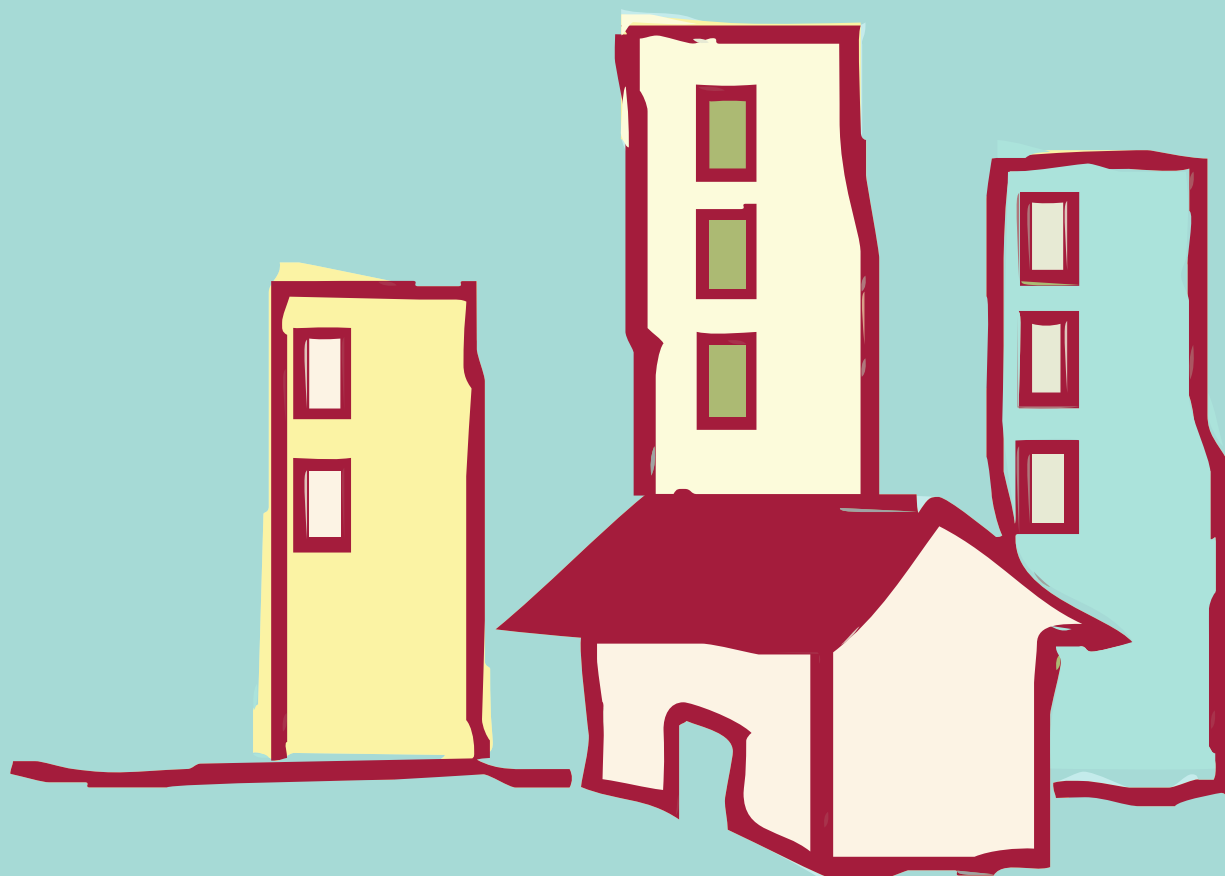


# Real Estate Watch

## Chile

Economic Research Department  
October 2009



# Index

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## Executive Summary

As international financial tensions increased at the start of the third quarter of 2008, the real estate market was already immersed in a process of adjustment due to growing financial costs and the fall in real yields. This was a result of the recent increases in interest rates as a response to a major upturn in inflation. Against this background, the growth in home sales remained strongly negative after April 2008, and the stock of available housing for sale grew from 18.8 months in January 2008 to 26 months in September of the same year. It is no surprise then that house prices fell by about 1% and 3% in the second and third quarter of 2008.

The changing international conditions led to further adjustment in the real estate market. Fortunately, the political reaction was strong and timely. In October 2008 the amount of subsidies granted for the purchase of social housing was increased, as was the maximum price of housing which can be financed through this mechanism. In addition, complimentary insurance cover was granted against unemployment and securing the mortgage loan, thus making the cost of finance less expensive. In January 2009, public investment, mainly in housing programs, was increased by USD 700 within the framework of the fiscal stimulus package designed to counteract the international crisis. As a result, the decline in the residential real estate sector was much less steep than in the non-residential sector that did not receive state support.

In addition, monetary policy was extremely expansive in the first half of 2009, with cuts totaling 750 basis points, leaving the monetary policy rate at an all-time low of 0.5%. These rates have been passed on to mortgages swiftly and effectively. The average monthly rate for these kinds of three-year loans reached a maximum of 5.9% in January of this year, but in March 2009 fell back to 4.6%, a similar level to that in the first half of 2008.

Currently, the conditions for lending have improved and the authorities have actually modified the regulations governing financial instruments to augment the range of possibilities for debtors. At the same time, sales and prices in the sector have begun to pick up, supported both by supply-side (lower construction and material costs) and demand-side factors (unemployment has stabilized and begun to fall at the same time as real wages remain high and consumer confidence continues to improve). Thus the balance is positive, as the impact on the real estate industry was moderate and there are already signs of recovery.

As we move towards 2010, the forecasts for the real estate industry are positive, particularly considering that the government subsidies will be in force until December 31, 2010. In the medium term (2011-2015) it is still too early to talk of a self-sustained recovery. In other words, it is too early to assess to what extent the sector can make progress without additional government support. In any event, a near 6.5% growth in domestic demand, coupled with an expansion of investment of close to 8%, are certainly factors to suggest that conditions will be favorable.

## 1. An adverse environment for the real estate market

As international financial tension increased at the start of the third quarter of 2009, the real estate market was already immersed in a process of adjustment due to the adverse economic environment characterized by a major upturn in inflation.

