

# Latinwatch

Research Department

Second quarter 2005



Latin America: the pragmatic search  
Under the microscope: pension systems



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## Editorial

Latin America is still a continent full of paradoxes. In 2004, the region registered one of its largest synchronized rates of growth for the last quarter of a century. This story is very likely to repeat itself in 2005. In spite of this, the cocktail of poverty and social discontent keeps spurring on the desire for brusque changes in direction, as can be seen by recent events in Bolivia.

However, if one gets recent decades into perspective, what really stands out are the profound transformations which give rise to a “bias for hope” as Hirschman would say, rather than “fracasomanía” (failure syndrome). Low interest rates, the high cost of raw materials and the Asian growth rate are boosting the region. However, what most draws ones attention is that, for the last quarter of a century, Latin America is searching for ways to grow through pragmatic economic policies. It is inventing and creating institutional masts, looking for monetary and fiscal anchors, and it is doing all of this outside the predetermined paths of any ideological model.

The reform of pension funds (see articles in this edition) is the perfect illustration of this pragmatic search which combines both invention and gradualism, market mechanisms and state presence. These reforms, which date from the early eighties, combined privatisation and regulation. Funds produced high yields and tried to compensate the low savings rates in the economies of the region, as well as addressing the informalities of the job markets.

The Chilean example is, from this point of view, exemplary (and perhaps unique), where the privatisation of pension funds remained within the framework of a jewel of regulation of top quality institutional craftsmanship. Year after year, the system was modified and adjusted in order to improve. Today, the Chilean regulation body is one of the most credible, technically prestigious and highly esteemed institutions in the country, making it a strong institutional mast.

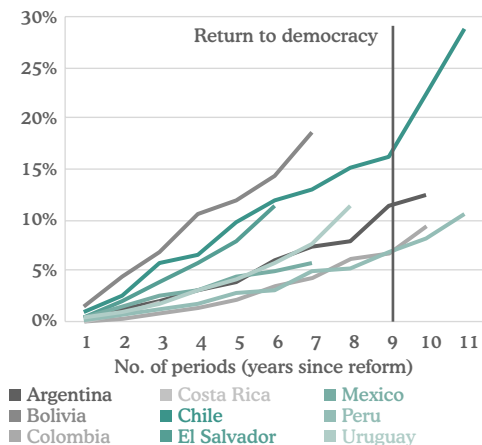
This reform, above all, symbolizes the profound change that Chile underwent over the last decades: the invention of a pragmatic and gradual political economy in contrast to the years of tidal wave (and dizzy) ideologies.

In the seventies social and liberal revolutions occurred which were built up and thrown against countries, in both cases searching to implement rigid paradigms invented in other hemispheres. The Good Liberal was nothing more than another side to the Good Revolutionary, both of them coinciding in their search for impossible economic policies. In the eighties and especially in the nineties, economic pragmatism prevailed. With the return to democracy, there could have been a temptation to create yet another model and break with the previous regime. This was not the case however, and Chilean democrats decided to carry on with the reforms already underway and tried to combine monetary and fiscal orthodoxy with social reforms and balanced growth. This continuity is clearly reflected in the annexed graphs. After 1989, the year democracy returned, assets shot up and not only were reforms not cancelled but to the contrary, they were intensified, adopted and adapted.

Put in another way, the great lesson to be learned from Chile is this extraordinary combination of pragmatism and continuity. This is a combination which other countries such as Mexico and Brazil especially, seek to share (1). In 2005, not only are the stars lined up for the region, but moreover, this trio made up of Chile, Brazil and Mexico could be an inspiration to other countries in the region as shown by Lula in Brazil where the combination of pragmatism, monetary and fiscal orthodoxy and social reforms have reflected on the rest of the continent. The sparkle of the Brazilian experience is already inspiring its neighbours, starting with the new left-wing government which came into power in Uruguay this year. In 2006, when most counties are to elect their new presidents, this emulation is not expected to fade and it is very likely that the “Lula” star will keep on shining brightly in the Latin American sky.

### Latin American pension systems

(assets as % of GDP)



Source: BBVA

### Latin American pension systems

(assets as % of GDP)



Source: BBVA

<sup>1</sup> See study by Javier Santiso “Amérique latine: révolutionnaire, libérale, pragmatique, Paris, autrement, 2005 (also to be published in Spanish and English).

## I. International environment

### Prospects for Latin America

Over the past 25 years, the performance of the Latin American economies has been disappointing, particularly when compared with other emerging regions. The average annual growth rate has been around 2.8%, below that of the global economy (3.3%) and less than that achieved by Southeast Asia (7.7%) (see Box on Asia and Latin America). This difference in growth rates has resulted in an increase in the gap between the levels of income of the region and those seen in rich and other emerging countries.

However, during 2004 we saw a strong recovery in the Latin American economy, with a growth rate of 6%, which was above the historic average. Moreover, for the first time in more than a quarter of a century, all of the economies in the region registered positive rates of growth. This simultaneous growth, and the foreign and domestic conditions foreseen for the region, makes us optimistic about the new economic cycle, especially for 2005. In this sense, we expect the same factors that drove the recovery last year to continue to have a positive impact on the region, albeit to a lesser extent. These factors include favourable terms of trade, solid global growth underpinned by demand from the United States and China, an historically, although rising, low interest-rate environment and the re-emergence of domestic demand as the main engine of growth. Below, we explain in detail the impact that each of these factors will have on regional growth in the next few months as well as the main risks the region faces.

### Foreign factors: the price of commodities will remain at historically high levels

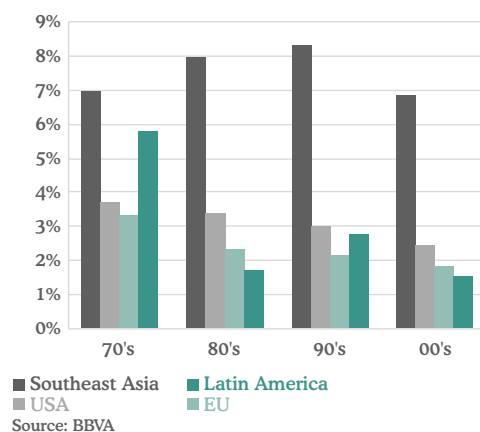
The performance of commodity prices was the main reason behind the good performance of the Latin American economies throughout 2004. What is more, the prices of the main exports of the region (oil, copper, coffee and sugar) have remained at relatively high levels or have increased (see the BBVA-MAP index and the article on oil). The above factor is important given the high weight that these goods have within total exports of the region. Foreign shipments of raw materials represented more than 31% of total exports from Latin America in 2004. However, this figure underestimates the importance of trade in these types of goods for the region due to the presence of Mexico, a country whose trade policy has allowed it to diversify its production and substantially increase its non-oil exports. If we factor out the contribution of Mexico to the above figure, 45% of Latin American exports are raw materials.

Given the situation we have highlighted above, it is not surprising that there is a positive relation between commodity prices and the economic cycle in Latin America (see adjoining graph). It is therefore essential to gauge the behaviour of the prices of these types of goods during the next few months in order to have a better understanding of the prospects for the region. In this sense, our forecasts show that we continue to think there will be a downward adjustment in commodity prices over the next few months. However, we do not expect a substantial change, and foresee prices remaining at relatively high levels with respect to their historic series.

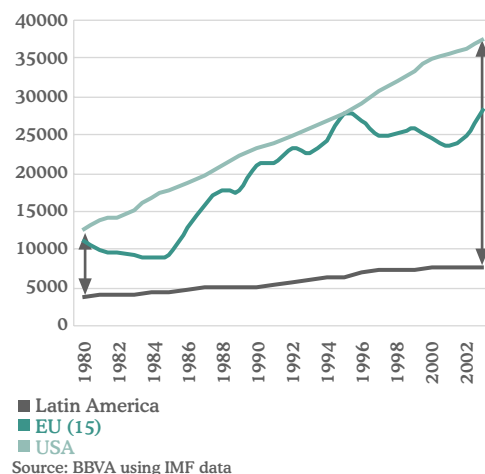
### External factors: US growth in 2005 will be close to its potential

Another factor that will affect growth in the region to varying degrees is the development of the US economy. In this sense, the current expansion in US GDP has been one of the main reasons behind the good perfor-

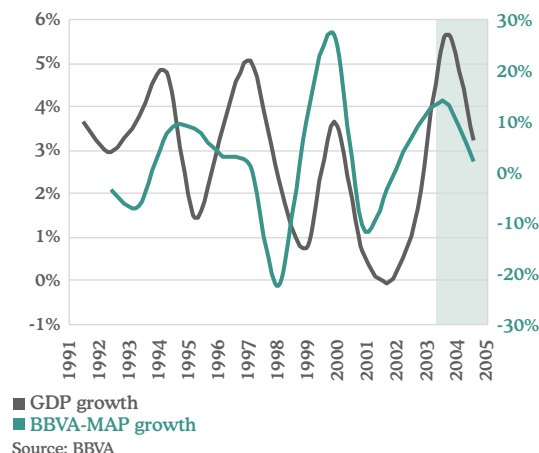
### Average growth



### Per capita GDP (\$ PPP)

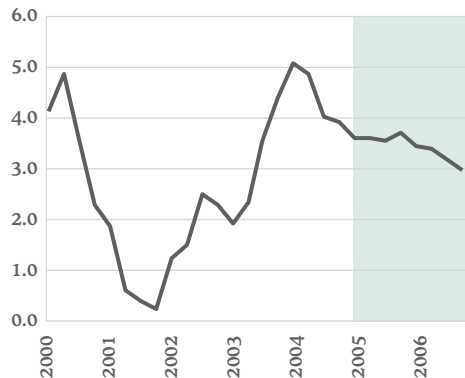


### GDP and BBVA-MAP Latam



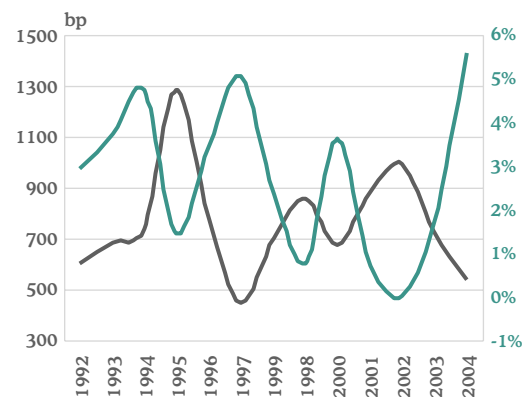
## US GDP

% year-on-year change



Source: BBVA

## Growth and Latam spread

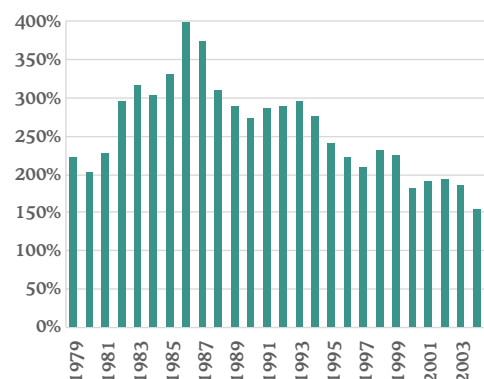


■ EMBI+ Latam  
■ GDP

Source: BBVA

## External debt

(as % of exports)



Source: BBVA

mance of economies such as Mexico (given the close ties between the two countries), and in a more indirect manner solid global demand for raw materials. In this way, we predict that the current expansion in US GDP will be maintained over the next two years, although the pace of growth will be below that observed in 2004. This outlook is based on the dynamism of private consumption and the strong drive given by investment, which will continue to be the main pillars of growth.

With respect to consumption, there are four factors that suggest the growth trend in household spending will continue over the next two years. Firstly, growth in productivity will moderate to around its long-term trend (2-2.5%). Secondly, the maintenance of low real interest rates will continue to drive expansion in spending on durable goods. Thirdly, the increase in house prices will continue to bring about significant growth in household wealth. Lastly, the recovery in the labour market will strengthen, becoming another support factor.

As regards investment, the healthy financial situation of companies and growth in domestic demand will allow this variable to maintain its dynamism, although growth will be more moderate than that posted in 2004.

## External factors: gradual increases in US interest rates are expected

One of the factors that has most benefited Latin America in the past few months has been the current low-interest rate environment. Although the Federal Reserve began to raise its benchmark rates last year, the increases have been gradual and have not had a major impact on risk premiums in the region. This is an important factor given the negative relationship that exists between an increase in the risk premium differential in Latin America and regional GDP growth rates (see adjoining graph).

We therefore expect that the decision by the Federal Reserve to raise its benchmark rate by 25 bp in each of its meetings held since June 2004 will continue until interest rates approach levels of around 3% (possibly at its meeting on May 3). However, from then onwards, greater uncertainty will emerge as regards the pace of further hikes. In particular, nominal rates will stand at the limit of the area that is considered "neutral" (interest rates of between 3% and 5%), which could lead the monetary authority to condition future changes to the information that emerges.

In this context of increased uncertainty about monetary policy, we expect long-term interest rates to rise gradually, to stand at 4% at the end of 2005 and around 5% in 2006. This rise in rates could bring with it a correction in the process of the search for yield, which has narrowed the differential between corporate and emerging country debt to very low levels. However, within this scenario, we expect the adjustment to be limited, given that the situation in the region is clearly different from that seen in previous crises in 1994 and 1997<sup>1</sup>. In particular, external balances are in a healthier situation than in previous periods (we forecast a current account surplus of 0.1% of GDP in 2005), while the region has undertaken a process of debt restructuring and opening up to trade that makes it less vulnerable to external shocks.

However, a greater risk scenario would involve the Federal Reserve deciding on an interlude to its rate hikes, and that the maintenance of strong monetary expansion generates expectations of higher inflation. In this situation, the adjustment to financial variables could be more abrupt, with significant increases at the long end of the yield curve and with a greater depreciation of the dollar.

<sup>1</sup> For more details, see José Luis Escrivá, "Are the stars in alignment?" The keys to economic growth in Latin America," presentation made to Latin American journalists, February 23, 2005, Madrid, BBVA. <http://www.bbva.es>.

A second risk scenario relates to the low level of household savings along with a high degree of indebtedness. A negative shock to confidence could spark a drop in activity, without strong underlying inflationary pressures, which would bring a halt to rises in interest rates by the Federal Reserve, and which would keep long term interest rates in 2005 at close to current levels.

### Domestic factors: domestic demand as the engine of growth

One of the main outcomes of the recovery seen in 2004 has been the improvement in the purchasing power of households in Latin America and the renewed optimism in the region. This has led to the re-emergence of domestic demand as the main engine of growth (see adjoining graph). In addition, the start of this economic cycle has been driven by gains in productivity without major increases in employment. In this way, during 2005, as domestic demand continues to increase, we expect to see an increase in the number of workers taken on and a subsequent improvement in household income.

On the other hand, one of the basic characteristics of the recovery has been higher growth in bank lending. In particular, the annual increase in loans has reached levels of between 20% and 30% in Argentina, Brazil and Mexico. The trend has also be upwards in Chile, Colombia, Peru and Venezuela. A number of factors can be mentioned to explain this situation. For example, one factor that has helped the economies in the region to restore their financial systems has been an improvement in the loan portfolio quality of banks. In particular (excluding Argentina), the average non-performing loan ratio in the main economies in the region stands at levels below those seen in other emerging countries (4.9% vs 10.3% in Asia in 2003). This necessary restoration of financial health in the wake of the different crises suffered has brought about a more frugal situation, and one that is more conducive to lending.

