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# **East Asia's Growing Demand for Primary Commodities – Macroeconomic Challenges for Latin America**

**Ricardo Gottschalk and Daniela Prates**

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## PREFACE

The *G-24 Discussion Paper Series* is a collection of research papers prepared under the UNCTAD Project of Technical Support to the Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development (G-24). The G-24 was established in 1971 with a view to increasing the analytical capacity and the negotiating strength of the developing countries in discussions and negotiations in the international financial institutions. The G-24 is the only formal developing-country grouping within the IMF and the World Bank. Its meetings are open to all developing countries.

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# **EAST ASIA'S GROWING DEMAND FOR PRIMARY COMMODITIES – MACROECONOMIC CHALLENGES FOR LATIN AMERICA**

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## *Abstract*

*This paper analyses the macroeconomic impact of East Asia's growing demand for primary and industrial commodities in four Latin American countries – Brazil, Chile, Peru and Venezuela. The paper shows that whilst the export boom has contributed to improved external accounts in these countries, it has posed the challenge of how to manage the surpluses. Policy makers in the region have responded by pursuing prudent macroeconomic management policies. Venezuela is the only country that has increased public expenditure significantly, mainly in the social sectors. A striking finding is that in Peru, government revenues from the mining sectors are very small. A further finding is that public investment in the four countries has not increased in line with the increase in surpluses. However, foreign investors have demonstrated interest in investing in the extractive sectors in these countries. This paper concludes that Latin American countries benefiting from the ongoing upward trend in commodity prices should do more to increase investment, especially in the infrastructure sectors. They should also avoid excessive currency appreciation, which undermines the competitiveness of their manufactured exports, which are the ones that really create jobs and value added, and through export diversification contribute to reduced variability in the terms of trade.*



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# EAST ASIA'S GROWING DEMAND FOR PRIMARY COMMODITIES – MACROECONOMIC CHALLENGES FOR LATIN AMERICA

**Ricardo Gottschalk and Daniela Prates\***

## **I. Introduction**

Latin America's exports have shown increased dynamism in the past couple of years as a result of the strong demand for the region's primary commodities, both mineral and agricultural, coming mainly from Asian countries and China in particular.

The export surge has been widespread across the region. Argentina and Brazil have witnessed growing demand for soybeans; Chile and Peru for copper; Ecuador, Mexico and Venezuela for oil; Honduras and Nicaragua for coffee, and so forth. The growing demand for and rising prices of these and other primary products have led to higher export revenues, growing trade surpluses, and even the emergence of current account surpluses, a very unusual feature for many countries in the region. Partly as a result of the export boom, GDP has picked up in the region, reaching nearly 6 per cent in 2004 (ECLAC, 2005).

While the export-led growth has been a positive development in Latin America, the region's policy makers have also faced the challenge of how to manage the boom to avoid possible undesirable side effects on the economy and to maximize gains in the long term. How are the countries managing their foreign exchange surpluses? Are they accumulating foreign reserves, letting their domestic currencies appreciate, or both? What other foreign exchange management policies are Latin American countries conducting in response to the growing availability of foreign exchange? How have the growing export-related rents been internalized into the countries? What sectors have appropriated the rents, and what have been their fiscal impacts? How similar or different have appropriation and management of these rents been across countries? Is the region witnessing higher investments in the most dynamic export-oriented industries? Are new investments in the infrastructure sectors taking place, and if so how are they being financed?

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The aim of this paper is to address these questions through a comparative analysis of four countries: Brazil, Chile, Peru and Venezuela. Chile, Peru and Venezuela have faced strong demand for their oil and mining products, and Brazil has benefited from the growing demand for these products and also for its agricultural commodities. The sample including oil, mining and agricultural exporting countries with different degrees of openness and export diversification, can help inform us on possible similarities and differences in their macroeconomic policy responses to foreign exchange surpluses. Chile, Peru and Venezuela can also offer interesting insights into how the higher oil and mining rents are being appropriated and managed.

The analysis in this paper will be guided by two general questions. The first is what role has the exchange rate and monetary policy regimes, adopted after the financial crises in the late 1990s and early this century, played during the current export boom, and to what extent have these regimes posed new policy challenges? The second question relates to the possible scenario of sustained demand by the larger and most dynamic Asian countries – notably China and India – for Latin America’s main primary commodities. If this scenario materializes and results in a major shift in the region’s terms of trade, from a declining to an upward trend in the long term, what short-term macroeconomic management implications might that have and how should we then judge the current macroeconomic management practices once this scenario is factored into the analysis?

The paper is organized in five sections. Following this introduction, the second section identifies the main primary commodity exports by the four Latin American countries covered in this study, and discusses briefly their main price determinants. This analysis will indicate whether the current rise in commodity prices has a structural underlying component, which would support the hypothesis that the current upward trend may be sustained in the long term. The third section will analyse how the exchange rate, the foreign reserves and the fiscal accounts are being managed in response to the foreign exchange surpluses and higher rents. The fourth section will discuss to what extent investment in the commodity producing sectors or in the infrastructure servicing such sectors is increasing, and will attempt to identify the main funding sources. Do they come from the government, the multinational corporations (MNCs), or the commodity consuming countries?

The final section offers a summary view of what steps Latin American countries are undertaking to reduce the boom-bust cycles of the past, and makes recommendations for alternative policy proposals to reduce macroeconomic volatility and enhance long-term growth and development in the region.

## II. Recent export performance in Latin America

Latin America’s exports grew by 9 per cent in 2003 and nearly 23 per cent in 2004 (ECLAC, 2005). The growth of exports in our sample countries was even more impressive. In 2004 export revenues grew by over 30 per cent in Brazil, nearly 40 per cent in Peru, 43 per cent in Venezuela and nearly 50 per cent in Chile (table 1).

These countries have benefited greatly from the growing demand for primary commodities and higher prices – Venezuela with oil, and Peru, Chile, and Brazil with mineral products. Chile and Brazil have also greatly benefited from the growing demand for cereals and soft agricultural commodities (fruits, fish, coffee, meat). Chart 1 depicts the main commodity exports and how these have increased over the 2001–2004 period.

As can be seen from chart 1, Brazil’s commodity exports comprise oilseeds, iron ore, meat, sugar, iron and steel, coffee and aluminium. Chile’s exports are mainly copper, but also include fruits, fish, hydrocarbon gas and lead. Peru’s exports are led by gold, followed by copper, pearls and precious stones. Venezuela’s commodity exports are dominated by oil which accounts for over 80 per cent of total exports. Brazil has the most diversified commodity export base and Venezuela has the least diversified export base in the group. As the chart shows, exports of these commodities have increased sharply between 2001 and 2004.

### A. China’s demand for primary and industrial commodities

An increasing share of these countries’ exports is going to Asia and especially to China. Between 2000 and 2004, exports from these four countries to China witnessed rapid growth. Brazil’s exports to China grew by 400 per cent.<sup>1</sup> Chile’s exports grew

Table 1

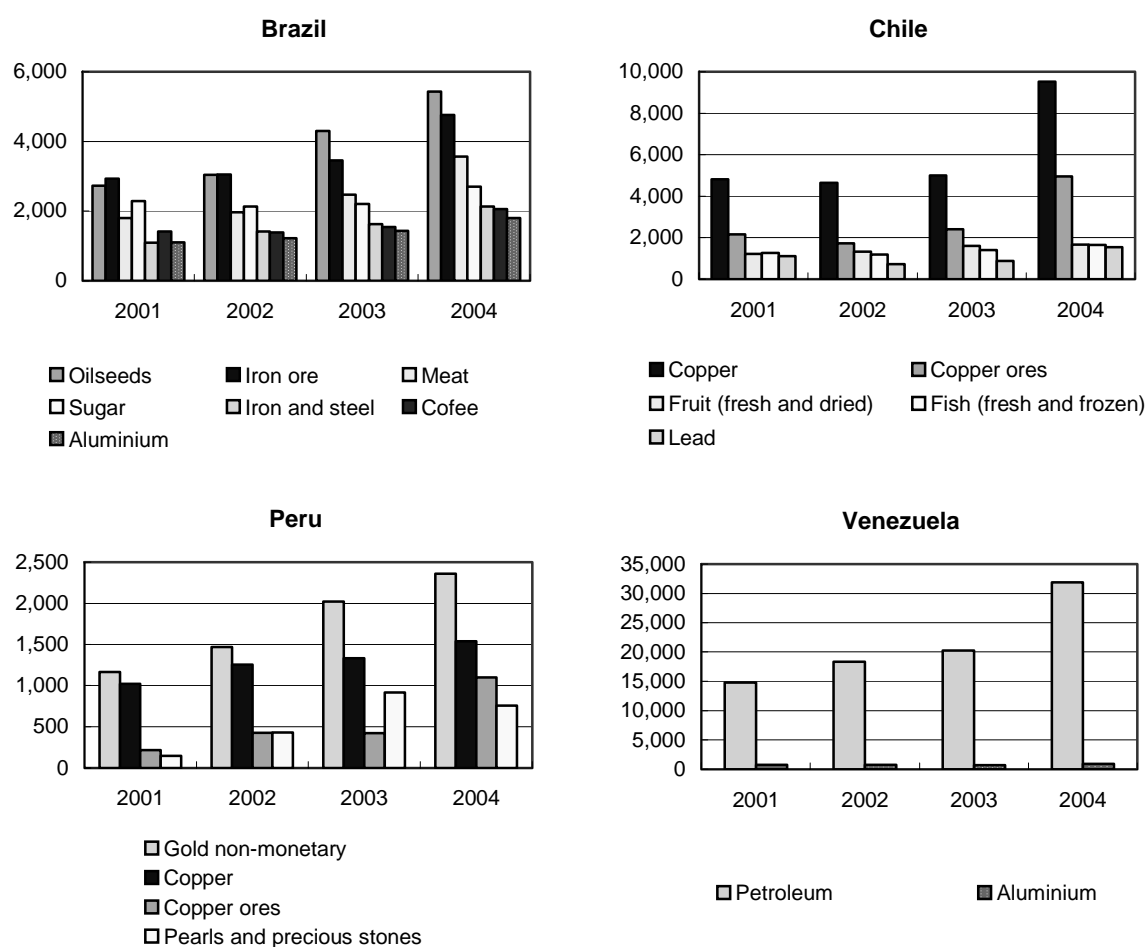
	EXPORT OF GOODS							
	1999	2000	2001	2002	2003	2004		
	\$ million				\$ million	Growth rate (per cent)	\$ million	Growth rate (per cent)
Brazil	48 011	55 086	58 223	60 362	73 084	21.1	96 475	32.0
Chile	17 162	19 210	18 272	18 177	21 524	18.4	32 025	48.8
Peru	6 088	6 955	7 026	7 714	9 091	17.9	12 617	38.8
Venezuela	20 963	33 529	26 667	26 781	27 170	1.9	38 748	42.6

Source: ECLAC.

Chart 1

### MAIN COMMODITY EXPORTS, 2001–2004

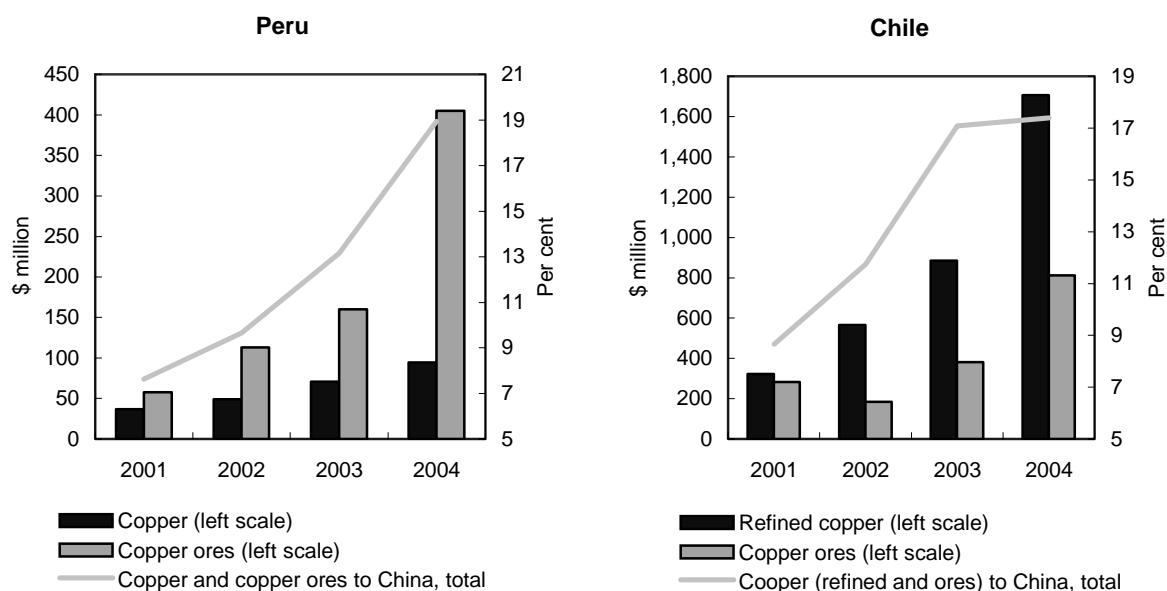
(Millions of dollars)



Source: United Nations Commodity Trade Statistics Database (UN COMTRADE), Standard International Trade Classification Revision 3 (SITC Rev. 3).

