

# Chile Watch

Economic Research Department

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- Editorial
- International Environment: Pressures remain
- Macroeconomic Environment: Deterioration in 2009
- Monetary and Exchange Rate Environment: Shaken by the international financial crisis
- Financial Environment: International and domestic moderating credit growth
- Chilean Household Financial Burden

# Index

*Closing date: november 25th, 2008.*

<b>Editorial</b>	2
<b>Executive Summary</b>	3
<b>1. International Environment</b>	4
Pressures remain	
<b>2. Macroeconomic Environment</b>	7
Deterioration in 2009	
<b>Insert:</b> Change of base year used for inflation calculations	14
<b>3. Monetary and Exchange Rate Environment</b>	16
Shaken by the international financial crisis	20
<b>4. Financial Environment</b>	
International and domestic moderating credit growth	
<b>5. Chilean Household Financial Burden</b>	24
<b>Indicators and Projections Tables</b>	27

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## Editorial

The “decoupling” theory appears to have been disproved. Since mid-September, markets have been sending a strong message that is still reverberating through emerging markets: no country will be spared. Forecasts of deterioration in countries such as China and India have caused markets to severely punish commodity producers, Chile among them. To this respect, much has been said (and with good reason) about how well prepared Chile is, on a macroeconomic level, to deal with the difficult environment. Chile may feel secure knowing that both its public and private sectors have healthy balance sheets and that they have resources to confront a global credit crunch without feeling the extra pain.

Some questions do remain however; problems which had been put on hold and which now require immediate attention. For example, how and when the government will spend the surpluses accumulated over the last few years. This is especially important in an environment with lower external demand and fewer capital inflows. And so the debate begins. Firstly, some are calling for a revision in the forecasts used to draw up the State budgets, arguing that the price of copper in the long term will be lower than that assumed by the Comité de Expertos (Expert Committee), and are lobbying for a reduction in next year’s fiscal spending growth. One of the concerns here is the possible deterioration to the country’s fiscal and external accounts in the future. However, this is not a valid argument, since it calls into question the basic premise of the tax rule: maintaining costs stable to soften the economic cycle, despite temporary shortfalls in public tax revenues.

At any rate, risks to growth for next year are skewed downward and the economy may need further stimulus in addition to the one already discounted by the market. Monetary Policy will play an important role here, and we expect the Central Bank to be active by considerably lowering the Tasa de Política Monetaria (TPM) (Monetary Policy Rate). However, if the government wants to play a more active role in the recovery, it should strengthen measures like the FOGAIN (loan guarantee scheme) and the FOGAPE (state-run development fund), which incentivise competition among financial institutions. It should also make sure that resources are being efficiently distributed to productive activities. Drawing on the public banking system or modifying the structural surplus rule should be a measure of last resort.

Drawing on accumulated funds should have a longer intermediate and long-term impact on development, beyond the stabilisation of the economic cycle. Specifically, a series of reforms could be implemented using these resources. In the first place, the economy will need flexibility to face up to a period of major changes on a global level. Both firms and individuals should have the opportunity to make agreements which will allow the country to continue being competitive on a global level. To this end, reforms designed to reduce restrictions in the labour market or to lower firms entry and exit costs are needed. However, these changes would come at a price to certain sectors of the population. Good use of the accumulated resources would compensate these sectors and assist them in the transition. Also, the low productivity growth of the past 10 years is disquieting. The reasons for this range from problems whose solutions appear to be a step in the right direction (energy), to others with a more uncertain future (concentration of exports in natural resources, lack of human capital development). In any case, a national debate on the issue is needed as well as a significant education reform.

## Executive Summary

The deterioration of the external conditions finds the Chilean economy in a complex situation, characterised as it is by high inflationary pressures and low growth. The country's solid macroeconomic fundamentals however, provide the necessary tools to deal with the current situation effectively.

Tensions in international financial markets will have a particularly negative impact on the national economy through a variety of channels. Firstly, the decline in financial asset prices will reduce businesses' capacity to take on debt and will increase families' need to save. Secondly, the rise in risk premiums and lower capital flows towards emerging economies have brought with them an increase in interest rates which has made access to financing more expensive. Likewise, the depreciation against other developed countries' currencies, and the decline in the terms of trade, will negatively affect private sector spending, as real disposable income decreases. Finally, the deterioration in world economic growth forecasts implies lower demand for Chilean exports. All of this leads us to forecast a significant decline in domestic demand and GDP growth in 2009 of 1.7% yoy and 2.3% yoy, respectively.

At any rate, the Chilean economy has some strong features that suggest the impact of rising uncertainty will be limited. Particularly, both public and external accounts have registered surpluses in the last few years. One of the Chilean economy's main strengths is the public sector's accumulation of international reserves and its net creditor position. This will allow the government to maintain a solid spending growth rate, contributing to the stability of the economic cycle. Increased slack in capacity, lower inflation expectations, and the decline in import prices will also encourage the Central Bank to adopt a less restrictive monetary policy in 2009, providing this translates into lower CPI growth (4.8% yoy to December 2009). Along these lines, we expect the TPM (Monetary Policy Rate) to reach 5.25% at year end, 300bp below the final 2008 level. We should point out that the Chilean financial system has adequate capitalisation levels and good risk provisions, enabling it to fulfil its role as resource distributor and multiplier when the Central Bank decides to lower the TPM. Finally, there are some factors that lead us to believe that once markets have calmed somewhat, the Chilean peso could make some gains against the currencies of more developed countries. Specifically, the peso has depreciated more than the fundamentals of the economy would indicate (growth spread, Foreign Direct Investment Flows or FDIs, public and private risk, etc.).

All these forecasts face a high degree of uncertainty. Furthermore, some risks persist and could considerably change the outlook for the Chilean economy. Externally, a lower growth scenario for developed countries cannot be ruled out, nor can the tenacity of restrictive financial terms on international capital markets. Domestically, inflation continues to be a problem with no solution; in addition to the increasingly fast pace of price increases, the Chilean peso is weakened and nominal salary growth rates are not consistent with inflation falling to 3%. Further increases in price growth will restrain the Central Bank, increasing the negative impact on activity in 2009. All things considered, Chile is one of best-prepared countries to tackle the current global uncertainty.

# 1. International Environment: pressures remain

## USA v/s EMU: Liquidity Tensions Index (treasury bills - euribor 3 month spread)



Source: BBVA and Bloomberg.

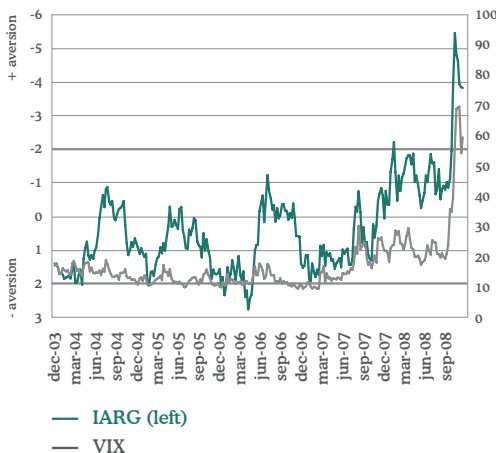
## USA v/s EMU: Intra-bank Liquidity Tensions Index (LIBOR - OIS 3 month spread)



Source: BBVA and Bloomberg.

## Global Risk Aversion Index (BBVA-IARG)

64 assets: (US\$) and developed (local currency)



Source: BBVA and Datastream.

Just a few months ago, the international financial crisis was limited to enumerating the sequence of events unfolding in the US. However, 12 September -the day Lehman Brothers went under- marked an inflexion point worldwide. Investor uncertainty and strong risk aversion became widespread, primarily contaminating Europe, but also emerging markets.

Following the bankruptcy of Lehman Brothers and the bailout of the AIG Group by the US Treasury, the Bush administration approved the Troubled Asset Relief Program (TARP), also known as the Paulson Plan. The aim was to address the problems posed by the toxic assets on the banks' balance sheets and resolve the liquidity and solvency issues suffered by many of the country's financial institutions. Unlike the events at Bear Stearns, AIG or the US government mortgage agencies, the Lehman bankruptcy triggered sizeable losses for bondholders which shook the markets to their core. Sharp credit spread widening drove liquidity costs to unheard of and unsustainable levels. The spread between 3-month Treasury bills and interbank rates (the TED spread) in the US and EMU currently stands at 216bp and 233bp, respectively. However, its US high (464bp) easily tops the high of 300bp reached on 20 October 1987. In addition, the spread between the 3M LIBOR and the overnight index swap (OIS) –a proxy for the availability of market funds– currently stands at 170bp in the US (vs. a high of 366bp), compared to 171bp in Europe (vs. a high of 194bp). And just as financial tensions were heightening, the banking crisis escalated, not only in the US, but also across Europe.

Global equity markets have notched up historic losses. By year end 2008, the major developed markets were down approximately 40%. In emerging economies, the range of corrections is broader, going from 17.0% in Chile to 76.0% in Russia. Meanwhile, risk aversion is at an extreme. This, together with expectations of additional rate cuts, explains the average reduction in October in 2Y bond yields of 60bp in the US and 100bp in the EMU relative to pre-Lehman bankruptcy levels.

### The initial wave of unilateral rescue packages has since given way to unified criteria across the developed economies devised to address the global crisis.

The central banks have injected vast sums of liquidity into the market alleviate the financial impasse, although these measures have yet to have a decisive impact. The Federal Reserve has virtually doubled the amounts auctioned off via its TAF programme to 300 billion US\$ in addition to increasing the dollar swap lines in place for other central banks by over 500 billion US\$. The European Central Bank has also taken extraordinary measures in terms of the scale, currencies and maturities of its auctions. The most recent initiative has been to launch full allotment auctions aimed at alleviating short-term financing requirements.

The various economic and monetary authorities are faced with an unprecedented financial crisis, which is being exacerbated by the risk aversion phenomenon. Initially, the various governments passed different measures aimed at restoring citizens' confidence in their financial institutions by guaranteeing deposits and at stimulating business as usual in the financial markets, but with limited effect. The main reason for the reduced impact was the market's perceived total lack of coordination among administrations and the belief that measures taken were being implemented in an ad hoc manner to prop up distressed entities.

At the beginning of October, however, more coordinated action was taken. Firstly, the Fed, the ECB, the Bank of England and the central banks of Switzerland, Sweden and Canada cut their benchmark rates

simultaneously by 50bp, accompanying the move with a joint press release. Shortly after, the European governments struck a timely agreement to jointly address the crisis in a coordinated manner, announcing a raft of potential measures fashioned around guarantees and capital injections. Although the immediate impact was limited, the joint efforts probably prevented an even more serious financial crisis.

These efforts culminated with the G-20 Summit in Washington. The conclusion from the summit and the agreements reached is the international community's firm desire to tackle the unfolding economic and financial crisis in a coordinated fashion, combining multilateral initiatives and measures with national policies previously ratified and vetted by all summit participants. This is significant, as it hints that they would be avoiding past mistakes, such as the unilateral national responses, on occasion purely protectionist in nature, which only served to accelerate the recessionary processes. It is also worth highlighting that the list of measures announced is ambitious and stems from an accurate diagnosis of the causes of the current crisis and of why it subsequently spread and gathered pace so rapidly.