Another factor that has encouraged lending has been the economic stability achieved by countries such as Mexico and Chile, which has brought about a change in the mentality of economic agents. In particular, the conditions seen in these countries have allowed an extension of investment horizons and the development of long-term markets such as the mortgage market. In this sense, Mexico presents an exemplary case given that the number of loans in this sector increased by 122% last year and the growth trend for lending is upwards (26% in December 2004). The rise in housing loans has already had an impact on the economy of the country. In particular, growth in the construction sector has been above that seen in the rest of the economy at levels of around 6%. As a result, the construction sector has become one of the main creators of jobs in Mexico.

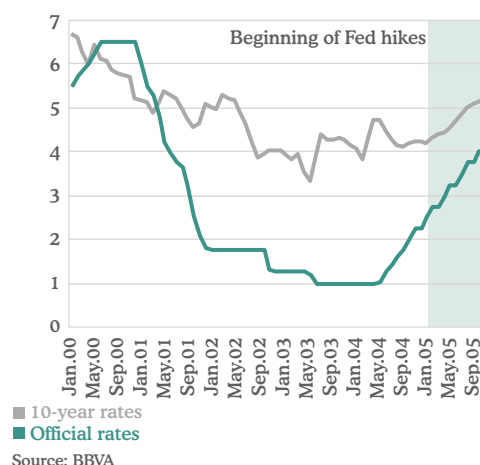
### The political economy of the possible

Summing up what has been said above, one can see that our forecasts for the rest of 2005 are cautiously optimistic. In particular, we expect the region to grow at a rate of above 4%, a level that is above the historic average of the past 20 years, while growth is also expected to take place simultaneously across the region.

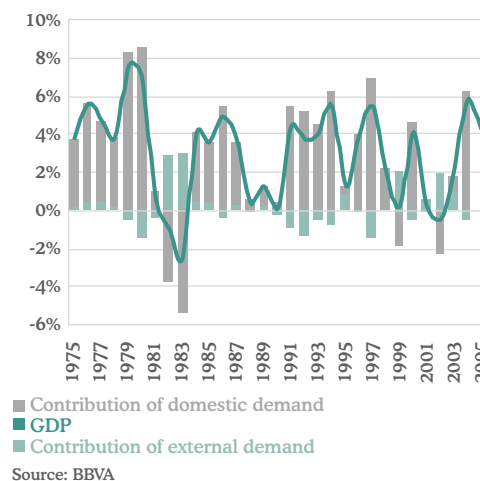
Part of this growth will be supported by an external environment that is expected to be helpful (with certain risks). However, the domestic situation and, above all, the development of a new political economy in Latin America are the basis for our outlook for the region in the near future. With respect to the latter, a series of similar characteristics can be seen in governments throughout the region which seemingly have been accepted regardless of ideology<sup>2</sup>.

<sup>2</sup> For more details, see Javier Santiso, "Latin America: the political economy of the possible", presentation given to the Board of Governors of the Inter-American Development Bank (IADB), March 3, 2005, Washington D.C., IADB. <http://www.bbva.es>.

### USA: interest rates



### Growth in Latin America

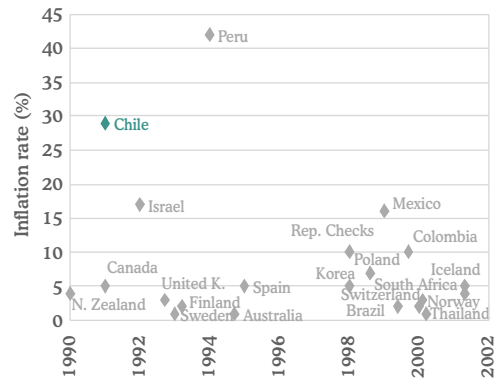


### Mexico: bank lending

(% year-on-year)

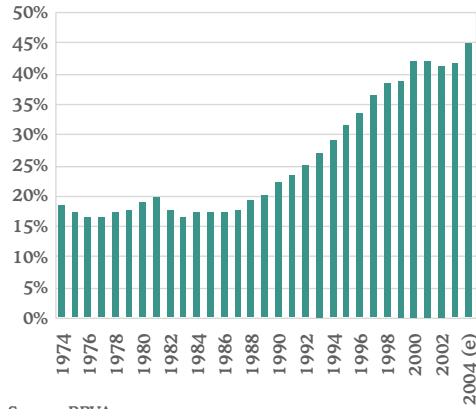


### Year of adoption of initial inflation target



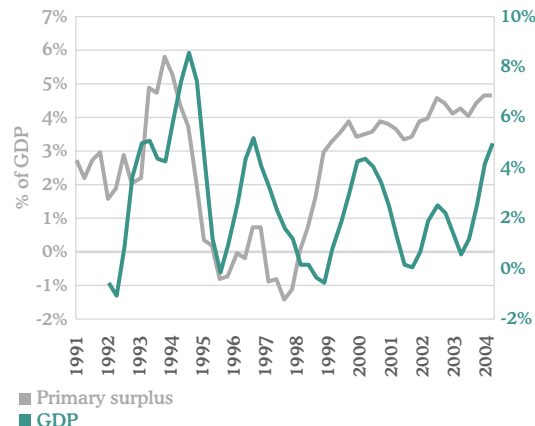
Source: BBVA

### Opening up to trade in Latin America



Source: BBVA

### Public sector primary surplus and GDP growth (cumulative 12 months)



Source: BBVA

In the first place, both left- and right-wing governments have taken on board the need for monetary discipline and fiscal austerity. As a result, since 1998, the rate of increase of prices in the region has been below 10% (with the exception of 2002 when prices rose by 13% due to the Argentine crisis). Moreover, during this year we expect inflation to be close to 6.6% at an annual rate, compared with 6.8% in 2004, with sharp falls in Brazil, Mexico and Peru. Secondly, the deficits registered by the public sector have been shrinking steadily over the past few years, to their current levels of around 1% (1.3% in 2005 after 1% in 2004).

Finally, there is general agreement in the region as to the advantages that foreign trade can bring to the economies of Latin America. Through both the impetus given by trade accords with rich countries (USA and EU) and the signing of intra-regional agreements such as CAFTA (Central American Free Trade Agreement) and Mercosur, countries in the region have sought to increase the extent of internationalisation of their companies and their incorporation into the processes of global production. As a result, the opening to trade in Latin America, measured as the sum of exports and imports as a percentage of GDP, has risen from comparatively low levels (17% in 1985) to levels that show the internationalisation of the region's economies (45% in 2004) (see adjoining graph).

This process of adaptation is particularly striking in the case of Chile, Mexico and Brazil. The Chilean example is paradigmatic in the sense that it was the precursor of all the others. One of the fundamental characteristics of this process of adaptation to the possible was the decision to implement reforms that brought about a gradual transition towards the goals that had previously been set out. In this way, inflation took 10 years to come down from an annual rate of 25% to under 5%, in contrast to episodes such as the Argentine crisis, where in less than 5 years, inflation fell from 4,900% to 4%. This gradualist strategy, also applied in other areas of the economy, has allowed Chile to achieve the success with which it is credited today.

With regard to trade policy, both Mexico and Chile have decided unilaterally to reduce their tariff barriers and to sign bilateral agreements that will pave the way for a greater opening up of trade. What stands out in the case of Mexico is the "anchor" to the US economy, which has seen the economic cycles of these two countries becoming increasingly aligned over the past 10 years. In this sense, the signing of the North American Free Trade Agreement has reduced Mexico's reliance on oil and diversified the income it receives in foreign currencies, thereby making it less vulnerable to external shocks.

In the case of Brazil, one of the main concerns that existed in the region was that a new left-wing government would abandon the country's hard-won fiscal discipline. However, Brazil's economy has shown that sound macroeconomic management and a government with a social agenda are compatible (see adjoining graph and Box on Brazil). Looking ahead to 2006, one may now, in this sense, say that Brazil has withstood the strain of the political cycle.



### Trade and Investment between Asia and Latin America

The evolution of the Asian economies is a key factor in global economic growth, in particular for Latin America (Latam) as symbolized by the holding of the IADB's annual meeting in Japan in April. In the past 25 years, the pace of growth of the Asian economy doubled that of Latam, and at the same time was accompanied by lower volatility (see Table 1). The ties between the two economies have been strengthened through two channels, namely trade and direct investment.

**Tabla 1. Average past 25 years\***

	Growth	Volatility
Southeast Asia	7.7%	2.1%
World	3.3%	1.0%
USA	3.1%	2.0%
Latin America	2.8%	2.3%
EU	2.3%	1.1%

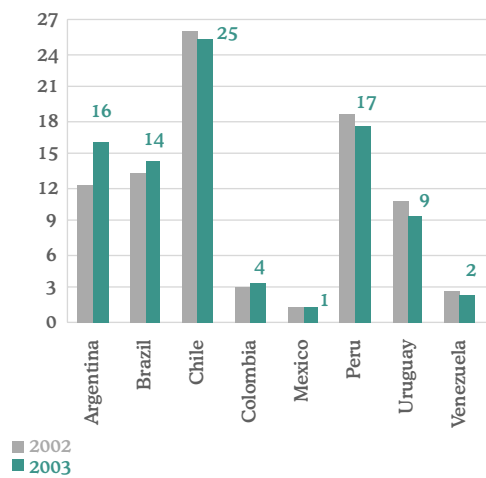
\*Data estimated for 2004  
Source: World Bank, BBVA

We analysis trade between the two regions from the point of view of market share, structure and its evolution in the past decade. Likewise, direct investment by Asia in Latin America has been closely linked to the development of bilateral trade. But what particularly stands out is the active role that China has begun to play in the past three years, which is turning the pattern of foreign investment in the region on its head.

#### Trade with Asia

Since 1990, Asia has maintained its share of world exports at between 20% and 26%, unlike the general upward trend shown by Latam. That said, Latam's share of world trade remains not only below that of Asia's as a whole, but was also surpassed by China alone in 2003. China doubled its share within a period of 10 years, reaching a level of 6.5% in 2004. With regard to trade between the two regions, Latin American exports to Asia represented 8% of its total exports in 2003, with the main exporters being Chile, Peru and Argentina (see Graph 1).

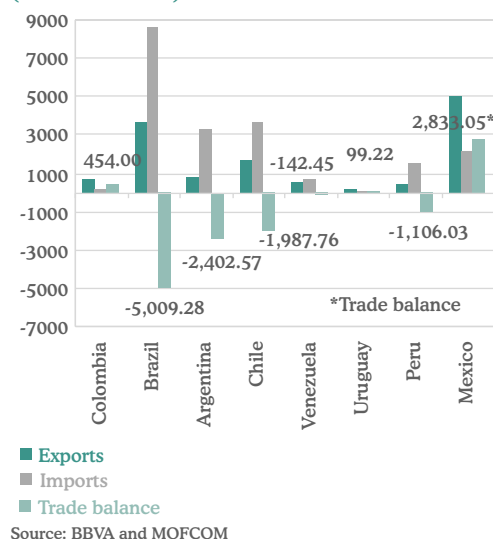
**Graph 1. Exports to Asia**  
(% of total exports)



The main destination for Latin American exports remains the United States, while the intra-regional market receives only 15.6% of total exports. The situation for Asia is the opposite: intra-regional trade has grown at an average rate of 14% since 1983 and now receives 50% of the total, while Latam is now its fourth most important market, with a share of 2% of its total exports, ahead of Africa and Eastern Europe.

Between 1999 and 2003, changes in Latam exports to Asia should be highlighted both in terms of the relative importance of the countries of destination as well as the structure of goods trade. In current terms, exports to Japan dropped by 22%, while they increased by about 40% to ASEAN4 (Hong Kong, Korea, Taiwan and Singapore) and by five times to China. The main reason behind this change has been the restructuring process in Japan's industrial fabric and its relocation to China and Southeast Asian countries. In terms of sectors, the Latam exports that grew most were products of the extraction industries and agricultural products. In particular, exports of fabrics to China grew 15 times, the biggest jump ahead even of metals, raw materials and agricultural products. The fabrics sector, therefore, could be a sector with a lot of potential for Latin American exports. In 2003, China had a share of the world market for clothing of 23% but only 16% for fabrics. Thus, to the extent that it increases its production of textiles, its demand for fabrics will also grow. In any case, total Latam exports to China underwent a spectacular pick-up from 2000. In fact, in 2004, China had a trade deficit with the main countries in the region, with the exception of Mexico and Colombia (see Graph 2).

**Graph 2. China-Latam trade in 2004**  
(millions of USD)



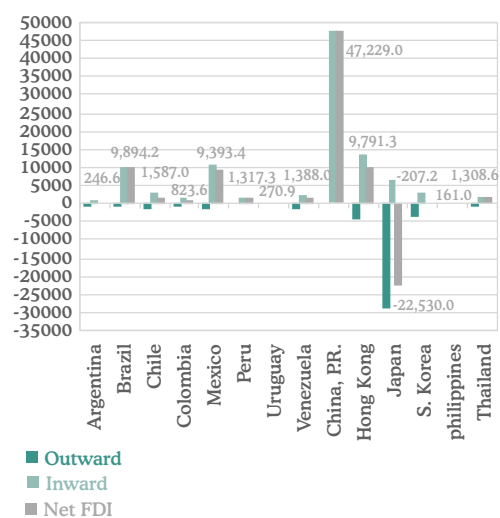
#### Direct Investment in Latin America

The financial ties between Latin America and Asia with respect to direct investment are closely linked with bilateral trade between the two regions. According to the latest United Nations report, emerging countries as a whole received 42% of global flows of foreign direct investment (FDI) in 2004, the

equivalent of some \$255 billion, and an increase of 50% over 2003. Asia was the main recipient of FDI, with inflows amounting to \$166 billion, while Latin America received \$69 billion. This difference in the amount of FDI received is even more striking when we take into account the fact that in 1999 FDI flows in both regions were on a par.

The leading players in FDI in Asia are China and Hong Kong, as the main net recipients, and Japan, as the main Asian investor overseas (see Graph 3).

**Graph 3. Direct investment flows in 2003**  
(millions of USD)



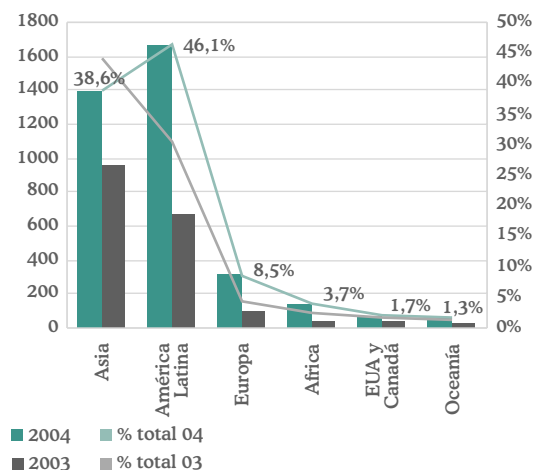
Source: BBVA and IFS

The two biggest Asian economies have followed divergent paths as regards investment in Latin America.

In Japan, according to the latest official data, total investment towards Latin America in the first half of 2004 dropped by 18% compared with the same period of the previous year, to \$2.860 billion (EUR 2.200 billion). In 2003, annual investment in Latin America amounted to \$5.700 billion (EUR 4.400 billion), a figure that is 14.6% of Japan's total outward investment. 90% of this investment was directed towards the mining and services sectors (insurance, financial services and transportation) and the rest to the transformation sector (food, metals, transportation equipment and machinery).