Chart 2

**PERU'S AND CHILE'S EXPORTS TO CHINA AND SHARE IN TOTAL EXPORTS:  
COPPER AND COPPER ORE**



Source: UN COMTRADE.

by 59 per cent in 2003 alone (ECLAC, 2004a). In 2003, Brazil was the first trading partner of China in Latin America, Chile the third and Peru the fifth (Funakushi and Loser, 2005). Chart 2 depicts exports of copper and copper ore from Chile and Peru to China, and the share of exports of these products to China in the total; chart 3 provides similar information for Brazil's exports of iron ore and oilseeds.

As can be seen from chart 2, exports of copper and copper ore from Chile and Peru to China grew steadily between 2001 and 2004, leading to a growing share of exports to China in the total exports of these products – from 9 per cent to over 17 per cent in the case of Chile, and from 8 per cent to 19 per cent in the case of Peru.

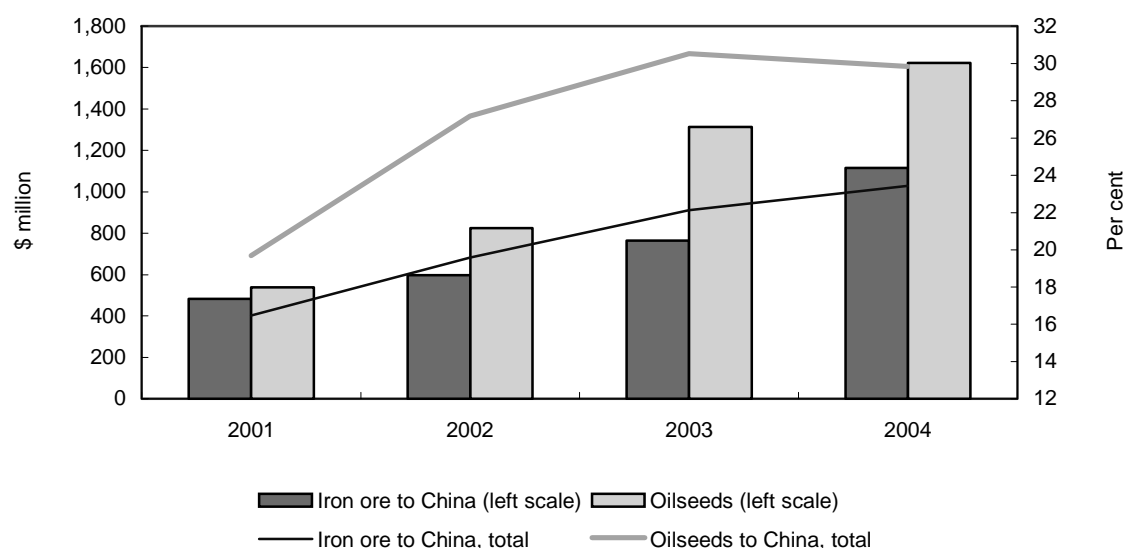
As for Brazil, the continued growth of exports to China can be observed for iron ore and oilseeds during the same period; the shares of iron ore and oilseeds' exports to China in the total exports of these products went up from 17 per cent to nearly 24 per cent and from 20 per cent to 30 per cent, respectively (see chart 3).

A number of explanations have been offered for the export boom to China. Among these, the most important has been China's rapid economic growth of 8 per cent a year in the past 20 years, and 8.3 per cent between 1999 and 2004. This growth has been led by metal and industrial commodity intensive sectors, such as automobile, metallurgy and construction (*The Economist*, 2003; 2004), which have increased the demand for steel, copper, aluminium and nickel. At the same time, population growth, rising incomes and urbanization have changed the patterns of food consumption, fostering the demand for livestock, vegetables, vegetable oils, oil crops and other agricultural commodities, which could only be fully met through growing imports. And, as pointed out by UNCTAD (2005: 45), "the overall rise in meat consumption has also contributed to higher overall demand for soybeans, due to its increasing use as animal feed".<sup>2</sup> The figures for the year 2003 are striking. Chinese imports grew by 40 per cent, accounting for 26.5 per cent of global demand for steel, 20 per cent for copper, 19 per cent for aluminium (IMF, 2004) and more than 30 per cent of world imports of soybeans (UNCTAD, 2005, chap. II).



Chart 3

**BRAZIL'S EXPORTS TO CHINA AND SHARE IN TOTAL EXPORTS:  
IRON ORE AND OILSEEDS**



Source: UN COMTRADE.

In addition to rapid economic growth and industrialization, trade liberalization has contributed to China's increased demand for imports of agricultural and metal commodities. In 2001 China joined the World Trade Organization (WTO) and this has had a major impact on international trade. In 2001, China was the sixth largest exporting country in the world, accounting for 6.3 per cent of global exports, and 3.8 per cent of global imports. In 2003, China's share in global imports went up to 5.5 per cent, turning China into the third largest importing country in the world.<sup>3</sup> To gain accession to the WTO, which took 15 years of negotiations, China committed itself to speeding up trade liberalization. Over the 2002–2006 period, China has committed to reducing both tariff and non-tariff barriers over imported goods and services, including: in the case of manufacturing products, tariff reductions from an average 17 per cent in 2001 to 8.9 per cent in 2005, the reduction of tariff peaks and the elimination of all importing quotas and licensing.

Among the agricultural commodities, China has committed to a gradual quota increase until 2006, for a number of products (see table 2).

The quota increase, together with tariff reductions on imports of vegetal oil and processed food to feed a growing and wealthier population and

Table 2

**CHINA'S IMPORT LIBERALIZATION IN THE  
AGRICULTURAL SECTOR, 2002–2006**

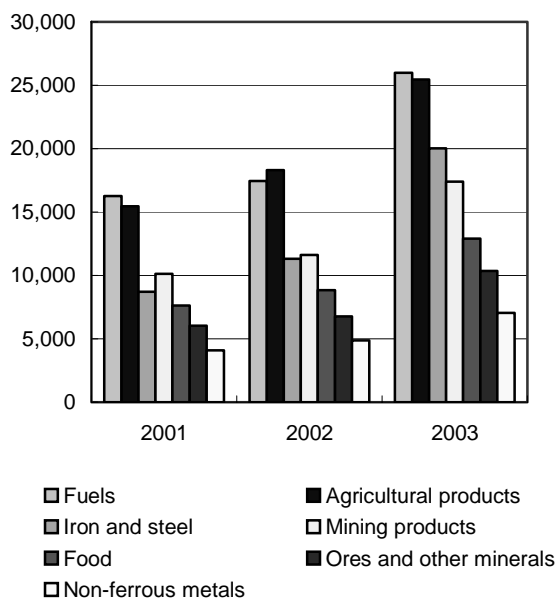
	Initial quota in 2000 (Billion yuan, 1997 price)	Annual growth rate 2002–2006 (Per cent)
Rice	9.0	18.9
Wheat	12.0	7.2
Corn	3.0	12.5
Cotton	10.0	4.7
Wool	6.0	4.5
Vegetal oil	55.0	13.3
Sugar	4.0	5.0

Source: Shantong and Fan, 2002.

Chart 4.1

### CHINA'S IMPORTS, SELECTED COMMODITIES

(Millions of dollars)



Source: WTO, *World Trade Statistics*, 2004.

limited arable land, has boosted demand for agricultural products.

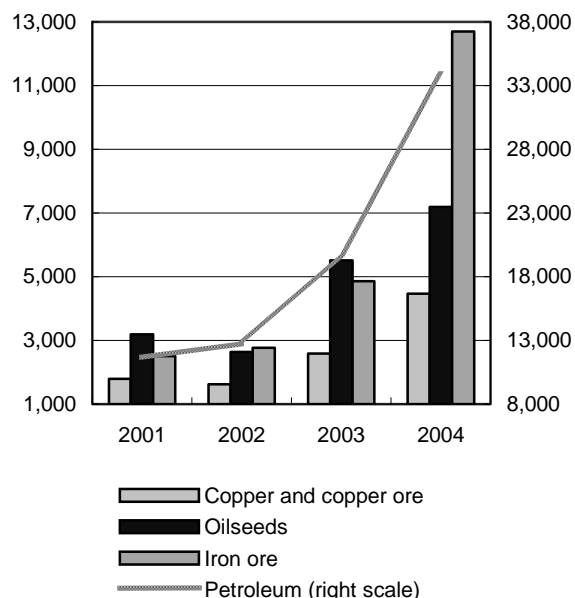
Some of the increase in imports can also be partly explained by supply shocks in China, such as the harvest failure of soybeans in 2001, which led to an increase in imports from 3.8 million tons in 1998–1999 to 11.1 million tons in 2000–2001 (UNCTAD, 2003); and the energy crisis in China, which, by causing a shift in demand towards metallic commodities to be used in the construction of hydro-electric power and other sources of energy power, contributed to the increase in imports of steel and iron.

Chart 4.1 shows China's imports for selected commodities over the 2001–2003 period, and it shows that their imports continued to grow in 2002 and 2003 from an already high level in 2001; chart 4.2 shows the growth of China's imports of the major commodities from the selected countries over 2001–2004, illustrating the links between the export performance of those countries and China's imports, whose rates of growth were even greater in 2004.

Chart 4.2

### CHINA'S IMPORTS OF COMMODITIES FROM BRAZIL, CHILE, PERU AND VENEZUELA

(Millions of dollars)



Source: UN COMTRADE.

### B. Determinants of commodity prices in the recent past (other than the “China effect”)

China's growing demand for commodities has led to increases in both export volumes and, above all, prices of primary commodities. But the increased demand from China has been just one – though in our view a very important one – among a number of factors behind the recent increases in commodity prices.

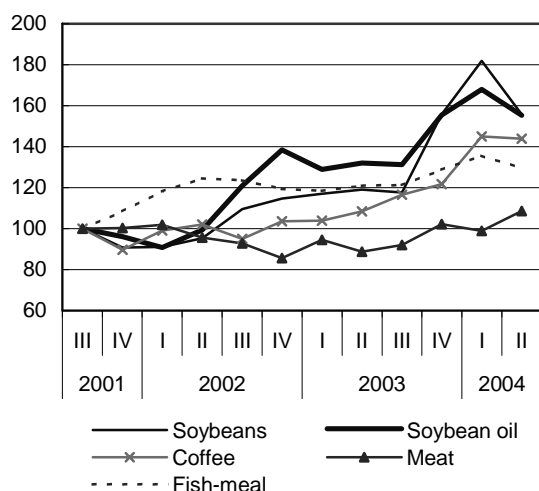
First, the growing global demand has been led not just by China's growth but by Asia's dynamism more broadly, including India's (United Nations, 2005). In the case of oil, the strong growth of the Asian economies that are oil intensive has been a major cause of the sharp increase in oil prices. The global demand for oil has increased from less than 1 per cent in 2002 to 3.5 per cent in 2004. China accounted for one-third of this growth in 2004, while the other Asian economies for 17 per cent (BIS, 2005). Together, China and India accounted for 74 per cent of the increase in total demand for oil

Chart 5

## TRENDS IN PRICES OF SELECTED LATIN AMERICAN COMMODITIES

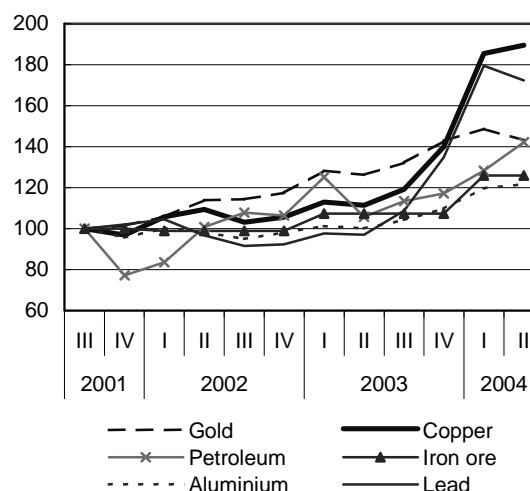
## Price indices of agricultural (incl. soft) commodities

(Index numbers, 2001 = 100)



## Price indices of oil and metal commodities

(Index numbers, 2001 = 100)



Source: Authors' elaboration, based on UNCTAD *Handbook of Statistics 2004*.

in 2004 (IMF, 2005a). The growing demand for commodities since 2001 in countries at a lower stage of development indicates a higher income- and price-elasticity of demand and this change might endure for some time. The economic recovery in developed countries has also been an important component in the growing global demand.

