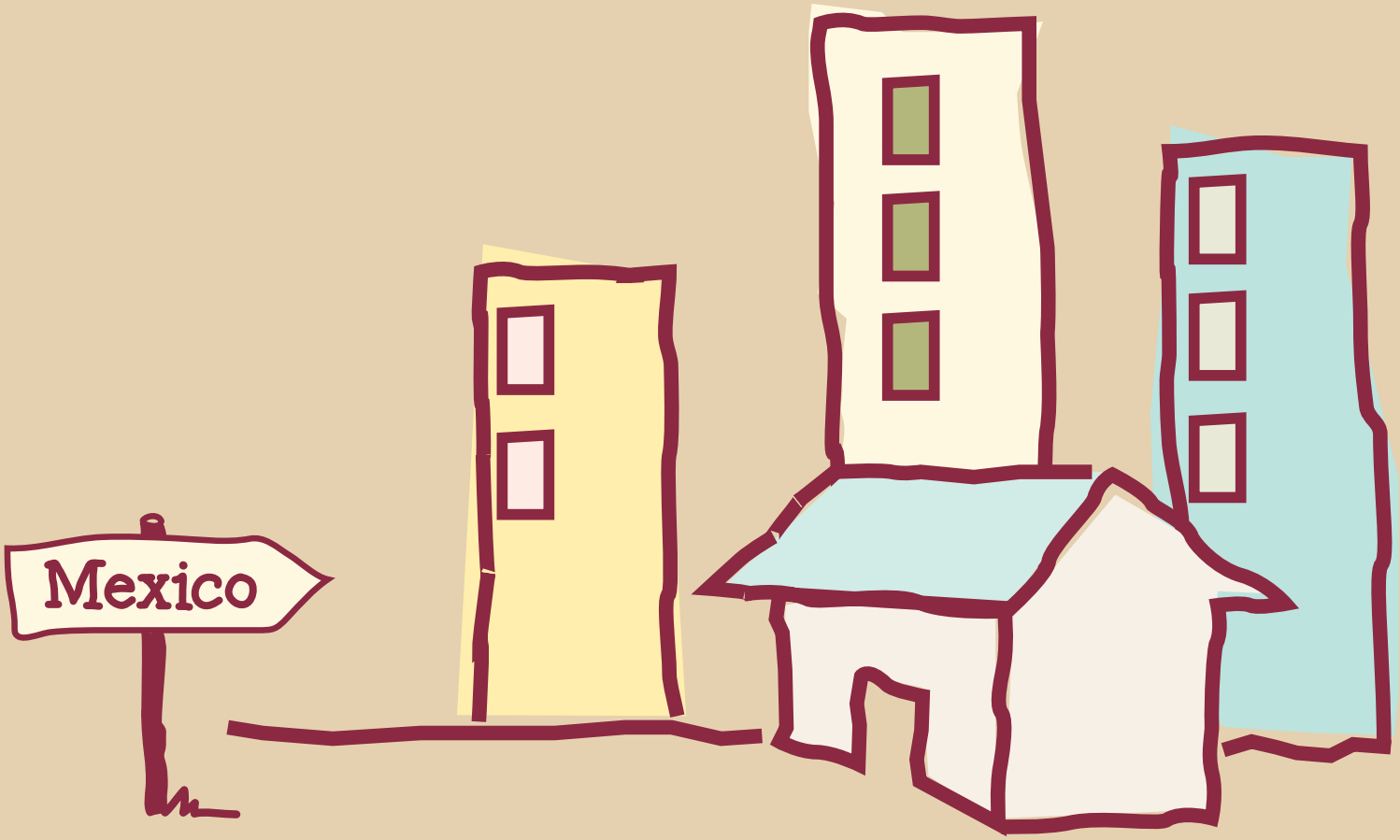
BBVA Bancomer

Real Estate Watch

Economic Research Department

October 2009



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Closing date: October 13, 2009

October **2009**

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* We thank Rafael Vargas of Sedesol for the comments
** We thank Ana Rubio and Octavio Gutiérrez of the Economic Research Department for the comments

Editorial

There is a growing consensus that the worst of the global crisis is behind us. Different indicators show that the U.S. economy has stabilized and the first "bouts" of recovery have begun to emerge. Retail sales, industrial production, and even applications for unemployment insurance suggest that the bottom was reached in that country in the second quarter. An expansive monetary and fiscal policy, coupled with specific measures in the banking sector, are managing to limit the impact of the crisis on economic activity and are providing support to stabilization.

The financial markets have reacted favorably. The stock exchanges are resuming the levels prior to the crisis of September 2008, capital investment flows are slowly returning to assets considered risky and to the emerging economies as well. Although complete normality still is not in place, in general, the conditions for accessing international financing are being reestablished. Doubts are now centered on the pace and sustainability of the global recovery. In our opinion, recovery will be slow, and is not exempt from risks. The most probable scenario, given the financial crisis and the deep adjustment, is for a gradual but sustained recovery if the public policies in the developed countries continue helping such a process along.

Although this environment is positive for Mexico, it is not sufficient. Traditionally, the recovery process is spurred by external demand, which drives exports and foreign investment. This is transmitted to the domestic market, with a gradual recovery in investment, production and later, consumption, which ends up being reflected in employment. Given the slow recovery in the United States, Mexico will experience a similar fate. In construction activity, however, this recession has been different, as the fall has been less pronounced than in previous cycles, and by the same token the bases exist for a more rapid recovery.