For nearly a decade, between August 1998 and August 2007, 12-monthly inflation had never risen above 5%. But from mid-2007 two factors combined to provoke a strong upturn in prices: first, there was a positive gap between aggregate demand and output; and second, an increase in commodity prices, above all oil. Although the oil price increase was slightly dampened by price control mechanisms, increased international prices were largely passed through domestic prices. This was the main reason why 12-month inflation rose to 7.8% at the close of 2007 and to a maximum of 9.9% in October 2008.

This escalating inflation gave rise to a monetary policy reaction that increased the monetary policy rate (MPR) above levels considered neutral (with no gaps or deviations from the equilibrium parameters) in the first half of 2008, and to a maximum of 8.25% in October of that year.

### From inflation to uncertainty

With the bankruptcy of Lehman Brothers in September 2008, the environment in which the real estate business operated began to change radically. The rapid extension of the financial crisis led to a sharp adjustment in the growth expectations of the global economy. This began to reverse the trend in the two main factors behind the escalating inflation described above: commodity prices started to recede, as did excess demand. What could not have been foreseen at that time was the force this change would acquire in the economic conditions and in the perception of the economic agents. For example, as late as November 2008 the Central Bank's Survey of Economic Expectations indicated that the average responses expected an inflation of 4.6% at the close of 2009. The result was not very different in the case of expectations of implicit inflation in financial instruments.

Another big surprise was the force with which the international situation impacted the mood of the local agents, who expected an adverse effect on the external sector. However, starting in the fourth quarter of 2008 and until the second quarter of 2009, it was the fall in domestic demand that was particularly steep; conversely, the contribution of the external sector to growth ended up being positive, due to the tightening effect on imports of falling consumption and investment, which exceeded the fall in exports.

These two surprises probably explain why the Central Bank maintained the MPR at 8.25% until December 2008 and cut it by only 100 basis points at its meeting in January 2009. However, when there was more information about the severity of the adjustment in international and domestic economic activity and the speed of falling prices, the Board of the Central Bank undertook a strategy of aggressive cuts in the policy rate, and accumulated record cuts of 500 basis points in only 3 months. Currently, the policy rate is at 0.5%, its lowest level since the policy is defined in terms of a nominal rate.

### The real estate market: demand-side factors

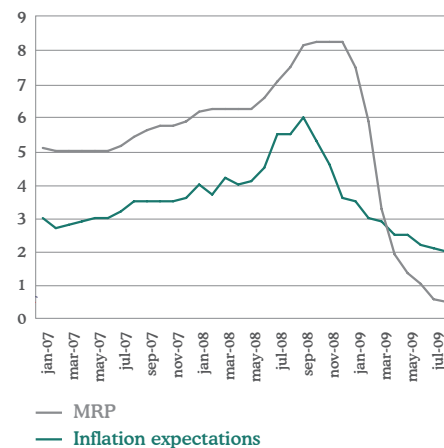
As mentioned above, one unexpected manifestation of the crisis was the effect on the expectations of agents, and thus on aggregate domestic demand. Nevertheless, the Index of Consumer Perception of the Economy (IPEC), prepared by Adimark, fell to a minimum of 31.6 in

**Consumer price index**  
(12-month % change)



Source: INE

**MPR and inflation expectations from the economic expectations survey (EEE)**  
(%)



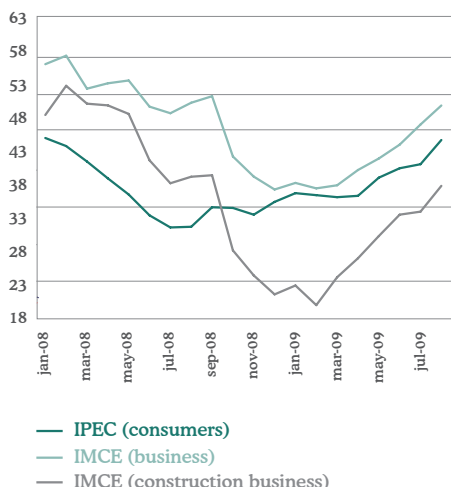
Source: BCCh and BBVA

**Average housing price in the metropolitan area of Santiago**  
(% yoy change)



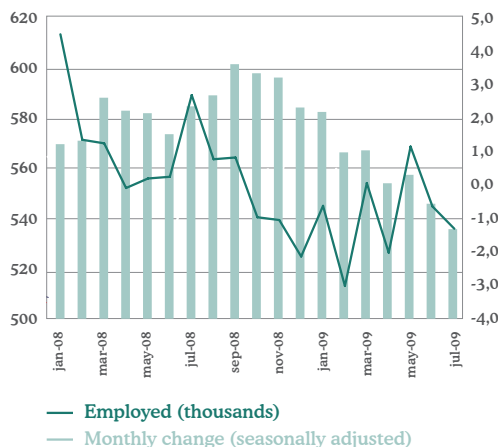
Source: Minvu, Central Bank of Chile and BBVA

**Consumer and business confidence**



Source: UAI-Icare and Adimark

**Construction employment**



Source: INE and BBVA

July 2008, anticipating the growth in financial tension by a couple of months. This index had averaged 50 points (a neutral level) between 2005 and 2008, and the steep fall in the first half of 2008 probably reflected the usual adverse effect of steeper inflation on expectations. The IPEC remained at very low levels until March 2009, when it began a sharp upturn that took it to 44.6 points in August. Answers to the question on the outlook for the next 12 months moved from pessimistic to optimistic in May 2009 and reached 61 points in August.

This speedy recovery of consumer confidence has been accompanied by a significant increase in real income and a limited increase in employment. Despite unemployment increasing 2.4 pp to 10.8% between the mobile quarter May-July 2008 and May-July 2009, this level is still below that expected by the market and under the figure of 12% reached at the time of the Asian crisis.

**The real estate market: supply-side factors**

The supply-side conditions have also changed significantly in recent months. Prices of materials, financial costs and wages increased throughout 2008. This was followed by downward adjustments in the first half of 2009 and resulted in falling construction costs that would vary between 10% and 20% over a year, depending on the project.

Wholesale prices in the industrial and mining and quarrying sectors - those most important for the construction sector - turned from significant growth until the close of 2008 to a major slowdown in the first half of 2009. The industrial price index posted 12-monthly rises of up to 26.5% in November 2008 before falling back to a negative 1.7% in August 2009. Mining and quarrying prices reversed a trend of 47.3% rises in October 2008 before falling 40% in August 2009.