China, on the other hand, has until now played a relatively minor investor role. However, this situation could change in the medium term. In 2004, Chinese investment abroad increased by 27% compared with the previous year, reaching \$3.619 billion (EUR 2.800 billion). According to the data of China's ministry of trade (MOFCOM), total Chinese outward investment between 1979 and 2004 amounted to \$37.000 billion (EUR 28.500 billion), with the involvement of a total of 829 firms, a rise of 62.5% over the previous year. The main sectors for this investment were mining (52.8%), commercial services (26.5%) and manufacturing (13.5%). In 2004, Latin America received 46.2% of China's total investment abroad, taking it ahead of Asia as the biggest draw for Chinese investment for the first time (see Graph 4).

**Graph 4. Chinese investment abroad**  
(millions of USD-left, % of total investment-right)



Sources: BBVA and Ministry of Trade (MOFCOM)

China's investment is carried out by large state-owned conglomerates and is aimed at ensuring a steady supply of natural resources, but alongside it comes assistance worth millions of dollars and cooperation in the areas where each country has the greatest needs. The main host countries so far have been the Cayman Islands, Brazil, Mexico, Chile, Argentina, Peru and Venezuela. However, investment by China does not stop there. Growing energy demands mean that China has turned its attention to as yet relatively unexploited countries such as Bolivia, Ecuador and Colombia. In this last country, China plans to build an oil pipeline and make Colombia the gateway for oil exports from Venezuela to Asia. In Venezuela, agreements have already been signed to bring 15 refineries back on stream with a combined capacity of some 1 billion barrels (equivalent to the total annual output in Venezuela). Pre-agreements have also been signed for the enlargement of refineries that are already operating with Chinese capital and a joint venture is planned for exploration for natural gas reserves. These agreements have the potential to be more important than those entered into with Brazil and Argentina, even though they have attracted less attention from the media.

### Conclusions

Asia's share of world goods trade is over four times higher than that of Latin America. However, Asia is a net importer from the region, with the exception of Mexico and Colombia, mainly of agricultural products, foodstuffs and raw materials. Over the past decade, Latin American exports to Southeast Asia increased by almost 40%, while those to China were up fivefold.

In a similar fashion, Asian investment in Latin America has been closely linked to the development of bilateral trade. Japan is the leading Asian investor, but China is beginning to grow in importance, not only because of the rapid growth in its investments, but also particularly because of its role as a strategic ally, especially with Venezuela and Cuba, which is redrawing the map of diplomatic relations in the region.

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## A short- and long-term outlook for the Latin America currencies

### Latin American currencies on the crest of a rally

In the past year, the Latin American currencies as well as fixed-income assets and stocks have benefited from a significant entry of portfolio capital to the region in a context of low interest-rates in the industrialised countries and the search for yield. The moderate recovery in Foreign Direct Investment (FDI) has also lent support to exchange rates in Latin America. Another supporting factor has been the positive shock in terms of trade, mainly in those countries that specialise in raw materials. On balance, the Brazilian and Colombian currencies have been those that have most appreciated against the dollar, while at the same time their significant inflation differentials with the United States have generated an even greater effective real appreciation. In addition, both countries continued to accumulate reserves in 2004, a phenomenon that has been observed in a generalised manner at the regional level, although at a slower rate than in 2003. In addition, Colombia stands out as being the only country in the region that has relaxed its monetary policy in the past year, lowering short-term interest rates by around 40 basis points within a context of an upward cycle in interest rates on an international level. It is important to point out that the appreciation of the Latin American currencies against the dollar has taken place within a context of the weakness of the US currency in the face of doubts about the sustainability of its foreign deficit and the "low quality" of the flows that are financing it. Despite this, the Latin American currencies, with the exception of the Mexican peso, have shown relative strength in comparison with the main currencies in the world.

### Exchange rates in Latin America

Currency/\$		% 12-month change*		
		Nominal ER against \$	Real ER against \$	REER
Argentina	2.92	1.8%	-5.4%	1.1%
Brazil	2.76	-5.1%	-15.1%	-13.0%
Chile	592	-2.9%	-1.4%	1.9%
Colombia	2385	-10.8%	-15.9%	-14.9%
Mexico	11.22	2.2%	-0.6%	0.0%
Peru	3.26	-5.8%	-5.5%	-2.8%
Venezuela <sup>1</sup>	2147	12.0%	-1.6%	5.4%

\* As at February. An increase represents a depreciation.

<sup>1</sup> For the calculation of the RER and REER, the 12% devaluation on March 3 is assumed to have taken place in February.

Source: Bloomberg and BBVA

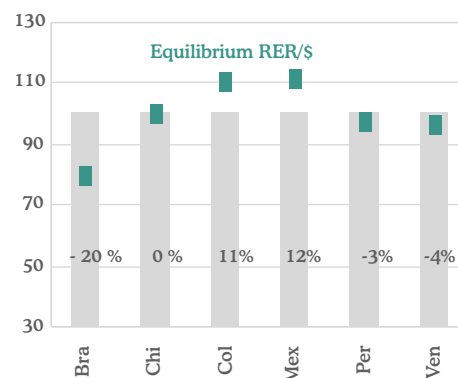
### How far are they from their equilibrium levels?

In order to forecast the evolution of currencies in the medium term, it is useful to analyse the situation they find themselves in with respect to their long-term equilibrium levels. This, however, is difficult to calculate. A first approximation for this can be obtained using Purchasing Power Parity (PPP); that is, the idea that over extended periods of time, the evolution of exchange rates can be gauged by the relative prices of baskets of similar goods in the absence of transportation costs. In order to obtain the PPP, we have formulated an equation for the exchange rate against the dollar for each country on the basis of inflation differentials.

In this case, the estimated constant is the real equilibrium exchange rate.

### Estimated real exchange rate vs \$ according to PPP

(RER vs \$, Feb-05 = 100)



\* Higher values imply greater appreciation of the real exchange rate. PPP throws up an undervaluation in excess of 20% in the case of Argentina.

Source: BBVA

On the basis of the results thrown up by the PPP, we can divide countries in the region into three broad groups. The first group is comprised of Chile, Peru and Venezuela, whose currencies are relatively in line with their long-term equilibrium levels. The second group includes Brazil and Argentina, which are undervalued in real terms. The third and last group includes Mexico and Colombia, whose currencies are overvalued by around 10% against the dollar.

A second way of estimating the equilibrium exchange rate is based on the balance of payments or external sustainability approach. This approach became particularly important for emerging countries in the 1990s given the succession of balance of payment crises that took place combined with sharp currency devaluations. In order to do so, we have used a simple model<sup>1</sup> which is based on two concepts (i) there is an exchange rate level that guarantees a "sustainable" external balance and (ii) the dollarisation of foreign liabilities prevents the real equilibrium exchange rate being endlessly depreciated in order to drive the foreign sector. That is to say, the model incorporates the negative balance sheet effect that is generated by a real depreciation. The expression for the real equilibrium exchange rate has the following determinants:

$$e = f(g, g^*, \pi^*, r, i, B_0, \beta, \gamma, \eta)$$

The first four symbols represent economic variables:  $g$  stands for GDP growth;  $g^*$  global GDP growth;  $r$  the nominal interest rate on foreign debt;  $\pi^*$  the inflation rate in the United States;  $i$  represents net flows of capital excluding debt as a percentage of GDP and  $B_0$  the stock of foreign debt (private and public). The last four are parameters of the model that need to be estimated.  $\beta$  stands for the elasticity of the trade balance to GDP growth;  $\gamma$  the elasticity to global growth, and  $\eta$  the elasticity to the real exchange rate.

<sup>1</sup> For details of the model, see Jorge Blázquez and Luciana Taft: "The sustainability of foreign debt in emerging countries", *Hacienda Pública Española/Revista de Economía Pública*, July 2003, pp. 157-183.

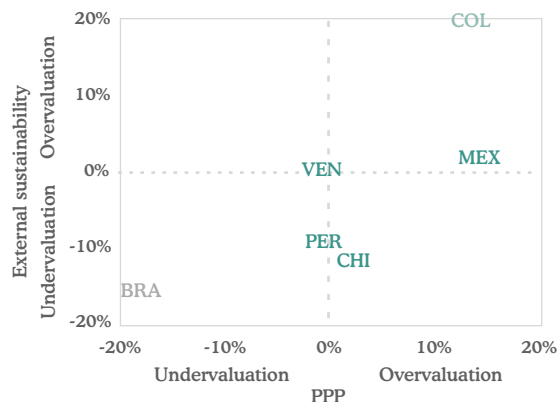
In order to obtain the equilibrium level of the real exchange rate, we need to make certain assumptions about the economic variables under consideration. As regards economic growth, we assume that the potential growth rate is equal to average growth over the past 40 years (3.9% in Latin America and 3.2% globally). The rate of US inflation expected in the long-term was set at 2.5%. The interest rate on the foreign debt<sup>2</sup> is the sum of long-term US rates (5.7%<sup>3</sup>) and the sovereign spread. For the latter, we have divided the sample of countries into two broad groups. The first includes those countries that do not have investment grade rating (all except for Mexico and Chile), to which we apply the average spread for Latin America since 1990, excluding periods of financial crisis when risk premiums were above 1,000 basis points for a prolonged period of time<sup>4</sup>. This average spread stands at 620 basis points. For the group of investment grade countries, we have calculated the average sovereign spread since they were assigned the investment grade rating: February of 2002 for Mexico and December of 1992 for Chile. In this case, the averages are 250 and 150 basis points, respectively. The last of the important economic variables is net capital flows excluding debt, as a percentage of GDP. There is a marked difference between the 1980s or the “lost decade” (GDP of -1.3% in Latin America) which saw an external debt crisis in the region and the early part of the 1990s (GDP of 1.8%). We assume that net capital flows will behave as they did in this second period, although this may be somewhat optimistic.

With regard to the model’s parameters, we have estimated panel data with fixed effects for 12 Latin American countries for the period 1991-2004, in which the dependent variable is net exports as a percentage of GDP. The estimated elasticity to world growth is 0.8, to domestic growth -0.16 and to the real exchange rate -0.16 (assuming that an increase implies a real appreciation)<sup>5</sup>.

Having made the assumptions about the important variables and with the estimated parameters for computation of the real equilibrium exchange rate, we once again analyse the position with respect to the long-term level according to the balance of payments approach. The following graph shows the results that emerged using both methodologies<sup>6</sup>.

From the graph we can see that there are no significant inconsistencies between the two methods. In general, we may continue to say that the currencies of Venezuela, Peru and Chile are more or less in equilibrium. Brazil and Argentina’s currencies are also found to be undervalued using this approach, while the Colombian currency is estimated to be overvalued by around 20%. In the case of Mexico, the

### Deviation of Latin American currencies relative to their long-term equilibrium level



Source: BBVA

overvaluation estimated using PPP in contrast to the balance of payments approach can be explained by the structural change that has taken place in Mexico in the past few years related to the “better quality” financing of its external deficit (completely with FDI). In addition, immigrant remittances, which represent 2.5% of GDP, are helping to reduce Mexico’s external borrowing requirements. This change in the Mexican external sector suggests that the country may have a real equilibrium exchange rate that is more appreciated than purchasing power parity would tend to indicate.

### Forecasts for December 2005

Currency/\$		% 12-month change*		
		Nominal ER against \$	Real ER against \$	REER
Argentina	3.00	1.0%	-7.6%	-8.8%
Brazil	2.90	6.8%	3.3%	3.6%
Chile	575	0.2%	0.5%	0.0%
Colombia	2676	11.2%	8.0%	7.8%
Mexico	11.80	5.8%	4.0%	4.1%
Peru	3.30	0.6%	0.8%	0.0%
Venezuela	2150	12.0%	-6.1%	-6.9%

\* An increase represents a depreciation.

Source: BBVA

### Where are currencies heading in 2005?

We foresee a situation of relative stability or some appreciation in real terms in exchange rates, with the exception of Mexico and Colombia. This fact would be consistent with the long-run analysis given that these two currencies are the ones that have a certain degree of margin for depreciation. The Argentine peso, on the other hand, should correct part of its undervaluation in real terms via inflation. It is important to highlight that if the current “love affair” with emerging markets continues, the upward pressure on currencies will be sustained. All the more so bearing in mind that the dollar will remain at low levels around 1.35 to the euro. In any case, our central scenario is that the gradual pick-up in US interest rates will work to slowly bring the rally to an end, easing the upward pressure on Latin American currencies.

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<sup>2</sup> The paper “The sustainability of external debt in emerging economies” argues that only the interest rate on debt held by private creditors should be considered. Debt granted by international organisations and “soft credits” distort the sustainability analysis.

<sup>3</sup> Assuming a long-term growth rate of 3%, an expected inflation rate of 2.5% and a premium over time of 20 basis points.

<sup>4</sup> The periods of crisis that were identified are the Mexican crisis in 1995, the Russian crisis in 1998, and the final quarter of 2002 with the global uncertainty and debt problems in Brazil.

<sup>5</sup> We also include the standardised oil price as a control variable for the oil producing countries in the sample (Venezuela, Ecuador and Colombia) and a first-order autoregressive error term.

<sup>6</sup> In the case of Argentina, the undervaluation is over 20% according to the balance of payments approach.

## Brazil: medium-term prospects

### 2004: the figures confirm the good performance

The National Accounts report for 2004 was published at the end of February. The report stated that Brazil's GDP grew by 5.2%, supported by strong foreign demand (exports grew by 18.1%) and a recovery in domestic demand (consumption grew by 4.3% and investment by 10.9%). Despite a rise in imports of 14.1%, the current account was in surplus, leading to a real appreciation in the exchange rate of 8.2%.

The government lent on the side of caution with a primary surplus equivalent to 4.6% of GDP. Total government debt fell to 51.8% of GDP (5.4 percentage points lower than in 2003). Gross reserves ended the year at 53 billion dollars. The composition of debt also improved, given that the strength of the real opened a window of opportunity for the government to reduce debt indexed to the dollar.

The expansion in domestic demand created inflationary pressures, but these were met with significant increases in the SELIC (the Central Bank's reference interest rate). The SELIC ended the year at 17.75%, while inflation stood at 7.6% (1.7 percentage points less than in 2003).

### 2005 and 2006: will the trend continue?

Can Brazil match the performance of last year? The existing evidence at the end of the first quarter confirms what was forecast a year ago: that the economy will slow in 2005. In the last quarter of 2004, capacity utilisation stood at 86.1%<sup>1</sup>, the highest level in over 20 years. The limited infrastructure is also being used to the maximum of its capacity, with kilometre alter kilometre of trucks slowly transporting products from the interior of the country to coastal ports. The deceleration of the industrial production index in the past five months is a reflection of this situation.

The above confirms there is not much of a gap between GDP and potential GDP. The rate of growth can only be maintained by means of a significant change in the productivity of the economy, or in a temporary manner by creating more inflation. No evidence exists of a change in the evolution of the productivity indexes, and the Central Bank is also not expected to tolerate outbreaks of inflation. We, therefore, expect Brazil to grow by 3.7% in 2005 as it heads for a long-term trajectory of annual growth of 3%.

The restrictions of the real economy are also showing themselves in inflationary pressures, which have picked up despite the appreciation of the real. In the year to date, the Central Bank has raised the Selic in all of its monthly meetings, with the rate rising from 17.75% at the end of 2004 to 19.25% in March 2005. If this policy orthodoxy is maintained, Brazil should end the year with an inflation rate of 5.7%.

The external accounts remain solid. Despite the fact that the current account surplus seen in February came in well below

the consensus forecast, the trade balance remains solidly in surplus. This temporary drop in the current account was explained by high flows of repatriated earnings on the part of foreign companies that took the opportunity of an exchange rate of only 2.55 reals against the dollar (a dollar was worth 3.21 reals in May 2003).