### Low growth, inflation and interest rates, and a stronger dollar

Given that tensions in the financial markets are unlikely to ease in the short term, and given that the international financial crisis is likely to translate into reduced borrowing ability on the part of households and businesses, our growth estimates for the US and EU point to acceleration in the economic slowdown. We believe that US consumption and residential and non-residential investment will continue to fall, thereby continuing to erode economic growth in that country. In addition, in terms of the trade balance, imports should continue to fall, driven by the weak economy. Exports should continue to grow, albeit at a far slower pace due to a stronger dollar and global economic weakness. This means that on a net basis, trade will not provide a very solid foundation for growth. In short, we expect US and EU GDP to contract by 0.8% and c.0.9%, respectively, next year. Despite the existence of some favourable factors, such as substantially lower benchmark interest rates and a weaker euro relative to the dollar, the effectiveness of the various governments rescue packages will be key to avoiding a sharper recession.

Against this backdrop, the commodity markets have reacted viscerally, with oil and copper prices tumbling by close to 60% and grains, such as corn, wheat and soybeans, plunging by around 40% from their mid-year peaks. In all these instances, our forecasts point to stabilisation and subsequent recovery, due to supply side restrictions in the medium and long term and ongoing rapid growth in consumption of energy, food and raw materials for manufacturing processes in China, India and other emerging markets. Nonetheless, the fall in prices to date will translate into a sharp reduction of disposable income in developing nations, some of which are highly dependent on commodity exports and tax revenue. Unlike earlier global slowdowns, however, this one stands out for the fact that most Latin American nations have saved a significant portion of the windfall profits reaped during the boom years, placing them in a better position to cope with the current price correction.

Meanwhile, we expect inflation to continue to move significantly lower. For 2009, we are forecasting average headline inflation in the US of 0.8% while in the EU inflation is expected to be about 1.9% on average. These realigned expectations are underpinned by the correction in oil and other commodity prices, combined with the outlook for slower global growth. In addition, contained inflation will enable the central banks to continue to cut rates to reactivate economic growth. The ECB and the Fed have already cut rates by half a point to 3.25% and 1.0%, respectively. Our forecasts for official interest rates are as follows: we think the Fed will cut benchmark rates to 0.5% in 2009, while the ECB will cut its official rate to 1.5% early next year. This underpins our forecast for a stable

## Stock Markets

USA	S&P500	-46%
Spain	IBEX35	-47%
United Kingdom	FTSE100	-38%
France	CAC40	-47%
Germany	DAX30	-48%
EMU	STOXX	-50%
Japan	NIKKEI 225	-50%
China	Shanghai SE 180	-64%
Hong Kong	HANG SENG	-56%
Brazil	BOVESPA	-48%
Mexico	MXSE IPC Gral.	-38%
Argentina	MERVAL 25	-59%
Chile	SASE Gral Index	-17%
Russia	IRTS	-76%

Source: xxxx.

dollar, trading at around \$1.30/₺ through the end of 2008. In 2009, we expect the dollar to further strengthen towards the \$1.15/₺ mark, although, if anything, the risk is biased towards stronger appreciation.

Taking our base case scenario for central bank rates, we are forecasting a stable yield on 10-year US Treasury bonds of 3.80% by the end of 4Q08. Looking to 2009, we expect yields to start the year at around 3.70%, falling throughout the year to end at closer to 3.40%. In the EU, we expect 10-year sovereign bond yields to end the year at 3.80%. We are forecasting yields of 3.50% in 1Q09, falling gradually throughout the year to close the fourth quarter at 3.10%.

Turning to the emerging markets, we have revised our forecasts downward to factor in the impact of the recessionary outlook for the developed world. While the pace of growth looks set to ease versus 2008, we are still forecasting healthy growth rates in 2009. Emerging Asia looks set to grow by 6% compared to 7.5% in 2008, with China continuing to grow at around 8%, largely driven by the government's stimulus package. Other nations in the region will grow at far lower rates, especially the smaller and more open economies, which are accordingly far more dependent on foreign demand.

Looking to the months ahead, the direction taken by and effectiveness of government policies designed to restore financial stability and jump-start the markets will be crucial to injecting confidence, breaking the vicious liquidity-solvency circle and restoring business as usual.



## 2. Macroeconomic Environment: deterioration in 2009 forecasts

The Chilean economy, although ensnarled in a low growth and high inflation situation, is well equipped to confront the increase in financial market tensions. Accordingly, bottlenecks in some of the tradable goods sectors (mining, salmon, methanol, etc.) and higher energy costs suggest that the trend or potential growth had fallen in the last two years. In addition, domestic conditions (drought, indexation) have pushed inflation levels higher than in other countries in the region, forcing the Central Bank to pledge an economic slowdown to combat price increases. However, given the significant changes in international forecasts, the decrease in domestic demand will probably not be a result of the Central Bank's decision to increase rates. On the contrary, costs may be adjusted downward through a series of alternative channels. The most significant being decreasing financial wealth, increasing risk premiums, declining capital flows into emerging economies, deteriorating exchange rates, and lower foreign demand for Chilean goods. Although the forecasts for consumption and investment growth for next year have been revised downward, there are various factors at play which lead us to believe the decrease will be limited; the expected decline in inflation, the implementation of counter-cyclical policies and the strong positioning of the Chilean banking sector to name a few.

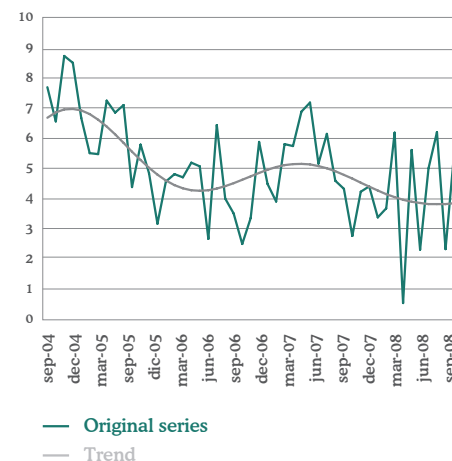
### The low growth in the first nine months of 2008 was due to a decline in productivity, associated mainly to adverse conditions in specific sectors and the absence of cheaper energy supplies

Until September, the economy had grown an average of 4.2% during 2008. If this figure consolidates for the rest of the year, Chile will have grown by 4.5% in the last three years, below the forecast 5% trend or potential growth.<sup>1</sup> Clearly, this lack of ability to reach higher growth levels is not a problem of demand which has, both internally and externally, maintained high growth levels. It also cannot be argued that production factor accumulation is less dynamic, since both physical capital and employment have undergone higher than expected increases (average of 9 and 2.5%, respectively). In fact, the problem of low growth in the Chilean economy is due mainly to the decline in productivity growth, specifically in three key sectors. The first of these is industry, which just registered an either zero or negative production year. There are several explanations for this: 1) A series of structural factors with a solution difficult to envisage in the short term, for example, the gas restrictions in Argentina are keeping methanol production at levels way below those reached just 18 months ago. Moreover, the Infectious Salmon Anemia virus (ISA) has had devastating effects on the manufacturers that depend on the fish for input. In addition, in the last year the industry has faced an environment of increasing energy costs, growth in real salaries, higher priced commodities and appreciating exchange rates. For those producers who were unable to pass on input price increases, the last 12 months have been difficult with some factories forced to close (ex. textile industry).

2) The mining sector: until July 2008, it was clear the main problem was public production, which in the last 24 months had registered negative growth 80% of the time. After August however, there was a decline in the copper supply due to big private projects like Escondida and Collahuasi, which neutralised the implementation of the Gaby mine and the positive contributions from Pelambres and Spence. 3) The energy sector, in particular, low rainfall at the end of 2007 required a change in the production model, reducing the amount of hydro energy obtained and increasing output at thermal or combined cycle power plants. This meant

### IMACEC (Monthly Economic Activity Indicator)

(% real change yoy)



Source: BBVA and BCCh.

### Worker Productivity

(% change yoy)



Source: BBVA and BCCh.

### Manufacturing GDP

(% real annual growth)

	2007				2008	
	I	II	III	IV	I	II
Total	4.4%	5.3%	0.1%	0.4%	-0.1%	-0.1%
Food, Bev. and Tab.	0.9%	3.7%	2.0%	3.8%	2.2%	2.6%
Textil	-1.4%	-0.2%	-8.0%	-13.2%	-4.4%	-3.4%
Wood	6.6%	-0.2%	-15.3%	-5.5%	-14.8%	-4.7%
Paper	19.3%	25.0%	17.8%	12.8%	3.1%	3.7%
Chemistry	6.3%	1.8%	-4.7%	-10.5%	-5.0%	-7.6%
Minerals N.M.	-3.2%	-1.2%	-1.2%	7.0%	5.5%	-3.9%
Metallic prod.	2.2%	11.7%	4.5%	11.8%	9.7%	12.5%

Source: BBVA and INE.

<sup>1</sup> See the estimates from the Committee of Experts that advises the Ministry of Finance on fiscal budget matters.



### Effective and Trend GDP

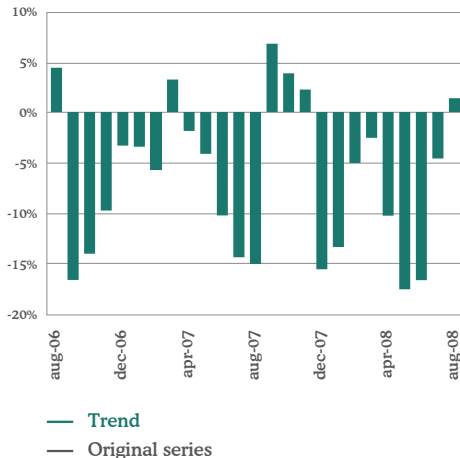
(% real change yoy)



Source: BBVA.

### CODELCO Copper Production

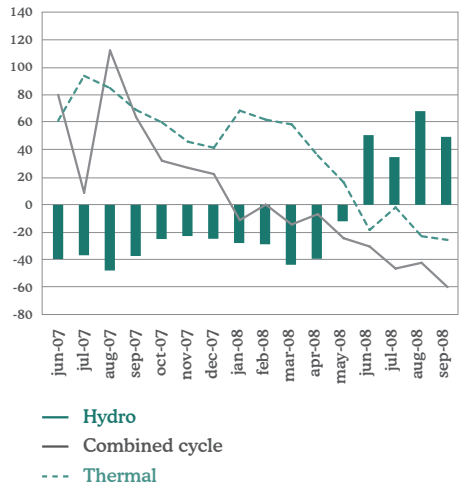
(% real change yoy - 3 month average)



Source: BBVA and Cochilco.

### Energy Generation by Plant Type

(% change yoy)



Source: INE

less value added from the sector and an indirect negative impact on the rest of the economy as it had to resort to progressively more costly energy sources.

All of this suggests that for the third consecutive year, the productivity contribution to growth will be negative. This creates an obstacle for the country's productive capacity and affirms that during the last few years, the growth trend in Chile was closer to 4.5% than to the 5% suggested by the Committee of Experts. One of the lessons that may be taken from this analysis is that despite efforts to create new export targets, currency sources remain undiversified and concentrated in sectors linked to natural resources. Consequently, when one of these groups experiences significant problems, the whole of production is significantly impacted.

### In 2009, some of these supply restrictions will correct as a result of the sharp increase in investment in 2008.

A recovery in the sectors linked to industry will be difficult next year since, due to the situation currently unfolding (salmon) and problems that will be difficult to solve in the near term (methanol), 2009 will be equally as bad, if not worse than 2008, for some manufacturers, with declines in employment and production at a standstill.