Second, the commodity-producing sectors across the world faced supply shocks, both in terms of productive capacity and infrastructure (storage, transport; IMF, 2005a). The slow response from producers to signals of world economic recovery – in face of the uncertainties related to the Iraq war and the SARS epidemic, as well as of the fact the world recovery was smaller than anticipated in 2003 (IMF, 2003) – resulted in low levels of stocks, which fuelled the pro-cyclical behaviour of commodity prices (IMF, 2004). Moreover, these uncertainties discouraged investment in storage and transport systems, thereby putting pressures on costs and prices (*The Economist*, 2004).

Third, there have been changes in the market structure of various commodities towards oligopoly structures, with high degrees of product concentra-

tion at various stages of the value chain. In the case of the non-iron metal industries (copper, aluminium), the decline in prices in the 1980s and 1990s encouraged concentration of extractive activities in a few companies (*The Economist*, 1999). An increased concentration in metal-working and metallurgy has also taken place in recent years (Miller and Coy, 2004). This has led to increased price-setting power thereby contributing to the price increase in these sectors.

Finally, commodity prices have also increased as a result of their role as reserve value, and their use for hedging and speculative purposes. The dollar depreciation in relation to the euro and yen and low international interest rates, led to a growth of demand for commodities, both physically and in the future markets; and investment in commodity funds by hedge funds has been on the rise (*The Economist*, 2003).

Thus, together with the “China factor”, a number of other factors have contributed to the current upward trend in commodity prices. A review of the trends in the prices of the major commodities exported by our sample countries (see chart 5) shows that virtually all of them have been rising. This in-

cludes the prices of products that are not among China's main commodity imports.

For example, the price of gold, exported by Peru to countries other than China, has gone up as the demand for gold as an alternative reserve value to a depreciating dollar has increased. The prices for "soft" agricultural commodities, such as fruits and fish (exported by Chile) and meat (exported by Brazil) have increased as a result of product and market developments unrelated to China's demand. These soft commodities have faced very stringent quality, safety and delivery standards and controls. As a result, they have moved closer to the category of manufacturing products and away from traditional agricultural commodities. Nowadays, these products embed a number of characteristics that imply higher unit value and income-elasticity of demand relative to "hard commodities" and higher barriers to entry. This can be seen as a process of "de-commodification" linked to a dynamic demand for these products in the developed countries (Kaplinsky, 2005).

### C. The complementary and competitive effects

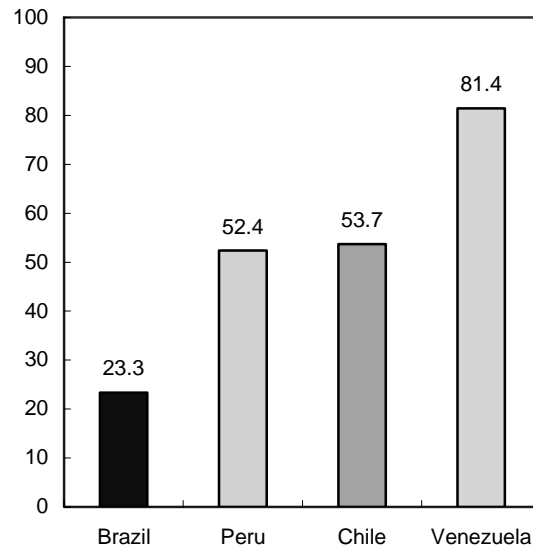
China's growing presence in world trade has had a positive impact on the demand for commodities but it has also resulted in increased competition in the labour-intensive manufacturing markets, which have had, and continue to have major negative effects on developing countries. The analysis of the impact of China's rapid economic growth on developing countries must take into account both the complementary effect, which is the focus of this paper, and the competitive effect (Jenkins and Edwards, 2005). The Latin American country that seems closer to the latter effect is Mexico due to the share of low cost manufactures in its total exports.

The impact that seems to predominate among our four countries is the complementary one, given the high share of primary commodities in their total exports (see chart 6). The only country in our sample that also faces the threat of China's competition in the manufacturing sector is Brazil, which has the lowest share of primary commodities in total exports. China is a potential competitor in the steel market. Since 2004, the divergence between steel production in China (which has more than doubled since 2000) and domestic demand (mainly for semi-finished

Chart 6

#### SHARE OF MAIN COMMODITIES IN TOTAL EXPORTS

(Per cent)



Source: UN COMTRADE; and Intracen.org.

Note: Venezuela: share of oil exports in total exports.

products, due to the investment boom) has decreased. This has resulted in a weaker demand for steel imports and lower prices as well.<sup>4</sup>

The balance between these two effects in the terms of trade of Brazil was positive in 2003 and 2004, but the gains were significantly smaller than in the other countries (see calculations by UNCTAD, 2005, chap. II). Another factor that has contributed to that has been the lower degree of openness of the Brazilian economy, relative to Chile and Venezuela (see table 3).

The higher the degree of openness, the larger the potential gains in export earnings from an improvement in the terms of trade. If we considered the traditional indicators to gauge the degree of openness of a country (exports/GDP and total trade/GDP), the countries that would benefit the most from higher commodity prices would be Chile and Venezuela, followed by Brazil and Peru. The degree of export diversification has also impacts on these gains: the lower this degree, the greater the variability of the terms of trade and so the potential gains from higher

Table 3

<b>DEGREE OF OPENNESS</b>		
<i>(Per cent)</i>		
	<i>Exports/GDP</i>	<i>Exports plus imports/GDP</i>
Brazil	14.4	24.0
Chile	42.2	78.4
Peru	4.3	8.2
Venezuela	27.8	39.6

*Source:* IMF; and ECLAC. Authors' elaboration.

commodity prices. In terms of this variable, Venezuela and Chile, where the degree of export concentration is most pronounced, are also the countries that would benefit most. Calculations by UNCTAD (2005, chap. III) confirm this hypothesis. Taking the average for 2002–2004, the gains from the terms of trade for Chile were 2.9 per cent of GDP, and for Venezuela, 3.6 per cent of GDP, while for Brazil it was 0.2 per cent, and for Peru, 1.4 per cent.

#### **D. Conclusions to section II**

The four primary commodity exporters analysed in this study have benefited greatly from the increased demand from East and South Asia. Export volumes and prices have risen and this has contributed to higher GDP growth rates. The growing demand in Asia for primary commodities especially oil, minerals and mining products and some agricultural goods suggests a structural shift in global demand. But it is far from certain that this shift will be enough to reverse the chronic long-term decline in real commodity prices, which are still well below their 1960–1985 average. Also while the growth of demand from Asia has contributed to the recent boom, the developed countries still account for two-thirds of the demand for non-fuel commodity imports and the adjustment to global imbalances could result in a sharp and even a prolonged deceleration in output growth in these countries. Finally,

it must be noted that while the developing countries with a high degree of commodities in total exports have benefited from recent trends, the developing countries with a high share of manufactured goods in total exports have experienced deterioration in their terms of trade. The four Latin American countries that have benefited from the recent boom need to factor these considerations into their macroeconomic policy management.

### **III. Managing the foreign exchange surpluses and the higher rents**

We turn now to examine the impact of the gains from improvement in the terms of trade on the macroeconomic policy management, growth and investment.

#### **A. The exchange rate and foreign reserves**

The strong growth of exports, especially to China in the four countries under analysis have resulted in trade surpluses of nearly \$34 billion in Brazil, over \$21 billion in Venezuela, \$9 billion in Chile and \$2.8 billion in Peru (see table 4).

In most cases, the trade surpluses have been large enough to generate a surplus in the current account and to widen it where a surplus already existed. Venezuela has had a surplus in its current account in recent years, and this surplus widened by 50 per cent between 2002 and 2004, reaching over 12 per cent of the country's GDP. The current account in Brazil turned into a surplus in 2003 for the first time since 1992 and widened in 2004; in Chile, the surplus turned positive in 2004, and in Peru, the deficit narrowed to negligible levels (see table 5).

How have these countries managed the surpluses?

Since the financial crises of the late 1990s and early this century, many Latin American countries have moved from a fixed or pegged exchange rate regime towards a more flexible regime, in some cases with only sporadic interventions. Table 6 shows the various official exchange rate regimes adopted in the four countries since 1999.

Table 4

<b>TRADE BALANCE (OF GOODS)</b>						
<i>(Millions of dollars)</i>						
	1999	2000	2001	2002	2003	2004
Brazil	-1 261	- 697	2 651	13 121	24 794	33 693
Chile	2 427	2 119	1 844	2 386	3 522	9 019
Peru	- 705	- 411	- 195	292	836	2 793
Venezuela	6 471	16 664	7 460	13 421	16 483	21 430

Source: ECLAC.

Table 5

<b>CURRENT ACCOUNT BALANCE</b>							
<i>(Per cent of GDP)</i>							
	Average (1996–1999)	1999	2000	2001	2002	2003	2004
Brazil	-4.0	-4.7	-4.0	-4.6	-1.7	0.8	1.9
Chile	-3.3	0.1	-1.2	-1.6	-0.9	-1.5	1.5
Peru	5.2	-2.8	-2.9	-2.1	-1.9	-1.5	0.0
Venezuela	3.7	2.2	10.1	1.6	8.2	13.7	12.6

Source: ECLAC.

Table 6

<b>EXCHANGE RATE REGIMES<sup>a</sup></b>						
	1999	2000	2001	2002	2003	2004
Brazil	MF		IF			
Chile	IF					
Peru	IF					MF
Venezuela	MF	MF	CB	IF	CPA	CPA

Source: IMF, *Exchange Arrangements*, various issues.

<sup>a</sup> MF=Managed Floating; IF=Independently Floating; CB=Crawling Band; CPA=Conventional Pegged Arrangement.

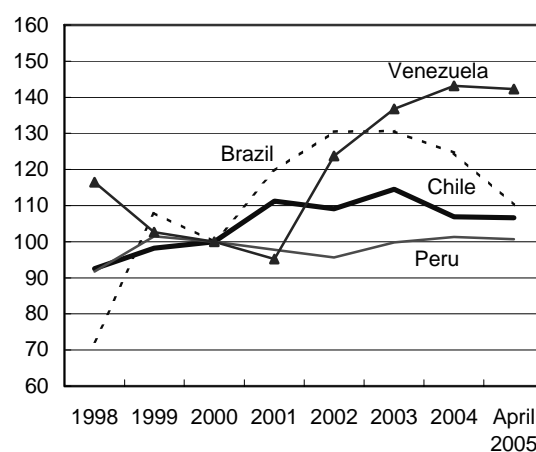
Until 1999, Brazil had in place an exchange rate regime based on an adjustable band. Following the currency crisis of early 1999, when the value of the currency fell sharply, Brazil adopted a flexible regime. Under the new regime, the currency depreciated further in 2002 due to investors' uncertainty in the months preceding the presidential elections of October. Since then, the currency has appreciated both in nominal and real terms, initially as a result of the growing confidence of the market in the country's macroeconomic policies, and more recently due to the surge in export earnings (see chart 7 and table A3). This trend has been reinforced in the first half of 2005.



