverse situation of falling faster than the national rate in the downswing of short business cycles.

<sup>34</sup> There has also been vigorous lobbying by parliamentarians and governors from less developed regions in favour of expanding federal incentives to bring them closer to the standards of the free zone existing in Amazônia. Unlike others in the world, this free zone operates basically with imports and sales on the domestic market.

<sup>35</sup> For a detailed analysis of the prospects and problems of federalism in Brazil from a regional perspective, see Affonso and Silva (1995).

Another important area where there has been no initiative at all concerns the politics of federative relations. Both the previous and current governments have abstained from proposing either reform proposals for the electoral and party system —to make it easier to build majorities and make parliamentarians less dependent on state governors— or proposals to correct the imbalances in state representation in the Chamber of Deputies. This omission resulted from a fear of disturbing the functioning of the government majority in Congress at a time of successive votes on constitutional amendments relating to the economy. Nonetheless, there is no doubt that those reforms will have to be included in the national agenda sooner or later.

As a final observation, until now, unlike what happens in other countries, the Brazilian Federation, while still a work in progress, has been showing signs of reasonable stability. This has been assisted by the legacy of the unitary state and the moderation of ethnic, linguistic and religious differences among the Brazilian people. Cycles of contraction and expansion in central power and the conciliatory tradition of Brazilian politics have also eased the necessary adjustments through time. Specifically, in the case of the tax and fiscal systems, redistributive mechanisms are used to reconcile divergent and contradictory regional interests by transferring public resources between the different spheres of government and between more and less developed regions, with an intensity and rapidity that few federations have matched without dramatic political and civil upheavals. It is no coincidence that the ideals of fiscal federalism are always evoked to defend localised interests and public policies of regional impact.

Despite this framework, the flexibility of Brazilian federalism will face demanding tests in the near future, given the challenges of development policy and political reform. It is therefore essential to anticipate events to consolidate Brazil in a strong, united and democratic federation.

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# What are fiscal rules for?

## A critical analysis of the Argentine experience

*Miguel Braun and Nicolás Gadano*

**T**his article undertakes a critical examination of the usefulness of fiscal responsibility laws in situations of institutional weakness. It analyses the case of Argentina, where prodigal use of fiscal rules (two different laws in just five years) contrasts with their limited effectiveness for fiscal policy sustainability and transparency, and it confirms that in situations of institutional weakness a fiscal responsibility law is unlikely to constrain government decision-making to the extent necessary to correct the behaviour of the public finances. The case of Argentina thus provides a warning for supporters of fiscal rules. When fiscal credibility is low and institutions weak, not only may such rules be fiscally ineffective, but non-enforcement may weaken yet further the fragile institutional context which made them so ineffective to begin with.

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# I

## Introduction

*“This was the sweet song the Sirens sang, and my heart was filled with such a longing to listen that I ordered my men to set me free... But they swung forward over their oars and rowed ahead, while Perimedes and Eurylochus jumped up, tightened my ropes and added more.”*

Homer, *The Odyssey*, Book XII.<sup>1</sup>

Both theoretical studies and the recommendations of international organizations have borne witness to a growing faith in the ability of fiscal rules to contribute to fiscal solvency in developing countries. The theoretical argument evokes the scene of Ulysses and the Sirens quoted above, in which Ulysses asks his sailors to tie him to the mast to save him from succumbing to the lure of the Sirens’ song. Rules are seen as legal and institutional constraints that can prevent opportunistic politicians from attempting to overspend. In particular, rules are expected to counteract the bias towards fiscal deficits created by the common ownership of public resources, principal-agent problems and the problems of time inconsistency identified in recent economic policy publications.<sup>2</sup>

This position is an application of the “rules rather than discretion” principle developed by Kydland and Prescott (1977) and is paralleled by the arguments in favour of central bank independence in the conduct of monetary policy.<sup>3</sup> Kopits (2001), for example, argues that the main benefit of having a set of permanent, well-designed and properly implemented fiscal rules to prevent a bias towards deficit spending is that this establishes a depoliticized framework for fiscal policy, rather like the depoliticization of monetary policy under an inflation targeting regime.

Fiscal responsibility laws have been enacted in South American countries such as Brazil, Chile and

Argentina. In Brazil and Chile they have been fairly successful in maintaining fiscal solvency, so far at least, and proponents point to this as a vindication of their arguments. In Argentina, however, the results have been poor, if not non-existent, and the debate does not seem to have cast any light on the cause of this difference.

In our view, the argument in favour of fiscal responsibility laws expounded in the first two paragraphs of this introduction is insufficiently specified. It must be explicitly stated, we believe, that countries planning to introduce fiscal responsibility legislation need to have institutions strong enough to ensure (i) that the fiscal rules are precisely formulated, with no room for interpretations that distort their goals and (ii) that these rules are applied rigorously and in a way that is consistent with their provisions, so that neither the nation’s executive branch nor lower levels of government can subvert it.

Kopits’ argument, for example, touches on this issue, but does not clearly point out that the conditions he describes cannot simply be assumed to be in place: before venturing to pass a fiscal responsibility law, it is necessary to check that these conditions have been met and to undertake the necessary improvements and changes. In the following pages we shall show in detail that, at the time fiscal rules were beginning to be considered and applied in the region, Argentina was a prime example of an institutional context unsuited to their successful application.

Furthermore, as will be shown, the fiscal rules approved in Argentina have been more in the nature of a response to immediate political and economic problems than of mechanisms intended to make a permanent contribution to fiscal solvency. The flouting of these rules has not only revealed the inability of fiscal responsibility laws alone to improve fiscal performance

□ The authors are grateful for the research assistance provided by Ariel Dvoskin and the comments of Juan Pablo Jiménez and Cynthia Moskovits.

<sup>1</sup> Penguin Classics version (Homer, 2003).

<sup>2</sup> See Drazen (2002) and Persson and Tabellini (2000), two recent works which provide a summary of this literature.

<sup>3</sup> See, for example, Cukierman (1992).

independently of the institutional context, but has actually exacerbated institutional fragility and further discredited the legal system in the eyes of society.

Section II of this study summarizes the recent literature on the effectiveness of fiscal rules. Section

III looks at the experience of Argentina with the implementation of fiscal rules prior to the passing of the fiscal responsibility laws. Section IV then analyses their content and section V, lastly, presents some conclusions.

## II

### What are fiscal rules, and what are they for?

Before going further, we need an operational definition of fiscal rules. We shall follow Kopits and Symansky (1998), for whom a fiscal rule is a permanent (or lasting) constraint on fiscal policy expressed through fiscal results indicators such as the fiscal deficit, the debt level or some component of spending. When we speak of fiscal rules in this study, we are referring to numerical rules. This is an important point because many studies use a broader definition of fiscal rules, extending the concept to rules of procedure that govern the fiscal policy-making process and transparency rules that determine what fiscal information has to be made public.<sup>4</sup>

The same authors argue that some of the key variables are: the specific numerical target laid down by the rule (it must be clear, measurable and as broad as possible); the period over which the rule is to be applied (the longer the better); the legal instruments used (of the highest status possible, ideally constitutional level); the level of government to which they apply (the wider the better); and the penalties for non-compliance (the harsher the better, ideally including criminal liability for officials). The rules usually include “escape clauses” as well, i.e., mechanisms that provide flexibility in special circumstances to forestall undesirable procyclical effects.

The justifications for the establishment of rules of this type are set out in the recent economic policy literature. This literature attributes differences in fiscal behaviour between countries in a similar economic situation to differences in political institutions and practices. According to Tommasi (1998), the economics problems that influence fiscal results can be divided

into two main categories: principal-agent problems and cooperation problems.

In the first category are problems deriving from the delegative character of the system of government. Voters elect their representatives and delegate to them the power to take decisions in the public interest. Since information is asymmetrical and the interests of representatives do not always coincide with those of the represented, the policies made may not always be the most desirable. One example in the fiscal area is the tendency for governments to increase spending in election years.<sup>5</sup>

Cooperation problems, meanwhile, are those arising from the interaction of different national and subnational groups in competition for public resources, which generates a tendency towards overspending and overborrowing. A classic example provided by Weingast, Shepsle and Johnsen (1981) shows that public spending may increase because of the common pool problem involved in the political interaction of regions with parliamentary representation. According to these authors, legislators have incentives to propose spending increases that would benefit their region because the resources are raised from taxes levied nationwide. Velasco (1999) analyses the common pool problem in a dynamic context and shows how it can lead to higher deficits and borrowing.

Tabellini and Alesina (1988) explain the fiscal deficit by time inconsistency (i.e., a lack of coherence in decision-making over time), associated with possible discrepancies between the preferences of present and future voters and the inability of the former to constrain the decisions of the latter. In these circumstances, the voters of the present tend to push up spending and

<sup>4</sup> See, for example, Alesina and Perotti (1996). These “rules of procedure” are akin to the standards traditionally applied to public-sector financial administration.

<sup>5</sup> See Drazen and Brender (2005) for a recent study of this issue.

deficits to levels higher than the optimum for society as a whole.

The studies mentioned at the beginning of this section attribute different fiscal results in countries with similar economic institutions and conditions to differences in political institutions and practices. In particular, the cooperation, time inconsistency and principal-agent problems that influence fiscal results can vary in different countries and different time periods because of changes in political institutions that affect the incentives of those who wield the most influence over fiscal results. For example, Alesina and Perotti (1996) argue that when a country's budgetary process is more hierarchical (the executive has greater weight than the legislature, and the finance ministry than other ministries), fiscal solvency is greater. This is because the president and the finance minister are more conscious of the intertemporal budgetary constraints on the government than are congress and sectoral ministries, and are thus more careful of the fiscal results.

These are the arguments that underlie the defence of fiscal rules as a mechanism for improving fiscal solvency. When political actors have incentives to overspend, or a dynamic of non-cooperation leads to excessive expenditure, better results should be obtained when there is a numerical rule that places a ceiling on spending, the deficit or borrowing than when there is no such rule. Of course, the basic assumption underlying this analysis is that the rule is followed.<sup>6</sup>

However, it is not easy to find convincing empirical evidence of the effect of rules on fiscal results. Braun

and Tommasi (2004) argue that changes in fiscal rules at the national level are not common and that when they do occur, they are usually accompanied by other reforms that affect the fiscal results, thus making it harder to assign responsibility for fiscal changes to the alterations in the rules. This problem limits the explanatory potential of time series regressions within a country, and of regressions using data from a number of countries, owing to an insufficiency of observations; furthermore, a correlation between changes in rules and changes in results would be biased if it failed to take account of other reforms.

Given the heterogeneity of the results observed following the application of fiscal rules, some authors have suggested that, to be successful, such rules need to have strong political backing.<sup>7</sup> If such were the case, however, we would have to ask whether it was not this very political support for fiscal discipline that was responsible for the improved performance of the public finances, irrespective of any formal rules.<sup>8</sup> According to this line of reasoning, fiscal responsibility laws are simply a vehicle for building social consensus around the importance of fiscal discipline. Without that consensus, the rules alone would not guarantee any improvement in the behaviour of the public finances.

Given what has happened in Argentina, the lack of powerful empirical evidence to demonstrate the usefulness of rules in improving fiscal results does not surprise us.<sup>9</sup> The next section describes the Argentine experience with fiscal rules, focusing particularly on the 2004 fiscal responsibility law, passed in the first half of that year.

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<sup>6</sup> There are some critical voices in the literature. Milesi-Ferretti (2000), for example, argues that numerical rules can lead governments to engage in what is known as "creative accounting", i.e., alter the way the public accounts are measured to get a numerical result that meets the rule, when the target set by the rule is too demanding for the fiscal situation and the level of budgetary transparency is low.

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<sup>7</sup> See Schick (2002) and Ter-Minassian (2006).

<sup>8</sup> If the formal establishment of rules reflected a voter preference for fiscal prudence, then the correlation between rules and fiscal prudence would suffer from omitted variable bias. The recent academic literature has tried to resolve these problems of identification, so far without much success.

<sup>9</sup> See Gadano (2003) for an analysis of the 1999 fiscal responsibility law.



### III

## Fiscal rules in Argentina

*Hegel remarks somewhere that all facts and personages of great importance in world history occur, as it were, twice. He forgot to add: the first time as tragedy, the second as farce.*

Karl Marx, *The Eighteenth Brumaire of Louis Bonaparte*.<sup>10</sup>

Argentina overhauled its public-sector financial administration system in the 1990s, the main element in the transformation being the enactment of a new public-sector financial administration law (law 24.156 of September 1992) which redefined roles and procedures in the nation's public finances and the operation of supervisory agencies. Structured on the principle of normative centralization and operational decentralization, the reform assigned the leading role to the Ministry of Finance while delegating day-to-day budgetary management to the different local authorities and agencies. The Comptroller General (SIGEN) was given responsibility for internal auditing within the executive, while external auditing was assigned to the Office of the Auditor-General, which reports to the national Congress.<sup>11</sup>

According to studies of fiscal rules, the reform process spearheaded by law 24.156 did not introduce quantitative fiscal rules into the administration of the public finances but centred on so-called "rules of procedure", i.e., on provisions regulating budgetary processes and the administration of public funds.

The introduction of numerical fiscal rules began to be discussed in the second half of the 1990s as a result of two convergent phenomena. First, a burgeoning literature on fiscal rules helped to create an attitude favourable to their use. This favourable consensus extended to the multilateral lending organizations and was reflected in the lists of structural reform suggestions proffered by the International Monetary Fund (IMF) and World Bank to countries with assistance and financing programmes.

At the same time, the deterioration in international financial conditions towards the end of the decade put greater pressure on the performance of emerging

economies and increased concern about trends in the public finances, particularly borrowing.

In Argentina, Congress had passed legislation to supplement the 1992 financial administration law. Law 24.629, enacted in February 1996, established restrictions on spending increases without earmarked financing, stricter transparency requirements for the budgetary accounts and an obligation for the executive to present Congress with a budget implementation statement once a quarter and with a progress report on the following year's budget each 30 June. The law included a new feature familiar from the debate on fiscal rules: penalties for non-compliance. Under the new law, officials responsible for breaches of the rules would be held personally liable towards third parties.

#### 1. The "fiscal convertibility" law

In 1998, Congress began to debate what would later become the first fiscal responsibility law in Argentina, law 25.152. Originally labelled the public resources administration law, it became known to the public as the fiscal convertibility law.<sup>12</sup>

Discussion of the bill in Congress lasted just over a year, during which time macroeconomic conditions in Argentina altered sharply, significantly influencing its contents. In March 1998, when the original bill was submitted, the storm clouds of the international crisis that was to affect emerging economies were already appearing, but the Argentine economy had just grown by 8.1% in 1997 and 6.5% in the first half of 1998. A year later, following the impact of the Russian crisis and the Brazilian devaluation, Argentina was in

<sup>10</sup> International Publishers version (Marx, 1963).

<sup>11</sup> See Makón (1997).

<sup>12</sup> The then popularity of the "super rule" of the convertibility regime led to an attempt by the creators of the new fiscal legislation to create a forcible association between their bill and the currency/monetary mechanism that had put an end to inflation in 1991.

recession, deflationary pressures were becoming more and more evident, and concern about the sustainability of the public accounts was spreading within and beyond the country. The strength of the convertibility system was called into question and the fiscal situation was seen as one of its weakest links. With an economy that had stopped growing and financing difficult to obtain, the government had to provide an assurance that it would adjust the accounts in future to whatever extent necessary, and passing law 25.152 was a good way of doing this.<sup>13</sup>

The numerical rules were the best-known aspect of this law. For the financial result, the rule in the original bill (a ceiling of 1% for the financial deficit) was replaced by a gradual deficit reduction timetable starting in 1999 and culminating with fiscal balance in 2003.<sup>14</sup> Public spending growth was made conditional on gross domestic product (GDP) growth, the rule being that current primary spending could not be raised if economic activity declined. A Fiscal Countercyclical Fund (FAF) was also established, to be financed out of extraordinary concession and privatization receipts and a set percentage of tax revenues.<sup>15</sup> The original bill also included a special article setting out the penalties for anyone breaching its provisions. However, they were the same as the existing penalties for the offence of dereliction of duty by a public official, so the article was deemed redundant and removed from the final draft. The law also included some considerations concerning fiscal transparency and reform of the State.

As was pointed out in the previous section, fiscal rules usually include escape clauses to forestall (or at least cushion) the procyclical effect that a rigid rule might have on fiscal policy, especially during a recession. The original bill for law 25.152 contained

an escape clause that allowed numerical limits to be breached "...in cases of severe international crisis, catastrophe or internal emergency as determined by the executive branch". This contingency clause disappeared from the final version of the law, however. In mid-1999, the characteristics of the convertibility regime and the difficulty of raising public financing made it unthinkable for Argentina to increase its fiscal deficit as a countercyclical response to the recession affecting its economy. On the contrary, all the signs served to reinforce the authorities' commitment to an immediate adjustment of the public accounts, even in an adverse macroeconomic context. Without a contingency clause, the rule required not only that the fiscal deficit be eliminated even in periods of recession and deflation, but that a Fiscal Countercyclical Fund be set up with part of the fiscal revenues.

The results of law 25.152 were disappointing. Its implementation in the early 2000s coincided with the doomed efforts to prevent the collapse of the convertibility regime, which was ultimately abandoned in late 2001 in the midst of a deep political, economic and social crisis.

The deficit limits laid down in the law were modified in its first year of implementation and then disregarded. The ceiling on expenditure growth was respected in the years of recession (when there were no resources to increase spending with), but not in those of recovery.<sup>16</sup> The Fiscal Countercyclical Fund was set up, but it never had the resources to operate in the way it was designed to. Although law 25.152 was never formally repealed, its resounding initial failure consigned it to oblivion.

## 2. The "zero deficit" law

In the second half of 2001, a few months before the political and economic crisis which led to the traumatic abandonment of the convertibility regime, the authorities tried to implement an extreme fiscal rule, far more ambitious in scope than the unenforced law 25.152. The new rule, known publicly as the "zero deficit law" and formally enacted by a reform to financial administration law 24.156, was meant to apply a very simple principle: no more should be spent

<sup>13</sup> With a change of president in prospect for late 1999, the promised fiscal adjustment would have to be dealt with by the next government, a detail of no small importance for the timing of the vote.

<sup>14</sup> After setting a ceiling of 1.9% of GDP for 1999, the law established a procedure for recalculating that year's deficit that excluded exceptional receipts. On the basis of the recalculated deficit, a reduction of 0.4% was mandated for 2000, 0.5% for 2001 and 0.6% for 2002, with balance to be achieved in 2003.

<sup>15</sup> The FAF could accumulate resources up to a maximum of 3% of GDP, to be used during the recessionary phase of the economic cycle. De la Sota's original proposal included an initial contribution to the FAF using the government's shares in privatized enterprises. Given that the bulk of these shares would be sold in the early months of 1999, principally those held in Yacimientos Petrolíferos Fiscales (YPF), reference to these resources was dropped in the final version of the Countercyclical Fund.

<sup>16</sup> Total public spending by the national public sector rose from 15.8% of GDP in 2002 to 18.4% in 2006, and the 2007 budget projection is for 19.19% of GDP. Primary spending rose from 13.6% in 2002 to 16.3% in 2006.

each month than could be financed out of current State revenues.<sup>17</sup>

Although simple in its conception, the law proved to be wholly impracticable. The executive subjected pensions to cuts hitherto applied only to public-sector salaries, but did not achieve the much-vaunted “zero deficit”. Although the law provided for the adjustment coefficient to be increased until the accounts were balanced, the scheme’s political and social unviability meant that the salary and pension reduction had to be

held at the original level. Some time later, when the convertibility system had collapsed, the zero deficit law would be ruled unconstitutional by the Supreme Court of Justice.<sup>18</sup>

The short, laboured existence of the extreme “zero deficit” law dramatically demonstrated how impracticable it was to place the whole weight of adjustment in the public accounts upon a mere written rule. Like law 25.152, the zero deficit law came to swell the growing list of unenforced laws in Argentina.<sup>19</sup>

## IV

### A new fiscal responsibility law

Public interest in the fate of fiscal rules was practically nil after the crisis of late 2001. The scale of the problems that had to be resolved (suspension of payments on the public debt, rescheduling of bank deposits, the breaking of public service contracts, high unemployment) meant that the flouting of the rules approved by law in 1999 became a non-priority issue to which few paid attention. The disappointing performance of law 25.152 was not discussed and still less was any reform mooted, either in Congress or in the executive. The law remained in force but its prescriptions were not complied with or

were suspended by articles included in the budget laws for each financial year.<sup>20</sup>

In 2004, however, Congress approved a new fiscal responsibility law (FRL) numbered 25.917. The bill was sent to Congress by the executive on 15 June 2004, entering the House of Senators. Less than two months later, it had been passed by both houses of Congress and was enacted by the executive. Argentina had a new fiscal responsibility law.

The provisions of this law were designed to meet a number of objectives. In the interests of fiscal transparency, it established an obligation to prepare and publish standardized multiyear budgetary information for the national government and the provinces. Each year, the national government was obliged to present a macrofiscal framework that would be used as an input for preparing the budget in all administrative districts.

<sup>17</sup> The following text was incorporated into article 34 of financial administration law 24.156: “When estimated budgetary resources are insufficient to meet all planned budgetary credits, there will be a proportionate reduction in credits for the whole of the national public sector in order to maintain the balance between operating expenditure and budgetary resources. The reduction will affect credits intended for the payment of periodic remunerations of any type, including salaries, extra pay, family allowances and pensions, and transfers used by the receiving organizations or agencies to make these payments. The reduction in budgetary credits... will automatically entail the reduction of the remuneration affected, regardless of type, including salaries, extra pay, family allowances and pensions. The reductions in remuneration will be applied proportionately throughout the salary or pay scale, as appropriate, without discrimination of any kind. This law amends as necessary any legal, regulatory or contractual provision to the contrary, and the existence of irrevocably acquired rights may not be cited as grounds for opposing its operation”.

<sup>18</sup> In the judgement “Tobar versus the National State”, the Supreme Court confirmed the unconstitutionality of law 25.453, arguing that it was “...contrary to the national Constitution to have a legal regime that leaves the determination of pay rates and food allowances to the discretion of the executive branch, not as an exceptional case that can be subjected to jurisdictional control, but as an economic policy tool intended to reduce public spending and stabilize the fiscal accounts as passing circumstances may require”.

<sup>19</sup> The amendment establishing the zero deficit rule was removed from law 24.156 by an article in the 2003 budget act.

<sup>20</sup> The Ministry of Finance included articles suspending payments into the Fiscal Countercyclical Fund in the 2003, 2004, 2005 and 2006 budget laws. See articles 27 of law 25.565, 40 of 25.827, 30 of law 25.967 and 24 of law 26.078.

Regarding numerical rules, law 25.917 set the GDP growth rate as the ceiling for primary expenditure growth and prescribed budgetary balance after deduction of certain types of expenditure.<sup>21</sup> For the provinces, it established a borrowing constraint whereby debt servicing costs might not exceed 15% of the current revenues of the local administration concerned, after deduction of revenue-sharing (*coparticipación*) transfers to municipalities. All administrations were enjoined to create fiscal countercyclical funds.

The national government was empowered to agree financing programmes with any provinces that might require this, always provided the stipulations of the FRL were complied with. The Federal Fiscal Responsibility Council was created to oversee the application of the law; its members were representatives of the national and provincial governments and it was empowered to impose penalties for non-compliance that ranged from public disclosure of any breaches to the partial withholding of budgetary transfers from the centre (other than revenue-sharing resources).

A number of provisions in the FRL recapitulated limitations already established by law 25.152, which was not repealed, and by financial administration law 24.156. Although law 25.152 did not have the adjustment clause of the FRL, article 2, subsection C limited primary public spending growth as a proportion of GDP. The prohibition on repaying debts associated with expenditure not earmarked in the budget, as established in article 24 of the FRL, appears in article 3, subsection A of law 25.152. The limitations on the ability of the executive to increase current spending to the detriment of capital spending and financial applications during the execution of the budget, as stipulated in article 15 of the FRL, reiterate the provisions of article 37 of law 24.156. It also repeated the ban on creating funds or agencies off budget or outside the general financial administration rules. The mandate of article 20 of the FRL to create a fiscal countercyclical fund is surprising given that a national fund with these characteristics, created by law 25.152, had been operating for a number of years.

Besides reflecting a certain lack of legislative technique, the redundant character of several of the provisions in the new FRL confirms something else:

that the new law owed little to critical reflection on the performance of the fiscal rules operating up until that time. Given such a recent and traumatic precedent with fiscal rules, the debate about a new fiscal responsibility norm might have been expected to concentrate on the lessons of this earlier experience, seeking at least to ascertain why the law had been so poorly enforced. Approached in this way, the legislative changes would probably have been implemented by reforming existing laws and not by creating a new one. However, the experience with law 25.152 was not considered when the FRL was being prepared and debated in parliament, and its text makes no mention at all of the earlier legislation. It was other factors, arising from the economic and political circumstances of 2004, that determined the genesis and content of the FRL.

### **1. The International Monetary Fund, the provinces and the new fiscal responsibility law**

Two convergent phenomena associated with the situation of post-crisis Argentina are to the fore in explaining the process that led to the approval of the new FRL: the vicissitudes of Argentina's testing relationship with the International Monetary Fund (IMF), and the conditional financial assistance provided by the central government to the provinces, which strongly influenced the substance of the law.

The dynamic of the relationship between Argentina and the IMF played a decisive role in the decision to enact a new fiscal rule. The IMF financing programme for Argentina negotiated in 2001 by Domingo Cavallo, a former minister, ended abruptly with the crisis that broke out at the end of that year. Following a "short" agreement signed by the provisional president, Eduardo Duhalde, in January 2003, in September of the same year the government of Néstor Kirchner signed a three-year stand-by agreement providing for disbursements to cover Argentina's debt repayments to the Fund itself.

In the IMF view, fiscal reform (primarily involving a new system of federal revenue-sharing) had to be one of the main planks of the programme agreed upon.<sup>22</sup> As part of the structural reforms to be implemented, the Argentine government undertook to send two bills to Congress: a revised tax revenue-sharing law and new fiscal responsibility legislation. The accord set

<sup>21</sup> The rule relates to "adjusted" primary expenditure excluding costs tied to financing by international organizations and capital spending on basic social infrastructure. The same adjustment is to be applied when calculating the financial balance.

<sup>22</sup> See the statements by Anne Krueger in IMF (2003a).

out a precise timetable for the initiatives: agreement on the principles of the legislation to be passed had to be reached with a “critical mass” of governors by March 2004.<sup>23</sup>

Consistently with the conceptual analysis carried out in section III, the IMF gave primary importance to the approval of new fiscal legislation that included rules. In the first programme review in late January 2004, the Fund authorities applauded the good performance of the Argentine fiscal accounts in the short term, but highlighted the need to assure the sustainability of fiscal improvements by implementing the promised legislative reform.<sup>24</sup>

In the second review, conducted in March 2004, the Fund emphasized the importance it attached to the fiscal reform commitments made:

*“In addition, progress is expected towards securing a political consensus for the new fiscal responsibility and coparticipation legislation. These are critical initiatives and the authorities need to ensure that the reforms that will be proposed to Congress provide a durable solution for the weaknesses of the current system—namely insufficient control over provincial finances, lack of incentives to raise own revenues at both levels of government, and a lack of equity in the distribution of resources among the provinces” (IMF, 2004a, pp. 12 and 13).*

The Fund continued to wait for the two bills (the reform of the revenue-sharing law and the new fiscal responsibility legislation) to be submitted to Congress. The revised structural targets of the programme included an ambitious timetable: submission of both bills to Congress by the end of May and their approval by the national and provincial legislatures by the end of August.

But the federal revenue-sharing reform, the “mother of all battles” in the fiscal discussion between the national government and the provinces, never reached Congress. Sensibly, the national government decided not to go ahead with a bill that would necessarily mean far-reaching negotiations with the provinces under political circumstances that provided no assurance of a reasonable outcome. In this context, the new

fiscal responsibility bill became a sort of second-best option for the Fund because it could present approval of the FRL as a step forward with institutional reform in the fiscal area, and for the government because it prevented the stand-by programme from lapsing. Thus, the executive presented the bill for the FRL to Congress on 14 June 2004, the same day as the IMF mission began the third review of the agreement signed in September the previous year.<sup>25</sup>

The complex fiscal and financial relationship between the centre and the provinces, dominated by the delayed reform to the federal revenue-sharing regime, was significantly affected by the crisis of 2001. A number of subnational administrations had increased their expenditure and borrowings too far during the boom period and were having the utmost difficulty in adapting to a less favourable environment. In some cases, the financial commitments entered into tied up too large a portion of provinces’ revenues. As revenues and financing dried up, many administrations had resorted to issuing quasi-currencies as the only way of meeting basic administration costs, principally the salaries of public-sector employees.

By February 2002, the new national government had reached a fiscal agreement with the provinces that was designed to resolve the most critical aspects of the situation.<sup>26</sup> The debts of the provinces were taken over by the national government and renegotiated over long terms and at lower interest rates, and the revenue-sharing ratios provided for in the legislation once again began to be applied. In return for financial assistance from the federal government, the administrations in the greatest fiscal and financial difficulties undertook, under bilateral agreements with the centre known as ordered financing programmes (PFOs), to reduce their imbalances and not to increase their borrowings.<sup>27</sup> These programmes included financing from central government to meet deficits and debt repayments in exchange for a commitment to meet fiscal targets for reducing budget imbalances by rationalizing spending

<sup>23</sup> See IMF (2003b).

<sup>24</sup> IMF (2004b).

<sup>25</sup> The third review was never completed and the stand-by programme was suspended. The Fund was dissatisfied with a number of “weaknesses” in the new fiscal responsibility legislation (IMF, 2005).

<sup>26</sup> Acuerdo Nación-Provincias sobre Relación Financiera y Bases de un Régimen de Coparticipación Federal de Impuestos, signed on 27 February 2002 and ratified by national law no. 25.570.

<sup>27</sup> The Programme for Ordered Financing of the Provincial Finances, aimed at the provincial states and the autonomous city of Buenos Aires, was formally created by national executive decree no. 2.263 dated 8 November 2002.

and increasing revenues, refraining from any debt or quasi-currency increases, and carrying out fiscal transparency and financial administration reforms. To ensure that the loans received were reimbursed, the provinces agreed to transfer their rights over federal revenue-sharing resources to the national government. The agreements included penalties for non-compliance by the provinces.<sup>28</sup>

The ordered financing programmes strongly influenced the contents of the 2004 FRL, which became a means to give greater institutional backing to the bilateral financing agreements between the national government and the provinces.<sup>29</sup> On the basis of article 26 of that law, the national government carried on signing agreements with some provinces and even using the same financial vehicle, the Trust Fund for Provincial Development (FFDP).<sup>30</sup> The FRL shares with the ordered financing programmes the goal of capping the provinces' public debt, and the two instruments contain similar penalties for non-compliance. Most of the fiscal management and transparency requirements laid down in the PFOs subsequently reappeared in the text of the FRL. The coordination and oversight role exercised in the PFOs by the deputy minister for provincial relations was transferred to the Fiscal Responsibility Council created by the new legislation.

The relationship between the national government and the provinces was an issue that permeated the contents of the FRL but does not seem to have been critical in the timing of its approval. It may be speculated that, without the pressure from the Fund to pass the FRL, financial assistance to the provinces would have continued to be administered through PFOs.

<sup>28</sup> The national government signed PFOs with 17 provinces in 2002, providing financing of 2.73 billion pesos to cover cash needs and public debt repayments. On a similar basis, PFOs were once again signed in 2003 (with financing of over 3 billion pesos from the national government) and 2004 (Cetrángolo and Jiménez, 2004).

<sup>29</sup> The Minister of Economy, Roberto Lavagna, publicly confirmed the connection between the new law and the ordered financing programmes (PFOs): "*We see a case for bringing together a large part of the experience of these last three years in a law of a more permanent character. The idea behind this law is that all of us, in the national government and in the provinces, should work with common macroeconomic rules and projections, and with standards of transparency and coordination*" (Lavagna, 2004).

<sup>30</sup> The FFDP, created by decree in 1995 to support reforms in the provincial states, began to be used as a provincial financing instrument by the national government in 2000 and 2001. The FFDP was also the means used to transfer the resources promised by the PFOs in 2002, 2003 and 2004, the funds being provided by the Treasury. In the last few years, the FFDP has been the instrument used to give the provinces the assistance provided for in the FRL.

## 2. The operation of the 2004 fiscal responsibility law (FRL)

At this early stage, the record of the new law has been mixed. As public revenues have grown along with economic activity, Argentina has significantly improved its fiscal accounts in recent years. However, during the 2005 fiscal year, the first to be affected by the FRL, the most important numerical rule of the new law was not met: adjusted primary spending grew by more than GDP.<sup>31</sup>

In the provinces, the Federal Fiscal Responsibility Council found that the spending and balance rules were met in 2005, although some administrations exceeded the borrowing limits.<sup>32</sup> Looking ahead, the executive is seeking to change the method used to measure the limits on spending increases in the provinces to exclude specifically allocated expenditure financed from non-automatic federal government contributions, with effect from 2007. If this amendment goes through, the FRL will be completely debased.<sup>33</sup>

The limits on the amendments the executive can make to the budget while it is being implemented, as laid down in article 15 of the FRL, were suspended temporarily by an article in the 2005 budget act voted through just a few months after this law had been passed, and permanently by means of a controversial reform to the financial administration law passed in mid-2006.<sup>34</sup>

There has been no progress, at least at the national level, in the aim of consolidating into the budget all the agencies and/or funds that are currently off budget.<sup>35</sup>

There has likewise been no progress with the publication of fiscal information as required by article 7 of the law. In the case of the national public sector, information on budget implementation, the public debt

<sup>31</sup> See ASAP (2005).

<sup>32</sup> See Consejo Federal de Responsabilidad Fiscal (2006).

<sup>33</sup> The change was included in article 20 of the 2007 budget bill presented to Congress. The system introduces perverse incentives: the provinces would be limited in their scope to increase spending out of their own resources (or their share of tax revenue-sharing income), but could do so using financing from discretionary central government transfers.

<sup>34</sup> This is law 26.124 of August 2006, which amended article 37 of law 24.156, increasing the powers of the executive to amend the budget voted through by Congress during its implementation.

<sup>35</sup> Article 3 of the FRL set a deadline of two years for these funds and agencies to be brought into the general budget. They have not been reincorporated in the 2007 budget bill, but an article has been added to this calling for "a timetable of activities for the completion of this inclusion process".

and unfunded Treasury debt is being delayed by more than the three months allowed by the FRL. Occupational and employment information is not available. The Federal Fiscal Responsibility Council has started to publish information from the provinces, but this is incomplete and there are long delays.

Contrary to the terms of article 13 of the law, new funds have been created with associated spending that is not consolidated in the general budget. Article 17, which creates an obligation to offset any revenue-reducing tax measure by increasing resources elsewhere or reducing spending, has not been complied with.<sup>36</sup>

## V

### Conclusions

In Argentina, prodigality in the use of fiscal rules (two different laws in just five years) contrasts with the meagre results achieved. The rules have been all but ineffective in assuring the sustainability of fiscal policy, improving transparency and rooting out the collection of bad practices that have dominated the Argentine budgetary process for years.

The rapid and general neglect of the rules contained in the first fiscal responsibility law approved in Argentina (law 25.152 of 1999, known as the fiscal convertibility law) was largely associated with the macroeconomic crisis that broke out in late 2001. Five years later, however, in highly favourable economic circumstances, compliance with the provisions of the 2004 fiscal responsibility law, many of them carried over from the earlier legislation, is also poor. The improvement in Argentina's macrofiscal indicators since the 2001 crisis is due to a set of convergent factors (new taxes, faster growth, inflation, restructuring of the public debt) and cannot be attributed to the passing of the 2004 FRL. As a proportion of GDP, the national primary fiscal result in 2005 was over 1% lower than in the previous year and, as mentioned earlier, the rule that is most important for a period of expansion like

In summary, a preliminary assessment of compliance with the rules established in the FRL paints an unpromising picture that is reminiscent of the situation with its predecessor, law 25.152, in the early years of the decade. Despite the stark contrast in macroeconomic conditions at the time each came into force (extremely adverse for 25.152, favourable for the FRL), in neither case has the government (or public opinion generally) shown much interest in enforcing the rules established.

the one Argentina is currently experiencing was not followed: the limitation of spending growth.<sup>37</sup>

In contexts of institutional weakness like that in Argentina, where the executive amends laws with surprising frequency and ease, it is hard to imagine that a fiscal responsibility law might significantly constrain the decision-making of those in government, to the extent of correcting the pattern of behaviour in the public finances.<sup>38</sup>

As was mentioned in section II, some authors have argued that the great virtue of fiscal responsibility laws may simply be that they provide society with vehicles for building political consensus around the need to ensure the solvency of the public sector. In Latin America, the experience of Chile is revealing: the Chilean public sector was already meeting the structural fiscal surplus target of 1% of GDP several years before this was announced as a rule.<sup>39</sup>

<sup>36</sup> In mid-March 2006, the executive amended the rules on minimum thresholds for profits tax liability without presenting any offsetting measure.

<sup>37</sup> The primary result fell from 4.04% of GDP in 2004 to 2.98% in 2005. The financial result fell from 2.6% to 0.68% in the same period.

<sup>38</sup> Eifert, Gelb and Borje (2002) have studied the use of stabilization funds and other budgetary reforms in different countries with abundant oil resources, and have concluded that in countries deemed to be "factional democracies" (a category in which they include Argentina and other countries of the region) these schemes do not work properly unless they have strong political support.

<sup>39</sup> The Chilean rule has another striking characteristic which contrasts with the recommendations of the literature: it is not based on any legal or constitutional instrument whatsoever. See Marcel (2006) and Vial (2003).

In Argentina, parliamentary debates on fiscal responsibility bills have not been associated with an in-depth public discussion of the importance of fiscal discipline. Despite the traumatic earlier experience, the FRL was debated for less than two months in Congress and no reflections and/or discussions on the issue were forthcoming from other sectors with close connections to the public finances.

Far from being treated as tools for regulating long-term fiscal policy, the rules have been used to respond to short-term needs, with an evident lack of concern about their subsequent performance. In 1999, the drafters of law 25.152 took to its limit the idea of the “fiscal rule as signal” (Drazen, 2002) in an effort to convey an unyielding commitment by the authorities to the convertibility regime.

In 2004, however, it seemed foolish to imagine that passing a new fiscal responsibility law could provide a positive signal about the fiscal commitment of the authorities. With public debt repayments suspended, the credibility of the Argentine Treasury had fallen very low and was unlikely to be improved by a new law from Congress offering yet another promise of fiscal discipline.

So why was the FRL passed? Despite having no potential whatsoever as a “signal”, the law was useful for other goals being pursued at the time, chiefly that of ensuring the viability of the stand-by agreement then in force between Argentina and the IMF. The Fund was keeping up its recurrent pressure for the approval of structural reforms, especially in the fiscal area, but the Argentine authorities saw how unhelpful it would be to force along the debate on reform of the tax revenue-sharing regime. Securing a fiscal responsibility law that was lauded in academic circles and by the multilateral agencies became an honourable way out for Argentina and the IMF negotiators. From the Argentine perspective, passing the new fiscal responsibility law would be a positive step if it gave greater viability to the programme

with the IMF, while it would also serve to institutionalize the bilateral financial assistance programmes with the provinces the old ordered financing programmes.

Looking ahead, this analysis of events leads us to the paradoxical recommendation that Argentina should once again reopen the legislative debate on fiscal responsibility. The legislation now in force is so confused that the rules need to be consolidated and organized, probably in a single body of law. The aim should not be to produce a third fiscal rule in response to a temporary predicament or to the wishes of some multilateral organization, but to rationalize the existing legislation, stripping it of redundant provisions and of objectives that are unlikely to be attained.

This rationalization of the fiscal responsibility legislation could be an opportunity to generate a broad public debate on the advantages of fiscal discipline and budgetary good practice, involving all sectors of politics and society with an interest in the subject. Even if formally less ambitious, a review of the fiscal legislation that yielded a consensus on the subject in society would surely have far more beneficial effects on the performance of the public accounts.

Regionally, the Argentine experience should also provide a warning to the multilateral organizations, which are only too ready to include the approval of a fiscal rule among the conditions they lay down in their assistance programmes. In countries with low fiscal credibility and weak institutions, not only may rules prove completely ineffective in fiscal terms, but non-enforcement may further weaken the fragile institutional environment that undermined their effectiveness in the first place.<sup>40</sup> Perhaps it is the multilateral organizations that should follow a new rule: do not press for the approval of fiscal rules in countries that establish them only in order to obtain the financing these organizations can provide.

*(Original: Spanish)*

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<sup>40</sup> Vial (2003) examines the problems that have arisen with the implementation of IMF-sponsored laws creating fiscal rules in Peru and Ecuador.



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# Trade agreements by Colombia, Ecuador and Peru with the United States: effects on trade, production and welfare

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**T**he Computable General Equilibrium model, based on the Global Trade Analysis Project (GTAP) model, is used to evaluate the impact of separate bilateral free trade agreements by Colombia, Ecuador and Peru with the United States of America (USA). As the Andean Trade Promotion and Drug Eradication Act (ATPDEA) is to expire shortly, a number of different scenarios have been analyzed: full liberalization, liberalization excluding sensitive products and non-conclusion of agreements. Signature of the agreements would lead to a widespread increase in trade among the negotiating countries to the detriment of their Andean partners. While the effects on welfare would benefit only the United States and Peru, from the capital accumulation standpoint they are clearly positive for all countries. Research shows that, while these agreements would not be enough on their own to trigger a process of sustained development, an active economic and social policy could usefully tap their potential.

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# I

## Introduction

There is widespread consensus that free trade agreements lead to increased exports and production levels in the short to medium term and provide an opportunity to introduce an analysis of productive development agendas, including competitiveness. However, some regional experiences have shown that dynamic export growth does not go hand-in-hand with equally dynamic growth rates in gross domestic product (GDP), meaning that additional policies are needed to accompany liberalization and efforts to access new markets. During the process of trade opening and signature of free trade agreements, new opportunities also bring with them the challenge of how to minimize or mitigate the adverse effects on the least competitive sectors of the greater exposure to global competition entailed by trade opening.

In the short term, the net effect that will determine whether trade liberalization is beneficial to a country will be established on the basis of its impact on welfare. This will be the result of a combination of sometimes opposing factors, including: (i) the trend in the terms of trade and changes in relative prices; (ii) the effects on tax revenues and their use; (iii) a country's pattern of production specialization; (iv) winner and loser sectors; (v) the predominant types of employment and the level of technology in the sectors and (vi) the distribution of added value among the various factors of production. The effects on production costs and the timely availability of factors of production and inputs will also be key factors in effectively exploiting the new dynamic created by free trade agreements.

The inclusion of long-term elements, such as attracting greater foreign investment, technological change arising from easier access to high-technology capital goods, possible reductions in country-risk premiums in response to a better reputation and a reduction in the monopoly power of sectors exposed to stiffer competition as a result of trade opening, can create additional dynamic benefits that qualify, accentuate or reverse the short-term results.

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The main objective of this study is to evaluate the socio-economic effects that would occur as a result of three Andean countries (Colombia, Ecuador and Peru) concluding separate free trade agreements (FTA) with the United States. The process of negotiating bilateral agreements with the United States is not confined to the Andean countries but responds, in part, to an international context that is both political (geostrategic interests and competition by areas of influence) and commercial (multilateral negotiations are stalled). In fact, the scant success with negotiations within the multilateral trade system, following the skepticism generated at the World Trade Organization (WTO) Ministerial Conference in Cancun and the timid advances made at the WTO Ministerial Conference in Hong Kong, has led to a wave of bilateral and multilateral free trade agreements.

At present, the Latin American and Caribbean countries continue to negotiate a large number of preferential free trade agreements of varying types with countries from inside and outside the region. By September 2006, around 70 trade intra- and extraregional agreements had been concluded, not counting those still under negotiation. All of these agreements and their corresponding negotiation processes have generated centrifugal and centripetal forces that tend to unite or divide the process of regional integration respectively. Thus, one political consequence of the free trade agreement negotiations by three Andean countries with the United States, and specifically the conclusion of negotiations in the cases of Peru (November 2005) and Colombia (April 2006), has been the decision by the Bolivarian Republic of Venezuela to formally withdraw from the Andean Community (AC). However, this study does include the Bolivarian Republic of Venezuela among the AC members when counting the regional aggregates, since the simulation exercises were conducted prior to the country's withdrawal.

The negotiation process for the free trade agreements in this study has not been easy. From the very outset, the negotiations have been plagued by innumerable tensions. Indigenous peoples, peasant farmers, small-producer organizations, trade unions and many social movements moved to halt the progress of

the negotiations. The negotiations were viewed as a huge concession to United States economic and geopolitical interests. This is why we feel that it is appropriate to conduct as objective as possible a quantitative evaluation of the consequences of concluding these agreements for the three countries involved in the negotiations. This study therefore analyses the macroeconomic and sectoral effects (GDP, exports, imports and intraregional trade), as well as their impact in terms of welfare. The database of the Global Trade Analysis Project (version 6.1) and the associated computable general equilibrium model were used. As the base year for the original GTAP database was 2001, the information on tariff protection was updated to 2004 in order to reflect the current situation regarding all the preferential agreements and tariff reductions in force in the region. This was the reference year used for the simulation exercises. Thus, our benchmark scenario already incorporates the effects of the unilateral preferences granted by the United States under the Andean Trade Promotion and Drug Eradication Act, so it is possible to filter the real effects of the agreements under negotiation.

It is important to note that, as with any application of the computable general equilibrium model, the simulation exercises in this study do not consider the possible effects of non-commercial aspects of a free trade agreement (such as services, investments, public procurement, intellectual property or competition policy), which for some countries are even more important than the purely commercial aspects. Furthermore, as they are static simulation exercises, their added value lies in identifying “winner” and “loser” sectors, regions and agents. These are therefore short to medium term results that do not allow growth paths to be deduced nor possible dynamic effects to be incorporated.<sup>1</sup> Even though the model faithfully reflects the system of prices and quantities, as well as the public policies applied (in this case free trade

agreements), it does not incorporate the institutional, cultural, administrative, business and other elements that are also key to exploiting the static and dynamic advantages of a trade agreement and to mitigating adverse effects. Although these limitations do not invalidate the results, they do limit the scope of interpretation and call for caution in the use of the model.

In summary, this study uses a computable general equilibrium model to analyse the direct and indirect effects of Colombia, Ecuador and Peru concluding bilateral free trade agreements with the United States, in three static and two dynamic scenarios. In the main static scenario, the three Andean countries (hereafter referred to as AC3) and the United States fully liberalize their trade reciprocally (“AC3-USA full liberalization”). Next, two alternative scenarios are simulated: one that excludes sensitive products (“AC3-USA excluding sensitives”) and another where no agreement is concluded and ATPDEA benefits from the United States are terminated (“No FTA/end ATPDEA”). This non-signature scenario could be considered as an alternative to the scenario of signing free trade agreements. The “AC3-USA full liberalization” and “No FTA/end ATPDEA” scenarios are also simulated dynamically.

Section II of this article describes the key variations between the AC countries’ trade policies, highlighting the main reasons that prompted them to engage in negotiations with the United States. The section also reviews literature on the computable general equilibrium model in the region and in the AC countries. Section III describes the model’s characteristics and the details of country and product aggregations, as well as of the simulation scenarios analysed. Section IV presents the main results. Lastly, Section V makes a number of conclusions and discusses the economic policy implications.

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<sup>1</sup> At the end of the study, the simulation results are analysed in a “dynamic” version of the model, based on a steady-state representation.

## II

### The Andean Community's trade policy and reasons for negotiating a free trade agreement with the United States

#### 1. Trade strategy of the Andean countries

The AC countries' trade policy has developed in three directions: towards unilateral, bilateral and multilateral liberalization. Between the mid-1980s and the late 1990s, the Andean countries unilaterally reduced their average tariff levels from more than 40% to around 12%.