Nevertheless, we are optimistic because we expect the bottlenecks in mining production to clear thanks to the sharp increase in investment into the sector. The same thing will happen with energy generation, where in addition to benefitting from average rainfall for the year, the sector will have access to imports at significantly lower prices than this year (approximately 20% lower, even with exchange rate depreciation), and to investment projects that will reach maturity in the coming months.

All the previously cited factors will lead to increased productivity which will bring the growth trend closer to 5% in the future. Another feature that leads us to believe productive capacity will continue to rise is the sharp growth in the workforce, particularly among women. What is interesting is that at the beginning of the 1990s women made up only 30% of the workforce while today this figure stands at 40%. It is an interesting phenomenon and can be explained as follows.

Specifically, it can be argued that this marked upward trend is a response to structural factors that have altered women's involvement in Chilean society. For example, the declining birth rate and the strong push in preschool education have given women more time for formal work. Furthermore, thanks to improved access to education, the new generation of women entering the work place does so with better skills and/or knowledge of new technologies.

### Unlike previous years, growth in 2009 will be marked by a less robust domestic demand.

Despite the increase in economic trend growth, our forecasts for next year call for a 2.3% increase in GDP. This is in line with market and Central Bank forecasts, and puts the economic growth range at 2- 3%. The expected decline in domestic demand growth is a fundamental reason for the less dynamic situation. Demand growth will go from increasing at 9% to around 2%.

### Private spending will be impacted on several fronts. For example, price (financial wealth, risk premiums, exchange rates, terms of trade) and quantity (lower external demand) adjustments will cause family and firms' wealth to decline.

First of all, the higher volatility in international markets have been accompanied by significant declines on the main equity indices, reducing families' financial wealth and lowering company valuations. Although the wealth effect of an equity market collapse in an emerging market is less

pronounced than in more developed economies, a recent report showed that the relationship is still significant, above all when it comes to investment. For example, a 10% decline in an emerging country's equity index is correlated with a 1% reduction in private investment.<sup>2</sup> As such, we cannot rule out the fact that the impact on consumption in a country like Chile, with its sophisticated private pension plans, will be felt more sharply than in other emerging countries.

Secondly, the increasing uncertainty has also brought with it a rise in the risk premiums that companies pay on local and foreign corporate bond markets. For companies, this means increases in their financing costs, and they have responded by issuing fewer bonds. This also means that large companies are turning to bank loans, which, given increased uncertainty and fewer available funds, could mean fewer resources for small and medium companies.

Thirdly, the real exchange rate depreciation implies a decline in family and business income with respect to foreign manufactured goods. In this respect, a large part of consumption and investment related spending is on exported products such as automobiles and various machinery and equipment. Given the plunge in the value of the Chilean peso (25% vs. the dollar between 16 September and 30 October), spending on imported goods is expected to ease sharply given its importance in total spending, which will trigger a decline in domestic demand growth.

Lastly, the local interbank market has been struck by the lack of available dollars, which was accompanied by an episode of higher risk premiums for both foreign currency financing and loans in pesos. Although the measures taken by the Central Bank and Ministry of Housing eventually succeeded in easing some of the tightening, going forward, interest rates will include an additional liquidity premium, especially in financing for more than one year.

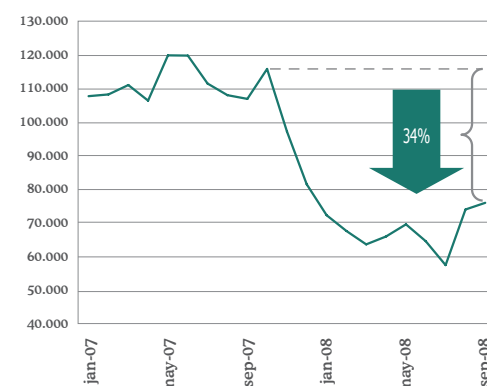
The final impact of each and every one of these measures will be a decrease in private sector disposable income, which will translate into significantly lower consumption and investment growth rates than in 2008.

**The economy's strengths are enough to guarantee that the economy will not fall into recession. Even more so, investment realized in 2008 and competitiveness gains (exchange rate, gasoline prices) will guide the country through a stable transition.**

At this juncture, the Chilean government's ability to soundly handle the macroeconomic situation is widely known. This has helped Chile accumulate foreign currency surpluses representing almost 25% of GDP, in addition to being a net creditor. As such, the public sector can inject liquidity or simply increase spending without putting its healthy finances at risk. In fact, we expect that once a more negative activity environment unfolds, the Government will take over, like it did at the beginning of October, validating its budgetary assumptions and injecting resources into the system (directly or through the Banco del Estado (State Bank). Thus, we expect public spending to increase next year as a proportion of production to around 21% of GDP, two points higher than this year. Even in this scenario, public accounts could register a surplus as a result of the peso's depreciation and its impact on tax revenue.

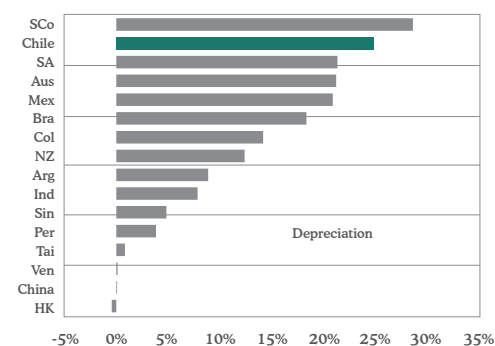
At any rate, our domestic demand growth forecasts assume higher rates than those expected by the Central Bank in its recent forecast revisions (1.7% BBVA vs. 0.6% BCCh). To explain this disparity, let's begin with assumptions for raw material prices. For example, while monetary

## Corporate Bond Issuance (UF 1,000-12 months accumulated)



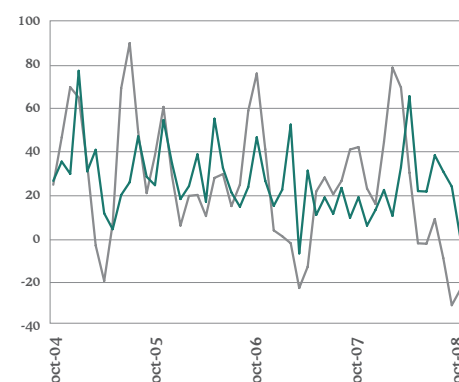
Source: BBVA and SVS.

## Parity vs. Dollar (from 16-sep to 31-oct)



Source: BCCh.

## Consumer Durable Imports (% change yoy in US\$)



— Original  
— Cycle trend

Source: BBVA and BCCh.

<sup>2</sup> See IMF, 2008, "Spillovers to Emerging Equity Markets," en Global Financial Stability Report, World Economic and Financial Surveys (Washington, October).

### International Reserves and Sovereign Funds

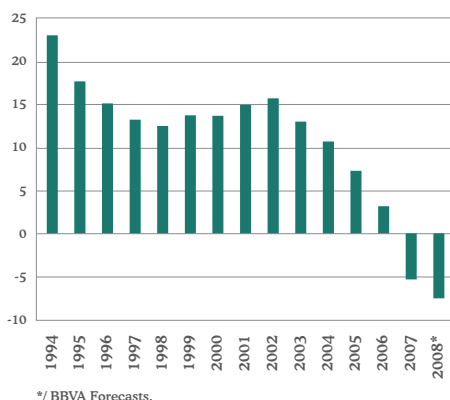
(as % of GDP)



Source: BBVA, BCCh and Ministry of Finance.

### Net Public Debt

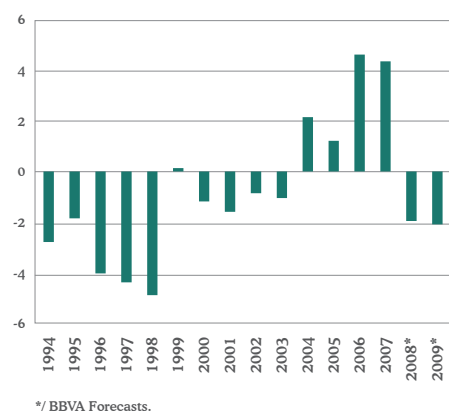
(as % of GDP)



Source: BBVA and Ministry of Finance.

### Current Account Balance

(as % of GDP)



Source: BBVA and BCCh.

authorities assume that copper prices will suffer a strong correction to an average level of 165 US\$/lb, we assume the decline won't be as sharp (180 US\$/lb), which would mean additional demand support.

In addition, in the coming months we believe the economy could take advantage of several situations that would increase the competitiveness of Chilean goods. The first has to do with the decline in energy prices, in part as a result of lower oil prices, but also because of the impact that a year with higher rainfall will have, and increased investment in this sector. Furthermore, we expect the increase in the workforce to keep labour costs in check, even with inflation rising, which would be especially beneficial for the export sectors. Moreover, the country will take advantage of the many trade agreements signed in recent years that will allow Chilean producers to consolidate an already diversified source of income. Lastly, the undervalued peso relative to developed countries will allow exporters to compensate for the expected decline in demand, allowing them to offer competitive prices, which will eventually see them maintaining or increasing their market share in export destination countries.

**These strengths, along with deteriorating terms of trade, suggest that Chile will record a current account deficit again next year. At any rate, its financing is guaranteed.**

In the last few months, and as a result of the decline in Chilean export prices, the surplus in the trade balance has diminished considerably, reaching 11 billion US\$ in October (50% less than in May 2007). According to our forecasts, this surplus will decline even further in the next couple of months and will end the year at approximately 8 billion US\$, very near the average for next year. Once the repatriation of foreign company profits is taken into account, it will suppose a current account deficit of close to 2% of GDP for the next two years. Our view is that these resources would be easily financed through the expected FDI flows (3-3.5% of GDP). If this were not the case, the solid financial position of the public and private sectors would be sufficient to guarantee access to these resources, albeit at a higher cost.

**The lower demand growth expected in 2009 would combine favourably with a decline in commodity prices, a correction in inflation expectations, and lower cost pressures, paving the way towards the 2010 inflation target range.**

Inflation has surpassed the high end of the 3%± 1% target range since August 2007, which means that as of October 2008, not only have targets not been met for 15 consecutive months, but that the gap between effective and target inflation is widening everyday. Added to the rise in tradable goods were steeper price increases in services, setting up a clear scenario of spreading inflation. These increases would have benefitted from employment growth and an expansive monetary policy, allowing the pace of the expected contraction in consumption to be slower than projected at the beginning of the year. This environment was conducive to goods and services providers passing on a good part of the higher import or production costs to consumers. However, lower growth expectations for next year, in addition to the boost in the workforce and the solid increase in investment in 2008, should widen the gap between what the Chilean economy produces and what it demands. This, along with lower oil prices, will be a main factor propping up lower inflation expectations in 2009.

**Production costs will decline after the historical highs reached at the beginning of the year. This will be a result of lower overall energy prices and moderate nominal salary growth.**

Production costs were not only affected by higher international oil prices, but specific factors, such as the drought and the natural gas supply deficit in Argentina, also had an influence. Looking forward, even if the neighbour's gas supply scenario does not improve, the energy situation

is more promising due to falling oil prices and a less expensive electrical energy supply due to the heavy winter rains.