The nominal wage index in the construction industry fell from a maximum 12.7% y/y in September 2008 to 5.2% in July 2009.

Employment in the industry has fallen, as in all other industries, but unlike trade, agriculture and financial services, where in the margin (compared with the previous quarter) there have been signs of recovery, the slump in the construction industry has continued.

The positive contribution of these factors has also resulted in an improvement in confidence in the construction industry. The monthly index of economic confidence in the construction industry fell to a minimum of 20.1 in February 2009, but recovered strongly to August, when it stood at 37.8, although it is still in pessimistic territory and under the basically neutral levels of the first half of 2008.

**Monetary policy impact on rates and stabilization in the real estate market**

Although the MPR is an overnight rate, its movements, the expectations of its future movements and inflation expectations have combined to determine the upward adjustments in the interest rates of long-term Central Bank bonds (the underlying instruments relevant for mortgage loans) and thus, mortgage rates. The 3-year plus mortgage lending rate in UF [Unidad de Fomento indexation units] increased from 4.8% to 5.77% between September and December 2008.

The adjustment of the real estate market took place against this background of more expensive financing conditions and the fall in real wages. The growth rate in home sales remained strongly negative after April 2008, and the housing stock (measured as the ratio between the supply of new homes and total monthly sales) grew from 18.8 months to 26 months from January to September 2008. It is therefore no surprise that house prices fell by 1% and 3% in the second and third quarter of 2008.

The transfer of cuts in the monetary policy rate to the structure of lending rates in the banking system has been fairly swift, particularly in the case of mortgage rates. The monthly average of the rate for this kind of loan reached a maximum of 5.9% in January of this year, but by March had returned to levels similar to those in the first half of 2008.<sup>1</sup>

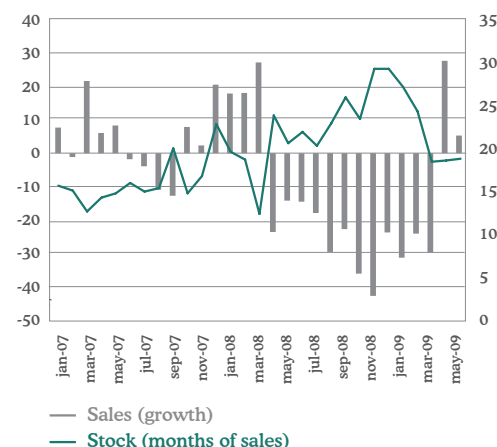
As a result of mortgage rates returning swiftly to their “normal” levels, the policy of subsidies for home purchases (which will be dealt with below) being extended and expectations of the economic future improving, mortgage lending flows have recovered since the start of 2009 after a brief fall at the close of 2008.<sup>2</sup>

In these circumstances, positive annual rates of growth have been observed in home sales since April, after falls between April 2008 and March 2009. After a strong upturn in housing stock at the end of last year it has returned to the levels of the first half of 2009, at around 20 months of sales.

These conditions would also explain why following the fall in house prices between the third quarter of 2008 and the first of 2009, in the second quarter of this year prices once more showed an increase on the second quarter of 2008.

To sum up, after the adjustment in the real estate market in the second half of 2008 and lasting until the first quarter of 2009, the market is again showing signs of returning to normal. The next section deals with one of the factors that have contributed to stabilizing the housing market, the fiscal stimulus package, and in particular the policy of providing subsidies for home purchase.

## Growth in sales and housing stock (% yoy and months)



Source: Minvu, Central Bank of Chile and BEVA

<sup>1</sup> There has been some discussion about an insufficient adjustment in the rates for long-term loans, including mortgage loans. However, in a presentation to the Finance Commission of the Chamber of Deputies on July 27, 2009, the President of the Central Bank explained that the factors that could limit any further falls in long-term rates would essentially be positive, i.e. expectations of a swift recovery in economic activity and thus upward adjustments in the MPR, and unusual financial inflows (using Chile as a shelter) of portfolio investment into the country at times of uncertainty and outflows as risk aversion is reduced. For an analysis of how MPR cuts were passed through in the period following the Asian crisis, see the Monetary Policy Report for May 2002.

<sup>2</sup> Refers to the seasonally-adjusted series and month-on-month flows.

## Box 1: The non-residential construction sector

Our analysis of the construction industry excludes infrastructure works and refers to the type of work that is usually financed through commercial banks. Hence, the focus is basically on residential construction, among other reasons because there are more sources of information for it, and also because public policies are usually focused on this segment. However, the non-residential real estate market, i.e. offices, malls and, in general, buildings in which economic activities are engaged in, is relevant in various ways: from a banking perspective, because of its weight in mortgage lending; and from a macroeconomic perspective due to the employment generated by these projects.

One affects of the slowing economy and the deterioration in expectations between the second quarter of 2008 and the first of 2009 has been the postponement of non-residential real estate projects, and even the halt to some that were in the process of execution.

A striking case in Chile has been the standstill to work on the Costanera Center project, which has an estimated coast of US\$ 600 million and a surface area of 700,000 m<sup>2</sup>. It was halted in January this year, nearly three years after being started. It is important to point out that in terms of square meters, the non-residential sector represented 39.4% of the total real estate market in 2008. This gives an idea of how important it is to try to understand what has happened to this sector during the crisis, whether it is emerging from it and what its outlook is.

Given the high volatility of the monthly series relating to constructed area, we have used a mobile 12-monthly average supplied by the National Statistics Institute (INE) for our analysis.