The strength of the current account, high levels of international liquidity and the low probability of a domestic crisis lead us to expect that the real will sustain the gradual adjustment in real terms towards its equilibrium level. In this sense, we can see that a large part of the depreciation of the real that took place in 2004 has already been corrected, and we expect the exchange rate to end the year at 2.9 reals to the dollar.

There was a strong adjustment in February as a result of intervention by the Central Bank in the foreign exchange market. The official reason given by the bank for this was the need to readjust the level of reserves. It is true that the 5.946 billion dollars accumulated in the year to date were more than the surplus in the current account accumulated over the same period.

How long will the Central Bank intervene? We do not think for much time more, at least at the levels it has been doing so recently. Assuming that inflation-targeting determines the level of money supply, the Central Bank accumulates foreign reserves at the expense of domestic bonds. This makes it very costly to maintain or increase reserves with historically low yields. On the other hand, the benefits show sharply falling returns, particularly with domestic debt that is increasingly less indexed to the dollar.

Domestic risks continue to be limited. One should highlight the growing hostility shown by the head of the Chamber of Deputies Severino Cavalcanti. In the two months the representative has been in office, he has maintained a stream of strong criticism against the Lula government, apart from promoting the passage of a series of measures that have increased the burden on the government.

But the main risk continues to be linked to foreign variables, particularly a strong fall in international liquidity. Brazil along with a number of other countries would feel the impact of a sharp change in sentiment on the part of the Fed.

For 2006, our baseline scenario is for growth of 3% (above the average seen in the past 20 years), with inflation controlled at 4.5%, and with the real ending the year at 3.1. This benign but not encouraging scenario will not be affected by the presidential elections. The volatility seen in past periods has been overcome with the election of Lula, given that there no longer exists a real power alternative that advances economic policies that are not pragmatic; that is to say, monetary and fiscal orthodoxy, combined with broad social policies.

<sup>1</sup> Index constructed by Fundación Getulio Vargas.

## The oil market

### More and more China

The main focus of attention at present of oil market participants is without doubt China. Any statements or new data on the country's energy consumption or economic performance are all it takes to unsettle oil prices. China has become the second-largest importer of crude oil after the United States. In 2004, its crude imports registered a rise of 34.8%. However, Chinese imports only represent 34% of demand in the United States and the equivalent of 30% of the US's requirements of imported crude. This begs the question why news about China has a bigger impact on oil prices than news about the United States. In particular, why have we not seen downward pressure on oil prices given the current energy consumption outlook for the United States?

Inventories of US oil products have been recovering gradually, to the extent that the United States may now be said to be in a good supply situation. Petrol stocks are 5% above the maximum level of the past 5 years. Crude oil stocks are 16% higher than in April of last year. These inventories – petrol and crude – are the ones that are important looking to the next 2 quarters (spring and summer). This year to date, they have increased on average by some 375,000 barrels daily. As for the other products, after a severe winter, propane gas stocks are entering spring at their highest level of the past 5 years, while stocks of distillates are around their lowest level in the past 5 years. Despite the good news with regard to inventories and the forecast slowdown in the rate of growth of the US economy in 2005 (which is expected to slow the rate of increase of demand for oil in the United States to 1.6%, almost half that of the previous year), the market has continued to be dominated by a fear of supply shortages, driving prices up to record highs.

However, the oil market's obsession with China has not only diminished the role played by the US economy, but also the influence of OPEC. Oil prices hit an all-time high on Wednesday, March 16, 2005, coinciding with the surprise decision by OPEC's Council of Ministers to increase the cartel's production by 500,000 barrels daily and to authorise the OPEC President to approve (after prior telephone consultation with the other ministers) a further increase in production of 500,000 barrels before June (when the next ministerial meeting is scheduled) if oil prices stay at high levels.

The reason why China has acquired such a predominant role in the oil market is the fact that, over the past 5 years, 75% of the increase in demand for oil has been generated by the emerging market countries, the bulk of it in China. The outlook for Chinese energy consumption is not only determined by the country's economic growth, it also reflects

the government's decision to purchase \$30 billion worth of oil for the building of strategic reserves. Within 3 to 5 years, it is planned to increase China's reserves of crude to levels that meet 30 days of consumption, and to meet consumption for 90 days by 2015, which would require an amount equivalent to 550 million barrels. In view of this, the market sees substantial potential for further growth in Chinese demand for oil. China already accounts for 35% of the demand growth expected for this year, with an increase in imported crude requirements of the order of 20%. However, the market seems to be overestimating this potential in the short term as the likelihood of the Chinese government being able to begin to build up oil inventories aggressively in the short term is low. This is because the infrastructure needed to pursue such a strategy imposes limitations that will preclude any large-scale or immediate implementation of it. However, it is certainly an ingredient to keep an eye on in the years ahead.

	Baseline scenario			Baseline scenario	
	WTI	Brent		WTI	Brent
\$/b			\$/b		
2002:I	21.6	21.1	2005:I	49.0	47.6
2002:II	26.3	25.1	2005:II	44.5	43.3
2002:III	28.3	27.1	2005:III	42.7	41.5
2002:IV	28.2	26.8	2005:IV	41.0	39.8
2003:I	33.9	31.3	2006:I	39.3	36.0
2003:II	30.0	27.0	2006:II	38.9	36.7
2003:III	31.0	28.6	2006:III	38.3	37.2
2003:IV	29.9	28.5	2006:IV	37.4	36.3
2004:I	35.2	31.8	2002	26.1	25.0
2004:II	38.4	35.5	2003	31.2	28.9
2004:III	44.1	41.7	2004	41.2	38.6
2004:IV	47.1	45.3	2005	44.3	43.1
			2006	38.5	36.6

Source: BBVA Banco Provincial

### Spring will ease pressures

Assuming that growth in demand for crude oil imports in China will not be over 20%, the supply situation in the market as spring approaches is better than in the past 3 years. At the same time, reserves are of better quality, which means that given the seasonal drop in demand for oil products at this time of the year, we are entering the summer driving season with crude and petrol inventories at high levels. This should allow price levels to come down, with on our estimates prices likely to fall by around 8.7% on average in the second quarter of the year. However, fears of a sudden increase in Chinese demand among many market participants have become a factor driving prices higher. As a result, we have revised up our previously-envisaged scenario for Brent oil prices by 9% to an average price in 2005 of \$40.6 per barrel.

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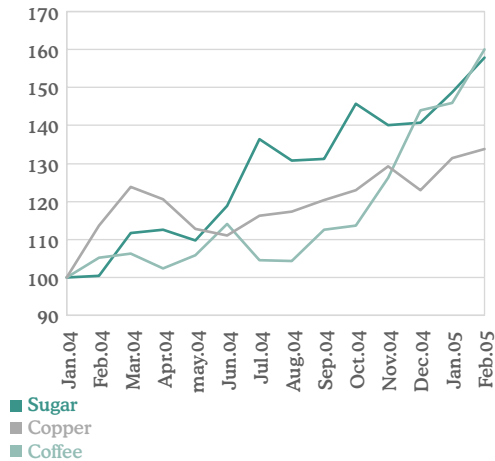
## Commodities

### Prices still on the rise

One of the main developments so far this year for Latin America has been the persistence of high commodity and agricultural goods prices.

#### Commodity prices

(Jan-2004 = 100)



Source: BBVA

In particular, the price of oil, Latin America's main export, recovered from a short-lived fall in December to resume its upward trend, rising to levels above the average price of last year (see Box on the oil market).

With regard to the other products, what stands out are the increases in the prices of copper and coffee. Specifically, copper prices have risen by 8.8% since December, while the price of coffee is up by over 35%. Given that foreign sales of these two commodities account for around 20% of total exports from the region, these increases should have a beneficial impact on Latin America. In both cases, the increase in prices is attributable to both demand and supply factors. For example, according to the Chilean Copper Commission, during the last 6 months of 2004, inventories of this metal in the main metal exchanges fell by 21%<sup>1</sup>. As regards coffee, it is estimated that total production in Brazil will be around 15% lower in 2005 than in 2004<sup>2</sup>. In addition, in both cases, demand has risen on the back of the strong global economic conditions and in particular the growth of new markets such as China.

### The BBVA-MAP index<sup>3</sup> continues to rise

In nominal terms, our BBVA-MAP index is running at an all-time high, driven up mainly by the increases in prices mentioned above. In this way, during the first 2 months of the year, our commodity price index has risen by 12.3%, taking the cumulative rise since February of last year to 30%. Likewise, our country indexes show that all of the economies in the region

<sup>1</sup> See *Informe sobre el Mercado del Cobre*, Chilean Copper Commission, Q4 2004.

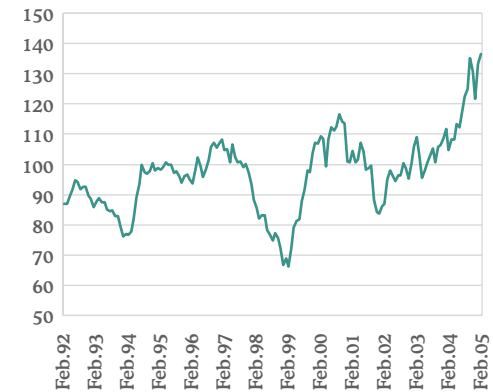
<sup>2</sup> See *Letter from the Executive Director*, International Coffee Organization, February 2005.

<sup>3</sup> The BBVA-MAP index is a weighted average of the prices of Latin America's main commodity and agricultural exports.

have benefited from the current economic climate. This is true even for Brazil, which although a net importer of oil, is one of the leading exporters of coffee and sugar. Sugar prices have rallied strongly over the past year, posting a rise of 58% since January 2004, and 12% in the last 2 months alone.

#### BBVA-MAP

(1995=100)



Source: BBVA

### For the remainder of 2005 we foresee lower prices, but historically high levels

As explained in the scenario for Latin America, 2005 seems set to be a period of growth for the countries in the region and, in general, for the world's major economies. We therefore expect demand for raw materials and agricultural products to continue to rise, albeit at a more moderate pace than in 2004. The strength of demand should be enough to keep prices at historically high levels.

#### BBVA-MAP commodity index

(% change as at February 2005)

	Since January 2003	Last 12-months	Last 3 months
BBVA-MAP	28.94%	30.35%	3.54%
EX-OIL	17.39%	5.94%	4.76%
COMPONENTS			
Metals	54.26%	12.64%	1.17%
Agriculturals	24.99%	18.84%	10.28%
Eenergy	21.67%	44.17%	2.15%
COUNTRIES			
Argentina	22.70%	-2.20%	1.02%
Brazil	-7.34%	-1.25%	3.71%
Chile	31.41%	6.39%	1.99%
Colombia	35.42%	36.40%	7.04%
Mexico	14.34%	34.52%	1.99%
Peru	21.68%	8.39%	1.55%
Venezuela	44.37%	43.26%	1.98%

Source: BBVA

#### Commodity prices

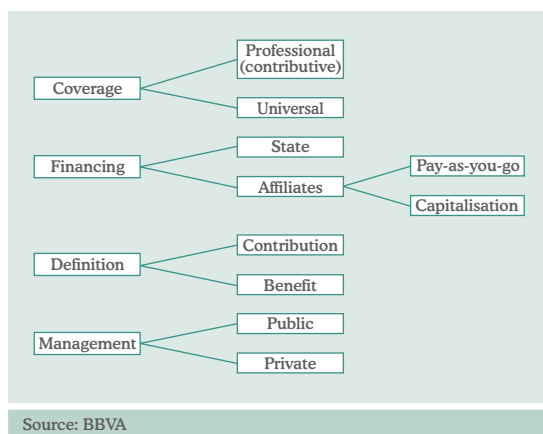
(year average)

	2003	2004	2005p
Coffee (US\$ / lb)	0.65	0.85	0.80
Copper (US\$ / lb)	81.00	126.00	122.00
Gold (US\$ / ounce)	364.00	409.85	432.98
Oil (US\$ / barrel)	29.60	38.60	40.60
Soya (US\$ / tonne)	238.00	267.00	250.00

Source: BBVA

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### Alternative designs for pension systems



## III. Under the Microscope: Pension Systems

### Social Security systems, alternatives and lines of reform in Latin America<sup>1</sup>

In the 1999 edition of the publication *The future of Social Security*, the US Social Security Administration begins with the following question and answer: “Will Social Security Be There For You? Absolutely. The only real question is what kind of Social Security system we will have”. Therefore, the level of social protection and its institutional design are the product of decisions by citizens. Their preferences as regards these, their aversion to inequality, determine the size and functioning of the Social Security system.

#### Conceptual and institutional aspects

Social Security systems are not uniform institutions. They vary between countries and over time within the same country. Despite this, in general terms, what is understood by Social Security is the combination of measures adopted by the State to protect individuals against those risks that will continue to present themselves no matter how optimal the situation of the society as a whole in which they live might be. From a theoretical point of view, two broad systems can be identified. The first is the so-called professional or Bismarckian system whose basic characteristics are coverage for workers, setting benefits on the basis of contributions, and dealing with contingencies for work-related risks. Compared with this, the second model derived from the *Beveridge Report* is a universal model whose objective is to cover the whole population and all of their needs up to a determined level of subsistence income. In keeping with this duality, the two main objectives of any Social Security system are the substitution of income derived from employment that the individual ceases to receive for reasons outside his/her control (accidents, illness, old age, unemployment) and relieving situations of poverty by providing subsistence income to those individuals with fewer resources.

#### The need for public intervention

There is a vast body of theoretical literature that supports intervention by the Public Sector in protecting against social risks<sup>2</sup>. The basic justification is of a paternalistic nature. If society believes that individuals who fail to adequately provide for their future risks cannot be left without assistance and these risks materialise, then there are arguments to oblige them to subscribe to coverage. Secondly, the situation of poverty suffered by those “shortsighted” individuals could generate negative externalities for the whole of society to the extent that there are programmes of economic support set up to deal with such eventualities. It is possible that the costs of such programmes are greater than those incurred by pension systems. Finally, the existence of asymmetry of information causes problems of moral hazard and adverse selection, which are sources of market failures. These risks may be better controlled by the Public Sector. However, as is well documented in the public economics literature, intervention by the State does not imply that it is the State itself that should manage pensions. Its role can be confined to obliging individuals to subscribe to plans offered by the private sector. Only to the extent that the risks are considered social risks (that is, those that affect a large part of the population at a particular moment in time), that objectives of equality are being pursued, and when the transaction

<sup>1</sup> This article is based on a series of studies carried out for the Pension Reform Forum “Transition Issues and Deepening Reforms”, organised by the Inter-American Development Bank in Washington DC in December 2004. The papers that were presented are available at [http://www.iadb.org/sds/ifm/publication/gen\\_407\\_3231\\_e.htm](http://www.iadb.org/sds/ifm/publication/gen_407_3231_e.htm).

<sup>2</sup> For a more specific Public Economics approach, see Stiglitz (2000).



costs are lower in the case of public management, should the Public Sector itself directly manage pensions.

Social Security systems are basically financed from two sources: the State and their affiliates. The latter can be set in place as a pay-as-you-go system based on a tacit inter-generational contract in which the contributions of the affiliates for the year finance the benefits of beneficiaries in the current year. Or also by means of a capitalisation system using savings techniques and the accumulation of reserves to meet future expenditure. In addition, pay-as-you-go systems allow for the creation of Reserve Funds whose objective is to soften the impact of phases of economic slowdown as regards both the benefits of the members of the system and the contributions made by active workers.