Moreover, salary growth is still progressing below rates of inflation and in line with the usual indexation clauses. This is reflected in the real salary growth slowdown registered since the middle of last year, and which is currently in negative territory (see chart), reflecting deterioration in family purchasing power. However, the expected slowdown in inflation is also a warning sign for future remuneration, since many contract terms, particularly in large companies, are firmly on the downside in nominal terms and current variations are not consistent with 3% inflation. In fact, given the decrease in labour mobility and the increased formality in large companies' indexation clauses versus smaller companies, real salaries here have decreased less than in medium or large companies. In this sense, the slowdown expected for next year would create more slack in the labour market, subduing the previously mentioned risk.

At any rate, in an economy like Chile's, with inflation targets and indexation mechanisms, there are two important aspects to consider in the coming months. The first has to do with inflation expectations and their impact on the inflation dynamic in the impending months. For example, considering that most salary readjustments are negotiated in the last quarter of the year, the inflation outlook during that period would be particularly important to watch. We believe that as long as the oil price remains restrained, external and internal risk scenarios do not dissipate, and the Central Bank continues to clearly demonstrate its commitment to controlling inflation, expectations may continue to ease, thereby fostering new salary readjustments to be carried out with conditions favourable to future inflation.

Because of all these factors, we expect inflation to decline in November. The initial decline will have been spurred by gasoline prices which should begin to fall sharply thereafter in line with the trend in international prices since mid-July. In any case, we should not rule out an eventual upward climb in the near term, given the turbulent situation in financial markets that has caused the Chilean peso to depreciate further. This will translate not only into higher import costs, but potentially an increase in regulated dollar-indexed tariffs.

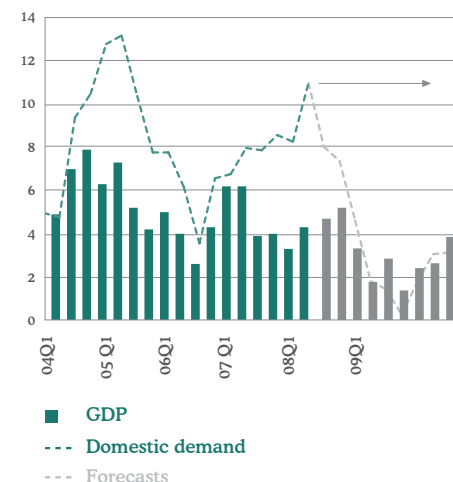
As we have already mentioned, a marked slowdown in consumption and investment is expected. The previous factors, alongside a decrease in raw material prices, should help restrain inflation gains next year, without the upside surprises of 2008. However, the momentum is such that year-on-year inflation will remain high all year, ending the year at around 4.5%, postponing the meeting of 2010 target levels.

Lastly, it is worth noting that this inflation forecast exceeds the latest revised forecasts from the Central Bank of Chile. In general, the discrepancies between our outlook and that of the monetary authority is due to a less optimistic view of core inflation measures, since in either case we expect the decline in commodity prices to have a negative impact on price growth. In any case, the widening of the capacity gap in both the domestic and foreign economy (i.e. more supply than demand growth) will bring welcome downward pressures to inflation, although Chileans will recall that the benefits of having a credible monetary policy and a stable target regime have to be compensated with lower growth in the short term.

**The international environment will remain the main concern of the Chilean economy. Faced with a challenging economic situation, the economy needs structural reforms that promote flexibility.**

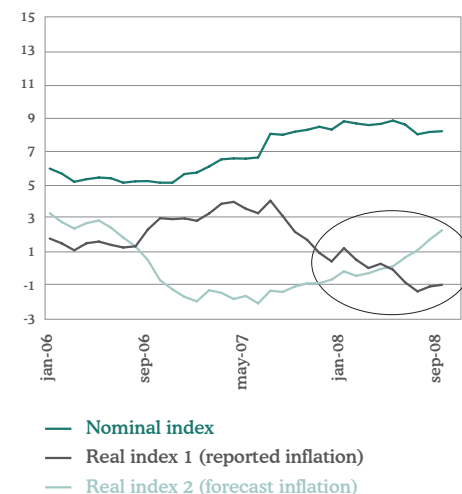
Much of the analysis in this report is based on the assumption that price pressures in the Chilean economy will ease considerably. If this were

## GDP and Aggregate Demand (% change yoy)



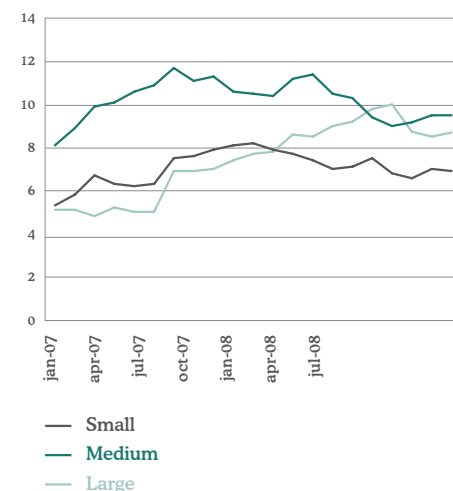
Source: Central Bank of Chile.

## Wages (INE) (% change yoy)



Source: BBVA

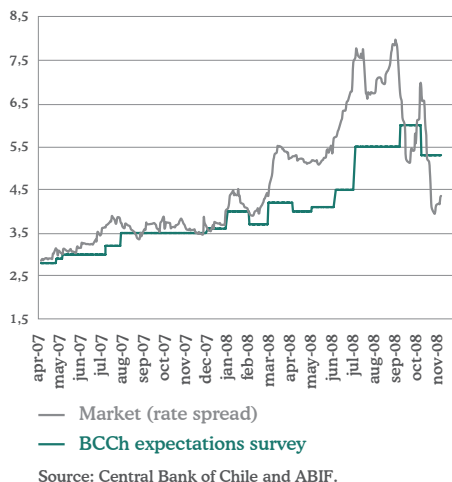
## Nominal Wage by Company Size (% change yoy)



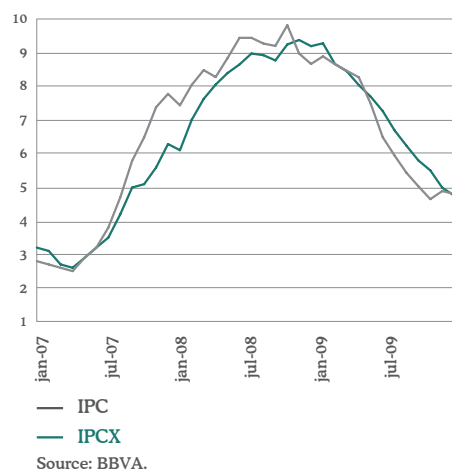
Source: INE and BBVA.



### 11 Month Inflation Expectations



### Inflation (% change yoy)

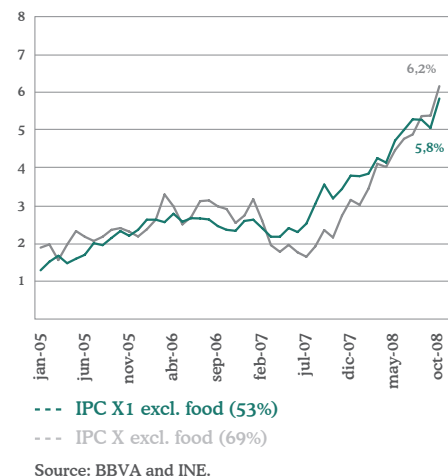


### Inflation Forecasts (% change yoy)

Change %	2008		2009	
	IpoM	BBVA	IpoM	BBVA
CPI Dec.	8.5	7.5	4.0	4.8
CPI Avg.	8.9	8.7	6.2	6.5
CPIX Dec.	9.4	9.3	4.2	4.8
CPIX Avg.	8.5	8.4	6.6	7.0
CPIX1 Dec.	8.2		4.3	
CPIX1 Avg.	7.8		6.1	
Oil Price (US\$/b) (Annual average)	105	100	70	74

Source: BBVA and Central Bank of Chile.

### Inflation excl. Food (% change yoy)



not to occur, it would be difficult for the Central Bank to lower the Monetary Policy Rate (TPM) as aggressively as we are assuming. Although inflation expectations are beginning to approach target levels, they have done so largely because of the deteriorating foreign situation and falling commodity prices, not because of monetary policy actions. Until very recently, the market doubted the Central Bank's effectiveness against a backdrop of high import prices and growing pressures on core measures of inflation. If inflationary pressures continue, the Central Bank could postpone interest rate cuts since it would be forced to restore its credibility thereby reducing the probability of a soft landing next year.

On the other hand, the bottlenecks in some sectors (salmon, energy) could worsen, limiting supply growth. This would mean downward revisions to the Chilean economy's productive capacity forecasts.

In any case, the most significant risk currently facing the Chilean economy will continue to be further deterioration in the external environment. This would exacerbate the negative impact of the transmission channels mentioned above, which would eventually translate into lower country growth. Although the consequences of such a scenario should not be underestimated, we must reiterate that from a macroeconomic standpoint, Chile is one of the countries better equipped to deal with the growing uncertainty in the markets. However, from the microeconomic standpoint, deficiencies remain that should be addressed. Of particular importance is labour market flexibility, not only regarding firing costs (compensation), but also by emphasising education as the main recourse for workers to deal with an environment of increased uncertainty.

## Economic Activity Indicators

Change (% y/y)	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08**	4tr08	1Q09	2Q09	3Q09	4Q09	2006	2007	2008p	2009p
Household consumption	8.0%	8.3%	7.2%	7.4%	5.4%	5.7%	5.8%	4.9%	3.6%	2.8%	2.2%	0.1%	6.5%	7.8%	5.4%	2.2%
Public consumption	6.5%	5.7%	5.5%	5.8%	5.7%	5.2%	4.8%	5.1%	6.5%	6.5%	6.5%	6.5%	5.9%	5.9%	5.2%	6.5%
GFCF	9.1%	13.2%	8.0%	16.9%	16.5%	24.4%	30.1%	19.4%	7.9%	0.9%	-5.0%	-9.7%	3.2%	11.8%	22.6%	-1.5%
Domestic demand*	6.8%	8.0%	7.9%	8.6%	8.3%	11.4%	11.2%	8.3%	5.3%	2.7%	0.8%	-1.9%	6.7%	7.8%	9.8%	1.7%
Exports	9.1%	10.6%	4.2%	7.3%	1.9%	-1.4%	6.5%	4.0%	1.4%	1.0%	2.8%	0.6%	5.5%	7.8%	2.8%	1.5%
Imports	10.6%	14.7%	13.5%	18.0%	13.5%	15.5%	20.5%	12.9%	5.6%	1.0%	-2.9%	-6.0%	10.6%	14.2%	15.6%	-0.6%
External balance*	-0.6%	-2.0%	-4.4%	-5.1%	-4.9%	-7.1%	-4.0%	-4.3%	-1.7%	-0.6%	0.6%	-0.2%	-2.3%	-3.0%	-5.1%	-0.5%
GDP	6.2%	6.2%	3.9%	4.0%	3.3%	4.5%	4.8%	4.4%	3.1%	2.1%	2.6%	1.3%	4.3%	5.1%	4.3%	2.3%
Total employment	2.9%	3.4%	2.6%	2.4%	2.8%	2.9%	3.7%	4.1%	2.5%	0.9%	-0.7%	-1.5%	1.7%	2.8%	3.4%	0.3%
Unemployment (% total labor force)	6.7%	6.9%	7.7%	7.2%	7.6%	8.4%	7.8%	6.6%	7.5%	8.9%	9.6%	8.9%	7.8%	7.0%	7.6%	8.8%

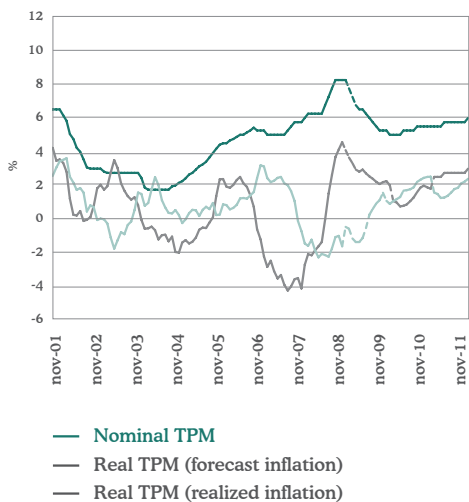
\* : Contribution to growth

\*\* : Forecast as of 3Q08



### 3. Monetary and Exchange Rate Environment: shaken by the international financial crisis

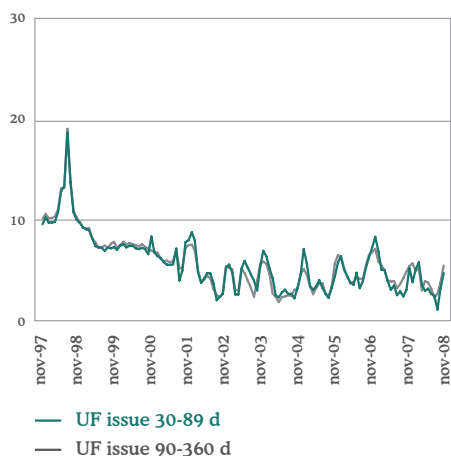
#### Official Rates: Nominal and Real



Source: BBVA and Central Bank of Chile.