Contrary to other occasions, the housing sector has not undergone total paralysis. The rhythm of sales has diminished, but activity continues. Housing inventories, for example, remain at low levels, similar to those observed a few years ago. A combination of a more prudent approach—on the part of developers and buyers—and some degree of rationing of financing—especially non-bank credit—have led to the market adjusting to real demand—prices have fallen and the characteristics of the homes being sold have been modified— and, in some very specific cases, there has even been a shortage of housing.

However, it is necessary to promote measures aimed at a more rapid recovery and with better bases for the real estate sector in Mexico. In other editions of Real Estate Watch Mexico we have discussed the need to move toward a second stage for the sector, and in this issue we are publishing two articles on this question. The first is focused on the need to obtain land apt for urban development, which would reduce information and transaction costs. The second deals with long-term financing, through what are known as "Covered Bonds" or mortgage debentures, which can adjust the conditions of portfolio securitizations to borrowers' characteristics. We hope this publication will contribute to the debate and that the proposals will lead to a stronger development of the real estate sector in Mexico.

Macroeconomic Environment and Construction Industry

Where is the severity of the crisis coming from? ...a sum of unfortunate events

Throughout 2008, the Mexican economy underwent what could be characterized as the most profound recession since the 1930's, only comparable to what occurred during the peso crisis of 1995. However, as one of the many differences compared to other recessions, the construction industry has performed in a much more favorable way, since it will not undergo a similar contraction to that registered during the tequila crisis (more than 20%).

The magnitude of the current crisis is the result of a combination of various shocks which were simultaneous, of enormous severity and which had an effect, not because the Mexican economy is more vulnerable, but because that sum of events took place under a condition of a high degree of opening to the exterior. It was also added internally to the appearance of the "influenza". The unchaining of the crisis is situated in the U.S. In the real estate sector a "price bubble" was generated, which was the manifestation of certain excesses: interest rates—structurally low for a prolonged period of time— lax policies on excessively leveraged financial loans, underestimated risks, inadequate supervision and financial regulation[1] that was generalized to other assets. From the construction sector where approximately 20% of Mexican migrants work, this was transmitted to the real sector of the U.S. economy as a whole, strongly battering productive activities such as the automobile industry, which collapsed and hastened its restructuring to such a degree that it had to be rescued by the U.S. government.

The Mexican economy began to flagrantly feel the effects of the global crisis as of the 3rd quarter of 2008, when the "financial shock" intensified, giving rise to a strong aversion to risk, which made the financing flow from abroad more costly and led to the collapse of world trade. The contagion and propagation of the crisis, in an economy increasingly more synchronized at a global level, caused outlooks of recession in the industrialized countries and of moderation for the emerging economies.

The result of that combination of factors explains the recession in the economies of the U.S. and Mexico. In Mexico's case, negative growth figures began to be observed as of the 4th quarter of 2008 and extended towards the first half of 2009.

A different performance of the construction industry in this recession

The generalization of the moderation of the real estate sector in Mexico took some time in being manifest, and its impact was greater. As opposed to what occurred in the U.S., in Mexico both the structural and situational conditions are different (see chart) and

1 Review "***Real Estate Watch***" (Sept. 2008) "The Mortgage Securitization Market in Mexico", where, from an economic standpoint, diverse phenomena that occurred in the sub-prime crisis in the U.S. are explained, such as the existence of the "moral" risk and of adverse selection.

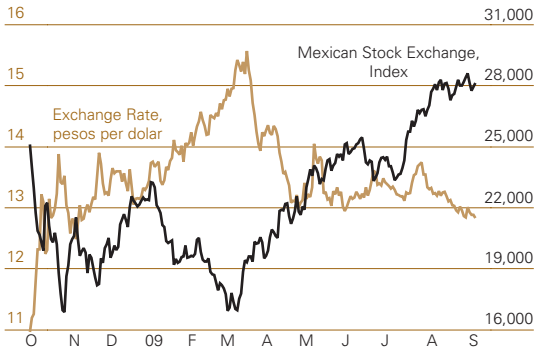
Low-Growth Periods in Construction

Period	GDP		Construction		Duration (mnths.)*
	Highest drop	Avge. annual recession	Highest drop	Avge. annual recession	
2009	-10.2(a)	-9.1(b)	-9.1(a)	-8.1(b)	6 (c)
2001	-0.1	0.3	-5.6	-1.8	15
1995	-6.2	-0.5	-23.3	-6.6	15
1986	-3.8	-0.9	-10.3	-3.8	12
1983	-4.2	-0.3	-19.2	-6.9	12
1977	3.4	6.2	-5.3	3.6	12
1971	3.8	6.0	-4.5	4.1	12
1930	-6.6	-1.5	nd	nd	nd
Avge.	**-2.0**	**1.3**	**-11.4**	**-1.9**	**13.0**

* Average time required to reach positive growth rates
(a) Annual rate second quarter
(b) Semester average
(c) Months elapsed
Source: BBVA Bancomer with Banco de Mexico data