In the same way, social protection systems have traditionally taken the form of defined benefit systems. However, there is a growing trend, particularly in pension programmes provided directly by companies, and in some cases by the State (notional accounts), to instigate defined contribution systems in such a way that the risks derived from fluctuations in the financial markets in which the resources are invested are transferred to the person being insured. Lastly, systems which include fund accumulations can make it obligatory for such funds to be invested in public debt instruments or allow diversification in the investment vehicles used. In practice, Social Security systems combine a large number of the institutional designs described in their different benefits, clearly demonstrating that there is no single optimal system.

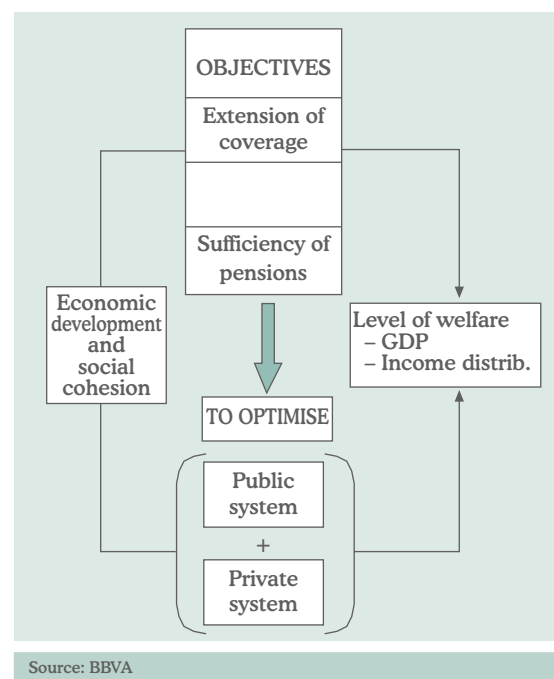
### The need to jointly reform the public and private sub-systems in Latin America

BBVA's stance after more than 20 years experience as a pension fund administrator in Latin America is that reformed pension systems have contributed positively to the development and stability, both economically and socially, of the countries in which such systems have been implemented<sup>3</sup>. On this basis, a review of the institutional framework with a view to improving those mechanisms that have shown themselves to be imperfect, as well as complementing the reforms with advances in the management of public policies and supervisory duties would appear opportune. In order to do so, the analysis needs to jointly address a consideration of the public and private sub-systems of the Social Security system given that it is the combination of the two that needs to achieve the defined objectives of coverage and income substitution.

### Proposals for a New Agenda of pension reforms

In this sense and in a manner similar to that of the *Barcelona Development Agenda* subscribed to in 2004 by a group of economists<sup>4</sup> as a response to the *Washington Consensus*, now is the moment to subscribe to a new reform agenda for pension systems. As a point of departure one can adopt the third of their seven lessons. "There is no single economic policy that can guarantee sustained growth. The priority is to find the most binding constraints to growth (adopting, however, a common diagnostic methodology), and to address them through appropriate microeconomic and macroeconomic policies". From a general point of view, the willingness to maintain the "multi-pillar"<sup>5</sup> approach should be kept in place, while within this approach moving to strengthen the first pillar, which is the relief of poverty. As regards the voluntary pillar, the experience of many developed countries shows that they have

### The virtuous circle of social protection

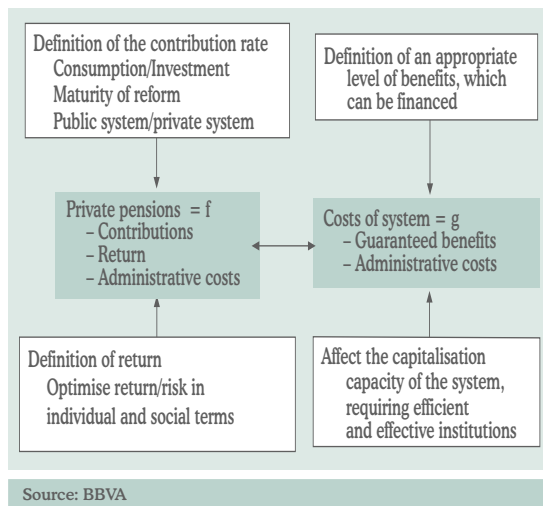


<sup>3</sup> For an analysis of the main macroeconomic effects of the reformed systems, see the article by Michele Favre and Joaquín Vial, "The macroeconomic effects of the reform of pension systems", included in this edition of *Latinwatch*.

<sup>4</sup> [http://www.barcelona2004.org/esp/banco\\_del\\_conocimiento/docs/agenda\\_eng.pdf](http://www.barcelona2004.org/esp/banco_del_conocimiento/docs/agenda_eng.pdf)

<sup>5</sup> For a definition of the characteristics of this approach as well as international experience of it, see the article by Ángel Melguizo, "Towards a pension system of the future, an international review of the reforms," included in this edition of *Latinwatch*.

## The basic equation of Social Security systems for the individual capitalisation part (second mandatory pillar)



drawn on tax incentives within modern tax systems, and this could be considered as a future path for Latin America.

As regards the second pillar, the experience gathered by privately-managed individual capitalisation schemes in the region point to the need to contemplate a series of reforms. In order to do so, the private pension systems of the Social Security System (in terms of reach and adequacy) are defined as a function of the levels of contribution (according to rate and density), the return on accumulated resources (in terms of yield and volatility) and the costs of the system. If one needed to select three areas where the accent of reform should be placed these would be the management of investments, coverage for contingencies, and contribution rates, which are key elements in determining returns and administration costs<sup>6</sup>.

### Management of fund investments aimed at maximising capital at the time of retirement of each affiliate

The first proposal involves the creation of specialised multi-funds for different age brackets in line with the experience of Chile and the advances made in Peru and Mexico. It is obvious that a single fund cannot fully cater for the different preferences of all affiliates (who belong to different age groups and have different risks profiles). The assignation of contributions to a given fund could be carried out according to the choice of the affiliates, and by default, according to the age group to which the affiliate belongs.

Secondly, it is without question that valuing funds according to market criteria enhances transparency and avoids arbitrage between the real value and the book value of the fund in question. But this method is not convenient for a programmed withdrawals fund or a fund for those close to retirement because of the uncertainty that can be generated by the price volatility of the assets invested in.

The third line of reform consists in eliminating the guarantee of a minimum return indexed to the return of the system, which exists in all Latin American countries except Mexico and Bolivia, and which induces the so-called “herd effect”. In association with this reform, the obligatory reserve requirement coefficient needs to be eliminated, or at least significantly reduced. Fourthly, and as an alternative guarantee formula, risk limits for funds could be introduced in terms of the absolute value at risk (VAR) or relative value at risk with respect to a benchmark adopted for each fund.

A common proposal that needs to be considered is making the regulations governing investment alternatives more flexible with the aim of allowing greater diversification of fund portfolios, reducing exposure to local sovereign risk. However, provided that funds continue to contribute to driving national savings, and finance to a greater extent investment projects in the national economy. Lastly, regulatory restrictions regarding fiduciary management need to be reduced, with the introduction instead of “best practices” for Pension Fund Administrators.

### Redefining the financing schemes for coverage for contingencies

Despite the differences in amounts and structure of commissions across countries, commissions charged by Pension Fund Administrators need to be sufficient for the coverage of contingency benefits (benefits not funded by contributions made by the fund member as a consequence of an interruption in the process of capitalisation for reasons such as incapacity and death). Commissions also need to cover the operating costs involved in the processes delegated to the private sector (marke-

<sup>6</sup> A complete account of the reform lines is covered in Taguas and Vidal (2005).

ting, revenue collection, investment management and general administration costs) as well provide a return on the capital committed by Pension Fund Administrators.

To this end, two sub-systems coexist in reformed pension systems; one a system of defined-contribution, individual savings accounts and the other a defined-benefit system of a collective and cohesive nature. The first of these includes retirement pensions and constitutes the second mandatory pillar. The second covers contingencies deriving from the death or incapacity of the affiliates of the capitalisation system. Both are jointly funded by the individual contributions of affiliates. In addition, these invalidity and survivors' pensions constitute a very significant cost component of the reformed social protection systems given that about only 70% of the affiliates of a private capitalisation system end up receiving retirement benefits. For this reason, the costs of covering contingencies constitute one of the aspects of the Social Security system in need of profound reform, not only from a conceptual point of view but also a pragmatic one.

The initial proposal consists of decoupling commissions from the costs of covering contingencies. Rather, this needs to be viewed as a type of benefit to be financed by funds and contributions. In practical terms, the management and control of costs linked to the coverage for contingencies will require a revision of the amount of benefits committed, of the collective of beneficiaries, of the combined structure of benefits and pensions, and of the technical calculation standards to adjust them to the empirical experience of each country; concretely, the mortality tables and technical rates of interest.

Finally, the contribution rates legally established in the region stand at around 10% of salaries, a figure that does not allow one to predict excessively generous benefits even within a favourable macroeconomic scenario. For this reason, a technical definition of these rates needs to be developed on the basis of the desired levels of wage replacement. Likewise, once the transition period has passed, a progressive adjustment in the assignation of receipts between the public and private systems needs to be carried out.

In conclusion, only through regulation that attends to and limits the reach of the administrative processes of the Social Security system, and, in particular, the processes of investment and coverage and funding for contingencies, will it be possible to significantly extend coverage and increase replacement rates. Finally, one should not forget that the reform of pension systems constitutes an important tool in economic development. But in order for this tool to be fully effective, the adjustments and improvements of the systems stated above are necessary, as are complementary reforms in other areas of the economic (in particular, the labour market), financial and fiscal systems.

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## Main lines of reform for investment management

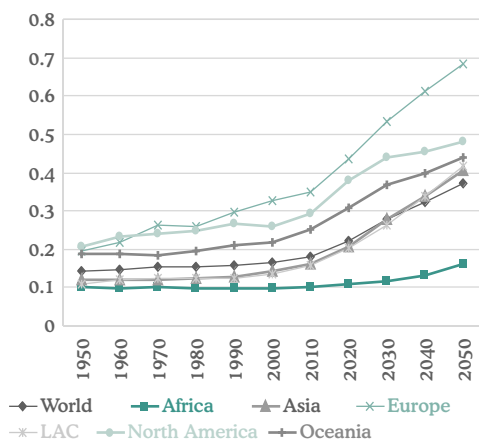
- Creation of multi-funds for different age bands
- Elimination of the minimum return guarantee
- Introduction of VAR risk limits
- More flexible investment rules

Source: BBVA

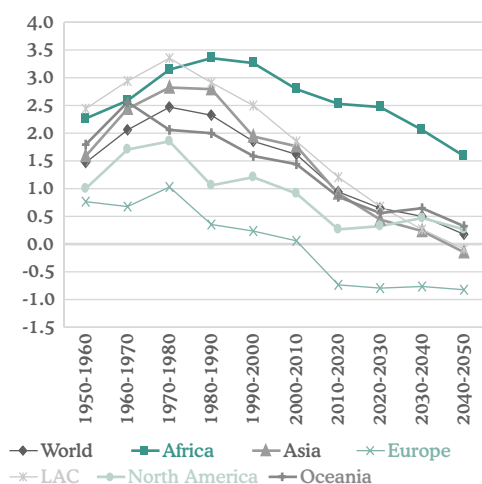
## Main lines of reform for coverage of contingencies

- Decoupling of commissions and cost of coverage for contingencies
- Revision of benefits committed
- Revision of collective of beneficiaries
- Revision of technical standards (mortality and interest rates)

Source: BBVA

**Graph 1. Old-age dependency ratio**  
(pop-60+/pop-15-59)

Source: United Nations

**Graph 2. Annual growth in working-age population**

Source: United Nations

## Towards the pension system of the future, an international review of reforms

The introduction in Chile in 1981 of a pension system based on individual capitalisation and managed by Private Pension Managers was a pioneering endeavour in the structural reform of social protection systems at the end of the 20<sup>th</sup> century<sup>1</sup>. The notable growth experienced by Chile after the reform<sup>2</sup>, along with the upsurge of financial and political tensions in emerging economies inspired a number of the former to follow in Chile's footsteps. In this regard, the publication in 1994 by the World Bank of the report entitled *Averting the old age crisis* officially marked the agenda for reforms.

### The justification for reforms from the experience of Chile

Briefly, the justification for the reforms was based on the need to strengthen the financial position of economies and to adapt pension institutions to the process of demographic change.

The existing financial tensions are relevant both from a short-term point of view – given the importance of fiscal situations as a detonator of macroeconomic crises in emerging economies, and the need to have available sufficient financial margin to undertake investment in education, health and infrastructures – as well as in the long term due to the ageing process. The latter in turn is the result of rapid demographic change, characterised by a fall in the birth rate (the average number of children per woman in the world has fallen from 5 in 1970-1975 to 2.7 at present, and will stand at approximately 2 in the five-year period between 2045 and 2050, according to the United Nations); as well as an increase in life expectancy rates (46 years in the period 1950-1995, 65 years at present and 75 years in the period 2045-2050). This process is common to all geographic areas<sup>3</sup>.

In the case of pay-as-you-go pension systems, one basic indicator is the dependency ratio, as expressed by the proportion of the population over 60 years old with respect to the working age population (between 15 and 59 years old). The lower it is, the more pensions it will be possible to finance, or the lower contribution rates can be. However, as shown in Graph 1, this ratio has increased since 1950 in all regions of the world, except in Africa. In 2050, it is forecast that in the world there will be close to four people over 60 years old for every ten individuals of a working age (double that at present), with the ratio rising to seven in the case of Europe.

In fact, in these systems the implied rate of return is equal to the increase in the workforce plus the growth in real salaries (productivity). According to the United Nations projections, the rate of increase of the working age population will decelerate significantly throughout the world, to the point where it becomes stagnant at the end of the period (see Graph 2). This will make pay-as-you-go a less attractive option, except in the case of an increase in the participation rate (particularly for older workers), if the effective age of retirement increases or if an acceleration in productivity takes place<sup>4</sup>. However, capitalisation systems are, in theory, better placed to deal with demographic change, given the greater technical and political ease they afford pensioners to co-finance the increase in their life expectancy rates, the possibility they provide for investing in international markets, and the flexibility they allow in using the additional years of life for training, leisure or work according to the preferences of the individual.

### The three pillars of reformed pension systems

The most effective way for pension systems to meet these challenges is through diversification. In order to do so, the establishment of a sim-

<sup>1</sup> For a description of the process of reform, the current design of Chile's pension system and the future challenges, see the article dedicated to this subject in the magazine *Situación Chile* of the BBVA Research Department.

<sup>2</sup> See the article by Michele Favre and Joaquín Vial on the macroeconomic effects of the pension reforms included in this edition of *Latinwatch*.

<sup>3</sup> For an overall analysis of the impact of demography on the evolution of the global economy, see Chapter 3 of the *World Economic Outlook* September 2004 of the IMF. "How Will Demography Change Affect the Global Economy". The statistics are gathered together in *World Population Prospects. The 2004 Revision*, published by the United Nations in 2005.

<sup>4</sup> Immigration will only allow a delay in the start of this trend.

ple three-pillar system was proposed, with the aim of catering for different groups. The first pillar entails public management, obligatory participation, and defined benefits (DB), and is responsible for redistributing income and reducing poverty; being financed with tax revenues. The second is privately-managed, is also of obligatory participation and has defined contributions, and seeks to ensure savings and a certain level of income after retirement. The contributions of affiliates accumulate in capitalised funds in accounts managed by specialised institutions or through company pension plans, and are paid out at the time of retirement. Finally, the third pillar is under private management, but of a non-compulsory nature, under which the savings of those who are thus insured and so wish are managed as a complement to the other pillars (for a more developed version see the shaded area in Table 1). This institutional design should prevent the pension system from being a drag on potential growth, and allow it to fulfil its objectives of redistribution, security and savings through a combination of risks that in principle are not correlated with each other; that is, political and demographic risk for the first pillar, and financial risks for the remaining two.