Another pillar of liberalization was regional integration. In 1969, the Andean countries concluded the Cartagena Agreement in a determined bid to achieve greater commercial and industrial integration. This initiative was inspired by policies of import substitution-led industrialization, which was very much in vogue at the time. However, integration ground to a halt without achieving any tangible results until 1991. During the 1980s, the Andean subregion found it very hard to comply with tariff reduction commitments. In response to the initiative of the Southern Common Market (MERCOSUR) in 1991, the member countries of the Andean Pact agreed to relaunch the integration initiative. So, as from 1992, somewhat deeper integration was achieved among Colombia, Ecuador, Bolivia and the Bolivarian Republic of Venezuela, having been given new impetus by the free trade agreement concluded by Colombia and the Bolivarian Republic of Venezuela in the same year. A free trade zone among the member countries which had been in operation since 1993 was turned into an (albeit imperfect) Customs Union in 1995. The new challenge of globalization made it necessary to deepen integration by introducing a common external tariff. However, this process is still ongoing.<sup>2</sup>

Trade between the AC countries has increased since the free trade zone came into force (1993). Between 1990 and 2005, its annual rate of growth was 13.5%. However, intrasubregional trade is still limited compared with intraregional trade in Asia and the European Union for example. Whereas in the Andean Community the coefficient of intraregional trade (intraregional

exports/total exports) is around 10%, in Asia it is one third and in the European Union, approximately two thirds (Rosales, Durán and Sáez, 2006). In terms of trade volume, the United States alone is a much more important partner than the subregion itself.

The AC countries also played an active part in the Uruguay Round negotiations and made major efforts to reduce and equalize import barriers on virtually 100% of their entire tariffs lines. Their active participation in the multilateral negotiations has continued to this day, chiefly because there are a number of issues at stake of special importance for improving their competitiveness, such as greater access to markets for agricultural products and the abolition of domestic support and subsidies in developed countries. This is why the Andean countries participate in the World Trade Organization (WTO) negotiations in a coordinated manner, especially on the agricultural issues mentioned. However, this is a slow process in which it takes a long time to reach consensus. On average, a multilateral round lasts six years, since countries, and particularly their entrepreneurs, need to expand their trade opportunities into new markets quickly, especially for products where they have a comparative advantage.

The scant success with negotiations within the multilateral trade system, following the scepticism at the WTO Ministerial Conference in Cancun and the timid advances made at the Hong Kong Conference, has led to a wave of bilateral and multilateral free trade agreements. At present, the Latin American and Caribbean countries continue to negotiate a large number of preferential free trade agreements of varying types with countries from inside and outside the region. Between 2001 and 2005, countries in the region concluded at least 10 new free trade agreements with countries in the northern hemisphere. This increased trend towards north/south agreements affected the Andean countries both directly and indirectly, since in a sense the proliferation of bilateral and multilateral FTAs reflected the frustration of many Governments at the slow progress made under the multilateral trade system.

<sup>2</sup> See Durán and Maldonado (2005).

## 2. Andean Trade Preference Act, its expansion and trade between the Andean Community countries and the United States

The United States is the Andean countries' leading trading partner. In 2005, 40% of the group's total exports went to the United States and, in return, 26% of total imports into the Andean Community came from the United States. By contrast, total exports from the United States to AC countries account for barely 1.6%. Andean exports are mainly composed of petroleum and mining (54%), heavy manufactures (21%) and, to a lesser extent, light manufactures (13%) and agricultural products (7.6%). Fuels and petroleum by-products together represent 56% of exports, although sectors such as metals (7%), wearing apparel (6.5%), other crops and chemicals (each around 4%) also play an important role. Imports from the United States to AC countries predominantly comprise heavy manufactures, which account for more than 70% of the total. The machinery and equipment, chemicals, rubber and plastics and other manufactures sectors represent more than 60%. The machinery and equipment sector basically comprises capital goods.

One factor that has heavily influenced relations between the Andean countries and the United States has undoubtedly been the United States Andean Trade Preference Act (ATPA), which was expanded and replaced in 2002 by the United States Andean Trade Promotion and Drug Eradication Act (ATPDEA), after the original act expired in late 2001. Despite being part of the United States trade policy, as both these legal instruments are unilateral, they have been central to the trade policy of the three Andean countries that have embarked on negotiations for the signature of a free trade agreement.

ATPA was approved by the United States Congress in December 1991, providing access to the United States market for 5,600 tariff headings and granting preferences to four Andean countries (Bolivia, Colombia, Ecuador and Peru). The aim was to provide them with better commercial alternatives to the illegal sale of drugs to the United States, as well as to contribute to their development and to the consolidation of democratic institutions in the four countries. When ATPA expired in 2001, the United States Government approved ATPDEA to replace it. This new act was promulgated on 6 August 2002 and conferred retroactive benefits starting from the date on which the former act expired.

The new act added around 700 products to the original list, increasing the number of products with

free access to 6,300 (United States International Trade Commission (USITC), 2005 and 2006). The term of ATPDEA was extended from 31 December 2006 to June 2007.

Between 1992 and 2005, exports from the Andean ATPDEA beneficiary countries grew fast as a result of improved access to the United States market, especially in the three-year period from 2003 to 2005. The products with the highest increases were basically raw materials, especially minerals, and manufactures based on natural resources, such as textiles and fuels (table 1 and figure 1). In general, tariff preferences under ATPDEA form a large proportion of total exports from each country.

Exports from the Andean countries to the United States chiefly comprise primary products and manufactures based on natural resources. These sectors offset the deficit created by imports of intermediate and high technology manufactures, such as electrical machinery, accessories and parts and electronic equipment (table 2).

## 3. Reasons for entering into trade negotiations with the United States

A combination of factors led the Andean countries to accept the United States' invitation to start negotiations on a free trade agreement: (i) the small size of the regional market, representing no more than 10% of total trade; (ii) weak regional integration and a dearth of agreements at the time when consensus was reached on key issues such as final approval of the common external tariff and the deepening of trade in services; (iii) little or no probability of progress with the negotiations on the Free Trade Area of the Americas (FTAA), which have technically been at a standstill since March 2004; (iv) scepticism about the feasibility of achieving speedy and conclusive results with multilateral negotiations; and (v) the huge importance of the United States as a trading partner for the AC3 countries. All these factors, combined with each country's need to maintain predictable trade relations with their northern neighbour as the end of ATPDEA in December 2006 drew near, led Colombia, Ecuador and Peru to accept the United States' invitation to start trade negotiations for the conclusion of separate free trade agreements.

The negotiations began in Cartagena (Colombia) in May 2004. In 2005, there were 12 negotiation rounds involving three countries (Colombia, Ecuador and Peru). Bolivia maintained observer status throughout

TABLE 1

**Andean Community: main products exported to the United States  
and percentages of use of atpdea, 2005<sup>a</sup>**  
(Percentages)

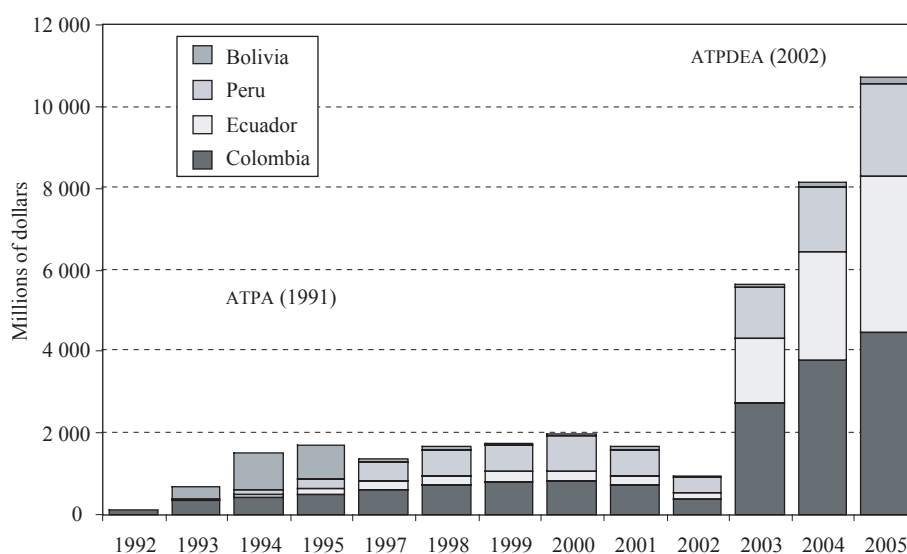
Country	Main products by country (% of the total under ATPDEA)	Percentage of each country's total exports		Country contribution to total ATPDEA exports	
		2001	2005	2001	2005
Bolivia	Precious metals, zinc, nuts, shirts, cotton fabrics, wood products (95%)	41.1	53.7	3.3	1.5
Colombia	Petroleum and by-products, gold, coal, coffee, bananas, textile products, plastics, aluminium, ceramics (96%)	50.5	50.6	43.1	41.8
Ecuador	Petroleum and by-products, bananas, shrimps, flowers, tuna, cocoa, cocoa butter (98%)	77.3	64.2	13.1	35.7
Peru	Copper, gold, shirts, pullovers, petroleum, zinc, silver, asparagus, coffee, mangoes (91%)	43.5	43.9	40.6	21.0
Four ATPDEA beneficiary countries		56.2	53.0	100.0	100.0

Source: Authors, based on official data from the United States Department of Commerce (International Trade Commission, 2005 and 2006).

<sup>a</sup> ATPDEA: Andean Trade Promotion and Drug Eradication Act (United States).

FIGURE 1

**Andean countries: exports to the United States  
under ATPA and ATPDEA, 1992-2005<sup>a</sup>**  
(Millions of United States dollars)



Source: Authors, based on official data from the United States Department of Commerce (International Trade Commission, 2005 and 2006).

<sup>a</sup> ATPA = Andean Trade Preference Act. ATPDEA = Andean Trade Promotion and Drug Eradication Act. Both are United States laws.



TABLE 2

**Andean Community: trade with the United States, 2004**  
(Millions of dollars)

Country	Exports	Imports	Trade balance	Opening of the trade balance according to technology intensity				
				Raw materials	Manufactures based on natural resources	Low technology	Intermediate and high technology	Other
Bolivia	360	260	99	31	127	99	- 144	- 13
Colombia	7 042	4 807	2 235	3 729	42	472	-2 434	426
Ecuador	3 265	1 323	1 942	2 682	168	- 58	- 847	- 4
Peru	3 604	1 981	1 622	170	1 713	692	-1 042	89
Venezuela (Bol. Rep. of) <sup>a</sup>	11 075	2 754	8 321	9 305	111	- 112	- 963	- 20
Andean Community	25 346	11 126	14 220	15 917	2 161	1 093	-5 430	479

Source: Authors, based on information from the United Nations Commodity Trade Statistics Database (COMTRADE).

<sup>a</sup> Based on information for 2003.

the negotiation process, but did not actually join in the negotiations.

From the outset, the negotiations of the three Andean countries with the United States have been beset by political and social problems and setbacks. Some civil society groups were highly active in their determination to hold up the process, as they considered their governments to be making concessions to United States economic and geopolitical interests. In spite of the climate of unease and doubts about the viability and social legitimacy of such negotiations, Peru and Colombia concluded agreements in November 2005 and March 2006, respectively, whereas Ecuador has postponed negotiations in an effort to reach an agreement more conducive to its own interests.

#### 4. An overview of literature on the subject

There has been a large increase in economic literature on measuring the effects of free trade agreements, prompted mainly by changes in the trade policy of the principal international trading partners. That is why many economists have focused their efforts on evaluating the possible effects of this greater trade liberalization.

Innumerable studies have focused on evaluating the effects of free trade agreements in the region, especially advance studies on the possible effects of the FTAA negotiations. A large number of these studies were carried out on the basis of rather large aggregations of sectors and regions. These studies included Cuadra and Florián (2005); Andean Development Corporation (2005);

Argüello and Valenzuela (2005); Latin American Integration Association (2004); Argüello (2004); Diao, Diaz-Bonilla and Robinson (2002); Diao and Somwaru (2001) and Hinojosa-Ojeda, Lewis and Robinson (1997).

Monteagudo, Rojas et al (2004); Light (2003); Argüello (2004); Argüello and Valenzuela (2005); Andean Community (2005); Morales, Parada and Torres (2005) and Sepúlveda (2005) make specific references to studies on assessing the impact of FTAs involving Andean countries. Some impact assessments of free trade agreements consider only the country dimension, as is the case with Botero (2005) in relation to Colombia and with Morales, Parada and Torres (2004) in relation to Ecuador. The latter article was not written in a general equilibrium context.

The results of studies like these show that the changes which have taken place in trade are generally greater than those in GDP, with very little effect on welfare. Of the studies mentioned, only Cuadra and Florián (2005) conduct simulations that consider the long term by explicitly including dynamic elements that capture the effects of capital accumulation in the model. Their approach follows that of Baldwin and Venables (1995), François and McDonald (1996) and Walmsley (1998). In these cases, the results show that GDP growth may be greater than that achieved by applying static computable general equilibrium models. Obviously this leaves the debate open on the possible positive bias of dynamic effects in computable general equilibrium models.

### III

## Description of the methodology

### 1. The model

The Global Trade Analysis Project (GTAP) model and database were used for the exercises in this study. It is a multiregional computable general equilibrium model, linked with a global database which, in addition to modelling trade flows between countries, includes an explicit treatment of the transport sector, a reconciliation system (or global bank) that mediates between the levels of savings and investment and a module that simulates the behaviour of demand from household consumption, from the production sector (intermediate goods) and from the Government, as well as the behaviour of primary demand factors (Hertel, 1997; Schuschny, Durán and de Miguel, 2007).

Version 6.1 of the model was used for the simulation exercises in this study. This is based on assumptions of perfect competition and constant returns to scale. The model simulations are implemented numerically via the GEMPACK calculation software.<sup>3</sup>

To avoid the use of integrated social accounting matrices (SAM) for each country or region and to facilitate calculations of the equivalent variation,<sup>4</sup> the model uses an “aggregate regional household” that collects income and taxes, pays subsidies and, via a Cobb-Douglas-type per capita utility function, allocates levels of spending, in constant shares, to private consumption (households themselves, which provide skilled and unskilled labour to firms), government expenditure and savings.

In addition to making a distinction between domestic and imported goods, consumers are able to distinguish between similar imported goods according to their origin (Armington, 1969). Under Armington’s assumption, imports are imperfect substitutes for domestic products. The behaviour of households is simulated with implicit utility functions of the constant differences of elasticity variety.

The behaviour of firms (sectors) is shown as a “technology tree” (figure 2) which determines the

primary demand factors (skilled and unskilled labour, capital, land and natural resources) and intermediate consumer goods, which can be produced domestically or imported (using Armington’s assumption). The latter can, in turn, come from a variety of sources (even though the elasticities of substitution are identical in all the countries included in the model). The supply of primary factors and intermediate inputs is based on the use of Leontief functions, and constant elasticity functions are used to determine their origin (domestic or imported) and, in turn, their demand by specific regions. The choice of how much to supply to the domestic market and how much to export is modelled with a constant elasticity of transformation function.

As the model is not enough on its own to explain investment behaviour, investment must be adjusted in accordance with regional changes in savings. As part of the model’s accounting closure, it is assumed that the current account may be other than zero but that it must be balanced with each country’s trade balances by means of a sort of global bank.

Different closures of the model were used to change the baseline, as depicted in the ovals in figure 3, in accordance with Schuschny, Durán and de Miguel (2007). With respect to the free trade agreement simulations under analysis, and in order to avoid artifices that would distort the model’s representativeness and its comparability with other studies, a standard or general equilibrium closure was assumed, in which all the markets are balanced, the benefits are zero, the agents’ budgetary constraints are met and therefore Walras’ Law is met.<sup>5</sup>

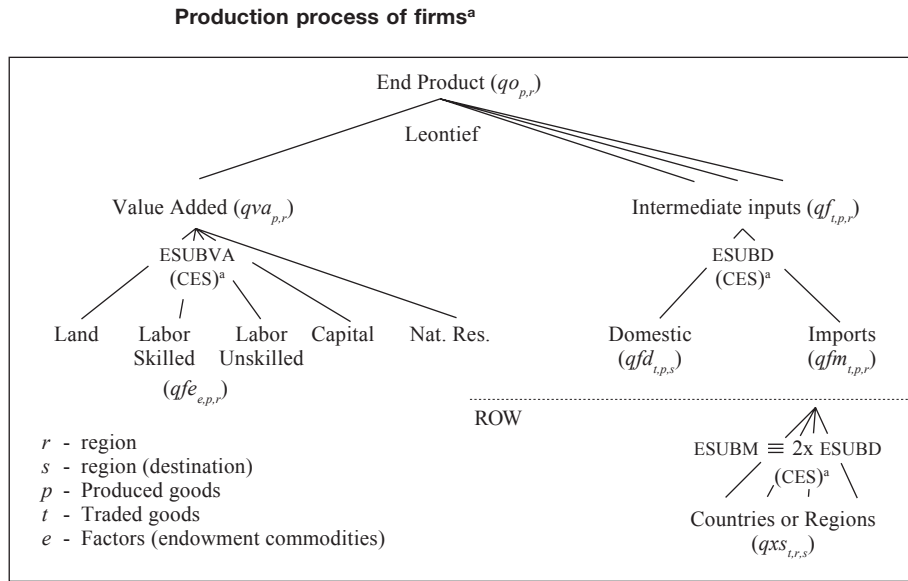
It remains for future studies (in particular a study of the exogenous trade balance, which permits a longer-term analysis) to explore other closure

<sup>3</sup> *General Equilibrium Modelling Package*. See Harrison and Pearson (1996).

<sup>4</sup> Indicator that determines changes in welfare levels.

<sup>5</sup> Even though this form of closure (the most standard type) has been adopted for this study, a simulation was also made of a case in which variations in the imbalance/equilibrium of each country’s trade balances were impeded, requiring additional adjustments in relative prices and hence in the real rate of exchange, in order to satisfy this macroeconomic constraint. That is to say, in this case a country cannot increase its pre-existing deficit or surplus after the simulated perturbation. As welfare outcomes were similar in sign and magnitude, it was decided to exclude it from this study.

FIGURE 2

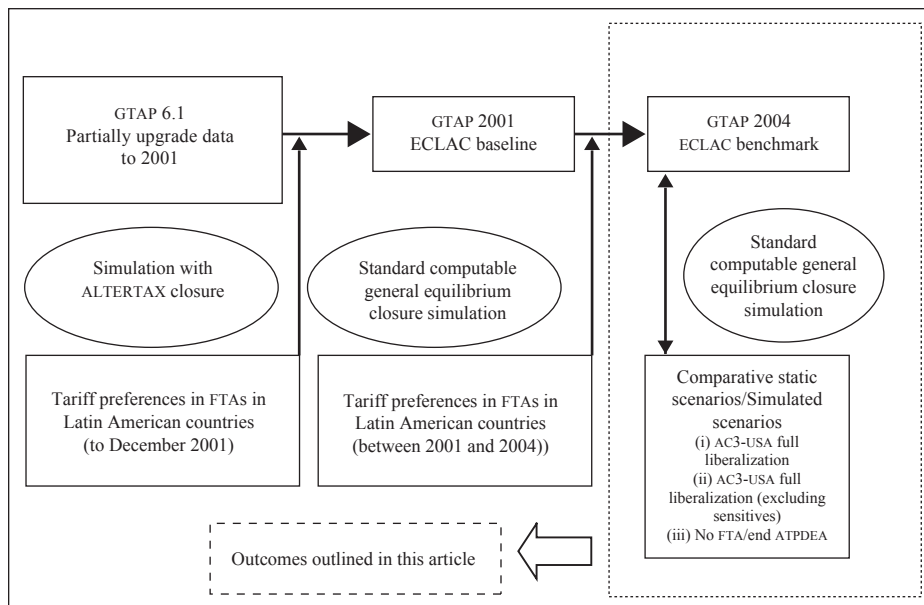


Source: Authors, based on Hertel (1997).

<sup>a</sup> CES = constant elasticity of substitution.

FIGURE 3

**Sequential methodology for updating trade policy data and scenarios for separate bilateral free trade agreements by three andean countries with the United States**



Source: Authors, based on Schuschny, Durán and de Miguel (2007).

rules, the inclusion of rigidities in some markets, the unemployment context and economies of scale in specific sectors and to make a more detailed analysis of other effects, such as environmental and social ones.

The model comprises an extensive set of equations that are solved using non-linear programming methods. The Gragg method for the extrapolation of numerical solutions was used for the exercises. The results obtained subsequent to the simulation of the perturbations should represent the short or medium term effects of the liberalization agreements under study.<sup>6</sup>

## 2. Aggregation of countries and products

Version 6.1 of the GTAP database contains information on 92 countries (or regions), 57 products and five primary factors, and refers to the year 2001. For the simulations to be treated computationally and conducted within reasonable timeframes, it was necessary to aggregate the database and to confine the universe of countries (into regional groups) and products included in the simulation exercises. The list of products is presented in table 3.

The regional aggregation aims to respect the principal places of origin and destination of Latin American and Caribbean trade flows as individual regions. Thus, there are aggregations for 24 regions (17 countries and seven regional aggregates).<sup>7</sup> Production sectors were chosen according to three considerations: (i) the need to maintain a level of sectoral disaggregation that takes into account each sector's share in exports from the countries in the region; (ii) uniform levels of protection of the products in each group and (iii) the limitations imposed by computerization of the model. The 57 products in the GTAP database were grouped into 31 products, as shown in table 3, which also shows the Armington elasticities.

<sup>6</sup> According to empirical studies, the adjustment period for a new scenario or perturbation in the United States economy is between 10 and 12 years (DeRosa and Gilbert, 2004). At the end of the study, some results of the impact that free trade agreements would have in the longer term in a steady-state-type configuration are shown.

<sup>7</sup> The 17 countries are: Argentina, Bolivia, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, Bolivarian Republic of Venezuela, United States, Canada, China, Republic of Korea, South Africa, India, China and Japan. The seven regional aggregations are: the European Union (15 countries), the countries of Central and Eastern Europe (CEE), the rest of Europe, the rest of Asia, Central America and the Caribbean, the rest of Latin America and the rest of the world.

## 3. Methodology used to obtain the benchmark scenario, taking into account the changes up to 2004

Version 6.1 of the original GTAP database fails to incorporate a number of trade agreements that existed prior to the base year 2001. For example, there were the preferential agreements between Chile and the countries of MERCOSUR as well as those between the MERCOSUR countries and the Andean Community countries. There were also the agreements concluded between the European Union and Mexico and between Mexico and Chile. This led us to update the original version of database 6.1 and to create a new updated database which we shall call "GTAP 2001 ECLAC baseline".

However, there are a number of drawbacks with using 2001 as the reference year for conducting the simulations of potential future free trade agreements because the scenario of bilateral trade agreements changed substantially between 2001 and 2004. During this period, Chile concluded a number of free trade agreements, including with the United States, all the European Union Member States and the Republic of Korea. In addition, Chile deepened reciprocal preferential access with MERCOSUR and the Andean Community. On 4 December 2001, the Andean Trade Preference Act (ATPA) also came to an end. The United States had approved ATPA for the unilateral benefit of Bolivia, Colombia, Ecuador and Peru and, as mentioned earlier, ATPA was later extended and broadened by promulgating the Andean Trade Promotion and Drug Eradication Act (ATPDEA).

For all of the above reasons, the starting scenario used for this study was a database for the year 2004, which we shall call "GTAP 2004 ECLAC benchmark". This includes all the free trade agreements concluded by Latin American countries in force up to 31 December 2004, as well as the benefits which the United States unilaterally conferred on the AC countries mentioned earlier. Figure 3 shows the technical specifications used to update the tariffs and to change the baseline from the one in the original GTAP 6.1 database for 2001, in order to gear it to the reality of the region in 2004. Figure 3 depicts a sequence of three consecutive phases.

The details on how the benchmark scenario for the year 2004 was defined can be consulted in Schuschny, Durán and de Miguel (2007). Suffice it to say here that, during the first phase, actual tariffs in the original GTAP database were revised to 2001 and tariffs not included were updated, applying the AlterTax methodology detailed in Malcolm (1998). After this,

TABLE 3

## Detailed product aggregation in global trade analysis project GTAP 6.1

No.	Code	Description based on the products defined in the GTAP 6.1 database <sup>a</sup>	Armington elasticities		Sensitive products	
			Domestic/ import	Imports according to origin	United States	Andean countries
<i>Agricultural products</i>						
1	Arroz	PDR (Paddy rice), PCR (Processed rice)	3.6	6.4		X
2	Trigo	WHT (Wheat)	4.5	8.9		X
3	Ocereales	GRO (Cereal grains n.e.c.) <sup>b</sup>	1.3	2.6		X
4	FrutasVeg	V_F (Vegetables, fruit, nuts)	1.9	3.7		
5	Semilloil	OSD (Oil seeds)	2.5	4.9		X
<i>Light manufactures</i>						
6	AceiteVeg	VOL (Vegetable oils and fats)	3.3	6.6		X
7	Azúcar	C_B (Sugar cane, sugar beet), SGR (Sugar)	2.7	5.4	X	X
8	FibrasVeg	PFB (Plant-based fibers), WOL (Wool, silk-worm cocoons)	3.7	7.1		
9	Ocultivos	OCR (Crops n.e.c.)	3.3	6.5		X
10	BeyTa	B_T (Beverages and tobacco products)	1.2	2.3		
11	Ganadería	CTL (Cattle,sheep,goats,horses), OAP (Animal products n.e.c.)	1.5	3.0		
12	Carne	CMT (Meat: cattle,sheep,goats,horse), OMT (Meat products n.e.c.)	4.1	8.3		
13	Lácteos	RMK (Raw milk), MIL (Dairy products)	3.7	7.3		X
14	Oaliment	OFD (Food products n.e.c.)	2.0	4.0		X
15	Pesca	FSH (Fishing)	1.3	2.5		X
16	Forestal	FRS (Forestry)	2.5	5.0		
17	Textil	TEX (Textiles)	3.8	7.5		X
18	Confección	WAP (Wearing apparel)	3.7	7.4		X
19	CueroCalz	LEA (Leather products)	4.1	8.1		X
20	Madera	LUM (Wood products)	3.4	6.8		
<i>Petroleum and mining</i>						
21	Minería	OMN (Minerals n.e.c.), NMM (Mineral products n.e.c.)	2.4	4.8		
22	Combustibles	COA (Coal), OIL (Oil), GAS (Gas)	7.5	14.9		
23	Dpetrol	P_C (Petroleum, coal products)	2.1	4.2		
<i>Heavy manufactures</i>						
24	Química	CRP (Chemical,rubber,plastic prods)	3.3	6.6		
25	Metal	I_S (Ferrous metals), NFM (Metals n.e.c.)	3.4	7.2		
26	ProdMetal	FMP (Metal products)	3.8	7.5		
27	MaquiEqui	OME (Machinery and equipment n.e.c.)	4.1	8.1		
28	Autop	MVH (Motor vehicles and parts)	2.8	5.6		X
29	Etransp	OTN (Transport equipment n.e.c.)	4.3	8.6		
30	Omanu	ELE (Electronic equipment), OMF (Manufactures n.e.c.), PPP (Paper products, publishing)	3.8	8.2		
<i>Services</i>						
31	Servicios	ELY (Electricity), GDT (Gas manufacture, distribution), WTR (Water), CNS (Construction), TRD (Trade), OTP (Transport n.e.c.), WTP (Sea transport), ATP (Air transport), CMN (Communication), OFI (Financial services n.e.c.), ISR (Insurance), OBS (Business services n.e.c.), ROS (Recreation and other services), OSG (PubAdmin/Defence/Health/Educat), DWE (Dwellings)	1.9	3.8		

Source: Authors.

<sup>a</sup> The names of the GTAP products have been left in their original language in order to facilitate their identification and the replicability of the aggregations. The information is available at [www.GTAP.agecon.purdue.edu/databases/default.asp](http://www.GTAP.agecon.purdue.edu/databases/default.asp).

<sup>b</sup> n.e.c. = not elsewhere classified.

the preferential agreements concluded between early 2002 and late 2004 were incorporated. The results of this new database (GTAP 2004 ECLAC benchmark) are useful for filtering new scenarios, preventing undue effects from being attributed to the tariff preferences that would be obtained by concluding new free trade agreements.

#### 4. Description of the simulation scenarios

Once the reference scenario had been updated, the next step was to analyse the potential impacts of the trade liberalization initiatives by Colombia, Ecuador and Peru with the United States. Three simulation scenarios were defined for this purpose:

- (i) AC3-USA, full liberalization: Under this scenario, the tariffs of all tradable goods from Colombia, Ecuador and Peru (listed in table 3) are considered to

fall to zero for the United States and vice versa.

- (ii) AC3-USA, excluding sensitive products: Under this scenario, some products imported by Colombia, Ecuador and Peru, as well as by the United States, are considered to have zero tariffs, while others are not (table 3).
- (iii) No FTA/end ATPDEA: Under this scenario, it is assumed that, when the term of ATPDEA expires, no free trade agreement of any kind is signed. This means that the United States would once again close its economy to the products covered by ATPDEA. Colombia, Ecuador and Peru would therefore lose the preferential and unilateral access to the United States market that they had enjoyed up to that time. Even though this is considered to be the most pessimistic scenario, it could come about if the free trade agreements are not concluded or if the agreements failed to be ratified afterwards.

## IV

### Analysis of results

This section analyses the scenario in which separate bilateral agreements by Colombia, Ecuador and Peru are concluded simultaneously with the United States. The full liberalization version of the simulation scenarios is analysed in detail as a yardstick for comparison with the other scenarios. The results of all the scenarios are calculated based on the variations from the benchmark scenario created for 2004, referred to as "GTAP 2004 ECLAC benchmark". It is important to reiterate that this scenario already incorporates the unilateral benefits conferred by the United States on the Andean Community countries via ATPDEA and the free trade agreements that were implemented by Latin American and Caribbean countries between 2001 and 2004. The results of the different scenarios have therefore been filtered to remove the benefits or losses from any "preferences" granted previously.

The analysis was conducted in the following order: (i) macroeconomic effects on GDP, final demand components and income from factors of production; (ii) international and intraregional trade; (iii) sector analysis and (iv) effects on welfare and breakdown of these effects.<sup>8</sup>

#### 1. Macroeconomic effects of the "AC3-USA full liberalization" scenario

##### (a) Effects

From the macroeconomic standpoint, although the signature of separate bilateral free trade agreements by Colombia, Ecuador and Peru with the United States has clearly favourable results on the signatory countries' export and import trade, this does not lead to improvements in public and private consumption and nor does it influence investment demand to any great degree. In percentages, the Andean Community signatory countries increase their imports from the United States more than their exports to the United States, primarily because many of their products already benefit from tariff preferences under ATPDEA. Under this scenario, the impacts on the value of GDP therefore tend to be negative, even though they are insignificant for the AC countries. The chief reason is the negative

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are presented in the form of variations in the value of the variables compared with their level in the reference scenario. For example, when mention is made of effects on GDP, this refers to a percentage variation in the level of GDP (one time only) and should not be understood as a growth rate or a change in the growth rate.

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<sup>8</sup> Owing to the characteristics of this type of modelling, the results

variations in GDP price indices (price effect), since a minimum negative effect on the quantities is seen only in the case of Colombia (table 4).<sup>9</sup>

Ecuador is the hardest-hit country in trade terms: it presents the widest negative differential between what it gains from increased exports and what it loses from increased imports. Peru is the country with the highest percentage increase in trade, and, even though the effect on the trade balance is also negative, in its case the result is marginal.

As regards the breakdown of the effects on income from the various factors of production, in all the countries payment/income from natural resources increases by 0.7% compared with the benchmark scenario, rising to 1.1% in the cases of Colombia and Ecuador. Land rent improves significantly in Ecuador (1.6%) and partially in Peru (0.6%) but worsens in Colombia (-0.8%). Wages for skilled labour and returns on capital worsen in all three countries, with Colombia the hardest hit country (-0.5% in both cases). Finally, there also tends to be a

negative impact on unskilled labour in Colombia and Ecuador. However, if we weight the aforementioned effects in line with the factor structure of the existing added value, the AC countries suffer the negative impact basically via a reduction in payment to the capital factor (in the case of Peru it explains practically the entire effect) and next via the effect on unskilled labour. In the remaining countries, including the United States, there are no substantial effects.

(b) *Comparison with the macroeconomic effects in alternative scenarios*

There is a possibility that the agreements might exclude a number of sensitive products or sectors, or that their liberalization might be postponed for several years, which would maintain their level of tariff protection. In this case, the negative impact on GDP is reduced by approximately 20% in Colombia and Ecuador, and a little less than 10% in Peru compared with the values shown in table 4, whereas the positive effects for exports and imports are also reduced by between 25% and 40% (table 5). Ecuador is the country that suffers the greatest proportional reduction in export growth and Peru suffers the least, whereas proportionally Colombia manages to mitigate the increase in its imports the most when sensitive products are included in the agreements.

In the event that separate free trade agreements between the three Andean countries and the United States are not signed, these AC countries would not have FTAs and would not enjoy the benefits of ATPDEA. In terms of the value of GDP, this scenario has a significantly adverse affect on Peru, with a drop in GDP of more than double that in the two previous scenarios ("AC3-USA full liberalization" and "AC3 excluding sensitive products"). This is explained not only by a reduction in trade but also by a reduction in consumption, in terms of the demand components, and by a fall in income from factors of production (since from a tax standpoint this scenario is positive), as regards the source of GDP. The results for Colombia and Ecuador are less negative, especially in the case of Ecuador.

In addition, both the exports and imports of the three Andean countries would decrease compared with benchmark scenario 2004 by between 1% and 2% for Colombia and Peru (table 5). If we now analyse the gap between the two scenarios ("AC3-USA full liberalization" and "No FTA/end ATPDEA"), the situation would be even worse, with an aggregate reduction in exports of 4.9% in Peru, 4.7% in Colombia and 1.4% in Ecuador. However, as the "No FTA/end ATPDEA" scenario is no

TABLE 4

**Macroeconomic impacts of the AC3-USA scenario: breakdown of GDP**  
(Percentage variation compared with benchmark scenario, 2004)

	Quantum	Price	Value
Bolivia	0.0	-0.4	-0.4
Colombia	-0.1	-1.1	-1.1
Ecuador	0.0	-1.2	-1.2
Peru	0.0	-0.8	-0.7
Venezuela (Bol. Rep. of)	0.0	-0.2	-0.3
United States	0.0	0.0	0.0
Argentina	0.0	-0.1	-0.1
Brazil	0.0	-0.1	-0.1
Uruguay	0.0	-0.1	-0.1
Chile	0.0	-0.2	-0.2
Mexico	0.0	0.0	0.0

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>9</sup> If we estimate the effect of the separate simultaneous FTAs by Colombia, Ecuador and Peru with the United States, assuming that they never enjoyed the benefits from ATPDEA, the impact on the value of GDP would be positive in the case of Peru (0.8%), whereas for Ecuador (-0.7%) and Colombia (-0.3%) it would significantly reduce the negative effect on GDP value.

better for the United States GDP and trade, this would encourage the United States to negotiate an FTA even though its impact would be slight.

## 2. Impact of the “AC3-USA full liberalization” scenario on regional trade

The signature of separate simultaneous agreements by Colombia, Ecuador and Peru with the United States increases the total exports and imports of the countries involved and adversely affects the rest. To a large extent, the impact depends on each country's trading-partner structure. For example, Mexico, Central America and the Caribbean and the Bolivarian Republic of Venezuela would be more affected by the changes

in trade flows of goods caused by FTAs, given that the United States market represents respectively 89%, 50% and 42% of their trade (see table 5).

Thus, the AC countries' principal trading partner is the United States, which absorbs an average 40% of their exports, whereas United States exports to the Andean Community represent barely 10%. Peru seems to be the country with the most diverse export destinations, whilst for Ecuador and Colombia, the Andean Community is more important than for Peru.

It is also necessary to analyse the effects on trade between trading partners, as a result of the new order of preferential access and the new cost structure. The AC signatory countries will increase their exports to the United States, ranging from 3.8% in the case

TABLE 5

### Free trade agreements by andean countries with the United States; effects on foreign trade

(Percentage variation from benchmark scenario 2004 and percentages)

	Exports of goods and services			Imports of goods and services			United States in trade in goods (%)	
	AC3-USA full liberalization	AC3-USA excluding sensitive products	No FTA /End ATPDEA	AC3-USA full liberalization	AC3-USA excluding sensitive products	No FTA/ End ATPDEA	Exports	Imports
<i>Andean Community</i>	1.47	0.99	-0.61	1.96	1.40	-0.85	40.0	22.4
Bolivia	-0.39	-0.12	-0.67	-0.47	-0.15	-0.91	16.4	13.8
Colombia	3.25	2.12	-1.36	4.02	2.77	-1.53	45.4	28.1
Ecuador	1.13	0.70	-0.26	2.00	1.51	-0.39	40.4	16.8
Peru	3.70	2.69	-1.22	4.32	3.22	-2.07	27.0	19.6
Venezuela (Bol.Rep.of)	-0.19	-0.16	-0.03	-0.27	-0.24	0.00	42.0	31.2
<i>United States</i>	0.17	0.13	-0.03	0.14	0.11	-0.02	...	...
<i>MERCOSUR</i>	-0.09	-0.06	-0.01	-0.14	-0.10	-0.01	19.6	17.0
Argentina	-0.11	-0.06	-0.02	-0.17	-0.10	-0.02	11.1	14.7
Brazil	-0.08	-0.06	-0.01	-0.13	-0.11	-0.01	23.6	18.3
Uruguay	-0.06	-0.05	-0.01	-0.08	-0.06	-0.01	12.0	7.2
Chile	-0.21	-0.18	-0.02	-0.24	-0.21	-0.02	17.2	15.1
Mexico	-0.02	-0.02	0.01	-0.04	-0.04	0.01	88.8	56.6
Central America and the Caribbean	-0.04	-0.03	0.03	-0.06	-0.04	0.05	50.0	38.6
<i>FTAA</i>	0.15	0.11	-0.04	0.14	0.11	-0.03	30.8	14.3
EU15 + CCEE + EFTA <sup>a</sup>	-0.01	-0.01	0.00	-0.02	-0.02	0.00	11.0	5.8
Japan	0.00	0.00	0.00	-0.03	-0.02	0.01	28.0	14.0
Asia	-0.01	-0.01	0.01	-0.02	-0.01	0.01	23.0	10.0

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1) and official information from the United Nations Commodity Trade Statistics Database (COMTRADE).

<sup>a</sup> EU 15 = European Union (15 countries); CCEE = the countries of Central and Eastern Europe; EFTA = European Free Trade Association.



of Ecuador to 7.3% for Peru. However, the benefit of this greater access and the effect it produces is twofold: (i) increased competitiveness by Colombia, Ecuador and Peru in third countries as a result of their access to cheaper imports from the United States and (ii) greater competition among the three Andean beneficiary countries of the agreements. Greater export competitiveness allows them to increase their exports to other destinations, both non-signatory AC members (Bolivia and the Bolivarian Republic of Venezuela) and the rest of the world, whilst increased competition among the three countries leads to a reduction in mutual exports averaging about 10%. In short, the result is a 4.1% drop in trade within the Andean Community, whereas the United States increases its exports to the three signatory countries significantly (table 6).

### 3. Comparison of effects on regional trade under alternative scenarios (excluding “AC3-USA excluding sensitive products” and “No FTA/end ATPDEA”)

Although the exclusion of sensitive products from the three free trade agreements does not modify the sign of the variations, it does modify their value. Thus, the increase in exports from the three AC signatory countries to the United States would be reduced overall to practically half: under this scenario exports from Colombia would rise by only 3.1% and those from Ecuador and Peru would rise by only 2.1% and 3.6% respectively. Similarly, exports from the United States to these countries would increase less (by 10, 9 and 14

percentage points respectively), with exports to Peru continuing to benefit the most, with an increase of 53% compared with benchmark scenario 2004. The impact on trade within the Andean Community is positive compared with the scenario of excluding sensitive products (the drop decreases from 4.1% to 3.1%).<sup>10</sup>

Under the “No FTA/end ATPDEA” scenario, the effects on intraregional trade change significantly. In addition to total exports falling slightly for all the countries compared with benchmark scenario 2004, the trade increase caused by FTAs is lost and there is a reduction in exports to the United States, partially offset by an increase in exports to third trading partners and (except for Ecuador) to the Andean Community. These effects are felt most forcefully by Peru. Practically all the countries in the Andean Community would increase their imports from the block, whereas the United States would reduce them by 4.4%, with Peru the most affected country (table 7). The United States would reduce its exports to the AC member countries very slightly, which in terms of its total exports is insignificant.

### 4. Sectoral impacts of the simulation scenarios

In this section, impacts on the value of exports and imports in all the simulation scenarios are disaggregated by sector and by country. Also, trade between the United States and the AC signatory countries is analysed at sector level.

<sup>10</sup> The respective table has been omitted for reasons of space and because it is directly related with the previous table.

TABLE 6

“AC3-USA full liberalization” scenario: intraregional exports  
(Percentage variation from benchmark scenario 2004)

Origin \ Destination	Destination								
	Bolivia	Colombia	Ecuador	Peru	Venezuela (Bol. Rep. of)	AC	United States	Rest of the world	Total
Bolivia		-9.7	-10.4	-8.0	0.3	-5.1	1.5	1.0	-0.4
Colombia	4.6		-9.3	-10.1	4.8	-0.5	5.4	3.0	3.3
Ecuador	3.0	-12.0		-4.9	2.4	-6.3	3.8	1.4	1.2
Peru	3.2	-8.7	-10.3		2.7	-3.6	7.3	2.8	3.7
Venezuela (Bol.Rep.of)	0.2	-11.6	-8.6	-9.0		-10.3	0.4	0.4	-0.2
Andean Community	3.3	-11.2	-9.3	-7.8	4.1	-4.1	2.8	1.6	1.5
United States	-1.1	43.4	45.8	66.6	-1.0	26.7	...	-0.2	0.2

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

TABLE 7

**“No FTA/end ATPDEA” scenario: intraregional exports<sup>a</sup>**  
*(Percentage variation from benchmark scenario 2004)*

Origin \ Destination									
	Bolivia	Colombia	Ecuador	Peru	Venezuela (Bol. Rep. of)	AC	United States	Rest of the world	World
Bolivia		-0.3	0.8	0.1	0.9	0.4	-12.6	2.1	-0.7
Colombia	2.4		2.5	1.4	3.0	2.7	-7.8	2.7	-1.4
Ecuador	-0.2	-1.2		-0.4	1.0	-0.4	-1.6	0.8	-0.3
Peru	5.1	4.5	6.1		6.9	5.7	-18.6	5.8	-1.2
Venezuela (Bol.Rep.of)	-0.9	-1.2	-0.5	-0.4		-0.9	0.0	0.0	0.0
Andean Community	3.6	-0.5	2.1	0.2	2.9	1.5	-4.4	2.0	-0.6
United States	-1.2	-1.5	-1.0	-2.3	-0.3	-1.0	...	0.0	0.0

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>a</sup> ATPDEA:= Andean Trade Promotion and Drug Eradication Act (United States).

*(a) Effects on the value of exports disaggregated by sector*

The signature of free trade agreements between the AC countries and the United States has a positive effect on exports from the Andean block. Furthermore, this positive effect feeds through to all the major sectoral items, although the greatest variation (and contribution to the total impact) is in light manufactures, especially in the case of full liberalization (table 8).<sup>11</sup> However, an examination of the specific sectors shows wide differences under this full liberalization scenario, whereas when sensitive products are excluded, the benefits of the agreements are more evenly spread among the sectors.

In the event that no agreement is signed, resulting in the Andean countries losing the preferences conferred by ATPDEA, it would have a negative impact on total exports. This negative impact would be serious in the case of light manufactures, mainly the textile and wearing apparel sectors, exports of which would fall by more than 20% and 40% respectively compared with benchmark scenario 2004, which would only be partially offset by the increase in exports of petroleum, minerals and heavy manufactures.

*(i) Colombia.* After those from Peru, exports from Colombia benefit the most from concluding an FTA with the United States; however they are the most adversely

affected by not signing one and losing ATPDEA preferences. Under the best scenario (AC3-USA full liberalization), the greatest growth in exports occurs in light manufactures, followed by heavy manufactures.

Failure to sign an FTA and losing the preferences has a negative affect on exports of wearing apparel, textiles and leather products, which fall by more than 37%, 10% and 4%, respectively (compared with benchmark scenario 2004). However, exports from other sectors would increase: exports from the meat sector would increase the most (by more than 5%), whereas the increase in the chemicals, rubber and plastics sector has the greatest positive impact.

*(ii) Ecuador.* Among the signatories of an agreement with the United States, Ecuador is the country that increases its exports the least. It is also the country that reduces its exports the least should it lose ATPDEA preferences. Light manufactures are the biggest winners if an agreement is signed and the biggest losers if one is not signed. Heavy manufactures would experience the reverse effect. The sectors that would benefit most from an agreement in terms of increased exports are wheat (33%), provided that sensitive products are included, dairy products (13%) and forestry (4% to 5%), within the agricultural production sector, together with sugar (165%) and other food products, where no products are excluded (3%), wearing apparel (4% to 5%) within the light manufactures sector, and transport equipment, within the heavy manufactures sector.

Exports of rice (-6%), other cereals (-16%) and oilseeds (-11%) present the biggest decreases within

<sup>11</sup> Without prejudice to the aggregate results in five major sectors presented in the tables in this section, information is available on the 31 sectors listed in table 3.

TABLE 8

**Various scenarios: sectoral breakdown of the effects on exports of an FTA between the United States and the Andean Community**

(Percentage variation from benchmark scenario 2004 and each sector's share in the total)

Scenario	AC3-USA full liberalization		AC3-USA excluding sensitive products		No FTA/ end ATPDEA <sup>a</sup>	
	Changes	Share <sup>b</sup>	Changes	Share <sup>b</sup>	Changes	Share <sup>b</sup>
<i>Main sectors</i>						
<i>Andean Community</i>						
Agricultural products	1.1	0.1	0.9	0.1	0.5	0.0
Petroleum and mining	0.8	0.3	0.7	0.3	1.1	0.5
Light manufactures	5.4	0.8	2.3	0.3	-12.4	-1.5
Heavy manufactures	0.7	0.2	0.6	0.1	1.4	0.3
Services	1.2	0.1	1.1	0.1	1.9	0.2
Total exports	1.5	1.5	1.0	1.0	-0.6	-0.6
<i>Colombia</i>						
Agricultural products	1.9	0.3	1.2	0.2	0.4	0.1
Petroleum and mining	1.1	0.3	1.0	0.3	1.4	0.4
Light manufactures	8.6	1.6	3.4	0.6	-16.3	-2.4
Heavy manufactures	3.7	0.9	3.4	0.8	2.8	0.7
Services	1.7	0.2	1.5	0.2	2.3	0.4
Total exports	3.3	3.3	2.1	2.1	-1.4	-1.4
<i>Ecuador</i>						
Agricultural products	0.5	0.1	0.6	0.2	0.2	0.1
Petroleum and mining	0.4	0.1	0.3	0.1	0.3	0.1
Light manufactures	3.7	0.8	1.9	0.4	-2.7	-0.6
Heavy manufactures	-0.7	-0.1	-0.8	-0.1	0.8	0.1
Services	1.0	0.2	0.8	0.1	0.7	0.1
Total exports	1.1	1.1	0.7	0.7	-0.3	-0.3
<i>Perú</i>						
Agricultural products	0.9	0.0	1.2	0.1	2.3	0.1
Petroleum and mining	3.2	1.3	3.3	1.3	6.0	2.6
Light manufactures	6.2	1.9	2.5	0.7	-17.2	-4.2
Heavy manufactures	3.5	0.3	3.6	0.3	6.9	0.7
Services	1.4	0.2	1.4	0.2	4.1	0.7
Total exports	3.7	3.7	2.7	2.7	-1.2	-1.2

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>a</sup> ATPDEA = Andean Trade Promotion and Drug Eradication Act (United States).

<sup>b</sup> This shows the variation in exports from each sector's base level, weighted according to the sector's share of total exports.

agricultural products. Meat (-15% to -20%) and textiles (-6%) present the biggest decreases among light manufactures, and chemicals (-4% to -6%) and metals (-6% to -8%) and the motor vehicles and parts sector present the biggest drops among heavy manufactures.

In the alternative scenario to conclusion of an agreement, where no agreement is signed and the

preferences conferred by the United States via ATPDEA are also lost, exports of textiles and wearing apparel fall substantially, by 14% and 48% respectively, accounting for a large majority of the total negative effect.

(iii) *Peru*. Exports from Peru benefit the most from signing an FTA with the United States, thanks chiefly to sugar (in the case of full liberalization), other food products, mining and metals. Exports of rice, wheat,

dairy products and other manufactures also increase more than 5% (even though they make a minimum contribution to the total effect).