Recent Volatility on the Financial Markets

Daily quotations

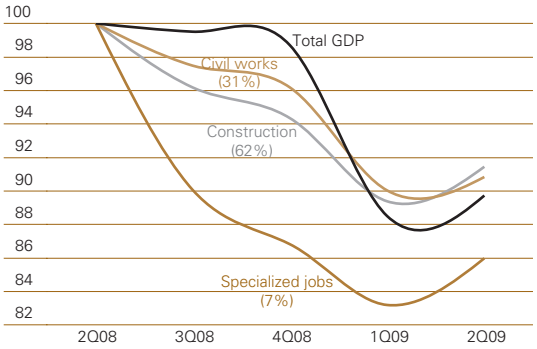


Source: BBVA Bancomer with Banco de Mexico and Bloomberg data

Signs of Local Risk in Stock Market Performance

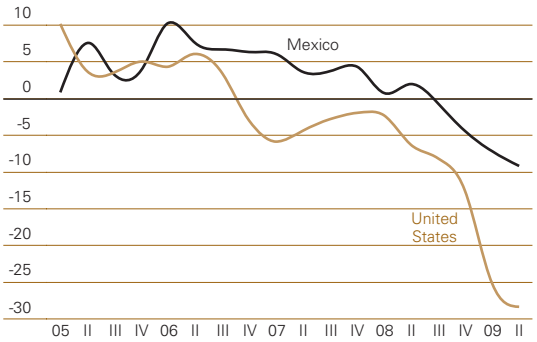
Source: BBVA Bancomer with Datastream and JP Morgan data

Construction Performance
Indices, base 100 = 2Q08



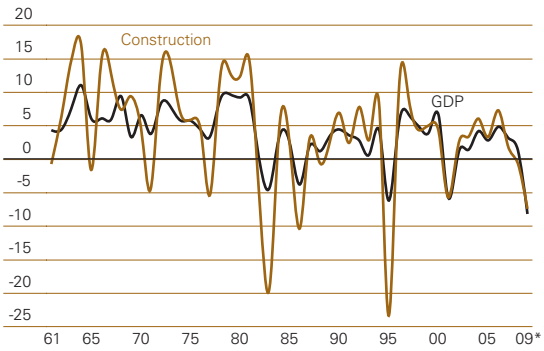
* In parenthesis, share in the construction industry
Source: BBVA Bancomer with Banco de Mexico data

Construction Performance
Annual % change



Source: BBVA Bancomer with INEGI and BEA data

Volatility in Construction
Annual % change



Source: BBVA Bancomer with INEGI data

are in a better situation in general. Thus, while in the U.S. it began in the real estate sector and extended to the rest of the economy through the financial sector, in Mexico, the opposite occurred. Also, the contraction in housing sales in Mexico, although important, was not homogenous, but showed important differences among regions and segments (see the following section the evolution and outlook for housing).

Currently, the construction industry has not experienced severely the battering of this crisis. In fact, its performance is similar to that of the economy as a whole when, on other occasions, it registered a more vulnerable performance. That is, it showed more pronounced drops than productive activities as a whole.

For the first time in several economic cycles, public investment has had positive effects on the sector. This is the result of the initial application of an anti-cyclical fiscal policy that has allowed maintaining, in general, a certain impulse of the national infrastructure plan and investment in public works in the states.

As regards building activity, housing construction was been affected, as has the prevailing situation itself of the slowdown in the economy, which led to unemployment due to the impact forthcoming from the higher aversion to risk which was reflected in the volatility of the exchange rate and of interest rates. The expectations surrounding macroeconomic stability and the contagion of the U.S. economy were uncertain, which is why at the end of 2008 and the beginning of 2009, the financing sources became more expensive for "bridge loans". Consequently, developers decreased the construction rate more sharply, which had begun to moderate in the previous months. Within these trends, the strong restriction should be pointed out in the financing sources that the Mortgage Sofoles and Sofomes faced (SSH fort their Spanish initials) during this period. Fortunately for the sector, months later, a certain normalization has been extended, based on the support from resources provided by the Federal Mortgage Association (SHF for its Spanish initials).

Thus, in 2008, the construction industry contracted barely 0.60%, while the GDP grew 1.4%. In the first two quarters of this year, the sector began to reflect the slowdown. However, it was the third and fourth quarters of 2008 that recorded negative rates which extended through the first half of this year.

In terms of the composition of the construction industry, the most affected was that of the specialized jobs, which recorded an annual average decline of -1.9%. At the same time, construction dropped -0.8% and civil works barely grew 0.2% in the same period. In just the fourth quarter, they fell -7.67%, -4.53% and -3.37%, respectively, compared to the same period of 2007.

Through the second quarter of 2009, the trend continued to be unfavorable for construction (an annual -8.2%). Specialized jobs in the industry continue to be the most affected (an annual -13.7%), followed by civil works and construction (-7.9% and -7.6%, respectively). However, as opposed to past economic cycles, as we have previously

commented, activity in the industry has recorded rates very similar to that registered by overall economic activity. In part, this can be explained by the greater activity boosted by the public sector, which has increased its investment notably since mid-2008 in response to the current recession. Just in the third and fourth quarters of 2008, public investment rose 16.5% and 30.2 % compared to 2007. In the first half of this year, the increase in public investment was 26%.

Even then, it is expected that, in this year, the construction industry will surpass the drop registered in 2001 (-5.6%). Even though they should be highlighted, the most important current structural differences compared to the two previous economic cycles are:

1) Higher public investment, through infrastructure programs, which has had a direct impact on construction rates, which provides the highest contribution to the growth of the industry; and,

2) Good housing financing bases, which range from the existence of the products at fixed long-term interest rates, with various types of insurance, such as for unemployment, to the maintenance of the sources of housing financing both banks and non-banks, which has increased the flow of funds to diverse productive activities and, in particular, to the construction industry (over 80% of these resources have been earmarked to finance the real estate market).