#### Bank Loan Rates: UF Monthly Averages

jan 98 - oct 08 (1st 15 days)



Source: BBVA and Central Bank of Chile.

The impact of the international financial crisis on the Chilean economy has been so intense that the Central Bank has modified its forecasts, disrupting the usual four-monthly calendar. The new inflation and growth forecasts are consistent with an environment of official interest rate cuts.

Ever since inflation began to pick up pace in April 2007, the Central Bank has continuously cited the impact of the exogenous component on inflation measures, hoping that the return to normality in commodity prices would automatically keep things in check. However, the sustained prices, against a backdrop of significant domestic demand growth, caused inflation to spread to other prices and ultimately unleashed inflation expectations. This prompted the Central Bank to hike up rates from 6.25% in June to 8.25% in September 2008.

The shift in the macroeconomic scenario, triggered by the international financial crisis, has caused effective official rates to become progressively more restrictive. This is due to the fact that one-year inflation expectations have plummeted since mid-September, taking interest rates higher in real terms (see chart). In addition, scarce liquidity and higher risk aversion on the global level have translated into higher financing costs for business and individuals on the local level, with the resulting restrictive effect on consumption and investment. As explained in the financial environment section, consumer loans have already registered a monthly decline in September, with forward indicators in October suggesting that the situation will continue.

In response to the abovementioned challenges, real interest rates all along the curve have trended upward in the last few months. On the domestic front, the moderation in inflation expectations has discouraged demand for UF-denominated paper, with the ensuing rise in risk-free asset's rates. This was in addition to higher global risk premiums, ultimately reflected in even greater increases in loan interest rates. As shown in the corresponding chart, despite increases in the past few months, loan rates remain at historically low levels and significantly below those observed during the Asian Crisis. In addition to higher rates, credit has also been restricted due to stricter bank requirements, which was reflected in the Central Bank's monthly survey of financial institutions.

**The Central Bank will begin to cut rates as from first quarter 2009, to the degree that inflation expectations in the coming months should recede as expected.**

The Central Bank, in its partially updated Informe de Política Monetaria (IPoM) (Monetary Policy Report) officially released at the November meeting, assumes that the future trajectory for interest rates will be similar to what markets were discounting two weeks before the close of the report, a benchmark rate of 6.5- 6.75% by the end of 2009. This puts them on track to meet target inflation towards the end of 2009.

Since it is clear that rate cuts will indeed take place, the main unknowns now are the dates on which the Central Bank will affect them, their extent, and subsequent reductions. The first factor will depend on inflation in the near term, and there is a consensus that inflation measures will be low in the coming months. This however, is ascribed mainly to lower gasoline prices, so it will be particularly interesting to see how core inflation will behave, monitoring closely in this way the impact of spreading transmitted inflation. It is important here to point out that the risk of the Chilean peso depreciating against the dollar and delaying meeting target inflation levels remains. Although practical evidence shows that the

"pass through" in Chile is lower<sup>3</sup>, its currency depreciation has been of such magnitude (27% in 2 months), that contagion to inflation in the short term cannot be ruled out. The main concern is that this eventual contagion materialises in public utility tariffs indexed to the US dollar, such as electricity, water and telephone bills. The risk of transmission via increased consumer import costs is limited, considering that lower sales forecasts associated to this more unfavourable activity scenario have prompted businesses to reduce their inventories. In addition, facing a lower demand scenario, companies would be more willing to narrow their margins. After the effects of the first impact, a weaker Chilean peso with more unfavourable exchange rates would be reflected in a sharper consumption slowdown, putting Chile on track to meet its inflation target more quickly.

In view of the previously mentioned factors and keeping in mind that both the Central Bank and we expect core inflation to top 9% by the end of the year, it would be reasonable to expect the first rate cut to be delayed until 1Q09. From that moment on, as long as there are no surprises skewing inflation expectations upward, interest rates would continue to be lowered at most of the monetary policy meetings in 2009. In fact, we think that official rates will stand at 5.25% by December 2009 giving a total rate cut of 300bps for the year.

**Risk-free rates (nominal and real) will tend to decline in 2009, driven by the decrease in both the domestic official rates, and the developed economies' risk-free instruments.**

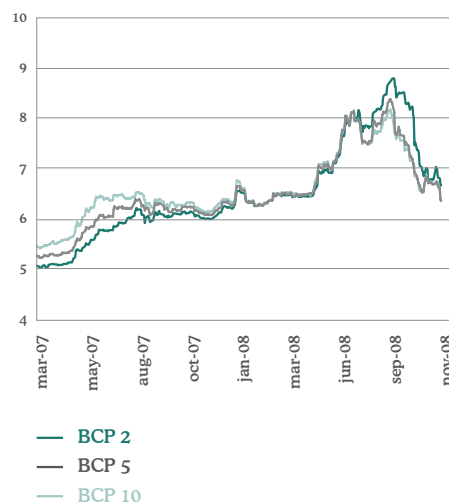
Looking forward, nominal rates should begin to ease as long as inflationary expectations continue to show signs of receding, be it by lower monthly inflation measures or specific cases of regulated pricing, such as in fuel. In any case, the nominal rate structure would remain inverted until at least the first half of 2009, considering we expect mid-target range inflation to be reached at the end of 2009 or beginning of 2010.

On their part, rates indexed to the longer part of the curve are already tilting downward, in response to both higher demand of risk-free instruments in an environment of steep equity market declines and renewed expectations of official rate cuts. Adding to this situation are declining US government bond yields, which also headed south after September due to the fact that investors, faced with global uncertainty, continue to prefer risk-free instruments from developed countries.

**The Chilean peso has shown significant volatility in 2008, so much so that the Central Bank has increased its market intervention.**

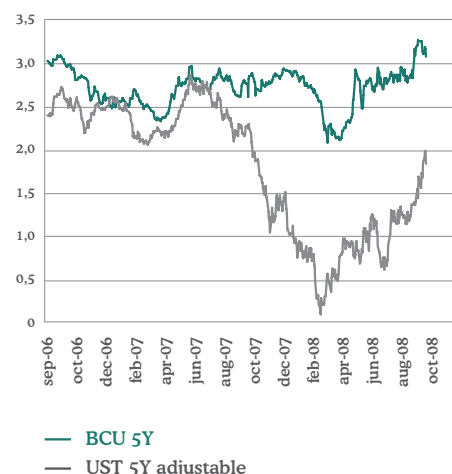
Exchange fluctuation in 2008 have been brusque, and this has been reflected in that all the alternative exchange rate channels (nominal, multilateral and real) have gone from historically low levels with overall currency strength, to a state of relative weakness, in just a few months. For example, in April of this year, the Chilean peso appeared to be settling at historical lows, forcing the Central Bank to intervene through a programmed calendar of currency buying, helping to depreciate the currency. In a second phase after July, the Chilean peso's increase in trading versus the dollar was exacerbated by the strengthening of the US currency on a global level, which was made starker by the fall of Lehman Brothers. In fact, the Chilean currency fluctuated by 27% against the US dollar between August and mid-November, and by 13% against a basket of currencies of main trading partners (multilateral exchange rates).

**Nominal Rate Performance**



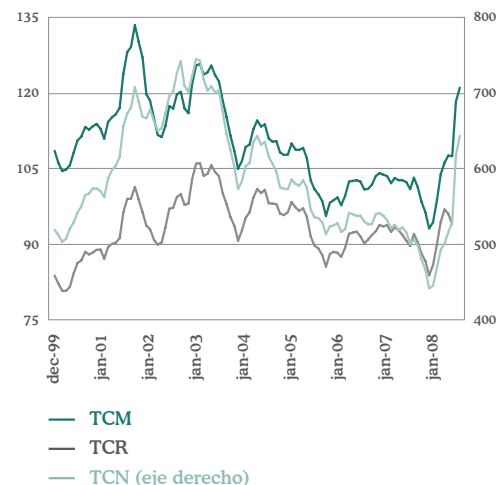
Source: BBVA and ABIF.

**5-Year Real Rates**



Source: BBVA, ABIF and Bloomberg.

**Exchange Rate-Different Measures**



Source: BBVA and Central Bank of Chile.

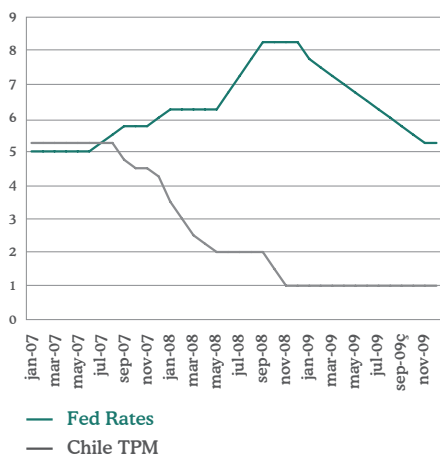
<sup>3</sup> Working Paper 128, Central Bank of Chile. Price inflation and Exchange Rate Pass Through in Chile. November 2001. García, Carlos y Jorge Restrepo.

### Currency Performance Indices



Source: BBVA and Central Bank of Chile.

### Official Interest Rates: Chile and USA



Source: BBVA and Central Bank of Chile.

Aware that the currency was well off its long term equilibrium, this time in the opposite direction, the Central Bank not only suspended its currency buying programme but shortly thereafter began to offer dollar swaps to banks. The former measure's main objective was both to prevent strong fluctuations in the peso. and the dollar liquidity problems on the international stage from disrupting usual foreign exchange transactions by banks (trade and currency exchange rate insurance transactions).