Should no FTAs be signed, the adverse effect on Peru's exports is concentrated mainly on light manufactures, a sectoral grouping which decreases more in Peru than in the other AC countries. The second hardest-hit exports would again be textiles and wearing apparel. However, under this non-signature scenario, numerous sectors would increase their exports by more than 5%, although it is the increase in the petroleum and mining sectors which would do most to mitigate the adverse effects of this scenario on Peruvian exports.

*(b) Effects on the value of imports disaggregated by sector*

Under any of the simulation scenarios, the effect on imports from Colombia, Ecuador and Peru is greater than the effect on exports. The sectoral distribution of the increase in imports stems partially from the existing structure of these imports (table 9). Basically it is concentrated on heavy manufactures (between 50% and 65%), followed very far behind by light manufactures (between 10% and 15%), whereas exports from AC countries, which are better distributed among the major sectors, concentrate more on petroleum and mining.

In the "AC3-USA full liberalization" scenario there is a major increase in imports of agricultural products (especially wheat), light manufactures (chiefly meat, wearing apparel and textiles) and heavy manufactures (particularly machinery and equipment, other manufactures and chemicals, rubber and plastics). Heavy manufactures account for the majority of the total effect. The inclusion of sensitive products reduces the increase in imports significantly, chiefly that of agricultural products and light manufactures, as well as that of many specific products (such as rice, vegetable oils and fats, dairy products, other food products, fish products, textiles, wearing apparel and leather products).

Failure to sign FTAs and the loss of preferences leads to a drop in imports (greater than in exports), largely attributable to a general decrease in trade which, in share terms, centres on the Andean block's main import products, that is to say, heavy and light manufactures (especially textiles, chemicals, machinery and equipment and other manufactures).

*(i) Colombia.* An increase in Colombia's imports as a result of signing an FTA with the United States occurs in all the major sectors, although the largest rises are in heavy and light manufactures and in

agricultural products. The exclusion of sensitive products from the agreement reduces the increase in imports of agricultural products and light manufactures significantly. The sectors which cause the increase in imports are other manufactures (7.2%), machinery and equipment (5%), chemicals (3.5%), wearing apparel (43%), textiles (9%) and meat (52.5%). Although imports of wheat, other cereals, oil seeds, sugar, plant-based fibres, wood and metal products experience rises of around 10% compared with benchmark scenario 2004, they make a very small contribution to the total effect. If sensitive products are excluded from the agreement, the variation in imports becomes negative for the aforementioned sectors, with drops of more than 3% in the wearing apparel sector, explaining the lower increase in total imports. Failure to sign an agreement and loss of ATPDEA preferences leads to a widespread fall in imports in all economic sectors, associated with the reduction in activity, with the textile sector experiencing the largest percentage decrease.

*(ii) Ecuador.* In Ecuador, the effect of the major sectoral items on imports is similar to that of Colombia, albeit with smaller variations and a reduction in imports from the large petroleum and mining sector. Under any of the scenarios where an FTA is signed with the United States, imports of machinery and equipment and other manufactures (in the heavy manufactures sector) account for half the increase in imports. However, significant increases occur in some items, including: meat (almost 40%) and dairy products, wood and wearing apparel (around 10%). The exclusion of sensitive products makes it possible to reduce imports to those sectors, which could even decrease imports (for instance, imports of dairy products and wearing apparel could fall by 1%). Under a scenario of full liberalization, only imports of rice and metals would decrease, and this by only around 2%. Except in the wheat and fishing sectors, failure to sign an FTA reduces slightly imports of all sectors fairly evenly.

*(iii) Peru.* Just as in Ecuador and Colombia, in Peru heavy manufactures is key to the increase in imports (chemicals, machinery and equipment, transport equipment (with a 22% increase) and other manufactures). However, the imports that increase the most are agricultural products (wheat by 11% and plant- and animal-based fibres by 12%) and some light manufactures, such as meat (30%), vegetable oils and fats (11%) and wearing apparel (8%). The inclusion of sensitive products makes it possible to avoid an increase in imports, as in the case of wheat and other cereals, or even reduce them, as with textiles and wearing apparel.

TABLE 9

**Various scenarios: sectoral breakdown of the effects on imports of an FTA between the United States and the Andean Community**

(Percentage variation from benchmark scenario 2004 and each sector's share in the total)

Scenario	AC3-USA full liberalization		AC3-USA excluding sensitive products		No FTA/ end ATPDEA <sup>a</sup>	
	Changes	Share <sup>b</sup>	Changes	Share <sup>b</sup>	Changes	Share <sup>b</sup>
<b>Main sectors</b>						
<i>Andean Community</i>						
Agricultural products	3.6	0.2	0.6	0.0	-0.7	0.0
Petroleum and mining	0.6	0.0	0.7	0.0	-0.3	0.0
Light manufactures	3.7	0.5	0.6	0.1	-1.9	-0.2
Heavy manufactures	2.4	1.4	2.3	1.4	-0.6	-0.4
Services	-0.9	-0.1	-0.8	-0.1	-1.2	-0.2
Total imports	2.0	2.0	1.4	1.4	-0.9	-0.9
<i>Colombia</i>						
Agricultural products	6.0	0.4	0.7	0.0	-1.2	-0.1
Petroleum and mining	2.4	0.2	2.5	0.2	-0.6	0.0
Light manufactures	9.6	1.1	2.0	0.2	-4.4	-0.5
Heavy manufactures	4.5	2.6	4.4	2.6	-1.1	-0.6
Services	-1.3	-0.2	-1.1	-0.2	-1.7	-0.3
Total imports	4.0	4.0	2.8	2.8	-1.5	-1.5
<i>Ecuador</i>						
Agricultural products	3.1	0.1	1.6	0.1	-0.3	0.0
Petroleum and mining	-0.4	0.0	-0.3	0.0	0.0	0.0
Light manufactures	5.5	0.6	0.7	0.1	-0.7	-0.1
Heavy manufactures	2.5	1.6	2.4	1.6	-0.3	-0.2
Services	-1.4	-0.2	-1.0	-0.1	-0.8	-0.1
Total imports	2.0	2.0	1.5	1.5	-0.4	-0.4
<i>Peru</i>						
Agricultural products	7.2	0.6	1.3	0.1	-1.1	-0.1
Petroleum and mining	0.7	0.1	0.7	0.1	-0.5	-0.1
Light manufactures	5.1	0.5	0.3	0.0	-3.6	-0.4
Heavy manufactures	6.6	3.4	6.3	3.3	-2.0	-1.0
Services	-0.8	-0.2	-0.9	-0.2	-2.6	-0.5
Total imports	4.3	4.3	3.2	3.2	-2.1	-2.1

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>a</sup> ATPDEA = Andean Trade Promotion and Drug Eradication Act (United States).

<sup>b</sup> This shows the variation in exports from each sector's base level, weighted according to the sector's share in total exports.

In the event that no FTA is signed with the United States and preferences are lost, Peruvian imports suffer a larger drop than the other AC countries, owing chiefly to a reduction in imports of machinery and equipment, other manufactures, chemicals and vehicle parts in the heavy manufactures sector, and of other food products and textile products, in the light manufactures sector.

(c) *Trade between the Andean countries and the United States*

Under any of the simulation scenarios, the differences between the effects on total exports and on exports from the AC block to the United States are low and affect the levels. Basically they consist of a larger increase in exports of light manufactures to the United

States market. Much the same happens with imports, with the greatest differences between the world market and the United States market occurring in imports of heavy manufactures.

The signature of an FTA makes it possible to diversify exports to the United States more, since it increases the share of light manufactures to the detriment of petroleum and mining. A failure to sign an FTA and the loss of ATPDEA preferences would have precisely the opposite effect. The significant increase in commodity imports from the United States chiefly comprises heavy manufactures. However, the largest increases occur in light manufactures, providing that the AC countries do not exclude sensitive products. FTAs would have a diversifying effect on imports from the United States, although concentration increases when sensitive products are excluded from the agreement.<sup>12</sup>

## 5. Effects on welfare

The effects on welfare are measured by means of the equivalent variation, which is an indicator derived from calculating the total income level and incorporates the effects on changes in resource allocation among sectors and the variation in the terms of trade. In short, it measures how much income should be added/subtracted from the aggregate regional household<sup>13</sup> to enable it to enjoy equal welfare before and after a variation in relative prices and the implications thereof. Note that the effects on welfare are aggregated at country/region level, which is why it is possible for reduced values to be masking much greater offsetting of values between winner and loser agents or sectors.

Given that the benchmark scenario 2004 estimate also includes the processes of trade liberalization that occurred in the region between the years 2001 and 2004, it is necessary to consider the impact on welfare that these processes have already produced. In particular, the benefits derived by Bolivia, Colombia, Ecuador and Peru from the United States ATPDEA preferences were manifested chiefly during the period from 2001 to 2004. This is why the equivalent variation is analysed with respect to 2001 (in millions of United States dollars<sup>14</sup> and as a percentage of GDP) under benchmark scenario

2004 (first column of table 10) and all the simulated scenarios (remaining columns of table 10). After that, the additional effects obtained for each of the three countries under study are analysed with respect to 2004 (table 11). The assessment of the impact on welfare is supplemented by a sensitivity analysis of the results of the equivalent variation for the “AC3-USA full liberalization” and “No FTA/end ATPDEA” scenarios, and by the results of two “dynamic” simulations for those same scenarios.

### (a) *Effects on welfare resulting from free trade agreements between AC countries and the United States*

In 2004 (according to the estimation process described in figure 3), AC countries benefiting from ATPDEA preferences increase their welfare by the equivalent of 0.1% of their GDP, except Peru, where the figure is 0.2%. Chile, which during that period concluded major FTAs with its main trading partners (Canada, United States, the European Union, the European Free Trade Association, the Republic of Korea and a number of Latin American countries), also shows a strong increase in its welfare (triple the increase obtained by the Andean Community), representing 1.1% of its GDP (result of the first column of table 10). The remaining Latin America countries suffer, indirectly, a relative loss of competitiveness (or erosion of prior preferences) compared with countries with new preferential access chiefly to the markets of the United States and Europe, which leads to slight reductions in welfare in MERCOSUR, as well as in Mexico and in Central America and the Caribbean. In any case, these reductions are not significant as a proportion of the respective GDP rates.

When the effects of the simultaneous signature of separate FTAs with the United States by Colombia, Ecuador and Peru are added to these effects, the cumulative effects on welfare become negative in both Ecuador and Colombia, even when sensitive products are excluded (rest of table 10). In both countries, the negative effect on terms of trade heads the declines in welfare, although in Ecuador the effect of better resource allocation is positive. In Ecuador, the adverse effect on terms of trade is seen chiefly in the sectors of other food products, other manufactures and livestock, whereas in Colombia it centres on all heavy manufactures, textiles, wearing apparel and other food products. This adverse effect on welfare is offset by the other crops sector, especially in Colombia, the fuel sector and, in Ecuador, the vehicle parts sector.

<sup>12</sup> For further details on the impact of trade with the United States, see Durán, de Miguel and Schuschny (2006).

<sup>13</sup> See the description of the model in section III.

<sup>14</sup> Note that these are reference values and are not equivalent to current dollars.

TABLE 10

**Effects on welfare with respect to 2001 under the following scenarios: 2004 benchmark, "AC3-USA full liberalization", "AC3-USA excluding sensitive products" and "no FTA/end ATPDEA"<sup>a</sup>**

(Comparison of equivalent variations of cumulative effects from the year 2001, in millions of United States dollars 2001, and percentage of GDP in 2004)

	2004 benchmark	Full liberalization		Excluding sensitive products		No FTA/end ATPDEA	
	Millions of dollars	Millions of dollars	% of GDP	Millions of dollars	% of GDP	Millions of dollars	% of GDP
<b>Latin America and the Caribbean</b>	<b>864</b>	<b>422</b>	<b>0.0</b>	<b>529</b>	<b>0.0</b>	<b>644</b>	<b>0.0</b>
FTAA (excl. Mexico and Chile)	85	-285	0.0	-191	0.0	-150	0.0
<b>Andean Community</b>	<b>229</b>	<b>-27</b>	<b>0.0</b>	<b>26</b>	<b>0.0</b>	<b>-27</b>	<b>0.0</b>
Bolivia	10	6	0.1	9	0.0	2	0.0
<b>Colombia</b>	<b>88</b>	<b>-75</b>	<b>-0.1</b>	<b>-40</b>	<b>0.0</b>	<b>-7</b>	<b>0.0</b>
<b>Ecuador</b>	<b>20</b>	<b>-11</b>	<b>-0.1</b>	<b>-3</b>	<b>0.0</b>	<b>5</b>	<b>0.0</b>
<b>Peru</b>	<b>121</b>	<b>78</b>	<b>0.1</b>	<b>85</b>	<b>0.2</b>	<b>-21</b>	<b>0.0</b>
Venezuela (Bol. Rep. of)	-10	-24	0.0	-25	0.0	-6	0.0
<b>MERCOSUR</b>	<b>-90</b>	<b>-179</b>	<b>0.0</b>	<b>-151</b>	<b>0.0</b>	<b>-98</b>	<b>0.0</b>
Argentina	-42	-78	0.0	-57	0.0	-45	0.0
Brazil	-42	-92	0.0	-86	0.0	-46	0.0
Uruguay	-6	-8	0.0	-8	0.0	-7	0.0
<b>Chile</b>	<b>784</b>	<b>757</b>	<b>1.1</b>	<b>760</b>	<b>1.1</b>	<b>782</b>	<b>1.0</b>
Mexico	-5	-50	0.0	-40	0.0	12	0.0
Central America and the Caribbean	-53	-79	0.0	-66	0.0	-25	0.0
<b>United States</b>	<b>-287</b>	<b>472</b>	<b>0.0</b>	<b>341</b>	<b>0.0</b>	<b>-183</b>	<b>0.0</b>
EU15+CCEE+ EFTA <sup>b</sup>	752	607	0.0	612	0.0	790	0.0
Japan	-104	-165	0.0	-146	0.0	-92	0.0
Asia	-171	-269	0.0	-241	0.0	-83	0.0
Rest of the world	-48	-196	0.0	-165	0.0	-68	0.0
<b>World</b>	<b>1 005</b>	<b>872</b>	<b>0.0</b>	<b>930</b>	<b>0.0</b>	<b>1 009</b>	<b>0.0</b>

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>a</sup> The best scenario for the negotiating countries appear in underlined italics.

<sup>b</sup> EU 15 = European Union (15 countries); CCEE = countries of Central and Eastern Europe; EFTA = European Free Trade Association.

In the case of Peru, the effects on welfare remain positive, although they are worse with respect to benchmark scenario 2004. However, an important point to remember is that the negative net effect of an FTA stems solely from poorer terms of trade, since resource allocation actually improves. Remember that these three countries had benefited from market access preferences granted unilaterally by the United States, meaning that now the agreement involves greater relative assignment of its tariff reductions. The United States experiences an increase in its welfare, which is not significant as a proportion of its GDP.

The alternative scenario to the signature by these three countries of separate FTA with the United States would lead to a loss of ATPDEA preferences, which

would cause a net reduction in welfare compared with benchmark scenario 2004, ranging from 0.1% of GDP in Colombia and Ecuador to 0.3% in Peru (table 11). This scenario even leads to a cumulative effect on welfare which, in the cases of Colombia and Peru, would be negative compared with 2001 (see table 10).

*(b) Robustness of the effects on welfare: static conclusions*

As the results do not allow for a conclusive recommendation on which is the best scenario in terms of welfare, it was necessary to verify the robustness of these results by means of a systematic sensitivity analysis of the Armington elasticities (of substitution between domestic goods and imports) in the "AC3-USA

TABLE 11

**Net effects on welfare of the following scenarios with respect to 2004:<sup>a</sup> “AC3-USA full liberalization”, “AC3-USA excluding sensitive products” and “no FTA/end ATPDEA”**

(Variations from the results of the GTAP 2004 ECLAC benchmark scenario, in millions of United States dollars 2001, and percentage of GDP in 2004)

	AC3-USA full liberalization		AC-3USA excluding sensitive products		No FTA/end ATPDEA	
	Millions of dollars	% of GDP	Millions of dollars	% of GDP	Millions of dollars	% of GDP
<b>Latin America and the Caribbean</b>	<b>-442</b>	<b>0.0</b>	<b>-335</b>	<b>0.0</b>	<b>-220</b>	<b>0.0</b>
FTAA (excl. Mexico and Chile)	-370	0.0	-276	0.0	-235	0.0
<b>Andean Community</b>	<b>-256</b>	<b>-0.1</b>	<b>-203</b>	<b>-0.1</b>	<b>-255</b>	<b>-0.1</b>
Bolivia	-4	-0.1	-1	0.0	-9	-0.1
<b>Colombia</b>	<b>-163</b>	<b>-0.2</b>	<b>-128</b>	<b>-0.2</b>	<b>-95</b>	<b>-0.1</b>
<b>Ecuador</b>	<b>-31</b>	<b>-0.2</b>	<b>-23</b>	<b>-0.1</b>	<b>-14</b>	<b>-0.1</b>
<b>Peru</b>	<b>-43</b>	<b>-0.1</b>	<b>-35</b>	<b>-0.1</b>	<b>-141</b>	<b>-0.3</b>
Venezuela (Bol. Rep. of)	-15	0.0	-15	0.0	4	0.0
<b>MERCOSUR</b>	<b>-89</b>	<b>0.0</b>	<b>-61</b>	<b>0.0</b>	<b>-8</b>	<b>0.0</b>
<b>Chile</b>	<b>-27</b>	<b>0.0</b>	<b>-24</b>	<b>0.0</b>	<b>-2</b>	<b>0.0</b>
Mexico	-45	0.0	-35	0.0	17	0.0
Central America and the Caribbean	-26	0.0	-13	0.0	28	0.0
<b>United States</b>	<b>759</b>	<b>0.0</b>	<b>628</b>	<b>0.0</b>	<b>105</b>	<b>0.0</b>
EU 15 + CCEE + EFTA <sup>b</sup>	-145	0.0	-140	0.0	38	0.0
Japan	-61	0.0	-42	0.0	12	0.0
Asia	-97	0.0	-70	0.0	88	0.0
Rest of the world	-148	0.0	-117	0.0	-20	0.0
<b>World</b>	<b>-133</b>	<b>0.0</b>	<b>-75</b>	<b>0.0</b>	<b>4</b>	<b>0.0</b>

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>a</sup> The net effect discounts the result of the equivalent variation already obtained up to 2004 from the equivalent variation obtained under the different scenarios.

<sup>b</sup> EU 15 = European Union (15 countries); CCEE = Countries of Central and Eastern Europe; EFTA = European Free Trade Association.

full liberalization” and “No FTA/end ATPDEA” scenarios, which are the two extremes (table 12). This sensitivity analysis consists of varying the Armington elasticities (keeping other conditions equal), with a uniform probability of up to 50% of their established value in either direction. It was decided to use the Armington elasticities as they are the most important ones in effects on trade, as well as variations in the terms of trade which, as we have already seen, are key to the final effect on welfare.<sup>15</sup>

As the results of the sensitivity analysis for the “AC3-USA full liberalization” scenario show (table

12), the effects on welfare could become positive for both Colombia and Ecuador and are highly unlikely to be negative for Peru. Failure to sign agreements and the loss of preferences leads to negative results for Colombia and Peru and positive results for Ecuador. From the welfare standpoint in particular, it could be concluded that:

- (i) For the United States, the best scenario is unequivocally the one where the three AC countries sign agreements with full liberalization, and the worst scenario is the one where no countries sign, even though the United States would withdraw ATPDEA preferences. The impact is not important as a proportion of GDP.
- (ii) For Peru, it is very clear that failure to sign an FTA with the United States and the loss of ATPDEA preferences is the worst option, since all the

<sup>15</sup> See the justification and methodology in Schuschny, Durán and de Miguel (2007).



TABLE 12

**Comparative effects on welfare according to a sensitivity analysis of the “AC3-USA full liberalization” and “no FTA/end ATPDEA” scenarios<sup>a</sup>**

*(Comparison of equivalent variations, cumulative effects since 2001, in millions of dollars)*

Sensitivity analysis	AC3-USA full liberalization			No FTA/end ATPDEA <sup>b</sup>		
	Result	Lower limit	Upper limit	Result	Lower limit	Upper limit
Colombia	-75	-149	3	-7	-10	-3
Ecuador	-11	-29	7	5	3	8
Peru	78	-1	173	-21	-24	-16
United States	472	364	586	-183	-236	-132

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

<sup>a</sup> Includes the upper and lower limit calculated on the basis of the average, and the standard deviation obtained from the sensitivity analysis.

<sup>b</sup> ATPDEA = Andean Trade Promotion and Drug Eradication Act (United States).

confidence interval values for this scenario are lower than any of the interval values for scenarios involving signature of an agreement. The results indicate that the best option is to sign an FTA.

- (iii) Contrary to the United States and Peru, the results for Colombia and Ecuador are inconclusive. In Colombia, all the possible results of the “No FTA/end ATPDEA” scenario come within the confidence interval of the “AC3-USA full liberalization” scenario. Furthermore, all the considered options have a robust negative result, meaning that the choice of any particular option will depend on its dynamic effects and on considerations other than purely commercial ones.
- (iv) The results for Ecuador are similar to those of Colombia, since the interval of the “No FTA/end ATPDEA” option comes almost completely within that of the “AC3-USA full liberalization” scenario, even though the latter could produce positive cumulative results on welfare. The result in the non-signature scenario is unequivocally positive but, even though it might be the best option, its scant value in terms of GDP does not give a clear signal for choosing it either.

*(c) Gains in welfare when dynamic considerations are included: the effect of capital accumulation*

In static models like the GTAP model, the potential benefits of trade opening derive more efficient allocation of production resources and of consumption of goods, as well as from the variation in the terms of trade as a result of this process. Estimates of the consequences of

trade opening generally tend to be modest, leading to increases in welfare levels of not even one GDP point. However, the increases would be greater if the dynamic effects of liberalization were taken into account.

In an attempt to calculate the long-term benefits of trade opening, a steady-state model was recreated in which the capital stock can be adjusted, linking the return on capital with the cost of producing it. Schuschny, Durán and de (2007) explain the methodology used (based on François and McDonald, 1996) for modifying the closure rules to incorporate the positive effects of capital accumulation on the results, by virtue of the fall in the relative prices of capital goods caused by tariff liberalization. We shall now focus solely on comparing the effects on welfare of the “AC3-USA full liberalization” and “No FTA/end ATPDEA” scenarios, after discounting the results of the GTAP 2004 ECLAC benchmark scenario (in this case also estimated in a steady state) for the two types of simulation: standard general equilibrium and steady state. The results are presented in table 13.

As can be seen, when we use the closure that recreates a steady-type state, which makes it possible (with certain limitations) to incorporate dynamic effects into the scenarios under analysis, the effects on welfare change markedly. The AC signatories experience a net positive effect on welfare which, in the case of Peru, could rise to as much as 0.4% of GDP and, in Colombia and Ecuador, could be in the order of 0.2%. For the United States, the situation improves slightly. For the AC countries, failure to sign the three FTAs and the loss of ATPDEA preferences increases the negative

TABLE 13

**Equivalent variation: simulations under static and steady-state general equilibrium conditions**

*(Variations from the results of the standard benchmark 2004 and “dynamic” scenarios respectively, in millions of United States dollars 2001)*

	AC3-USA full liberalization		No FTA/end ATPDEA	
	Standard general equilibrium closure	Steady-state closure (dynamic increase)	Standard general equilibrium closure	Steady-state closure (dynamic increase)
Colombia	-163	156	-95	-185
Ecuador	-31	44	-14	-26
Peru	-43	214	-141	-485
United States	759	768	105	158

Source: Authors, based on simulations modelled on version 6.1 of the Global Trade Analysis Project database (GTAP 6.1).

impact on Colombia and Ecuador significantly (to practically double) and on Peru even more (greater than triple).<sup>16</sup>

In static simulations, the results are governed by the tariff reductions stemming from the agreements. However, when simulating possible processes of capital accumulation that transcend tariff reductions and form part of a long-term context, in practice a series of policies and institutions are required to ensure that this

investment actually takes place (such as legal security, proper infrastructure, trained human resources and promotion of foreign direct investment). Foreign direct investment is not included in the model. Although the signature of an FTA provides an opportunity to exploit dynamic advantages that lead to improvements in welfare, as this calls for an additional effort, it does not come about merely as a result of signing an agreement.

## V

### Summary and conclusions

As empirical evidence has shown, the FTAs would have very limited effects on GDP (Markusen's Law)<sup>17</sup> and, as in any comparative statics exercise, the effect would be one time only. However, the impacts on trade are fairly positive for all the countries involved, except in the non-conclusion scenario (“No FTA/end ATPDEA”). In general, a positive effect is produced on exports, chiefly of light manufactures, with a simultaneous rise in all imports. The combined effect does not favour heavy manufactures or agricultural products from the

Andean countries. In the alternative case (“No FTA/end ATPDEA”), these countries concentrate more on producing petroleum and mineral products, with light manufactures negatively affected. However, it must be addressed that, because imports of machinery and equipment (which are the imports that increase the most if an agreement is signed) are bought at relatively lower prices, they can serve to stimulate investment, boosting the countries' economic growth and competitiveness.

As regards welfare, the net effect of FTAs under static conditions tends to be slightly negative, although it is important to bear in mind that the benefits of the unilateral ATPDEA preferences received by the Andean countries have already been internalized. Therefore, when comparing the effects of FTAs, a possible alternative would be to conclude no agreement at all and to let ATPDEA expire. In such a case, the

<sup>16</sup> Even though the results obtained for the simulations in steady-state conditions with variations in the capital stock give us a guideline as to how the values of the economic variables would be affected in the medium or long term, they must be viewed with extreme caution, as explained in Durán, de Miguel and Schuschny (2006).

<sup>17</sup> See François and McDonald (1996).

benefits already achieved are withdrawn, with a return to higher tariffs for products included in ATPDEA. The main results for each country are as follows:

- When the dynamic effects are ignored, the results for Colombia are not at all conclusive when it comes to choosing the best alternative, since they all fall within the confidence interval in the sensitivity analysis of the “AC3-USA full liberalization” scenario. In any case, all the simulation scenarios of comparative statics produced negative results in terms of welfare. Therefore the choice of alternative is much more dependent on the dynamic effects, which are positive if an FTA is concluded.
- The static results for Ecuador are similar to those for Colombia, since all the scenarios have negative effects on net welfare. The “No FTA/end ATPDEA” option comes practically within the confidence interval of the “AC3-USA full liberalization” scenario, even though it might be the least negative option. However, if we consider the long-term effects under a “quasi-dynamic” scenario, the signature of an FTA has clearly positive results in terms of trade and welfare.
- In the case of Peru, the expiration of ATPDEA preferences without the conclusion of an FTA is undoubtedly the worst alternative from any standpoint. The outcomes of the simulation exercises favour the conclusion of an FTA, especially if sensitive products are excluded. A quasi-dynamic exercise confirms these conclusions.
- For the United States, the empirical results endorse its trade policy strategy in favour of concluding free trade agreements because the greater the number of countries with which the United States concludes an FTA and the smaller the number of excluded sensitive products, the greater are the benefits it derives in all fields. However, once again, weighted for GDP, the results appear unimportant.

While it is true that, in terms of aggregate welfare the results show reduced values, this masks important sectoral effects which, as history and economics have shown, cannot be easily offset by means of transfers from winners to losers (whose sectoral identification justifies studies like this). The exclusion of sensitive products from free trade agreements improves the results for the Andean countries, alleviating the impact on some of the most negatively affected sectors. However, this is not enough in itself, since the agreements establish new sectoral rules of the game which will partly determine the countries’ development paths.

Furthermore, the signature of an FTA incorporates numerous elements that are hard to quantify, such as gains in productivity stemming from greater access to technological improvements, or the beneficial effects of a possible improvement in the legal security of contracts or in the prospects of economic agents. Point 5 (c) of the previous section set out to analyse the dynamic impetus which FTAs can give to investment, showing that gains in welfare could be doubled. However, the model has not examined the economic changes that could be promoted by other active public policies (including institution building, promotion of competitiveness, improvement of infrastructure, training of human resources and protection of the environment and natural resources). While these policies could (and should) be implemented even in there are no FTAs, their effect would be greater if free trade agreements existed.

In other words, the figures in this article show that the conclusion of free trade agreements is no substitute for active development policies, and that doubts remain about the level of synergy that could be established between the application of such policies and the signature of free trade agreements. These are the areas on which public debate on free trade agreements should focus. This article helps to show that it is in those areas and in sectoral impacts, rather than in changes in the level of economic activity associated with tariff changes, that justification should be found for adopting a specific stance on the agreements and for identifying the characteristics that should be pursued when negotiating them, rather than solely the admittedly important issue of special treatment for sensitive products.

In addition, the results show that FTAs will also reduce intrasubregional trade and increase trade with the United States. In particular, Bolivia and the Bolivarian Republic of Venezuela would suffer losses in production and in exports to AC countries that negotiate agreements. Furthermore, a number of countries in the region, like Chile and Mexico, would suffer some erosion of their trade preferences in the United States market. To work along the “open regionalism” lines promoted by ECLAC, bilateral agreements must not clash with processes of Latin American integration and multilateral efforts. Greater uniformity of rules and disciplines between the different types of agreement is one of the prerequisites for preventing an asymmetric “hub-and-spoke” system of agreements. In any case, the continent’s solidarity should not be undermined and, with it, the chance to reach sustainable integration solutions.

Finally, in the specific case of the three free trade agreements analysed, the Andean countries possibly

face the dilemma of choosing between signing a trade agreement that balances the advantages conferred by the United States via ATPDEA, and not negotiating an agreement at all (regardless of its possible benefits), which, in principle, would mean forfeiting the preferential treatment which they already enjoy. This second scenario prevents negotiations being conducted without conditions and, to a certain extent, forces the Andean countries down the road of FTAs with the United States. If the United States really wishes to continue its policy of support for the region's development (which would tie in with the commitments of the United Nations Conference of Environment and Development

(Rio de Janeiro, 1992), the Millennium Summit (New York, 2000), the International Conference on Financing for Development (Monterrey, 2002) and the World Summit on Sustainable Development (Johannesburg, 2002)), and at the same time to progress with free trade integration, the first step should be to extend the term of ATPDEA for a prudent period, so as not to undermine the climate of negotiation. Even though two countries have already concluded negotiations, this is still a valid argument, as Ecuador has not yet completed its negotiations and a large section of Bolivia's production sector depends crucially on exports covered by ATPDEA.

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**KEYWORDS**

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# Employment Challenges and Policy Responses in Argentina, Brazil and Mexico

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**I**n this paper we argue that Argentina, Brazil and Mexico must focus economic and social policies on creating employment if they want to provide decent work (i.e. formal jobs with social security coverage). During the 1990s, financial and trade liberalization and the associated laissez-faire policies did not deliver in terms of growth or employment in the countries under consideration. We assess the macroeconomic, trade, investment and labour-market policies of the countries during 1990-2004 and then propose a series of recommendations that give employment growth the priority it deserves.

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# I

## Introduction

Argentina, Brazil and Mexico face many employment challenges. New job growth since 1990 has been insufficient to cope with the increase in labour supply. Despite the recent economic and job upswing, a comparison between 1990 and 2004 reveals lower employment rates in Argentina and Brazil; a higher proportion of workers employed in the informal sector in Brazil and Mexico; only marginal increases in average real manufacturing wages in Brazil and Mexico, with a decline in Argentina; while wage and income inequality remained high in all three countries and worsened noticeably in Argentina. Also, social security covers less than half of salaried workers in Argentina, and two-thirds in Brazil and Mexico. The lack of job growth (particularly of formal jobs with social protection) and, in certain cases, labour-market deterioration have been the greatest disappointments of the new development strategy adopted by the countries

in the late 1980s and early 1990s. However, given that the new strategy had no explicit employment goal—rather it merely assumed that the liberalization of capital, goods and labour markets would bring about job creation—the poor employment performance is not surprising.

Thus the challenge of creating employment remains for all three countries. In this paper, we attempt to answer the following question: if the creation of quality employment were the central goal of government policy in Argentina, Brazil and Mexico, what economic and social policies would be needed? Macroeconomic policies, trade and investment policies, and labour-market regulations and policies are fundamental for the creation of good quality jobs. This article discusses why these policies did not bring about quality employment creation during 1990-2004 and how they can be redesigned to promote employment.

# II

## Macroeconomic policies

Economic growth usually leads to employment creation, but growth alone is not always sufficient, as job creation also depends on the labour intensity of economic growth. Although economic growth can spur investment—thereby improving productivity and, ultimately, the level of income in an economy—the best means of achieving higher economic growth is a matter of debate among economists. Beginning two decades

ago, Argentina, Brazil and Mexico radically changed their macroeconomic policies in an effort to control inflation and reap the benefits of increased integration with the world economy. Since then, economic growth has been volatile and relatively low, affecting the ability of these economies to create employment, particularly in the formal sector.

During 1990-2004, growth averaged 3.2% in Argentina, 2.5% in Brazil and 3% in Mexico. By historical standards, economic growth during this period compares unfavourably with the 1960s and 1970s (particularly in Brazil and Mexico), when growth was near double digits. In Argentina, between 1990 and 2004, the standard deviation of economic growth was 6.5%, more than double the average growth rate. In Brazil and Mexico, economic growth was also volatile, though much less so than Argentina, with standard deviations comparable to the growth rates (See figure 1).

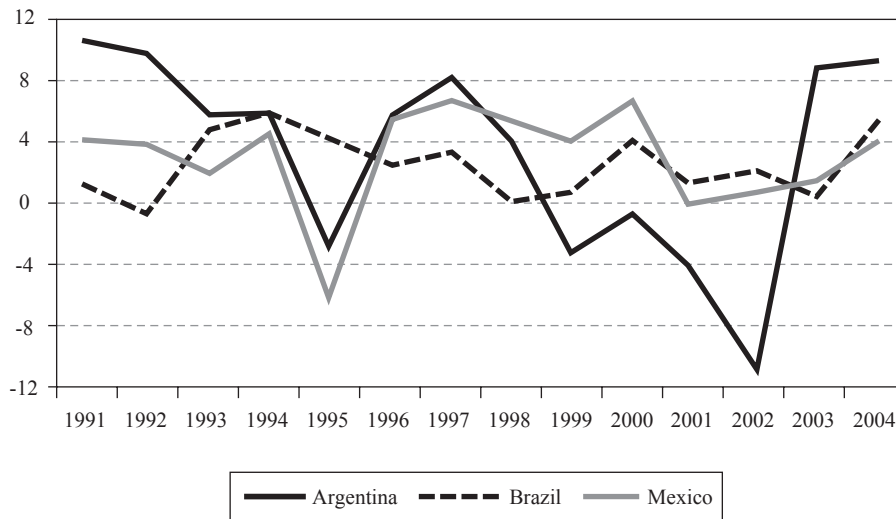
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□ This article is a synopsis of the findings from the book *Meeting the Employment Challenge: Argentina, Brazil and Mexico in the Global Economy* (Berg, Ernst and Auer, 2006). The authors would like to thank Adriana Marshall for her contribution to the section on labour-market regulations and policies. They are also grateful to an anonymous referee for helpful comments, as well as to participants at seminars in Argentina, Brazil, Mexico and Geneva in 2004 and 2005, for their valuable insights. The views expressed in this paper are those of the authors and do not necessarily reflect the views of the International Labour Organization. The authors are also responsible for any errors or omissions.



FIGURE 1

## Argentina, Brazil and Mexico: low and volatile GDP, 1990-2004



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

The relatively poor performance of these economies was associated with a sharp shift in macroeconomic policy. The volatile economic experiences of the three countries are marked by two different six-year spans: economic opening in 1985-1991 and the economic crashes of 1995-2001. During the pre-crash period, all three countries maintained a fixed exchange rate that resulted in a loss of export competitiveness and a negative trade balance. The countries had to rely on capital inflows to finance the imbalance, but these inflows and the resulting expansion in domestic credit were primarily directed towards consumption of imported goods. Moreover, exchange-rate appreciation aggravated the difficulties faced by the previously protected domestic industries in adjusting to the new competitive environment. The labour market bore the brunt of adjustment, as the declining competitiveness of domestic firms led to lay-offs and wage cuts.

In the post-crash period, the countries regained their competitiveness as exchange rates are now flexible, but the high debt-to-GDP levels and fears of renewed inflation have meant that monetary and fiscal policy remain restrictive. Price stability continues to be the central concern of macroeconomic policy, embodied in the current policy of inflation targeting. The other principal objective is debt sustainability. The restrictive bias in macroeconomic policy, particularly in Brazil and Mexico, has hurt employment creation. High

interest rates have lessened domestic investment, while shrunken public resources have meant less spending on public and social infrastructure. The countries continue to maintain their capital accounts open, limiting macroeconomic policy to either controlling the exchange rate or the interest rate. In addition, although the exchange rate is no longer fixed, there are limits to its flexibility since the countries must guard against excessive currency devaluation, which can fuel inflation as well as increase the cost of servicing the debt, as much of the debt is in dollars, but national income is in local currency. As a result, many of the same macroeconomic constraints still impede the policy choices of Argentina, Brazil, and Mexico.

The governments of Brazil and Mexico have adopted inflation targeting as their policy tool for controlling inflation, and Argentina is seriously considering following suit. Inflation targeting entails having the central bank pre-announce a rate of inflation to be met for the year and focusing central bank policy on achieving this goal. Employment is not a policy objective. Inflation-reduction measures have been successful in the countries under consideration. This success has come at a price, however, since the policies implemented to restrain inflation often involve raising interest rates, which deters investment and, as a result, labour demand. Furthermore, it is not clear why inflation targeting has become the central macroeconomic policy

following the demise of exchange-rate anchoring, since there is no empirical evidence to show that an economy with an annual rate of inflation of around 10% performs worse than an economy with annual inflation of around 3% (Islam, 2003).

By using interest rates to control inflation, interest rates are higher than they need be, which has the adverse effect of increasing the cost of debt, the debt burden and, ultimately, the perception of risk. It also raises domestic interest rates, making it more expensive for domestic banks to borrow from abroad, thus increasing the cost of credit available domestically. The high interest rates in Argentina, Mexico, and especially Brazil, have aggravated the already difficult process that firms, particularly small ones, face in obtaining financing. In a 2000 business-environment survey, 73% of Argentine firms, 84% of Brazilian firms and 71% of Mexican firms reported high interest rates as a major obstacle for the operation and growth of their business (World Bank, 2000).

Another feature of macroeconomic policy in Brazil and Mexico is the restrictiveness of fiscal policy. Controlling public spending is integral to keeping inflation in check and is also necessary for funding debt payments. As was the case with restrictive monetary policy, however, restrictive fiscal policy reduces aggregate demand, which in turn hampers job creation. Because of the large debt repayment burden, these countries have to run primary fiscal surpluses

to service the debt. However, this means that the government is taking in more money domestically than it is spending, which is contractionary. Furthermore, fiscal policy has been pro-cyclical, which aggravates downturns since spending is reduced when the economy goes into recession.

Mexico and, more recently, Brazil have made efforts to bring their budgets into balance by running primary surpluses to finance debt repayment. Deficit control is also fundamental to the governments' objective of keeping inflation in check. Indeed, Mexico, and Brazil and Argentina would, for the most part, meet the fiscal criteria stipulated in the Treaty of Maastricht: a ceiling of 60% for the general government debt-to-GDP ratio, and a ceiling of 3% for the government financial deficit-to-GDP ratio.<sup>1</sup> Some Brazilian economists have proposed lowering the fiscal surplus target so that the government can dedicate funds to investment projects.<sup>2</sup> The Brazilian government has also requested of the International Monetary Fund (IMF) that spending on infrastructure be counted as investment rather than government outlays. Infrastructure projects that use labour-intensive production methods would have the added benefit of reducing unemployment in the country. Moreover, by fixing a primary-surplus target without considering economic cycles, countries run the risk of aggravating downturns, since there is no built-in relief mechanism.

### III

## Trade and investment policies

### 1. Export orientation and its effects on quality employment

In the late 1980s and early 1990s, Argentina, Brazil and Mexico adopted new export-oriented development strategies that involved trade liberalization, regional trade agreements and the curtailment of government industrial policy. Trade liberalization is supposed to create new export opportunities and thus influence the export pattern of a country. Regional integration can complement this process by promoting trade among neighbouring countries. However, free trade will be more beneficial for a country's development if it exports goods and services for which world demand

is increasing, and if production of these goods has a multiplier effect on output and employment. We therefore analyse changes in export specialization as a consequence of trade liberalization and regional

<sup>1</sup> With the devaluation in late 2001, Argentina's debt-to-GDP ratio jumped from 52% of GDP to 132%; it continues, however, to meet the public deficit criteria. With a debt-to-GDP ratio of 50%, Brazil meets the debt-to-GDP criteria, though it has exceeded the public deficit criteria several times in the 1990s, most recently in 1998 when it ran a public deficit of 7.1% of GDP.

<sup>2</sup> See the website of Desemprego Zero ([www.desempregozero.org.br](http://www.desempregozero.org.br)) for a variety of articles on this topic.

integration, and then compare the specialization to changes in world demand for the specific product. Table 1 shows that, between the periods 1985-1995 and 1995-2000, the number of rising-star products in which the three countries are specialized (products whose import share increased in the world market) declined considerably from 277 to 89 for all three countries taken together, while the number of retreat products (products whose import share in the world market was falling) increased considerably from 109 to 246.

TABLE 1

**Argentina, Brazil and Mexico: changes in number of products within the competitiveness matrix, 1985-2000<sup>a</sup>**

Argentina		Brazil		Mexico	
1985-1995 World		1985-1995 World		1985-1995 World	
65	99	64	71	77	106
46	32	39	62	24	25
1995-2000 World		1995-2000 World		1995-2000 World	
101	29	96	35	70	25
70	35	76	29	100	26
1995-2000 MERCOSUR <sup>b</sup>		1995-2000 MERCOSUR		1995-2000 NAFTA <sup>c</sup>	
64	47	73	41	68	27
59	56	48	63	90	43

Source: Authors' own calculations, based on the ECLAC TradeCAN database, 2002.

<sup>a</sup> In each group of four figures, the top left corresponds to falling stars; top right to rising stars; bottom left to retreats (not specialized, declining product) and; bottom right to missed opportunities (not specialized, rising product).

<sup>b</sup> Southern Common Market.

<sup>c</sup> North American Free Trade Agreement.

Generally speaking, Argentina and Brazil remain specialized in low value and low to medium labour-intensive primary and semi-processed products, creating little employment. Brazil does, however, have a comparative advantage in some manufactured goods (such as motor vehicles, textiles), especially in trade with its MERCOSUR neighbours. However, with the exception of some successful industries, the MERCOSUR countries are increasingly distant from the most dynamic flows of international trade, such

as high-technology products. Mexico has continued to deepen its specialization in manufactured goods, mainly thanks to its maquila industry, as 60% of its exports in the late 1990s were considered to be of a medium to high-technological level, compared to only 20% in the 1980s (Dussel Peters, 2003). Nevertheless, these industries depend heavily on imports of intermediate goods, which represent more than 80% of total export sales, and which account for most of the value added. The declining specialization in dynamic products vis-à-vis the world market and the remaining specialization in primary or semi-processed primary products is of great concern, particularly in Argentina, but also in Brazil. Even though these exports have a positive impact on macroeconomic variables such as the trade balance, currency reserves, and, where relevant, public revenue from export taxes, this type of specialization alone is not very promising, as the goods are subject to high price vulnerability and create few good quality jobs.

Another consideration when analysing the economic and employment effects of trade liberalization is imports. Between 1990 and 2003, imports increased annually at an average rate of 17% in Argentina, 10% in Brazil and 24% in Mexico. What was the effect of this import surge on employment and wages? With the exception of the food industry in Mexico, most of the goods exposed to import competition were higher-value-added goods such as medical appliances, electronic valves or special-purpose machinery (See table 2). In contrast to major export sectors, which had a low to medium labour intensity, industries exposed to imports had mostly medium to high labour intensity and were therefore slightly more important for employment. However, their share in total manufacturing employment was not significant (under 1%), except in the case of special-purpose machinery in Argentina and food products in Mexico. Nevertheless, the labour-market impact of economic opening was mixed and strongly depended on each specific industry. In Mexico, the industries that were most exposed to import competition, as listed in table 2, experienced solid output growth (over 3%) and positive employment growth; only the processed-food sector recorded negative growth, while the electronic valves sector increased by 15%. Wage growth was negative but above average, except in the case of electronic valves (+7.0). In Argentina and Brazil, even though these industries displayed largely positive output and wage growth, employment growth was for the most part less favourable compared with the rest of the manufacturing sector. It was either negative, especially

TABLE 2

**Argentina, Brazil and Mexico: industries most exposed to import competition and labour-market trends, 1995-2000<sup>a</sup>**

	Ranking <sup>b</sup>	Output growth	Labour intensity	Emp. share	Emp. growth	Wage Growth
Argentina	Electronic valves, tubes, etc.	3.1	Medium	0.6	4.1	7.3
	TV, radio receivers and assoc. goods	0.4	High	0.4	-2.9	2.2
	Medical appliances	8.9	Medium	0.8	5.1	6.9
	TOTAL Manufacturing	1.7		100	3.9	4.1
Brazil	Processing of nuclear fuel	-4.4	Medium	0.9	-9.0	2.0
	Electronic valves, tubes, etc.	-1.5	High	0.5	-2.5	-8.2
	Medical appliances	5.7	Medium	0.8	-2.5	-0.6
	TOTAL Manufacturing	4.0		100	-0.9	-3.1
Mexico	Electronic valves, tubes, etc.	14.7	Low	0.1	4.1	7.0
	Processed meat, fish, fruit, veg.	-2.4	Medium	3.0	1.8	-4.1
	Special-purpose machinery	3.4	High	0.9	6.2	-1.5
	TOTAL Manufacturing	3.7		100	3.5	-4.4

*Source:* Authors' calculations based on data from the United Nations Commodity Trade Database (COMTRADE) (United Nations Industrial Development Organization (UNIDO), 2006).

<sup>a</sup> The highest ranked product groups per country are shown in this table. Output growth rates are annual average values at constant market prices, wages are real: Argentina: 1995-1999, Brazil: 1996-1999, Mexico: 1996-1999.

<sup>b</sup> The indicator  $X-M/(Y-X+M)$  demonstrates which industry has been most exposed to import competition: it shows net imports ( $X-M$ ) divided by domestic absorption ( $Y-X+M$ ), or how much has been consumed domestically.

in Brazil (between -2.5% and -9.0%), or lower than the average for manufacturing.<sup>3</sup>

The relatively good employment performance was partly due to the fact that by the second half of the 1990s (the period under consideration), many companies had already adjusted to the new context. Also, most of the sectors exposed to increased imports, besides food industries in Mexico and special-purpose machinery in Argentina, were those producing higher-value-added goods and employing relatively few workers, such as medical appliances or electronic valves. Moreover, some imports were of consumer goods that were not produced domestically, thus having no effect on domestic production. Perhaps more importantly, imports of intermediate goods helped to improve the competitiveness of national production.

The indirect impact of imports on employment, however, was rather negative. Greater competition

in the domestic market and imports of technology led to industrial restructuring and to a rise in labour productivity in the traditional industrial sectors, particularly in Argentina and Brazil. The substitution of labour with capital resulted in a general decrease in demand for labour in manufacturing but also to a wage shift in favour of skilled workers, as was the case in the automobile sector of Argentina and Brazil. Another sector that suffered significantly from imports was the agricultural sector in Mexico where, between 1993 and 2002, around one million agricultural jobs were lost due to cheap corn imports (National Institute of Statistics, Geography and Information (INEGI), 2002).

Even though trade liberalization and regional integration caused a strong increase in trade and led to better integration in the world economy, it did not have the expected positive impact on production, employment and wages during the period of analysis (see table 3). Contrary to conventional economic thinking, the dominant export sectors were more capital intensive than labour intensive. Moreover, there was a steep rise in imports in the region, but not a similar degree of export dynamism, particularly in

<sup>3</sup> Table 2 only shows the three sectors most exposed to imports, but the analysis refers to the eight sectors most exposed to imports.

TABLE 3

**Argentina, Brazil and Mexico: summary of the impact of trade liberalization,<sup>a</sup> 1990-2003**

Trade	Argentina	Brazil	Mexico
Tariff reduction	+++	+++	++
Export increase	++	++	+++
Import increase	+++	+++	+++
Intraregional trade increase	++	++	+++
Specialization in dynamic exports	-	-	-
Labour intensity of major exports	++	++	+
Employment impact of exports	-/+	-/0	+
Wage impact of exports	-/+	+	0/+
Direct employment impact of increased imports	-/+	-/+	-/+
Indirect employment impact of increased imports	-	-	-/0

Source: Authors' compilation.