The worst of the crisis has passed; toward a gradual recovery

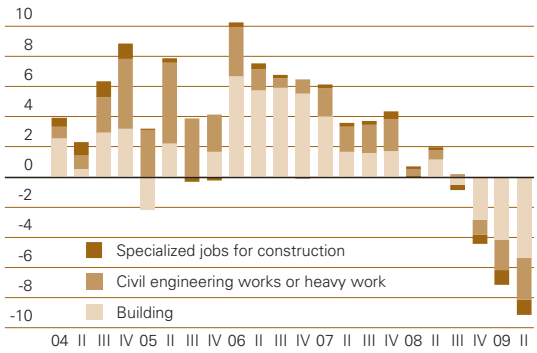
The performance of all these indicators leads one to think that the crisis, in effect, touched bottom in the second quarter and that the bases are being set for economic reactivation. However, it should be noted that such effects in the construction industry will not be significant until the end of 2009, due to the effect of the implicit lag. It will be until 2010 when the reordering of productive activity will be reflected in moderate growth, although gradual and sustained.

Construction Industry
Growth in components; annual % change

	Construction	Building	Civil works	Specialized construction
2004	5.3	3.6	7.8	10.5
2005	3.8	0.7	12.4	-0.5
2006	7.7	9.6	5.2	2.7
2007	4.4	3.6	6.3	4.1
2008	-0.6	-0.8	0.2	-1.9
2009*	-8.2	-7.6	-7.9	-13.7
Const. (a)	100.0	62.4	30.1	7.5
PIB (b)	6.6	4.1	2.0	0.5

* Data through the first quarter
(a) Contribution to construction, percentage share 2009
(b) Contribution to GDP, percentage share 2009
Source: BBVA Bancomer with INEGI data

Contributions to Growth in Construction
Annual % change



Source: BBVA Bancomer with INEGI data

Economic Projections
Base Scenario

	2008	2009	2010
GDP Mexico*	1.4	-7.2	3.1
Construction GDP*	-0.6	-6.7	3.9
Building*	-0.8	-6.1	3.8
Civil Works*	0.2	-6.5	4.3
Specialized const.*	-1.9	-11.3	3.6
Interest Rates			
Bank funding (a)	8.3	5.4	4.5
M10 (average)	8.4	7.9	7.5
Exchange rate (b)	13.7	13.5	13.0
Support variables			
US GDP*	1.1	-2.5	1.5
Inflation (average)	3.9	-0.7	1.1
Fed (eop)	0.16	0.13	0.13

* Annual change
(a) End of period
(b) Fix, average pesos per dollar
Source: BBVA Bancomer

Characterizing Some of the Structural Differences between the U.S. and Mexican Housing Sectors

Due to the close relationship between the U.S. and Mexican economic cycles, it could be thought that the effects of the real estate crisis in the United States would tend to be similarly transmitted to the Mexican housing sector. However, the following are some of the structural characteristics of each market that explain why the impact has been different:

- In Mexico, it is practically not possible to speak of the existence of a "subprime" market that could bring together the same characteristics as in the United States, such as mortgages granted to clients without a previous credit history or with low and variable income. In this sense, Mexico has a low degree of mortgage loan penetration in relation to the size of its economy.[1]

- In Mexico, the LTV (loan to appraised property value) ratio does not exceed 100%, while in the United States it can reach up to 125%, particularly through adjustable-rate mortgages (ARM). This is because during the first years of the credit, payments are made at a below-market interest rate (negative amortization), which results in a significant increase in the number of installment payments required to liquidate the loan.

- There is a difference in demographic dynamics between the two countries, particularly, the population pyramid. The Mexican mortgage market specializes in the sale of new homes, for the formation of households, and the incipient appearance of other market niches, such as a second home. Housing loans as a percentage of GDP in Mexico is only 14%, while in the United States it is more than 70%.

- In the U.S., mortgage securitization has generated incentives to place risky mortgages and on occasions loans that are not very well monitored and regulated. In Mexico, on the contrary, securitizations are provided with loan insurance or a financial guarantee, with *Sociedad Hipotecaria Federal* (SHF, the Federal Mortgage Association) and/or an insurance company exercising greater control over the quality of the securitized portfolio.[2]

- In Mexico, housing prices have remained stable in real terms, one cannot speak of a "price bubble." This is the result of the regulation of the portfolio by Infonavit, which, together with the SHF, determines the possibilities of the sector's long-term funding without compromising the system's liquidity.

- The Mexican bond market is not experiencing abrupt changes in prices, since the placements are established in accordance with the credit goal set by the regulatory agency. This is contrary to the practice in the United States, where unexpected changes in the bond market can function as incentives so that the public can acquire more loans, which represents higher risk if the market falls, reducing the margin of response for creditors.

- In Mexico, SHF, the Federal Mortgage Association, the sector's regulatory agency, monitors and if necessary, injects liquidity into the financial institutions to control the industry's delinquency indexes, offering guarantee to both mortgages as well as securities issued in the debt markets. In the United States, however, the absence of strong regulations allows loans to be transferred to a new holder, divided, and sold to third-party investors, which makes it difficult to control delinquency levels.

- In the United States there is a legal framework that offers better guarantees for real estate property rights and greater liquidity in the market, contrary to Mexico, with its high transaction costs due to the unevenness in the land market. However, regulation, supervision, and mortgage origination is much stricter in Mexico than it was in the United States, which results in fewer risks.

Overall, these characteristics make the Mexican mortgage market less vulnerable to a scenario marked by restricted liquidity or possibly greater stress. It is true that bank penetration has increased in recent years as a result of potential demand, which continues to be high. However, the financial institutions are proposing new strategies for long-term funding such as Covered Bonds (see article) which have been successful in other countries, and that could help increase credit supply, once financing tends to stabilize in order to achieve a more solid recovery in the supply of housing in 2010.