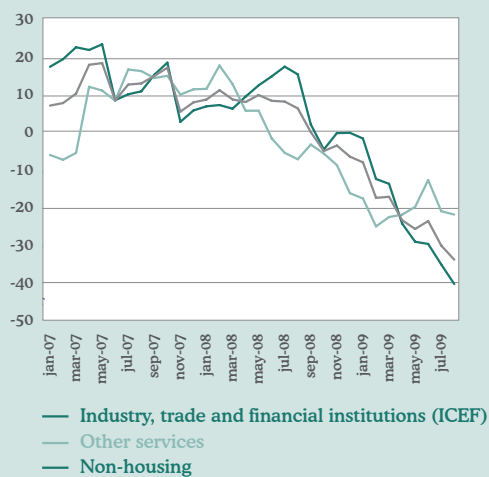
An initial point to make based on this information is that the residential component has had a more limited adjustment than the non-residential, with a fall of 20% in August 2009 compared with August 2008. This contrasts with the 33.4% fall in the non-residential component. It is also interesting that the non-residential component began its adjustment in September, so it has not only been deeper but also more prolonged. This result is probably affected by the public policies

introduced to mitigate the situation, which as we have seen are concentrated on the residential sector.

The INE differentiates between the segments of Industry, Trade and Financial Institutions (ICEF) and Other Services (OS). Examining the information in more detail we also see that the pace of the adjustment has varied: in the ICEF segment it began in September 2008, coinciding with the increased international financial tension. In contrast, the OS segment began its adjustment in April 2008. Probably this earlier adjustment explains why in August 2009 the OS segment had a contraction over twelve months (39.8%) of roughly twice that of the ICEF segment (21.5%).

Finally, the data available in the non-residential real estate sector do not show that this sector is emerging from recession, although they do indicate some bottoming out. In addition, the factors that allow us to be optimistic with regard to economic recovery also allow us to be optimistic about the non-residential real estate market, in particular the recovery in business confidence.

**Non-residential real estate market**  
(5 yoy change)



Source: INE and BBVA.

## 2. Public Policies supporting the construction industry

Public housing policy is based on subsidies that allow families to own their own homes<sup>3</sup>. The system operates as a subsidy to demand, while the construction of homes is in the hands of the private sector. In this framework, the role of the government in the current crisis has been important by preventing the sector from a bigger slump.

The subsidy consists of a direct government transfer that covers part of the value of the first home. Families who want to access the subsidy usually have to have some money saved. They can complete the payment for the home by a loan for the difference between the price of the home and the subsidy, plus their savings. The loan must be arranged with an authorized financial institution or bank, which can also come to an agreement with the Ministry for Housing and Urban Planning (MINVU) to allow them access to more advantageous financial credit terms.

There are two types of subsidies, each with its own different processes and requirements. Basically, however, they are given to a family or group of families who have managed to save the minimum amount stipulated. If the specific requirements of each program are met, they are assigned points based on observable criteria, such as the size of the family group, the total and average savings amounts, points in the socioeconomic characteristics file (CAS), and others. These points determine their order on the list of applicants for the subsidy. The families selected receive a subsidy certificate that they can use up to 21 months after its issue. This time-frame explains why the subsidies granted by the authorities in a particular period may not actually correspond to the subsidies paid out during this period. For example of the total DS-40 subsidies granted in 2008, only 12.7% were paid that year, and an additional 40% were paid between January and June 2009.

There may be considerable variation in the minimum savings required and the characteristics of the homes. For example, the subsidy of the Housing Solidarity Fund I, designed for families in the first quintile of vulnerability, requires minimum savings of UF 10<sup>4</sup> and finances homes whose value is not greater than UF 650<sup>5</sup>. For families in middle income segments, the DS-40 subsidy requires minimum savings of UF 50 and finances homes worth up to UF 1,000<sup>6</sup>.

As well as a direct subsidy, in some cases there are additional subsidies that reduce the cost of loans. The cover provided by these subsidies is increased if the financial institution involved has an agreement with the MINFU.

### Housing policy as an instrument of economic reactivation

The government implemented a series of measures in response to the financial crisis to increase demand for new housing through state subsidies. In November 2008, temporary modifications were announced to the DS-40 subsidy for the middle class:

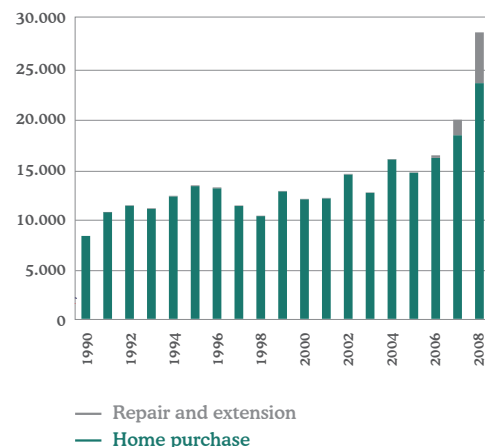
<sup>3</sup> There are also subsidies for home restoration, extension and repair.

<sup>4</sup> The UF (Unidad de Fomento) is a unit of account that is indexed to the inflation of the month before the period in which it is calculated. It was created in 1967 (1 UF = 100) and currently (September 15) is worth 20,876.25 pesos. Before the 9th of each month, the Central Bank of Chile publishes the daily value of the UF for the period between the 10th day of the current month to the 9th of the following month, in accordance with the geometric average rate of variation of the CPI for the previous month.

<sup>5</sup> The total of the subsidy depends on the area in which the home is located. In most areas, the amount for constructing homes is UF 330 and for buying constructed homes is UF 280.

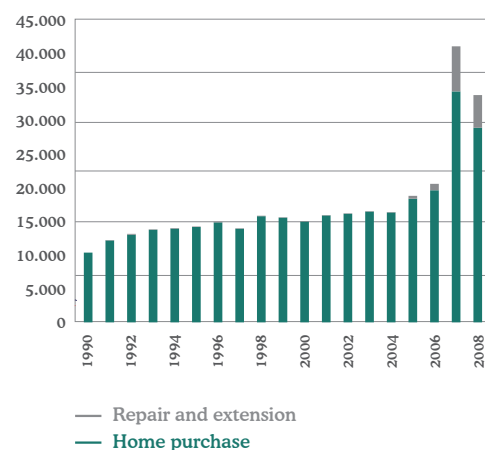
<sup>6</sup> The amount of subsidy depends on the price of the homes (P) and on the area in which it is located. In most areas the subsidy =  $275 \cdot P \cdot 0.175$ .