<sup>a</sup> Minus sign (-) means declining effects; -/+ means mixed; + means low/positive; ++ means positive; +++ means very positive. Also, -/0 means slightly negative effects, while 0/+ indicates slightly positive.

Argentina and Brazil. Exchange-rate appreciation was a major macroeconomic variable hampering an export drive. Only Mexico experienced an export surge in manufacturing production and employment during the second half of the 1990s, mainly due to the booming maquiladora sector. However, the maquiladora industry did not develop significant linkages with the rest of the economy and declined significantly from 2000, drastically reducing formal job creation in Mexico. The opening of the domestic market to highly subsidized agricultural products from the United States had a disastrous impact on employment in agriculture. This shows that the sequencing and targeting of economic opening are crucial for avoiding high social-adjustment costs.

## 2. The evolution and nature of FDI inflows and their importance for the labour market

Attracting FDI has been a key aspect of the countries' outward-oriented development strategy, as FDI is seen as compensating scarce domestic financial resources that are needed to help modernize and increase production, facilitate integration into the world market and generate employment. The new development strategy of the 1990s and the increased globalization of production worldwide led to significantly higher FDI inflows between 1990 and 2003 than in the 1980s. According to recent data from the United Nations Conference

on Trade and Development (UNCTAD), FDI inflows were four times higher in Mexico, which began trade and financial liberalization earlier, six times higher in Brazil and over 10 times higher in Argentina, which had the most comprehensive privatization programme during the 1990s.

The impact of large FDI inflows on employment, however, was to a large extent disappointing. This unfavourable outcome is mainly explained by the type of investment. Table 4 summarizes the type of foreign investment the countries have received and its importance for employment.

Most foreign investment did not create new productive activities to spur the recruitment of additional workers. Quite the contrary in fact, as foreign direct investment was often associated with the restructuring of companies, implying rationalization measures that led to labour shedding. As a result, few productive assets with additional employment potential were created. This is apparent from the increased importance of mergers and acquisitions in total FDI flows to the three countries, with an extremely high share of over 80% in Argentina and a more moderate share of over 40% in Mexico. Table 5 also shows the greater importance that this form of FDI has had in Latin America—particularly in Argentina and Brazil—as compared with China and India, even though their share also expanded considerably in the period 1997-2002.

TABLE 4

**Argentina, Brazil and Mexico: types of foreign investment and their dimension and importance for employment creation, 1990-2004**

Investment	Importance of investment for employment	Importance of foreign investment inflows		
		Argentina	Brazil	Mexico
Portfolio	Insignificant	Medium	Medium	Medium
FDI	Medium	High	High	High
Privatization	Mixed	High	Medium	Insignificant
Horizontal investment	High	High	High	Medium
Vertical investment	Medium	Insignificant	Insignificant	High
Mergers & acquisitions	Mixed	High	High	Medium
Greenfield investment	High	Medium	Medium	High
Resource-seeking	Insignificant	High	Insignificant	Insignificant
Market-seeking	Medium	High	High	High
Efficiency-seeking	Medium-high	Insignificant	Insignificant	High

Source: Authors' compilation.

TABLE 5

**Average share of mergers and acquisitions (M & As) in FDI inflows, 1991-1996 and 1997-2002, selected countries**  
(percentages)

M & As/FDI inflows	1991-96	1997-2002
Argentina	38.9	82.3
Brazil	44.1	58.5
Mexico	15.6	42.6
China	2.6	4.4
India	15.3	39.1
Developing countries	17.4	34.5

Source: United Nations Conference on Trade and Development (UNCTAD), 2000.

As a consequence of domestic-market opening and privatization, most foreign investment was channelled into services. Service FDI mainly came in the form of mergers and acquisitions resulting from the privatization of public utility companies or bank restructuring, which often did not create new productive assets, but rather tended to use existing ones. In addition, decades of protection led to a slack labour force, which was reduced during the privatization and modernization process of the 1990s, so that the overall impact on employment was minimal or even negative.

Economic liberalization led to increased competitiveness in the manufacturing sector, the second most important destination of FDI inflows.

As in the service sector, restructuring strategies to increase productivity often involved rationalization measures and labour shedding. In addition, FDI mainly went into low to medium labour-intensive sectors. Manufacturing transnational corporations (TNCs) that were already present made little, if any, contribution to employment creation. Even though "old" capital-intensive industries, such as automobiles and chemicals, were major recipients of FDI, these sectors rationalized production and either created few jobs or experienced a decline in employment in the 1990s. Nevertheless, they experienced a rise in productivity and competitiveness as well as a further export orientation of their products, which are promising signs for the future. This trend shows that maintaining targeted sectoral support by the public sector to this industry, even during a period inspired by liberal policies, was crucial and helpful in the restructuring process. Also, the arrival of new TNCs (especially in the automobile sector) resulted in the creation of fewer jobs. Moreover, wage increases in FDI-dominated manufacturing sectors were average, especially for skilled workers, reflecting the increases in labour productivity.

In Mexico, the employment situation is much more favourable than in Argentina and Brazil, as strong manufacturing FDI has generated many new jobs. This positive trend, however, can be mainly attributed to the maquiladoras, which benefited from strong greenfield investments in labour-intensive industries. The maquiladora sector also experienced

above-average wage rises, even though their level still tends to be below the average in manufacturing. However, their comparative advantage is rather fragile, as evidenced by net FDI outflows since 2000 and a subsequent decline of formal employment. However, one encouraging prospect has been the creation of third-generation maquiladoras, based on technology-intensive production activities carried out by highly skilled workers. By competing on the strength of quality rather than prices, firms are in a better position to fight off low-wage competitors.

FDI is also meant to create forward and backward linkages with domestic firms. In import substitution industrialization (ISI) sectors, some linkages exist, but these were mainly formed before the 1990s. Moreover, strong capital and import inflows caused an increased substitution of national suppliers in favour of international suppliers, even in these sectors. Mexico received substantial investment in assembly plants located on the border with the United States, although this investment established few links with the rest of the economy.

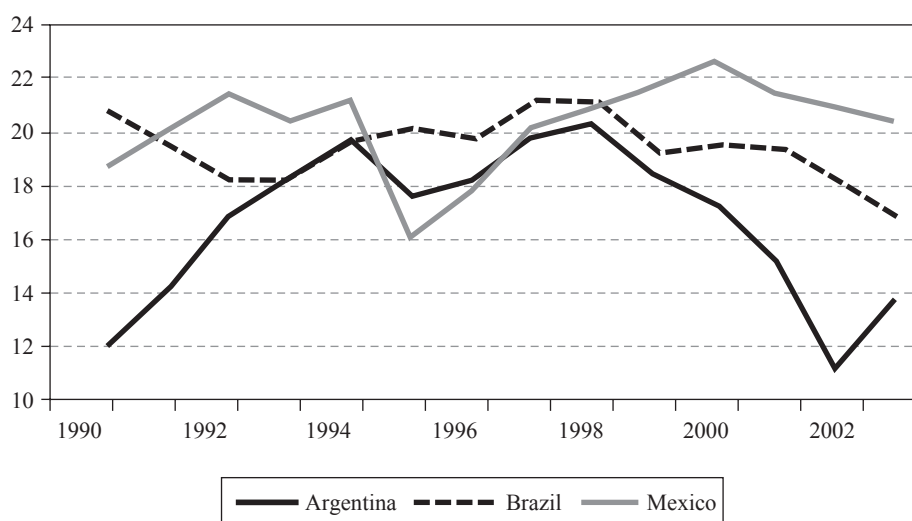
Given the strong increase in FDI during the 1990s, one important question concerns the effect it had on domestic investment. If FDI had no effect, any increase

would be reflected in a rise in total investment. On the other hand, if FDI had promoted domestic investment, this would have had a multiplier effect on total investment. This occurred in East and South East Asia during the 1990s, despite being the most restrictive region towards FDI among developing regions. Alternatively, FDI can crowd out domestic investment, meaning that increased foreign inflows hamper domestic investment, in which case domestic investment is simply replaced by foreign investment, or worse, the increase in total investment is smaller than the increase in FDI. Weeks (2000) and Agosin and Mayer (2000) show, that in Latin America, which undertook the most far-reaching liberalization of FDI rules during the 1990s, FDI unfortunately crowded out domestic investment. Credit-rationing associated with monetary restraints aggravated the crowding-out effect.

The crowding out is apparent if we compare overall domestic investment to FDI. Despite the large surge of foreign financing in the 1990s in Argentina, Brazil and Mexico, overall domestic investment did not increase. In Argentina, domestic investment averaged 17% of GDP during 1990-2001, in Brazil and Mexico it was slightly higher at 20% of GDP (see figure 2). In contrast, in East Asia during the 1970s and 1980s, investment-

FIGURE 2

**Argentina, Brazil and Mexico: investment as a share of GDP, 1990-2003<sup>a</sup>**



Source: World Bank, World Development Indicators.

<sup>a</sup> Gross Fixed Capital Formation (GFCF) is used as a proxy for domestic investment.

to-GDP ratios exceeded 30% of GDP, resulting in sustained high growth rates. Another drawback to the surge in capital inflows was that domestic investment was volatile and strongly correlated with FDI. This was especially true in Argentina, where fluctuations in foreign participation in investment and total investment-to-GDP had an astoundingly high correlation of 90% during 1990-2001. In Brazil and Mexico the relationship was strong, but not as dramatic, with correlations of nearly 60% in both countries. The strong dependence on foreign investment and the high level of fluctuation led to an increased external vulnerability of these economies. Another previously mentioned negative macroeconomic effect was that the inflows contributed to the appreciation of the exchange rate (despite attempts at currency sterilization) and a fall in competitiveness. Furthermore, foreign

investment had the perverse effect of prolonging the policy of high real interest rates to sustain it. This limited access to credit for local firms, which constitute major local employers.

Rising inflows of FDI increased the countries' dependency on external financing for their development, thus increasing their vulnerability. Another characteristic of FDI was the limited influence the countries had regarding the investment decisions of foreign companies. For example, FDI inflows decreased in 2000 in the region because of the recession in countries of the Organisation for Economic Co-operation and Development (OECD) and not because of a deteriorating investment environment. While FDI is certainly crucial for the development of the region, integration into the world market and employment, domestic investment of local firms is also essential.

## IV

### Labour-market regulations and policies

#### 1. Regulatory reform

Labour law reform has been advocated vigorously by the Washington consensus, given the belief that, for economic reforms to be successful, the labour market must be flexible so that firms can adapt to the changing competitive environment. In particular, easing dismissal protection laws and reducing labour costs have been among the reforms deemed necessary for the success of the new economic model. Officially, the rationale behind these reforms was that, by facilitating flexible contracts and dismissals and bringing down non-wage labour costs, reforms would reduce non-compliance and precarious employment relations, as well as increasing the competitiveness of firms, which would in turn stimulate employment creation. The nature and scope of the labour reforms in Argentina, Brazil and Mexico was determined by the importance governments attached to cutting labour costs as a means of improving their international competitiveness, the influence of trade unions and other political actors, the pressure of employers, the pressure of international financial institutions in favour of the proposed changes, and lastly, the nature and degree of protection legally guaranteed to workers.

In Argentina reforms pursuing "external numerical flexibility" (or easing hiring and firing) and labour-cost

reductions progressed steadily during the 1990s, though by the end of the decade new labour reforms were implemented to re-establish some of the rights that had been previously withdrawn. Reforms were numerous and far-reaching and concerned temporary contracts and their associated social security costs (1991, 1995, 2000), dismissals (1991, 1998), and non-wage labour costs in general (1994). Despite the drastic regulatory changes of the 1990s, the employment regulations prevailing in the early part of the current decade were not dramatically different from those that had existed prior to the economic reforms of 1991. The most important of the surviving regulatory changes were the reduced dismissal compensation for workers with less seniority (though this was doubled in the 2002 decree), and the ability to hire a worker on a trial contract, but without the previous exemptions on social security payments. Also, specific, less protective regulations for small firms remained. Furthermore, the capacity to change regulations through collective bargaining remains in place and has the potential for a more drastic impact. Nevertheless, the government's decision in the 1990s to make the labour market more flexible legally, as well as through its discourse and its decision to weaken labour inspection, resulted in a noticeable increase in the number of clandestine workers.



In Brazil, reforms to labour regulations were geared, as in Argentina, to making the employment contract more flexible, though the changes were more restricted and most reforms were introduced in the second half of the 1990s. The principle reforms include the passage of the Law of Cooperatives, which permitted the creation of cooperatives of workers to deliver services to firms without the constitution of a work contract, with its recognized social and labour rights. Also in 1994, salaries were de-indexed from inflation, with the introduction of free negotiation of wages following almost 30 years of official wage policies. In 1998, working-time “banks” were introduced to make working hours more flexible and do away with paid overtime. Part-time work contracts were legalized in the same year, allowing working hours up to 25 hours per week with lessened labour rights. In 1998, another law instituted fixed-term contracts with reduced social rights.

Mexico has not reformed its labour law, though there have been several projects under discussion concerning different aspects of flexibility, such as the regulation of employment termination, severance pay, the creation of temporary and other special contracts, as well as regulations on subcontracting and on working time (de la Garza, 2002). In spite of the absence of legal reforms, many *de facto* changes have been achieved, particularly as a result of collective bargaining. Based on an analysis of collective agreements in the mid-1990s, de la Garza (2002) concluded that most of them guaranteed substantial functional flexibility and moderate numerical flexibility. In their study of manufacturing, Herrera and Melgoza (2003) found that de-regulation was increasing, given that many central issues had ceased to be formally regulated. For example, the proportion of firms having written, formal instruments (collective agreements, specific arrangements, internal regulations of firms) addressing employment contracts, use of labour and organization of production, had halved between 1995 and 1999. Nonetheless, this process was less pronounced in large enterprises, but rather was concentrated in micro, small and medium-sized firms, as well as in the maquiladora sector.

Despite the changes in labour law towards less regulation, particularly of employment contracts and dismissal protection, and a reduction in non-wage labour costs, there was no visible impact on job creation or on increased formalization. Rather, the most disturbing trend has been the increased share of non-protected waged workers in the 1990s (see table 6). In Argentina, Brazil

TABLE 6

**Argentina, Brazil and Mexico: proportion of non-protected workers in waged employment, 1991-2002<sup>a</sup>**  
(percentages)

Year	Argentina <sup>b</sup>		Brazil <sup>c</sup>	Mexico <sup>d</sup>	
	(1)	(2)	—	(1)	(2)
1991	23.2 <sup>e</sup>	...	27.9	33.8	20.3
1995	23.6	30.7 <sup>f</sup>	33.2	39.3	24.9
1999	30.9	33.2	37.2	40.3	23.6
2002	29.1	33.2	37.9	40.8	23.9

Source: Marshall (2004).

<sup>a</sup> Data are not comparable across countries, as concepts and methodologies differ.

<sup>b</sup> Argentina: (1) wage earners (excluding household services and, in 2002, beneficiaries of employment programmes) without all social benefits (Buenos Aires-Cordoba-Rosario, Permanent Household Survey (EPH), National Institute of Statistics and Censuses (INDEC)); (2) wage earners (excluding household services and, in 2002, beneficiaries of employment programmes) with no social security contributions (urban areas, Permanent Household Survey (EPH), National Institute of Statistics and Censuses (INDEC)).

<sup>c</sup> Brazil: wage earners without employment contracts (*carteira de trabalho*), based on data from the Institute of Applied Economic Research (IPEA, 2003, statistical annex).

<sup>d</sup> Mexico: (1) wage earners without social benefits, National Institute of Statistics, Geography and Information (INEGI), 2002; (2) data on 48 cities in the INEGI *Banco de Información Económica*.

<sup>e</sup> 1992.

<sup>f</sup> 1996.

and Mexico, the share of non-protected employment increased by between 20% and 30%, irrespective of any changes (or lack of) in legal regulations and non-wage labour costs, and regardless of changes in the level of economic activity. This trend has been encouraged by government discourse about the need for flexibility combined with weakened labour inspection, particularly in Argentina and Mexico.

## 2. Labour-market policies

An important and positive trend in labour-market governance in Argentina, Brazil and Mexico has been the increased prominence given to labour-market policies, both passive and active. Although programmes are still incipient, piecemeal and in need of additional and sustained funding, such policies have the potential to improve the operation of the labour market. By

providing security to workers in times of crises, these policies give employers the flexibility they need to operate in a global economy. Labour-market policies contribute concretely to alleviating the problems of the unemployed, whereas it is questionable whether “indirect incentives” (such as removing labour protection or reducing non-wage labour costs) result in more jobs.

Labour-market policies comprise passive policies, which provide replacement income during periods of joblessness or job search, and active policies, which focus on labour-market integration either through demand or supply measures. The adverse labour-market outcomes of the economic reforms, namely increased unemployment, informality and poverty, called for State intervention. Before the mid-1990s, labour-market policies in Argentina, Brazil and Mexico were sparse and sometimes existed only on paper. In the mid- and late 1990s, governments expanded and diversified programmes to respond to the continuous increase of unemployment and poverty within the region. The policies included a wide range of government interventions, including unemployment insurance programmes, employment-creation programmes, self-employment and micro-enterprise creation programmes, training programmes, and public employment services.

In the early 1990s, labour-market policies in Argentina were fragmented and on a small scale, with little political and financial commitment on the part of the government. Labour-market policies were repeatedly used spuriously to benefit the political clientele, and often announced to avoid the emergence of conflict, or at electoral times, only to not be implemented or rapidly discontinued. Moreover, the fiscal restrictions in the convertibility programme did not support the funding of employment policies (Cortés and Marshall, 1999). This was particularly true of the unemployment insurance program, which was created in 1991, but had very limited coverage, so that when the crisis hit in 2002, only 8% of the unemployed benefited from the programme (Marshall, 2004). It was only at the end of the 1990s that labour-market policies were widened in the country, with the government committing political and financial support, as it saw them as an important instrument for providing income to the jobless and controlling social conflict. This was seen most explicitly with the 2002 creation of the Programme for Unemployed Heads of Household (Programa de Jefes y Jefas de Hogar Desocupados), which provides a monthly benefit (below the minimum

wage) to unemployed persons with children, who in exchange must participate in training or community activities at least four hours daily. With over one million beneficiaries in 2004, government spending on labour-market policies has surpassed 1% of GDP, making it one of the highest in the region. Nevertheless, the programme has been criticized for being more of a social assistance programme than one that facilitates entry into the labour market, as some beneficiaries did not participate in the labour market prior to receiving benefits. As a result, the government has expanded its portfolio of labour-market policies to better address the varying profiles of the beneficiaries.

In Brazil, although funding relative to GDP has also been of limited scale and coverage, there has been a longer-term, steadier effort at labour-market intervention, through the implementation of unemployment insurance, intermediation and training schemes, and assistance to small-scale employers and self-employed workers.<sup>4</sup> Brazil’s unemployment insurance fund, created in 1986 and later expanded, has the greatest scope and coverage of the six unemployment insurance programmes that exist in the region. It covers nearly 50% of the unemployed and is also particularly innovative in that the fund is also used to finance investment projects and union-administered training programmes (Inter-Union Department of Statistics and Socioeconomic Research (DIEESE), 2003).<sup>5</sup>

Labour-market policies have also been sparse in Mexico, but nevertheless have gained importance, both institutionally and financially. The programme for work-training grants, BECATE (previously the work training system (SICAT)), for example, was started after the 1982 crisis, providing training and a cash benefit to unemployed workers. It has expanded in scope and coverage and, by 2000, was benefiting half a million workers. Another important scheme is the temporary employment programme, run by the Secretariat of Social Development, which consists of labour-intensive public works projects in rural areas. From 660,000

<sup>4</sup> Besides labour-market policies, the Brazilian government has expanded its social assistance through school allowance (Bolsa Escola) and family allowance (Bolsa Família) programmes. It has also extended and improved pension funds for the rural population, which has led to a reduction in poverty and an improvement in income distribution.

<sup>5</sup> Formally employed Brazilian workers also have access to a severance fund (Fundo de Garantia por Tempo de Serviço) financed through monthly contributions by the employer, which the worker has access to upon dismissal.

beneficiaries in 1995, the programme had increased to over one million by 2000 (Samaniego, 2002). In Brazil, the government has also developed various micro-credit programmes to promote self-employment and micro-enterprise creation initiatives.

Nevertheless, all three countries are still struggling to implement the training and work components of the active policies, as well as integrating the different programs into a cohesive system of labour-market intermediation. This is particularly true of the Programme for Unemployed Heads of Household in Argentina, where the work and training requirements

have often been bypassed, or have been of little productive value. Part of the problem, in all three countries, stems from the conflicting goals of the programmes, specifically, whether they are anti-poverty programmes or programmes to improve the functioning of the labour market. Anti-poverty programmes, which typically provide a benefit that is below the minimum wage, are successful in helping the poorest segments of the population but often face problems with programme delivery and implementation of the “active” components, i.e. helping people to carry out a productive activity while providing them with an income.

## V

### Policies for employment and decent work

We propose a set of economic and social policies to tackle the employment challenges of Argentina, Brazil and Mexico. The policies demand a more proactive stance from the governments, which should intervene more forcefully in economic affairs than in the 1990s, as well as a proactive and constructive role for trade unions, employers’ organizations and civil society. The broad lines for a more balanced policy agenda to create decent work are the following:

#### 1. Pursue employment targeting

If macroeconomic policy were driven by employment targets, then making employment the centre of economic policies would be an explicit policy goal. Employment targeting would be subject to an inflation constraint to ensure responsible policymaking, but by making employment creation the goal, the livelihoods of workers and society would be improved. Targets could be set depending on the specific needs of the country. Thus, it could be an unemployment rate target, an employment rate target—perhaps more appropriate because it encourages labour-force participation—or a target that considers formal employment rates or female employment rates.<sup>6</sup>

Achieving an employment target would require that central banks expand their policy tools beyond the short-term interest rate. Depending on the mechanism that the central bank believes is the most effective way to generate employment, the portfolio of tools used would vary. For example, if ensuring a stable and competitive exchange rate was believed to be the best way to increase employment, then the central banks would need to be willing to control the money supply through the use of credit-allocation mechanisms such as quantitative credit controls, interest-rate ceilings and reserve requirements on bank deposits. The central bank could also take a more direct approach with credit allocation by setting quotas that banks and other financial institutions would have to achieve in lending for employment generation. Alternatively, the central bank could impose lower reserve requirements on loans for activities that would generate employment. Even more directly, the central bank could lend to a development bank that specializes in loans for employment-generating activities (Epstein, 2005). These policy tools could then be complemented with other government macroeconomic policies, in particular, ensuring that fiscal policy is counter-cyclical.

<sup>6</sup> For example, the Federal Reserve Bank of the United States, which has a mandate of ensuring price stability and full employment, sets interim targets of 4% unemployment and 3% inflation. In the past,

many central banks had growth and employment creation as explicit goals (See Epstein, 2007). Although not a macroeconomic target, the European Union, in its European Employment Strategy, has set the following targets for 2010: a 70% overall employment rate and a 60% female employment rate.

Developing a fiscal policy that is counter-cyclical requires policy initiatives such as restructuring debt so that it does not aggravate pro-cyclicality, as well as developing stabilization funds to smooth public spending across the economic cycle. Other possible options include indexing debt repayment to the growth of GDP or restructuring debt so that it is valued in national currency, but set at a fixed rate indexed to inflation. Stabilization funds have been established in the region, such as the structural fiscal rule applied in Chile, as well as the oil revenue fund in Mexico. The funds could be used to finance labour-market policies that would protect vulnerable groups during crises as well as improve economic performance, since the benefits they provide help to prop up consumption. Developing stabilization funds to smooth public spending across the economic cycle can also be instrumental in lessening volatility and improving macroeconomic performance.

## **2. Promote an export specialization in higher-value-added goods**

While Argentina, Brazil and Mexico profit from increased world demand for the primary and low-processed goods that they produce, in the long term such a trade pattern has to be supplemented by the development of higher-value-added goods with a greater employment content. Though there have been some successes in producing higher-value-added goods, for example, in the automobile and aircraft industries, these countries have the potential to enhance their specialization, particularly of those products in which backward and forward linkages with domestic producers can be developed to create a multiplier effect on production and employment. An active industrial policy that facilitates the integration of domestic firms into the world market can help to improve the countries' specialization. The government, in consultation with social partners, can play a beneficial role by supporting the creation of local research and development centres, education and training programs, as well as improving physical infrastructure (such as transport and communication) through public investment. In addition, firm clustering and third-generation maquiladoras should be further supported. Clusters such as the software industry in Blumenau, aeronautics in São Paulo and the agricultural mango-grape cluster in Petrolina (all in Brazil) and electronics in Jalisco (in Mexico) have succeeded in value-chain upgrading as well as in building backward and forward linkages in their regional area. These clusters are a successful, albeit

limited, industrial development experience from which much can be learned. With regard to the maquiladora sector in Mexico, the development of promising third-generation maquilas could be facilitated by public support; in particular, efforts could be made to link these maquilas with other sectors of the economy, through the promotion of joint ventures or strategic alliances with domestic suppliers.

## **3. Encourage productive investment**

Foreign investment is an important source of financing for complementing scarce resources as well as for facilitating technology transfer and integration into the world market. However, not all foreign investment is helpful for economic and social progress; governments should therefore have a more proactive stance to influence inflows of "good" foreign investment. Governments can create rules or provide incentives to discourage speculative, rent-seeking investment and encourage foreign investors to work with domestic firms, both large and small, to promote value-chain upgrading and to invest in human-capital development. Additionally, governments should try to stimulate domestic investment through measures that increase the liquidity of the domestic financial market as well as through specific support for micro and small and medium-sized enterprises, as these firms are important employers in all three countries. Greater domestic investment will strengthen internal demand with important concomitant employment effects. Moreover, striking a more even balance between foreign and domestic investment—as envisaged by Argentina and Brazil—would reduce external vulnerability and thus improve the business climate and the macroeconomic environment.

## **4. Promote efficiency in labour-market institutions and expand the use of labour-market policies**

Since 1990, all three countries have seen an increase in the proportion of non-protected workers in waged employment, a problem that is particularly widespread among micro and small firms. The countries should improve labour inspection as this is a highly effective tool for regularizing work conditions. In Argentina, Brazil and Mexico, there are too few labour inspectors and, as a result, enforcement is weak. Another issue concerns the development of regulations and policies that give firms the flexibility they need to compete

in the global economy, without jeopardizing workers' security. For example, it seems better for labour-market functioning to finance income replacement in the event of job loss via an unemployment insurance fund financed by employers, workers and the State, rather than relying only on individual, firm-based severance pay systems, which place a large financial burden on firms exactly at the moment when they are suffering from recession and lack of liquidity.

Labour-market policies, both passive and active, are important for helping individual workers cope with economic shocks as they improve labour-market integration, as well as providing income support to displaced workers in need. Although Argentina, Brazil and Mexico have begun to recognize the benefits of labour-market policies, the level of spending and coverage of these policies remains limited, with Brazil and Mexico dedicating less than 1% of GDP to labour-market policies, and Argentina spending just 1%. The countries would therefore benefit by discussing with the social partners how to expand their labour-market policies to make them a permanent tool that has the flexibility to respond to the countries' needs. In

particular, the countries would benefit from adopting (Mexico) or expanding (particularly Argentina, but also Brazil) unemployment insurance and by developing a greater and more permanent portfolio of active labour-market policies to facilitate the labour-market integration of both informal- and formal-sector workers.

Labour-market policies should not be considered a short-term solution in response to the latest crisis, but should be a permanent feature of economic policy, as business-cycle fluctuations and partial-adjustment shocks are recurrent. In a framework of flexibility and security for the labour market, the right sequencing of policies might help to improve labour-market functioning. Especially in the low-trust environment created by a decade of failed reforms, where each attempt to touch upon vested worker's rights is seen as an attack on their livelihood, it might be advisable to first introduce the security component (such as an unemployment benefit system coordinated with active labour-market policies) before reforming those elements of employment protection that possibly impede adjustment to structural change.

## VI Conclusion

Though there are many different policy variables that affect employment creation, we believe that it is the combination of policies at the macro, meso and micro level that can facilitate the creation of decent work.<sup>7</sup> However, the successful implementation of these policies requires a more proactive role of the main stakeholders in society: government at all levels, employers' and workers' organizations and civil society. As both employers and workers must confront the challenges of globalization, it is important that their views are represented. Previously, governments formed corporatist alliances with social partners, but with the

dismantling of import-substitution industrialization, workers' and employers' organizations have become more autonomous. This independence requires coordination among government and social partners through continuous dialogue (beyond bargaining rounds), as well as greater responsibility from all parties to shape economic and social issues. Policy formulation would also benefit from including new social actors representing informal workers and the unemployed, particularly concerning the development of labour-market policies as well as policies aimed at formalizing informal workers. However, for social dialogue to be sustained and effective, it must be institutionalized through, for example, social and economic councils and obligatory consultation with social partners.

These recommendations do not imply a return to State planning of economic activity, but rather the creation and strengthening of institutions to frame market forces and repair market failures,

<sup>7</sup> In this regard, the newly reassessed Global Employment Agenda (GEA) of the International Labour Organization (ILO) is a helpful strategic tool for enhancing employment growth. It proposes a comprehensive employment strategy that includes, in addition to the points above, enterprise creation and skills policies (ILO 2006).

while attempting to prevent policy failures. Making employment central to economic and social policies implies a direct route to more jobs, instead of detours

via an exclusive focus on macroeconomic stabilization and economic opening with its uncertain effects on employment.

(Original: English)

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**KEYWORDS**

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# Evolution of the link between selective anti-poverty policies and social sectors policies

*Ana Sojo*

**T**his conceptual and historical analysis of paradigmatic social policy experiences in the region reveals some fundamental landmarks in the evolution of the link between selective anti-poverty policies and social sector policies. These landmarks are associated with major changes in targeting policies and with a number of universal social policy reforms. Special attention is given to the redistribution-with-growth approach; subsequent reductionist targeting proposals, which have undergone shifts in conceptual and effective terms over the last two decades; and the concern for interaction with social sectors displayed by some present-day conditional transfer programmes, which stand out in the region because of their scale. Two related trends observed in fields that go beyond the effort to combat poverty are also analysed: the reductionist social risk management proposal and, in the opposite direction, the introduction of health guarantees.

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# I

## Introduction

This study addresses the link between selective anti-poverty policies, on the one hand, and social sector policies and their institutional implications from both a conceptual and a historical standpoint, on the other. It shows how this link has been conditioned by the different orientations of targeting policies and by relevant conceptual perspectives in fashion at one time or another. As a result of these factors, the various phases of these policies have been subject, to some extent, to the built-in obsolescence of intellectual or political fashions, which, in the long run, reveal unforeseen limitations and ultimately lead to the reformulation of policies and their objectives. Likewise, some reforms of universal social policies<sup>1</sup> have also conditioned the evolution of targeting policies.

This study considers four landmarks in the evolution of selective policies which have had repercussions on this relationship. First of all, it analyses targeting within

the redistribution-with-growth approach. It then looks at the subsequent reductionist targeting proposals, taking account of their shifts in both conceptual and effective terms over the last two decades. The discussion then turns to the concern for interaction with the sector level displayed by some present-day conditional transfer programmes, which stand out in the region because of their scale. Finally, it deals with selective policies which, although in some cases they can be included as part of broader anti-poverty policies, generally go beyond them because of the nature of their benefits and objectives. In the analysis of these topics, thorough attention is given to some aspects of programmes and experiences which have been paradigmatic in the region, many of which are to be found in Bolivia, Brazil, Chile and Mexico. Some other experiences in the region are touched upon more briefly.

# II

## Some preliminary clarifications

In view of the aims of this study, past and present welfare policies of a traditional nature will not be taken into account because, as their primary objective is to cultivate groups of clients in order to gain their political support, taking only a short-term view, they often have no solid links with universal social sectors or operate in relative isolation from them. As a consequence of these feeble links, generally speaking, the execution of these policies is not associated with the dismantling

of any universal programmes with which they might compete.

In the history of social policy, the weaker formal social policy institutions have been and the more deeply rooted clientage has become as the accepted form of political mediation, the greater the prevalence of traditional welfare programmes.<sup>2</sup> These programmes have covered a wide range of benefits, such as income transfers, food programmes and subsidies relating to health, housing and other aspects. In view of their high

□ A preliminary version of this article was published in Sojo (2007). The author wishes to thank Lourdes Colinas for her efficient help in collecting some of the information on conditional transfer programmes.

<sup>1</sup> The principle of universality on which such policies are based establishes the levels of protection that society can guarantee to all persons as citizens, independently of their socio-economic status or their ability to pay. In this latter respect, this principle cannot be separated from that of solidarity, whereby the system of rights and benefits is financed by the members of society through differential contributions proportional to their economic capacity.

<sup>2</sup> Nor does clientage seem to be invariably confined to present-day programmes with systems for the selection of beneficiaries and explicit criteria linked with the sector level. An evaluation of the Brazilian *Bolsa Escola* scholarship programme for schoolchildren found that at the more highly politicized municipal levels in Brazil there seems to be less concern about ensuring that the conditions of eligibility for benefits are satisfied in, for example, education programmes. Various regression analyses suggest that some variables of a political nature may influence the processes of registration of beneficiaries (de Janvry, Finan and others, pp. 21 and 25).



degree of discretionality and clientage-based approach, they are generally marked by the use of beneficiary selection procedures which are very fragile because of the absence of technically-based selection criteria designed to attack poverty at its roots. A typical example of this, developed in the heat of the populist policies so much in vogue in the region in the twentieth century, is the so-called “social works” of Evita Perón, which offered considerable benefits in the fields of housing and health and made their mentor extremely popular among the population of Argentina.

Strictly speaking, we prefer the term “selectivity” to “targeting”. As noted in the past, this latter term does not fully express the idea of selectivity and is even tautological, since all policies—including universal social policies designed to get away from the idea of targeting—are aimed at some target population.

It should also be borne in mind that targeting is a vague, imprecise term (Sojo, 2000), since it is

used in connection with a wide range of policies and programmes, especially programmes designed as safety nets for the extremely poor; programmes to relieve the effects of income disturbances, such as those set up in Argentina at the start of this decade; traditional welfare programmes; conditional cash transfer programmes within a framework of entitlements and obligations (such as the *Programa Puente* in Chile or the *Programa Oportunidades* in Mexico); and programmes which may or may not be linked with social sectors. Recently, the concept of “safety ropes” has also appeared in connection with insurance-type programmes designed to protect vulnerable social sectors, even if they are not poor (Pritchett, 2005, pp. 17-19). As the term “targeting” has been so widely used, however, it was impossible to avoid using it in this study to initiate the dialogue, although we have tried to make its meaning more explicit in the course of the text.

### III

## Targeting in the context of redistribution with growth

In the 1970s, the concept of targeting was associated with proposals on redistribution with growth which endowed it with certain particular characteristics: the focus of the analysis was on the structural causes of poverty; targeting was not centred solely on social policy; and it was not felt that social policy should be confined or reduced to programmes designed exclusively for the poor. Such actions were merely seen as part of a spectrum of income redistribution policies which should modify the concentration of physical and human capital in order to give the poor access to skills, physical capital, complementary assets, public services and public investment. It was felt that targeting in social policy should guarantee access to services, eliminate leakage to non-target groups, and take account of the fact that services such as mother and child care and nutrition services were necessary complements to an investment-oriented strategy (Sojo, 1990, pp. 175-176).<sup>3</sup>

A wide range of redistribution instruments was envisaged: the factors market; ownership and control of assets; taxes on personal income and wealth; the supply of public consumption goods; goods markets; and intervention in technological development. In view of the multiple dimensions of the redistributive aims of economic policy, different instruments were considered (Ahluwalia, in Chenery and others, 1974, p. 125). Since targeting was centred on the causes of poverty and not just on its symptoms, it also extended to assets, insofar as they are determinants of income, and aimed to identify different groups of poor people who should have access to specific assets. Mother and child and nutritional services, for their part, were seen as necessary complements to an investment-oriented strategy (Ahluwalia and Chenery, in Chenery and others, 1974, p. 77). The poor were to receive subsidies for public services with a view to raising their productivity as well (Rao, in Chenery and others, 1974).

Target groups should correspond to a group of persons who are not only poor but also relatively

<sup>3</sup> For the proposals made by Ahluwalia and Chenery; Chenery and Duloy, and Rao, see Chenery and others (1974).

homogeneous as regards the effect that a given set of policy instruments can have on them (Bell and Duloy, in Chenery and others, 1974, p. 127), and leakages of benefits from some programmes to beneficiaries not specifically defined as such should be eliminated (Chenery and Duloy, in Chenery and others, 1974). The difficulties inherent in providing more services to the poor without reducing them in other sectors were acknowledged, however, as was the resistance that the latter sectors would put up to losing their privileges (Rao, in Chenery and others, 1974).

In institutional terms, the range of areas of intervention was very wide and called, in practice, for the action and coordination of the various bodies involved. The approach to social policy, however, which was centred on social sectors, did not envisage changing their traditional dynamics, whereby each social sector acted in a primarily independent manner, without much coordination with the others. As we shall see below, the proposals for redistribution with growth, which were so clearly oriented towards the causes of poverty and its various dimensions, were notably weakened in the early 1980s.

## IV Reductionist targeting and its shifts in conceptual and practical terms

*...[reductionist intentions] do not come free of charge. They always form part of a larger initiative, of some project to completely reform the intellectual picture as well as our attitude to life.... reduction is never neutral, it is never aimed solely at simplicity. You may ask: is reduction always aimed at somehow discrediting or degrading what it reduces?*

Mary Midgley<sup>4</sup>

With the passing of the years, the arguments for targeting changed profoundly. These changes came to a head in the 1980s, when the targeting approach underwent a reduction in conceptual and political terms in line with the proposals for social policy reforms formulated by some governments and by organizations such as the World Bank. This proposal must be considered as reductionist<sup>5</sup> because it systematically identified negative elements of universal programmes in order to support the replacement of the principle of universality by that of targeting. The latter, presented as a general and definitive principle, traced out a simpler and more restricted order for social policy: that of being subsidiary and restricted to matters of poverty. In line with virtues attributed to targeting in terms of efficacy,

efficiency and equity, both the objectives and the scope of social policy were limited to those which, in strict terms, could be considered as suitable only for some types of targeting.

Thus, reductionism put together a global view of social policy which, because of its simplicity, seemed attractive during this period of orthodox structural adjustment. As experience was certainly to show, however, its viability and implementation were very complex because of its controversial nature and the social exclusion it implied. Against the background of proposals to privatize social policies of a universal nature that removed the principle of solidarity from their financing, this school of thought came to advocate the dismantling of universal social services (which fell out of favour when, as the result of an analytical extrapolation, they came to be equated with the regressiveness of pension schemes and the like) and the concentration of public social spending on the most vulnerable groups through so-called targeted programmes.

<sup>4</sup> From "Reductive megalomania" (Midgley, 1995).

<sup>5</sup> In the original version of this article, this footnote dealt with a question of Spanish terminology that is not relevant for English-speaking readers.

It was claimed that, in contrast with the provision of universal services, which were criticized as being very costly and inefficient, targeting could allow governments to reduce poverty more effectively and at a lower cost. Franco, for example, put forward targeting as a fundamental instrument, postulate and guiding principle for social policy, in the place of “general” and “traditional” policies, as the latter tended to be costly and to have little impact on the most seriously affected sectors, as well as having failed to reach the poor. He considered that targeting, in contrast, made it possible to use public resources more rationally, to attain the objectives of social programmes more effectively, to use the available resources more efficiently and to heighten the effect on the target population; he also claimed that it had had a positive impact on the human development index attained by Chile in the late 1980s. He therefore considered that there should also be an increase in the social resources applied in this way (Franco, 1990, pp. 184-189; 1996, p. 18).

As regards the social sectors’ morphology, it was argued that primary health attention and primary education should be strengthened at the expense of the other levels. And last but not least, the emphasis on social safety nets which were supposed to soften the impact of the adjustment programmes shifted interest to the symptoms of poverty, relegating to second place the question of its causes, which had formed an important part of the relevant proposals in the 1970s. In spite of the special features of the past evolution of individual countries and the special nature of their problems, and generally in the absence of backing from accurate studies or knowledge (van de Walle, 1995), it was assumed that targeting was an efficient, efficacious and generally valid tool. The overall proposals for social policy were based on the following considerations: (Sojo, 1990):

- (i) The need to help solve the fiscal crisis of the State through changes in social spending;
- (ii) The need to concentrate public social spending on the most vulnerable population groups and limit the action of the State in social policy matters. The principle of universality in social policy was severely questioned and negatively evaluated and, for example, the general regressiveness of pension systems was extrapolated to social expenditure in general. It was proposed that universalist policies should be dismantled, to varying degrees;
- (iii) Advocacy of the relative privatization of social services, even in the case of targeted programmes. In this connection, little importance was attached

to the problems raised by the private provision of services due to market failures (risk selection, for example);

- (iv) Confidence that improved primary income distribution and the higher standard of living that would result from the trickle-down effect and economic reactivation would ensure that those outside the target groups would be able to pay to use private services.

For conservative circles in Latin America, the targeting policies instituted in Chile during the military dictatorship became social policy paradigms. It may be noted that this conceptual development and experience occurred in one of the countries of the region where the welfare-State had reached a significant level of development up to the early 1970s and had therefore required reforms in social sectors, for which targeting played an ancillary role. The radical redefinition of the rules on the provision and financing of social services was possible thanks to the authoritarian regime, which left its potential opponents, both in political parties and among the public suppliers of services and the traditional beneficiaries of social policies, in political disarray.

As a counterpoint, targeting also occupied an important place in another country of the region which was conspicuous in the 1980s for its high levels of poverty, lags in social investment, feeble social policy actions and serious shortcomings in social infrastructure, all made worse by the economic crisis. This was the case of Bolivia, where targeting gained impetus in the context of stabilization and macroeconomic adjustment policies which managed to bring down hyperinflation. Special mention may be made in the case of Bolivia of the role played by the Social Emergency Fund (FSE)—later transformed into the Social Investment Fund (FIS)—as the prime vehicle for targeting. The success achieved in terms of macroeconomic stabilization also rubbed off on this Fund, which was held up by the World Bank as an example for the region as regards targeting.

In other parts of Latin America, reductionism did not gain so much ground. In Brazil, for example, there was a contrasting upsurge in the universalism of social policy which was strongly based on the Constitution adopted during the transition to democracy and had major repercussions on social policy; suffice it to recall the establishment of the Unified Health System (SUS) in the reform of the health sector. It is also interesting to note that in that country the false dichotomy between targeting and universalism polarized the debate

on anti-poverty programmes in the 1980s, so that selective access was not applied even in the case of social assistance programmes. Towards the mid-1990s, targeted anti-poverty policies gained legitimacy, but they were not viewed as being in opposition to social programmes of a universal nature. It has been asserted that this “delay” in the application of targeted policies made it possible to take advantage of the experience of other Latin American countries: a learning process which impeded the establishment of programmes that were redundant or alien to basic services of a universal nature or the installation of social emergency funds (Draibe, 2006, p. 143).

Universalism also made progress in Colombia, where a complex health reform effort sought universality both in coverage of insurance and provision of services, as well as competition among insurers and suppliers of services, within the framework of a solidary and decentralized system whose benefits and obligations are established in two systems: the contributory system, which is financed with the contributions of workers and employers, and the subsidized system. The Colombian system has important mechanisms for ensuring solidarity, such as the Solidarity and Guarantee Fund (FOSYGA).

In Costa Rica, too (a country with long-standing universal traditions), there was no retrogression in the sense of any form of reductionism in social policy matters which adversely affected the resources provided for the various social sectors. Indeed, noteworthy efforts were made in terms of selective policies designed to reduce the digital divide through the introduction of education in informatics, beginning with the poorest schools, but with a universalist approach aiming to expand coverage and with objectives that clearly went beyond mere assistentialist attitudes (Sojo, 1993).

It is important to take account of the repercussions that the turn towards reductionist targeting had on social sector dynamics. The cases of Chile and Bolivia are particularly notable because of the considerable impact that reductionist proposals had and because the experiences of these countries had a good deal of influence on anti-poverty policies and social policy in general in the rest of the region.

In Chile, during the military dictatorship, targeting was functional to the social sector reforms designed to do away with solidarity in financing, reduce the provision of universal services, oblige the population not classified as poor to acquire social services on the market, establish demand subsidies so that the poor could have access to private social services, and transfer

functions to the municipalities in the fields of primary health services and education. Enormous resources were devoted to privatizing the pension system and consolidating the institutions of the private health insurance system.

As already noted, targeting was accompanied by profound changes in the dynamics of the social sectors, and the consequences of this combination of events were very serious. In the health sector, for example, the contraction in expenditure, the cuts in operating and investment expenditure and the concentration of resources at the primary level, and especially in the mother and child health programme and efforts in the field of nutrition,<sup>6</sup> reflect a perverse relationship between targeting and the deterioration of the health sector. As the World Bank itself acknowledged, in spite of the advanced epidemiological transition achieved by Chile, “primary care was expanded at the expense of the tertiary level, and the priority given to maternal and child care was to the detriment of care for adults and the elderly and of related preventive care measures, causing imbalances in the health system and reducing technical and economic efficiency in the use of inputs” (Sojo, 1996, p. 128).

In view of the current positive assessment being made of conditional transfer programmes, however, mention should be made of a positive feature of the targeting practices of that time in Chile. This feature, which continues to be of interest and which Pilar Vergara described at the time as the most innovative measure in the field of the integration of social programmes against extreme poverty is the linking of the monetary transfer programme called the Unified Family Subsidy (SUF) with the mother and child health programme and hence with the National Complementary Nutrition Programme (PNAC), which had existed since 1954, and with children’s school attendance. As well as operating as an automatic selection mechanism, this requirement had the virtue of promoting the access of the poor to the latter nutrition programme. The beneficiaries of the SUF also had free access to all medical attention provided by the National Health Service: a right which the health reforms made at that time had denied to children over six (Vergara, 1990, p. 325).

Another characteristic feature of reductionist targeting in Chile was the limited scale of the programmes, which excluded a very substantial

<sup>6</sup> Fundamentally those of the National Complementary Nutrition Programme (Vergara, 1990, pp. 250-251).

number of people who needed such services and were also reflected in services of low monetary value and poor quality. To take only one example: in the case of the SUF itself, which was originally conceived as an integral programme, the real value of transfers went down by half between its establishment in 1981 and the year 1987. In the case of the PNAC, the restrictions on resources led to the abandonment of preventive actions in the field of nutrition, to restrictions on the number of benefits provided, and to the reduction of the beneficiary population, first of all only to under-nourished children, then to those in danger of under-nutrition or in a situation of extreme poverty, and, from 1985, to children with evident symptoms of under-nutrition (Vergara, 1990, pp. 71 and 96).

In the case of Bolivia, it is worth considering the role played by the Social Emergency Fund (later converted into the Social Investment Fund), because it was held up as a model for the region. When social emergency funds were set up, their operational independence of ministries and the social sectors was presented as one of their virtues and as a guarantee of their flexibility, efficacy and efficiency. In the adjustment policies, little consideration was given to social aspects; it was thought that trickle-down effects would provide the poor with opportunities and, in the short term, the social emergency funds would make up to some extent for the losses of income of the most severely affected sectors. The funds were aimed at job creation, the creation of infrastructure in poor areas and the provision of monetary transfers. The programmes were of an assistentialist nature, and their high visibility and demonstration effects played an important role in strictly political terms; in Bolivia, the areas of highest political risk were selected for the investment of the funds' resources. High political visibility was thus obtained, although the small scale of those resources and of the coverage of the programmes did not permit any anti-cyclical effects to be achieved.

A high priority of the social emergency and investment funds was job creation. The jobs created were generally on a small scale, of very low quality and poorly paid, however, and were, moreover, biased against women. As employment was one of the main anti-poverty mechanisms used by the funds, this fact demonstrates the scant consideration given to the special characteristics of poverty in the design of these programmes (Berar Awad, 1997).

Rather than ensuring flexibility or efficiency, the fact that they were competing with social sectors merely increased the administrative fragmentation of

universal policies, since they increased the number of cases of overlaps or duplication, or else they gave rise to discontinuities with the dynamics of the social sectors. In Bolivia, for example, there were dramatic situations where schools or health facilities were built without having the human resources or additional physical infrastructure needed for their operation.