1 Mortgage loans as a percentage of GDP in Mexico is relatively low, especially when compared with countries in a similar per capita income range (such as Chile, where the corresponding figure is 16%). This figure is very low in comparison with more developed countries where financing levels are even higher than 100% of GDP (such as the Netherlands, Denmark, Switzerland) or Spain with 63% or the United States with 76%.

2 It should be pointed out that from 2005 to 2008, financing through securitizations grew 103.3% in real terms, and in the latter year the increase was higher than 50%.

The Housing Market in 2009

Introduction

This year, 2009, has been difficult for the housing sector. Global financial crisis, risk aversion, and an economic recession have combined to generate a strong adjustment in the market. The indicators show, however, that the most severe stage in this process occurred in the course of the first half of the year; in some cases some improvement has been noted since the second quarter. This article will offer a review of the main trends observed during the year in terms of demand for housing and financing for the sector.

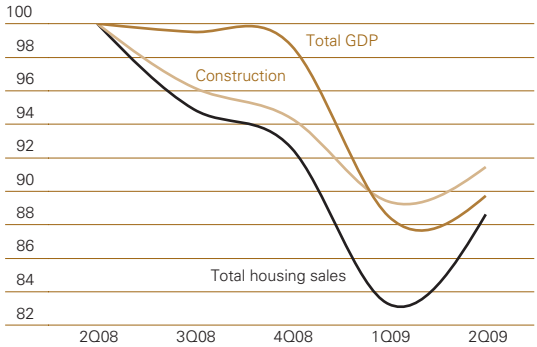
The adjustment in the sector, more severe than for the rest of the economy

The housing market has followed a similar course as the rest of the economy, although with a somewhat more pronounced decline. While average GDP fell 9% in the first half of the year, housing sales dropped 16%. These figures come as no surprise, since activities related to the construction industry in general reflect changes more intensely in the economic cycle than the economy as a whole (see section on macroeconomic environment and construction), although the comparison helps place in context and explain the scope of the adjustment. The sector depends on variables tied to the evolution of economic activity, such as building material prices, employment, wages, and even tax collection levels (due to the weight of the government's programs in the sector). Inflation, interest rates, and the level of risk aversion are also key factors in the availability and cost of financing, and consequently, in the supply of housing. Both as a result of the external context (recession and global financial crisis) as well as the internal scenario (drop in employment, decline of disposable income, and reduced tax collection levels, among others), practically all these indicators reflected a particularly adverse environment in the first few months of 2009.

Thus, the contraction in home sales was generalized and considerable in the first months of the year, although as of the second quarter a certain recovery can be noted, especially in the low value segments. Sales in the A and B segments, which correspond to homes for up to P$250,000 and up to P$480,000, respectively, fell 14% and 20% with regard to the highest level that they had reached, by mid 2008. As of the second quarter, these segments have been marked by the best relative performance, which reflects more than a clear improvement in the economy, government efforts to promote housing programs. This is because home sales among the low-income population depend more on the availability of subsidies than on the economic cycle.

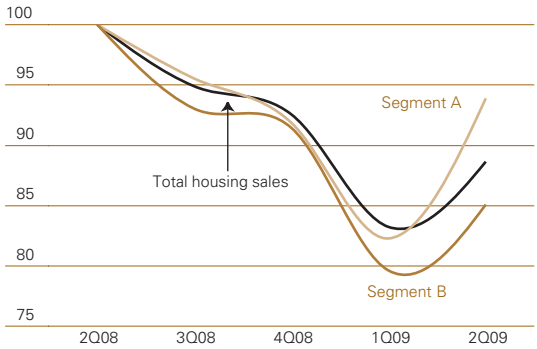
For the rest of the segments, that is, medium and high value, the weakness has been more long-lasting, and will probably remain for most of the year. The revival of employment will be a key element in the trend change, although it will occur gradually and more visibly toward 2010.

The Adjustment in the Housing Sector, More Severe than in the Rest of the Economy
Indexes, base 100 = 2Q08



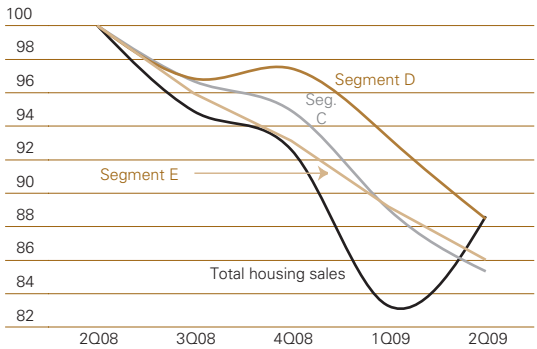
Source: BBVA Bancomer with Softec data

New Housing Sales
Indexes, base 100 = 2Q08



Source: BBVA Bancomer with Softec data

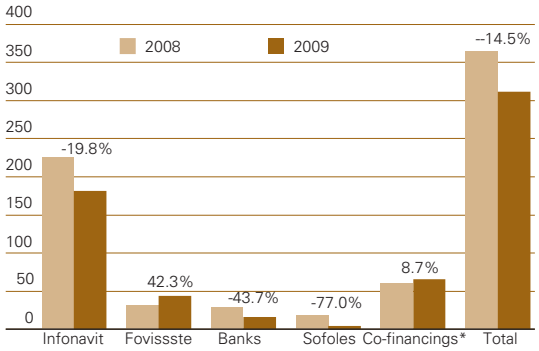
New Housing Sales
Indexes, base 100 = 2Q08