The exchange rate appreciation has supported the government's policy of reducing inflation, which had edged up in 2002 following the sharp currency devaluation (table 8 below). Inflation is still above the targeted inflation rate set by the government for 2005 and the government continues to give priority to price stabilization over the accumulation of foreign reserves. The level of reserves increased strongly in 2003 following the country's agreement with the IMF but growth in reserves slowed down sharply in 2004 despite growing current account surpluses (table 7).

Chile moved from daily adjustments in the domestic currency to a flexible regime in 1999. The change coincided with the loss of dynamism of Chile's exports due to the Asian Crisis and the slow down in the world economy. The result was that between 1999 and early 2003 both nominal and real exchange rates saw significant depreciation. In 2003, when exports started to rebound, the currency regained value against the dollar although the real exchange rate continued to depreciate due to the depreciation of the dollar in relation to the currencies of Chile's other main trade partners.<sup>5</sup> Foreign reserves remained fairly stable between 1999 and 2002, and increased slightly in 2003. In 2004, exports grew very strongly and FDI saw a sharp increase. However, foreign reserves went up only slightly again, while the nominal exchange rate appreciated by 12 per cent, and the real exchange rate by 7 per cent. The behaviour of the exchange rate and foreign reserves indicates that policy makers

Chart 7

**REAL EFFECTIVE EXCHANGE RATE<sup>a</sup>***(Index numbers, 2000 = 100)*

Source: ECLAC.

<sup>a</sup> Annual averages.

have largely abstained from heavy interventions in the currency markets since the adoption of the flexible exchange rate regime in 1999.

Peru had in place a flexible exchange rate regime over the period under analysis. Under this framework, both the real effective exchange rate and the level of foreign reserves showed a high degree

Table 7

**GROSS FOREIGN EXCHANGE RESERVES***(Billions of dollars)*

	Average (1996–1999)	1999	2000	2001	2002	2003	2004 <sup>a</sup>	2005 <sup>a,b</sup>
Brazil	46.6	34.8	32.5	35.7	37.4	49.1	52.7	60.7
Chile	15.4	14.2	14.7	14.0	14.8	15.2	15.5	16.6
Peru	10.3	9.1	9.0	9.3	8.9	9.5	11.9	14.5
Venezuela	12.1	11.7	12.6	8.8	8.0	15.5	17.7	22.3

Source: World Bank, *Global Development Finance 2005*; ECLAC; and *The Economist*.<sup>a</sup> Preliminary.<sup>b</sup> As of May 2005 for Brazil and Venezuela, June 2005 for Chile and July 2005 for Peru.

Table 8

<b>CONSUMER PRICES</b>							
<i>(End of period)</i>							
	<i>Average (1996–1999)</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Brazil	6.4	8.9	6.0	7.7	12.5	9.3	7.6
Chile	4.9	2.3	4.5	2.6	2.8	1.1	2.4
Peru	7.0	3.7	3.7	-0.1	1.5	2.5	3.5
Venezuela	47.7	20.0	13.4	12.3	31.2	27.1	19.2

Source: ECLAC.

of stability throughout the 1999–2004 period, except that foreign reserves increased strongly from \$9.5 billion in 2003 to \$11.9 billion in 2004, reflecting Peru’s steady growth of exports and trade surplus.

Venezuela had a crawling band until 2002, with the band’s centre point moving up between relatively long time spans. The country experienced moderately high inflation in the second half of the 1990s and also in 2000–2002 and the result was a real exchange rate appreciation. In 2002, Venezuela shifted briefly to an independently floating regime before the government adopted a more controlled exchange rate regime, following the political turbulence of 2002 and early 2003. Under the floating system in 2002 and the exchange controls that followed, the currency depreciated strongly between 2002 and 2004, more than offsetting the currency appreciation observed in the second half of the 1990s and 2000–2001. In their turn, international reserves went down from \$12.6 billion in 2000 to a low of \$8 billion in 2002, and then up to \$17.7 billion in 2004. The initial decline in reserves reflected the country’s political turbulence and oil production shortfalls, while accumulation of reserves that ensued was due to the policy of exchange controls, but also and especially most recently to the surge in exports.

What transpires from this brief descriptive account is that for most of the 1999–2004 period, the external environment of low global dynamism and domestic factors played a dominant role in explaining the behaviour of the exchange rate and foreign

reserves in the four countries. The result was volatile exchange rates and declining reserves, especially in Brazil and Venezuela. As exports boomed in these countries in 2003 and 2004, the most notable outcomes since then have been exchange rate appreciation in Chile and Brazil, and higher reserves in Peru, Venezuela and to a lesser extent, Brazil.

Since the export windfalls have gained strength in the latest period, we have examined the trends for the first half of 2005. As can be seen from table 7 and chart 7, Brazil has experienced both sizeable accumulation of reserves and real exchange rate appreciation. But Brazil continues to give priority to price stabilization through high interest rates and exchange rate appreciation. The build up of reserves in 2005 was concentrated in the first quarter of the year, and directly related to the fact that, as Brazil discontinued its programme with the IMF, this led to a conversion of IMF resources lodged with the Central Bank into permanent reserves (BIS, 2005). In Chile, Peru and Venezuela the exchange rates have remained fairly stable and foreign reserves have grown strongly but less so in the case of Chile.

Chile’s reserves grew less strongly despite huge export growth due mainly to two factors. The first is that profit remittances are growing sharply, though part of the flows is returning as FDI. Second, the government has used part of its foreign reserves to pre-pay its domestic debt denominated in foreign currency (BIS, 2005). Also as part of its debt management policy, the government has taken advantage of Chile’s low risk premium – consistently under



Table 9

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**THE EXCHANGE RATE AND INTERNATIONAL RESERVES – BEHAVIOUR AND TRENDS**


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	<i>Exchange rate</i>		<i>International reserves</i>	
	<i>1999–2003</i>	<i>2004–2005 May/June</i>	<i>1999–2003</i>	<i>2004–2005 May/June</i>
Brazil	Volatile	Appreciation	Moderate accumulation	Moderate accumulation
Chile	Depreciation	Appreciation	Light accumulation	Slight accumulation
Peru	Stable	Stable	Stable	Strong accumulation
Venezuela	Volatile	Depreciation	Volatile	Strong accumulation

---

*Source:* Authors' elaboration.

200 basis points in recent past – to issue sovereign bonds to pre-pay its foreign public debt which had been contracted at higher interest rates (ECLAC, 2005).

The picture that emerges is that, in the main, Latin American countries are letting their currencies fluctuate more freely than in the past. Reserve accumulation remains an important policy goal given the countries' high external liabilities and therefore vulnerability to sudden changes in the external financing environment. However, price stability and reduced fiscal vulnerability have become centre-pieces of Latin American macroeconomic policy frameworks. Because an appreciating exchange rate can be a useful tool in combating inflation, and given governments' caution about increasing the quasi-fiscal costs of sterilisation, reserve accumulation has lost precedence over the other macroeconomic policy objectives. Moreover, countries like Chile are using foreign exchange surpluses for debt liability management purposes, as an alternative to foreign reserve accumulation. The result has been that in Latin America, foreign reserves have grown far less than among the Asian emerging economies. This policy option has risks, as high reserves are an important cushion to protect the region's vulnerability to external shocks. The behaviour of the exchange rates and foreign reserves of the four countries for the periods 1999 to 2003 and 2004 to first half 2005 are summarized in table 9.

The challenge of managing growing foreign exchange surpluses has been observed at the fiscal level as well. But the challenge is most acute in those

countries where most of the export earnings from extractive activities are transferred to the government. This does not apply to Brazil where its export base is far more diversified in relation to its Latin American neighbours, and its fiscal revenues follow closely not exports, but the overall level of economic activities. But in Chile, Peru and Venezuela different stories emerge on and how much increased export earnings from oil and mining products accrue to the government.

### *B. The fiscal accounts*

Government revenues increased in all four countries in 2004.<sup>6</sup> In Peru and Venezuela, an increase was already observed in 2003 (table 10). Increased fiscal revenues seem to be taking place under reasonably prudent fiscal management. Brazil, Chile and Peru saw improvement in their overall fiscal positions in 2004. In Brazil and Peru, this was achieved under IMF programmes.<sup>7</sup> Although overall figures are not shown for Venezuela, the central government's fiscal deficit also was reduced – from nearly 6 per cent of GDP in 2003 to 2.8 per cent in 2004 (see tables 11 and A11).

Brazil's fiscal revenues are associated with faster economic growth rather than the performance of specific export sectors, as noted above. But it also reflects tax and other revenue raising efforts to generate high overall primary fiscal surpluses, so that the government's total public debt can be brought to

Table 10

<b>GOVERNMENT REVENUES</b>						
<i>(Per cent of GDP)</i>						
	1999	2000	2001	2002	2003	2004
Brazil <sup>a</sup>	21.7	21.5	22.7	23.9	23.0	23.9
Chile <sup>b</sup>	22.5	23.7	23.9	23.2	23.0	24.2
Peru <sup>a</sup>	14.5	14.8	14.4	14.4	15.0	15.2
Venezuela <sup>a</sup>	18.0	20.2	20.8	21.5	22.9	24.1

**Source:** IMF; Central Bank of Brazil; Central Bank of Chile; Central Reserve Bank of Peru; and Central Bank of Venezuela.

*a* Central government.

*b* General government.

Table 11

<b>OVERALL FISCAL BALANCE</b>						
<i>(Per cent of GDP)</i>						
	1999	2000	2001	2002	2003	2004
Brazil	-5.8	-3.6	-3.6	-4.6	-5.1	-2.7
Chile	-2.1	-0.6	-0.5	-1.2	-0.4	2.2
Peru	-3.2	-3.2	-2.5	-2.3	-1.7	-1.1
Venezuela	0.7	4.3	-4.5	-1.0	0.2	n.a.

**Source:** IMF; ECLAC; Central Bank of Brazil; Central Bank of Chile; Central Reserve Bank of Peru; and Central Bank of Venezuela.

levels deemed sustainable. The fiscal surpluses have been positive and large since 1999, reaching a maximum of 4.6 per cent of GDP in 2004. These surpluses, which have been the result of strict expenditure control as well, have however not been sufficient to stop the government's debt from growing for most of the years. The main reason for this growth is that most of the debt is short term, and therefore highly sensitive to high short-term domestic interest rates, which has been a policy instrument used to combat inflation and stem the outflow of capital in times of high uncertainty. In 2004, the debt

levels as a proportion of GDP were reduced for the first time after many years, due to the combined effects of higher fiscal surplus, currency revaluation and relatively less high interest rates.

Chile's total government revenues grew strongly in 2004 due mainly to higher copper revenues. This contributed to an overall fiscal surplus of 2.2 per cent of GDP in 2004 (against a deficit of 0.4 per cent in 2003). But the surplus also reflects a reduction in government spending from 20.7 per cent of GDP in 2002 to 19.9 per cent in 2003 and 18.6 per cent in 2004. Government's expenditure has thus clearly behaved counter-cyclically. This was the result of Chile's fiscal policy framework based on a cyclically adjusted fiscal surplus of one per cent of GDP. An additional factor with a positive impact on Chile's fiscal outcomes has been a debt management policy aimed at restructuring the government's debt profile towards longer debt maturity at lower costs. This has been pursued by using resources from copper export windfalls and from sovereign bond issuing, as noted earlier.

Peru and Venezuela's fiscal accounts differ from Brazil and Chile's in that during the period under analysis, Peru achieved an overall primary fiscal surplus for the first time only in 2003 and the surplus widened in 2004. Venezuela's central government, which is the main deficit source of the public sector, achieved a primary surplus in 2004, after three consecutive years of running a primary fiscal deficit. In both cases, increased central government revenues contributed to this positive outcome. In the case of Peru, this resulted from the government's efforts to raise revenue collection through imposition of a new financial tax and other tax measures (see ECLAC, 2005). On the expenditure side, Peru's figures have been declining over time; in 2004, this was the case for every expenditure item, which grew less than the real GDP; public capital expenditure in particular was maintained at low levels – 3 per cent of GDP, an investment rate considerably lower than those observed in the mid-1990s. In Venezuela, government expenditure increased steadily between 1999 and 2003 as a proportion of GDP, with a slight decrease in 2004. Venezuela is the only one of the four countries that has clearly pushed up expenditures along side higher revenues.