The institutions associated with the social emergency and investment funds therefore raised a number of problems, since their links with ministries and social sectors were very weak. These funds were generally run by autonomous, temporary entities which, for example, had more foreign financing or whose officials had much higher salaries than those in other public institutions. As a result, their continuity and replicability were very limited, since the rest of the public institutional apparatus did not have such resources. Over time, this led to criticisms which, for example, pointed out the importance of bringing the dynamics of the anti-poverty funds and programmes into line with those of the ministries, since the social sectors have more infrastructure and provide most of the social services (Mesa-Lago, 1993; Cornia, 1999).

Critical and qualified appraisals of the performance of the social funds by the institutions which financed or supported them are also very interesting. Of the varied aspects considered in them, let us take only some of those which directly concern the link between selective policies and the dynamics of social sectors (World Bank, 2002, pp. 34-38). Thus, for example, it was found that the funds were seen as competing bodies that enjoyed privileges that set them apart from the sector dynamics, which gave rise to friction and helped to establish the idea that their successes were due mainly to their greater resource availability. Although mechanisms have been established for ensuring that the ministries set aside resources to cover the recurrent expenditure connected with the facilities provided by the social funds—commitments which are sometimes not fulfilled because of budgetary restrictions—the investments of those funds often do not fit in with solidly based sector policies or public investment strategies, and approval of their sub-projects by the ministries may become mere rubber stamping.

When the funds have accounted for a substantial part of social expenditure, as in Bolivia, Honduras and Nicaragua, there have even been reports of some institutional impacts which have run counter to social sector planning. The efficiency of their resource allocation has also been questioned, and their critics claim that they have undermined efforts to improve

transparency, accountability and integrated budget preparation processes.

With regard to the time horizon of the funds' activities, other analyses have claimed that these instruments can dilute or postpone social sector reforms, reduce the capacity of the corresponding ministries to assign resources on a sector basis, and encourage a bias among donors towards investment rather than current expenditure, which may affect the quality and results of the services offered. It may be seen from the above-mentioned appraisals how a negative view of universal policies and the belief that poverty problems should be solved primarily through targeted programmes led to a certain relation between selective and social sector programmes which, by inhibiting the necessary reforms in universal policies, can have a negative effect in the medium and long term.

Fortunately, the controversial and radical nature of the reductionist approach with regard to targeting led to debates—even within the World Bank, mainly at the technical level—on its directions and scope. Another factor which may have acted in the same direction was a certain inflexibility in that organization's thinking, reflected in its *World Development Report 1997: the State in a Changing World*,<sup>7</sup> with regard to the link

between growth and equity and the conception of the State and the market.

The global view on social policy characteristic of the reductionist slant was gradually eroded by all kinds of considerations, of which the following may briefly be mentioned (Sojo, 1999):

- (i) Political economy: not only the poor should benefit from social policy, since structural changes require the support of broader political coalitions, which can be aided by a broader social policy;
- (ii) Viability: the viability of establishing isolated targeted programmes is limited, as in actual fact the majority of the selective programmes in the region are carried out in the framework of the basic social services with which they are related;
- (iii) The specific national features of poverty: there are proposals which recognize that the emphasis of macro, sector and targeted policies should be a function of the incidence and specific nature of the poverty existing in each country. Targeting is all the more important when poverty is very concentrated and there is good capacity for programme execution but, it is asserted, when poverty is very widespread and the execution capacity is weak, it is best tackled through the benefits of growth and support for the basic social services;
- (iv) Qualified appraisals of universality: with regard to the health sector, for example, it is considered that universal policies are progressive when there is effective universal coverage and the inequalities inherent in multi-level systems of financing have been eliminated. It is felt, however, that a necessary condition for such policies is that the bulk of the labour force should have formal employment and that there should be the necessary financial resources, administrative capacity and political will;
- (v) Requirements with regard to the management of targeting: in order to be effective, targeting needs a certain level of institutions, together with technical and financial resources, thus weakening the claim that it guarantees the reduction of poverty at lower cost;
- (vi) On the basis of successful development experiences in South-East Asian countries, the international financial organizations adopted a somewhat more flexible approach to human capital which also considers secondary education

<sup>7</sup> World Bank (1997). The development strategy proposed there denies that there are trade-offs between growth and equity, and asserts instead that there is a complementary relationship between the State and the market. The time horizon envisaged is far from the short term associated with the adjustment proposals. With regard to basic services, the report proposes a flexible position on their provision, financing and regulation, depending on the relative strengths of the State agencies, the market and civil society. It is cautious with regard to market mechanisms, noting that there is no proof that the use of vouchers improves performance and that in the contracting of services, the products required must be very carefully specified. It goes on to observe that such contracting becomes more difficult when an absence of competition makes it harder to compare relative performance. Unlike the 1980s, poverty is placed in a broader framework, and it is envisaged that the functions of the State should include the redistribution of assets in order to increase equity. The reduction of poverty is related with five crucial ingredients: actions must be based on the law; there must be a favourable environment for policy-making, including macroeconomic stability; there must be investment in persons and infrastructure; and there must be protection of the most vulnerable sectors and protection of the environment. A rigid distinction between public and private goods, or some degree of disdain for the externalities of private goods, however, has implications when defining the areas of action of social policy and laying down the levels of provision of services in the education and health sectors: in the health field, for example, curative treatments are defined as an almost exclusively private good, and it is considered that if they are not financed by the State, everyone except the poor will find some way of financing them (Sojo, 1999). With regard to the implications of this latter position in other contexts, see the criticisms below of similar positions with regard to social risk management and also the comments made in section VI.

- to be important and, with it, interaction between the different levels of provision of services;
- (vii) The Asian experiences also revitalized the international financial organizations' views on the need to improve income distribution for the benefit of greater growth and social integration: it is claimed that in those countries the smaller inequalities in income have had a positive effect on growth, both indirectly and directly. Once again, this opens up an opportunity to attach greater importance to the causes of poverty;
  - (viii) Conceptions of development which deny that there are trade-offs between growth and equity, which recognize that there is a complementary relationship between the State and the market, and which are cautious with regard to market mechanisms for reasons of efficiency and equity gained ground even within the World Bank.

The questioning of this approach, which arose in the mid-1990s and has been growing steadily ever since, brought about some changes in the global approaches to social policy and targeting, in line with national circumstances and the specific features of each programme.<sup>8</sup> With regard to the main proposals, it should be noted that at the beginning of the present decade ECLAC put forward five main social policy guidelines for the region, namely: universality, solidarity, efficiency, equivalence and comprehensiveness. Within this framework, selectivity or targeting was conceived of as a set of instruments which would make it possible to assign subsidized resources to the poorest sectors while also fulfilling a complementary function, since "... it is not a social policy as such, but rather a method which, if properly applied, enhances the effectiveness of universal social programmes (ECLAC, 2000, p. 78 and, in more general terms, pp. 77-84).

<sup>8</sup> For example, the existence of a complementary relationship between universal and selective policies was established and explicitly put forward in the *Plan nacional de lucha contra la pobreza. Hacia una Costa Rica integrada por las oportunidades* (National Anti-poverty Plan. Towards a Costa Rica integrated on the basis of opportunities) (Government of Costa Rica, Segunda Vicepresidencia, 1996). Up to then, reductionist proposals for targeting had not gained much ground in that country. It has been asserted, however, that that document nevertheless marked a turning-point because it proposed that universal and selective social policies should be duly linked, it put the question of coordination in the centre of the debate, and it presented a 10-point list of the main guidelines in the fight against poverty. It also set the framework for the plans of later administrations, so that its approach has been present throughout the last 10 years (Barahona, 2006, pp. 68 and 69). ECLAC provided technical cooperation in the drafting of the plan.

This questioning does not mean that reductionist theories in the field of social policy have been put aside in general as a suitable proposal for Latin America and the Caribbean. Indeed, in the late 1990s a renovated form of reductionism appeared, this time in connection with insurance. Within the context of the debate on the region's level of economic and social risk and its insurance markets, it is important to consider social risk management,<sup>9</sup> which links a certain view of insurance policies with global proposals on social policy (Holzmann and Jørgensen, 2000; World Bank, 2001).

Although the influence of this latter proposal on public policy design may be limited by the rather hermetic terminology employed, it is worth analysing because of its paradigmatic ambitions, in respect not only of insurance policies but also of the struggle against poverty and the delimitation of social policies, where it minimizes the responsibility of society for dealing with economic insecurity. Unlike the reductionist approach to targeting policies that emerged in the wake of structural adjustment, it attaches importance to the causes of poverty and makes use of insurance terminology (Sojo, 2003, pp. 126-127).

The analysis of social risk management rightly points out that all individuals are vulnerable to numerous risks of different kinds, and it interrelates risk, risk exposure and vulnerability. A risk is an event that may damage a person's welfare and that is uncertain as to its duration and the extent of the harm it may cause. Exposure is the likelihood of a risk occurring. Vulnerability measures resistance to shocks and hence the likelihood that such shocks may result in a loss of welfare, which is first and foremost a function of household asset levels, insurance mechanisms and the severity and frequency of the shock concerned. A social safety net is defined as a set of public actions that help individuals, households and communities to deal with risk and that supports the poorest; such actions should create mutually supportive relationships with education and health sectors in the pursuit of human capital development.

Setting out from the subject of risk and insurance, however, a comprehensive social policy proposal is formulated which provides for a public-private combination whose character and delimitations are functional to these issues and which is based on three

<sup>9</sup> The summary and critical analysis of the social risk management proposal considered here were taken almost entirely from Sojo, 2003.

basic elements: the social welfare responsibilities of the State are confined to the struggle against poverty; risk insurance is designated as an individual responsibility; and solidarity in risk diversification is essentially ruled out. In these terms, individual insurance in the market, the use of safety nets to provide services to the poor, and targeting as opposed to universality all go to make up a social policy strategy that assigns a minimal role to the public sector in social protection, places the financing and provision of the remaining social welfare-related services in private hands and once again rejects the principle of solidarity in financing. Thus, an analogy can be drawn with the reductionist targeting proposals (Sojo, 2003, p. 127).

This proposal sidesteps the fact that it is not just when market mechanisms are absent, collapse or are dysfunctional that State action or compulsory participation in a risk pool is important, since information asymmetries and market failures are not the exception but are inherent in insurance markets. In this respect, public regulation, public insurance, or social insurance with private insurers but with compulsory financing mechanisms and regulations which guarantee risk diversification make it possible to tackle risk selection and increase the efficiency of these markets by promoting their stability. When financing based on solidarity principles is chosen, the objectives are also redistributive and it is possible to

establish cross-subsidies among different income strata, age groups, risk groups, etc. Information asymmetries and insurance market failures are related with many elements, but especially with: adverse selection; forms of conduct involving moral hazard; the complexities and difficulties of understanding with which the consumer is faced owing to the nature and quality of the product—that is to say, all the different types of insurance and benefits; the complexity and lack of transparency of the product associated with insurance (as in the case of health benefits); the externalities of consumption; and underconsumption due to an inability to pay private insurance premiums because of low income or chronic or congenital ailments, in which case there is no access to insurance even though the market exists (Sojo, 2003, p. 121).

The high level of underconsumption of insurance observed in the region does not only affect the poor. The pricing system of insurance obtained on the market restricts its coverage and amount for very extensive sectors of the population, and the limited availability of solidary social insurance makes it very difficult to narrow the gap between effective income levels and the desired levels of insurance. As the capacity for risk diversification is affected, the impact on well-being is severe and the redistributive effects of solidary financing between income, age and risk groups are constrained.

## V

### **Present-day conditional monetary transfer programmes and their links with social sectors**

After the criticisms summarized in the previous section, a new phase of targeting was begun in which ground was gained by the idea of linking selective programmes with social sector policies and programmes, pre-eminently of a universal nature, by laying down conditions for gaining access to certain benefits, generally monetary. Universal benefits, which by their very nature are closely associated with social sector dynamics, can act as a “hinge” between obligations and rights which operates within a broad time spectrum and serves as a channel for investment into human capital. The effects

sought range from the restoration of health to the reduction of potential or effective undernourishment or improvement of educational backgrounds, so they may be visible only in the medium or long term and may even be intergenerational. Actions in the field of education seek to avoid premature and ultimately impaired entry into the labour market.

Although the so-called “Washington consensus” was coined in this same period, heterodox anti-poverty policies were gradually gaining ground in the 1990s because of the erosion of the reductionist proposals



on social policy and targeting. Selectivity came to be considered less relevant, as it was increasingly recognized that the complexity of the objectives of social policy went beyond the fight against poverty, while the fight against poverty was itself an enormous task which went far beyond targeting; that the many-faceted nature of poverty called for integral yet heterogeneous policies and differentiated forms of action; and that it was necessary to attack the causes of poverty, with emphasis on the acquisition of the capacities and skills that will enable people to lift themselves out of poverty by participating more fully in social, economic and political affairs (Sojo, 1999).

Whether programmes or contributions such as cash transfers are of an assistentialist nature or are aimed at investment in human capital depends on the strategy under which the benefits are provided. It is therefore appropriate to analyse the simultaneous functions that they can fulfill, such as acting against the temporary effects of economic adjustments, bringing the target population closer to the supply of education and health or integrating it into that supply, and also to explore their indirect effects, such as changes in the micro-physics of power in households when women are the recipients of cash transfers or other types of conditional benefits and have to make sure that the counterpart obligations are actually fulfilled. Such considerations must be borne in mind when analysing trends in targeting. The heterodox nature which this has gradually taken on, at least in the countries that are allocating more resources to it in relative terms, seems to have been fostered by the lessons learned from the failures and limitations experienced at the height of the reductionist wave; it may also reflect the effect of some criticisms made at the time by experts on this matter (Atkinson, 1995; Sen, 1995).

Conditional income transfer programmes provide for counterpart contributions that are mainly related with investment in human capital through actions in the field of the education, nutrition and the health status of children and young people. The aim is to help stop students from dropping out from school or lagging behind in primary education and to forestall premature and/or precarious entry into the labour market. In order to carry out this task effectively, other family members —especially women— are also involved in its performance. When a counterpart requirement involves the provision of some form of work, this affects the heads of household, in this case through employment programmes. Employment programmes have been developed both in Bolivia, a country with

widespread chronic poverty, and in Argentina, where considerable increases in poverty rates in recent years have been associated with unemployment and declining income levels caused by macroeconomic disturbances. What is at stake, then, is the existence of the type of social sector supply needed to make the fulfilment of counterpart requirements viable. In other words, far from being in contraposition to one another, the logic of the relevant social sectors and the logic of targeted policies are actually complementary. At the same time, the conditional nature of the benefits means that the family must be considered as a whole (Serrano, 2005; ECLAC, 2006).<sup>10</sup>

The institutional implications of this heterodox approach include the following:

- (i) The need for the coordination of anti-poverty policies with macroeconomic policy and production development policies<sup>11</sup> and their linkage with general social policy reforms. The experiences of Chile and Brazil are very interesting in this respect. In the Chilean case there are links, even of a budgetary nature, between the two types of policies. The *Puente* programme, for example, transfers resources to ministries so that they can serve the needs of given population groups selected by the programme. In other words, the *Puente* programme has certain amounts of resources which must be invested by, say, the Ministry of Education, under the terms of an agreement, on the education of certain beneficiaries.
- (ii) The need for the strategic incorporation of selectivity as a complement to the existing institutions rather than in competition with them. Such is the case of the *Oportunidades* human development programme in Mexico or the *Bolsa Escola* (scholarship) programme in Brazil, which was later incorporated into a broader programme (*Bolsa Familia*): all these initiatives correspond to transfers made from an integral standpoint. The fact of laying down rights and obligations for the beneficiaries has certain consequences: measures must be taken to ensure that beneficiaries can make effective use of their rights and obligations. In other words, action must be taken to ensure that there is effective access to a public supply,

<sup>10</sup> For a synoptic table of the programmes, see the appendix.

<sup>11</sup> With regard to the effects of macroeconomic policies and economic performance on well-being in Costa Rica, El Salvador and Honduras, see Sánchez (2005).

generally of health and education services, when some counterpart requirement must be fulfilled by beneficiaries. Such a strategic and complementary form of incorporation has global repercussions for social policy and its institutional domain;

- (iii) The need to make sure that the resources allocated to these programmes are sustainable.<sup>12</sup>

It must be repeated that, strictly speaking, conditional benefits are not radically new.<sup>13</sup> The critical point in some conditional cash transfer programmes which have had a certain demonstration effect in the region—such as the *Oportunidades* and *Bolsa Familia* programmes—is the number of beneficiaries. For example, the *Bolsa Familia* programme had the objective of covering 11.2 million families by the year 2006 (Cohn and Medeiros, 2004). Table 1 shows the substantial resources and growing coverage of the *Oportunidades* programme in Mexico, while table 2 shows the modest resources that the Family Allowance Programme (PRAF) continues to have in Honduras.

The Plan for Heads of Household, introduced in Argentina in January 2002, was also on a large scale and was aimed at relieving the vulnerability of

families affected by poverty and unemployment after the macroeconomic shocks of 2001. This plan—one of the largest of its kind in the region—covered nearly two million households at the end of 2000. In order to ensure that the beneficiary population really was the neediest, beneficiaries were required to work as a counterpart obligation. There are evaluations which show that compliance with the selection criteria (beneficiaries must be unemployed heads of household) was not always complete, since some participants,

TABLE 1

**Mexico: Scale indicators of the *Oportunidades* programme, 2000 and 2006**

Level/year	2000	2006
Families	2 470 000	5 000 000
Persons	12 350 000	25 000 000
Primary education scholarships	1 677 138	2 867 760
Secondary education scholarships	808 185	1 734 643
Intermediate and higher education scholarships	–	696 353
Elderly persons	–	820 000
Rural localities	52 373	87 720
Semi-urban localities	851	2 493
Urban localities	8	500
Municipalities	2 166	2 435

Source: Gómez-Hermosillo (2006).

TABLE 2

**Honduras: Population served by the family allowances programme (PRAF) (Percentages)**

Category of beneficiaries	Population projected by the National Statistical Institute (INE)	Number of beneficiaries	Population served (%)
Women of childbearing age and children under 6	2 625 399	241 308	9.2
Children of school age (7-12 years)	1 158 820	160 872	13.9
Population aged between 3 and 64	4 521 886	51 196	1.1
Elderly persons (65 years of age or more)	292 766	46 666	15.9

Source: Office of the President of the Republic of Honduras, Family Allowances Programme (PRAF).

<sup>12</sup> In this connection, the General Social Development Law promulgated in 2004 in Mexico is particularly interesting because it combines various elements of this heterodox view. One of its principles is solidarity, understood as collaboration among persons, social groups and levels of government, with shared responsibility, to improve the quality of life of society as a whole. The principle of integrality, for its part, concerns the linking together and complementarity of programmes and actions involving the different social benefits under a national social development policy. According to articles 14 and 18 of this law, among the main areas of action of social development policy are: sector-level actions relating to employment, social security and social assistance programmes, regional development, basic social infrastructure, and promotion of the social sector of the economy. The allocation of expenditure on social development is protected; per capita social expenditure cannot be less in real terms than it was in the immediately preceding year (so that 2004 becomes the base year) and its distribution must be based on criteria of efficacy, amount and quality. See SEDESOL (2004, section I, pp. 3-14).

<sup>13</sup> The early experience of the National Complementary Nutrition Programme (PNAC) in Chile was already analysed. Another conditional benefits programme introduced at an early stage was the Family Allowances Programme (PRAF) in Honduras, which began as a combination of several programmes, with weak institutions and limited resources. Its benefits, which include food vouchers, scholarships, support programmes for microentrepreneurs, integral development for women, and mother and child health services, were designed to support integration into the educational system and access to health. The PRAF was subsequently expanded to cover shops offering basic consumer products, communal banks exclusively for women, production projects under the subprogramme of integral development for women, and vouchers for the elderly (ECLAC, 1998). See also table 2 in this respect.

TABLE 3

**Latin America (four countries): scale of some conditional transfer programmes (various years)**

Country	Programme and year of estimate	Beneficiaries	Expenditure on programme, as a percentage of GDP
Brazil	<i>Bolsa Familia</i> , 2006	65% of poorest families	0.41 <sup>a</sup>
Chile	<i>Chile Solidario</i> , 2004	6.45% of the population	0.10
Colombia	<i>Familias en Acción</i> , 2001	4% of the population	0.3
Honduras	Family Allowances Programme (PRAF)	(see table 2)	0.3 <sup>b</sup>

Source: ECLAC (2006) and the programmes themselves.

<sup>a</sup> Projections by Afonso, reproduced in Draibe (2006).

<sup>b</sup> Projections according to preliminary figures of the Central Bank, provided by the PRAF in February 2007.

especially women, were not in the labour market before the macroeconomic disturbances in question occurred; it has been calculated that half the beneficiaries were previously inactive, that the Plan helped to bring down extreme poverty by 2% and that, without the Plan, 10% of the beneficiaries would have lapsed into extreme poverty (Galasso and Ravallion, 2003).

If the financing and coverage of plans and programmes like those described above could be brought up to a level proportional to the incidence of poverty, they could also have an anti-cyclical effect. The rapid increase in scale of some programmes should not lead us to over-estimate the overall share of conditional cash transfers in social policy resources as a whole or in GDP, however (see table 3). Generally, even in Mexico or Brazil, the transfers received by beneficiaries are low; in the case of the *Oportunidades* programme, for example, the desirability of raising the amount of the transfers has been under discussion since 2006.

Furthermore, it should be noted that the efficient and timely provision of monetary transfers in accordance with the criteria for the selection of beneficiaries poses major challenges in terms of management. In this respect, it is interesting to look at the processes for the regular and stable provision of transfers under the *Oportunidades* programme, which is financed with resources from a number of different sources and whose ongoing bimonthly operating cycle is adjusted according to the updating of the register of beneficiaries and the ongoing certification of co-responsibilities. In 2006 this management scheme entailed calculating monetary support for 10.3 million people and following up on its delivery with real-time control indicators (Gómez-Hermosillo, 2006). In the current discussions on the future of the programme, it has been affirmed

that making cash transfers—which necessarily involves an up-to-date selection of beneficiaries—is its core function. This affirmation is made with a view to avoiding an expansion into service provision functions or even into new or additional co-responsibilities, for example in the field of insurance (López Calva, 2006; Gertler, 2006).

In the case of Brazil, the *Bolsa Escola* programme has begun to make innovations in management by eliminating bureaucratic intermediaries and transferring resources directly to beneficiaries through magnetic cards issued by a public bank with a broad national presence. With the passage of time, in the context of the *Bolsa Familia* programme, the bank has become the body responsible for managing the register of beneficiaries, which it has succeeded in consolidating into a single unified register. In Mexico, discussions are currently under way on a single unified register of beneficiaries of social programmes and a beneficiary selection system based on the register of the *Oportunidades* programme and the procedures for generating it.

It is increasingly recognized that programmes should address the specific causes of poverty and take account of its heterogeneity, which calls for integrated but differentiated actions.<sup>14</sup> The less tangible counterpart of conditional transfers is the institutional structure of the various sectors, so such transfers must

<sup>14</sup> Emphasis had already been placed in the region on the heterogeneity of poverty and its consequences for targeting in terms of dealing with different kinds of needs, and on its implications for the design of programmes and of the criteria and instruments for the selection of beneficiaries (Raczynski, 1991; Vergara, 1990; ECLAC, 1994).

not be divorced from those sectors and much less must they be in competition with them; the aim is that they should contribute to universalization and help people to rise out of poverty (Cohn and Medeiros, 2004). The interlinking of selective programmes with the existing institutions of the sectors is a process which is still under way, however, and it will undoubtedly call for many adjustments.

In the case of the *Chile Solidario* social safety net, the *Puente* programme, which seeks to integrate the poorest sectors socially by bringing them closer to the system of public services, establishes a contract with beneficiary families that links the provision of services by the State with tasks that they must fulfill, as determined by the monitor. This means that the health, education, employment and housing sectors, among others, specifically undertake to give priority attention to these beneficiaries and, when necessary, to strengthen their service delivery systems. The local promoters of the programme identify the existing systems to which families can be directed, and the actions of the programme are coordinated at the municipal level. The implementation of the *Chile Solidario* programme has led to changes in the government agencies involved and in their interrelations. It involves the Ministry of Planning and Coordination, which is in charge of the programme; the Solidarity and Social Investment Fund (FOSIS), which executes the *Puente* programme at the central, regional and municipal levels; and the municipal bodies, which, in the case of the *Puente* programme, set up a family action unit under an agreement with FOSIS. There has been some friction between the Ministry of Planning and FOSIS, as the latter organization has taken on the leadership role because of its experience in the fight against poverty. In order to set in motion a multi-sector network for the provision of services it was necessary to sign service delivery agreements at the national and regional levels. There has also been some tension with municipalities over areas of influence, resources and use of the latter for political purposes. The promulgation of the law governing the *Chile Solidario* programme made it possible to formalize the rules of procedure (Palma and Urzúa, 2005).

The Brazilian experience has a very special feature, inasmuch as traditional assistentialist-type programmes have not formed the nucleus of the fight against poverty; instead, this role has been played by the new conditional transfer programmes, which have not constituted a social safety net because they were established by the social ministries which provide

social services contingent on the transfers. In order not to disconnect such programmes from the basic universal-type social policy, when more experience had been gained and a unified register of beneficiaries had been formed, the link was maintained between the monetary benefits and the service providers and “specialities” of the sector. This form of division is said to have generated a very close relationship with service providers, especially schools and local health clinics, which made it possible to maximize the improvement in school or nutritional performance and thus achieve a disproportionately strong impact relative to the monetary resources received. The respective ministries were responsible for monitoring the fulfillment of the various obligations concerned. Subsequently, the implementation of the *Bolsa Familia* programme in 2003, aimed at unifying programme management under the Ministry of Social Development, gave important functions to the municipalities, while the ministries continued to regulate the conditions for co-responsibilities and to verify their fulfilment by beneficiaries. Some analysts have warned of a risk of “prefecturization” – the allocation of greater relative power to the municipal prefect, with a consequent possibility of clientist distortions – and this has led to some reticence on the part of the educational and health institutions with respect to the *Bolsa Familia* programme, while it has also been noted that the integral and coordinated provision of services which should be the responsibility of the service providers is still pending (Draibe, 2006, pp. 144, 148, 153 and 173-175).

In evaluations of the *Oportunidades* programme, it has been recommended that it should have more links with the traditional operation of the health programmes. From the standpoint of beneficiaries, these activities are seen as routine measures not linked with the benefits provided under the programme. At the local level, the rules governing the operation of the *Oportunidades* programme makes it just another programme additional to those of the health or education sectors, thus losing the integral nature sought for in conditional benefits (Meneses, Almodóvar and others, 2005, pp. 358 and 359).

In the debate which has been taking place on the *Oportunidades* programme since 2006, a central place is occupied by its links with social sector policies. The controversy has been focused on several issues. One of them is the effect of the quality of services on the stock of human capital which the programme seeks to enhance; among the achievements, mention has been made of better child health and nutrition, higher rates of school attendance, and some improvements in the

health of older people. There is concern, however, that this will not prevent children from being poor in the future, that the design of the incentives does not promote a clear transition to secondary education, and that little is known of the quality of learning, while in the field of health, the rates of obesity, diabetes and hypertension are still high. Another problem mentioned is that preschool children are not a target population. This raises the question of the quality of health care, the monitoring of the supply of education in terms of quality and coverage, and preschool cognitive development —aspects which are in the hands of the social sector bodies providing the services— and ways in which the *Oportunidades* programme could encourage improvements in the quality of the sector supply (Gertler, 2006; Alvarez, 2006).

On the basis of evidence on the quality of the education to which beneficiaries have access and on the effects of the *Oportunidades* programme, it has been proposed that in order to increase its impact it is essential to improve the quality of the social sector supply and to seek collateral effects in family behaviour: for example, families should be made to see that the future benefits of education are higher than the benefits they are currently receiving (Parker, 2006). The possibility has also been raised that the evaluation of the *Oportunidades* programme should be extended to the supply of education and that global action should be demanded to improve the supply of education for the poorest sectors (Mancera, 2006).

In various experiences, it has been found that reconciling the social sector supply with conditional benefits requires an expansion of social spending, especially on education and health. Thus, it is recognized that expanding the coverage of the *Oportunidades* programme in Mexico requires education and health services which, for example, will enable the programme not only to cover the poorest areas but also to incorporate poor families in areas with a low level of marginality and a low concentration of poor households (Orozco and Hubert, 2005, p.6). A frank analysis and balance-sheet on the dynamics of the health and education sectors and their coordination with the *Oportunidades* programme concludes that greater consonance of objectives must be sought, because at present the links with the programme are not known to the sectors involved, those objectives are not incorporated in the sectors' own aims, no indicators on their operations or statements of accounts are presented by the specific sectors to the *Oportunidades* programme, and there are no effective collaboration mechanisms (Hernández, 2006).

In this respect, as has so rightly been noted in the analysis of experiences as different as those of Chile and Mexico, conditional transfers of income are no substitute for the provision of a supply of good-quality social services. If there is no concern about the importance of providing high-quality health and education services, there is a risk of making cash transfers conditional on the performance of suppliers who are not capable of achieving long-term improvements in well-being or of combating the causes of poverty and its intergenerational nature. This is why it is proposed to expand the coverage of these services in poor areas and to take measures to ensure better quality of the services provided (Rawlings, 2004, p. 4; Serrano and Raczynski, 2003 and 2005).<sup>15</sup>

In Costa Rica, conditional benefits are currently being designed as a function of social sector dynamics, so that they can act as bridges that can give the poor access to universal services. Thus, the conditional transfer programmes are designed to help combat low coverage and high drop-out rates in secondary education, which mainly affect poor young people.<sup>16</sup> The commitments of families will therefore not be centred on access to health services, which already have a very high level of coverage in the country (Zumbado, 2006, pp. 13 and 14).

In order for the conjunction between social sectors and selective levels to be viable, it is very often necessary to modify the way in which benefits have been delivered in the past. An improvement in the quality of services, for example, not only contrasts with the allocation of more resources in order to achieve the same objective but also means modifying the way services are organized, the applicable rules and incentives, and also the evaluation of resource use. Such

<sup>15</sup> This view is not shared by some analysts, however. Some of them propose, for example, that in order to make resource use more efficient, benefits should involve the transportation of schoolchildren to areas where suitable educational services are available; along the same lines, transport subsidies for travel to areas with a good supply of educational services are considered to be efficient. On the other hand, it is considered inefficient to use transfers to achieve higher school attendance rates in places where, simply because an educational supply exists, there is a high propensity to attend school, regardless of whether there is monetary support for doing so (de Janvry and Sadoulet, 2005). This approach reflects some disdain for efforts to expand sector coverage, in this case in the field of education, although these efforts, which obviously require the allocation of more resources for social expenditure, are made for the benefit of greater equity and should not be subject to reductionist considerations of efficiency.

<sup>16</sup> The challenges currently facing education in Costa Rica are analysed in Garnier (2007).

changes are not as popular as expansions of coverage based fundamentally on an increase in resources, because as accounts are demanded on the use made of those resources, difficulties of a political nature may arise. These difficulties occur because, although there is only scattered support for reforms of this type on the part of those who benefit from them, there are well-organized opponents of the reforms, because the latter change the incentives or rules (Grindle, 2004). It must therefore be clearly appreciated that improving benefits and establishing a suitable link between social sectors and selective levels has strong political connotations if any attempt is made to modify the existing institutions in order to improve the quality and equity of services. This means linking financial control, for example, with service performance, making the institutions render accounts, and having an integral view of aspects which have previously operated in watertight compartments. The political viability of such measures may run into serious obstacles because of the resistance of those who had hitherto been providing the services in a certain way.

With regard to the sector level, there has been controversy in Mexico over a transfer recently established by the *Oportunidades* programme which takes the form of a social assistance pension,<sup>17</sup> and even over the link with health insurance provided by the *Seguro Popular* (People's Health Insurance) (IDB, 2006).<sup>18</sup> It has been asserted that first of all it would be desirable to consolidate the links with the established benefits in the field of primary health care and education (Gertler, 2006).

In this case, the most important aspect is concerned rather with the architecture of the social protection system—which has so far been of a dual nature in the sense of the contributory and non-contributory protection of the formal and informal sectors—both because of its repercussions and because of the

significance that this type of cash transfer has within the non-contributory financing of social protection in the form of pensions (IDB, 2006; Levy, 2006).<sup>19</sup> Such concern is the antithesis of the policies applied in Chile under the military dictatorship, when targeting was ancillary to the introduction of dual health and pension systems. In the case of Mexico, in contrast, a discussion is currently under way about whether the effort to combat poverty can affect the scope and nature of social security and about the possibility that anti-poverty initiatives may serve as a means of helping to overcome its duality.<sup>20</sup>

If we place the elements of this controversy in a more general perspective on conditional transfers, it may be seen that coordination with the social sector level is more complex when it involves benefits—for example, in health and education, for the reasons of coverage and supply already analysed—which are intended to have effects on human capital accumulation. Pensions, which are, strictly speaking, monetary transfers, are a different type of case, since the complexity of their management has to do with the collection of contributions, the processes of delivery, and possible counterpart requirements and their respective certification. In terms of social policy, it depends on the architecture of the pension system.

Conditional transfers form part of the decentralization processes under way in the region. The municipalities participate in the selection of beneficiaries, in verification of fulfillment of the relevant counterpart requirements, and in the management of monetary transfers, which can lead to appreciable variations on those levels (de Janvry, Finan and others, 2005, p. 3), to different associations between the central government and the decentralized levels, and to effects on the local economies. In December 2003, transfers under the *Bolsa Familia* programme represented 15% of the resources of the Municipal Participation Fund in the northern region of Brazil, 28% in the north-east region, 10% for the south-east, 8% for the south and 7% for the centre-west

<sup>17</sup> The “*Oportunidades*” retirement saving mechanism (*mecanismo de ahorro para el retiro* (MAROP)).

<sup>18</sup> It has been proposed, for example, that the “*Oportunidades*” programme should not provide benefits conditional upon the employment status of the beneficiary families. In this respect, in order to promote formal employment “it is a question of bringing incentives into line”, while with regard to pensions, it has been proposed that the MAROP should be eliminated and that consideration should be given instead to a coherent social security system with, for example, a non-contributory solidary pillar (IDB, 2006, p. 16), which is in keeping with the proposals of Levy (2006). In this context, the MAROP is being redefined in order to make it “portable” and complementary (Gómez-Hermosillo, 2006).

<sup>19</sup> With regard to the recent political difficulties experienced in Mexico in reforming social protection in the field of health, linked with that of pensions, see González (2005) and a summary version of that study in Sojo and Uthoff (2007).

<sup>20</sup> For a valuable analysis on forms of financing for non-contributory pensions in Costa Rica, taking into account economic growth, fiscal viability and different actuarial scenarios, see Durán (2007). Likewise, for a study of the reforms under way in the Chilean pension system, which go beyond an assistentialist view and modify the architecture of the sector to give it greater solidarity, see Uthoff (2007).

region; this breakdown demonstrates their interregional redistributive impact (Cohn and Medeiros, 2004).

A more flexible discourse may also be observed with regard to the public-private mix in the provision of targeted services, since there is greater recognition that no aspect of benefits and their impact—quality, efficacy, efficiency or equity—is guaranteed simply by the public or private nature of the benefit. This is the case both with respect to the expansion of benefits provided by private entities, as in the case of the Seguro Popular programme in Mexico (Sojo, 2006), and in relation to the need to refrain from demonizing the State further in its role as a benefit provider while recognizing the market failures and

asymmetries which lead to exclusion of high-risk and low-income sectors.

It is also necessary to analyse and control the occurrence of perverse incentives. For both parents and teachers, for example, educational allowances may, paradoxically, foster the repetition of grades in certain rural areas where the barriers to the continuity of education interact with the conditions of access to those allowances. Here, once again, is an aspect which highlights the need for synergy between the reform of social sectors and targeted programmes, in this case through the elimination of barriers to the continuity of education, which is also connected with the sector-level supply.

## VI

### Selectivity beyond the effort to combat poverty

Guaranteed health benefits are selective policies, although they differ from anti-poverty policies because of their broader purposes and the vertical coverage they may involve: that is to say, the types of benefits they offer. In some cases, such as those of Guatemala or Bolivia, however, these guarantees may be subsumed in anti-poverty policies because their beneficiaries are poor.<sup>21</sup> This is not so in the case of the *Seguro Popular* programme in Mexico, which, although primarily aimed at the poor who are excluded from other insurance systems, permits other income strata to join and covers some high-cost services. Nor is it the case of the Explicit Health Guarantees (*garantías explícitas en salud* (GES)) programme in Chile, given the types of benefits and the income sectors that benefit. This represents a step forward towards greater effective universality in health.

It should be recalled that the objectives and instruments of social policy reflect an agreement on the socially desirable level of well-being and the best ways of attaining it, which may ultimately be expressed through the formulation of social rights. In this sense, from the legal standpoint the guarantees are suitable means of ensuring the efficacy of the laws that

recognize these rights. In the case of property rights and the right to freedom, for example, their enjoyment is clearly established by guarantees. Social rights, in contrast, generally lack a suitable system of guarantees which are comparable with the above rights in their capacity for regulation and control. Consequently, the development of social rights, even in the European Welfare States, has taken place largely through the expansion of the discretionality of the bureaucratic machinery. Even when social rights and their content are identified (a situation which is far from being the rule in the region), in order to determine the potential scope of their protection it is necessary to establish tools that ensure that they can be made effective. Guarantees of rights are therefore the methods, mechanisms or arrangements which serve to ensure that a right can be effectively exercised. In the final analysis, guarantees are instruments to ensure that rights are not just a dead letter but can instead be demanded, can operate, and can be executed (Ferrajoli, 2002; Curtis, 2007).

The lack of such guarantees is a factor that may make these rights ineffective. In this sense, the absence of suitable social guarantees may lead to bureaucratic practices typical of an assistentialist State that tend to benefit political clients, which provides fertile ground for corruption and arbitrary decisions. Some recent social policy reforms, such as charters of users' rights, therefore complement the legal guarantees backing

<sup>21</sup> This section is based on Sojo (2006).

up those rights. Guaranteed health benefits may be analysed precisely from this perspective. Each of them has been determined along lines appropriate to the health system in which they operate and in line with the political restrictions encountered, and all of them still face unsolved challenges.

In countries with poorly developed health systems, with very low levels of insurance of benefits for the poorer sectors of the population and with polarized processes of epidemiological transition, the guaranteeing of benefits has been aimed above all at ensuring primary health and mother and child care. Although these benefits are relatively inexpensive, they nevertheless represent an effort to move forward from the initial starting point. In countries like this, guarantees of benefits have a very limited effect as regards the overall reorganization of the health system. In the case of Guatemala, the initially proposed separation of functions has been set aside. In Guatemala and Bolivia, guarantees are provided as part of a package of benefits, but no specific guarantees regarding timely attention or access are provided, and they have no repercussions on the health insurance architecture.

The system of guaranteed health benefits in Chile is the most advanced in the region, since the guaranteed benefits introduced in 2005 cover some high-cost benefits and include guarantees of timeliness, access, financial protection and quality. It also has some repercussions on combined public-private health care because it partially addresses the basic duality of the insurance system, limiting the adverse selection practices of private health insurance institutions (ISAPRES) and increasing the transparency of the coverage offered by them. The progress made in these reforms bears witness to the political difficulties which have prevented the adoption of measures that would

have given greater solidarity to the dual insurance system, such as the introduction of a solidarity fund. The effective fulfillment of the guarantees involves great challenges: up to July 2006, two million persons had been provided with services. Of the total complaints of non-fulfilment presented, 367 concerned guaranteed access, and 475 concerned the guarantee of timeliness. An evident need has arisen to improve the management of the system in order to provide, inter alia, a system of early warning and detection of shortcomings and to adapt the health service networks to users' needs.<sup>22</sup>

In Mexico, with the aim of progressing towards universal coverage, guaranteed benefits were introduced through a reform in the insurance system, without, however, altering its segmentation. In order to limit the expenses faced by households in catastrophic health situations, a new form of insurance was added, with new resources, which has some links with the rest of the service suppliers but not in the financial field. The complexity of financing is noteworthy, due not only to the diversity of the funds used to finance the *Seguro Popular* programme but also to the different financial mechanisms associated with them. The reform has brought changes in the public-private mix, since it has increased the share of private service providers. Unlike Chile, the coverage is not strengthened with additional guarantees.

In all these cases, selectivity occurs throughout the range of benefits covered. In institutional terms, the logic that is in operation here is eminently sectoral in nature and entails a way of organizing providers that is in line with the special features of that logic: basic health-care teams operating through various public-private mixes of suppliers under different systems of national and sector decentralization.

## VII

### Conclusions

In short, it has been found that as regards targeting, there are no orientations that are divorced from social sector dynamics, since they involve synergies or competitive relationships. The four landmarks identified here in the evolution of selective policies show that over the last four decades targeting policies which aim to overcome the causes of poverty, or which only address

its symptoms, have had repercussions on the dynamics of social sectors. Reductionist targeting has had a subordinate function with respect to sector reforms

<sup>22</sup> The cases of premature births which have had to be treated have been more numerous than expected, for example (Urriola, 2006).



aimed at dismantling or weakening universal policies. At the other extreme, when the aim is to get away from an assistentialist approach in combating poverty, social sector reforms are required which seek to expand coverage and improve the quality of benefits.

This study has also addressed two trends in targeting in fields which go beyond the fight against poverty in its strict sense. On the one hand, there is the likewise reductionist proposal for social risk management, developed for the field of insurance, which undermines the principle of solidarity, underestimates

the problems of equity deriving from market-based insurance, and drastically reduces the social policy domain. On the other, and in the opposite direction, there is the proposal for guaranteed health benefits, which represents policies of a selective nature with broader purposes and which in some cases involves high-cost benefits, a more vigorous health sector, and a form of regulation of the public-private mix that upholds the principle of solidarity. Both these trends have repercussions at the sector level.

*(Original: Spanish)*

## APPENDIX

Latin America: conditional income transfer  
and social benefit programmes

Programme and country	Starting year	Objective	Benefits	Requisites for receiving benefits
<i>Bolsa Familia and Fome Zero</i> , Brazil	2003	To combat hunger, poverty and other forms of family deprivation and to promote food and nutritional security and access to systems of public health, education and social assistance by creating possibilities for the sustainable emancipation of families and local territorial development	Income transfers	Following up the health and nutritional status of children; enrolment and school attendance of all children of school age; participation in nutritional education actions.
<i>Bolsa Escola</i> , Brazil	2001	To improve the educational performance of poor children of school age. To reduce present and future poverty	Scholarships for poor children between 6 and 15 who attend school	At least 85% school attendance over 3-month periods
Child Labour Eradication Programme (PETI), Brazil	1998	To eradicate child labour, improve educational performance and reduce poverty	Income transfers; After-school programmes	At least 80% school attendance over 3-month periods and participation in the after-school programme (extended school day)
<i>Bolsa Alimentação</i> , Brazil	2000	To reduce nutritional deficiencies and child mortality	Health grants	Completion of a calendar of visits to a health centre and fulfillment of the vaccination programme
Human Development Allowance, Ecuador	2003	To help strengthen the human, physical and social capital of persons, families and communities living at risk and in poverty	Monthly income transfer of 15 dollars	Enrolment and attendance of children at school; attendance at health controls; participation in talks in connection with the programmes
Heads of Household Programme, Argentina	2001	To provide support to families with dependants which have lost their source of income	Transfer of 150 Argentine pesos per month	Counterpart requirements in the form of work
Families in Action, Colombia	2001	To increase investment in human capital in extremely poor families. To act as a "safety net"	Food subsidy for families with children under 7; educational subsidy for families with children between 7 and 17 who are attending school	Regular visits to health centres to monitor the development of children; at least 80% school attendance over 2-month periods
Family Allowances Programme (PRAF II), Honduras	1990	To increase the accumulation of human capital in the children of the poorest families, thus helping to break the circle of poverty	Educational allowance and nutritional and health allowance; training in nutrition for mothers; supply incentives for primary schools and health centres	Enrolment in school and a maximum of 7 days of absences over a 3-month period; fulfillment of regular visits to health centres
<i>Oportunidades</i> programme, Mexico	1997	To promote human capital development by improving the educational and health levels and nutritional status of children and their mothers	Income transfer, educational support, and a food package	Attendance at more than 85% of classes; participation in educational talks under the programme; attendance at scheduled visits to health services
<i>Chile Solidario</i> programme, Chile	2002	To improve the living conditions of extremely poor families by generating opportunities and providing resources that make it possible to recover or obtain the capacity to function and take decisions effectively in the personal, family, community and institutional environments	Income transfers that go down with time	School attendance and health controls; other family responsibilities
National Emergency Employment Plan (PLANE), Bolivia	2001	To reduce the impact of loss of employment in the poorest sectors of the population by providing large-scale temporary employment in urban and rural areas, financing the wages of unemployed persons who carry out maintenance activities and small projects for the common good	Income transfer	Counterpart requirements in the form of work
Social Safety Net, Nicaragua	2000	To promote the accumulation of human capital in extremely poor households	Food allowance for the purchase of food. Educational allowance for households with children between 6 and 13. Every two months, beneficiaries are given 0.7 dollars per enrolled child, which must be passed on to the school	Enrolment and attendance at school; participation in educational talks given under the programme

Source: Prepared by Serrano (2005), table 2.

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**KEYWORDS**

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 Equity  
 Uruguay

# Effects of urban segregation on education in Montevideo

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**T**his study analyses the effects of residential segregation in Montevideo on the learning differences of students and examines the efficacy of the educational system's responses seeking to deal with the inequities generated by those processes. After describing the effects of the family, the school and the neighbourhood on learning, it presents hierarchical linear models which seek to isolate the effects of each of these contexts. It summarizes the challenges raised by the results to Uruguayan education's efforts to dissociate learning achievements from social origin and examines the responses of the authorities of the sector to those challenges. Finally, it reviews policy options for strengthening the role of education as the principal means for integrating new generations in the light of new problems in relation to urban segregation.

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# I

## Introduction

Up to the 1960s, Montevideo could be seen as an integrated, consolidated and compact territorial unit, with neighbourhoods and zones defined by a common functional identity in keeping with the centrality of a working world shaped around State employment and industry (Kaztman, Filgueira and Errandonea, 2005). This profile became still more accentuated during the prevalence of the import substitution model but gradually faded with the profound changes in the labour market and the social morphology of the city that went along with the collapse of that model.

Housing options were affected by the decline in the demand for labour in industry and the State and the general weakening of people's links with the labour market. Many less-skilled workers, who were unable to find guarantors for rental agreements or to cover the cost of rents in the central areas of the city, were forced to seek housing in poor neighbourhoods or makeshift settlements on the outskirts of the city. The homogeneity of the composition of poor neighbourhoods grew more marked and became one of the characteristic features of the new social morphology of the city which raised unprecedented challenges to municipal governance.

This study analyses both the effects of residential segregation in the city on the differences in learning achievements of school-age children and the efficacy of the educational system's responses to the inequities generated by these processes. After the present introduction, section II presents background information from national studies on the effects of the socio-economic situation of families and of the social composition of neighbourhoods and primary schools on various indicators of educational achievement. Section III presents a hierarchical linear model which seeks to isolate the effects of each of the three levels (family, school and neighbourhood) on learning achievements. Section IV sums up and analyses the results of the five models applied. Section V shows the challenges raised by the foregoing results for Uruguayan education's efforts to dissociate learning achievements from social origin and examines the responses of the authorities of the sector to those challenges. Finally, section VI analyses the alternative designs available to social policies for maintaining and strengthening the role of education as the main means for the integration of the new generations on the basis of equity.

# II

## Families, schools and neighbourhoods: their effects on school performance

Families, schools and neighbourhoods operate as socializing environments which shape an important part of the contents of children's minds. Those mental contents include habits, disciplines, attitudes,

expectations of achievement and abilities to put off their satisfaction: elements which determine much of the success children will have in tackling the accumulation of knowledge in an orderly and steady way. Figure 1 sums up our hypotheses on the relative weight (shown by the thickness of the arrows) of these contexts in determining the learning differentials of school-age children and the ways those effects are transmitted.

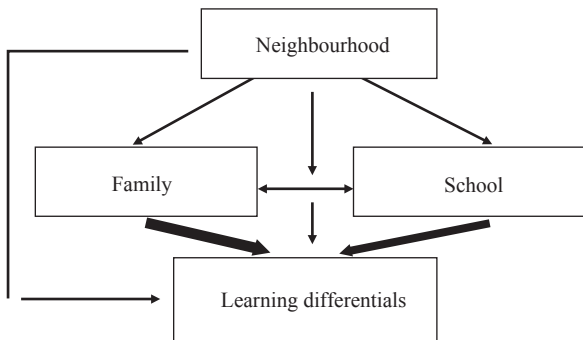
What do we know about the credibility of the hypotheses involved in each of the arrows in the figure in the case of Montevideo? Some studies carried out in Uruguay shed some light in this respect.