Source: BBVA Bancomer with Softec data

The Contraction in 2009 has Most Affected Private Intermediaries

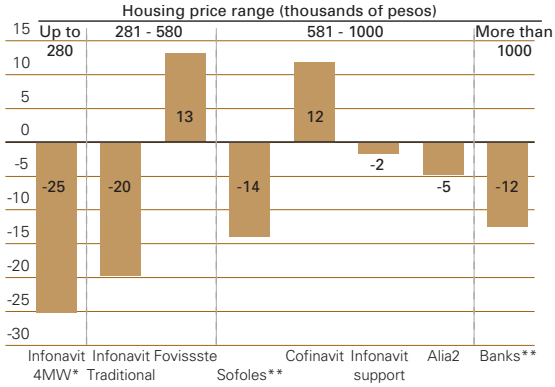
Thousands of credits and annual % change, Jan.-July



* Includes Infonavit and Fovissste
Source: BBVA Bancomer with AHM data

What Type of Housing has Seen its Sales Decline in 2009?

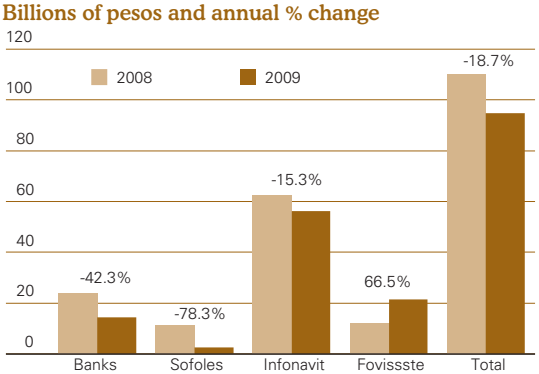
Difference vs 2008, Jan.-July, thousands of homes



Note: Banks include Banamex's Infonavit Total product
* MW = Times the minimum wage
** Open market
Source: BBVA Bancomer with AHM data

The Contraction in Financing has most Affected Private Parties

Individual placement
Billions of pesos and annual % change



Source: BBVA Bancomer with AHM data

In terms of the agency from which the loans originated, the contraction in the number of homes placed in 2009, from January to July compared to the previous year, was about 15%, or around 53,000 units. The trend in Infonavit financing (in credit products for those earning up to four times the minimum wage and traditional credit) follows an evolution similar to that of low-cost home sales, given the strong declining rates at the beginning of the year. In turn, these results can be associated with the shortage of available housing (see section on inventories).

At the same time, measured in relative terms, the strongest contraction has occurred in the Sofoles (-77%), while the only agency that has increased its credit placement was Fovissste (42%).[1] The decline in Sofoles loans, associated with the change in their juridical status,[2] but above all with the difficulties that they have faced to obtain financing[3] and which, in turn, can to a large extent be attributed to the rapid weakening of their portfolio, particularly for bridge loans (see article on long-term financing), has had implications for the market. A pending task in this regard is attending to the segment that they traditionally cover, that is, homes valued from P$600,000 to P$800,000. This helps to explain why Infonavit co-financing credit (Cofinavit), which is earmarked for the same housing segment, has posted a strong increase. In contrast to the rest of the market, which overall posted a decline of around 15% in July, the number of Cofinavit credits increased 9%.

Financing, linked to activity

In relation to financing, the story is similar to that of sales. According to official indicators, through July, Fovissste had increased the amount of its financing by 66% in real terms, while Infonavit had reduced its loans by close to 16% in the same period. Nevertheless, the figures coincide in indicating that both for banks as well as for Infonavit, the most critical phase occurred in the first few months of the year, and since then a gradual recovery can be seen.[4]

At the same time, in the current environment, public sector agencies have managed to maintain their sources of financing and therefore, they have increased their market share. Despite everything including the drop in home sales, Infonavit marginally increased its market share in terms of financing, which remains at around 60%. Fovissste, whose market share was 11%, increased it to 23%; in contrast, the Sofoles and Sofomes saw a dramatic reduction, from 10% to 3%, while for banks the decrease was from 22% to 15%.

1 In the case of Fovissste, results are influenced, first of all, by the fact that this agency is focused on credits for government employees, in which the economic recession has not implied significant job cuts. Secondly, that thus far its market share has been modest; for example, the credit goal for 2009 was set at 100,000 homes, which when compared with the 90,000 units sold in 2008, represents an important increase (11%) but still very much below Infonavit (whose 2009 goal is between 450,000 and 500,000 homes). Thirdly, the agency's home loans have still not reached their full development potential; mortgage loans were granted based on a lottery type drawing and not on a right that all workers can demand, such as is currently the case.

2 In October 2008, Hipotecaria Su Casita changed its legal status from a Sofol to an unregulated Sofom, which is not required to report the details of its operations to the regulatory agency, the National Banking and Securities Commission (CNBV).

3 The July figures reported by the Mexican Mortgage Association (AHM) showed that for bridge loans, the fall in financing to Sofoles implied that close to 30,000 homes would not be built in the January-July 2009 period.

4 In the second quarter, 51,000 mortgage loans were granted, a 19% increase compared to the first three months of the year.

The figures show the growing importance of housing support programs promoted by the government, both in terms of direct credit as well as co-financing policies. They also show that there are housing segments (particularly in which the price range fluctuates between P$600,000 and US$1 million) in which public sector financing is more abundant and converges with that of the private sector. For example, while in 2008 (January-July period) the weight of credits granted exclusively by banks (known as open-market credits) represented 85% of total financing, while in 2009 the figure barely exceeded 60%, and the rest corresponded to co-financing programs.