### From the “model to follow”...

Latin America and Eastern and Central Europe are the regions that have been most active in these structural reforms, as defined as the introduction of the pillars of individual capitalisation and private management. In the case of Latin America, since the start of the 1990s, 12 countries have approved legislation in the line of multi-pillar systems with capitalisation techniques; with 10 of these having started implementation of the legislation (all except Nicaragua and Ecuador). In addition, Brazil has made substantial changes to its pay-as-you-go system, and has introduced measures to develop the voluntary pillar.

As regards Central and Eastern Europe, 14 countries have passed legislation introducing multi-pillar systems since 1998, with such systems operative in 12 of them (all except Macedonia and the Ukraine, see Table 2). A central element of this has been the second obligatory, defined-contribution, capitalisation pillar. This pillar, however, has been called into question because of institutional deficiencies, high administration costs, restrictions on foreign investment, and the fiscal costs of the transition. The Czech Republic, Slovenia and Turkey for their part have opted to develop the third private, voluntary pillar. Outside these regions, the reformist spirit has been more subdued<sup>5</sup>.

The most significant cases are in Asia. East Asia is characterised by very heterogeneous institutions: privately-managed capitalisation (Hong

<sup>5</sup> For a review, see Holzmann and Linz (2005) and FIAP (2003).

**Table 2. European and Central Asian countries with multi-pillar systems**

Country	Start date	First pillar	New system
Hungary	January 1998	PAYG-DB	Mandatory for new Voluntary for old
Kazakhstan	January 1998	Minimum guarantee	Mandatory
Poland	January 1999	Notional-DC	Mandatory <30 Voluntary 30-50
Latvia	July 2001	Notional-DC	Mandatory <30 Voluntary 30-50
Croatia	January 2002	PAYG-DB	Mandatory <40 Voluntary 40-50
Bulgaria	January 2002	PAYG-DB	Mandatory <42
Slovakia	January 2005	PAYG-DB	Mandatory for new
Estonia	July 2002	PAYG-DB	Voluntary
Lithuania	January 2004	PAYG-DB	Voluntary
Romania	January 2003	PAYG-DB	Mandatory >20 years from retirement
Macedonia	January 2005	PAYG-DB	Mandatory for new
Russia	January 2002	Nocional - CD	Mandatory <50
Ukraine	January 2003	PAYG-DB	Mandatory for new
Kosovo	January 2002	Minimum	Mandatory

Source: Holzmann and Linz (2005)

**Table 1. From 3 pillars to a multi-pillar Social Security system**

Pillar	Target population			System	Characteristics	
	No resources	Informal sector	Formal sector		Participation	Funding
0	XXX	XX	X	Universal benefit	Universal or residual	General revenue
1			XXX	Public pensions (DB or notional accounts)	Mandatory	Contributions and reserves
2			XXX	Pension plans, capitalisation, DB or DC	Mandatory	Financial assets
3	X	XXX	XXX	Pension plans, capitalisation, DB or DC	Voluntary	Financial assets
4	XXX	XXX	XX	Family support, healthcare, housing	Voluntary	Financial and non-financial assets

The shaded area represents the 3-pillar approach proposed by the World Bank since 1994.  
The number of Xs indicates the importance of the different population groups as a target in each pillar.

Source: Holzmann and Linz (2005)

**Table 3. Models and characteristics of pension reforms in Latin America (2004)**

Model, country, and date reform commenced	System	Contributions	Benefits	Financial regime	Adminis- tration
<b>STRUCTURAL REFORMS</b>					
<b>Substitutive model</b>					
Chile, May 81					
Bolivia, May 97					
Mexico, Sep. 97	Private	Defined	Non-defined	Individual capitalisation (IC)	Private
El Salvador, May 98					
Dominican Rep., 2003-06					
Nicaragua, Postponed					
<b>Parallel model</b>					
Peru, Jun. 93	Public or private	Non-defined	Defined	PAYG	Public
Colombia, Apr. 94	private	Defined	Non-defined	IC	Private
<b>Mixed model</b>					
Argentina, Jul. 94	Public and private	Non-defined	Defined	PAYG	Public
Uruguay, abr. 96	private	Defined	Non-defined	IC	Multiple
Costa Rica, May 01					
Ecuador, Postponed					
<b>PARAMETRIC REFORMS OR UNREFORMED</b>					
Brazil					
Cuba					
Guatemala	Public	Non-defined	Defined	PAYG or collective capitalisation	Public
Haiti					
Honduras					
Panama					
Paraguay					
Venezuela					

Source: Mesa-Lago (2004)

Kong), publicly-managed (Indonesia, Malaysia, Papua New Guinea and Singapore), pay-as-you-go defined benefit (Philippines, Korea and Thailand), and countries in transition to market economies with inherited pay-as-you-go defined benefit systems for urban civil servants (Mongolia, China and Vietnam). In this region, China has opted to extend its coverage on the basis of the third pillar, and to introduce partial capitalisation in public companies. As regards South Asia, in the main economies in the region – India and Pakistan – incipient defined-benefit systems predominate for populations that are still young, so that they are showing a surplus. The short-term challenges are focused on minimising fiscal tensions derived from coverage sub-systems for civil servants. Since 2004, new civil servants in India are affiliated to a regime of defined contributions to capitalisation funds; with the possibility being considered of the scheme being extended to older civil servants and employees of the States and the private sector.

The scant progress seen in these regions is shared by the main developed countries due to institutional rigidities. Japan, the United States and Europe (with the exception of Denmark, Holland, Sweden and the United Kingdom, with private personal capitalisation schemes, and Italy with notional accounts) have barely moved beyond parametric reforms of the obligatory public pillars.

### ... introduced, although with differences, in Latin America

Latin America has led the process of introducing the multi-pillar system, based on private individual capitalisation accounts. Peru (1993), Colombia and Argentina (1994), Uruguay (1996), Mexico and Bolivia (1997), El Salvador (1998), Costa Rica (2000) and the Dominican Republic (2003) have all followed the pioneering experience of Chile. However, at least three different models can be identified in the countries that have carried out structural reforms: substitution, parallel and mixed (Mesa-Lago (2004)). The substitution model has been applied in Chile, Bolivia, Mexico, El Salvador and the Dominican Republic, and legislated for in Nicaragua. This model is characterised by putting an end to the old system and substituting it for a regime of privately-managed, defined-contribution individual accounts. The parallel model that was applied in Peru and Colombia involves a profound reform of the public sub-system that competes for affiliates with the private system. Finally, the mixed model adopted in Argentina, Uruguay and Costa Rica, and which has been legislated for in Ecuador, combines a public sub-system that provides minimum benefits (first pillar), with a private capitalisation sub-system (second pillar). From an analysis of the main achievements of the different systems with respect to coverage, amount of contributions, level of competence, administrative costs, return on investments, diversification of portfolios, and the fiscal cost of transition, none of them for the moment stands out as being superior to the others.

As a whole, after approximately 10 years of experience, one can conclude that the results have not satisfied all expectations, particularly as regards the extension of coverage, and the reduction in the size of the informal sector. In addition, the demographic, financial and political risks have been more correlated than forecast. This has meant that the multi-pillar systems have not shown the full benefits of diversification, with the exception of Chile and Mexico.

However, for Latin America as a whole, the reformed systems have contributed to strengthening the long-term fiscal systems of the economies concerned by significantly reducing their implied debt. This, in any case, has not prevented the observation of still high transition costs at present, and the need might even be foreseeable to dedicate growing resources to fund minimum pensions in the next few decades (given the low levels of participation and short working-lives that have been accumulated). Another significant advance, with the exception of Mexico, and to a certain degree Argentina and Colombia, is the unification of regimes, which has reduced segmentation in the labour market, at least in the formal sector (although coverage for the armed forces and in some cases for civil servants are still pending reforms). In addition, the evaluation of the

reforms should take into account that the macroeconomic evolution since the 1990s has not been particularly positive, and that the first cohorts of pure beneficiaries of the capitalisation systems do not retire until around 2025 in Chile and 2040 in the rest of the countries.

### ...to the definition of a “designer label” for the pension system of the 21<sup>st</sup> century

On the basis of the experience so far, it is possible to identify three guidelines that the reformed systems should follow in their design, and if the case may be, in their reform. Firstly, one should not put forward a “model to follow” for all pension systems at all times and in all places, given that there is no single, ideal model. What is preferable instead is a “framework” adapted to the specific conditions of the country in question (regulatory and supervisory institutions, development of financial and capital markets, size of the formal sector, and credibility of demand policies), as well as to the scope of the challenges involved (demographic, financial and political risks).

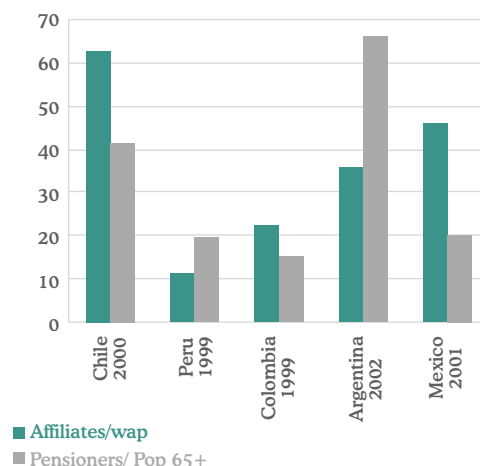
Secondly, the designs have to be global, covering both the private sub-system as well as the public one. The need for pension reform is evident given the modest achievements of the extension in coverage (stagnating at the levels shown in Graph 3), and the eradication of poverty, in the face of the new challenges posed by socioeconomic changes and globalisation. In this context, pension systems need to be compatible with more flexible arrangements for time spent on leisure, training, and employment at advanced ages; with a female population whose participation in the labour market is increasing; and with a weakening in the support networks in traditional family structures. Likewise, societies appear to be asking for (and receiving) larger Public Sectors in exchange for accepting the risk deriving from the opening up to trade (Rodrik (1998)). This suggests the need for the maintenance of an acceptable, but also more efficient, Public Sector, but which at the same time does not discourage mobility between jobs and territories. In order to do so, progress has to be made, as proposed by the World Bank, in the diversification of the system by strengthening the non-contributory pillars with a new pillar, denominated “pillar 0”, whose explicit purpose is the fight to eradicate poverty. In addition, the level of social protection depends on facilitating access to family support, health benefits, and property assets, “pillar 4” (see Table 1).

Thirdly, and finally, this process of redesign should not lose track of the fact that the obligatory privately-managed individual capitalisation pillar is the key element in the system. For this reason, the debate on ways to increase replacement rates has to be centred on setting adequate levels of contributions and the assigning of these to the public and private sub-systems; making the management of investments more flexible; redefining the funding schemes for the coverage of contingencies, and a review of commissions (see Taguas and Vidal (2005)).

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Graph 3. Coverage of the main pension systems in Latin America



Source: Gill et al. (2004)

# Lessons from Chile for Social Security Reform in the United States?

## The Social Security system in the US

The US Social Security system provides benefits to 48 million individuals through two basic programmes: Old Age and Survivors Insurance (OASI), which covers retired workers, their families and survivors and accounts for 85% of total spending; and Disability Insurance (DI), which represents the remaining 15% of spending and attends to disabled workers below the age of retirement and their dependants. It is a defined benefit system funded by a pay-as-you-go regime managed by the Public Sector. Income is obtained from a levy on salaries of 12.4%, payable in equal parts by workers and employers.

### Latest Social Security statistics (2004)\*

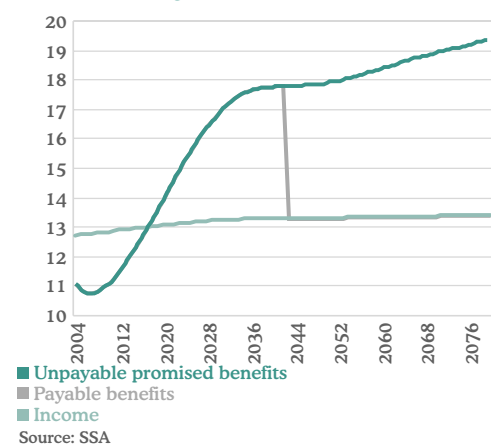
Workers covered by the Social Security system	154 millions
Beneficiaries	
Retired workers and their dependants	33 millions
Disabled workers and their dependants	8 millions
Survivors of workers who die	7 millions
Total beneficiaries	48 millions
Benefits paid in the year	496 mmd
Income	647 mmd
Total trust fund assets	1.6 bn
Tax rate	12,4%
Earnings cap on payroll taxes (2005)	90 mil USD

\* Preliminary figures  
Source: SSA and CBO

The high proportion of active workers to pensioners has guaranteed the solvency of the system. However, this ratio is exhibiting a downward trend as a result of the increase in life expectancy rates and a fall in the birth rate. This process will be accentuated by the retirement of baby boomers. As a result, it is estimated that the ratio will fall to 2.6 active workers per pensioner by 2030 and to 2.4 by 2050, significantly below the levels prevalent in past decades (4.3 in 1980 and 4.2 in 1990). According to the Social Security Administration (2004), in the next 75 years the present value of future benefits expenditure under the current legislation will exceed by \$3.7 trillion (in 2004 dollars) income from payroll taxes plus the value of accumulated funds<sup>1</sup>. Although the system enjoys financial health in the short term, the maintenance of the

### Income and benefit projections

(% of taxable wage)



<sup>1</sup> The new estimates published by the Social Security Administration in March 2005 when *Latinwatch* was in the process of being published raised this shortfall to \$4 trillion, without major changes in the message accompanying the figures.

current rules poses a sustainability challenge for public finances.

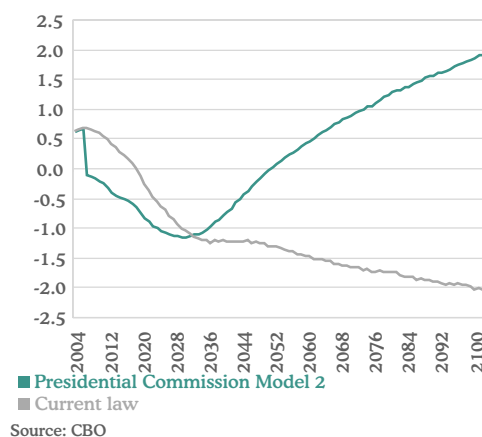
### Bush's reform option

The Bush administration favours unofficially a proposal that includes the assignation of four percentage points of the payroll taxes to individual capitalisation accounts under private management (with an initial maximum of 1,000 dollars), the indexation of benefits to inflation (instead of total income<sup>2</sup>) and the guarantee of protection for lower-income citizens.

Given that over the long term the increase in salaries is greater than that of inflation (due to increases in productivity), the new system of indexation of benefits to growth in prices will allow the gap between benefits and contributions to be narrowed. This, combined with an additional fall in costs, which will be covered by the balance in individual accounts (whose contributions will be invested according to the preferences of affiliates in different types of funds – government paper, the instruments of both large and small corporations and international stocks), will help improve the solvency of the system. According to the CBO (2004), the actuarial deficit would fall from \$3.7 trillion to \$1.7 trillion (in 2004 dollars). This is explained by a reduction in expenditure above that of revenues (\$6.5 trillion against \$4.5 trillion). In addition, President Bush has not ruled out raising the maximum level of wages subject to the payroll tax (currently at 90,000 dollars a year), which would further help to balance the accounts.