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□ This study is a condensed and modified version of a paper presented by the authors at the seminar on "Urban Governance and Intra-Urban Population Differentials in Metropolitan Areas of the Americas," University of Texas at Austin (United States), 17-19 November 2005. The authors are grateful to María José Álvarez and Fernando Filgueira for their comments and suggestions on the original version.

FIGURE 1

**Main areas of socialization of school-age children**



Source: Prepared by the author.

**1. The family**

With regard to the family, we know, for example, that what we know in this country as the process of “infantilization of poverty”, that is to say, the spread of poverty among children, is the visible part of structurally conditioned phenomena of accentuation of the differences in the formation of assets and types of family arrangements observed between households

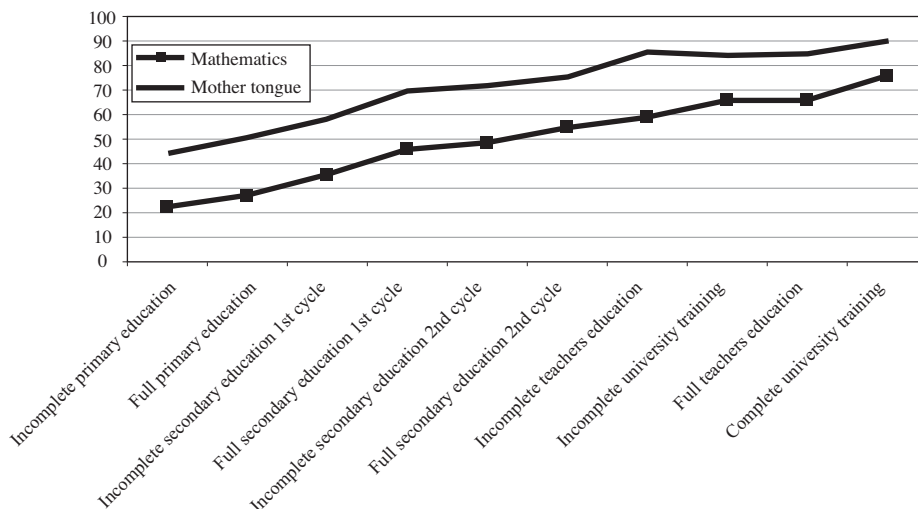
of different socio-economic strata. We also know that these differences in the configuration of assets and in family arrangements are closely related to disparities in the educational achievements of the children (Kaztman and Filgueira, 2001). Figure 2, which links the educational level of mothers with the results of learning tests in the mother-tongue and mathematics among children in the sixth grade of primary education, gives an idea of the force of those relations.

**2. The neighbourhood**

With regard to the neighbourhood, there are many studies from the 1980s onward which have identified residential segregation processes that change the social morphology of the city. These processes have changed the social composition of neighbourhoods, and this has been reflected, essentially, in an increase in the proportion of poor households in poor neighbourhoods (Kaztman, 1999; Cervini and has Gallo, 2001; Macadar, Calvo and others, 2002; Kaztman and Retamoso, 2005a). By applying a battery of indicators of the dimension of residential segregation processes, a recent study on this matter reveals that there has been an accentuation of the unequal distribution of unskilled persons over the area of the city, which has increased

FIGURE 2

**Montevideo: Level of sufficiency in mathematics and the mother tongue, according to the educational level of the mother, 1996**



Source: Prepared by the authors on the basis of data from the *Census to evaluate learning in the sixth grade of primary education* of the Unit for the Measurement of Educational Results, National Public Education Administration (UMRE/ANEP).

the homogeneity of the social composition of the neighbourhoods where they live and has reduced their opportunities for interacting with more highly skilled persons. It also shows, for 1996, an expansion in the geographical patches corresponding to contiguous neighbourhoods with similar social compositions (Kaztman and Retamoso, 2006).

The results of these and other studies (for example, Kaztman, 1997; Kaztman and Filgueira, 2001) also confirm that the level of homogeneity in the social composition of poor neighbourhoods is important for predicting educational performance. In other words, children from poor households exhibit better academic results when they live in neighbourhoods with a heterogeneous social composition than when they live in neighbourhoods where the great majority of households are poor.<sup>1</sup>

### 3. The school

Public education played a central role in the mechanisms which made Uruguayan society outstanding in the region because of its high level of social integration. This integrative nature was aided by the quality of public education, but also by the fact that that education brought together pupils with different social origins in the same classroom. This was particularly so in the primary schools, where students from a humble background had the chance to interact face to face with their peers from better-off homes. Through the daily construction of common codes and bonds of solidarity and affection which took place in those informal encounters, many schoolchildren gradually

<sup>1</sup> After their families and schools, for poor children their neighbourhoods are the next most important human aggregate as an area of interaction with and exposure to forms of behaviour which can influence their attitudes and expectations in various ways. Peer groups will do so through mechanisms similar to those which are activated in school and which will be dealt with later on in this study. The influence of adults can act in various ways. They may or may not serve as role models, i.e., as successful examples of the use of certain means to attain desired ends. They may or may not operate as relevant actors in defining and consolidating the patterns of norms which govern the relations among neighbours and establish the tone and level of sociability among them. They can act as promoters of the positive or negative image of the neighbourhood in the rest of the city: an image which can affect the formation of children's identities and their self-esteem, but which can also affect their future opportunities for obtaining a good job because of its effects on those seeking work. The adults of the neighbourhood can also modify the opportunities that children will have in their life through adults' greater or lesser efficacy as constructors or promoters of local institutions.

incorporated their first experiences of forming part of a single society. This integrative potential of the public primary schools was undermined, however, by the segmentation of education.

As from the mid-1980s, there was a substantial increase in Montevideo in the number of children attending private schools. This increase was undoubtedly aided by many parents who, in view of the deterioration of the quality of public education and the rapid rise in the qualifications needed to enter the globalized economic circuits, turned to private education in search of a better match between the available education and the knowledge demanded by modern times. In 1984, one out of every two school-age children from the upper income strata and one out of every five of those from the middle income levels attended private schools. Ten years later, the proportions were three out of every four and more than two out of every five, respectively.<sup>2</sup> Subsequently, this proportion remained stable in the upper strata but went down in the middle-income strata, some of whose members, being more vulnerable to the economic crises that followed each other from the end of the twentieth century on, went back to sending their children to the free public schools.<sup>3</sup> As a result, between 1994 and 2004 the proportion of children from the middle strata attending private schools went down from 41.8% to 37.9%.

The changes in the opportunities for interaction with children of different social origin were not determined solely by the increased role of private education. As the great majority of public primary schools recruit their pupils from the surrounding area, their social composition is highly dependent on the social composition of the neighbourhoods where they are located. Thus, the advance of the spatial segregation of households according to their belonging to different socio-economic strata also meant an increase in the homogeneity of the social composition

<sup>2</sup> The upper per capita income strata of households correspond to the top three income deciles, while the middle-income strata correspond to the next four deciles below them.

<sup>3</sup> Although this is the most plausible hypothesis, it is also possible that the boost given to early education under the public system may have generated a certain momentum, inasmuch as children who started to attend public schools at the pre-school level then continued on in that system. In the past, this had not occurred because the public systems' early-education services were in such short supply. Nor should the possibility be ruled out that the middle-income sectors of the population may have opted for the public school system in view of the advances yielded by the initial results of the educational reform process. Be this as it may, neither of these two arguments precludes the hypothesis that segmentation in education has become more pronounced.



of public schools and a corresponding reduction in the opportunities for interaction, on an equal footing, between children from poor households and those from better-off households.

In short, the combination of the tendencies towards the rise of private education and the differentiation of public schools according to their spatial location helped to increase educational segmentation in the city, thus undermining the traditional integrative function of Uruguayan public schools.

What are the mechanisms whereby the opportunities for interaction between socially unequal children in school strengthen the possibilities for the social integration of poorer children?

The social composition of schools defines the profile of the peer group with which children will have the opportunity for daily contact. Studies on learning achievements provide ample evidence of the influence of the peer group in at least four aspects which are of fundamental importance for children's integration. First, schoolmates mould the expectations of educational achievement. Second, the more heterogeneous the group of schoolmates, the greater is the variety of experiences and practice in problem-solving that the children are exposed to, and the greater their opportunities for developing cognitive and social skills which are of key importance for their

performance in school and their subsequent working life (Betts, Zau and Rice, 2003). Third, the social capital that can be accumulated in socially heterogeneous networks has equally positive consequences for the future performance of poor children in both the academic and working worlds. Lastly, for the most disadvantaged children, the daily contact regulated by common patterns of norms that takes place in school may be their only experience in life that gives them the opportunity to share problems —and the hope of sharing destinies— with members of other socio-economic strata. This experience is important for the formation of a general feelings of being part of the same society, despite the disparities in the material living conditions of their families. It may be assumed that, for poor children, the more similar the social composition of their schools and neighbourhoods is to that of society, the greater the relative importance of these early experiences of citizenship will be.

The Uruguayan educational authorities have paid close attention to the changes in the social composition of schools and their possible effects on learning results. Indeed, there are various official studies which confirm the significant impact of the social composition of schools on pupils' performance, controlling them for the characteristics of their homes (ANEP/CODICEN, 2005b; ANEP/UMRE, 1996; ANEP, 1997).

### III

## Multi-level models for learning achievements in the public schools of Montevideo

### 1. Methodology and information sources

The results of the studies mentioned in the preceding section do not make it possible to isolate the independent effects of each of the contexts (the family, the school and the neighbourhood) on learning results. In order to deal with this problem, we made use of hierarchical linear models, that is to say, multi-level models. These models make it possible to break down the variance of a dependent variable (in this case the learning results of children) into the dimensions of units corresponding to the various levels of aggregation —children, schools and neighbourhoods— nested within each other in that order.

The data were taken from the National Learning Assessment of sixth grades of primary education<sup>4</sup> carried out by the Educational Results Measurement Unit (UMRE) of the National Public Education Administration (ANEP) in 1996. This first and only census-type study carried out at the educational level in question covered all the educational establishments of the country (both public and private).<sup>5</sup>

<sup>4</sup> In Uruguay, primary education consists of six grades, so that the learning assessment sought to capture the skills acquired by children at the point where they are about to leave the primary cycle and enter secondary education.

<sup>5</sup> Although in the case of rural schools only those with more than six pupils in sixth grade were taken into account.

The assessment was made through four instruments: standardized tests in mathematics and the mother tongue; a survey of the directors of the schools assessed, and a survey of the children's families. For each of these instruments, the variables and factors which would be most useful for the study were selected.

In order to generate information on the neighbourhoods of Montevideo, use was also made of the 1996 Population, Household and Housing Census (hereafter called the 1996 Population Census) carried out by the National Institute of Statistics (INE). Although the National Learning Assessment permitted the nature of the neighbourhoods to be determined by adding features of the pupils' homes, it seemed reasonable to assume that these aggregate characteristics might differ from those estimated on the basis of the census data, which obviously cover households and individuals in the neighbourhood that are not related to the schools located in that neighbourhood.

(a) *The universe studied*

The study of the possible effects of residential segregation on educational results concentrates on children attending the sixth grades of the public schools of the department of Montevideo.<sup>6</sup> These schools account for around 70% of the total number of sixth grade pupils in the department. Only the public schools were considered because, in view of the rules governing their functioning and the difficulties the parents of children attending free schools would have in financing transport costs, it is reasonable to assume that the public schools, much more than the private ones, recruit most of their pupils from the surrounding neighbourhood.<sup>7</sup> In this sense, working only with public schools gives greater confidence, at least in the

<sup>6</sup> The selection of the department of Montevideo as the universe to be studied is of substantive importance: residential segregation processes are typical of cities with a certain scale of population. In the case of Uruguay, Montevideo is the only city big enough to serve as an example of them, both because of the size of its population and because of the nature of these processes.

<sup>7</sup> This does not mean that there may not be situations where families decide to send their children to public schools which are not in the same neighbourhood, but—at least in the case of Uruguay—they are not frequent enough as to modify the social composition of those schools.

area of hypotheses, when drawing conclusions on the effects of the social composition of the population of a neighbourhood on the educational performance of the children living there.

It may be added that the total of 12,826 children evaluated in the public schools of Montevideo attended 256 educational establishments spread over the 62 neighbourhoods identified by the INE in the city. As the application of multi-level models demands that there should be no lost data, the universe finally used was somewhat smaller: 10,864 children and 240 schools.

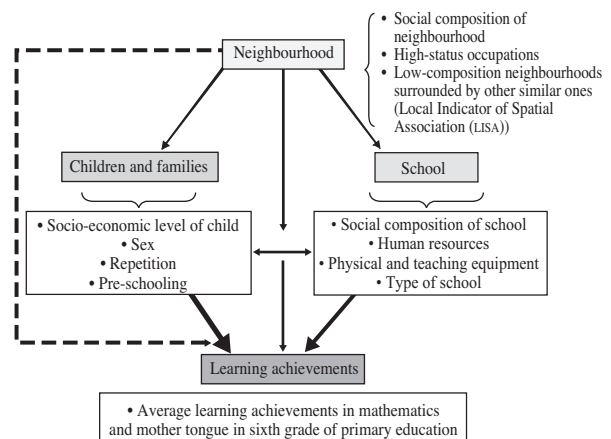
(b) *The hierarchical units and variables used*

The hierarchical units used are the child and his family, the schools the children attend, and the neighbourhoods in which those schools are located. Figure 3 and table 1 show the analytical dimensions, the variables and their hierarchical level of inclusion in the different models tested.

Table 1 shows some of the dimensions and variables initially selected, some of which were subsequently eliminated either because they were not statistically significant or because a significantly large number of units (children or schools) did not provide this information. As we set forth the models we will mention the variables and dimensions excluded and the reasons for each decision.

FIGURE 3

**Dimensions and variables of the models**



Source: Prepared by the authors.

TABLE 1

## Initially selected dimensions or variables

## A. Dependent variable

Variable	Definition	Name
Results obtained in mathematics and mother tongue tests	This is the average of the results obtained by the children in the two learning tests applied in the assessment. The items in each of the tests had a minimum score of 0 and a maximum score of 24	LENGMATE

## B. Explanatory variables

Dimension or variable	Definition	Name
<b>Level 1: The child</b>		
Socio-economic and cultural level	A factor score which combines family characteristics. Human capital was considered as the educational level of the mother (or father); physical capital was the elements of comfort and satisfaction of basic needs in the household; and cultural capital was the availability of cultural goods such as books, magazines, newspapers, etc.	NSE_ALU
Sex	Dichotomous variable (1 = male)	VARON
Repetition	Existence of repetition by child (dichotomous variable, 1 = repeated)	REPITIO
Pre-schooling	Attendance at pre-school education (dichotomous variable, 1 = attended)	ASISPRE
<b>Level 2: The school<sup>a</sup></b>		
Socio-economic and cultural context or composition	This is the average, at the school level, of the factor score generated in level 1 (child)	NSE_ESC
Type of school <sup>b</sup>	Full-time schools (dichotomous variable, 1 = full time)	TC
<b>Level 3: The neighbourhood</b>		
Socio-economic and cultural context or composition (I)	This is the average, at the neighbourhood level, of the factor scores generated in level 1 (the child)	NSE_BAR
Socio-cultural context or composition (II)	Percentage of persons between 25 and 59 years of age in the neighbourhood with studies below the average for the department. Source: 1996 Population Census.	BMEAN96
High-status occupations <sup>c</sup>	Percentage of neighbourhoods in which the proportion of persons with high-status occupations exceeds 35% (dichotomous variable, 1 = high-status neighbourhoods). Source: 1996 Population Census.	ASTATUS
Geographical concentration of neighbourhoods with an unfavourable socio-cultural composition <sup>d</sup>	This corresponds to the neighbourhoods classified in the high-high category on the basis of the LISA spatial autocorrelation index (LISA = Local Indicator of Spatial Association). This indicates neighbourhoods which have similar X-variable characteristics and are also geographically contiguous. In this case, the classification variable used was indicator (II) of the percentage of persons with studies below the average for the department. Dichotomous variable, 1=neighbourhoods with a high LISA index. Source: 1996 Population Census.	ALTA

Source: Prepared by the authors.

<sup>a</sup> In the original formulation of the models, variables were included at the school level which were considered important for studies on learning. Some of them were subsequently eliminated, however, because of their lack of statistical significance. It was realized that their inclusion would have made it more difficult to read tables of results which were already quite complex. This was so in the case of teachers' seniority in the system and in the school, teachers' training, and the equipment and infrastructure of the school.

<sup>b</sup> At the first level of classification, Uruguayan schools are divided up into urban and rural. In the case of Montevideo, there are only urban schools. In 1996 they were classified into four types of schools: ordinary schools, practical training schools, full-time schools and schools with priority needs. In our case, the category referred to by the models consists of the first two types. Unlike the others, the main feature of full-time schools is that they have an extended school day (7 hours), and most of them are schools in an unfavourable socio-cultural context. Schools with priority needs are so designated on the basis of administrative criteria which are not very clear and whose form of application has been subject to wide fluctuations over the years, but they are all located in the most unfavourable social contexts, and their teachers receive a special allowance.

<sup>c</sup> Indicator taken from Kaztman (1999).

<sup>d</sup> For more methodological details and the results of the classification, see Kaztman and Retamoso (2006).

## IV

## Results and analysis of models

Table 2 summarizes the results of the five models applied, each of which is analysed in the same table.

## 1. Empty model

The first step in the production of the hierarchical linear models is to estimate, through an empty or non-conditional model, the proportion of the total variance in the dependent variable attributable to each of the hierarchical levels considered.

In order to assess the appropriateness of working with a third level (the neighbourhood), two empty models are compared: one including that level and another not including it (table 3). In this way, we aim to verify if the inclusion of the neighbourhood as a third level accounts for a part of the variance in learning achievements which is significant enough to justify its inclusion. The evaluation is made through the intraclass correlation coefficient, which measures the percentage of the total variance corresponding to each level.

TABLE 2

Summary of models

Variable		Model 0	Model 1	Model 2	Model 2a	Model 3
		Empty	NSE <sup>a</sup> at 3 levels	Model + variables of pupils	With NSE Neighbourhood from the INE Census	Model 2 + status variable high and level of LISA
<i>Fixed effects</i>						
Intercept	$\gamma_{000}$	13.19 <sup>b</sup>	13.19 <sup>b</sup>	13.50 <sup>b</sup>	13.52 <sup>b</sup>	13.54 <sup>b</sup>
<i>Neighbourhood</i>						
Socio-economic level	$\gamma_{001}$	.....	3.55 <sup>b</sup>	3.32 <sup>b</sup>	-0.07 <sup>b</sup>	3.20 <sup>b</sup>
<i>School</i>						
Socio-economic level	$\gamma_{010}$	.....	2.47 <sup>b</sup>	2.16 <sup>b</sup>	2.12 <sup>b</sup>	2.16 <sup>b</sup>
Full time	$\gamma_{020}$	.....	.....	0.83 <sup>b</sup>	0.78 <sup>b</sup>	1.00 <sup>b</sup>
<i>Pupils</i>						
Socio-economic level	$\gamma_{100}$	.....	0.91 <sup>b</sup>	0.68 <sup>b</sup>	0.68 <sup>b</sup>	0.72 <sup>b</sup>
High-status occupations in neighbourhood	$\gamma_{101}$	.....	.....	.....	.....	0.40 <sup>b</sup>
High LISA index in neighbourhood	$\gamma_{102}$	.....	.....	.....	.....	-0.29 <sup>b</sup>
Socio-economic level of school	$\gamma_{110}$	.....	.....	0.58 <sup>b</sup>	0.58 <sup>b</sup>	0.60 <sup>b</sup>
Male	$\gamma_{200}$	.....	.....	-0.24 <sup>b</sup>	-0.24 <sup>b</sup>	-0.24 <sup>b</sup>
Repetition	$\gamma_{300}$	.....	.....	-1.38 <sup>b</sup>	-1.39 <sup>b</sup>	-1.36 <sup>b</sup>
Attendance at preschool education	$\gamma_{400}$	.....	.....	0.25 <sup>b</sup>	0.28 <sup>b</sup>	0.21 <sup>b</sup>
<i>Random effects</i>						
Level 3 (neighbourhood)	$u_{00}$	2.89	0.35	0.37	0.57	0.32
Level 2 (school)	$r_0$	2.38	1.69	1.56	1.61	1.57
Level 1 (child)	$E$	11.10	10.54	10.10	10.10	10.10
Intraclass correlation coefficient of neighbourhood (%)		17.6	2.8	3.1	4.6	2.7

Source: Prepared by the authors.

<sup>a</sup> NSE = Socio-economic level.

<sup>b</sup> Significant at the 95% level.

TABLE 3

## Comparison of empty models at two and three levels

Fixed effects	2 levels		3 levels	
		Coefficient		Coefficient
<b>General intercept or average</b>	$\gamma_{00}$	13.000 <sup>a</sup>	$\gamma_{00}$	13.187 <sup>a</sup>
<b>Random effects</b>			Variance components	
Level 3 variance (neighbourhood)	---	---	$u_{00}$	2.888 <sup>a</sup>
Level 2 variance (school)	$u_0$	5.403 <sup>a</sup>	$r_0$	2.377 <sup>a</sup>
Level 1 variance (child)	$r$	11.102 <sup>a</sup>	$e$	11.103
<b>Intraclass correlation coefficients (CCI)</b>				
Neighbourhood		---		17.6%
School		32.7%		14.5%
Child		67.3%		67.8%
Deviation		57.714		57.630
Number of parameters estimated		2		4

Source: Prepared by the authors.

<sup>a</sup> Significant at the 95% level.

The results of the empty model at two levels indicate that although the greater capacity for explanation comes from differences originating in the characteristics of the children, the differences in learning attributable to the school represent 32.7% of the total variance. In the model at three levels, in contrast, although the variables attributed to the child continue to account for most of the variance (67.8%), a substantial share of this (17.6%) is attributable to differences in learning between neighbourhoods: even more than the share attributable to the school. In short, the production of the empty model at three levels shows the statistical relevance of working with hierarchical models and including the neighbourhood as the third level.

We must acknowledge, however, that the fact that the neighbourhood explains a larger percentage of the variance in learning than the school may be due to the way the universe of our study was delimited. In other words, by excluding private schools we may have reduced the variance among schools in the same neighbourhood and increased the variance between neighbourhoods. This is so for at least two reasons. The first is due to the carry-over effect of the neighbourhood's social composition on the social composition of schools which, like the public schools, recruit their pupils in the same territory. The second is because in a given neighbourhood the private schools usually operate with selectivity mechanisms that are much more restrictive than those of the public schools.<sup>8</sup>

<sup>8</sup> The study by Pavez (2004) on the results obtained by pupils in

## 2. Conditional models

With the aim of finding the model which best explains educational performance, in this section we will examine several such models. When including variables we opted for the greatest possible simplicity, giving preference to social composition variables of the school or the neighbourhood.

### (a) Model 1

The first model includes three variables of socio-economic and cultural composition or level in the specification of the empty model at each of its levels: child, school and neighbourhood (*nse\_alu*, *nse\_esc* and *nse\_bar*, respectively).

The results of this model give a general average (intercept) of 13.2 for learning performance in mathematics and mother tongue. The three variables of socio-economic level (NSE) are all significant, although the magnitude of their effects is different. The NSE factor of the neighbourhood is the one that shows the greatest incidence, which is the same thing as to say that the net effect on learning of an increase

the system for the measurement of educational quality in Chile (SIMCE) analyses three levels (child, school, commune) and obtains intraclass correlation coefficients of 69%, 26% and 6% respectively. The difference between these results and those of the present study may be linked with what was mentioned above, since in Montevideo we are working exclusively with the public schools and Pavez was working with public and private schools.

of one standard deviation unit in the NSE for the neighbourhood is greater than in the case of the school and the child. The NSE of the school likewise has more effect than the individual level. Thus, for example, while an increase of one unit in the NSE of the child has a net effect of 0.91 on learning, the same increase in the level of the school generates an increase of 2.47 and that of the neighbourhood gives an increase of 3.55 (it should be remembered that the NSE corresponds to a factor score for different indices).

(b) *Model 2*

Although the results of model 1 give an idea of the relative importance assumed by the NSE and its differing impact at the different levels of aggregation, the specification of that model does not incorporate some dimensions of key importance in the analysis of school performance. Model 2 does include them, however, for as well as the variables of the first model, it also incorporates other characteristics of children and schools. In the case of the children, we sought to find out if, even when controlling for their NSE, other factors such as their sex (whether they are male), their history of repetition (whether they repeated or not) and whether they attended preschool education (ASISPRE) affect learning.

At the school level, we also incorporated the type of school attended by the child. As already noted, in 1996 there were basically three types of schools in the Uruguayan educational system at the urban level: ordinary schools, full-time schools, and those with priority needs.<sup>9</sup>

Although the coefficient had the expected negative sign in the case of schools with priority needs, it was not statistically significant, so the variable was eliminated in this model. This low significance was probably due to the fact that, when controlled for the NSE at the three levels, the inclusion of this type of school did not in itself add any effect on learning.

<sup>9</sup> It should be noted that other models were tried which, in addition to these variables, incorporated some characteristics of the schools which are usually considered to be important for the school process in the specialized literature. Thus, from the point of view of human resources, they took into account teaching experience, stability (seniority) in the school and teachers' training. From the point of view of physical and educational equipment, variables were included that took account of the infrastructure and teaching equipment found in the schools. The average size of sixth grade classes was also taken into account. However, none of these models showed that these considerations were statistically significant, although their coefficients were of the expected sign.

This model also incorporates the NSE of the school, not only in the intercept but also in the regression coefficient of the NSE of the child. The aim is to find out how sensitive variations in learning are to variations in the socio-economic status of children in schools of different average socio-economic status. The results of this model show some elements which are worth noting. Firstly, in spite of a slight reduction in the coefficients compared with the previous model, the effects of the NSE of the three levels continue to be significant and maintain the same order as before (3.320, 2.159 and 0.681 at the neighbourhood, school and child levels). Secondly, full-time schools increase the point of intersection by 0.832 compared with the rest of the schools. Thirdly, the effects on learning of the individual characteristics of the child (sex, repetition and preschool attendance) display reductions of -0.237 and -1.377 in the first two cases but a positive effect (0.253) in the case of preschool education. Finally, it is observed that the group prediction variable of the NSE of the school has a net positive effect of 0.580 on learning in the specific slant of the NSE of the child.<sup>10</sup>

(c) *Model 3*

Finally, we specified a new model which combines the variables tested so far with two variables at the neighbourhood level taken from the 1996 Population Census.

The social composition of a neighbourhood constructed through the aggregation of individual variables of the children attending its public schools does not necessarily correspond with the social composition of the whole of the population living there. The divergence may be even greater when, as in our case, the universe studied is made up only of the public schools. Just as we commented earlier that, in view of the greater tendency of private schools to recruit their pupils on a non-territorial basis, we sought through their exclusion to prevent the characteristics of children not living in a neighbourhood from affecting its classification, likewise, the fact of classifying a neighbourhood on the basis of the profiles of the population attending its public schools may be generating equally significant

<sup>10</sup> Using the same logic as this model, table 2 gives a specification (model 2a) which, instead of using the neighbourhood NSE based on the data of the National Learning Assessment, uses the data of the 1996 Population Census. The findings are similar to those already mentioned.

skews, particularly in neighbourhoods where education is highly segmented.

In order to avoid such possible skews, the following model incorporates two variables from the 1996 Population Census. The first of these corresponds to a dichotomous variable which classifies neighbourhoods according to whether the percentage of high-status occupations —such as professionals, managers and technicians—<sup>11</sup> exceeds 35% of the total employed persons. The second variable is obtained by classifying the neighbourhoods of Montevideo dichotomously through the LISA (Local Indicator of Spatial Association) index, which shows spatial autocorrelation of the geographical sub-units of the local area in terms of an attribute or variable (identified in the GeoDa<sup>12</sup> programme as high-high). In this case, we used the percentage of the population of the neighbourhood between 25 and 59 years of age with studies below the average for the department.<sup>13</sup> The indicator is a measurement which shows the neighbourhoods of low educational level which are contiguous or spatially related with other neighbourhoods with the same characteristic.

In general terms, the results of model 3 display the same characteristics as those analysed earlier. In other words, the pattern of statistical significance and magnitude of the coefficients is repeated, regardless of whether they refer to the NSE of the neighbourhood, school or child, as likewise in the case of the explanatory variables, such as type of school, sex, repetition and preschool attendance.

The most noteworthy element in model 3 is the incidence of the two dichotomous variables taken from the 1996 Population Census which seek to take account of the exposure to role models (occupational status) and the concentration of disadvantageous social situations. In both cases, the variables are included in

order to observe their effect on the slope between the NSE of the child and learning achievement ( $\gamma_{101}$  and  $\gamma_{102}$ ). The results show that neighbourhoods where there is a predominance of high-status occupations display an additional positive effect on the slope formed by the relation between the NSE of the child and learning achievement. In contrast, the opposite phenomenon is observed in neighbourhoods concentrated in a context of low educational levels. The existence of a neighbourhood with low educational capital gives rise to a lower positive effect of the NSE of the child on learning achievement.

The conclusions of this analysis may be summarized as follows:

- (i) As regards the net effect on learning achievement, an increase of one unit in the socio-economic level of the neighbourhood has a greater effect than similar increases in the socio-economic levels of the school and the family. This ratio is maintained even when other characteristics of the school and the child which could affect learning are taken into account.
- (ii) Maintaining the above controls, in neighbourhoods where high-status occupations predominate there is an additional positive effect on the slope between the socio-economic level of pupils and their scores in the learning tests.
- (iii) With the same controls, the more extensive the geographical patch of neighbourhoods with low average educational capital, the lower the positive effect of the socio-economic level on the scores in the learning tests.

In short, the elements giving these results in a field in which there is still much to be discussed (see box) support the view that the social composition of the neighbourhood has significant effects on children's learning achievements.

<sup>11</sup> In line with the International Standard Classification of Occupations (ISCO-88) at the one-, two- and three-digit level.

<sup>12</sup> GeoDa is a geographical and statistical analysis programme developed by the Spatial Analysis Lab of the University of Illinois. For more information, see <http://www.geoda.uiuc.edu/>

<sup>13</sup> For a more detailed account of the methodology and results, see Kaztman and Retamoso (2005b).

## Box

PRECAUTIONS TO BE OBSERVED WHEN INTERPRETING THE RESULTS OF STUDIES  
ANALYSING THE EFFECTS OF DIFFERENT CONTEXTS ON BEHAVIOUR

Even though the foregoing results concur with those of other studies carried out in the region (Solís, 2006; Torres, Ferreira and Gomes, 2004; Sabatini, Cáceres and Cerda, 2002) at least two precautions should be taken, especially when, as in this case, there is emphasis on the usefulness of the results for the formulation of effective social policies.

Firstly, as occurs in the great majority of studies linking contexts with forms of behaviour, it is very difficult to be certain that the results are not spurious, since they may be reflecting the incidence of unobserved characteristics of families that send their children to certain schools or live in certain neighbourhoods. It may be argued, for example, that among parents with similarly low levels of education and income, those with a greater “need for achievement” will be more tenacious in their efforts to obtain a place for their children in schools with a heterogeneous social composition. In such cases, the children’s better performance in the educational area could be attributed to the greater motivation for achievement of their parents than to the social composition of their schools or neighbourhoods.

The second precaution also refers to a methodological problem which should be taken into account when it is desired to link the results of the studies with policy formulation. All the aforementioned studies are synchronous studies: i.e., studies which compare at a given moment in time the school performance of children who have similar socio-economic characteristics and live in neighbourhoods (or attend schools) with different social compositions. If the controls are applied correctly, it seems reasonable to conclude that variations in the social composition of their contexts are one of the factors accounting for the differences in their academic results. Even if we accept this conclusion, however, it does not follow that moving a child from one homogeneously poor school or neighbourhood to another with greater social heterogeneity will produce the desired positive effect.

The main reason for this uncertainty is the recognition that the cumulative effects of prolonged exposure to situations of social exclusion can neutralize the possible virtues of interaction with persons from a different social background. Poor children who go through this experience usually display more emotional insecurity and less development of social and cognitive skills. Prolonged social exclusion can generate, in the families and children concerned, devalued self-images, low expectations of educational achievements and of the possibilities that such achievements will mean a significant change in their future living conditions, and reduced capacity for forming aspirations and deferring immediate gratification. It can also give rise to resentment against a society which excludes them and is governed by codes different from theirs. Life in urban ghettos or semi-ghettos also leaves its mark in the forms of the way people coexist, the more or less immediate transition from frustration to violence, and a lack of confidence in others and particularly in any form of authority.<sup>a</sup>

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Source: Prepared by the authors.

<sup>a</sup> Control for skews in selection and for the effects of prolonged exposure to situations of social exclusion is only possible through refined (and costly) experimental methods. If these are not applied, then the proper interpretation of the results of studies on contextual effects and the applicability of those results to policy formulation will depend on the care with which researchers approach the controls corresponding to the experimental situations involved, but also on the reasonableness of the arguments used and their theoretical consistency.



# V

## Primary schools in a context of residential segregation in Montevideo, and the main responses of the educational system

### 1. The challenges

The intra-urban migrations which have taken place in recent decades increased the spatial concentration of households which had a low educational climate and were in the first stages of their family life cycle, thereby implying a parallel territorial concentration of school-age children in poor households.

Many of the areas in which poor households settled lacked the school infrastructure needed to receive massive inflows of pupils, thus giving rise to a need for heavy investments in infrastructure. At the same time, the results of studies on the effects of the social composition of schools and neighbourhoods on learning achievements revealed that the most important challenges lay not only in the needs of the municipalities involved but also, and in some cases primarily, in the problems arising from the conditions in which the children socialized. It was observed that the changes in neighbourhoods and families had changed the basic conditions of educability of the schoolchildren, thus facing the educational authorities with new and complex problems in programme formulation, the training of suitable human resources, and especially in the organization of pedagogical practices, as the children now displayed profiles markedly different from those of the population which the school system had attended in the past.

It is difficult to grasp the degree of complexity of these challenges unless at least two things are recognized from the start. The first is that the burden of the social reproduction of the population is not borne by a single institution but rather by a structure in which the actions of the educational system are linked up with those of the family and with what happens in the immediate community environments of the children. The second is that much of the success of institutionalized education depends on the smoothness with which the efforts and influences of these three spheres of socialization fit in with each other and the ability of the schools to make up for shortcomings in the other two spheres. What is clear is that when the

family and the neighbourhood fail to provide adequate support in this respect, the educational system has more difficulty in carrying out a function which is proper to it and is of key importance in the process of the integration of society on the basis of equity, namely, its ability to dissociate the educational achievements of children from their conditions of origin.

The challenges posed to the educational system by the new conditions of educability of poor children are in addition to the more general challenge of adapting curricula, teacher training and educational equipment to a rapidly evolving production system in which ever-faster technological change and the increasingly vital importance of knowledge impose unavoidable demands in terms of the training of the new generations.

Let us now look at some of the responses made by the Uruguayan educational system in its efforts to tackle the challenges posed by these changes for the achievement of a society integrated on the basis of equity.

### 2. The responses of the educational system

Firstly, in order for the system to be able to simultaneously face the problems of the deterioration of the conditions of educability of children and the new demands for higher skills, State investment in public education must be increased.

A comparison between the percentage of gross domestic product (GDP) that Uruguay has invested in education and trends in the proportions of GDP invested in this sector by the rest of the countries of Latin America and the Caribbean provides a frame of reference for evaluating the relative intensity of Uruguay's public investment in education in recent decades. It may be seen from table 4 that in 1964 public expenditure on education absorbed a proportion of GDP which was slightly higher than the average for the countries of the Latin American and Caribbean region as a whole, but from then on it remained at a level between a quarter and a third lower than the regional average.

TABLE 4

**Latin America and the Caribbean and Uruguay:  
Comparison of public expenditure on education, 1964-2000**  
(Percentages of GDP)

	1964	1975	1980	1985	1990	1995	2000
(1) Latin America and the Caribbean	2.6	3.3	3.8	3.9	4.1	4.5	4.1
(2) Uruguay	2.7	2.2	2.2	2.8	3.1	2.8	2.8
(2)/(1)	1.04	0.67	0.58	0.72	0.76	0.62	0.68

Source: Universidad de la República (UDELAR, 2000), on the basis of reports by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and data from the Planning and Budget Office and the Central Bank of Uruguay. The data for the year 2000 are taken from ECLAC (2005).

As a result, in the year 2000 Uruguay occupied the 19th place out of 22 countries of Latin America and the Caribbean as regards the intensity of the public financial effort aimed at improving education (ECLAC, 2005, table 1.3.9).

This relative lag in educational investment was offset by a number of measures which redirected expenditure in the sector with the aim of neutralizing the negative effects of the spread of child poverty on learning achievements. We refer in particular to the growth in special schools, the expansion of coverage of preschool education, and the strengthening of school dining rooms.

(a) *Special schools*

As already mentioned earlier, in the 1990s there was an expansion in the supply of public education at the primary level. The traditional model which only distinguished between urban and rural schools was left behind in favour of a model based on a range of different options which sought to deal with the increasingly evident heterogeneity in the situations of children through alternative forms of teaching and compensatory models. The formulation of educational policies was focused on the most vulnerable sectors, through the provision of two types of special schools:<sup>14</sup> schools for critical socio-cultural contexts, and full-time schools.

Full-time schools began to operate in the early 1990s, through the conversion of existing ordinary

schools in the poorest geographical areas. In the early stages, their main contribution was the extension of the school day. Only in 1995 did they begin to implement a special educational and institutional project. As well as incorporating the innovative aspects of the new pedagogical proposal, this initiative speeded up the conversion of ordinary schools into this form of school. New classrooms were built, and teachers in these schools were given special monetary allowances. In decisions on their location, there was an improvement of the basic criteria both for the selection of schools with low socio-economic levels and for the identification of geographical areas where there had been sizeable increases in the child population.<sup>15</sup>

The schools in the “critical socio-cultural context” category are also located in the poorest environments, but unlike the full-time schools they only have a single half-day shift, do not have a special pedagogical proposal, and are based more on basic compensatory measures which seek to attract the most experienced teachers by giving them special salary allowances.<sup>16</sup>

<sup>15</sup> For a more detailed description of the types of schools, see ANEP/CODICEN (2004) and Clavijo, Francia and Retamoso (2005).

<sup>16</sup> At the end of 2005, the National Public Education Administration (ANEP), together with the Ministry of Social Development, put into effect a new programme called “Community Teachers”. This programme is aimed at the schools which are in a critical context but only have half-day teaching and consists of a body of teachers who work on a personalized basis, outside regular school hours, in order to give teaching support to children with low levels of school performance and improve the interaction between the children’s families, the school and the community through visits to pupils’ homes and joint work with families in their homes and in school. Although it is still too early to assess the results obtained, “Community Teachers” is clearly an important addition to the programmes aiming to reduce differences in learning achievement (CEP/MIDES, 2006).

<sup>14</sup> The use of this term is justified in the sense that in primary education “special schools” are those that cater for children with some kind of drawback.

TABLE 5

**Montevideo: Percentage of enrolment in 1st to 6th grade and its percentage variation between 1995 and 2004, by type of school**

Type of school	1995	2004	Percentage variation
Ordinary urban schools <sup>a</sup>	76.5	71.1	-4.4
In a critical socio-cultural context	21.4	22.3	7.1
Full-time schools	2.1	6.6	217.4
<i>Total</i>	<i>100</i>	<i>100</i>	<i>2.8</i>

Source: Prepared by the authors on the basis of data from ADEP/CODICEN (2004).

<sup>a</sup> Includes practical schools.

Table 5 shows the changes in the relative weights for the different types of schools between 1995 and 2004. The figures show a slight increase in the share of schools in a critical socio-cultural context but a much greater increase, albeit on a much smaller numerical base, in that of full-time schools.

Table 6 shows that in both 1995 and 2004 the distribution of schools was in line with the targeting objective, since most of the schools specially designed to expand the learning opportunities of the most disadvantaged children were located in the most unfavourable school and neighbourhood contexts. Moreover, over the period studied, the proportion of special schools (those in a critical socio-economic context and full-time schools) grew in the contexts where such growth was to be expected in line with the policy objectives. The big increase noted in neighbourhoods with a high social composition may possibly be due to the fact that the number of public schools in such neighbourhoods is significantly less than in the other neighbourhoods (for example, it is almost half that of neighbourhoods with a low composition). Furthermore, it cannot be ruled out that some neighbourhoods with a high social composition may contain within them small homogeneously poor areas and that the public schools, which generally recruit their pupils from areas smaller than a neighbourhood, only receive children from those areas.

*(b) Preschool education*

Another important initiative aimed at weakening the links of the mechanisms for the inter-generational

reproduction of poverty and social exclusion, and which was strongly boosted from 1995 on, was the expansion of enrolment in preschool education.<sup>17</sup>

The information collected over the last decade on preschool education in Uruguay reveals at least three regularities. The first indicates a clear expansion in coverage for children of 4 or 5. The second shows that preschool education helps to reduce repetition in the early years of primary education. The third indicates that the expansion of coverage mainly benefited children from the poorer strata. Taken together, the three tendencies denote a clear advance in social equity thanks to changes in the public system of preschool education (ANEP/CODICEN, 2002).

With regard to coverage, from 1991 on the public sector led the way in a significant increase in attendance at preschool education among children of 4 or 5 years of age in Montevideo. With respect to the total number of children of this age, attendance by four-year-olds increased from 23% to 51%, but in the private schools there was a decline from 40% to 28%. Something similar occurred in the case of children of 5, whose attendance rose from 42% to 73% in the public system but went down from 38% to 21% in the private schools. As a result of these tendencies, in 2004 over nine out of every ten children aged 5 and over seven out of every ten children aged 4 were attending public or private preschool establishments. The results of studies made by the Research and Evaluation Department of ANEP corroborate the importance of these advances for educational achievement throughout the school cycle (ANEP/CODICEN, 2005b).

Finally, with regard to the impact of the expansion of preschool education on equity, table 7 shows on the one hand the big boost given by the public sector to preschool education in the neighbourhoods whose social composition reflected the biggest disadvantages, and on the other the significant reduction this achieved in the differences in attendance at preschool establishments by children from neighbourhoods with different social compositions. When a similar analysis is made

<sup>17</sup> In November 1998 Law No. 17,015 was promulgated, providing for compulsory preschool education for all children aged 5. This law laid down a maximum period of four years for the ANEP to generate the necessary conditions for bringing this about. The measure was aimed, among other aspects, at promoting the cognitive skills appropriate to a child's age, favouring his senso-motor maturity and affective growth, promoting the processes of socialization, and helping to forestall negative effects on his normal development due to deficiencies of a biological, nutritional, or family nature or contexts of higher risk.

TABLE 6

**Montevideo: Percentage of special schools, by socio-educational composition of neighbourhood and socio-cultural context of school, out of total number of public schools in each category, 1995-2004**

Socio-cultural context of schools <sup>a</sup>	Socio-educational composition of neighbourhood (terciles of education in 3-year period 2002-2004)							
	Low		Medium		High		Total	
	1995	2004	1995	2004	1995	2004	1995	2004
Unfavourable	53.8	54.6	36.0	54.2	33.4	80.0	48.6	55.6
Medium	7.7	18.8	3.1	9.4	6.3	33.3	4.9	16.7
Favourable	00.0	00.0	00.0	00.0	00.0	2.5	00.0	1.3
<i>Total</i>	<i>46.3</i>	<i>47.7</i>	<i>10.6</i>	<i>18.0</i>	<i>4.4</i>	<i>15.8</i>	<i>22.2</i>	<i>30.0</i>

Source: Prepared by the authors on the basis of data from the Continuous Household Survey of the INE and from ANEP/CODICEN (2004).

<sup>a</sup> The "socio-cultural context of schools" classifies the total number of schools in the country according to an index which combines the educational level of the mothers of the children attending each school with elements representing the comfort of their homes. The index divides the schools into five categories ranging from very favourable to very unfavourable contexts. For more details, see ANEP/CODICEN (2004).

TABLE 7

**Montevideo: Attendance at preschool education by children of four and five years of age, by educational level of neighbourhoods, 1995 and 2004**  
(Percentages)

Attendance at preschool education	Educational level of neighbourhoods (terciles of average years of schooling of population between 25 and 59 years of age) in 2002-2004			
	Low	Medium	High	Total
<i>Public sector</i>				
1995	40.9	41.8	32.6	38.4
2004	69.6	66.3	44.0	62.3
% variation 1995-2004	70.2	58.8	34.9	62.3
<i>Public plus private sectors</i>				
1995	56.8	74.3	83.0	70.3
2004	80.5	88.4	93.8	90.2

Source: Prepared by the authors on the basis of data from the Continuous Household Survey of the INE.

with identification of the socio-economic level of the households from which preschool children come, it is found that children from the neediest homes practically doubled their rates of attendance over the period (ANEP/Universidad Católica, 2003).

(c) *School dining rooms*

Within the framework of the new characteristics that poverty was assuming in Montevideo, the problem of the children's nutrition began to take on increasing importance, both in society as a whole and in the schools. The evidence of under-nutrition among schoolchildren elicited a rapid reaction from the educational authorities, who strengthened the existing school nutrition programmes and incorporated new elements, especially through the addition of school dining rooms and the "Glass of Milk" system to the social safety nets deployed by the State in view of the aggravation observed in the population's needs. The reaction by public primary education was not due solely to humanitarian reasons: it also reflected recognition of the impact of nutrition on children's learning capacity.<sup>18</sup>

<sup>18</sup> The nutrition policies applied by the educational system receive strong financial backing from the so-called "primary school tax". This tax, whose amount goes directly to education, was approved in April 1986 under article 636 of the National Budget Law on Resources and Expenditure (Law No. 15,809), but it was only implemented as from 1990. The "primary school tax" is levied on urban, suburban and rural real estate in the whole country on the basis of the real values determined by the Department of the National Real Estate Register, and while it goes to various areas of expenditure (transport, equipment, repairs, etc.) most of the funds collected go to school nutrition. According to a survey made by the INE in 2004, the school nutrition system is the most extensive free nutritional system in the country.

Tables 8 and 9 show the situation in this respect in 2004. It may be seen from them that school dining rooms were located in the schools with the most unfavourable social composition and in those located in the most disadvantaged neighbourhoods.

TABLE 8

**Montevideo: Percentage of primary schools with school dining rooms, according to the socio-educational composition of the neighbourhood, 2004**

	Socio-educational composition of neighbourhood (terciles of educational level), for the three-year period 2002-2004			
	Low	Medium	High	Total
% of schools with a dining room	88.1	58.9	27.1	65.3

*Source:* Prepared by the authors on the basis of data from the Continuous Household Survey of the INE and from ANEP/CODICEN (2004).

TABLE 9

**Montevideo: Percentage of primary schools with school dining rooms, according to the socio-cultural context of the school, 2004**

Existence of a school dining room and % of children using it	Socio-cultural context of school			Total
	Unfavourable	Medium	Favourable	
% of schools with a dining room	90.9	56.6	25.4	65.3

*Source:* Prepared by the authors on the basis of data from ANEP/CODICEN (2004).

Ultimately, the extensive system of school dining rooms acted as another of the pillars of the public educational system, especially in those neighbourhoods which, because of their social composition, had the greatest nutritional needs. Thus, the schools increased their participation in an area which was previously restricted almost entirely to the family.

## VI

### Final considerations: measures to deal with the impact of residential segregation on the learning performance of poor children

In the last two decades of the twentieth century there was a significant rise in the growth rate of residential segregation in Montevideo. Although there were various factors that contributed to this rise, the main one was the prolonged deterioration in the levels of income and social protection of less-skilled workers. In these circumstances, many young families, with scanty human resources and few opportunities of gaining access to protected jobs, had to leave the central areas of the city and move out to the periphery, thus increasing the proportion of poor households in the first stages of family life and, hence, the proportion of children living in those areas.

The increase in the homogeneity of the social composition of neighbourhoods brought about similar changes among the users of local services such as

primary schools, health centres, transport and recreational services. In this way, the weakening of the links of poor residents with the labour market isolated them from the main economic circuits of the city and also from the main social circuits, due to the growing segmentation in the use of those services. These features changed the profile of households, schools and neighbourhoods, which are the three contexts most significant for the socialization of children.