But how much has expansion in revenues from the export activities contributed to the increase in government revenues in Chile, Peru and Venezuela?

Table 12

**OIL AND MINERAL SECTORS' CONTRIBUTIONS TO GOVERNMENT REVENUE GROWTH  
AND SHARE IN TOTAL GOVERNMENT REVENUES**

(Per cent)

	Contribution of relevant sector to government revenue growth		Share of relevant sector in total government revenue	
	1999–2004	2003–2004	2003	2004
Chile (copper)	29.3	58.9	3.9	12.6
Peru <sup>a</sup> (gold and copper)	4.5	6.7	2.7	4.8
Venezuela <sup>a</sup> (oil)	50.8	43.2	50.6	47.8

*Source:* Authors' elaboration, based on Central Bank of Chile; Central Reserve Bank of Peru; Central Bank of Venezuela; and UNCTAD, *Trade and Development Report, 2005*, chap. III.

*a* Refers to central government only.

Starting with Venezuela, revenues from the oil sector account for 51 per cent of Venezuela's central government cumulative revenue growth between 1999 and 2004, and 43 per cent between 2003 and 2004. Central government revenues account for roughly 75 per cent of total public sector revenues, and the oil revenue contribution to the latter holds similar proportion to its contribution to the former, of around 50 per cent.

In Chile, revenues from the copper industry accruing to the government explained about 29 per cent of cumulative growth of total government revenue between 1999 and 2004, and 59 per cent between 2003 and 2004. Whilst the share of copper revenues in total government revenue had been on average around 2.4 per cent over the 1999–2002 period, it went up to 3.9 per cent in 2003 and over 12.6 per cent in 2004 (table 12). Estimates from UNCTAD (2005, chap. III) suggests that this share, derived from Chile's fiscal accounts, might be a gross underestimate; their own estimates of government revenues from copper rent, which include dividends and other transfers from CODELCO, indicate that the share could actually be much higher, at about 17.6 per cent in 2004.

For Peru, we calculate the contribution of both gold and copper revenues to the country's central government revenue growth. Given the lack of in-

formation on gold and copper revenues accruing to the central government in Peru's national statistics, we used estimates of these revenues from UNCTAD (2005, chap. III). According to our calculations, the revenues from these two mining products explained 4.5 per cent of growth of Peru's central government revenue between 1999 and 2004, and 6.7 per cent between 2003 and 2004.<sup>8</sup>

The contribution of these two key mining sectors to Peru's government revenue growth is much lower than those calculated for Chile and Venezuela. Peru's recent strong GDP growth has been heavily based on the dynamism of the export-oriented mining sectors but the fiscal impact of these sectors been much smaller than in Chile and Venezuela.

The share of gold and copper revenues in Peru's central government revenues was less than 5 per cent in 2004, and just 2.7 per cent in 2003. In Chile, copper's share was 13 per cent in 2004, and in Venezuela, oil's share was 48 per cent (table 12). But why is this share so small, given the importance of the mining sectors in Peru? One possible explanation is that Peru's extractive sector is more diversified than in Chile and Venezuela, and that if one added the relative contribution of each mining industry, and not just gold and copper, the extractive sector's total contribution to government's revenues would be significantly higher.

Table 13

**SHARE OF GOVERNMENT REVENUE  
IN TOTAL RENTS BY THE  
RELEVANT SECTORS**

(Per cent)

	1999–2002 <sup>a</sup>	2003	2004
Chile (copper) <sup>b</sup>	16.9	23.2	40.1
Peru (gold and copper)	9.2	17.8	20.8
Venezuela (oil)	62.7	62.5	66.6

*Source:* Authors' elaboration based on UNCTAD, *Trade and Development Report, 2005*, chap. III.

*a* Average based on year-to-year figures.

*b* Figures for Chile have been later revised and communicated to the authors.

However, information on the contribution of each mining industry to Peru's government revenues is not available. Another way to look at this issue is to see how much the rents generated by the key oil and mining industries are being appropriated by the Governments of Venezuela, Chile and Peru.

Estimates by UNCTAD (2005, chap. III) show the share of government revenue in total rents generated by key oil and mining products in Chile, Peru and Venezuela. These are displayed in table 13 for the periods 1999–2002, 2003 and 2004.

As can be seen from table 13, in Venezuela the Government appropriated nearly 67 per cent of the total rents generated by the oil sector in the country in 2004; in Chile the Government appropriated 40 per cent of the total copper rents, and in Peru the Government appropriated only 21 per cent of the combined gold and copper rents. Moreover, for the period 1999–2003, the appropriation shares in Peru are also lower than in Chile and Venezuela.

Thus, the low appropriation by Peru's Government of the rents generated by its main mining industries explains why the contribution of these industries to total government revenue has been so low (though growing lately), and not the fact that Peru's mining industries might be more diversified. The counterpart of the inability of Peru's Government to appropriate a larger part of the mineral rents has been

the growing profit remittances by the private sector, which doubled in 2003 (ECLAC, 2005; see also table A6). The result has been that Peru's gains from the terms of trade improvement have been more than offset by the effects of net income payments in 2003 and 2004,<sup>9</sup> which means that Peru's national income has been growing less rapidly than its GDP.

To summarize this section, first, all four countries improved their fiscal positions in 2004. Second, the principal factor behind this outcome has been higher government revenues, although in Chile and Peru, lower government expenditures as a proportion of GDP also contributed to this outcome. In Venezuela, an upward trend in government expenditures has been observed in the past few years. Third, revenues from the rents generated by the export activities have been a major factor in government revenue growth in Venezuela and Chile; in Peru, the contribution has been very small. Fourth, these outcomes reflect different degrees of rent appropriation – high in Venezuela, moderate in Chile, low in Peru. In Brazil the contribution of the rents from the export sectors to government revenues is probably negligible, due to the size (and diversification) of the economy and the relatively minor importance of this type of revenue source. But it should also be mentioned that the tax structure in Brazil favours exports, and that capital ownership of extractive industries has been concentrated in the private sector following privatization in the 1990s, which has also reduced the appropriation of the rents by the State. Table 14 summarizes these findings.

The difference in rent appropriation rates in Chile, Peru and Venezuela reflects the ownership of the extractive industries and the regulatory frameworks in these countries.<sup>10</sup> In what follows, we focus on the role of the State-owned companies in these countries in enhancing governments' capacity to appropriate rents.

Venezuela has PDVSA, which is a State-owned company that in 2004 accounted for 65 per cent of Venezuela's oil production. In that year, PDVA accounted for 94 per cent of Venezuela's total government revenues from oil. Most of the revenues from PDVA accrued to the government in the form of royalties – 53.7 per cent of the total, while 12.4 per cent accrued in the form of dividends and 11.5 per cent, through taxes. Thus, the ownership of PDVA by the State and its ability to capture a large share of the company's profits through royalties, dividends and

Table 14

## FISCAL OUTCOMES AND CONTRIBUTION FROM RENTS, 2004

	<i>Central government revenues</i>	<i>Central government expenditures</i>	<i>Overall fiscal position</i>	<i>Contribution from rent generating sectors</i>	<i>Reason for rate of contribution</i>
	<i>Per cent of GDP</i>				
Brazil	Up	Up	Improved	Negligible	Size/diversification of economy
Chile	Up <sup>a</sup>	Down <sup>a</sup>	Improved	High	Moderate ability to capture rents
Peru	Up	Down	Improved	Small	Low ability to capture rents
Venezuela	Up	Up <sup>b</sup>	Improved <sup>c</sup>	High	High ability to capture rents

**Source:** Authors' elaboration.

*a* General government.

*b* 2002–2004 period, as 2003 is a deficient basis for comparison due to economic disruption in that year.

*c* Based on central government figures.

taxes explains the ability of the government to capture a large share of the rents.

In Chile, the State-owned company CODELCO accounted for 37.2 per cent<sup>11</sup> of Chile's total copper production in 2004. Another 55 per cent or so was generated by ten other large private companies, and the remainder by a few small and medium-sized private companies. Although CODELCO has accounted for less than 40 per cent of total copper production in the past several years, its share in government revenue from copper has been over 70 per cent since 2000, reaching nearly 75 per cent in 2004. The rents accrue to the State through taxes and dividends. In addition, 10 per cent of CODELCO's export revenues accrue to the armed forces.

The relatively low share of private companies in Chile's government revenues from copper is explained by a number of legal loopholes, which open space for tax evasion. In 2004, the tax rate on undistributed profits was raised to 17 per cent from a rate of 15 per cent until 2001, while taxes on distributed profits were at 35 per cent. But private companies have been able to remit their profits to their parent companies, disguised in the form of interest payments, over which the tax rate is only 4 per cent.<sup>12</sup> So resources leave the country as profit remittances and interest payments, and return in the form of FDI and loans. In addition, due to an accelerated-

depreciation regime, until recently most companies had no taxable profits. Thus, most of the recent increase in Chile's government revenue from copper has come not from the private copper companies, but from the State-owned CODELCO.

In contrast with Venezuela and Chile, Peru does not have a large State-owned company responsible for most of the country's mining production. Two large foreign-controlled companies (Yanacocha and Barrick) account for 60 per cent of gold production, and another two (Southern Peru Copper Corporation and Antamina) for 74 per cent of copper production. The tax on profits at 30 per cent has been the main source of government revenues. However, in Peru the extractive companies are exempt from royalty payments, benefit from an accelerated depreciation regime, can deduct infrastructure investment costs from taxable income, and face negligible indirect taxes. These factors explain why government revenues from gold and copper are so low.

It can be inferred from above that the regulatory regimes in these three countries are either too generous or too ineffective to enable the government to raise revenues from the (privately owned) extractive industries. Rent appropriation rates are significant when the country's major commodity producer is owned by the State, which gives it the power to determine how much of the rents are effectively taxed



Table 15

**GOVERNMENT REVENUE FROM  
INTERNATIONAL TRADE AND  
EXTRACTIVE INDUSTRIES, 2003**

*(Per cent of total current  
government revenue)*

	<i>Import and export duties</i>	<i>Revenue from extractive industries</i>
Chile	5.7	8.2
Peru	7.3	2.4
Venezuela	3.0	49.7

*Source:* UNCTAD, *Trade and Development Report, 2005*, chap. III: 112, table 3.5.

and how profits, dividends and royalties are distributed among shareholders.

As indicated above, the government's shares of rents are high in Venezuela, moderately high in Chile and low in Peru. As a consequence, the fiscal impacts of these rents have been significant in Venezuela and Chile but not in Peru. Consequently, the mining sectors' contribution to revenue growth in Peru has been rather small. Of course, one could argue that Peru could capture rents from the mining sectors through export taxes. But this does not seem to be the case. Table 15 shows that while Peru's revenues from extractive industries are much lower than in Chile and Venezuela, its revenues from import and export duties are just marginally higher. To achieve a primary surplus in 2003 and 2004, Peru had to boost revenues through tax measures and restrain expenditure.

#### 1. Use of the captured rents by the State

Both Chile and Venezuela have experienced increased revenues from copper and oil, respectively, but only in Venezuela has the revenue increase been followed by higher government spending.

Chile's Government has been using these rents cautiously. It has prioritized strengthening the country's fiscal position, under a fiscal framework aimed at a structural fiscal surplus of 1 per cent over the

economic cycle. In 2004, when the economic recovery accelerated, the result was a non-adjusted overall fiscal surplus of 2.2 per cent of the GDP. This was achieved through both revenue increase and expenditure reductions, as a proportion of GDP. So, under this framework, increased revenues from copper in Chile have resulted in not more but less public expenditure. In addition, Chile has used its copper resources to support debt restructuring and to replenish its Copper Stabilization Fund (IMF, 2005b).