### Subsidies paid (in thousands of UF)



Source: Minvu

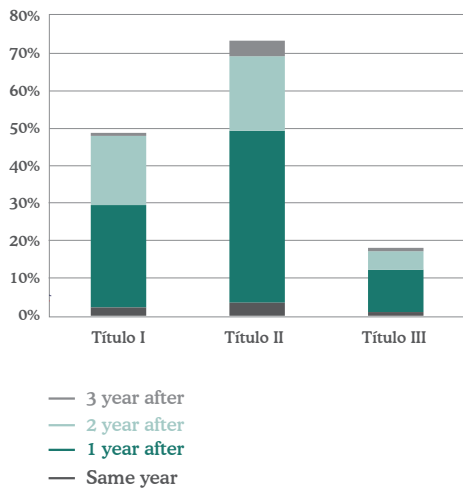
### Subsidies granted (in thousands of UF)



Source: Minvu



**DS° 40 subsidy, by time between it is granted and paid (2004 - 2008)**



Source: BBVA based on Minvu.

- The subsidy was increased to UF 200 for both new and existing homes whose price was not greater than UF 1,000.
- The cover was extended to new homes of up to UF 2,000. The amount of subsidy declines on a sliding scale with the increase in the price of homes, starting at UF 200 for homes of up to UF 1,000, and ending at UF 100 for homes of UF 2,000.
- Families have to contract a complementary unemployment and temporary disability insurance for a year<sup>7</sup>.
- The mortgage loan insurance was extended. It can now cover up to 100% of the homes costing up to UF 1,000 UF and up to 50% of the homes costing a maximum of UF 2,000.

The mortgage loan cannot be more than 80% of the value of the home. These measures came into force in December 2008 and will remain in force until 31 December 2010.

Subsequently, in January 2009, within the framework of the fiscal stimulus package designed to counteract the international crisis, public investment was increased by USD 700. According to the Finance Minister, Andrés Velasco, most of it will be allocated to housing programs. The measures announced were as follows:

- A special subsidy, DS-4, was created with a limit of 25,000 beneficiaries. This is exclusively for new construction projects that would have to begin before August 2009 and be completed in September 2010. The scheme finances homes of up to UF 950 and requires minimum savings of UF 30. The subsidy varies between UF 380 and UF 520, depending on the area in which the home in question is located.

The beneficiary families can get a mortgage loan for a maximum of UF 500, and will have unemployment insurance for 18 months paid for by the state and state-guaranteed mortgage loan insurance for 100% of the amount owed.

In addition, a bridging loan of UF 100 per house built for a maximum of two years was granted to the construction companies that will execute the projects and that have an agreement with the MINVU.

- 25,000 new subsidies were assigned to the Family Wealth Protection Program (PPPF), which allows vulnerable families to extend or improve their homes.
- 3,000 new subsidies were assigned to the Solidarity Fund for the construction of homes.

Subsequently, in the presidential message of May 21, 10,000 new subsidies were announced for the extraordinary DS-4 program, together with 15,000 new PPPF subsidies and an increase of 20% in the resources assigned to the Housing Solidarity Fund I.

In addition, a year's state-paid unemployment insurance was created for mortgage borrowers with current loans who have acquired their homes with a state housing subsidy. The subsidy covers up to four dividends in the case of loss of employment or more than two months of sick leave. Beneficiaries may not be behind in mortgage payments if they want to access the insurance.

The budget for 2009 included 140,000 subsidies and spending of more than 484 trillion pesos (around US\$ 900 million). After the announcements,

**Progress made in public housing programs (as on 31 July 2009)**

Subsidy	Amount committed 2009 in UF	Amount paid	N° of subsidies committed	N° of subsidies paid
Home purchase subsidies	48.076.866	82%	124.772	82%
Housing solidarity fund I and II	26.657.301	71%	57.778	66%
Rural subsidy	1.930.548	49%	5.063	46%
DS-40 subsidy	4.102.057	98%	22.321	100%
Home leasing	302.000	74%	2.000	68%
Special DS-4 subsidy	15.084.960	100%	37.610	100%
Home extension and repair subsidies	5.985.962	54%	76.240	56%
Household wealth protection	4.985.962	60%	66.240	61%
Heating subsidies	1.000.000	23%	10.000	21%
<b>Total</b>	<b>54.062.828</b>	<b>74%</b>	<b>201.030</b>	<b>69%</b>

Source: Minvu

<sup>7</sup> Until this date, the insurance only covered four months.

the number of subsidies was increased by 44% and the public spending allocated to housing policy grew by 134% to UF 54 billion. The extraordinary DS-4 subsidy only applies to new projects to be constructed in 2009 and 2010. As 37,610 subsidies were granted to finance housing of a minimum of 38 m<sup>2</sup>, this subsidy alone would guarantee the construction of at least 1.5 million square meters before September 2010. This is equivalent to 17% of the area of all the housing (with and without housing subsidies) constructed in 2008.

The MINVU has announced that, as an additional measure, an effort was being made to speed up the execution of these programs and to prioritize those that include the acquisition of new homes rather than existing ones.

The special subsidies for the construction of new homes in 2009 and 2010 that were included in the Fiscal Stimulus Package will increase employment in the construction industry by around 70,000 jobs over these 24 months. This is equivalent to nearly 1% of the national labor force. The subsidy for repair and extension of homes also helps create employment, so it can be calculated that the joint impact on the unemployment rate of all the special housing policies will be a fall of over 100 basis points.

However, housing policy is mainly (and in our view, correctly) focused on homes of low and mid-priced homes for families with fewer resources. Nevertheless, a sustained recovery requires a consolidation of the overall conditions of the real estate market. We will now analyze some aspects of the mortgage lending market.

## Box 2: Modification of the tax exemption for the construction sector

Law 20259 was passed in March 2008 to modify the tax reduction for the construction of homes, which had established a special VAT credit of 65%. Under this reduction, construction companies only had to apply 6.65% VAT instead of the 19% general rate.

The new law adjusted the special credit according to the price of the home. It stipulated that only homes that did not cost over UF 4,500 could use the reduction and the maximum amount of benefit per home was set at UF 225. This means that the reduction was unaltered for homes worth up to UF 1,822 and began to be reduced as the price of the home increased, with homes above UF 4,500 not being eligible for any reduction.

The new law was expressly not applicable to constructions that had obtained permits before 1 July 2009 and that began work before 31 December 2009.