Poor households had more problems than in the past in satisfying the basic needs of their members. Perhaps because of the effects of the weakness of their links with the market, their declining hopes of social mobility, or their growing isolation from the middle classes, these households showed a strong tendency towards unstable family arrangements and single-parent

families, which was reflected in a big increase in the proportion of children living with only one of their biological parents. Among other consequences, this phenomenon reduced the pooling of family resources for socialization—especially the availability of adults' time—and made it more difficult for parents to control their children, give them support in their school tasks and, in general, complement the efforts of the schools in the educational process.

The schools, for their part, were faced with growing difficulties in transmitting and generating learning skills in uniformly poor groups of children. Many teachers and school authorities in areas where there was a strong concentration of poverty were overcome by the level of unsatisfied basic needs of their pupils, by the feeble support they received from the children's families, and by the marked deficit in the levels of cognitive development and mastery of basic social skills displayed by the children they had to teach.

In turn, the new poor urban neighbourhoods tended to undermine rather than strengthen the potential virtues of neighbourhood socialization. The instability of patterns of community life, the shortage and low quality of the local institutions, and the lack of adults who could act as role models and effectively exercise informal social controls over children's behaviour helped to reduce the socializing force of the neighbourhood or, at least, to divert it from the conventional models which define education as the main path for social mobility and self-realization.

It may be gathered from the foregoing arguments that, unlike the past when it was an integrated city—when the harmonious union between the family, the school and the neighbourhood which complemented each other and gave mutual support had facilitated the work of the primary schools—the new mechanisms activated in Montevideo with the changes undergone by each of these important agents of socialization did nothing to benefit the educational performance of children. In so far as the families and neighbourhoods ceased to fulfill their complementary functions, the schools encountered formidable obstacles to the performance of their key role in the integration of the new generations, that is to say, their unique capacity to dissociate educational achievements from social origins.

Some of the new features of the social context, especially the high levels of poverty among urban children, did not go unnoticed by the educational authorities. Thus, in the early 1990s a reform project was formulated which sought to restore to the educational

system its traditional capacity to separate academic achievements from the socio-economic background of children.

As already noted in this study, in the implementation of that reform special attention was given to the location of services. The new preschool centres, special schools and school dining rooms were established in the neighbourhoods with the highest concentrations of poverty.<sup>19</sup> Briefly, the strategy consisted of focusing the efforts of the educational system on the places where children ran the biggest risk of falling behind in their studies.<sup>20</sup> But there is no sign in the application of this strategy, however, that anything was done to deal with the higher-risk situations inherent in the changes in the social composition of the schools attended by vulnerable children or in the neighbourhoods where they lived. What form could such a sign have taken? One possible form could have been measures to stimulate the formation of heterogeneous groups through new educational establishments located on the borders between neighbourhoods with different social compositions. Another form could have been the institutionalization of systems of free transport of schoolchildren, together with the application of recruitment criteria in schools which would ensure a heterogeneous social composition and conditions of functioning which would facilitate interaction among children from unequal backgrounds. In short, there were no indications that any attempt was being made to promote experiences of contact and solidarity among children from different strata.

On the other hand, however, it is possible that even if the educational authorities recognized the advantages of interaction among children from unequal backgrounds in the same institutional context, they may have concluded that at all events it was possible and preferable to try to compensate for the disadvantages of schools which recruited a homogeneous population of poor children, by focusing physical and human resources on those schools, as indeed occurred in reality. This possibility raises queries such as the following: to what extent do these interventions succeed in reducing

<sup>19</sup> The same may be said of the "community teachers" programme launched at the end of 2005. This programme concentrated on children with problems of low school performance attending schools which were located in a critical context and had only half-day education.

<sup>20</sup> Paradoxically, the territorial concentration of the poor makes it easier to implement targeted strategies.

the learning gap? What is their relative cost compared with alternatives based on “social mixing”? And even if they manage to reduce the learning gap: is this enough to progress towards the goal of a city integrated on the basis of equity? What happens with regard to the formation of social skills, of an early feeling of citizenship, and the probability of accumulating social capital—phenomena that find fertile ground in peer age groups which are heterogeneous in terms of their social origin and which represent vital resources for integration into society?

It may be argued, in favour of social mixing policies, that even taking into account the methodological precautions with which the results of studies on the effects of the school and neighbourhood contexts are now analysed, there is sufficient evidence, theoretically consistent conjectures and informed observations to conclude that those policies are closer to reality than other better known and more frequently used policies which only consider the school and the neighbourhood as spaces bringing together greater or lesser proportions of children with critical deficiencies. Along the same lines, it may be suggested that the time seems to have come to make a fundamental U-turn in the questions we ask ourselves about the link between education and social integration. Traditionally, we have asked ourselves about the educational thresholds needed for social integration, but it seems increasingly necessary to ask ourselves about the minimum levels of integration needed for the educability of our children.

With regard to the targeting of resources on schools in the neighbourhoods with the biggest concentrations of poor children, in contrast, it may be suggested that in contexts of growing inequality like those characteristic of Montevideo and other big cities of the region, the implementation of initiatives like those mentioned in the preceding paragraph, as well as corresponding to the “hard” areas of social policy (Kaztman and Gerstenfeld, 1990), perhaps is no guarantee of reductions in social distances.<sup>21</sup> It is to be

suspected that in a large sector of the urban population a kind of perverse synergy has already been activated: geographical and social isolation between the urban classes further heightens the rigidity of the images that the classes have of each other, thus strengthening the resistance to interaction among people from unequal backgrounds. In these circumstances, it is no wonder that poor parents themselves prefer not to expose their children to contexts in which disadvantages of social origin are very obvious, considering that contact between unequal persons tends to generate rejection and a heightened feeling of relative shortcomings rather than stimulating emulation and adaptation. In these circumstances, the increase in residential segregation and educational segmentation brings us closer to and urban situation which clearly shows up the limits of the educational system’s ability to break the social determinism of learning results (Tedesco, 2006; Filgueira, Bogliaccini and others, 2006).

The foregoing considerations highlight some of the barriers limiting the contribution of education to the construction of societies integrated on the basis of equality. In order to overcome those barriers it appears necessary firstly to carry out an urgent redefinition of the rank given to the educational system within the national welfare architecture. As López (2005) says: “... it can be affirmed that the goal of good-quality education for all means making education one of the pillars of the articulation and integration of the various sectors of social policy”. What it means is strengthening its capacity to demand and articulate the support of other spheres of the State, such as those responsible for urban land planning. In this sense, it would seem desirable to start on the active exploration of the advantages and disadvantages, costs and benefits of the kind of social inclusion policies implemented in some European cities. These policies sought to integrate the most disadvantaged sectors of the urban population—including large numbers of foreign workers—not only by intervening directly in the location of public housing or by giving incentives to middle-class sectors to come and live in areas previously marked by homogeneous poverty, or ensuring a certain level of

<sup>21</sup> This is particularly so in the most stratified societies of Latin America. When considering the relative costs of this type of policy, it should be borne in mind that in most of those societies the present forms of class relations are the result of lengthy processes of domination, negotiation and settlement of conflicts which are deeply rooted in national history. This means that social engineering aimed at changing basic aspects of the existing patterns of class relations is one of the hardest areas of social policy. In the case of education, resistance to interventions of the type mentioned above comes from all sides, and is all the more aggressive when the classes moving in

the principal social and economic spheres of the city have constructed stereotypes of the kind of persons who remain outside those spheres. In those cases, the more privileged classes may perceive the promotion of social integration through the school as a threat both to their expectations regarding the academic achievements of their children and to the maintenance of their own traditional social prerogatives.

social mixing in the formation of new neighbourhoods, but also by granting subsidies to prevent poverty from exceeding a certain level above which the costs of social inclusion measures rise exponentially (Musterd and Ostendorf, 1998).

To sum up, as the new forms of capitalism take root in the region, it is more and more evident that the slogan “Learn to learn and learn to live together” (Delors, 1996) refers to a task which goes beyond the limits of education and involves the whole of society.

(Original: Spanish)

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**KEY WORDS**

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# Consensus and dissension among Mexican economists

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**T**his article identifies areas of agreement and disagreement among Mexican economists in relation to key issues of economics, on the basis of a survey of 360 members of the profession. The propositions eliciting the greatest consensus included: equity in income distribution, vigorous use of antitrust and consumer protection laws and the use of countercyclical fiscal policies. The most contentious issues were: private investment in the energy sector, the determinants of inflation, the minimum wage as a cause of unemployment and the objectives to be pursued by an independent central bank.

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# I

## Introduction

*“If parliament were to ask six economists for an opinion, seven answers would come back—two, no doubt, from the volatile Mr. Keynes. If economists cannot agree among themselves, how can the rest of the world be expected to agree with them and to respect their recommendations?”*

Samuelson (1966, p. 1628)

Samuelson’s question is a weighty one, although the premise, that economists cannot agree among themselves, deserves the support of some empirical, rather than merely anecdotal evidence. Kearl, Pope and others (1979) were the first to seek such evidence. Using a questionnaire containing 30 questions that were more or less evenly divided between microeconomic and macroeconomic issues, these authors set out to measure the degree of consensus among United States economists in the late 1970s. Not long afterwards, Frey, Pommerehne and others (1984) used a similar questionnaire to identify areas of agreement and disagreement among economists in Austria, France, Germany and Switzerland. The list continued to lengthen thereafter: Block and Walker (1988) conducted a similar study in Canada, then Ricketts and Shoemith (1992) did the same in the United Kingdom, after which, as Anderson (1998, p. 6) meticulously documents, studies were carried out in Australia, Belgium, New Zealand, Russia, South Africa and 10 countries of East and South-East Asia.

This enumeration immediately raises the question: why were no similar surveys conducted among Spanish-speaking economists at any time during that decade? Since the present author is one of that breed, we shall ignore the possible sociological explanations for this and confine ourselves to noting that, after the turn

of the millennium, Caminal and Rodríguez (2003) remedied the absence of their country from the list by conducting a study on the degree of consensus among Spanish academics. The present study sets out to continue this work for Mexico, apparently the first country in Latin America where a survey has been conducted for this purpose.

The questionnaire required opinions to be expressed on 30 questions concerning matters we considered crucial for the Mexican economy. For the purposes of comparison, we tried to make as many questions as possible similar if not identical (in Spanish translation) to the 30 asked by Kearl, Pope and others (1979). But the years take their toll: Frey, Pommerehne and others (1984) discarded three of those questions as being somewhat dated, and we ended up rejecting a further seven for the same reason. To the 20 questions remaining we added 10 of our own to round out the questionnaire.

Section II that follows presents some aspects of the questionnaire design. Section III then discusses the content of the questionnaire and the basic results obtained, concentrating particularly on those propositions which produced the highest levels of consensus or dissension among economists. After this, section IV analyses response patterns among different groups of people, with a view to ascertaining whether personal characteristics such as age or sex played a significant role in the replies.

Section V then presents an analysis of answers to each of the propositions, following a twofold classification of these. First, they are divided into microeconomic (micro) and macroeconomic (macro) propositions. This makes it possible to evaluate a hypothesis that, a priori, would appear reasonable: micro propositions ought to elicit greater consensus

□ The author is grateful for the assistance of Óscar Guerra Ford and Jorge Luis Álvarez Peralta, who not only hosted the questionnaire on the electronic portal of the National Association of Economists, but took the time to monitor it over eight long weeks. He is also grateful to Fernando Butler, Valeria Castellanos and Mario Sánchez Silva for their suggestions, and to Héctor Sandoval for his computer assistance. Needless to say, the author bears sole responsibility for any remaining errors.

than macro ones. The second classification distinguishes propositions that are or tend to be positive (“this can be done”) from those that are normative (“this ought to be so”). This is followed by an examination of the hypothesis, plausible on the face of it, that positive

proposals command a greater consensus than normative ones. Lastly, factor analysis is used to classify the questions not by a priori economic criteria, but purely on the basis of the statistical information. Section VI, lastly, presents some of the conclusions of this study.

## II

### Design and implementation of the survey

The formal design of the survey followed four rules. The first, an obvious but important one, was that the number of questions should be kept to a minimum to avoid inconveniencing respondents. Also avoided as far as possible was the use of technical jargon that was not common to all generations of economists. For example, rather than refer by name to the real business cycle theory developed by Edward Prescott and his followers, the questionnaire asked whether “economic fluctuations are mainly caused by aggregate supply impacts”.

The second rule was that the questions on the respondent’s personal characteristics should be at the end of the survey and phrased so as not to be indiscreet. These questions covered just six subjects: age, sex, country of residence, highest educational qualification, where this qualification was obtained, and sector of employment. Questions dealing explicitly with the respondent’s ideological or political leanings were deliberately avoided (by contrast with Caminal and Rodríguez, 2003) to forestall any feelings of suspicion. The question about areas of specialization usually asked since Kearn, Pope and others (1979) was also omitted, as it was assumed there would be a great variety of answers given the heterogeneity of the population.

The third rule was that, to avoid so-called “neutrality bias” (when someone does not wish to choose, is uninterested or has no opinion on the subject), a scale of just four possible responses was chosen: strongly disagree, disagree, agree or strongly agree. As Frary (1996, p. 3) establishes: “There is no assurance whatsoever that a subject choosing the middle scale position harbors a neutral opinion. A subject’s choice of the scale midpoint may result from: Ignorance, Uncooperativeness, Reading difficulty, Reluctance to answer, or Inapplicability.” This runs counter to Likert’s original scale, which contains an odd number of options because it includes a midpoint response, and also contrasts, in our context, with the

practice of Kearn, Pope and others (1979) and their followers, who often provided just three options, including a midpoint one. The scale for this study was similar to that employed by Caminal and Rodríguez (2003), however.

The final rule for the formal design of the questionnaire was that questions were framed so as to avoid the so-called “halo effect”. Under the influence of this effect, an answer to a particular question might be biased if the respondent associated it with some personality, group or political party. For example, although the survey contains propositions on public finance issues, none of them makes any reference to the so-called “new public finances” (“*nueva hacienda pública*”), a term coined at the start of Vicente Fox’s six-year administration (2000-2006).

As a pilot test, a printed version of the questionnaire was distributed among participants at a convention of the National Association of Economists (CNE) in September 2005. The 38 people who completed it (anonymously, as requested) had no objections to the form or substance of the survey. The next step was to design a mechanism for general application of the questionnaire. Although the ideal procedure would have been to treat all the country’s economists as the target population and take a random sample, in practice the study population had to be reduced substantially. This was due to a number of factors. To begin with, there was no reliable register of all economists based in Mexico. Nor was a fast, efficient ordinary postal service available. Lastly, there was the need to ensure respondents’ anonymity. This last point might seem superfluous at first sight, but it is not in Mexico, where surveys have to be as impersonal as possible to have any prospect of being answered.

For all these reasons, it was decided that the most effective way of presenting the questionnaire was over the Internet, even though this would mean ruling out

a large number of economists who had no Internet access, many of them in the provinces. Thus, given that segments of the study population were excluded because they had no access to the Internet, and because it cannot be claimed a priori that this exclusion produced no significant biases in the results, the areas of agreement and controversy discussed in this work must be understood to exist among economists who are both Mexican residents and Internet users, rather than all Mexican economists as a group.

The questionnaire was posted on the CNE web portal on an unrestricted access basis during October and November 2005. Invitations to respond were issued in two ways. First, invitations were e-mailed to 432 economists whose addresses were collected from information available on Mexican university portals and from the portals of government offices involved with economic matters (this compilation was exhaustive rather than stratified). Second, CNE representatives in the provinces received personal invitations. Although this variant was not originally provided for in the sample design, the CNE thought it advisable to notify state-level representatives that there was a survey on its portal. How many CNE member economists received the invitation to respond to the survey? In principle, it was received by the presidents of all the state associations (in Mexico there are 31 states plus the Federal District). Although some of them may in turn have invited other members of their associations to answer the survey, there is no evidence that this was done formally in any state. In any event, the anonymous character of the survey and its immediate availability over the Internet means that there can be no assurance that only 464 (= 432 + 32) economists were aware of its existence. Others may well have been informed about it by some of those who were personally invited by this author or the CNE.

The questionnaire was answered by 360 economists residing in Mexico.<sup>1</sup> Given all the caveats in the previous paragraph, it is not possible to affirm that the acceptance rate was 78%, as the figures suggest; the actual percentage may have been lower. Nonetheless, we venture to suggest

that the acceptance rate was certainly higher than those obtained by Kearl, Pope and others (1979), with 33% acceptance; Frey, Pommerehne and others (1984), with 45%; Block and Walker (1988), with 33%; and Ricketts and Shoemith (1992), with 36%. If we are right, we believe that the improvement is due to the ease with which surveys can be responded to over the Internet. Even so, we must acknowledge that non-responders can significantly affect the sample composition.

The profiles of the economists who answered the survey were as follows:

- Age: between 18 and 75, with a median of 42.
- Sex: 21% female and 79% male.
- Academic level: 6% were degree course students while 22% had a first degree, 38% a master's and 34% a doctorate.
- Place where highest qualification obtained: 68% in Mexico, 22% in the United States (or Canada), 8% in Europe and 2% in another country or region.
- Sector of employment: 46% public university, 18% private university, 14% federal public sector, 11% private sector, 9% state or municipal public sector and 2% other.

As can be seen from the different educational levels and the high percentage of respondents working in universities, the sample was skewed towards academic economists and somewhat against those working in the private sector, but not against those working in the public sector (23% seems about right). There was also substantial variation in ages and places of study, while the shares of the two sexes would seem to be representative of the target population. Lastly, the percentage of respondents with a postgraduate qualification is certainly too high to be representative of the economist population in general. It will be recalled that, owing to the character of the survey design itself, the study population was limited to economists with Internet access (and an e-mail address available from the Internet). Because most of these work in universities, the likelihood of their being qualified above degree level is much higher than for the general run of economists.

<sup>1</sup> A total of 372 replies were received, but 12 of these were from economists living outside Mexico and so had to be disregarded. Of the other 360, eight were from computers that did not have a unique ip (Internet protocol) address. However, given that files from the same ip address were different in almost all respects and that the respondents concerned were mainly young, we assumed they were economics students using shared computers to complete the questionnaire.

### III

## General results

Table 1 shows the questionnaire used and the results obtained in terms of response frequencies. It is worth pointing out that of the 30 propositions it included, half relate to microeconomic issues and the other half to macroeconomic ones; in turn, each of these halves divides almost equally into positive and normative propositions.<sup>2</sup> Again, as mentioned earlier, we tried to make as many questions as possible similar to the 30 asked by Kearl, Pope and others (1979), and again by subsequent authors, but we had to discard 10 of them as obsolete. Translated as literally as possible, the first 20 questions in our questionnaire corresponded to the following questions in Kearl, Pope and others: 1-5, 7, 9-10, 12-16, 18, 20, 23, 25, 26 and 29-30. Questions 21 to 30 in table 1 are new.

The information provided by table 1 would be incomplete if, in addition to the response percentages given there, it did not present a measurement of the degree of agreement or disagreement encountered for each question. Accordingly, relative entropy, symbolized here by  $\epsilon$ , was calculated as the measure of disagreement; this is the measure that has been employed in all studies of this type.

The description of this statistic is as follows. Given that the number of categories is always four in our case, if  $p_i$  denotes the relative frequency for each option, the entropy associated with the range of possible responses for each question is defined as

$$E = -\sum_{i=1}^4 p_i \log_2(p_i)$$

where, following Shannon, the logarithm is base 2, although the natural logarithm could well be used with very similar results. This entropy function has a maximum of 2 when each of the options is chosen by exactly a quarter of respondents, in which case there is zero consensus and maximum disagreement. Conversely, this function has a minimum of 0 when

just one of the four options is selected by everyone, in which case there is maximum consensus. To obtain a range of 0 to 1 for this measure, given that the maximum possible entropy in our case is 2, we can define relative entropy as  $\epsilon = E / 2$ .

Table 2 presents this entropy for each of the 30 questions. Its last two columns also show the relative entropies obtained in similar surveys in the United States and France. These results correspond to our first 20 questions, as they are similar to those of Kearl, Pope and others (1979). It should be stressed that the results for these two countries are not strictly comparable to ours, since those surveys were conducted over 20 years ago. Nonetheless, we will refer occasionally to these two columns in the discussion that follows, chiefly because of the striking difference between the pattern of consensus in the United States and France, the Mexican case being similar to the latter's.

Tables 1 and 2 contain some results that were predictable and others that were quite unexpected. The two propositions that commanded the greatest consensus (the least entropy in table 2), and indeed the only ones whose median was the extreme response "strongly agree" (in bold in table 1), were propositions 8, "The distribution of income in and between countries should be more equal" and 9, "Antitrust laws should be used vigorously to reduce monopoly power from its current level". It is not surprising that the first of these should have elicited a high degree of consensus, although it is worth noting that a less general proposition, "Income distribution in the industrialized countries ought to be more equitable", was among those on which United States economists disagreed most among themselves ( $\epsilon = 0.88$  in table 2), whereas there was a moderate degree of consensus among French economists.

Again, there is a notably high level of agreement among Mexican economists on the need to apply antitrust laws vigorously. This finding is strengthened when we observe that the proposition which ranked third in terms of consensus (a negative one on this occasion, however) was number 19, "Consumer protection laws generally reduce economic efficiency". That these answers should be so polarized perhaps reflects the great industrial concentration currently seen in key sectors of the economy, and the defencelessness

<sup>2</sup> Section V gives a detailed presentation of the matrix classification of the propositions identified using these criteria.

TABLE 1

**Questionnaire: Response percentages and medians**  
(Percentages, medians in bold)

Proposition	1 Strongly disagree	2 Disagree	3 Agree	4 Strongly agree
1. Tariffs and import quotas reduce general economic welfare	9	<b>43</b>	35	13
2. The government should be an employer of last resort	15	<b>40</b>	33	12
3. The money supply is more of an important target than interest rates for monetary policy	18	<b>51</b>	24	7
4. Cash payments are superior to transfer-in-kind	6	36	<b>44</b>	14
5. Flexible exchange rates offer an effective international monetary arrangement	4	23	<b>52</b>	21
6. A minimum wage increases unemployment among young and/or unskilled workers	17	<b>38</b>	33	12
7. Fiscal policy has a significant effect on a less than fully employed economy	4	18	<b>57</b>	21
8. The distribution of income in and between countries should be more equal	1	3	36	<b>60</b>
9. Antitrust laws should be used vigorously to reduce monopoly power from its current level	1	4	43	<b>52</b>
10. Inflation is primarily a monetary phenomenon	14	35	<b>35</b>	16
11. The government should base its social policies on a negative income tax when incomes are inadequate	7	37	<b>48</b>	8
12. Wage-price controls should be used to control inflation	23	<b>45</b>	28	4
13. A ceiling on rent reduces the quantity and quality of housing available	4	18	<b>55</b>	23
14. Effluent taxes represent a better approach to pollution control than the imposition of pollution ceilings	5	22	<b>53</b>	20
15. The level of government spending should be reduced (disregarding expenditures for stabilization)	17	<b>43</b>	29	11
16. The federal budget should be balanced over the business cycle rather than yearly	2	15	<b>63</b>	20
17. The redistribution of income is a legitimate task for government	2	10	<b>48</b>	40
18. In the short run, unemployment can be reduced by increasing the rate of inflation	12	<b>43</b>	40	5
19. Consumer protection laws generally reduce economic efficiency	19	<b>63</b>	17	1
20. The economic power of labour unions should be significantly curtailed	5	22	<b>42</b>	31
21. Every central bank should include employment and/or economic growth among its objectives	10	20	<b>38</b>	32
22. Genetically modified crops have a positive effect on the economy	10	32	<b>51</b>	7
23. Economic fluctuations are mainly caused by aggregate supply impacts	5	<b>57</b>	34	4
24. Direct subsidies to firms are generally unjustifiable	4	36	<b>43</b>	17
25. The State should tax or control international flows of speculative capital	8	20	<b>44</b>	28
26. The energy sector should be treated like any other sector where private investment is concerned	18	<b>34</b>	28	20
27. The more independent the central bank, the better for economic stability and growth	5	29	<b>43</b>	23
28. Income taxes should be the mainstay of national tax systems	9	36	<b>40</b>	15
29. Private-sector involvement in the operation of public infrastructure is typically inefficient	13	<b>47</b>	33	7
30. Nature reserves should be protected even at the price of lower economic growth	5	24	<b>51</b>	20

Source: Prepared by the author.



TABLE 2

**Mexico, the United States and France:  
Relative entropies**

Proposition	Mexico ε (%)	Position	United States ε (%)	France ε (%)
1	87	20	48	85
2	92	26	84	91
3	86	18	87	90
4	84	16	68	90
5	82	11	63	83
6	93	27	66	74
7	78	7	67	69
8	61	1	88	80
9	64	2	79	66
10	94	29	86	66
11	80	8	71	86
12	86	18	58	84
13	80	8	48	86
14	82	11	84	88
15	91	25	88	88
16	69	4	82	87
17	75	6	81	71
18	82	11	90	85
19	68	3	85	50
20	88	22	87	81
21	93	27	...	...
22	81	10	...	...
23	69	4	...	...
24	83	14	...	...
25	90	23	...	...
26	98	30	...	...
27	87	20	...	...
28	90	23	...	...
29	85	17	...	...
30	83	14	...	...

Source: Author's own figures and data from Block and Walker (1988, table 4).

of many Mexican consumers. Alongside this, however, it might also be conjectured that these answers had an ideological facet, as both propositions entailed government intervention. Indeed, as table 2 shows, both also commanded a very high degree of consensus among French economists, whereas among those in the United States, with their greater reluctance to countenance government interference, there was more disagreement.

The other two propositions that elicited a high degree of consensus among Mexican economists are classics of the macroeconomic literature: number 16, on the advisability of a countercyclical policy in government spending, and 23, on the main cause

of economic fluctuations. In the first case, 83% of respondents agreed that it was advisable to balance the budget over the cycle rather than yearly. This opinion is not only interesting but important too, since it stands in stark contrast to a law passed in early 2006 instructing the Mexican federal government to do just the opposite. Regarding the other proposition, only 38% agreed that aggregate supply impacts were the main cause of the business cycle (as so-called real business cycle theory suggests), whereas the other 62% assigned the leading role to changes in aggregate demand (the Keynesian view).

What about the propositions that attracted the least consensus? As might perhaps have been expected in a country where a great deal of controversy has traditionally surrounded the energy sector, the greatest relative entropy was obtained for proposition 26. Opinions were divided almost equally between those who were for private investment in the sector and those who were against it. This polarization extended to the percentages strongly agreeing or disagreeing (20% and 18%).

The second most controversial proposition was number 10 ("Inflation is primarily a monetary phenomenon"), since votes were almost equally divided for and against. It is interesting to note that, on this occasion, the relative entropy obtained was closer to the United States than the French level. Indeed, as can be inferred from Block and Walker (1988, table 3), the consensus on the subject among French economists was due to the fact that the great majority of them (more than two thirds!) disagreed with the monetarist position, rather than for the opposite reason.

There was also very substantial disagreement over proposition 6 ("A minimum wage increases unemployment"). Although the proposition has attracted a degree of consensus in almost all the countries where surveys of this type have been applied, this was not so among the Mexican economists, most of whom (55%) came out against it.

Ranking alongside the above proposition in terms of relative entropy was proposition 21 ("Every central bank should include employment and/or economic growth among its objectives"), a subject that has been under discussion lately in Mexico. If this were so, this set of mandates would be similar to that of the United States Federal Reserve, which is obliged under the second section of the law governing it to pursue simultaneously the objectives of maximum employment, stable prices and moderate long-term interest rates. The main reason why the United States

central bank has all these responsibilities at once is, of course, that it is not independent. The Mexican central bank is independent, however, and this may explain the divergence in views on this proposition.

We invite readers to continue reviewing the remaining propositions in tables 1 and 2, where some

rather unexpected results are to be found. To give just one example, 58% of respondents were in favour of statement 22 to the effect that genetically modified crops have a positive effect on the economy. In relative entropy terms, indeed, there was a degree of consensus on the issue.

## IV

### Group response patterns

At the end of section II there was a summary of respondents' characteristics in terms of age, sex, academic level, country where they obtained their highest academic qualification, and current place of employment. In this section we shall conduct an analysis of the response patterns obtained when some of these characteristics are controlled for. For example, are there generational differences? Is gender significant? Is it relevant that a third of respondents obtained their highest academic qualification abroad?

To find answers to questions of this type, it is first necessary to divide respondents into the two relevant subgroups and then establish, for each of the 30 propositions, the null hypothesis that the answers of both subgroups come from the same population. In this study, each of these hypotheses will be tested using the non-parametric Kolmogorov-Smirnov test, which has the great advantage over a number of other tests of not placing any restriction on the distribution of the responses. Table 3 presents the  $p$  values of this test for each division (column) and each proposition (line). It may be worth recalling here that  $p$ , the probability value, is the empirical significance level of the test of hypothesis, so that when this exceeds the significance level  $\alpha$  selected by the researcher (a level commonly set at 5%), the null hypothesis that the answers come from the same population cannot be rejected.

The second column of table 3 presents the  $p$  values for testing the null hypothesis that there are no generational differences; i.e., the hypothesis that the answers of economists aged up to 42 (the median age) and the answers of those older than this come from the same population. As the table shows, this hypothesis can be rejected at the 5% significance level for just three questions. The first proposition on which there was significant disagreement was 20, concerning significant curtailment of union power. The

divergence, it should be stressed, occurred particularly at the extremes of the distributions: while 9% of the youngest strongly disagreed with this statement, just 2% of the older economists did so; conversely, while 22% of the youngest strongly agreed, this proportion was 38% among the oldest. Could this result indicate a more leftward-leaning ideological position among the younger economists? This claim could perhaps be made, especially in the light of the responses to the other two propositions for which there was an age divide. Number 26 asserted that the energy sector should be treated like any other sector where private investment was concerned, and while 60% of the younger economists disagreed or strongly disagreed with this, only 43% of older economists did so. Lastly, proposition 27, which stated that the more independent the central bank, the better for economic stability and growth, was disagreed with by 42% of the younger economists and only 26% of the older ones.

The third column of table 3 divides respondents by sex. What it shows, strikingly, is that there is not a single proposition for which, using the Kolmogorov-Smirnov test, the null hypothesis of answers coming from the same population can be rejected. This finding is identical to that of Caminal and Rodríguez (2003) among Spanish economists, but is somewhat at variance with other studies. In the case of Canada, for example, there were divides between women and men for more than a fifth of the questions put by Block and Walker (1988). The greatest differences surfaced in relation to the proposition about the virtues of free trade, with women proving far more sceptical (Block and Walker, 1988, p. 143). In our case, however, the  $p$  value for proposition 1 was so high that we can safely say that the responses of male and female Mexican economists in relation to free trade showed no differences in distribution, which does not mean that there was

TABLE 3

**p values of the Kolmogorov-Smirnov test**  
(Values significant at 5% are in bold)

Proposition	Age <sup>a</sup>	Sex	With/without postgraduate qualification <sup>b</sup>	Studied in Mexico or United States <sup>c</sup>	Studied in Mexico or Europe <sup>d</sup>	Working in public or private university <sup>e</sup>
1	0.99	0.99	<b>0.00</b>	<b>0.00</b>	<b>0.05</b>	<b>0.01</b>
2	0.44	1.00	1.00	0.99	0.85	0.24
3	0.82	0.99	0.97	0.99	1.00	1.00
4	0.97	0.96	0.14	<b>0.00</b>	0.91	0.95
5	0.08	1.00	0.55	<b>0.01</b>	1.00	<b>0.00</b>
6	0.97	1.00	0.13	<b>0.00</b>	1.00	0.06
7	0.89	0.73	1.00	0.19	1.00	0.08
8	0.53	1.00	1.00	<b>0.00</b>	0.98	0.64
9	1.00	0.42	0.18	0.10	0.72	0.33
10	0.09	1.00	1.00	<b>0.00</b>	1.00	0.31
11	0.06	0.62	<b>0.00</b>	1.00	0.98	1.00
12	0.56	1.00	<b>0.03</b>	<b>0.01</b>	0.37	0.12
13	1.00	0.89	0.06	<b>0.00</b>	1.00	<b>0.00</b>
14	1.00	0.53	0.76	0.58	0.71	0.98
15	0.15	0.26	<b>0.03</b>	1.00	1.00	0.17
16	1.00	0.65	1.00	1.00	1.00	0.11
17	0.08	0.60	0.12	1.00	1.00	0.96
18	0.73	1.00	0.15	0.80	1.00	0.84
19	0.20	0.70	0.99	1.00	1.00	0.14
20	<b>0.01</b>	0.23	0.10	0.72	1.00	<b>0.02</b>
21	1.00	1.00	<b>0.00</b>	<b>0.00</b>	0.16	<b>0.03</b>
22	1.00	0.17	0.79	<b>0.00</b>	1.00	0.18
23	0.36	0.82	0.06	0.14	1.00	0.43
24	1.00	0.99	0.95	0.11	0.62	0.05
25	0.37	0.79	<b>0.04</b>	<b>0.00</b>	0.53	<b>0.04</b>
26	<b>0.01</b>	0.56	0.31	<b>0.01</b>	0.96	<b>0.04</b>
27	<b>0.02</b>	1.00	1.00	0.32	1.00	0.17
28	0.96	1.00	0.98	0.80	0.99	0.38
29	1.00	1.00	0.91	<b>0.04</b>	1.00	<b>0.00</b>
30	0.21	1.00	0.88	0.97	0.96	1.00

Source: Prepared by the author.

<sup>a</sup> Division between those aged up to 42 (the median) and those older than this.

<sup>b</sup> Division between those with a first degree at most and those with a postgraduate qualification (master's or doctorate).

<sup>c</sup> Division only within the subgroup of respondents whose highest academic qualification was obtained in Mexico or the United States.

<sup>d</sup> Division only within the subgroup of respondents whose highest academic qualification was obtained in Mexico or Europe.

<sup>e</sup> Only includes the subgroup of respondents who were working or studying at a university. The division is between public and private universities.

consensus; taken as a whole, indeed, the survey population displayed a high level of disagreement on the subject ( $\epsilon = 0.87$ , as shown in table 2).

The fourth column of table 3 divides respondents into those with a first degree at most and those with a postgraduate qualification (master's or doctorate). In this case there are six propositions for which the hypothesis that both sets of responses came from the same population can be rejected. These propositions are

listed below, and the figures in brackets alongside them are the percentages of respondents with and without postgraduate qualifications who agreed or strongly agreed with them: 1, on free trade (33% and 55%); 11, on negative taxes (39% and 67%); 12, on price controls (42% and 29%); 15, on government spending (52% and 35%); 21, on central bank objectives (84% and 64%); and 25, on the Tobin tax (83% and 67%). As can be seen when all the figures in brackets are

compared, the views of respondents with postgraduate qualifications generally tended to be more conservative and closer to orthodox economic theory.

The fifth and sixth columns present the most surprising findings of this section. The first of these covers respondents whose highest qualification was obtained in a Mexican or United States university. The same thing was done in the sixth column, except that Europe was substituted for the United States. The contrast in the results is striking. While the *p* values of the fifth column indicate that there were 13 propositions for which the null hypothesis could be rejected in the case of the Mexico-United States division, in the sixth column there is just one such proposition, number 1. That is, those obtaining their highest qualification in a Mexican university had a very similar response pattern to those doing so in a European one, but a markedly different pattern from those obtaining it in a United States (or Canadian) university.

This deserves a closer look. The propositions on which there was an appreciable divide between those obtaining their highest qualification in Mexico and those obtaining it in the United States will now be presented, together with the percentages of respondents agreeing with each proposition in each subgroup (starting with Mexican graduates): number 1, on free trade (39% and 75%); 4, on cash payments and transfer-in-kind (53% and 75%); 5, on flexible exchange rates (69% and 89%); 6, on the minimum wage (38% and 70%); 8, on income distribution (96% and 91%);<sup>3</sup> 10, on inflation (46% and 70%); 12, on price controls (37% and 21%); 13, on rents (73% and 94%); 21, on central bank objectives (77% and 50%); 22, on genetically

modified crops (53% and 78%); 25, on the Tobin tax (80% and 46%); 26, on the energy sector (44% and 64%); and 29, on public infrastructure (45% and 28%). For each of the propositions cited, economists graduating in the United States clearly took a position that was ideologically more conservative (or liberal, in the European sense of the term).

Lastly, the final column of table 3 establishes a division based on where respondents work. Although we assumed prior to the survey that this might prove to be a key variable in explaining the different response patterns, the fact is that we did not find appreciable differences in the answers given between, for instance, those working in universities and those working elsewhere (in the public or private sector) or, to give another example, those working in the public sector and those working in the private sector. The only major divides were found in the subgroup of respondents working in a public university and those doing so in a private university. As can be observed in the column mentioned, the equal distribution hypothesis can be rejected at the 5% significance level for nine propositions. We invite readers to note which these are, although it may be enough to point out that these propositions belong to the broader set of the 13 propositions on which those obtaining their highest qualification in Mexico were at variance with those obtaining it in the United States. This coincidence is not surprising either since, for example, an academic with a Mexican or European postgraduate qualification is far more likely to be working in a public university than a private one, while the opposite is true of those graduating from some United States university.

## V

### The micro/macro and positive/normative dichotomies

In his influential work on economic methodology, Friedman (1953) argues that economic policy disagreements

between economists derive not so much from subjective differences as from different predictions about the consequences of taking action. Samuelson (1966), on the other hand, claims that agreement and disagreement among economists partly depend on the degree to which different value judgements converge and diverge; furthermore, Samuelson warns, forecasts themselves are ultimately subjective in character.

<sup>3</sup> Proposition 8 elicited widespread assent in both groups; the difference lay in the fact that 65% of those obtaining their highest qualification in Mexico said they strongly agreed, while only 41% of the other group said the same.

In an effort to clarify the above, it is well worth turning to the hackneyed but serviceable classification of economic policies into those that are positive (descriptions, “this can be done”) and those that are normative (prescriptions, “this ought to be done”). Samuelson would be at home with this distinction, but not Friedman, for whom all that distinguishes any economic policy is the effect it would have if adopted. Thus, for Friedman any economic proposition is essentially positive in character. The counterpart to this extreme posture is Myrdal (1954), who very eloquently upholds precisely the opposite thesis: economics is essentially normative in nature.

We took the intermediate point of view to establish, much as Kearl, Pope and others (1979) do, the hypothesis that positive propositions ought, at least on paper, to command greater consensus than normative ones. Similarly, and once again following the authors cited, we established a second hypothesis: microeconomic propositions, with their narrower scope, ought to command greater consensus than macroeconomic ones.

We put these two hypotheses to the test by constructing a matrix to divide the questions in the survey accordingly. This classification is necessarily subjective to some degree, as is illustrated by proposition 26, which might have a positive character in many other countries but must be classified as normative in Mexico because of the strong feelings it arouses. With this caveat, we shall now present the matrix.

- Positive microeconomic propositions: 1, on free trade; 4, on cash payments and transfer-in-kind; 6, on the minimum wage; 13, on rents; 14, on pollution control; 24, on subsidies to businesses; 28, on direct taxes; and 29, on public infrastructure.
- Normative microeconomic propositions: 8, on income distribution; 9, on economic regulation; 17, on income redistribution; 19, on consumer protection; 20, on unions; 22, on genetically modified crops; and 26, on the energy sector.
- Positive macroeconomic propositions: 3, on monetary policy; 5, on flexible exchange rates; 7, on fiscal policy; 10, on inflation; 18, on the Phillips curve; 23, on the real business cycle; and 27, on central bank independence.
- Normative macroeconomic propositions: 2, on government employment; 11, on negative taxes; 12, on price controls; 15, on government spending; 16, on countercyclical policy; 21, on central bank

objectives; 25, on the Tobin tax; and 30, on nature reserves.

This classification was used to test the hypotheses described earlier. This was done by means of a two-factor variance analysis (2x2 ANOVA), taking relative entropy as the dependent variable and examining variability within and between the subsamples. The *F* statistic values obtained were 0.96 and 0.91 for micro/macro and positive/normative dichotomies, respectively. Since the corresponding *p* values of the *F* statistic (with 1 and 26 degrees of freedom) were 0.34 and 0.35, the null hypothesis that a single population generated the entropies observed in the subsamples could not be rejected at the 5% significance level. The same conclusion was obtained for the interaction between the two classes (the *p* value obtained was 0.07). In plain language, the degree of consensus (or dissension) among Mexican economists does not seem to depend on the micro/macro character of the proposition, or on whether this is more positive than normative.

This result contrasts with that obtained by Kearl, Pope and others (1979), who found that among United States economists there was more consensus on the positive propositions than on the normative ones, and on the microeconomic ones than on the macroeconomic ones. The result also contrasts, although to a lesser degree, with that of Ricketts and Shoesmith (1992), who found that positive propositions (although not microeconomic ones) commanded greater agreement among British economists. Nonetheless, our finding seems to be the rule rather than the exception, since results identical to ours were obtained by Frey, Pommerehne and others (1984) in the case of Austrian, French, German and Swiss economists, and by Block and Walker (1988) in the case of Canadian economists.

Might there be any other elements that could help explain the areas of agreement and disagreement among Mexican economists? Rather than continue to speculate, we let the data “speak for themselves” by employing the multivariate statistical tool known as factor analysis.<sup>4</sup> This technique was used to establish the common variability among the 30 propositions by identifying a small number of latent variables that were linear combinations of the original variables. This

<sup>4</sup> For example, see Peña (2002).

analysis yielded two factors that accounted for the great bulk of the correlations between the questionnaire responses.<sup>5</sup>

The first factor proved to have positive correlations with the following propositions in particular (the weights are given in brackets): 1, on free trade (0.59); 5, on the effectiveness of flexible exchange rates (0.58); 6, on the minimum wage and unemployment (0.53); 10, on inflation as a monetary phenomenon (0.52); 26, on investment in the energy sector (0.57); and 27, on the advantages of central bank independence (0.53). No proposition with a negative correlation had a weight of 0.50 or more.

The second factor proved to have positive correlations with the following propositions in particular: 8, on more equal income distribution (0.61); 17, on income redistribution as a legitimate task of government (0.50); 21, on the inclusion of growth or

employment among central bank objectives (0.50); and 25, on the benefits of a Tobin tax (0.52). Once again, no proposal with a negative correlation had a weight of 0.50 or more.

We imagine that readers must have been as taken aback as we were upon seeing the two results above for the first time. The first factor can evidently be identified with strict orthodoxy and the second, at odds with the first, with a heterodoxy that smacks of Keynesianism. From the evidence set out above, and from a number of the findings described in section IV, a robust conclusion follows: rather than micro/macro and positive/normative dichotomies, it is the respondents' ideology, partially derived from their academic training, that emerges as the main conditioning element in the answers given by the 360 economists surveyed—something that would have seemed perfectly obvious to economists as diverse as Marx, Myrdal and Schumpeter.

## VI Conclusions

This article has analysed the views expressed by a wide range of Mexican economists on a variety of economic propositions. Among the propositions that commanded the greatest assent were: equity in income distribution, vigorous use of antitrust and consumer protection laws, and the use of countercyclical fiscal policies. Among the propositions on which there was most dissension, meanwhile, were: private investment in the energy sector, the factors determining inflation, the minimum wage as a cause of unemployment and the objectives to be pursued by an independent central bank.

This paper has also analysed the response patterns of different groups of economists. No evidence was found of generational differences, nor were there

significant divides between the opinions of male and female economists. A very important factor, however, was the place where the individual's highest academic qualification was obtained. The response pattern of those obtaining it at universities in the United States (or Canada) was markedly to the right of the pattern found among those obtaining it at Mexican or European universities.

Section V of the study presented evidence that neither the positive or normative character of propositions nor their microeconomic or macroeconomic nature were elements that might help account for the degree of consensus or dissension among the respondents. Nonetheless, it also provided evidence that ideological outlook was a key factor in explaining correlations in replies.

To conclude, a final question needs to be asked: would conclusions similar to ours be obtained among the other economists of Latin America? This question will remain unanswered until colleagues in the other Latin American countries pick up the gauntlet.

*(Original: Spanish)*

<sup>5</sup> The methodology followed might be of interest: (i) the value of the Kaiser-Meyer-Olkin statistic for the 30 questions was 0.80, indicating that the propositions had significant common variability; (ii) consideration was given only to factors whose own values were greater than 1 (Kaiser's rule); (iii) the varimax rotation was used in such a way that each of the two factors affected its own corresponding variables but not the others; and (iv) the first factor and the second explained 45% and 28% of the variance, respectively.

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**KEY WORDS**

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# Mirrors of change: industrialists in Chile and Uruguay

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**T**his study examines institutional changes in Chile and Uruguay between the mid-1960s and late 1990s. It seeks to tie together the macro and micro levels in order to observe how institutions working with local and global issues interact or conflict from the perspective of two industrialists' associations, the Manufacturers Association (SFF) in Chile and the Chamber of Industry of Uruguay (CIU). From this vantage point, the study analyses how the organizations' 'logic of appropriateness' has altered since the 1960s, with the expectation of identifying changes in the way sources of legitimacy interact at the global, regional and national levels. To make the process of change more visible, the study concentrates on two years, 1966 and 1998. It also tries to identify new dimensions of comparison between the development processes of Chile and Uruguay.

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# I

## Introduction

Since the 1990s, an increasing body of work has been produced by institutionalists who regard rational choice as too narrow a perspective for explaining conflicts of interest in society (Hart, 1995). One aspect of this approach derives from organizational theory in the social sciences, among whose starting points is the work of Selznick (1949). Selznick maintained that organizations were not “rational creatures” but vehicles for values, and argued that organizational values and standards were transmitted through the institutional environment in which they were embedded. From this perspective, an organization is defined as the function of the legitimated interests transmitted through the ‘institutional environment’. This environment is characterized by the creation of institutional rules and requirements to which organizations must conform if they are to be legitimated. An institution is seen as a ‘social pattern’ governed by particular rules of thought and behaviour, and the institutionalization of an organization takes place when it sets out to validate itself by imitating other models deemed superior (Powell and DiMaggio, 1991). This is of a piece with what March and Olsen (1989) called the ‘logic of appropriateness’, according to which it is possible to enforce rules without direct coercion, by imposing codes of behaviour.

Following this line of thinking, we shall look at industry associations as an institutional meeting point where the interaction of three institutional levels, the national, the regional and the global, can be observed. The boundaries between these levels are not fixed, so labelling organizations or institutions as belonging to one of them does not mean they cannot also act on the others. This study argues that there has been a change in the national institutional environment since the Second World War. The influence of world and regional institutions has increased during this period, a process that can clearly be identified in the globalization of the 1990s. Some refer to this as Empire (Hardt and Negri, 2000); we prefer to speak of the spread of a ‘world culture’ promoting standardized values and models. These have as their core a ‘technical’ (rational) outlook and a culture of human rights (Boli and Georg, 1999) promoted by a number of international bodies, centring on the United Nations system. Regionalism has been

part of this process, but has taken place at a meso level, as a way of confronting globalization (Hettne and Inotai, 1997). All this has increasingly eroded nation-States, the result being that new sources of ‘legitimacy’ have emerged from non-national ‘spheres of authority’ (Rosenau, 2003).

A second hypothesis is that structural changes have different effects at the local level, since each institutional environment creates its own forms of ‘institutional isomorphism’ (mimetism) or resistance. Both Chile and Uruguay display their own forms of adaptation, each having its peculiar local mix of continuity and change. Like any comparison, of course, this one will have different nuances depending on the questions, variables and actors chosen. In any event, the hope is that the conclusions of this study will add to our understanding of institutional change and continuity, both between the countries and between micro- and macro-level institutions. It is also hoped that the approach of this study will reveal other factors that can serve to explain the different paths taken by development in Chile and Uruguay. For decades, the two countries were South America’s most stable democracies, with a strongly developed State machinery and vigorous industrial sector growth. In the 1990s, once again under democratic rule, Chile pulled well ahead of Uruguay as a ‘successful’ model of ‘how things should be done’ in a globalized world.

Following the present introductory section, this study undertakes a brief review of the industrial policies and modes of organization that provide the historical background to each institutional environment (section II). It then focuses on the 1960s, exploring the ‘logic of appropriateness’ in the first institutional wave of world culture (section III). Section IV reviews what has been called here the ‘military interlude’ as the basis for a better understanding of certain patterns of change in the 1990s. Section V analyses the 1990s and section VI, lastly, presents some conclusions.

The military interlude meant an interruption in the influence of certain international bodies, an influence that resumed in a context of market liberalization and the renewed sway of world culture. To make the comparison plainer, the same structure of analysis was followed for the 1960s and the 1990s.