Less housing construction limits financing

The breakdown of financing on a state-by-state basis reveals strong differences on a regional level in the evolution of the housing market. Except for three states (Hidalgo, Yucatan, and especially Morelos, with an increase of almost 20%) the rest posted negative figures, which in some cases, such as Baja California Sur and Colima, approach 40%.

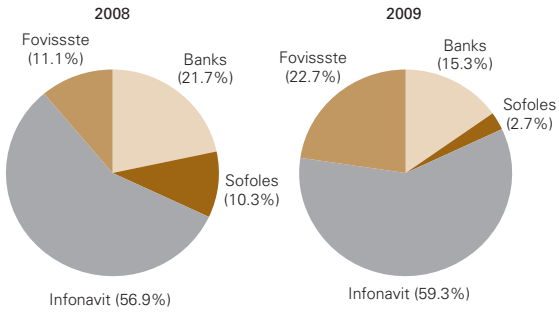
This strong contraction in home financing and the disparities on a state level, not only reflect the weakening of economic activity or the factors that could keep demand for credit depressed (employment, disposable income, interest rates), but also the number of units available for sale. As we noted in the previous issue of Real Estate Watch Mexico dated January 2009, the trend toward less housing construction that has been occurring since 2008, helped to reduce inventories, but it went much further, to the point of creating a housing shortage for the lowest income segments. In fact, a clear relationship exists between the housing deficit, understood as the difference between supply (new and used homes) registered in the Sole Housing Registry (RUV) and Infonavit credit goals. In 23 of the country's 32 states (72%) the decline in financing (which is concentrated in the low-value segments) comes together with housing deficits in preventing Infonavit's credit goals from being met. As detailed in the article on housing inventories (in this same issue), the explanation for the housing deficit is to be found, in turn, in less financing for housing developers via bridge loans.

Portfolio balances reflect changes in market participants and financing structure

Through June 2009, the performing mortgage loan portfolio balance[5] reached one trillion pesos, equivalent to 10% of GDP, half of which corresponds to Infonavit while the rest is divided among private intermediaries. It is interesting to note the change in the relative weight of the different participants over the past few years. Between 2004 and 2009, Infonavit for example, saw its share drop by 20 percentage points (it represented 70% of the portfolio in 2004), while at the same time, the banks' share rose from 12% to 30%. Securitizations, which began in 2004, by 2009 represented 8% of the portfolio. Meanwhile, the Sofoles and Sofomes mortgage companies have consistently lost market share, and rapidly so since the second half of 2008. Through

5 Considering the Infonavit as well as the private intermediaries, since Fovissste has so far not reported on its portfolio balance.

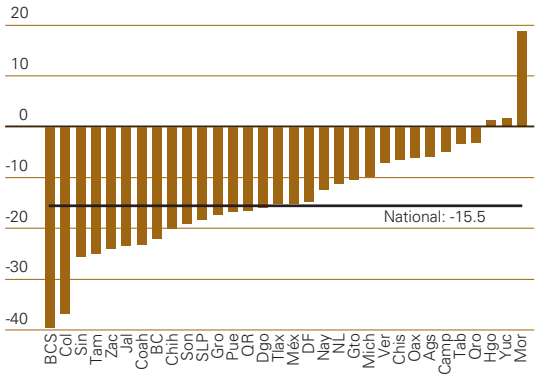
Who Finances the Sector?



Source: BBVA Bancomer with AHM data

Where has the Decline in Financing been Concentrated in 2009?

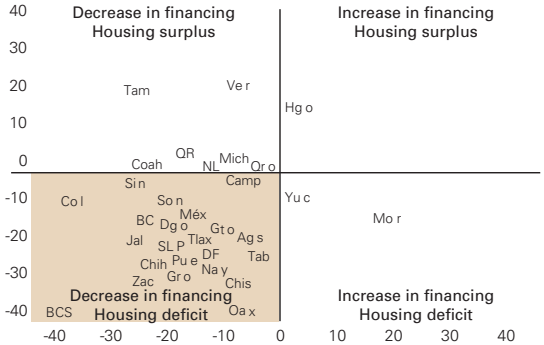
Annual % change, January-July



Source: BBVA Bancomer with AHM data

Housing Shortage, Bottleneck for Financing

January-July 2009

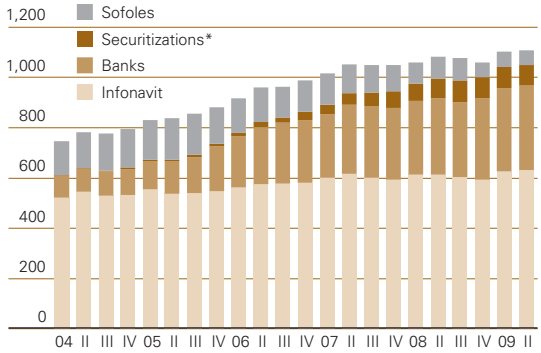


Note: Axis X: financing (real annual % change 2009)
Axis Y: Housing supply - available credits (only Infonavit, %)

Source: BBVA Bancomer with Infonavit and AHM data

Sofoles/Sofomes Financing Declines Rapidly

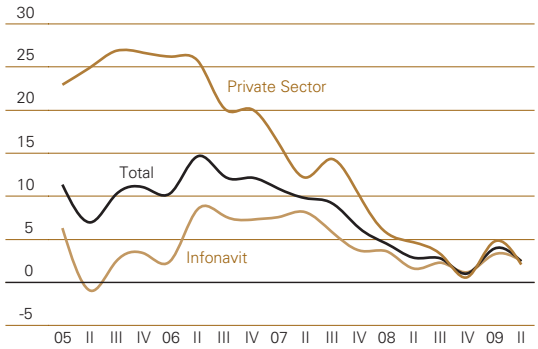
Portfolio balances through 2Q09, billions of June 2009 pesos



* Includes placements by Infonavit, banks, and Sofoles
Source: BBVA Bancomer with Banco de México and Infonavit data

Housing Credits

Annual % change



Note: Includes private sector securitizations and Infonavit
Source: BBVA Bancomer with Banco de México data

June 2009 their weight in the total portfolio was 5%, while in 2004 it was close to 20%.