### OASDI income-expenditure

(% of GDP)



### More political than economic reasons, at least in the medium term

Assuming the political viability of this project<sup>3</sup>, Can Latin America draw any lesson from it? More specifically, based on almost 25 years of experience accumulated by Chile, What are the macroeconomic effects that can be anticipated from the introduction of privately-managed individual capitalisation accounts<sup>4</sup>? It is important to highlight that the effects of the reform will depend on the context in which it is

<sup>2</sup> A more moderate version has been the subject of debate recently: namely, "progressive indexation", which consists of excluding low-income affiliates from the measure.

<sup>3</sup> For a more detailed analysis of the project and its political aspects, see BBVA Research Department, "Reform of the Social Security System in the USA", *Economicwatch*, March 2005.

<sup>4</sup> The macroeconomic effects of this type of pension reform are explained in the article by Michele Favre and Joaquín Vial published in this edition of *Latinwatch*.

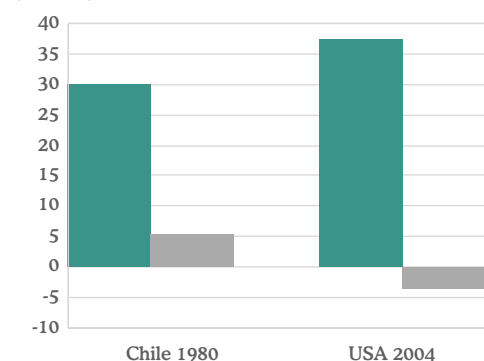


applied, as well as the characteristics of the economy concerned.

One of the most significant factors is the impact of the transition costs on the public accounts. In the case of Chile, in the year prior to the reform, net contributions by the State to the public pension system were close to 1.6% of GDP. Two years after the reform, that figure had risen to 4.7%, and was still at about 4% in 2000. The crowding-out effect was avoided due to the fact that the Chilean government had generated a non-pension surplus sufficiently large to fully fund those contributions without recourse to increasing the tax burden or issuing debt. The situation in the United States is different. All of the projections point to high public deficits in the coming years (above 3% of GDP), without taking into account the impact of the reform of the pension system. The transition cost of the reform programme is estimated at around \$1.5 trillion (in 2004 dollars), 13% of GDP. As a result the balance on the Social Security system will be more in deficit (or less in surplus) up to 2033, according to the CBO (2004). For this reason, the measure could mean more upward pressure on interest rates in the next few years, while under these circumstances, a net increase in investment is not foreseeable as a consequence of the reform.

### Public deficit and debt before pension reform

(% GDP)



■ Debt  
■ Surplus

Source: CBO and IMF

The positive impact of pension reform on the labour market depends in the first place on the size of the formal sector. At the start of the 1980s in Chile, formal employment represented 60% of total employment. In the United States, formal employment currently accounts for around 93% of the total. This represents an important advantage for future pensioners in the US because there will be a higher probability that contributions will be maintained that allow the funding of adequate pensions. But this obviously implies lower earnings because of the fact that labour relations are predominately formal.

The effect on the supply of labour is ambiguous. On the one hand, the contributions that workers would continue to pay to the Social Security Administration (around 2.4 points) will be considered even more so as pure taxes on labour, given that the reduction in real benefits weakens the link between contributions and pensions, thereby lowering the motivation to participate in the labour market or encouraging retirement.

But on the other hand, the loss of benefits and the contributions made to the private system – which can be viewed as an insurance premium – will encourage participation in the labour market. The CBO (2004) estimates a positive impact of 1% in the first 50 years and 1.5% in the remaining 25 years. In any case, raising the taxable wage cap, which was not originally included in Plan 2, would reduce this positive effect, as this would be a de facto increase in the tax burden.

In the third place, the gains in economic efficiency associated with the development of the financial markets appear to be limited, given that these are already well advanced. Finally, the voluntary nature of membership of the new system, its limitation to affiliates under 55 years old (due to the high number of workers close to retirement age in the US, which contrasts with the situation in Chile in the 1980s), and its gradual introduction for other groups of workers will additionally moderate the macroeconomic effects, at least in the short term.

### Population over 65 years old

(% of total population)



Source: OIT

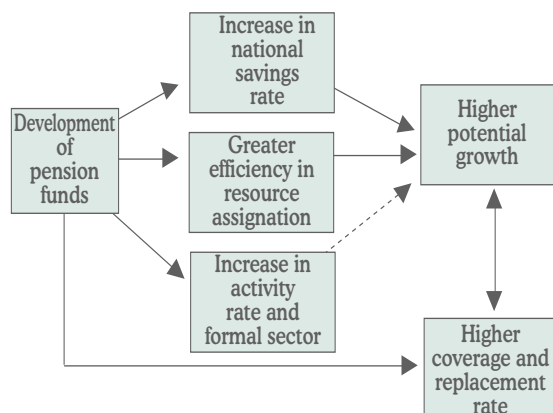
To sum up, focusing exclusively on the impact of a reform of this nature on the macroeconomic performance of a country, and using Chile as a basis for comparison, the gains are positive, albeit modest. In fact, according to the CBO, under the proposals included in Plan 2, the level of GDP could be 0.5% higher in 2025 than under the base scenario without reform, and between 3% and 4% higher in 2080. However, it would also constitute a very significant step towards the creation of Bush's idea of an "ownership society", to which will be shortly added the reform of the healthcare system and access to housing policies.

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### Contribution of pension funds to economic development



Source: BBVA

### Qualitative estimation of effects of reform on growth

(historical and future periods)

	Post-reform historical period (1980-01)	Future transition period of the system (2002-35)	Steady state future period (after 2035)
1. Through investment			
National saving (public saving-private saving)	++	+	tends to 0
Private saving (mandatory saving-voluntary saving)	-	-	0
2. Through labour markets			
Increase in employment and reduction in informal sector	+++	++	tends to 0
Increase in labour productivity	++	0	0
3. Through financial markets			
Effects on financial development and on TFP	+	0	0
4. Aggregate effects on growth rate	++	+	0
	++	+	tends to 0

Source: Corbo and Schmidt-Hebbel (2003)

## Macroeconomic effects of the reform of pension systems

The economic benefit programmes of the Public Sector, and pension systems in particular, have two basic objectives: the substitution of employment income that individuals who have contributed to the system cease to receive for factors outside their control (unemployment, accidents, old age or death) and to ensure a minimum level of welfare for the population as a whole, fulfilling the State's assistance role.

In addition, as a regulator and pension administrator, the Public Sector seeks to increase the degree of efficiency of the economy by assigning resources, achieving objectives of equality by redistributing income, and by reducing the cyclical volatility of the economy using stabilisation instruments. The Social Security system is also an instrument of economic development. This article focuses on the macroeconomic effects of pension reforms that incorporate individual capitalisation accounts managed by the private sector.

### Ways in which individual accounts have a macroeconomic impact

The macroeconomic effects can be divided into 3 main blocks: savings and investment, the labour market, and the development of capital markets as drivers of efficiency.

Chile is the pioneer country in the introduction of privately-administered individual capitalisation accounts. It implemented the reform in 1981 and is the only country that has accumulated sufficient experience to be able to serve as a gauge of the impact of this reform<sup>1</sup>. For this reason, the evidence presented below focuses on the Chilean economy.

### Private savings and domestic investment

Since the pioneering work of Feldstein (1974), it has been common to argue that pay-as-you-go pension systems reduce private savings, and consequently the accumulation of capital and the potential for growth. By contrast, the individual capitalisation systems managed by the private sector help increase national savings, allowing an increase in the investment rate of the economy. In Chile, savings accumulated in the Pensions Fund are equivalent to more than 60% of GDP.

These results have been questioned both on theoretical as well as empirical grounds. Corbo and Schmidt-Hebbel (2003) argue that the impact of pension reform on the national savings rate depends on 4 channels: the funding of the transitional deficit (given that the Public Sector has to pay for the pensions of retirees of the old system without receiving contributions from workers affiliated to the new system, while at the same time having to financially recognise the contributions made to the old system by those affiliates that changed systems. In the case of Chile, these take the form of Recognition Bonds)<sup>2</sup>. The other channels are the reaction of the private sector to the change in the national savings rate, the level of mandatory saving that is fixed, and the change in the level of voluntary private savings in the face of the new situation<sup>3</sup>. The estimates for the combined impact on Chile in the period 1981-2001 quantify the increase in the national savings rate at between 0.7% and 4.6% of annual GDP. This translated into an increase in domestic investment as a percentage of GDP of between 0.3% and 2.8% annually.

<sup>1</sup> For a description of the institutional framework and prospects for the Chilean pension system, see the article in the magazine *Situación Chile* of the BBVA Research Department.

<sup>2</sup> In any case, one should highlight the fact that the most beneficial impact on the public accounts that can contribute positively to an increase in the national savings rate is the reduction in implied debt; that is to say, debt that reflects the obligations assumed by the Public Sector deriving from the generation of contribution rights that are not recognised by Public Accounting.

<sup>3</sup> López Murphy and Musalem (2004) argue that the impact of pension funds on the national savings rate is only positive if funds are obligatory.

Taking a broader perspective, Taguas and Vidal (2005) analyse 35 emerging market and industrial countries, the results confirming the positive correlation between the growth of pension funds (as estimated by the stock accumulated) and the national savings rate (both measured in terms of GDP) after controlling for dependency ratios and human capital. An increase of 10 points in pension funds results in a rise in the national savings rate of approximately 0.4 points.

This effect is particularly significant in the region given that Latin America's savings rate is lower than that which exists in other emerging economies. In the period 1980-2003, Latin America recorded a savings rate that was similar to that of the African countries (of around 19% of GDP) and below those of Eastern Europe (23% of GDP) and Asia (28% of GDP).

### The labour market and the formal sector

Theoretically, a privately-administered individual capitalisation system introduces greater incentives in the labour market in comparison with a public pay-as-you-go system, with results that are considered desirable for any economy. These include an increase in the equilibrium level of employment, a reduction in the size of the informal sector and an increase in the activity rate.

The reason behind these effects is the existence of a weak link between taxes on labour, by means of which public pay-as-you-go systems are funded, and the benefits that are generated. By contrast, in personal capitalisation schemes the pensions that workers receive when they retire depend directly on the contributions made, so that social security contributions are seen as an insurance premium rather than as a tax. In this case, the distortions are reduced or eliminated<sup>4</sup>.

Most of the specific empirical studies on the labour market have focused, as is logical in the case of the emerging economies, on the impact on the size of the informal sector. This is the reason for the low coverage ratios of pension systems in Latin America and the insufficient progress that has been made since the 1990s. The employment rate in the informal sector – defined as the percentage of urban workers employed in micro-companies and in domestic jobs, unskilled self-employed workers and unpaid family workers – stands between 40% and 60% in all of the countries in the region, a level barely unchanged since 1990. In Chile, this proportion in 2003 stood at 31.9%, 7 percentage points lower than at the start of the 1990s.

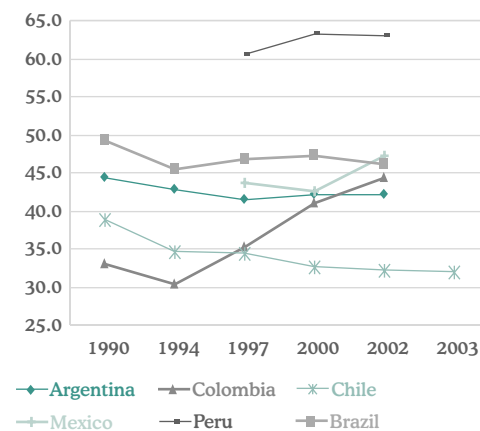
Using the two-sector model (formal and informal) of Edwards and Cox (2002), Corbo and Schmidt-Hebbel (2003) estimate an increase in employment of between 1.3% and 3.7% of total employment in Chile in 2001 thanks to a rise in formal employment of between 3.2% and 7.6% (compared with a fall in informal employment of between 1.1% and 1.3%) as a consequence of the pension reform. The expansion in the formal sector of the economy – and in the resulting level of productivity – is estimated to have brought about an increase in GDP of between 0.1% and 0.3% in 2001. Finally, unemployment is estimated to have been reduced by between 0.7% and 2%, a similar result to the one found by Edwards and Cox (2002).

### Capital markets and economic efficiency

With regard to the development of capital markets, it should not be forgotten that their relationship with pensions systems runs in both directions. Thus, reforms that involve the introduction and promotion of private pension funds require a certain degree of development of the capital markets. And pension systems, as users of financial services, drive the supply of such services, particularly in domestic currencies.

### Informal employment rate in Latin America, 1990-2003

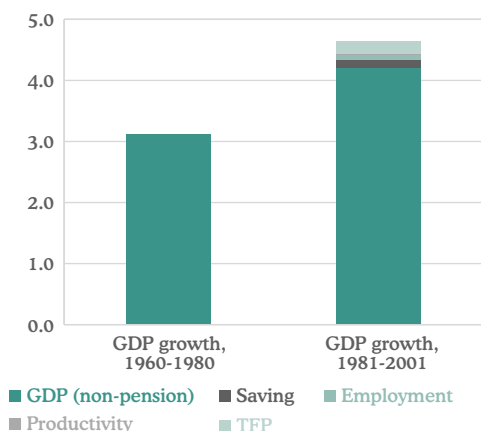
(% of workers)



Source: CEPAL

<sup>4</sup> However, Gruber (1997) found for the case of Chile that the social security contributions of the pay-as-you-go system were borne entirely by workers through lower salaries, meaning that they had no impact on the level of employment.

### Estimated effect of pension system reform on growth in Chile



Source: Corbo and Schmidt-Hebbel (2003)

In Latin America, the markets have historically been limited to short-term government debt, with the exception of Chile. Obviously, this limitation does not derive solely from the decision of private institutions, but rather is conditioned to some extent by the regulatory framework. The reform of pension systems will therefore not have positive effects unless it is accompanied by a far-reaching overhaul of legal frameworks (basically financial and fiscal frameworks) and a gradual easing of investment restrictions. Moreover, in more general terms, an important condition for capital markets to make the most of all the opportunities is macroeconomic stability. For this reason, the credibility of institutions is essential, and in this sense the existence of independent central banks with anti-inflationary reputations and governments committed to fiscal consolidation policies are determining factors of macroeconomic stability as the experience of Latin America in recent years shows.

The empirical evidence seems to support to a moderate extent this channel. There is a positive correlation between institutional investment – including pension funds – and the development of capital markets in the emerging countries, particularly in Latin America, as highlighted by Yermo (2003). In the case of Chile, the capital market was hampered by problems at the time of the reform. Not only was it lacking in depth and closed, but it also suffered from a severe crisis in 1982-1983 as a result of the economic recession and the weaknesses of an abrupt liberalisation of the financial market at the end of the 1970s. The reform of the pension system brought greater transparency to the market, enhanced regulation of it and fomented an expansion of the market. The empirical evidence shows that there is a positive long-term relationship between financial development and mandatory saving (a variable that reflects the pension reform), after having factored in the structural reforms that were put in place (especially financial liberalisation), the variables that determine demand for the different portfolio products and cyclical effects. The estimates of Corbo and Schmidt-Hebbel (2003) show that this reform is likely to have contributed one-third of the total progress observed in various indicators of the depth of the financial system between 1980 and 2001.

### All things being considered, more growth

Overall, Corbo and Schmidt-Hebbel (2003) conclude that Chile's pension system permitted the Chilean economy to grow on average by 0.5 of a point more in the period 1981-2001. This is practically equivalent to one-ninth of the growth over this period and one-third of the acceleration in growth. The increase in total factor productivity associated with the financial development and an increase in saving and investment are its main foundations.