**Although commodity price declines and lower economic growth forecasts call for more depreciation in the currency than previously projected, current trading levels reflect an overreaction.**

Once international financial markets regain a certain degree of certainty, the overreaction will begin to correct and the currency's movements will once again be steered by its fundamentals. In this regard, it would not be overly bold to forecast a Chilean peso trading well below its long-term equilibrium for the remainder of this year and next. In this case, the central arguments for a gradual real appreciation in the peso are based on, first of all, the previously mentioned perception that the Chilean currency is undervalued. In fact, the current undervaluation in the real exchange rate is the lowest it has been in six years, even though economic fundamentals have consistently improved: public debt has decreased, external savings have increased, there is higher stability in investment flows, etc. We also expect growth and interest rate spreads to continue to benefit the Chilean economy, especially considering the sharp increase in risk premiums in the last few months. Lastly, increasing uncertainty abroad has caused Pension Funds to reconsider their investment strategies with some of the assets invested abroad in the past 18 months being repatriated, which would be a support for the peso in the medium term.

In any case, there are a few factors to consider, and which could delay meeting this higher appreciation target. Firstly, as long as the impact of the international crisis on emerging countries remains uncertain, the US currency will continue to be a safe-haven for investors, which means that inflows to the US dollar will continue. As explained in the section on the international environment, we expect the dollar to trade at US\$1.15/₡ by the end of 2009, an additional 9% appreciation with respect to current levels, thereby capping the downward correction of the Chilean currency. Secondly, from a search for returns standpoint, and in case the more negative impact on activity is confirmed, the expected interest rate cuts in Chile could significantly reduce the attractiveness of investments in the country, and subsequently reduce foreign currency inflows, lengthening the delay of the peso's downward correction. Moreover, additional deterioration in the terms of exchange (a decline in the copper price) would lead to increased weakness in public and external accounts. In any event, the impact from this aspect should be felt less than in previous episodes of falling commodity prices, since if needed, the government has available to it more than 20 billion US\$ available abroad, similar to what the Central Bank holds in the International Reserves. Furthermore, the Mining and Energy Generation projects underway guarantee enough FDI flows to comfortably finance the expected Current Account deficit.

## 4. Financial Environment: international and domestic moderating credit growth

Two factors, one domestic and the other external, have been key to explaining financial market performance in the last few months.

On the domestic front, rising inflation determined changes in monetary policy rates until September of this year. On the foreign front, the financial turbulence that became more pronounced in October has impacted both markets and economic and financial decision making.

Indeed, until mid-September, liquidity conditions in Chile did not reflect the turmoil in international markets. However, as external financial conditions deteriorated throughout the month and due to the country's considerable openness to trade and financing, tight liquidity conditions in dollars are starting to emerge and are being transferred to transactions in pesos and in UF.

These tighter monetary conditions were reflected in spreads of bank deposits and Central Bank paper traded on the secondary market, quadrupling in the first half of October versus the previous month's levels.

Liquidity tensions increased for two reasons: on the one hand because the global increase in risk aversion led the international banking system to cut off financing, which was essentially expressed by a sharp rate adjustment and a shortening of terms while on the other, international market declines signalled shifts in Mutual Fund and Pension Fund valuations.

The increased risk aversion on global markets was evident in the country risk performance of the different countries. Chile registered the smallest increase of the countries in the region as measured by the EMBI Global Diversified (EMBI G), yet by 14 November, it stood at 365 points, 196 points higher than 3 months ago.

**In response to the liquidity problems, the Central Bank adopted a series of measures. It halted the international reserve purchasing programme, reactivated the currency swaps bids, and modified its regulations on foreign currency withholding.**

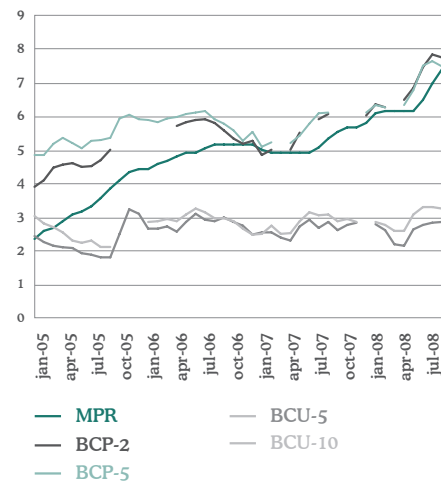
On 29 September, the Central Bank Committee announced the end of its international reserve purchasing programme which had since April meant an increase of 5.75 billion US\$ – 70% of the 8 billion US\$ originally programmed – an increase to 30% of international reserves from March levels of that year. They also announced the renewal of currency swap operations beginning 30 September.

Notwithstanding, the caution and delay with which the Central Bank implemented these measure – which suggests they interpreted the situation as fleeting – took away from the policies' effectiveness and did not prevent liquidity conditions from deteriorating further. This deterioration compelled the Central Bank to announce on 2 October that it would conduct foreign exchange swap tenders for three weeks, for at least 500 million US\$ at each opportunity.

However, due to the unfavourable financial conditions, only 30 million US\$ was placed at the following auction. Mainly, the 30-day terms did not correspond to the market's longer-term financing needs. This led to the announcement of the Central Bank on 10 October, to impart flexibility in liquidity management.

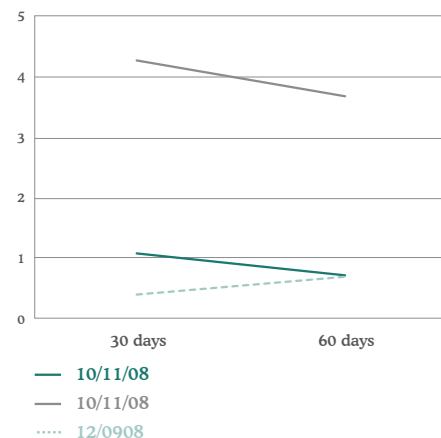
### TPM and Interest Rates on Instruments Issued by the Central Bank of Chile

(monthly averages, in percentages)



Source: BBVA and SBIF.

### Liquidity as Measured by Spreads on Bank Deposits and BCCh Paper (percentage)



Source: BBVA and Bloomberg.

### Swap Tenders

Date	Amount (US\$ million)	Term (days)	Libor (%)	Spread over Libor (%)
30/09/08	388	28	3.92	3.49
07/10/08	30	28	4.14	3.06
14/10/08	200	91	4.64	1.07
21/10/08	150	63	3.70	1.04
28/10/08	67	91	3.47	1.10
04/11/08	227	63	2.61	1.09
11/11/08	15	91	2.17	1.06

Source: BBVA and Central Bank of Chile.

#### Government measures taken to calm the market

##### Central Bank

- Suspended dollar purchases.
- Transitory extension of the eligible currencies considered for reserverequirement on foreign currency obligations.
- Licitación of US\$ 500 million at 90 and 60 days by means of foreign currency swap purchases (during 6 months upto a maximum of US\$ 5,000 million).
- Pesos liquidity injection at similar terms, by means of REPO operations.
- REPOS at 7 days-term with an additional extension of the eligible collaterals (term deposits).

##### Central Government

- The government injected US\$1,150 million into the banking system and announced a US\$500 million capitalization of Banco Estado.



Furthermore, on 13 October and 4 November, the Ministry of Housing, in an attempt to offset the effects of worsening financial conditions on the real economy, announced aid plans for small and medium sized companies, exporters and home purchases. On 13 October the amount pledged reached 850 million US\$.

On 4 November, in order to facilitate financing to the programme's target sectors and as part of a 1.15 billion US\$ package, the capitalisation of the BancoEstado (State Bank) to the tune of 500 million US\$ was announced.

**The adverse liquidity conditions explained above established the sharp upward adjustment in borrowing rates all along the curve, impact which transferred to rates for the different credit components.**

As liquidity conditions have eased and inflation expectations have decreased, a move towards the lower end of the yield curve has taken place. Further, as of October, borrowing rates have not moved in sync with passive rates, which would indicate financial institutions' increased risk aversion.

As can be seen in the chart, the nominal TAB curve (reflects banks funding costs) at the beginning of October rose (with respect of levels one month before) all along the curve, averaging 3% on the short end of the curve. However on 11 November, although still above its 2 month level, it was practically identical to the curve on 1 September.

In the meantime, between July and October, smaller consumer loans, (up to UF200) such as lines of credit, credit cards and consumer loans were modified by 260, 403 and 365bps, respectively. Meanwhile in loans over UF200, the average increase was 2.6%. Furthermore, in the same period, business loans increased by an average of 2%, while long-term re-adjustable loans and those over UF2,000 (associated with mortgages) barely rose just over 1%, reflecting the relative stability of their benchmark, UF-denominated securities from the Central Bank.

With rates on the rise, household disposable income declined due to mounting inflation and increased financial burdens.<sup>4</sup>

Both the hike in interest rates and the decline in disposable income were determining factors in bank loan portfolio performance.

In addition to the supply factors discussed, the Central Bank's survey on credit conditions in the second quarter of the year - before the financial situation deteriorated - indicated that loan requirements had already become more stringent, particularly for clients with no collateral, that is, mainly consumer loans.

**As shown in the corresponding chart, consumer loans have been the hardest hit.**

Meanwhile business loans (commercial loans and those to finance foreign trade) have moved in opposite directions with the latter increasing and the former declining. Mortgage loans on the whole have remained stable.

Regarding foreign trade, the dominant effect is associated with the robust dynamism in imports. To this regard, we must underscore the rebound in foreign capital spending and durable goods purchases. This effect has been intense enough to allow companies in general to maintain relatively stable real growth rates, since foreign trade accounts

**Nominal TAB Rate (percentage)**



Source: BBVA and SBIF.

**Main Consumer Product Rates\* (non-adjustable transactions in national currency over 90 days)**

	Up to 200 UF			from 200 to 500 UF		
	Lines of credit	Credit cards	Consumer loans	Lines of credit	Credit cards	Consumer loans
2004	28.1%	33.4%	21.5%	18.4%	18.9%	11.9%
2005	31.3%	34.1%	21.7%	22.5%	20.7%	13.6%
2006	34.0%	37.3%	23.1%	25.0%	25.2%	14.6%
2007	36.4%	41.7%	24.1%	25.0%	25.6%	14.8%
jan-07	35.2%	39.5%	23.9%	25.0%	26.4%	14.2%
feb-07	35.6%	40.5%	24.4%	25.2%	26.0%	14.4%
mar-07	35.9%	41.4%	23.4%	25.3%	26.6%	14.0%
apr-07	35.8%	40.6%	23.8%	24.7%	26.3%	14.3%
may-07	35.8%	40.1%	23.6%	24.2%	25.8%	14.7%
jun-07	35.9%	41.7%	23.5%	24.7%	24.5%	14.8%
jul-07	36.4%	41.8%	24.3%	24.7%	24.4%	14.9%
aug-07	36.7%	41.9%	23.8%	25.0%	23.8%	15.2%
sep-07	37.1%	42.3%	24.2%	25.2%	25.3%	15.2%
oct-07	37.3%	43.0%	24.5%	25.2%	25.4%	15.2%
nov-07	37.4%	43.7%	24.6%	25.4%	25.9%	15.1%
dec-07	37.9%	43.8%	25.1%	25.6%	27.1%	15.2%
jan-08	38.3%	43.5%	27.6%	25.8%	25.7%	18.8%
feb-08	39.0%	43.8%	25.4%	26.3%	25.1%	15.7%
mar-08	37.9%	44.4%	25.2%	26.6%	28.3%	15.3%
apr-08	38.8%	44.6%	25.7%	26.7%	28.3%	16.1%
may-08	37.6%	43.9%	26.3%	25.9%	28.3%	16.2%
jun-08	38.5%	45.2%	27.0%	26.3%	27.4%	16.3%
jul-08	39.5%	46.0%	28.0%	26.9%	27.6%	17.6%
aug-08	39.3%	47.8%	28.3%	27.0%	28.1%	18.1%
sep-08	41.0%	48.3%	29.1%	27.6%	28.9%	19.1%
oct-08	42.1%	50.0%	31.7%	29.2%	29.7%	20.9%

\* Average annual interest Source: SBIF.