The aim of this change in the law is to focus public policy in the housing sector better. However, the method used does not appear the most suitable. Tax exemptions, particularly segmented ones, tend to result in inefficiency and involve high administrative costs. It would appear to be a better idea to focus policy by completely eliminating the reduction and using the increased tax collected to increase housing subsidies.

### Legislative changes and the crisis

The change is expected to affect the sale price of homes whose tax benefit has been altered or eliminated. The effect on prices should be substantial, as it is estimated that close to 60% of the value of a new home is accounted for by construction costs. Homes that cost over UF 4,500 could increase their prices at around 7% as a result of the elimination of the tax benefit. This would in turn affect the demand for homes.

Fortunately, the law included an long transition period for its entry into force, so that the measures was not in force during the periods of greatest tension and worsening expectations. In addition, the imminent implementation of legislation that would increase the price of homes could have contributed to speeding up investment decisions by real estate companies, construction companies and families, thus encouraging the start-up of some projects. This effect should set off a warning light for us with regard to the performance of the sector starting next year, because the current figures may conceal the wish to take advantage of this legal change, rather than respond to a true reactivation or an improved outlook in the sector.

### Tax benefit before and after the legal modification

Construction price	VAT without reduction (19%)	Full reduction (65%)	Limit	New reduction
600	114	74	225	74
1.000	190	124	225	124
1.822	346	225	225	225
2.000	380	247	225	225
3.000	570	371	225	225
4.500	855	556	225	225
4.501	855	556	225	225
5.000	950	618	225	0

Source: BBVA

### 3. Mortgage Finance

Mortgage loans for homes can be structured as mortgage contracts (mutuos hipotecarios) that may or may not be endorsable, and mortgage bill (letras hipotecarias). Mortgage bill were the basic instruments from 1977 to 2004, when their role was taken over by bank loans.

From the fourth quarter of 2008, lending has been squeezed as a result of greater restrictions in the conditions for granting credit, according to the quarterly survey of bank lending from the Central Bank of Chile. The standards for approving mortgage loans were seen as somewhat more restrictive by 21.1% of those surveyed in March 2008. This figure had increased to 61.2% in September of the same year. The figure then fell back to 5.6% in June 2009. The financing conditions have also experienced significant changes in recent months. According to this survey, 36.8% real estate companies consider lending conditions to be more restrictive in 2008. This figure increased to 76.5% in September of the same year, but fell to 11.1% in June 2009. In the case of construction companies, the percentages for the same periods were 21.1%, 76.5% and 16.7% respectively, with a clear improvement in perception in the last survey period.

But it was not only a question of supply. During the crisis, mortgage lending was also negatively hit by lower demand. In real terms, the fall was even sharper than that observed during the Asian crisis. The recovery, so far, has also been slower. But in any event, it can be said that the recovery is already underway, as we can see a change in the trend in flows since February 2009. Since then, flows have begun to show positive variations, although they have settled at a lower level than in previous upturns.

In order to compare flows during the current crisis and that of 1998 and 1999, a base 100 was set in January 1998 and January 2008, respectively. We can see that the recovery has followed a similar trend, although in terms of levels, the current index of lending flows is below that of the index with a base in January 1998.

As a way of responding to the crisis, in the first half of 2009, banks made offers (for a term of three days, for example) coordinated with real estate companies, in which more favorable rates were agreed. These campaigns were a success. In terms of stocks, the participation of mortgage loans as a proportion of the total increased, and this helps explain the recovery in flows explained above.

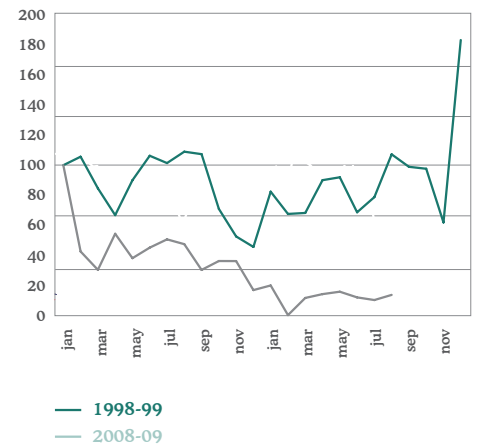
The 3-year plus mortgage interest rates in UF increased from 4.82% in August 2008 to 5.92% in January 2009. Since then, the rates have fallen rather quickly and even reached lower levels than those observed in 2008. In recent months they have stabilized at around 4.6%. In this sense, we consider that monetary policy has been passed on effectively in a severe international financial crisis whose main impact on the domestic market has been an increase in credit risk.

The default rate in the mortgage segment has remained at moderate levels, although it increased from 0.95% in August 2008 to 1.85% in August 2009. This level is higher than that in July (1.74%) and higher than the default rate on all loans, which was 1.30% in August after stabilizing on the July figure.

#### New regulations aim to stimulate the supply of finance

Currently, non-endorsable mortgage contracts represent 52% of GDP, while endorsable contracts represent 10% and mortgage bills around 12%. The situation was very different at the end of 2003, when the

#### Mortgage flows in UF



Source: SBIF and BBVA

#### Mortgage lending rate (%)



Source: Minvu and BBVA.

#### Delinquent loans total and housing



Source: SBIF and BBVA

endorsable and non-endorsable mortgage contracts had an equal share (10%), while mortgage bills were almost 30% of GDP.

In order to increase alternative sources of finance and make mortgage bills more competitive, the Central Bank modified the regulations governing them. Although the measure is a step in the right direction (see box), there are more fundamental limitations that will prevent mortgage bills from recovering as desired. In our opinion, the effects will be limited in the short term, as although the liquidity of the mortgage bills may improve, this would basically depend on demand. In terms of the effect on rates, it is not clear that this is passed on as a substantial improvement, as the rates depend on the base rate, bank spread and, at the end of the day, the risk profile of the debtor.

In addition, the bill currently in Congress aimed at reforming the capital markets, called MK-III, proposes a number of measures (some with a greater expected impact than others) designed to give more depth to the mortgage market and increase competition in lending. This measure would boost the availability of resources for banks, and thus it would support the market for bank mortgage contracts rather than mortgage bills.

In short, the financial and micro-financial bases would be set for recovery. We will next analyze to what extent the prevailing macroeconomic conditions will support recovery in the real estate industry.