By contrast, Venezuela's fiscal expenditure has been on the rise particularly in the social sectors. According to the Central Bank of Venezuela, social expenditure reached over 41 per cent of total expenditure, a figure that is 4.3 percentage points above the average observed in the 1995–2003 period. Furthermore, the recently created Fund for Social and Economic Development (Fondespa), whose resources come from PDVSA, have supported social programmes (comprising the provision of health, education and subsidized food prices) geared to the poor (ECLAC, 2005).<sup>13</sup>

However, not all the additional revenues from oil have been channelled to the expenditure items of the budget. The government created the Macroeconomic Stabilization Fund (FES) in November 2003, to smooth out fiscal revenues and expenditures, with resources expected to come from PDVSA, though also with proceeds from privatization, among other sources (ECLAC, 2005). Moreover, Venezuela's economic authorities are also taking steps to restructure the government debt to lengthen its maturity and reduce costs. As a result of this process, the debt, which had increased from 29 to 45 per cent of GDP between 1999 and 2003, was reduced to 39.6 per cent of GDP in 2004 (ECLAC, 2005; Banco Central de Venezuela, 2005).

Overall, it can be concluded that higher government revenues from export earnings are not resulting in higher public expenditures in Peru or Chile. This reflects the policy focus of these governments on fiscal prudence and sustainability. As a result, the population at large and the poor in particular have not seen the benefits of the export boom, at least not through higher government expenditures as a proportion of GDP, on social and other programmes. Moreover, public investment in Brazil, Chile and Peru has not picked up significantly. As seen earlier, Peru's public investment today is at a lower level than those observed in the mid-1990s.

Venezuela has pursued a somewhat distinct policy stance, but the priority has been an increase in social expenditure, not capital expenditure.

Given the vital weight that public investment still has in total infrastructure investment in these countries, this indicates overall investments in the infrastructure systems that support the export sectors in these countries are not increasing as one would have hoped. This does not augur well for the export sectors in these countries, as they may face severe infrastructure constraints in the long term. In what follows, we turn to the investment trends in the export sectors and infrastructure of the four countries under analysis, in more detail.

#### IV. Investments in the export sectors and infrastructure

In addition to the macroeconomic impacts analysed in the previous section, the growth of commodity export earnings (due to both gains from the terms of trade and the growth of export volumes) by our sample countries could have microeconomic effects. Specifically, the “windfall gains” obtained from exports could be channelled, entirely or partially, towards financing investment. In face of a higher volatility and a long-term declining trend in commodity prices, the countries should grasp the opportunity arising from the currently high commodity prices not only to strengthen their macroeconomic conditions (through reserve accumulation, higher budgetary revenues, etc.), but also to promote investment in order to increase productive capacity in the export-oriented sectors and in the infrastructure sectors (storage, transport, etc.).

The ability to effectively channel additional rents towards productive investment depends on a number of factors, including the capital ownership by the extractive companies, the legal framework regarding profit remittances, dividends and royalty payments.

In the four countries under analysis, as well as in developing countries more generally, the 1990s saw the growing presence of multinational corporations (MNCs) in the natural-resource-based sectors as a result of the privatization of State-owned companies. The declining participation of the State in

these sectors together with the tax incentives and a legal framework favourable to the remittances of profits and dividends have had as a consequence, both in Chile and Peru, not only the appropriation of a growing share of the rents by the MNCs, but also their transfer abroad via profit and dividend remittances. This has had a negative impact on these governments' capacity to raise fiscal revenues and promote public investments.

As seen in the previous section, the case of Peru in particular is notable in this respect. The country has been prioritizing fiscal prudence, but even if it wanted to increase public capital expenditure substantially, it would not have the fiscal space required, as the rents it has captured from its buoyant mining sectors have been very small.

However, growing foreign ownership and control over the extractive sectors did not imply the total exclusion of the State in these sectors. Some State-owned companies maintained a significant presence in the oil and mining sectors, even in Chile (as is the case of the State-owned CODELCO) and Peru (with the oil company Petro Peru). In Venezuela, the State-owned companies are still predominant in the oil sector, with PDVSA. As shown above, the fact that PDVSA generates most of oil production in Venezuela and that it is still State-owned ensured that the Venezuelan State could capture most of the rent generated by oil exports. In the case of Brazil, in addition to the participation of MNCs in the mining sector, there is the national privately owned company Vale do Rio Doce, which is one of the world leaders in the iron ore market.

Despite the diversity of national experiences regarding capital ownership and appropriation of the gains from the terms of trade, the current phase of high commodity prices has attracted a growing share of FDI going to the four countries, towards the natural resource sectors. This has been the case especially in Brazil and Chile (see table 16).

In the case of Brazil, natural resources captured 11.5 per cent of total FDI flows in 2003, against an average of only 4.3 per cent during 2000–2002. It should be remarked that this has been the case in a context of overall decline in FDI to Brazil between 2001 and 2003, associated with the end of entry of foreign capital in the banking and telecommunication systems, which attracted substantial amounts of FDI in the 1990s. In Chile, the share of FDI flows

Table 16

<b>SECTORAL DISTRIBUTION OF FDI FLOWS, 2000–2003</b>				
(Per cent of total)				
	2000	2001	2002	2003
<i>Brazil</i>	100.0	100.0	100.0	100.0
Natural resources	2.2	7.1	3.4	11.5
Manufactures	17.0	33.3	40.2	34.9
Services	80.9	59.6	56.4	53.6
<i>Chile</i>	100.0	100.0	100.0	100.0
Natural resources	12.0	20.4	59.3	30.9
Manufactures	8.0	15.8	6.2	18.4
Services	80.0	63.8	34.5	50.8
<i>Peru</i>	100.0	100.0	100.0	100.0
Natural resources	2.6	0.7	0.4	0.7
Manufactures	2.8	23.3	19.6	2.3
Services	94.6	76.0	80.0	97.0

Source: ECLAC.

going to natural resources is higher, and is concentrated in the copper sector. Unlike in Brazil, FDI to Chile went up strongly between 2000 and 2004, although, as noted earlier, it is difficult to ascertain how much are really fresh resources or just round-tripping domestic resources (see table 17).

Table 17

<b>ANNUAL FLOWS OF FDI, 2000–2004</b>				
(Millions of dollars)				
	2001	2002	2003	2004
Brazil	22 457.4	16 590.2	10 143.5	18 165.6
Chile	4 199.8	2 549.9	4 385.4	7 602.8
Peru	1 144.3	2 155.8	1 377.3	1 392.5
Venezuela	3 683.0	782.0	2 659.0	1 144.0

Source: ECLAC, *Economic Survey of Latin America and the Caribbean 2004–2005*.

As regards the origin of investments, developed countries remain as the main sources of FDI flows (see table 18).

Even in Venezuela, a country that holds the largest oil and hydrocarbon reserves in Latin America and where the State remains dominant in these sectors, the MNCs from developed countries have launched new investment projects, in partnership with the State-owned PDVSA. These projects were

Table 18

<b>FDI – MAIN COUNTRIES OF ORIGIN<sup>a</sup></b>				
(Contribution to total FDI flows in per cent)				
	2000	2001	2002	2003
<i>Brazil</i>	100.0	100.0	100.0	100.0
United States	18.1	21.2	13.9	18.5
Spain	32.1	13.1	3.1	5.5
Netherlands	7.5	9.0	18.0	11.2
France	6.4	9.1	9.7	6.4
Portugal	8.4	8.0	5.4	1.6
Other	27.6	39.5	49.9	56.9
<i>Chile</i>	100.0	100.0	100.0	100.0
United States	25.7	37.1	17.6	37.6
Spain	21.3	8.1	7.3	9.6
Canada	38.1	4.6	15.0	14.6
United Kingdom	6.3	8.2	44.6	10.2
Australia	1.1	9.6	3.0	3.1
Other	7.5	32.3	12.5	25.0
<i>Peru</i>	100.0	100.0	100.0	100.0
United Kingdom	11.3	25.6	49.1	33.2
Spain	52.9	-3.8	6.2	0.8
United States	9.5	-14.1	-20.8	11.9
Netherlands	15.8	33.8	29.5	17.2
Chile	1.4	17.2	4.8	3.0
Other	9.1	41.3	31.3	34.0
<i>Venezuela</i>	100.0	100.0	100.0	100.0
United States	17.9	33.6	81.0	0.7
Spain	10.2	5.8	11.5	4.0
France	5.0	10.0	19.8	-0.1
United Kingdom	0.4	1.8	-4.7	0.5
Argentina	0.2	1.0	-5.9	0.5
Other	66.3	47.7	-1.7	94.4

Source: ECLAC.

<sup>a</sup> Countries ranked according to their participation in total FDI stock.



Table 19

## CHINA'S AND INDIA'S FDI OUTFLOWS

(Millions of dollars)

	1980–1989	1992–1997	1998	1999	2000	2001	2002	2003
China	450	2 846	2 634	1 775	916	6 884	2 518	1 800
India	n.a.	96	47	80	509	1 397	1 107	913

Source: UNCTAD, *World Investment Report 2004*.

made possible through the Hydrocarbon Law of 1999, which authorized the participation of the private capital in this sector. It is worth highlighting in this regard the Sincor project, which started in 2001 and for whose expansion additional resources of \$4 billion have been announced, to take advantage of the ongoing high prices in the international markets. Moreover, the PDVSA has undertaken joint ventures with Chevron and Texaco, and the Satatoil of Norway for projects of natural gas (ECLAC, 2004a).

In Chile, high copper prices have encouraged new investments by the MNCs that are already exploring copper in the country. In 2004, the Spence project for copper extraction was approved, to be undertaken by the Anglo-Australian BHP Billinton, which has been already operating at la Escondida. The announced investments are of \$900 million, to be initiated in 2006. This new investment in Chile will help BHP Billinton consolidate its position as one of the largest copper producers worldwide (ECLAC, 2004a).

In Peru, the high prices of the gold metal have encouraged investment in new projects, such as the Las Bambas project, which will be undertaken by the Swiss Xstrata, and will involve \$121 million. Likewise, the copper sector in Peru has also attracted new investments, from the Japanese Sumitomo Corporation and Sumitomo Metal Mining, which announced \$300 million for the expansion of the Cerro Verde copper mine (ECLAC, 2004a).

Table 18 also shows that the contribution from other countries to FDI flows has increased in all four countries. These other countries include other developed countries and developing countries as well.

Among the developing countries investing in the four countries under analysis, it is worth highlighting China and India, which have demonstrated interest in these countries' commodity sectors. This interest is still incipient, and is part of a broader trend in FDI flows between developing countries (South-South FDI). Together with China and India, Malaysia, the Russian Federation and South Africa have emerged in recent years as important investors in developing countries, as reflection of their resource-seeking and market-seeking strategies. However, in order to minimize risks and information costs, these companies have undertaken steps towards becoming MNCs through investing first in neighbouring countries, on which they hold greater knowledge, before embarking on worldwide expansion. Their geographical proximity and ethnical and cultural links reinforce this strategy (World Bank, 2005). Thus, although the natural resource endowments in Latin America are an important attraction to large developing country corporations, the distance and lack of cultural and other links have thus far inhibited their investments in the region.

In the case of China, but also India, their growing dependence on commodity imports, has awoken their interest in ensuring stable supply sources, thereby propelling them to invest in the Latin American region. Although China and India are not among the main developing country sources of FDI, their FDI abroad has grown steadily in recent years (Gottschalk, 2005).

Table 19 shows that FDI outflows from China more than quintupled from the 1980s to the 1990s, from around \$450 million to over \$2,846 million over the 1992–1997 period. From 1999 onwards, these

Table 20

<b>CHINA'S AND INDIA'S FDI STOCK ABROAD</b>					
<i>(Billions of dollars)</i>					
	1990	1995	2000	2002	2003
China	2.5	15.8	25.8	35.2	37.0
India	0.1	0.3	1.9	4.0	5.1

Source: UNCTAD, *World Investment Report 2004*.

flows started to oscillate, but still they reached the respectable value of \$1,800 million in 2003. The accumulated flows resulted in a FDI stock abroad totalling \$37 billion in 2003 against a stock of only \$2.5 billion in 1990 (see table 20).

As regards India, tables 19 and 20 show that the country's FDI outflows grew exponentially – from just \$96 million in the 1992–1997 period to nearly \$1 billion in 2003. The result was a FDI stock held abroad of over \$5 billion in 2003.

Thus far, the largest recipients of China's FDI are Hong Kong (China) and the United States. These two destinations alone accounted for over 50 per cent of the value of approved FDI projects abroad in 2002. At the same time, the following developing countries are listed among the top 15 destinations of Chinese FDI (measured by cumulative FDI value over the 1979–2002 period): Peru, Mexico, Zambia, Cambodia, Brazil, South Africa and Viet Nam (see table 21).