<sup>4</sup> See on this publication the paper on debt level and financial burden of Chilean households.

for less than 20% of loans to businesses. On the other hand, large corporations are increasingly requesting bank financing, given the increased uncertainty in corporate bond issues, but at a decreasing rate in real terms. For next year, facing a scenario of substantially higher than expected average nominal exchange rates, a reduction in foreign trade loans is feasible, basically due to decreasing imports. As far as company financing, international financial market turbulence does not bode well for positive changes in corporate bond issuing terms prevailing in the last few months, which means companies will continue to resort to bank financing. However, after a period of considerable capital accumulation and with expectations of declining demand growth, growth rates in this segment of the credit market are also expected to drop.

Mortgage loans meanwhile, although they reflect more stable goals and are the least associated to short economic cycles, are also displaying a downward trend, indicated by increasing housing inventories. Nevertheless, the Government aid plan including subsidies and State-backing should curb this tendency.

**Precisely, an analysis of commercial, consumer and mortgage loan cycles and their elasticity to the fluctuations of output sustains expectations of a slowdown in credit.**

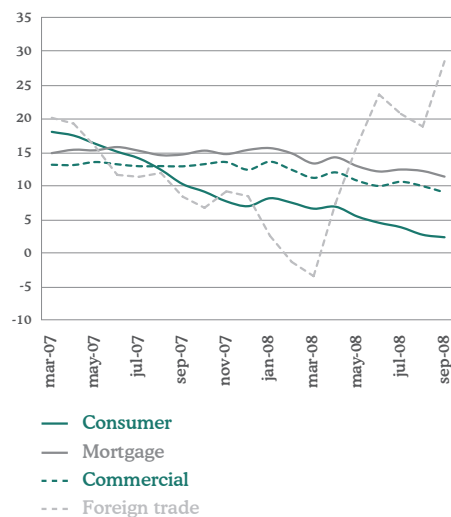
Looking at total credit, we should note that, according to our forecasts, elasticity with relation to GDP reached 1.37, which means that for every percentage point increase in GDP contraction, total credit will decline by 1.37%.<sup>5</sup> Also interesting is the fact that elasticity varies considerably for the different credit components, as high as 3.67 for consumer loans and as low as 0.45 for mortgage loans.<sup>6</sup> This explains, along with differences in rates and collateral, the higher stability in mortgage loans and the increased vulnerability of consumer credit to the credit cycle.<sup>7</sup>

Moving to mortgage and commercial loans, these are nearing the end of an expansionary cycle and subsequently, their growth rates are expected to decline.

Lastly, according to our forecasts, despite adverse external and domestic conditions, total Chilean banking system loans will increase by 17.4% in nominal terms this year, which would amount to a 3.5% decline versus growth in 2007.<sup>8</sup> Notwithstanding, these 2008 results would be the outcome of the Central Bank still considering inflationary pressures temporary in the first quarter and of a lax monetary policy. On another front, the signs being given out by the fiscal and monetary policies in place and those forecast for the rest of the year, as well as adverse conditions abroad in 2009, we expect a further slowdown in credit for next year.

**Credit**

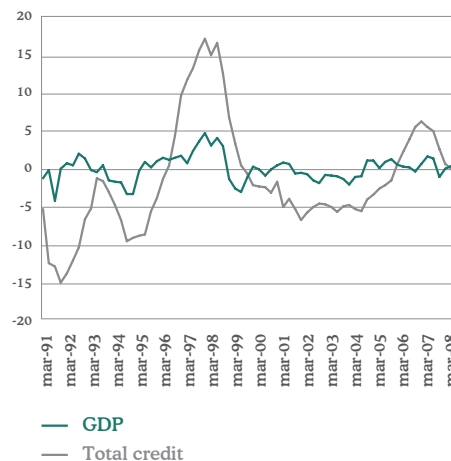
(real annual percentage change)



Source: BBVA and SBIF.

**Total Credit Cycles and GDP**

(percentage deviation versus trends)



Source: BBVA.

**Credit Component Elasticity to GDP and Credit Cycles**

	Elasticity	Máx. Correl./1	Cycle/2	Máx. dev.(+)/3	Máx. dev.(-)
Total credit	1.37	0.43 (3er)	16	17.8	7.1
Commercial	1.28	0.4 (3er)	12	16.3	7.4
Consumption	3.67	1.03 (3er)	20	88.9	15.2
Mortgages	0.45	0.2 (4to)	32	11.2	6.3

1/ Maximum partial correlation with GDP and time lag.  
 2/ Cycle duration in quarters.  
 3/ Percent positive deviation versus trends.

Source: BBVA.

5 These results are similar to those of Barajas, Luna and Restrepo in Macroeconomic Fluctuations and Bank Behavior in Chile, WP N° 436 del Banco Central de Chile, December de 2007, who use impulse response functions of a VAR model in order to estimate the elasticities on a 1-year horizon.

6 For the estimation of the elasticities on each credit component with respect to GDP the variables (seasonally adjusted) were defined as first differences of the log transformation, except for the real interest rate that is in levels. The current coefficients were used as well as four lags of GDP. The estimation was run with instrumental variables to deal with simultaneity bias.

7 In formal terms, the cycle is defined as the period that begins at the maximum level of the percent deviation of a credit aggregate with respect to the trend—or the equilibrium level, estimated using a Kalman filter—ending on the next maximum level.

8 It is worth clarifying that growth rates are calculated using an adjusted series that estimates, for past values, the effect of the accounting change that took place in January 2008, which is not comparable with the original series.



Depending on a certain level of recovery in the international financial environment, we expect 12.5% nominal growth in total loans in 2009, and of 16%, 11.9% and 8.8% for mortgage, commercial and consumer loans, respectively.

**The stance of provisions, non-performing loans and profitability of the Chilean financial system allow us to say that the banking system will adequately absorb the impact of the international financial situation**

Although non-performing credit portfolio indices have remain unchanged in the first part of the year, financial institutions have been increasing provision levels in response to increased perception of credit risk, especially in the consumer loan segment, from 4.92% in January to 5.30% in September. The system's non-performing loan placement went from 0.83pp in January to 0.94 pp in September of 2008. For their part returns (after taxes) on capital and banking system reserves went from 16.9% in January to 15.73% by September, an adequate level for the increased competitiveness and lower risk of the Chilean financial market.

## 5. Chilean Household Financial Burden

Alejandro Puente

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The catalyst for the current international financial crisis was the increase in high risk/sub-prime mortgage defaults in the US, which was seemingly explained by the difficulties low-income Americans faced in meeting their loan servicing liabilities once interest rates increased following the period of extremely low rates after the 2001 recession. It was precisely this long period of low rates, along with the prolonged economic expansion, which fuelled the credit and in real estate prices boom in the US. It was not only mortgages which underwent a robust expansion in the past few years, so did consumer credit, with the accompanying increase in household debt.

As we shall see later, Chile was not an exception in this trend towards higher debt levels. Given the environment of rising interest rates, further rate increase expectations and the moderation in short-term economic growth, we need to examine the phenomenon and reflect on its consequences.

This report examines the recent dynamic in household debt and financial burden, sets out their estimated year-end levels, and formulates a conclusion as to their potential impact on household credit.

Two criteria will be used to examine debt and household financial burden trends: the household debt to disposable income ratio (Debt Service Coverage Ratio) (DSCR) and the financial obligations to disposable income ratio (Financial Obligations Ratio) (FOR).

DSCR is the quotient of total household debt at the end of a specific year, divided by household disposable income in that same year. In other words, the total debt of the country's households by the incomes received in those same households in one year:

$$RDI_t = \frac{\sum D_{ti}}{ID_t}$$

When "D<sub>ti</sub>" refers to type of debt "i" (for example consumer, mortgage, etc.) in year "t", and "ID<sub>t</sub>" is disposable income. The DSCR is calculated with information provided by the Superintendencia de Bancos e Instituciones Financieras (SBIF, Bank and Financial Institutions Supervisor) and the Central Bank. The SBIF publishes information on consumer (bank and non-bank) and mortgage debt; the Central Bank publishes disposable income figures in its Public/National Accounts.

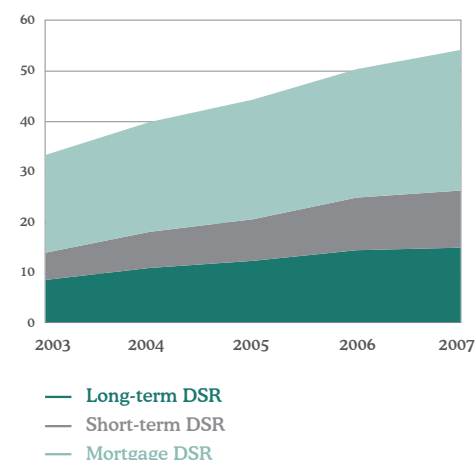
**Chile's DSCR show significant dynamism, going from 33.4% of disposable income in 2003 to 54.3% in 2007.**

It is also important to note the breakdown of this debt; mortgage debt went from representing 58.5% of the total in 2003, to 51.7% in 2007. This decline has of course been offset by an increase in consumer loans, and particularly in short-term debt, which increased by approximately 5% in the period in question.

DSCR is relevant because it has an impact on the financial burden due to both debt levels and its components, since consumer loans are paid in shorter periods and at higher rates.

Similar to the DSCR, the FOR measures the relationship between the financial burden - household income destined to debt servicing in interest and amortization of capital costs – and household disposable income.

### Debt to Disposable Income Ratio (percentage)



Source: BBVA, BCCh and SBIF.

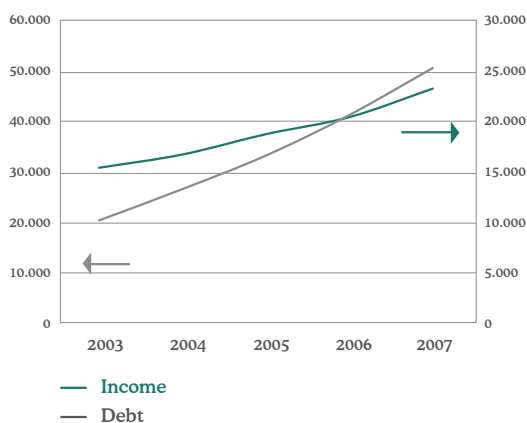
### Debt Structure by Terms (percentage)

	2003	2004	2005	2006	2007
Long-term	25.3	27.1	27.5	28.4	27.4
Short-term	16.3	18.0	18.7	20.8	21.0
Mortgage	58.5	54.9	53.8	50.8	51.7
Total	100.0	100.0	100.0	100.0	100.0

Source: BBVA, BCCh and SBIF.

### Disposable Income and Household Debt

(US\$Bn current)



Source: BBVA, BCCH and SBIF.

However, it is more difficult to calculate the numerator in this ratio than in the DSCR. Payments and fixed rates for each type of debt are considered in this case.<sup>9</sup> For banks, the SBIF provides information which makes it possible to infer the terms for each type of loan. For non-bank loans, the equivalent banking terms are used, and a remaining period of 90 days is assumed for short-term loans while for rates, the SBIF provides a variety of loan information which includes instalments, credit cards, lines of credit and mortgages.