## Box 3: Mortgage bills vs. mortgage contracts

Mortgage bills are “documents issued by banks and financial institutions with the aim of financing the acquisition or construction of homes or other productive activities”. They are readjusted according to the UF, require a minimum investment of UF 10, and finance a maximum of 75% of the value of the home (whichever is the lower value between the valuation by the bank and the sale price). These instruments may be prepaid at the issue rate by the issuing bank, except in the auction months (March, June, September and December). They pay identical quarterly coupons and are issued for maturity terms of up to 20 years. According to information from the Superintendency of Banks and Financial Institutions (SBIF), they may be traded by the bank on the stock market or acquired by the bank itself or a related third party. The price obtained by the sale of these bills varies according to market conditions, so that there may be a variation with respect to the par value (usually to the disadvantage of the debtor). The remaining 25% is usually financed by the bank itself with a complementary consumer loan.

Mortgage contracts, as their name suggests, are loans that are financed through the bank's own assets. The endorsable contracts are more restrictive than the non-endorsable ones. Although both can be denominated in pesos or UF, the endorsable contract allows a maximum of 80% of the value of the home to be financed. In addition, the loan conditions may not be altered, as it is the contract deed that is traded on the market through endorsement, and that allows the holder of the payment contract to transfer it to third parties for finance. The applicant for a loan receives the amount approved and no discrepancy is generated, as can occur in loans granted using mortgage bills. Regardless of whether it is endorsed, the administration of the loan remains in the bank, so that the debtor's channel of communication for all purposes remains the bank.

Finally, the non-endorsable mortgage contract allows finance of 100% of the value of the home and on much more flexible terms, which can be modified during the currency of the contract. In fact, its flexibility has played a key role in the maintaining the importance of this instrument as a form of housing finance.

### How mortgage bills lost out against mortgage contracts

Mortgage bills began in 1977 and were almost the only instrument for financing the purchase of a home until mid-way through this decade. They had a significant secondary market among institutional investors. This is important as the differences between the market value

and the par value represents a cost or gain for the debtor. Thus, a liquid market with a high level of demand results in an over-par price.

Around 2004, the rates reached historically low levels (the MPR reached a minimum of 1.75%). There was little trading in mortgage bills, and thus they were not very attractive, as they were being traded below par value.

In 2005, BBVA introduced bank mortgage loans without the use of readjustable bills. These were the first mortgage loans in pesos for 30 years, with a range of conditions including variable rates, a mix of variable and fixed rates, and what is called “fixed-fixed”, meaning that in the short term (for example, the first three years of the loan) the rate is fixed under what will be the rate for the full term, and then in the following years (for example, the next 17 in the case of a 20-year loan) it is fixed at above the full-term rate.

Following the BBVA's innovations, the mortgage market in Chile replaced mortgage bills with direct bank loans (mortgage contracts). The main reason is that the contracts give greater flexibility in terms of taxes, currency, terms and the total amount owed, thus making them more attractive for customers; and banks therefore have more sales arguments, in other words they add greater value. Unlike the mortgage bond business, in which the banks earned a fixed commission for the operation, in the case of mortgage contracts, the banks earn from the margin between the rate of the loan and the cost of funds. This makes the business more attractive for the banking system.

### Impact of the modernization of the regulations of the Central Bank on mortgage bills

First, the new Central Bank regulations will allow banks with the highest solvency ratings to finance up to 100% through mortgage bills, thus removing one of the conditions that made mortgage bills less attractive than contracts. The most direct impact is that the total cost for the debtor could fall as administrative costs drop, although it is somewhat difficult to calculate this effect precisely. It is worth highlighting that 100% financing through mortgage bills will only be for those customers with the highest credit rating. Thus the improvements in the alternatives for housing finance will focus on the segment of customers with the highest incomes, lowest bad debt ratings or best perspectives for future income. In terms of the rate offered, the new regulations will allow more than one fixed rate to be agreed. This would make them comparable to the “fixed-fixed” contracts, although variable rates will not be permitted. The law also allows

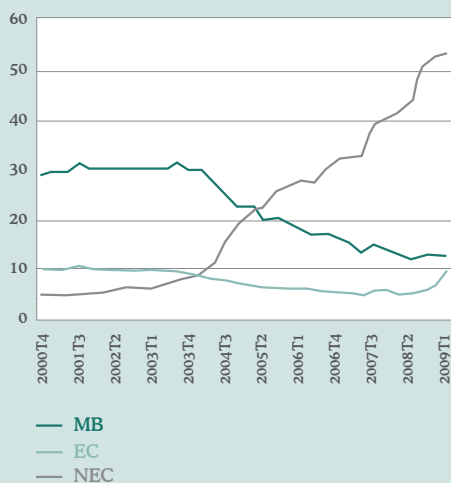
banks to offer greater flexibility in installment payments, and from the point of view of customers makes it easier to chose between instruments by making simulations of these payments more comparable. In any event, the total asset value in both cases (contracts and bills) is the same, so there is no advantage between either instrument in this respect. The mortgage contracts will continue to have the advantage of agreements that can last for terms greater than mortgage bills, whose maximum is 20 years.

From the point of view of capital requirements, the mortgage contracts and bills are the same, as banks are in practice joint and several co-debtors. The new law will not have any implications for provisions.

The debt guarantee ratio in the case of mortgage bills is lower than in mortgage contracts because the maximum finance has been 75% at most. Thus the instrument has a lower risk, and as a result the yield required by an institutional investor such as a pension fund manager is also lower. However, new mortgage bills will no longer have this “advantage”, as they will have 100% finance.

Mortgage bills allow banks to raise resources and act as intermediaries for them with the debtor, while the mortgage contracts have to use the bank’s own assets. Currently, the financing of mortgage contracts is no problem, largely thanks to the fact that the bank deposits of pension fund managers represent an important source of resources. However, having a liquid secondary market for mortgage bills will allow banks to maintain the option of raising assets through this channel to finance loans. In this respect, it is also worth pointing to the proposal contained in the MKIII project (Ministry of Finance), which suggests that banks may be able to issue bonds to raise resources for financing housing. This proposal is certainly interesting, as it allows resources to be raised by issuing an instrument at a higher denomination (the amount of the bond does not have to be equivalent to the amount of the debt, as in the case of mortgage bills). The bond market is much more liquid than that of mortgage bills.