## II

### Early industrial organization and policies

The first effort at organization by Uruguayan industrialists came with the creation of the Industrial League in 1879 (Jacob, 1981). This was short-lived and faced hostility from supporters of free trade: agrarian landowners and the business elite in Montevideo. As the word ‘League’ suggests, this was a loose conglomeration of different groups of fairly weak associations. The debate about a new customs law was to trigger the establishment of the Uruguayan Industrial Union (UIU) in 1898 (Ferrando, 1989), mobilizing the old members of the League in defence of protectionist ideals. The industrial sector was coming up at this time owing to the growth of industrial activity and the increasing influence of José Batlle y Ordóñez and ‘Batllismo’.<sup>1</sup> Most UIU members were owners of small workshops, since there were very few large manufacturing plants in the country. The ranks of the UIU did not include any of the country’s leading families, but different immigrant groups were strongly represented (Beretta Curi and Etcheverry, 1998). Another point that should be stressed is how little State involvement there was when industrialists began to organize. However, many of the association’s younger members went on to join the ranks of the country’s leading politicians. One example is Batlle y Ordóñez himself, who was a journalist in the Industrial League, and another was José Serrato, an engineer in the UIU.<sup>2</sup> Business leaders were included in the decision-making process as Batllismo gained ground, and this gave rise to organizational changes designed to ensure effective business representation. Thus, in 1914 the Chamber of Industry of Uruguay was founded with the aim of creating a more centralized and efficient structure. The name UIU was retained, while some documents and statements were signed under the name of ‘Chamber of Industry of Uruguay, leading corporation of the Union of Industrialists of Uruguay’. Only in 1973 was the Chamber of Industry of Uruguay appellation formalized as the organization’s sole name.

The situation in Chile was very different. By the late nineteenth century, the Pacific War had already generated strong State demand for heavy industry. Before the conflict, the Chilean manufacturing sector comprised a few isolated factories and a range of small workshops. With large mineral deposits secured, both mining and railway construction stimulated the establishment of heavy industries because of their growing requirements for locomotives and equipment (Kirsch, 1977). Chilean industry thus emerged in close association with the State, under tariff protection or direct government ownership. By contrast with the situation in Uruguay, there was active official support for the creation of the Manufacturers Association (SFF). The finance minister asked the National Society of Agriculture (SNA) to support the creation of an association that would represent the interests of Chilean manufacturers (Ceppi, Sanhueza and others, 1983). It was thus that the Manufacturers Association came to be created in 1883 under State auspices (Zeitlin, 1984)—a modest organization that had to hold its meetings on the premises of the SNA (Apey, 1988). The support of the SNA shows that, despite the growth of industry, there were no serious conflicts between rural and industrial interests.

The role of the SFF grew in importance when industrialization became a State policy, conducted through bodies such as the Production Development Corporation (CORFO), created in 1939. It is no coincidence that the initiative of creating the SFF was a ‘top-down’ one issuing from the State, and that the State also centralized industrial policies through CORFO, whose technical pre-eminence was respected and emulated by businesses. This can be seen as part and parcel of two characteristically Chilean institutions: elitism and meritocracy. Chile isolated itself from the civil wars of the Southern Cone, giving continuity and strength to a hierarchically structured State apparatus dominated by an oligarchy, to a meritocratic State bureaucracy and to a political class with an interest in a strong State.

The consolidation of the Uruguayan State, and of its oligarchy, came much later. This might explain why the CIU was a ‘bottom-up’ creation. Although it became institutionalized during the Batllista period, contacts

<sup>1</sup> Batlle was President of Uruguay in 1903-1907 and 1911-1915.

<sup>2</sup> Serrato was President of Uruguay in 1923-1927.

with the State were as fragmented as industrial policies, where these existed. Leaving aside Batlle's towering presence, what Uruguay had were not 'policies' but 'shoves' delivered by the leadership of the moment and personal networks. This is why caudillism and clientelism emerge as predominant institutions. The difference between caudillism (Uruguay) and elitism (Chile) is that while the former has more to do with

'charisma', which operates horizontally across social groups, the latter is based on a more vertical structure in which a hierarchical order is segmented by way of dominant groups. None of this means that the salient features of one case are not to be found in the other; we are simply pointing out what appear to be the characteristics of each institutional environment.

### III

## The 1960s

### 1. Uruguay

During the first half of the twentieth century, the CIU turned itself into a solid and increasingly influential organization, a process that was associated with the rapid advance of industry and the strengthening of industrial groups. Approximately half of today's Uruguayan industrial groups were formed between 1933 and 1954 (Zurbriggen, 1999). In 1966, the CIU had a membership of some 20,000 companies with around 500,000 employees (*El Día*, 1966). The General Assembly was the most representative body, electing board members by means of lists rather than as individual candidates. A great many members came from sectoral industry associations, which were required to see that all their members were registered as members of the CIU, although this was not strictly enforced. The industry associations also had non-voting representatives on the board. Furthermore, one criterion for selecting candidates was that they should represent people from different sectors with previous experience in an industry association. Each election replaced a third of board members, so that change was gradual. All this added up to a generally non-confrontational atmosphere, since the different industry associations (and the major companies) usually agreed upon a common list of candidates. This system assured stability in the running of the CIU whilst reducing internal debate and participation. Thus, the dominance of large firms gave the CIU the image of a 'big industrialists' club'. At the 1966 General Assembly, just 49 companies participated in the election (CIU, 1966). Besides the industry associations, the board had a great deal of influence, extended through the working

committees. Committee chairmen were board members, but had to be approved by the General Assembly.

Most of the CIU annual report for 1966-1967 was given over to information about contacts with public authorities regarding customs matters or exchange rates (CIU, 1966). It is unsurprising, then, that the two national units most often mentioned were the Ministry of Industry and the (State-owned) Banco de la República Oriental del Uruguay. The CIU offered little in the way of services and did not pay much attention to small and medium-sized enterprises (SMEs); this reinforced its image as an elitist organization and may have contributed to the low turnout in internal elections. As for the profile of board members, the annual report referred to above shows that about half had no academic qualifications (a profile similar to that of industry ministers at the time). Of those who did have such qualifications, most lacked any training in economics or technological disciplines. There was a retired general, a doctor and two lawyers. Two engineers and an accountant represented professions perhaps more allied with manufacturing. This lack of professionalism was a characteristic shared with the Uruguayan civil service (CIDE, 1989). The country had no training plan for officials, and when something along these lines was implemented, little account was taken of the private sector. Companies continued to be family-owned (owners were usually first- or second-generation immigrants) and produced consumer goods for the local market. Although some had grown into oligopolies (with State protection), they had no incentive to change. Sons succeeded fathers with no change in management profiles, which is perhaps why most board members were owners rather than professional managers. Nor

was there any interest in change: contacts with the State guaranteed business and the importance of the CIU was not at issue.

*(a) The national level*

Most CIU contacts were with the executive branch, and especially the industry ministry, which industrialists lobbied for various types of State intervention. The ministry had little in the way of industrial policies, however, and lacked the technical capabilities and powers of coordination to implement policies efficiently. If professional training is taken as an indicator of 'technical capacity', the backgrounds of ministers are revealing. Between 1907 and 1996 there were just one economist, five accountants and four engineers; the rest were lawyers or people without academic qualifications (MIEM, 1997). Few came from the private sector. The profile of ministers suggests that party affiliation outweighed technical capabilities. Another important body in the State was the Banco de la República Oriental del Uruguay, which had the monopoly of the currency market and controlled the country's system of differentiated exchange rates. A key division in the bank was the Auditing Unit for Currency Operations and Capital Transfers Abroad. Although the position of the bank declined with the liberal reforms of the early 1960s, it was still playing an important role in the middle of the decade.

Other points of intersection between industrialists and the State were the different committees that acted as meeting places between the public and private sectors. Although these were not often mentioned in CIU reports, their activities may serve to show the areas in which businesses exercised influence. Two examples are the Rebate Advisory Committee and the Tariff Board. Although the CIU had little influence on policy-making, it had a great deal to say about rebates and import tariffs. One particularly interesting aspect of the interaction with the State was the Uruguayan version of developmentalism, promoted by the Investment and Economic Development Committee (CIDE) created in January 1960. This committee had high-grade technical staff and its work had an effect on industry. Contrary to the usual perception of industrialists as 'clientelist' or 'short-termist', there were serious efforts by the sector to offer proposals of its own that would harmonize with the work of the CIDE. The most important of these was the creation of the Coordinating Committee for Economic Development (COMCORDE) in 1963. Widespread support for the creation of the CIDE was a fundamental source of inspiration for

COMCORDE members.<sup>3</sup> Approximately 50 technical specialists passed through this coordinating committee, one of the first organizations in the country to recruit economists. From the dissolution of the CIDE in 1967 to its own closure in 1981, COMCORDE produced a series of indicative planning studies and sectoral analyses. Because the CIDE was a modernizing venture with a wide-ranging long-term vision, the CIU firmly supported it. It is also clear, though, that the CIDE was very dependent on the State. When the latter lost interest in developmentalism, businesses were unable to sustain the new approach and went back to their old ways.

*(b) The regional and global level*

Most references to non-Uruguayan bodies in the 1966-1967 annual report concern regional organizations, especially the Latin American Free Trade Association (LAFTA), created in 1961. Businesses were initially somewhat apathetic about this initiative, in which they participated at the behest of the government rather than on their own initiative (Finch, 1973). Nor were official efforts to engage the private sector very enthusiastic. As for the CIU, Astori (1980) argues that the Chamber perceived the free trade area more as a threat to Uruguay's protectionist system than as a change in the international context that would help increase industrial exports. Unsurprisingly, then, the Chamber did not participate in the preparatory committees for the LAFTA agreement. By 1966 the Chamber's scepticism had abated markedly: it was argued that LAFTA was of critical importance for Uruguay and that more attention had to be paid to the subject of integration and the adoption of a long-term policy. Apart from the trade aspect, industrialists were interested in the new types of international business networks that developed around the negotiations: for example, the Association of Latin American Industrialists (AILA). Regional bodies of this type did much to promote new kinds of business identity that played a key role in the adoption of a positive stance towards LAFTA.

Despite the changing attitude of the CIU towards integration, its organizational structure did not alter much<sup>4</sup> and LAFTA hardly rated a mention in the 1966-1967 annual report, perhaps because the CIU never

<sup>3</sup> Interview with Walter Luciaro Aznares, technical secretary of the CIU in 1966.

<sup>4</sup> Interview with Carlos Folle, head of the CIU in 1966.

explicitly adopted a pro-export outlook. Only in the mid-1970s was an external trade committee created in the CIU, with much internal discussion of the progress made by sectoral meetings, supplementary agreements and regional programmes for businesses. Although the CIU had a low profile in the LAFTA process, sectoral industry associations and large companies were more active. Because the State did not have the tools it needed to obtain the requisite information, businesses played a key role in the preference or concession issues negotiated by Uruguay with other countries. Requests for information were routed through the CIU or directly through sectoral associations. From this point of view, it would be true to say that they exercised influence. Another part of the LAFTA process related to the work of the Association of Latin American Industrialists (AILA). Having been fairly enthusiastic to begin with, in 1966 the CIU turned sceptical, arguing that AILA tended to be over-bureaucratic and that its members did not have the financial capacity to make it work (*La Mañana*, 1966).

The CIU 1966-1967 annual report mentions just two international forums (the World Wool Congress and the International Labour Conference) in a way that indicates some kind of engagement. There are also two mentions of the Uruguayan Technical Standards Institute (UNIT), founded in 1939. Although this was a Uruguayan body (private but State-backed), it quickly began to act as a representative of international institutions in its work with quality standards. Businesses had little interest in quality improvements, so UNIT was barely mentioned. It is interesting to note that the international organization that was perhaps most important to the industrial sector, the Inter-American Development Bank (IDB), was not mentioned in this annual report. This may be due to the lack of formal contact between the CIU and the IDB, which essentially operated through the State and, most particularly, the Banco de la República Oriental del Uruguay. On the whole, there was little that the CIU might have written about regional or global organizations in that period.

## 2. Chile

The technical profile of SFF executive committee members gives a good idea of the difference between the institutional settings of Chile and Uruguay. Most were professionals, invariably engineers. Foreign qualifications do not seem to have been common in Chile either: just one committee member held them. Most of the members held positions in the State

apparatus, examples being the SFF representatives on the boards of CORFO and the Central Bank of Chile. Something the SFF had in common with the CIU was that the members of its executive committee came essentially from large firms. On the other hand, managers were better represented on the SFF board, perhaps because Chile had a more highly developed industrial sector where professional managers (as opposed to traditional owners) were more likely to represent firms. The strong presence of large companies (represented by owners or managers) in the SFF leadership heightened the organization's image as a representative of business groups. What Arriagada (1970) called the "oligarchic tendency" was entrenched by statutes that did not allow voting by lists, thus preventing the creation of electoral groups. At the same time, industry associations had one vote each on the executive committee, which did not reflect their true weight in the SFF. For example, the Association of Metallurgical and Mechanical Engineering Industries (ASIMET), representing 17.5% of members, had just one seat on the committee. Furthermore, 28% of executive committee members were honorary and former chairmen had a seat for life. According to Arriagada (1970), these elements combined to favour oligarchic tendencies that benefited large industrial groups.

### (a) *The national level*

Although LAFTA was the organization that received the most mentions in the SFF 1966-1967 annual report (SFF, 1966), most of the association's contacts were with local organizations as a group, and particularly State ones, especially CORFO, the Central Bank and parliament. In relation to CORFO, this annual report refers to contacts in which the SFF called for lower tariffs on imports of industrial equipment. Another reference is to complaints by regional industry associations about difficulties with credits and debt repayments. These representations were made to the SFF leadership and then relayed directly to CORFO. Regarding the Central Bank, import quotas were an important concern. This also came up in the debate on an export promotion law. As for interaction with parliament, to which it gave higher priority than the CIU, the SFF had an advisory group on parliamentary matters which members could approach for advice and contacts with politicians. SFF (1966) shows that the association expressed its views on amendments to the law giving special tariff treatment to the Department of Arica. Parliament was also mentioned in connection with the law to promote the automobile industry in Chile and constitutional amendments to

“weaken effective private property rights”. This was partially related to an outspoken debate on agrarian reform.

Regarding participation on State committees, the SFF, like the CIU, had an institutionalized role in the import substitution structure. It was represented on State bodies such as the Banco del Estado, CORFO and the General Board of Customs, where business leaders concerned themselves mainly with specific issues such as prices, exchange controls or specific laws. Beyond this involvement, industrialists did not appear to have any particular stance of their own on the economy. Each was basically concerned with its own sector, leaving the initiative of producing economic and social policies to the State. This did not mean that they did not try to create their own analytical instruments. In 1954, a group of businesses founded the Chilean Institute of Rational Business Management (ICARE). Those behind the initiative saw themselves as ‘progressive employers’ and most of their leaders were from the SFF (*Empresa*, 1968). At the same time as ICARE was showing it had the initiative to create research centres of its own, there were signs of close interaction with the State. Very well-known officials and supporters of the Christian Democratic Party, such as Raúl Sáez and Gabriel Valdés, became presidents of the institute. Until 1968, almost all ICARE chairmen had held public office, most as ministers or ambassadors.

*(b) The regional and global level*

As in the case of the CIU, the international body most often mentioned in the SFF 1966-1967 annual report was regional in character: LAFTA. The participation of the SFF in the LAFTA system was also similar to that of the CIU: both gave or withheld their approval to negotiated products. In the Chilean case, it is surprising that LAFTA was mentioned more often than CORFO, since industrialists were not export-oriented. One reason could be that Chile was among the most active countries in the integration debate. It is no coincidence that the headquarters of the Economic Commission for Latin America (ECLA)<sup>5</sup> was located in Santiago, the Chilean capital, or that several of that organization’s great thinkers were Chilean. Industrialists were also enthusiastic about ECLA initiatives, as was LAFTA. In 1961, at the annual meeting of the

SFF National Industry Convention, firm support was expressed for the integration process and the decision was taken to create a free trade committee in the SFF, whose work would be coordinated jointly with the government. Opinion was not unanimous, however, as companies in the light industry segment (comprising most of Uruguayan industry) rather tended to oppose the idea from fear of regional competition (Mikesell, 1961). Despite this, the SFF was one of the driving forces behind LAFTA. This perhaps ties in with its image as an elite organization, although many of the enthusiasts were also jealous of their tariff protections. LAFTA had another dimension that transcended economic calculations.

Businesses were highly dependent on a State that was making major advances in the industrial sector. This was viewed with suspicion by the SFF leadership, whose position was weakening owing to the successes of CORFO and its ‘public-sector entrepreneurs’. In this context, the declarations made in support of the private sector by regional integration organizations and their associated business networks acted as a counterweight to growing ‘statism’. The strategy of Chilean business leaders was to pursue ideological strength and legitimacy through these organizations, in order to promote the idea that Chile needed the private sector. Perhaps this is why the SFF showed itself more favourable to AILA than the CIU; even as the CIU was criticizing AILA as a bureaucratic and unnecessary organization, the SFF was making more positive statements in support of a higher level of institutionalized private-sector involvement in the negotiations. The IDB, under the leadership of a Chilean, Felipe Herrera, provided Chile with a great deal of support but had little contact with the SFF. The SFF 1966-1967 annual report tells of the donation of a valuable economics library to the SFF by the IDB and describes the participation of members of the Chilean business community in a conference on regional integration financed by the bank. The SFF seems to have had rather more contact with the IDB than did the CIU, but this should not be put down exclusively to a specific outlook among businesses. In fact, most regional and global contacts were handled by the State. As early as the 1950s it began to send officials to study abroad and strengthened ties with universities in the United States and Europe. Meanwhile, Chile was very popular with international organizations, receiving more support than any other country in terms of dollars per capita (*El Mercurio*, 1966). A major impetus was provided here by the interaction with ECLA, the international body most influential in spreading the technocratic

<sup>5</sup> Now the Economic Commission for Latin America and the Caribbean (ECLAC).

approach in government and business circles through indicative planning. The ingredients of the first wave

of world culture can clearly be seen at work in Chilean institutions.

## IV

### The military interlude

The coup in Uruguay was launched by a constitutional president with military support, so that there was continuity in economic policies and leadership. As Faroppa (1982) explains, the bases of the model from 1973 onward were the same as those adopted shortly before by the civilian government, i.e., the 1973-1977 National Development Plan, produced by the Office of Planning and the Budget. The regime's economy minister himself, Alejandro Vegh Villegas, has explained that when he took up the position he based his actions on the plan prepared by Ricardo Zerbino and Alberto Bensi6n.<sup>6</sup> Both Zerbino and Bensi6n later became ministers in post-dictatorship governments, so that it is reasonable to speak of continuity in economic policy design. Two of the main initiatives of Vegh's ministry had already been signed when he came to power: the Argentine-Uruguayan Economic Co-operation Agreement (CAUCE) and the Protocol on the Expansion of Trade between Uruguay and Brazil (PEC). These agreements were very important for the manufacturing sector, and the CIU in particular, as it acquired an institutionalized position in the new trading system with a monopoly on the issue of certificates of origin for exports under CAUCE and PEC, thus obtaining a new and very substantial source of revenue.

When the army seized power in Chile, the State controlled almost the whole of the banking system, over 323 firms had been confiscated or were under State supervision, and large tracts of land were being

administered by cooperatives. During 1972, exports fell to their lowest level yet, inflation reached 600% and export revenues were 80% dependent on copper. Private-sector associations saw themselves as part of the driving force behind a victorious revolution and the new regime (Campero, 1984). They continued to give their support even though they were soon pushed to the sidelines by what Silva (1996) called the "radical neoliberal coalition", and even when sharp tariff cuts forced large sectors of industry into bankruptcy. The severe economic crisis of 1982 finally removed this tendency, which was replaced by a pragmatic neoliberal group in which business had a greater voice. After their testing experiences with both the Popular Unity government and the 'Chicago boys', businesses began to develop their own technical capabilities, acquiring a shared language with the State technocracy.

In Uruguay, meanwhile, certain traditional features remained. After more than a decade of military government, economic policies culminated in an instrument designed to create a base of clientelist support for the men of the dictatorship (Stolovich, Rodr6guez and B6rtola, 1996). Owing to the structure of the military junta itself, and by contrast with Pinochet's centralism, each section of the armed forces had a significant power of veto, which created opportunities for establishing pressure groups and reduced the influence of State experts on public policy implementation. The military did not succeed in consolidating caudillo figures. What they did was to create sectoral leaderships that interfered with the operation of centralizing mechanisms and led to clientelism. Changes were few, among industrialists as elsewhere.

<sup>6</sup> Interview with Alejandro Vegh Villegas, Minister of Economy in 1974-1976 and 1983-1985.



# V

## The 1990s

### 1. Chile

The environment was the subject treated at greatest length in the SFF 1998-1999 annual report. This was an issue that was almost non-existent in the 1960s and that began to be taken seriously in 1992, with the appearance of the first State environmental programme, the Metropolitan Region Decontamination Plan. A few years later there were 10 national programmes. Although the environment became a very important issue for industrialists, it only occupied a small portion of SFF manpower. One reason for this was the substantial technical support provided by member firms. The task of the SFF, therefore, was mainly to monitor the legislative process through special committees in which company experts participated.<sup>7</sup> A second issue addressed in this annual report was that of international relations and foreign trade. The issue of foreign trade gained in importance, it might be said, in two ways: through participation in trade negotiations and through the work done with trade promotion organizations (services). The SFF became the 'technical secretariat' for the private sector where trade negotiations were concerned.<sup>8</sup> A third set of issues was dealt with by the social development section, which did not exist in 1966; the most important of these derived from the association's traditional commitments, such as industrial education. By 1998, the SFF was running 18 technical secondary schools nationwide and had become one of the country's intermediate technical training organizations (OTIC) by virtue of a State programme run by the National Training and Employment Service (SENCE). The 1997-1998 annual report also refers to the Small Business Development Corporation (PROPESA), which provided small enterprises with soft loans and ran educational programmes with the help of resources from the Solidarity and Social Investment Fund (FOSIS), allocated by CORFO.

The composition of the 1998 executive committee, as compared with that of 1966, evinces two tendencies:

greater professionalization and concentration in economic areas. In 1998, 85% of the committee was composed of professionals, as against 64% in 1966. Most of them were engineers or what in Chile are called commercial engineers. In 1998 there were also more foreign-educated members, almost all of them graduates of universities in the United States. Between 1966 and 1998, the proportion of managers on the committee rose from 63% to 70%, while the share of members holding public office fell from 55% to 30%. Another characteristic was that more members had ties to companies belonging to the major industrial groups.

#### (a) *The national level*

The organization most often mentioned in the SFF 1997-1998 annual report was the National Environment Commission (CONAMA). Another public body mentioned in connection with environmental issues was the Metropolitan Environmental Health Service (SESMA), which was responsible for implementing the Metropolitan Region Decontamination Plan. This was a matter of the greatest importance for businesses, as the emissions of a number of firms were to be monitored by public bodies. The role of SESMA was rather reactive in nature, since CONAMA was the driving force behind the new regulations.

As regards foreign trade, there was an explosion of services provided mainly by the Chilean State, which had improved its coordination mechanisms both internally (Interministerial Committee for International Economic Negotiations) and externally with the private sector (Private Sector Participation Committee). A key organization was the Office of International Economic Affairs (DIRECON), which came under the Ministry of Foreign Affairs. As Silva (2001) explains, the relationship between DIRECON and the SFF became a key link in public-private interaction, as they were both coordination units in their respective areas. Another State UNIT with close links to the SFF was the Export Promotion Bureau, known as ProChile, which helped Chilean businesses enter international markets. Although CORFO is hardly mentioned in the 1997-1998 annual report, many of the governmental or paragonmental bodies appearing there were

<sup>7</sup> Interview with Anibal Mege Thierry, head of the SFF environmental section.

<sup>8</sup> Interview with Anibal Mege Thierry.

part of the network financed by CORFO. During the first half of the 1990s, the total amount of resources transferred through public financing instruments could be put at some US\$ 470 million (Muñoz, 1997, p. 8). Although public assistance programmes were criticized for being slow or inefficient, they were not spurned by the representatives of the SFF, which indeed had benefited financially from the system. The position of the SFF is reminiscent in a way of that attending the creation of CORFO, when it was accepted that the State should take responsibility for a large proportion of business development policies, trusting that this would not undermine private property rights. Mutual understanding with the State could also be seen in the increasingly technocratic nature of both the public and the private sectors. Almost all CORFO programme directors were economists, many of them graduates of United States universities. The same was true of high-level executives in the private sector. On the whole, there was a somewhat 'promiscuous' relationship between the public and private sectors. SFF participation in these service structures seems to have fallen off towards the late 1990s, however. In place of the SFF, the main interlocutor for CORFO and the industrial sector came to be a sectoral association of the SFF, the Association of Exporters of Manufactures (ASEXMA).

*(b) The regional and global level*

The non-Uruguayan organization most often mentioned in the SFF 1997-1998 annual report was MERCOSUR (it ranked fifth overall). This is rather different to the situation with LAFTA in 1966. When the references are compared between the two periods, other interesting differences emerge. In the 1990s, patterns of interaction between the SFF and the regional and global levels were not really directed at individual organizations so much as at free trade negotiations and treaties, a reflection perhaps of the fact that Chile had the most trade agreements of any country in Latin America, and that businesses were increasingly export-oriented. The space given over to trade (including MERCOSUR) in the annual report cited does not reflect the huge impact of this issue on the structure of the SFF. In the 1960s, the SFF acted as a 'messenger' in the negotiations: it was given the lists of topics to be negotiated, delivered them to the companies concerned and then relayed their responses to the government.<sup>9</sup>

In the 1990s, the negotiating format was far more complex: not only were almost all the issues on the table at once, but negotiations were going on with several different countries at the same time. This led to the creation of a whole new system of interaction with the State, one of the precedents for which was the 1997 partnership treaty with MERCOSUR containing timetables for tariff reductions across the board. Perceiving that an agreement with MERCOSUR was of strategic value, the SFF gave its technical and political support. The partnership negotiated by Chile with MERCOSUR also transcended commercial calculation. Business representatives and State technocrats worked closely together on the complex negotiations. Another important if less crucial aspect was growing collaboration among the region's firms by virtue of their participation in private-sector organizations or networks, usually centring on trade agreements or negotiations; these included the MERCOSUR Industrial Council and the Business Network for Hemispheric Integration (REIH). The growing interest in external trade led to the creation of new working groups in the SFF, and to the incorporation of a large network of company consultants and specialists.

Where services are concerned, there is a striking lack of references to external cooperation agencies in SFF documents. Although many were highly active in this field, they go virtually unmentioned. On the whole, the SFF showed a certain reluctance to become involved with them. It argued, for example, that it did not need funding from these organizations because it was operating as a private business, competing in the marketplace (largely with State financing). It is true that it had had little involvement with international agencies in the 1960s, but it is surprising that this situation should have continued as these organizations became increasingly active locally. Thus, for example, GTZ (German Agency for Technical Cooperation),<sup>10</sup> one of the most influential development agencies in Chile, which specialized in assisting SMEs, acted not through the SFF but through ASEXMA. The SFF was considered to have a rather authoritarian conception of social relations and was seen as a defender of large companies, with little representation among SMEs. Representatives of two organizations that were important in the field of business services thought

<sup>9</sup> Interview with Hugo Baierlein Hermida, SFF external trade director.

<sup>10</sup> *Deutsche Gesellschaft für Technische Zusammenarbeit.*

much the same: Eurocentro (financed by the European Union) and the IDB.<sup>11</sup>

One of the elements that most conflicted with world culture came to light during Augusto Pinochet's trial in the United Kingdom. As Tironi (1999, p. 59) points out, Pinochet's detention made many Chilean business leaders realize that globalization, formerly so idealized, could become a threat, and they quickly began to demonize it. Furthermore, Pinochet's detention showed that Chile was involved with the world not just economically but morally, politically and legally as well.

## 2. Uruguay

A comparison of the CIU organization chart of 1998 with that of 1966 shows that most of the committees operating in the 1960s had kept their names. However, some new issues had come to prominence, among them foreign trade. Although a Free Trade Area Advisory Commission already existed in 1966, it concerned itself almost exclusively with LAFTA. In 1998, by contrast, the External Trade Committee was considered to be of crucial importance for the sector, had a much wider range of activities and easily attracted the largest number of participants of any committee (35, against an average of 15). The Environment Committee, which was also new, was much less active, perhaps because the State had done very little work in this area, for which its Technical Advisory Committee on Environmental Protection (COTAMA) was responsible. Another committee that had not existed in the 1960s was the one responsible for relations with the 'interior' (the rest of the country outside the Montevideo area). To be represented nationwide was always a goal of the Chamber and one which has not yet been achieved, even though Uruguay is a relatively small country. Among the committees surviving from the 1960s was one concerned with science, technology and quality, perhaps because these issues, along with foreign trade, attracted a particularly large volume of services and support from international organizations. The Economic Affairs and Investment Unit also had a long track record. Apart from what COMCORDE had

done, the CIU did not have much research of its own. The 1990s brought a renewed interest in this type of activity, but the studies carried out were not focused on long-term policies, generally dealing instead with periodic indicators. Lastly, the Social and Employment Relations Committee also existed in 1966, but this was not a very active area for the CIU.

In 1998, the board of the Chamber included only a small number of professionals, something that did not sit well with its new service-oriented profile and indeed marked a change from its composition in 1966, when there were more professionals (CIU, 1998). Another interesting point is that in 1998, none of the board seems to have held public office. This was also a change from 1966, when at least two held government positions. In the two years considered, no board member had a foreign degree. If board members are assumed to be representative of the leading group of industrialists, it has to be said that their professional profile was weak, whether compared to the 1960s or to the SFF. In the latter, not only did the number of professionals and managers increase, but so did the number of qualifications obtained abroad. In addition to having a weak professional profile, the membership of the CIU board was still constituted mainly by owners (of companies with little international exposure) rather than professional managers. It would seem that despite efforts at liberal reform, the new generation of Uruguayan business leaders still came from an institutional environment in which the premium was on social skills more than professional ones. This characteristic was mentioned in an ECLAC study, which argued that in Uruguay most contacts were initiated individually, highlighting the importance of relying on personal networks rather than on those backed by the State or any other organization (ECLAC, 1998). However, the profound impact of the crises and of trade liberalization on industry caused many large companies to disappear. Consequently, SMEs were better represented on the 1998 board, and this may have been an incentive for change. A sign of this was the election of new authorities in 1992, when several candidate lists were presented for the first time in 20 years. According to Zurbriggen (1999), almost 50% of members participated in the election, an enormous increase on the 3% (about 50 members) that normally voted. New actors entered the scene.

### (a) *The national level*

One of the national organizations most often mentioned in the CIU 1998-1999 annual report was

<sup>11</sup> Interviews with Francesca Di Micco, in charge of the Eurocentro project; Vladimir Radovic, IDB representative in Chile; and Peter Palesch, director of the GTZ agency in Chile and coordinator for the whole of MERCOSUR.

the Ministry of Industry, Energy and Mining (MIEM), although tariff and subsidy reductions meant that this was no longer the 'pressure point' it had formerly been. The reforms of the 1990s assigned this ministry the role of service coordinator and promoter of SME support programmes. Nonetheless, a significant proportion of companies did not see any advantage to participating in programmes related to the creation of export consortia or networks of different kinds, fearing excessive bureaucratization (ECLAC, 1998). Some went further and complained of "the Ministry's poor image". Another criticism, echoing Esser, Almer and others (1983), was of a lack of direction in competitiveness policies. There were even some who argued that "MIEM has no real existence", as it was only part of a clientelist party agreement: if a government of the white party was in power, the ministry would belong to the red party, and vice versa.

Another organization that was often mentioned was the Technological Laboratory of Uruguay (LATU). This was the country's leading technology laboratory, holding International Organization for Standardization (ISO) certification and acting in turn as a certification body for ISO standards. It was associated with quality and new technologies, thereby helping to give the CIU a 'modern' image. Among the organizations working with LATU were the Technological Management Centre (CEGETEC) and the National Business Support Service (SENAE), whose main mission was to provide smes with technical assistance and project implementation guidance. The third most frequently cited Uruguayan organization was parliament. As we saw earlier, the CIU had created a committee to deal with legislative issues. According to business people, parliament was generally ill-informed about the industrial sector and there were virtually no institutionalized channels for exchanging views. This committee sought to monitor legal issues relating to the sector and help CIU member associations present their positions or alternative proposals to parliamentarians.

*(b) The regional and global level*

Although the CIU 1966-1967 annual report made more mention of local organizations than of international or regional ones, the latter gained greatly in prominence over the 1966-1998 period. Among non-Uruguayan organizations (and indeed in total), the most frequent mentions were of MERCOSUR. However, Uruguayan business leaders did not show much interest in participating in the integration process (Birle, Imbusch and Wagner, 1994). It is true that the

CIU was quick to accept MERCOSUR, but this owed more to a feeling that there was no alternative than to a true regionalist spirit or export ambitions. When companies, after decades of protection, grasped the harsh realities of lower tariffs, the Chamber's optimism gave way to qualified support. Liberalization increased the vulnerability of Uruguayan industry and reduced the Chamber's revenues, since fewer certificates of origin were issued. One channel of participation in the process was the Sectoral Commission for MERCOSUR (COMISEC). Outside the State arena, there was also the MERCOSUR Industrial Council (CIM), which provided the Chamber with an international outlet for its views. Other than this, the State played a more preponderant role in the new trade negotiating format than it had in the 1960s.

Although MERCOSUR had a powerful impact on Uruguayan industrial structures, some international bodies influenced the organizational structure of the CIU and were crucial to its transformation into a service provider in the early 1990s. The 'trigger' for this was a project financed by the United Nations Industrial Development Organization (UNIDO) in 1992, which led on to an IDB-financed project to study trade opportunities in Argentina, Brazil and Mexico.<sup>12</sup> This project left the CIU with two units supported by IDB funding: the Business Information Service (SIPE) and a training UNIT called the Industrial Institute for Higher Studies (IIES). The IDB became one of the CIU's leading sources of support, going on to finance technical assistance and consultancy services for project implementation (CEGETEC) and the formation of 'export consortia'. The tie-up with the IDB also operated on other levels, as a number of executives (technical experts) working in the CIU were in receipt of direct or indirect financing from the bank. IDB support did not come all at once, however. In view of the Chamber's weaknesses as a service provider, IDB programmes included an 'institution-building' item intended to improve the technical capacity of the CIU. Another institution that also targeted businesses with SME programmes in Uruguay was GTZ. Its first project with the CIU began in the early 1990s with the establishment of an SME support division. Like the IDB, GTZ included 'institutional support' in its projects, something that was of a piece with its policy

<sup>12</sup> Interview with Roberto Villamil, general manager of the CIU.

of turning industry associations into service-oriented organizations.<sup>13</sup>

In Uruguay, as in Chile, the European Union had development networks and programmes. One of them, in which the CIU (unlike the SFF in Chile) played an important role, was the Eurocentro, which was established within the Chamber itself and actively fostered trading ties between Uruguay and the European Union. In this way, the CIU also developed links to the Technological Information Promotion System (TIPS), associated with the United Nations Development Programme

(UNDP), and to the Development Information Network (DEVNET), and became the official representative for the 'REFA methodology', among other things. This started with a GTZ-financed project whereby REFA International<sup>14</sup> helped to organize the CIU educational division. The appearance of the Chamber's corridors was very different in 1998 to that of 1966. Many office doors bore the name of an international organization or an externally funded project. This meant not just new sources of financing, but greater influence for non-Uruguayan sources of legitimation.

## VI

### Conclusions

This study has examined the process of institutional change in Chile and Uruguay as experienced through industrialists' associations. The hypothesis put forward here concerning an increase in the influence of global institutions and organizations in the 1990s has been confirmed. In the 1960s, world culture was already establishing a presence through international organizations that spread organizational models based on a rational culture. Support for 'planning' was associated in Chile and Uruguay with the promotion of a positive view of technical disciplines, the State and democracy. This outlook was embodied in developmentalism and ECLA, also strong promoters of regionalism, and had great influence on industrialists, especially in Chile. During the military interlude, the role of the State, democratic values and regionalism went into abeyance. The process of institutional change through market reforms continued, however, particularly in Chile. In the 1990s, with democracy re-established in both countries, there was a new influx of world culture in which international bodies had a stronger presence, the core issues now being external trade and competitiveness. This highlighted the importance of regionalism, whose main manifestation was MERCOSUR. In both countries, there were also changes in methods of interaction with the State, the most important player at the national level. Interaction

of a subordinate, corporative nature gave way to a relationship based increasingly on services. These are the similarities, which are largely attributable to systemic changes.

The differences, for their part, have much to do with institutional peculiarities rooted in each local institutional environment. 'Clientelism' and 'caudillism' predominate in Uruguay, something that is associated with a permanent fragmentation of public policies and dependence on individual initiatives dominated by only loosely coordinated networks. This might explain the weak position of technical specialists and centralizing agents, ultimately resulting in a weak position for the State. Although the State remains very important for industrialists, its presence has diminished. This has opened the way to a larger role for international organizations and the "NGO-ization" of the CIU. In Chile, the technocratic approach has been maintained and strengthened, providing the basis for an elitism which has created points of contact between the SFF and the State. This is of a piece with the traditional tendency towards centralization via a 'big State' or a 'strong State'.

The present study shows that, for all their increasingly liberal rhetoric, Chilean business leaders have been resuming their close ties with the State, except that there has been a change in their substance.

<sup>13</sup> Interview with Alfredo Echegaray, IDB sector specialist in Uruguay.

<sup>14</sup> REFA International is a German federal association for business organization and training.

Regarding the relationship between Chile and the world, we would say that its position as a 'model country' is nothing new, since it already had a great affinity to world culture in the 1990s. It would be a mistake to conclude that Chile was wholly attuned to 'appropriateness', however. There are elements of confrontation with world cultural values, forcing the SFF to grapple with less hierarchical and elitist conceptions of society; this may be the reason for its limited contact with international organizations, which are viewed with some suspicion. The reaction of the SFF to the Pinochet issue is also part of that confrontation. Oddly enough, this is leading it to strengthen its ties with the State, which is seen as an 'ally' when dealing with the economic and cultural aspects of globalization.

In this respect, the Uruguayans are at an advantage. 'Caudillism' and 'clientelism' bring a horizontality that fits better with ideas of what is 'appropriate' in global culture. They provide other possibilities for interaction between individuals and elites, both for citizens (in relation to the State) and in the private sector. It is not for nothing that when countries are ranked for their democratic character, Uruguay continues to come out near the top. In summary, if world culture is accepted as an ideal type, it might be said that Chile has a technocratic advantage over Uruguay, but that its elitism is a disadvantage. Uruguay, with its more horizontal, democratic culture, is still better placed in this respect, although it must be said that Chile is quickly closing the gap.

(Original: Spanish)

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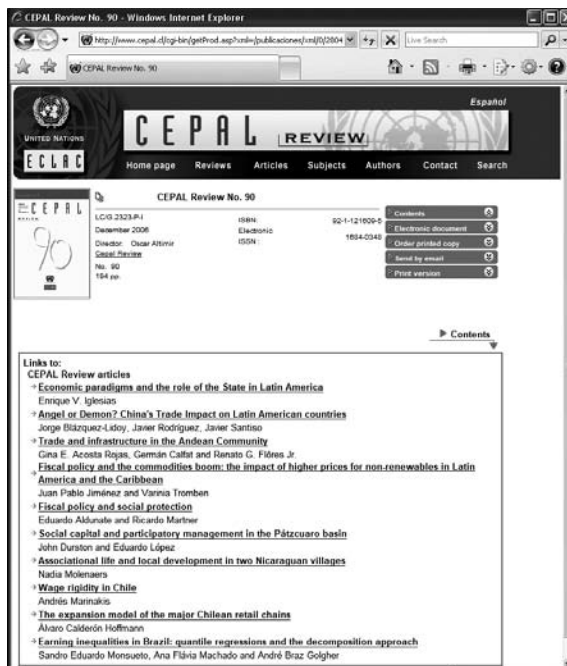
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## Recent ECLAC publications

### Flagships

*Economic Survey of Latin America and the Caribbean, 2005-2006*, LC/G.2314-P. United Nations publication, Sales No.: E.06.II.G.2, ECLAC, Santiago, Chile, September 2006, 341 pages.

This year's edition of the *Economic Survey of Latin America and the Caribbean* is divided into two parts. The first analyses the main features of the regional economy, while the second examines the situation in the individual countries of Latin America and the Caribbean. A full statistical appendix containing regional and national data is included.

The introduction outlines the relatively favourable performance of the region's economy as a whole in recent years and analyses the factors which could jeopardize that performance. It underlines the growing uncertainties in the global economy that could endanger the prospects for growth in the region. It also, however, draws attention to improvements in a number of economic indicators, reflecting the reduced vulnerability of the region's economies to adverse developments in the global situation.

The following chapters are devoted to the international situation, macroeconomic (fiscal, exchange-rate and monetary) policy, and the region's performance internally (level of economic activity, inflation, employment and wages) and externally (trade balance, transfers and income, capital flows and external debt). A statistical appendix illustrates trends in the main indicators at the regional level.

One of the principal challenges facing the region is export diversification, especially the need to offer more knowledge-intensive goods. The special chapter in this edition of the *Economic Survey* provides an analysis from the macroeconomic viewpoint of the ways in which that process is affected by levels of, and trends in, investment and real exchange rates.

The second part of the document provides overviews of macroeconomic policies and trends in the Latin American and Caribbean countries in 2005 and the first half of 2006. The country reports include tables on the main economic indicators. Beginning with this edition of the *Economic Survey*, these reports and the statistical appendix specific to each country are included in the CD-ROM provided with the print version, as well as being available on the ECLAC website ([www.eclac.org](http://www.eclac.org)). The tables contained in the statistical appendix provide ready access to data for recent years and facilitate the creation of spreadsheets. The CD-ROM also contains the electronic version of the regional parts of the text.

*Preliminary Overview of the Economies of Latin America and the Caribbean, 2006*, LC/G.2327-P. United Nations publication, Sales No. E.06.II.G.141, ECLAC, Santiago, Chile, December 2006, 152 pages.

An economic growth rate of 5.3% is estimated for 2006, which means that the Latin American and Caribbean region will mark a third consecutive year of growth at over 4%. Thus, the region has again performed well in comparison with past periods, but it continues to fall short of other developing regions. With the international environment remaining favourable, the volume of goods and services exports was up by 8.4% for the region as a whole and the main export prices rose, which translated into a terms-of-trade improvement equivalent to over 7%.

As a result of these income gains and of increased remittances from abroad, growth in national income (7.2%) again exceeded GDP expansion. In addition, other factors, such as growing investor and consumer confidence after several years of sustained growth, real interest rates that remained relatively low despite recent hikes in many countries, a stronger boost to public spending, an expansion in total wages driven by rising employment and a modest upturn in real wages, have helped to make domestic demand into an additional engine for growth. In fact, domestic demand rose by 7.0%, with gross domestic investment up by 10.5% and consumption by 6.0%.

Public spending rose in several countries as a result of larger investments in physical and social infrastructure and higher current spending. But since fiscal revenues climbed even more steeply, the prevailing picture shows central governments with higher primary surpluses (up from 1.7% to 2.1% of GDP as a simple average of 19 countries) and narrower overall deficits (from 1.1% to 0.3% of GDP). Alert to changes in international interest rates and to the effects of surging domestic demand and rising fuel prices, many countries' monetary authorities raised benchmark rates, especially in the first half of the year. In most cases, this did not slow economic activity, given the abundant liquidity. Nevertheless, inflation decreased in most of the countries and, in weighted terms, it came down from 6.1% in 2005 to 4.8% in 2006. Many countries had to deal with downward pressure on the exchange rate because of large inflows of foreign currency generated by stronger export prices or remittances. They took different steps to contain the effects of these inflows but, overall, most local currencies appreciated slightly (3.5% on average).

Fuelled by sustained economic growth, job creation continued, especially in waged employment. A half percentage point increase in the employment rate was partially offset by a rise in labour market participation. As a result, open unemployment continued the downward trend begun in 2004, albeit more slowly, with a drop of 0.4 percentage points taking the rate to 8.7%. In contrast to the pattern of the last few years, real wages also benefited from increased demand for labour in 2006 and formal sector wages rose by some 3% as a regional average.

The value of the region's merchandise exports rose by 21% and its imports by 20%. Together with higher transfers (over US\$ 9 billion net), this improvement of the balance of trade in goods was more than enough to offset the widening deficit on the factor and non-factor services accounts. Hence, the balance-of-payments current account surplus increased from 1.5% of GDP in 2005 to 1.8% in 2006. The capital and financial account surplus was smaller than the previous year, at US\$ 230 million.

This result reflected external debt-reduction policies, together with the development of domestic financial markets and the accumulation of assets abroad, which limited net financial capital flows. It also reflected a sharp fall in net foreign investment, which owed much to the Brazilian acquisition of a Canadian firm, while capital flows into the region in the form of foreign direct investment were down slightly in comparison to 2005.

The average regionwide performance masks large differences between and within countries, however. In particular, the international environment has had a strong and very different impact on exporters of high-demand natural resources, especially in South America, and on petroleum-exporting countries in other subregions, than it has had on other Latin American and Caribbean countries.

In the light of the risks for the region's future economic development, particularly the risk of a hard or soft landing in the global economy, many countries in the region have taken steps to reduce their vulnerability. Such measures include adopting more flexible exchange-rate regimes, paying down foreign debt, restructuring debt in order to lengthen maturity profiles at fixed rates, building up international reserves, strengthening fiscal accounts and reducing the dollarization of the country's financial systems. Nevertheless, there is no doubt that a global economic slowdown would seriously hurt the region's growth and the well-being of its population.

Economic expansion is expected to slow slightly in 2007, with regional GDP growth projected at around 4.7%. If these projections are borne out, the region's per capita GDP will show a cumulative gain of some 15%, or 2.8% per year, in the period 2003-2007.

### Other publications

*Tributación en América Latina. en busca de una nueva agenda de reformas*, Libro de la CEPAL, No. 93, LC/G.2324-P, United Nations publication, Sales No. S.07.II.G.7, ECLAC, Santiago, Chile, December 2006, 160 pages.

Tax policy in Latin America has been an ongoing subject of analysis for the past 25 years, but its economic repercussions have not always been assessed in sufficient depth. There is still a great deal of uncertainty about topics such as the interaction of tax policy with macroeconomic policies, its effects on saving and investment, and its impact on income distribution, although some studies have been done on the

situation of individual countries. Historically, these tax systems have, for the most part, generated a relatively low level of resources—resources that are needed both to provide public goods and to finance policies to improve income distribution.

Although the average tax burden has grown in almost all the countries of Latin America over the past decade, this increase has not been sufficient to meet expectations or needs. In addition to problems of sustainability, in many countries a great deal of pressure is still being generated by unmet demand for expenditure, especially for combating poverty and financing pension systems and public investment, which remains at minimal levels in many countries.

As revenues have been insufficient to cover the demand for public spending or to reach the necessary degree of fiscal sustainability, both structural and administrative changes have been made on numerous occasions. These changes have been neither harmonious nor permanent, as they have not led to the type of suitable balance in the distribution of the tax burden among the various socio-economic strata needed to forge a social consensus on the issue. Nor has it been possible to establish lasting distributional patterns for sharing out tax revenues among the different levels of government in those countries where there is more than one taxing authority.

There are also systems where the trend has been towards greater simplicity, partly owing to the impact of globalization, but without any significant improvement in voluntary compliance with the new rules. Given these conditions, the distributive impact of taxation has in most cases been minor compared to the results for other policy objectives.

A broad range of issues related to the operation of the economy, and specifically to public finances and tax policy, make it imperative to update the analyses and undertake further research on the agenda of reforms to be carried out by the countries of the region. This was the main concern that led to the organization of a workshop on taxation in Latin America in October 2005 at ECLAC headquarters in Santiago, Chile. This publication contains the main papers that were presented there, together with a summary of the discussions and conclusions reached at the workshop, which was attended by a group of experts. The main topics of discussion were trends in taxation and the current situation in Latin America, the main developments and challenges in terms of tax administration in the region, and a review of the economic and social factors relevant to the redesign of tax systems.

Rather than attempting to present general recommendations, the emphasis was on offering ideas that could lead to a better understanding of the variety of current situations, delineating their general features more clearly and drawing up a set of recommendations which could help each country to set its own specific agenda. The purpose of this compilation, therefore, is to point out issues and analyses that can be useful for policymakers and those responsible for implementing tax policy and administrative arrangements in each country in defining the best way of facing the challenges that lie ahead.



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