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## International Context

	Real GDP (%)				Consumer prices (% , end of year)			
	2003	2004	2005	2006	2003	2004	2005	2006
USA	3.0	4.4	3.6	3.2	1.9	3.4	2.5	2.7
EMU	0.5	1.8	1.7	2.4	2.0	2.4	1.5	1.7
Japan	1.4	2.7	1.5	3.0	-0.4	0.2	0.0	0.3
China	9.3	9.5	8.5	8.0	1.2	3.9	4.5	4.5

	Official interest rate (% , end of period)				Exchange rate (vs \$ , end of period)			
	23/03/05	Jun-05	Dec-05	Dec-06	23/03/05	Jun-05	Dec-05	Dec-06
USA	2.75	3.25	4.00	5.00				
EMU (\$/€)	2.00	2.00	2.50	3.75	1.30	1.30	1.35	1.30
Japan (yenes/\$)	0.10	0.10	0.10	0.10	106	104	100	100
China (\$/cny)	5.58	5.58	5.80	5.80	8.28	8.28	8.28	8.28

## Latin America

	Real GDP (%)				Consumer prices (% , end of year)			
	2003	2004	2005	2006	2003	2004	2005	2006
Argentina	8.8	9.0	7.0	4.5	3.7	6.1	10.9	7.1
Brazil	0.5	5.2	3.7	3.0	9.3	7.6	6.0	4.5
Chile	3.3	6.1	5.8	5.3	1.1	2.4	2.6	3.1
Colombia	3.8	4.1	3.8	3.0	6.5	5.5	5.2	4.7
Mexico	1.4	4.4	4.2	4.0	4.0	5.2	4.0	3.9
Peru	3.8	5.1	4.4	4.0	2.5	3.5	2.3	2.5
Uruguay	2.5	11.0	4.0	n.a.	10.2	9.0	8.5	n.a.
Venezuela	-7.7	17.3	3.9	2.3	27.1	19.2	22.4	26.4
LATAM <sup>1</sup>	1.7	6.0	4.4	3.6	7.2	6.8	6.6	5.7

	Fiscal balance (% GDP)				Current account balance (% GDP)			
	2003	2004	2005	2006	2003	2004	2005	2006
Argentina <sup>2</sup>	0.5	2.6	1.8	1.5	6.3	2.1	0.3	0.0
Brazil	-3.6	-2.5	-3.0	-3.0	0.8	1.9	0.7	0.0
Chile <sup>2</sup>	-0.4	2.6	2.2	1.4	-0.8	1.5	-1.1	-2.2
Colombia	-2.7	-1.2	-2.7	-2.4	-1.5	-1.3	-1.9	-2.8
Mexico	-0.6	-0.3	-0.1	-0.2	-1.5	-1.3	-2.0	-2.1
Peru	-1.9	-1.1	-1.1	-1.0	-1.8	0.0	-0.1	-0.5
Uruguay	-3.2	-2.9	-2.5	n.a.	1.7	0.4	0.6	n.a.
Venezuela <sup>2</sup>	-5.1	-3.1	-3.5	-5.0	10.3	13.6	11.1	7.3
LATAM <sup>1</sup>	-1.9	-1.0	-1.3	-1.4	0.8	1.2	0.0	-0.7

<sup>1</sup> Average of the countries. <sup>2</sup> Central Government.

	Exchange rate (% , vs \$ , end of year)				Interest rates (% , end of year) <sup>3</sup>			
	2003	2004	2005	2006	2003	2004	2005	2006
Argentina	2.96	2.98	3.00	3.21	3.8	3.1	5.5	7.1
Brazil	2.89	2.72	2.90	3.20	16.5	17.8	18.0	16.5
Chile	599	576	575	575	2.3	2.5	3.8	5.3
Colombia	2778	2390	2676	2810	7.9	7.7	7.7	8.0
Mexico	11.24	11.15	11.80	12.20	6.0	8.7	9.5	9.6
Peru	3.46	3.28	3.30	3.35	2.5	3.0	3.8	5.0
Uruguay	29.34	27.30	29.00	n.a.	4.0	n.a.	n.a.	n.a.
Venezuela	1600	1920	2150	2580	15.1	14.8	12.8	13.6

<sup>3</sup> For each country interest rate see the following page.

## Argentina

	2004	2005f	2006f
GDP (%)	9.0	7.0	4.5
Consumer prices (% end of year)	6.1	10.9	7.1
Trade balance (\$bn)	12.1	9.4	8.3
Current account (% GDP)	2.1	0.3	0.0
Reserves (\$bn. end of year)	19.6	22.5	26.1
Exchange rate (end of year vs US\$)	2.98	3.00	3.21
Fiscal balance (% GDP) <sup>1</sup>	2.6	1.8	1.5
Interest rate (end of year) <sup>2</sup>	3.1	5.5	7.1
Real effective exchange rate (end of year, dec-97=100)	50	54	55

1/ Argentina: Central Government Balance. Excluding privatisation receipts  
2/ Argentina: 30-d deposits interest rate in pesos; Brazil: SELIC rate

## Brazil

	2004	2005f	2006f
GDP (%)	5.2	3.7	3.0
Consumer prices (% end of year)	7.6	6.0	4.5
Trade balance (\$bn)	33.7	24.5	18.0
Current account (% GDP)	1.9	0.7	0.0
Reserves (\$bn. end of year)	52.7	56.0	57.0
Exchange rate (end of year vs US\$)	2.72	2.90	3.20
Fiscal balance (% GDP)	-2.5	-3.0	-3.0
Interest rate (end of year)	17.8	18.0	16.5
Real effective exchange rate (end of year, dec-97=100)	65	62	59

## Chile

	2004	2005f	2006f
GDP (%)	6.1	5.8	5.3
Consumer prices (% end of year)	2.4	2.6	3.1
Trade balance (\$bn)	9.0	6.4	3.0
Current account (% GDP)	1.5	-1.1	-2.2
Reserves (\$bn. end of year)	16.0	16.0	16.0
Exchange rate (end of year vs US\$)	576	575	575
Fiscal balance (% GDP) <sup>1</sup>	2.6	2.2	1.4
Interest rate (end of year) <sup>2</sup>	2.5	3.8	5.3
Real effective exchange rate (end of year, dec-97=100)	84	84	87

1/ Chile: Central Government  
2/ Chile: Official interest rate (from August 2001 in nominal terms); Colombia: 90-d DTF interest rate

## Colombia

	2004	2005f	2006f
GDP (%)	4.1	3.8	3.0
Consumer prices (% end of year)	5.5	5.2	4.7
Trade balance (\$bn)	0.9	0.1	-1.3
Current account (% GDP)	-1.3	-1.9	-2.8
Reserves (\$bn. end of year)	13.5	14.6	15.1
Exchange rate (end of year vs US\$)	2390	2676	2810
Fiscal balance (% GDP)	-1.2	-2.7	-2.4
Interest rate (end of year)	7.7	7.7	8.0
Real effective exchange rate (end of year, dec-97=100)	83	77	75

## Mexico

	2004	2005f	2006f
GDP (%)	4.4	4.2	4.0
Consumer prices (% end of year)	5.2	4.0	3.9
Trade balance (\$bn)	-8.5	-10.7	-12.7
Current account (% GDP)	-1.3	-2.0	-2.1
Reserves (\$bn. end of year)	61.5	64.0	63.0
Exchange rate (end of year vs US\$)	11.15	11.80	12.20
Fiscal balance (% GDP)	-0.3	-0.1	-0.2
Interest rate (end of year) <sup>2</sup>	8.7	9.5	9.6
Real effective exchange rate (end of year, dec-97=100)	107	103	102

2/ México: 28-d Cetes interest rate; Peru: Interbank interest rate

## Peru

	2004	2005f	2006f
GDP (%)	5.1	4.4	4.0
Consumer prices (% end of year)	3.5	2.3	2.5
Trade balance (\$bn)	2.7	2.8	2.8
Current account (% GDP)	0.0	-0.1	-0.5
Reserves (\$bn. end of year)	12.6	13.9	14.0
Exchange rate (end of year vs US\$)	3.28	3.30	3.35
Fiscal balance (% GDP)	-1.1	-1.1	-1.0
Interest rate (end of year)	3.0	3.8	5.0
Real effective exchange rate (end of year, dec-97=100)	90	90	90

## Uruguay

	2003	2004f	2005f
GDP (%)	2.5	11.0	4.0
Consumer prices (% end of year)	10.2	9.0	8.5
Trade balance (\$bn)	0.0	-0.1	0.0
Current account (% GDP)	1.7	0.4	0.6
Reserves (\$bn. end of year)	2.1	n.a.	n.a.
Exchange rate (end of year vs US\$)	29.34	27.30	29.00
Fiscal balance (% GDP) <sup>1</sup>	-3.2	-2.9	-2.5
Interest rate (end of year) <sup>2</sup>	4.0	n.a.	n.a.
Real effective exchange rate (end of year, dec-97=100)	75	81	78

1/ Venezuela: Central Government  
2/ Uruguay: 30-d BCU Papers interest rate in pesos; Venezuela: 90-d Certificado Participaciones rate  
3/ Venezuela: including FIEM

## Venezuela

	2004	2005f	2006f
GDP (%)	17.3	3.9	2.3
Consumer prices (% end of year)	19.2	22.4	26.4
Trade balance (\$bn)	18.4	15.2	11.6
Current account (% GDP)	13.6	11.1	7.3
Reserves (\$bn. end of year)	20.8	20.2	17.1
Exchange rate (end of year vs US\$)	1920	2150	2580
Fiscal balance (% GDP)	-3.1	-3.5	-5.0
Interest rate (end of year)	14.8	12.8	13.6
Real effective exchange rate (end of year, dec-97=100)	91	98	102

# Research Department Presentations

## Caracas [www.provincial.com](http://www.provincial.com)

Title	Institution-Client	Place and date
Claves Macroeconómicas y Financieras	Banca Mayorista Global	Caracas, mar. 05
Claves Macroeconómicas y Financieras	Banca Mayorista Global	Caracas, mar. 05
Claves Macroeconómicas y Financieras	Banca Mayorista Global	Caracas, feb. 05
Claves Macroeconómicas y Financieras	Banca Mayorista Global	Caracas, feb. 05
Claves Macroeconómicas para 2005	Fundación Provincial	Caracas, ene. 05
Perspectivas Financieras 2005-2007	Banca de Empresas	Caracas, ene. 05

## Lima [www.bbvabancocontinental.com](http://www.bbvabancocontinental.com)

Title	Institution-Client	Place and date
Perspectivas Económicas: 2005-2006	Banca Mayorista Global	Lima, mar. 05
Perspectivas Económicas: 2005-2006	Cientes Banca Mayorista Global	Lima, mar. 05
Situación Económica	Banca Mayorista Global	Lima, feb. 05
Perspectivas Económicas: 2005-2006	Cientes Banca Mayorista Global	Lima, feb. 05
Perspectivas para el 2005	Continental Bolsa	Lima, ene. 05
Tendencias Macroeconómicas	Misión Banco Mundial	Lima, ene. 05
Perú: Perspectivas Económicas 2005	Seminario BBVA	Lima, dic. 04

## Madrid [www.bbva.com](http://www.bbva.com)

Title	Institution-Client	Place and date
Retos de corto y largo plazo de la economía brasileña	Universidad de Deusto	Bilbao, mar. 05
El Urbanismo en España.	Asociación de Bancos de México	México, D.F., mar. 05
América Latina: la economía política de lo posible	BID	Washington, feb. 05
Situación del Mercado Inmobiliario e Hipotecario	Asociación para el Progreso de la Dirección	Barcelona, feb. 05
¿Son sostenibles los niveles actuales de tipos de interés?	Universidad de Oviedo	Oviedo, feb. 05
Brasil: una mirada estructural	ESADE	Barcelona, feb. 05
¿Están las estrellas alineadas?	IESE	Madrid, ene. 05
Unlocking Credit: ¿El vaso medio lleno o medio vacío?	Seminario BID-BBVA	Madrid, ene. 05
Anjo o Demônio para América Latina	BBVA Brasil	Sao Paulo, dic. 04
La incógnita del dólar	Banco Central de Reserva	Lima, dic. 04
Las claves del escenario macroeconómico y financiero	BBVA Continental	Lima, dic. 04
Presentación Nuevas Publicaciones SEE	BBVA Uruguay	Montevideo, dic. 04
Economía Brasileña: doble reto	BBVA Chile	Santiago de Chile, dic. 04

## Mexico and USA [www.bancomer.com](http://www.bancomer.com)

Title	Institution-Client	Place and date
Economic and financial outlook in Mexico	Visita Anual del FMI	México, DF, mar. 05
¿Es China una amenaza para la economía mexicana?	Capem - Oxford Econometric Forecasting	México, DF, mar. 05
La estructura del mercado de suelo para vivienda	Asociación de Banqueros de México, Jornada del Suelo para vivienda	México, DF, mar. 05
EUA: mirada estructural	Banca Minorista en los Estados Unidos	Houston, mar. 05
Integración económica México-EUA y más allá	Banca Minorista en los Estados Unidos	Houston, mar. 05
La economía y los mercados en el 2005	Consejos Regionales, Jornadas Asset Management, Servicios Jurídicos	México, DF, feb. 05
El potencial de la banca en México	2do Congreso Universitario, ABM-ITESM (Monterrey, Cd de México, Guadalajara)	México, DF, feb. 05
¿Hacia dónde se dirigen las variables financieras en México?	Cientes Corporativos (Liverpool, Palacio, Pemex, GEO, Aspa, Embajada EUA)	México, DF, ene-mar. 05
Mexico: outlook and challenges	Bear Sterns, Barclays, Bank of Tokyo	México, DF, ene. 05
Perspectivas económicas y financieras de México	Mistubishi y Dresdner Kleinwort Wasserstein	México, DF, ene. 05
	Cientes de Banca Privada y Patrimonial BBVA	México, DF, ene. 05
	Bancomer	México, DF, ene. 05

## Santiago de Chile [www.bhif.cl](http://www.bhif.cl)

Title	Institution-Client	Place and date
De la recuperación al crecimiento	Cientes BBVA	Viña del Mar, mar. 05
Perspectivas Económicas 2005-06	Equipo Directivo PROVIDA	Santa Cruz, mar. 05
Chile: Perspectivas y riesgos	Banco de España	Santiago, mar. 05
Agenda Interna y los TLC	Taller CAF - OEA	Cartagena, Colombia, feb. 05
Recuperación en medio de turbulencias	BBVA clientes por región	Puerto Varas, nov. 04
Panorama Económico Mensual	Banca Corporativa BBVA	Santiago, nov. 04
Panorama Económico 2004-2005	Banca Minorista BBVA	Santa Cruz, nov. 04
Perspectivas Económicas 2004-2005	Constructora Gardilcic	Santiago, oct. 04
Panorama Económico Mensual	Banca Corporativa BBVA	Santiago, oct. 04
Instituciones y Crecimiento Económico	Seminario BBVA	Madrid, oct. 04

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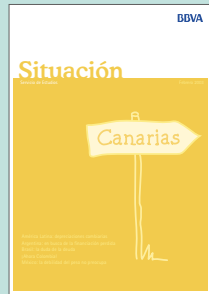
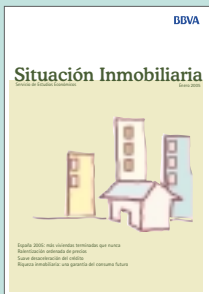
Europe: Manuel Balmaseda

Sector Analysis: Carmen Hernansanz

Financial Scenarios: Mayte Ledo

Financial Flows: Sonsoles Castillo

## other publications



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