Thus, although most flows are going to developed countries, a number of developing countries are also capturing some of these flows, which in some cases are significant when measured as a proportion of their GDPs. Moreover, the destination patterns seem to be changing very rapidly. In 2004, Latin America received 46 per cent of China's total outward investment (Funakushi and Loser, 2005), with 29 per cent of the remaining flows going to Asia, and 16.4 per cent to Europe (People's Daily Online, 7 January 2005).

The main factor driving China's FDI towards Latin America is the need for natural resources to

sustain their high growth path. That has been so much the case that stories of China's investment in natural resource industries abroad abound in the press. As mentioned in section II, exports from Latin America to China witnessed drastic growth. These countries have exported mainly mineral and agricultural commodities. That makes the region a natural destination for China's FDI.

China has recently signed various accords with many Latin American countries, including investment contracts for oil, mineral, gas and hydrocarbons exploration. During his visit to several Latin American countries in November 2004, Chinese President Hu Jintao stated that China would invest \$100 bil-

Table 21

<b>TOP 15 DESTINATIONS OF CHINA'S APPROVED FDI OUTFLOWS, 1979–2002</b>		
	<i>Cumulative value (\$ million)</i>	<i>Percentage share in total</i>
<b>Total</b>	<b>9 340.0</b>	<b>100.0</b>
1. Hong Kong, China	4 074.3	43.6
2. United States	834.5	8.9
3. Canada	436.0	4.7
4. Australia	431.0	4.6
5. Thailand	214.7	2.3
6. Russian Federation	206.6	2.2
7. Peru	201.2	2.2
8. Macao, China	183.7	2.0
9. Mexico	167.4	1.8
10. Zambia	134.4	1.4
11. Cambodia	125.0	1.3
12. Brazil	119.7	1.3
13. South Africa	119.3	1.3
14. Republic of Korea	107.8	1.2
15. Viet Nam	85.0	0.9

Source: UNCTAD, *World Investment Report 2004*.

lion in Latin America. China's appetite for raw materials from Latin America led it to aim also for large infrastructure investments in the region. It reportedly promised \$50 billion investment in roads, ports and other infrastructure projects (*Financial Times*, 9 March 2005).

However, until now intended investments are still far above effective investments in Latin America. As pointed out by Funakushi and Loser (2005), "despite China's interests and deals, the pace of new investments is slow and many plans do not materialize due to the continued presence of political and institutional risks. China has little experience in investments abroad and lacks information about business climate". Or, as explained by Counselor Cai Runguo, the alternate Chinese observer to the Organization of American States, "while the Chinese are planning to step up investment in the region, they are cautious" (Logan and Bain, 2005).

China's effective investments in Latin America, although still small have been concentrated in the petroleum and mining sectors, mostly in our four sample countries: Brazil, Chile, Peru and Venezuela (Funakushi and Loser, 2005). For example, in the first 11 months of 2004, 55 per cent of China's total investment in Latin America went to mining. The remaining investment went to business service (19 per cent), manufacturing (15 per cent) and wholesaling and retailing (5 per cent) (People's Daily Online, 5 January 2005).

Given the large bilateral flows and established levels of cooperation, China's relations with Brazil are the most extensive of any Latin American country (Funakushi and Loser, 2005); Brazil also appears on the list of main recipients of total China's FDI. According to press reports, China has invested in the steel, iron, agriculture and forestry in Brazil (People's Daily Online, 9 September 2004; Herald Tribune, 2 March 2005). China is also offering an investment of about \$8.5 billion in port, railway, oil, steel and aviation projects (Funakushi and Loser, 2005). In the mining sector, it is possible to highlight investments by Baogang Metallurgic, which had announced a joint venture with the Brazilian CVRD in November 2001 (ECLAC, 2004b), and by the largest Chinese metal-worker company, Baosteel at the end of 2004 (*The Economist*, 2005b).

In relation to announced projects, it is worth mentioning that by Baosteel in partnership with the

Brazilian CVRD and the European Group Arcelor, which has recently created the largest metal-worker company in Brazil – Arcelor Brasil; the announced project consists of creating an integrated steel mill (CVRD-Arcelor-Baosteel mill) in Brazil's north-eastern State of Maranhao, which will involve an investment of over \$1 billion, to start in 2007 or 2008. Depending on future demand, a second mill will be built to produce cold-rolled steel. The CVRD has also announced its intention of having a joint venture with the China Aluminum Group, to produce aluminium in north-eastern Brazil. Chinese companies have also demonstrated interest in investing in infrastructure projects linked to the agricultural and energy exports, although no investments have been materialized in these sectors yet (Abreu, 2005). China Minmetals also announced in September 2005 the intention of having a joint venture with CVRD (Valor Econômico, 2005). In the energy sector, China announced a \$10 billion energy deal in Brazil in November 2004. Brazil's State-owned oil company, Petrobras, and China's National Offshore Oil Company reportedly also are studying the feasibility of joint operations in exploration, refining and pipeline construction around the world (Dumbaugh and Sullivan, 2005). Other announced projects, that will involve huge investments, are: a gas pipeline in north-eastern Brazil and an oil refinery by Sinopec; and an aluminium refinery by Chalco (see Durão and Santos, 2005).

In spite of the growing Chinese investments in the mining and even agricultural sectors in Brazil (People's Daily online, 2004), China has not become an important investor yet in Brazil's commodity sectors. The growth of FDI towards Brazil's natural-resources-based sectors has been led by Argentina, the United States and the EU in the agribusiness sector; while from the United States and the EU FDI have predominated in the oil, steel and aluminium industries. Taking the total FDI stock, the United States remains the main investor, followed by Spain, the Netherlands and France. China is included in the category "other" due to its low share of FDI stock in Brazil (table 18).

In Chile, the copper sector has attracted FDI from China which is the largest world consumer of this mineral (Dumbaugh and Sullivan, 2005). The Chinese Minmetals, which is China's largest State-owned metal producing and trading company, announced in June 2005 the creation of a joint venture with the Chilean CODELCO, which is the

largest copper producer in the world, which will be a new copper mining company that will supposedly supply China with copper for the next 20 years (Logan and Bain, 2005). Each company will have 50 per cent of capital and China's investment will initially be \$550 million, but possibly reaching up to \$2 billion. The high demand for copper by the Chinese economy, linked to investments in energy power transmission networks and the automobile and domestic appliances industries, stimulated the search for more stable sources of copper. Estimates indicate that this demand should go from 4 million annual tons to 6 million until 2010. The Chinese Government has been encouraging other State-owned companies, such as the Jiangxi Copper company, the largest copper producer in China, and the Shanghai Baosteel Group, to acquire participation in foreign mining companies in order to ensure domestic supply (Bloomberg, 2005).

Sources close to the trade negotiations under way between China and Chile claim that the Chinese officialdom has a strong interest in becoming a partner in the construction of a road and rail tunnel in the Cristo Redentor pass between Argentina and Chile, which closes every year due to snow build-up. It would be the first Chinese Government investment in the region (Logan and Bain, 2005).

In Venezuela, China has invested in crude oil. China has operated oil fields in this country, and intends to develop 15 declining fields in Zumano in eastern Venezuela (Forero, 2005). In January 2005, Venezuelan President Hugo Chávez travelled to China to sign a series of energy-related agreements, including the commitment by the China National Petroleum Corporation, which already operates two Venezuelan oil fields, to spend over \$400 million in developing Venezuelan oil and gas reserves (Dumbaugh and Sullivan, 2005). China has also offered a credit line of \$700 million to Venezuela's Government to be used in their fight against poverty in exchange of oil refinery technology (People's Daily Online, 9 September 2004; Herald Tribune, 2 March 2005).

India has also invested in Venezuela's oil sector. PDVSA and the Indian ONGC Videsh and Indian Oil Corporation have made an alliance aimed at establishing a joint company for oil exploration in Venezuela, which is part of Venezuelan Government's desire to develop links with other developing country companies (ECLAC, 2004a). As in China,

India's growing needs for natural resources seems to be a major force behind its investments in developing countries such as Venezuela. India, which at present imports 70 per cent of its oil needs and has an oil consumption per capita of only one-third of the world's average, faces the critical challenge of expanding its foreign sources of energy abroad, especially in view of its limited domestic natural resources. The potential for rapid growth of India's investment in energy abroad is thus enormous (*Financial Times*, 2005).

## V. Conclusions

The main aim of this paper was to examine how Latin American countries have been responding to the ongoing export boom in the region. Through analysing the experiences of Brazil, Chile, Peru and Venezuela, the paper shows that policy makers in the region have responded to this challenge by pursuing prudent macroeconomic management policies, both on the external and the domestic fronts. Flexible exchange rate regimes have prevailed, a considerable concern for the maintenance of price stability has been observed, and a prudent fiscal policy has been pursued with a focus on fiscal sustainability. These policy options and concerns were present in Brazil, Chile and Peru. Venezuela shares some of these elements, but not all – for example, its exchange rate regime is still operating at a higher degree of government control, though it has been gradually relaxed lately.

While the four countries under analysis appear to be pursuing broadly similar macroeconomic management policies, important differences can be observed. As the export boom has gained strength Chile and Brazil have let their currencies appreciate, both in nominal and real terms. At the same time, their accumulation of foreign reserves has been rather modest. By contrast, whilst avoiding major currency appreciation, Peru and Venezuela have recently seen a major increase in their foreign reserves. However, this does not mean that Chile has been less prudent than Peru and Venezuela on the external front. Chile has followed the alternative path of restructuring its external debt, so that the country can benefit from lower debt liabilities and debt service in the future. In our judgement, Brazil's external strategy has been the least appropriate of all.



Brazil has let the domestic currency appreciate strongly lately, but given the country's more diversified export base towards manufactured goods, Brazil has the strongest reasons to avoid currency appreciation. This can undermine severely the competitiveness of its manufacturing exports, which are more sensitive to the exchange rate and whose share in the country's total exports is high. The weakening of manufacturing exports should be avoided, because it is the sector that has the strongest capacity to create jobs and the strongest linkages with the rest of the economy. The other side of the coin of this policy option has been modest reserve accumulation. It is true that this policy in Brazil tends to be more costly than in the other countries, as it involves higher quasi-fiscal costs due to the country's extremely high domestic interest rates – the highest in the world both in nominal and real terms. The high interest rate policy is directly linked to the country's strict regime of inflation targeting, which could be made more flexible, for example by having less rigid annual targets and by using core inflation rather than full inflation as the reference index for the regime in place. Unlike Chile, Brazil is not compensating for a less aggressive reserve accumulation strategy with external debt restructuring, which is the alternative Chile has found to reduce vulnerability to external shocks.

On the fiscal side, all four countries have seen improvement in their overall fiscal accounts as a result of higher government revenues. In Chile and Peru, this has been achieved through lower expenditures as well. A striking finding is that Peru's government revenues arising from the mining sectors as a proportion of total government revenues are very small. Thus, other factors such as the introduction of new taxes explain why Peru's revenues have improved. The main reason for the contribution of the mining sector to government revenues is the inability of the government to capture a significant share of the rents generated by these sectors, owing to a regulatory framework that favours MNCs and income payments abroad.

Unlike the Government of Peru, those of Chile and Venezuela managed to capture a large share of the rents generated by the extractive sectors. But whilst Chile is pursuing a restrained, counter-cyclical fiscal policy based on lower government expenditures, Venezuela has increased public expenditure significantly, mainly in the social sectors. In our view, both policy strategies have their merits, in the case

of Chile because it lays the ground for enhanced growth in the long term. In the case of Venezuela, because oil revenues are so high and the ability of the State to capture these so strong, the country is being able to have it both ways (to spend, but also to save). However, this strategy is not free of risks. The expenditure pattern is changing in a major way, but its sustainability is heavily dependent on the continuation of high oil prices.

A further finding of the paper is that public sector investment in the four countries has not increased. Latin American countries benefiting from the ongoing upward trend in commodity prices should do more to increase investment, especially in the infrastructure serving the export sectors.