**Housing credit, by instrument**  
(% GDP)



Source: SBIF and BBVA

## 4. Outlook for the Real Estate Market

Following the correction in the real estate industry between the second half of 2008 and the first half of 2009, the outlook for the industry is once more auspicious. This is true whether we consider demand-side or supply-side factors, and whether we focus on the short or medium to long-term.

For the remainder of 2009 demand-side factors are expected to support recovery in the sector. The macroeconomic scenario we project here supposes that the recovery in economic activity that began in the third quarter will be consolidated in the fourth. For 2010 we expect a growth of at least 3.5% in GDP and 6.5% in domestic demand, with an expansion of investment of around 8%. What is more, our forecast is biased upwards: negative variation of inventories, for example, has been unusually intense in the last three quarters and a reversal of this trend to historical levels could lead to growth levels closer to the trend growth.<sup>8</sup>

In addition to the positive outlook for economic growth there is the significant reduction in labor and material costs. In practice they mean that a project budgeted a year ago can be executed at a cost of between 8% and 12% less. In other special cases, cost savings can be as much as 20%. Another factor determining real estate demand is employment. Although employment in the construction sector fell more steeply in the three months June-August 2009, it should start to bottom out. In fact, total employment will continue falling in the short term at increasingly lower rates. Specifically, salaried employment will fall at around 3% to the end of the year, and will begin to recover in 2010.

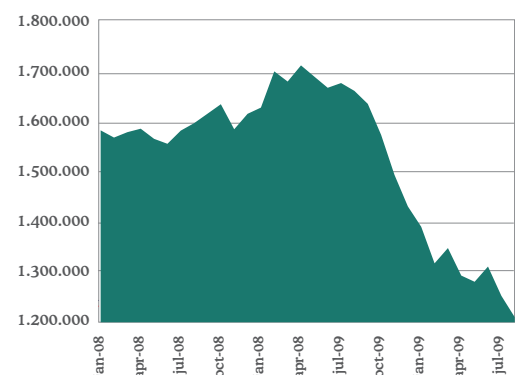
The outlook for the labor market is in general favorable, as the worst appears behind us. Unemployment remained at 10.8% in the three months June-August 2009 and will begin to fall steadily. These factors, combined with the increase in real wages received by workers, will support a recovery in demand in real estate.

Regarding financial credit terms, the official interest rate (MPR) is at an all-time low, and although there is debate about passing this on to market rates, it is undeniable that the financing conditions are more favorable than six months ago (and in many cases than a year ago). They suggest that both supply (real estate companies) and demand (consumers) will increasingly require resources as the market accepts that from now on rates can only rise. In fact, the monetary authority suggested that the MPR would begin to rise in the second quarter of 2010. This analysis coincides with our current forecast.

In the current situation, construction permits have fallen significantly, and any partial increases observed have been related to specific situations. One such was the deadline for presenting requests for state subsidies, which led to a peak of permits in June (20.9% compared with June 2008), and to unusually low figures in July and August. Thus it is not a particularly useful indicator for projecting end-of-year trends.

The main risks that could affect recovery in the sector in 2010 to a greater or lesser extent would be, above all, a new crisis of confidence in international markets produced by, for example, a renewed slump in the U.S. economy. This would put Chile's growth prospects at risk, as it would once more affect investment growth and thus domestic demand. We assign a low level of probability to this event. Second, there is the risk of local recovery being weak, i.e. of a "fictitious" recovery based on

**Construction permits**  
(12-month rolling average)



Source: INE and BBVA

<sup>8</sup> In fact, in its September monetary policy report, the Central Bank forecast a rate of GDP growth of between 4.5% and 5.5% for 2010, above the latest 4.2% estimate for trend growth by the Finance Ministry.



state support that is not capable of sustaining itself. So far, it is not possible to clearly distinguish the extent to which the recovery is the result of a change in the real trend.

In all, the short-term outlook for the real estate industry is positive, particularly considering that the government subsidies will be in force until 31 December 2010. In the medium term (2011-2015) other elements have to be taken into account, such as demographic factors and the distribution of income, for example (see box), which to us suggest positive indications for the future. Although it is premature to talk of a self-supporting recovery, as it is too early to assess the extent to which the sector may progress without additional government support, there are no fundamental a priori reasons preventing us from being optimistic.

## Box 4: Medium-term market potential by segment

In order to estimate the potential of the real estate industry in the medium term it is important to remember that this market is segmented according to the value of the home, which is related to family income. Thus the next exercise estimates the percentage of people whose income is above certain levels in 2010 and 2015. The estimate indicates the relative growth of the different groups.<sup>9</sup>

The segment with the biggest growth potential in the medium term (to 2010) is that with income of more than 450,000 pesos per month (measured at 2005 prices), as the number of people with more than this threshold will have grown by 23% between 2005 and 2010.

However, between 2010 and 2015 it is the segment with income of between 300,000 and 400,000 pesos a month that will grow most (33%). The lowest income segment (under 150,000 pesos a month) will fall by 6% between 2005 and 2010, and 14% between 2010 and 2015.

The trends observed assume that the income distribution will not change during this period. Thus, if instead of income distribution remaining constant, this distribution improved – and this is coherent with a fully developing society - growth of the highest-income segments would be even greater, as would the reduction in the lowest. This would support the use of subsidy policies of greater scope.

### Real GDP

	Average growth in the 5-year period
2000 - 2005	4,4%
2005 - 2010	2,9%
2010 - 2015	4,5%

Source: BBVA

### Population growth, by segments (categories defined by thousand pesos of 2005 per month)

	2005-2010	2010-2015
< 150	-6%	-14%
150 - 300	5%	-1%
300 - 450	16%	33%
> 450	23%	30%

Source: BBVA

<sup>9</sup> It is important to bear in mind that these are approximate estimates of the size of the total population of the country by income segments, and that these incomes are measured per capita. The exercise is based on an estimate for average real GDP growth by 2015, combined with United Nations population forecasts. The estimated per capita GDP growth is based on these data. Finally, we assume that income distribution remains constant until 2015.

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