As expected, due to both the debt and disposable income trend and shorter terms, the financial burden has increased considerably between 2003 and 2007, from 12% to 23.7%. Long- and short-term loans, as well as bank and non-bank loans, also increased. These last two in particular (basically short-term) have contributed most to the increase in the financial burden, by 6.4%.

Likewise, DSCR performance demonstrates that in the last few years, household debt has accumulated more quickly than disposable income has increased. On the other hand, the interest rate applied to this debt has increased because of the shift towards shorter term loans and, to a lesser degree, the general upward trend in rates since 2004.

### Changes in interest rates and debt were the main factors in estimating debt and financial burden at the close of 2008,

With regard to DSCR, if our scenario for consumer and mortgage loan growth and household disposable income materialises, it will have reached 60.2% of disposable income.

As far as the financial burden is concerned, according to interest rates in the first two months of the year, we expect an increase of around 2% for consumer rates and a half percentage point for mortgage rates. With this, the household financial burden will have reached just over a quarter of disposable income, to 26.2%. Of this, mortgages make up 4.6%, consumer bank loans 10.1% and non-bank consumer loans 11.5%.

Now then, an interesting question arises: Do debt and financial burden levels pose higher risk to the financial system? In this regard we should specify that consumer loans usually do carry more risk than, for example, mortgages, due mainly to a lack of collateral. It is precisely because of this increased risk that these loans carry higher interest rates. At this juncture, an institutional framework, which adequately determines the household risk levels, becomes relevant, for example, one which includes the increasing contribution of non-bank lenders to consolidated debt and exposure levels in household debt and financial burdens.

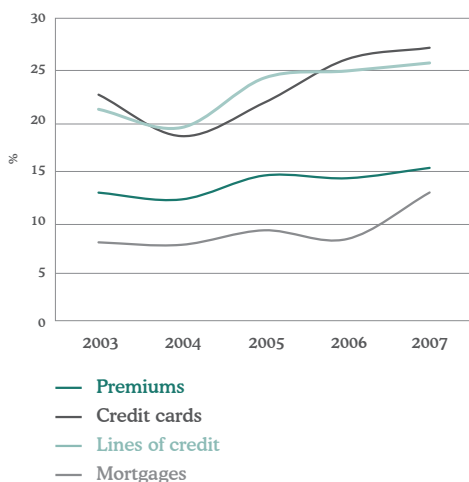
The increased adjustments in consumer loan rates in the last few months, and expectations of subsequent adjustments to the interest rate structure, lead us to ask what the impact of these increases on the Chilean household financial burden will be. Likewise, given the trend towards short-term loans as a higher proportion of total credit, the question of what kind of effect the shorter payment terms will have on the burden is pertinent. To respond to this question, the concept of elasticity of financial burden to interest rate, and of financial burden to the remaining term is useful.

Using the latest available figures regarding rates and remaining terms, estimates of elasticity of financial burden to interest rates range from 0.800 for mortgage loans to 0.13 for lines of credit. For instance, for a

<sup>9</sup> The numerator is the usual way of calculating a fixed payment C, for an initial debt  $D_t$ , at a fixed interest rate  $r$ , during a period  $n$ :

$$C = \frac{D_t r}{1 - (1+r)^{-n}}$$

### Interest Rates



Source: BBVA, BCCH and SBIF.

mortgage loan whose financial burden at the end of 2008 is estimated to be 4.6% of disposable income, an interest rate increase of one percent would increase the financial burden to 5.4% of disposable income. However, an increase of this magnitude is improbable, since most of the debt in the mortgage segment is contracted at a fixed rate.

As far as remaining terms, elasticity ranges from 0.200 for mortgages to -0.870 for lines of credit. The negative sign indicates that a term increase reduces the financial burden. In this case, decreasing short-term loans by one year would increase the financial burden by almost 1%.

Finally, it is useful to compare Chilean household debt levels to those in other higher income countries, some with similar levels of financial and institutional development.

It is interesting to note that Chilean debt levels in 2005 were similar to those in France, Finland and Belgium in 1995, and are currently substantially lower than in most developed countries. To this effect, it is important to highlight that the capacity of a country's economic agents to assume debt – in order to reduce the effects of income volatility – is an indication of its development, particularly financial. Although Chile is far from being a developed country in terms of income, its financial system is probably the strongest and most advanced in Latin America.

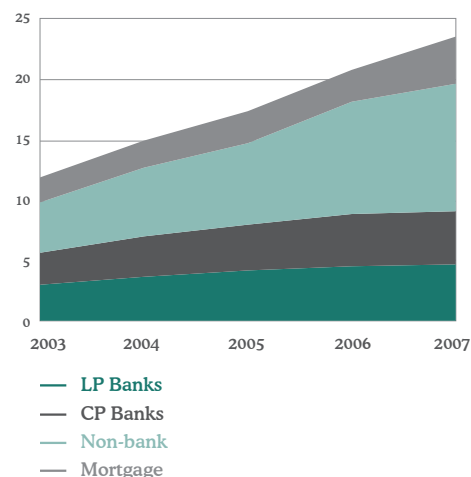
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**Financial Burden to Disposable Income Ratio (percentage)**



Source: BBVA, BCCH and SBIF.

**Household Debt in Selected Countries (percentage of disposable national income)**

	1995	2005
Denmark	112.9	155.2
Holland	63.4	134.1
Portugal	49.8	112.6
USA	78.8	111.1
Spain	47.4	93.5
Germany	74.3	83.2
Sweden	54.7	78.3
France	47.8	65.2
Finland	47.2	58.6
Belgium	45.7	54.2
Greece	8.6	44.9
Chile	NA	44.4
Italy	24.6	43.1

Source: BBVA and Crook and Hochguerte (2007).

## International Context

Commodities (average)							
	2007	2008	2009		2007	2008	2009
Brent (USD/barrel)	73	101	55	Gold (USD/troyoz,)	698	879	775
Copper (USD/t)	7,108	6,994	3,569	Soy (USD/ton)	317	458	342

	Real GDP (%)				Consumer Prices (% , year end)			
	2006	2007	2008	2009	2006	2007	2008	2009
USA	2.9	2.0	1.4	-0.8	3.2	2.9	4.2	0.8
EMU	3.0	2.7	1.0	-0.9	2.2	2.1	3.3	1.4
Japan	2.4	2.0	0.7	-0.3	0.3	0.1	1.2	0.3
China	11.6	11.9	9.5	8.1	2.8	6.5	4.5	3.0

	Exchange Rate (vs. USD, end of period)				Official Interest Rate (% , end of period)			
	2006	2007	2008	2009	2006	2007	2008	2009
USA					5.25	4.25	0.50	0.50
EMU (\$/euro)	1.32	1.46	1.30	1.15	3.50	4.00	2.50	1.50
Japan (yen/\$)	116.4	113.1	100.7	95.6	0.24	0.06	1.20	0.30
China (cny/\$)	6.12	7.47	6.93	5.31	1.70	4.80	6.40	3.40

## Latin America

	Real GDP (%)				Consumer Prices (% , year end)			
	2006	2007	2008	2009	2006	2007	2008	2009
Argentina	8.5	8.7	6.9	1.9	9.9	8.5	8.0	13.0
Brazil	3.7	5.4	5.2	2.5	3.1	4.5	6.3	4.8
Chile	4.3	5.1	4.3	2.3	2.6	7.8	7.5	4.8
Colombia	6.8	7.7	3.7	3.0	4.5	5.7	7.2	4.5
Mexico	4.9	3.3	1.8	0.0	4.1	3.8	6.2	4.0
Peru	7.7	8.9	8.9	5.0	1.1	3.9	6.5	2.9
Venezuela	10.3	8.4	5.5	2.6	17.0	22.4	30.7	32.5
LATAM <sup>1</sup>	5.4	5.6	4.4	1.8	5.0	6.0	8.1	7.0
LATAM Ex-Mexico	5.7	6.6	5.4	2.6	5.4	7.1	9.0	8.4

	Fiscal Balance (% GDP)				Current Account Balance (% GDP)			
	2006	2007	2008	2009	2006	2007	2008	2009
Argentina <sup>2</sup>	1.8	1.2	1.9	0.5	3.8	2.7	2.0	-0.3
Brazil	-3.0	-2.2	-1.9	-2.0	1.6	0.6	-1.8	-1.5
Chile <sup>2</sup>	7.8	8.8	6.5	2.7	4.9	4.5	-2.7	-2.6
Colombia	-0.8	-0.8	-1.0	-1.3	-2.2	-3.4	-2.0	-1.9
Mexico*	-0.1	0.0	0.0	-1.8	-0.6	-1.0	-1.5	-3.5
Peru	2.1	3.1	2.5	0.1	3.0	1.4	-2.1	-3.0
Venezuela <sup>2</sup>	2.1	4.5	0.6	-4.2	14.7	10.5	14.2	4.3
LATAM <sup>1</sup>	-0.5	0.0	-0.2	-1.5	2.0	0.9	-0.3	-1.7
LATAM Ex-Mexico	-0.3	0.3	0.0	-1.2	3.0	1.7	0.1	-1.0

<sup>1</sup> Average of the 7 mentioned countries. <sup>2</sup> Central Government.

	Exchange Rate (end of period)				Official Interest Rate (% , end of period)			
	2006	2007	2008	2009	2006	2007	2008	2009
Argentina	3.06	3.14	3.30	3.90	9.80	13.50	22.00	20.00
Brazil	2.15	1.78	2.30	2.10	13.25	11.25	13.75	12.75
Chile	530	499	660	603	5.25	6.00	8.25	5.25
Colombia	2.239	2.015	2.329	2.443	7.50	9.50	9.50	8.00
Mexico	10.93	10.96	12.82	12.83	7.02	7.44	8.00	5.45
Peru	3.21	2.98	3.10	3.25	4.50	5.00	6.50	6.00
Venezuela	2.00	2.00	2.15	2.70	10.26	11.70	17.50	18.00

## Main Economic Indicators

	2006	2007	2008(e)	2009(e)
<b>Economic activity, average</b>				
Nominal GDP (\$ billion)	73,539	83,076	89,197	87,599
Nominal GDP (USD billion)	139	159	170	144
Real GDP (% change)	4,3	5,1	4,3	2,3
<b>Prices</b>				
CPI (% chg., end of period)	2,6	7,8	7,5	4,8
CPI (averg, % chg,)	3,4	4,4	8,7	6,6
<b>Public Sector</b>				
Fiscal balance (% GDP)	7,8	8,8	6,5	2,7
Total public debt (% GDP)	5,3	4,1	4,5	4,5
Public external debt (% GDP)	3,0	2,2	1,8	2,0
<b>External Sector</b>				
Exports (USD billion)	58	68	68	39
Imports (USD billion)	35	44	59	37
Trade balance (USD billion)	23	24	10	2
Current account balance (% GDP)	4,9	4,5	-2,7	-2,6
Nominal exchange rate (\$/USD, end of period)	530	499	660	603
External debt (% GDP)	33,0	34,2	31,5	35,5
International reserves (\$ billion)	5,25	16,9	22,6	22,6
<b>Financial Sector</b>				
Official interest rate (monetary policy)	5,25	6,00	8,25	5,25
<b>Labor Market</b>				
Total employment (% change)	1,7	2,8	3,4	0,3
Unemployment (% total labor force)	7,8	7,0	7,6	8,8