The analysis provided in the previous sections suggests that the high commodity prices in the 2002–2004 period was associated with global economic recovery, dollar depreciation, a speculative bubble fuelled by low interest rates, and economic growth in East and South Asia. In our view this current boom in commodity prices is different from previous ones precisely because of this combination of old and new elements. The fact that some of these contributory factors are cyclical and others structural, makes it difficult to assess to what extent the current upward trend in prices is sustainable. However, the important difference between this and previous cycles is the increasing weight of China and India in the world economy. The size and rate of growth of these countries could lead to a major structural change in relative prices towards an upward long-term trend in the terms of trade in favour of primary commodities, although price variability would probably continue around this trend.

But the cyclical factors may have greater weight over the medium term. The global economy is facing major imbalances and a disorderly adjustment could result in higher interest rates, a sharp slow down in the world economy and a collapse in commodity prices. Thus, although the paper identifies important underlying structural factors that were not present in previous booms, it is far from certain that the current cycle will last for very long. For this reason, the current boom should be seen by Latin American countries as a window of opportunity for not only making strides towards fiscal and external sustainability but also for improving their physical infrastructure, and for increasing social expenditure to address the region's high income inequality, high

unemployment and poverty levels. To ensure that both increased capital and social expenditure can be financed in a sustained way, their governments should make efforts to increase their share of the rents through revising the regulatory framework and the laws governing foreign and domestic investment in order to remove loopholes that encourage tax

evasion. Finally, they should avoid excessive appreciation of their currencies in order not to discourage investment in the manufacturing industries, which are the ones that create jobs and value added, and through export diversification contribute to reduced variability in the terms of trade.

## Annex

Table A1

<b>NOMINAL EXCHANGE RATE – END OF PERIOD</b>								
<i>(Currency units per 1 US dollar)</i>								
	1998	1999	2000	2001	2002	2003	2004	April 2005
Brazil	1.21	1.79	2.00	2.32	3.53	2.89	2.65	2.53
Chile	473.80	530.10	572.70	656.20	712.40	599.40	559.80	582.90
Peru	3.16	3.51	3.52	3.44	3.51	3.46	3.28	3.26
Venezuela	564.50	648.30	699.80	763.00	1 406.30	1 598.00	1 918.00	2 147.00

Source: IMF.

Table A2

<b>NOMINAL EXCHANGE RATE – AVERAGE PERIOD</b>								
<i>(Currency units per 1 US dollar)</i>								
	1998	1999	2000	2001	2002	2003	2004	April 2005
Brazil	1.16	1.82	1.83	2.36	2.92	3.08	2.93	2.58
Chile	460.30	508.80	539.60	634.90	688.90	691.40	609.40	580.60
Peru	2.93	3.38	3.49	3.51	3.52	3.47	3.41	3.26
Venezuela	547.60	605.70	680.00	723.70	1 161.00	1 607.00	1 891.30	2 147.00

Source: IMF.

Table A3

<b>REAL EFFECTIVE EXCHANGE RATE<sup>a</sup></b>								
<i>(Index numbers, 2000 = 100; deflated by CPI)</i>								
	Average (1996–1999)	1999	2000	2001	2002	2003	2004 <sup>b</sup>	2005 <sup>b,c</sup>
Brazil	80.0	108.0	100.0	119.7	130.5	130.6	124.6	110.2
Chile	94.7	98.2	100.0	111.2	109.1	114.5	106.9	106.6
Peru	93.6	101.5	100.0	97.8	95.6	99.8	101.3	100.7
Venezuela	134.4	102.6	100.0	95.2	123.7	136.8	143.2	142.3

Source: ECLAC.

<sup>a</sup> Annual averages.<sup>b</sup> Preliminary.<sup>c</sup> January–May.

Table A4

<b>BALANCE OF PAYMENTS – BRAZIL</b>						
<i>(Millions of dollars)</i>						
	1999	2000	2001	2002	2003	2004
Trade account (goods and service)	-8 244	-7 860	-5 108	8 164	19 863	28 921
Income balance	-18 844	-17 886	-19 743	-18 191	-18 552	-20 520
Interest payment	-17 468	-17 542	-17 842	-15 345	-15 992	-18 478
Profit remittance	-5 531	-4 554	-5 005	-5 950	-5 984	-6 860
Transfer balance	2 027	1 796	1 638	2 390	2 867	3 268
Current account	-25 062	-24 608	-23 213	-7 637	4 177	11 669
Capital and financial account <sup>a</sup>	8 635	32 206	19 763	-3 542	-451	-5 062
FDI	29 987	30 563	24 715	14 108	9 894	8 695

Source: ECLAC; and Central Bank of Brazil.

<sup>a</sup> Includes errors and omissions.

Table A5

<b>BALANCE OF PAYMENTS – CHILE</b>						
<i>(Millions of dollars)</i>						
	1999	2000	2001	2002	2003	2004
Trade account (goods and service)	1 690	1 471	999	1 684	2 905	8 439
Income balance	-2 233	-2 856	-2 526	-2 847	-4 606	-8 101
Interest payment						
Profit remittance		-2 462	-2 250	-2 447	-4 611	-8 052
Transfer balance	643	558	427	583	599	1 051
Current account	100	-897	-1 100	-580	-1 102	1 390
Capital and financial account <sup>a</sup>	-846	1 083	504	779	737	-1 580
FDI	6 203	873	2 590	2 207	2 501	6 660

Source: ECLAC; and Central Bank of Chile.

<sup>a</sup> Includes errors and omissions.



Table A6

<b>BALANCE OF PAYMENTS – PERU</b>						
<i>(Millions of dollars)</i>						
	1999	2000	2001	2002	2003	2004
Trade account (goods and service)	-1 368	-1 149	-1 077	-649	-18	1 950
Income balance	-1 115	-1 410	-1 124	-1 457	-2 144	-3 421
Interest payment		-1 836	-1 640	-1 357	-1 364	
Profit remittance		-344	-131	-479	-1 007	
Transfer balance	966	999	1 042	1 043	1 227	1 461
Current account	-1 518	-1 559	-1 159	-1 063	-935	-10
Capital and financial account <sup>a</sup>	650	1 417	1 583	2 030	1 459	2 427
FDI	1 812	810	1 070	2 156	1 275	1 816

*Source:* ECLAC; and Central Reserve Bank of Peru.

<sup>a</sup> Includes errors and omissions.

Table A7

<b>BALANCE OF PAYMENTS – VENEZUELA</b>						
<i>(Millions of dollars)</i>						
	1999	2000	2001	2002	2003	2004
Trade accounts (goods and service)	3 632	13 411	4 155	10 512	13 904	17 804
Income balance	-1 453	-1 388	-2 020	-2 756	-2 411	-3 885
Interest payment		-2 984	-2 712	-2 359	-2 041	
Profit remittance		-1 424	-1 884	-1 959	-1 440	
Transfer balance	-67	170	-148	-157	20	-89
Current account	2 112	11 853	1 987	7 599	11 448	13 830
Capital and financial account <sup>a</sup>	-1 050	-5 895	-3 818	-12 026	-6 005	-11 932
FDI	2 018	4 180	3 479	-244	1 341	1 866

*Source:* ECLAC; and IMF.

<sup>a</sup> Includes errors and omissions.

Table A8

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**BRAZIL'S FISCAL ACCOUNTS, 1999–2004**  
(Per cent of GDP)

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	1999	2000	2001	2002	2003	2004
Central government revenues	21.7	21.5	22.7	23.9	23.0	23.9
Central government expenditures	19.5	19.5	20.8	21.5	20.5	21.1
Consolidated public sector's primary surplus	3.2	3.5	3.6	3.9	4.3	4.6
Consolidated public sector's financing needs	5.8	3.6	3.6	4.6	5.1	2.7
Public sector net debt	48.7	48.8	52.6	55.5	57.2	51.8

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*Source:* Authors' elaboration, based on Central Bank of Brazil.

Table A9

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**CHILE'S FISCAL ACCOUNTS, 1999–2004**  
(Per cent of GDP)

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	1999	2000	2001	2002	2003	2004
Total government revenues	22.5	23.7	23.9	23.2	23.0	24.2
Total government expenditures	20.7	20.9	20.7	20.7	19.9	18.6
Revenue from copper as percentage of total revenue	1.6	3.9	2.2	2.0	3.9	12.6
Consolidated public sector's financing needs	2.1	0.6	0.5	1.2	0.4	-2.2

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*Source:* Authors' elaboration, based on Central Bank of Chile; IMF; and UNCTAD, *Trade and Development Report, 2005*, chap. III.

Table A10

<b>PERU'S FISCAL ACCOUNTS, 1999–2004</b>						
<i>(Per cent of GDP)</i>						
	1999	2000	2001	2002	2003	2004
Central government revenues	14.5	14.8	14.4	14.4	15.0	15.2
Central government expenditures	15.9	15.7	15.2	14.7	14.9	14.6
Total revenue from gold and copper as percentage of total revenue <sup>a</sup>	0.7	1.1	0.6	1.3	2.7	4.8
Consolidated primary surplus	-1.0	-1.0	-0.2	-0.1	0.4	1.0
Consolidated public sector's financing needs	3.2	3.2	2.5	2.3	1.7	1.1

**Source:** Authors' elaboration, based on Central Reserve Bank of Peru; IMF; and UNCTAD, *Trade and Development Report, 2005*, chap. III.

<sup>a</sup> Estimate calculated by UNCTAD, *Trade and Development Report, 2005*, chap. III.

Table A11

<b>VENEZUELA'S FISCAL ACCOUNTS, 1999–2004</b>						
<i>(Per cent of GDP)</i>						
	1999	2000	2001	2002	2003	2004
Central government revenues	18.0	20.2	20.8	21.5	22.9	24.1
Central government expenditures	20.5	21.8	25.1	26.5	28.8	26.9
Revenue from oil as percentage of total revenue <sup>a</sup>	36.9	49.8	45.5	48.8	50.6	47.8
Central government primary surplus	1.0	0.9	-1.4	-0.3	-0.9	0.8
Central government financing needs	1.7	1.6	4.2	5.0	5.9	2.8
Consolidated public sector's financing needs	-0.7	-4.3	4.5	1.0	-0.2	n.a.

**Source:** Authors' elaboration, based on Central Bank of Venezuela.

<sup>a</sup> Estimate calculated by UNCTAD, *Trade and Development Report, 2005*, chap. III.

## Notes

- 1 Figure from Brazil's Ministry of Development, Industry and Trade.
- 2 For a detailed analysis of the relation between the Chinese and Indian patterns of growth and the consumption of commodities, see UNCTAD (2005, chap. II).
- 3 China's export share remained constant at 6 per cent, but it was just 1 per cent 20 years back, see IMF (2004).
- 4 The decline in steel prices in 2005 has been also explained by higher inventories by the automobile industry in response to fears of product shortage and higher prices (*The Economist*, 2005a).
- 5 Tables on nominal exchange rates, both year average and end-of-period are displayed in the annex to this paper.
- 6 The focus on 2004 is that only in that year the dynamism in the export sector was fully felt; until then, results had been rather mixed due to a variety of factors, such as low dynamism of Chile's economy due to world recession, and political instability in Brazil and Venezuela, in the former case affecting strongly the financial component of the fiscal accounts through higher interest rates and sharp depreciation, in the latter through disruption in production.
- 7 In June 2004, Peru renewed its stand-by agreement with the IMF, while Brazil discontinued its agreement with the IMF in March 2005.
- 8 It is assumed in the calculations that all the government revenues from gold and copper go to Peru's Central Government, thus not being shared by sub-national governments.
- 9 According to UNCTAD (2005; table 3.4) calculations, Peru's gains from terms of trade were 1.1 and 2.2 percentage points of GDP in 2003 and 2004, respectively, but the net effects of income payments were -1.2 and -2.5 for 2003 and 2004.
- 10 The description on ownership structure and tax regimes that follow are based on information from UNCTAD (2005, annex to chapter III), which provides in great detail information on ownership structure and regulatory regimes of main export sectors of selected Latin American countries.
- 11 This figure also includes production by a company in which CODELCO has participation.
- 12 To reduce tax evasion, a supplementary 5-per cent levy on operational profits has been recently approved by Chile's Parliament – see UNCTAD (2005, chap. III).
- 13 Fondespa is the Spanish acronym and stands for *Fondo para el Desarrollo Económico del País*.

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