Conclusions

For the housing market, 2009 has been a year of important adjustments, due to the different factors that affect the sector (from building material prices to tax revenue, in addition to the global financial environment). At the same time, the trends seen during the course of the year not only reflect the effects of the economic contraction, but also some processes that emerged in 2008, such as the difficulty to obtain financing from private intermediaries, that, in turn implied closing the door on bridge loans, which translated into less housing construction. Behind all this was undoubtedly the international financial crisis, but also the deficiencies in regulation and monitoring mechanisms, particularly in relation to the processes of loan origination and quality of the non-bank intermediaries' credit portfolios.

Although the indicators suggest that the most difficult part of the adjustment process took place in the first few months of the year, the revival of the housing market will be clearer toward 2010, hand in hand with the economic recovery. However, other factors will also have an effect, such as the stabilization of bridge loan financing and progress in resolving financial situation of the Sofoles and Sofomes, the applicable regulations for participants in the sector, as well as the development of new financing programs and policies. The performance of the housing market, not only in 2010 but also in a medium-term horizon, will depend to a large extent on the decisions that are taken in this regard.

Do Inventories Set the Pace for Housing Construction?

In any market, inventories are one of the most important variables of adjustment to follow in recessive eras, although they do attain greater relevance in the real estate sector due to their nature of durable goods, which require more time for their movement and represent a high cost for developers and real estate sales persons to maintain them. Also, in the recovery phase, the diagnosis of the situation of residential inventories is fundamental, because they can have an impact on the initial pace of recovery.

Today there is little clarity among many participants in the real estate market regarding the inventory situation. Thus, one of the questions most frequently asked is whether, in the recovery process that has already started in some segments, there will be sufficient supply to meet the housing needs, particularly for low-income housing (segments A and B). And, on the other hand, also in the rest of the segments (C, D and E), if the current inventory volume could represent a certain impediment to recovery and, consequently, it could be a little slower.

Due to its importance, this section analyzes the recent evolution of inventories and their relationship in the decisions of new housing development construction.

The relationship between inventories and sales

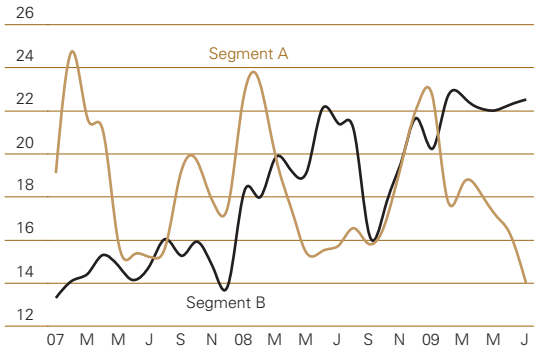
If, between one quarter and another, 5% is added, for example, to the available housing units for sale, (or the housing stock), the figure could turn out to be high or low, depending on the speed with which they are moved on the market. Thus, it is common to analyze the evolution of housing inventory through its relationship with the sales rhythm. According to this criterion, it is said that inventories rise if, at the current sales rate, the time required to move them increases and vice versa. In addition to being intuitive, the indicator helps to identify more accurately the speed of the adjustment of supply to the changes in demand, particularly relevant in times such as the current ones.

Throughout most of 2008 and over the course of 2009, the time required to move the housing units increased practically in all the segments, save for the lower-cost housing sector. For segment A, between mid-2008 and the beginning of 2009, the average sales time of housing developments at the national level rose from 15 to 22 months, a moderate rise, although still within the 15- to 25-month range in which it had remained since 2007: However, the trend since then has been one of a progressive decline, until, in July, it stood at levels under 15 months, even lower than what was observed in 2007 and the beginning of 2008, years of high housing sales levels. For this segment, the conclusion would point to the fact that despite the moderation in sales; the housing construction rate has dropped at higher proportions, and it has been possible to reduce inventories.

On the other hand, the trend is markedly different in the rest of the segments. The extreme case is that of much higher value housing,

Inventories are Reduced or Stabilized in Low-Value Housing

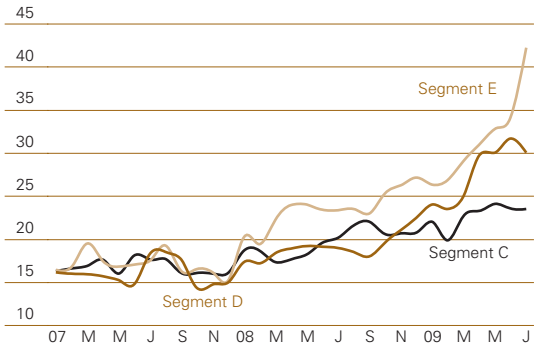
Inventories in sales months required to completely consume the stock



Source: BBVA Bancomer with Softec data

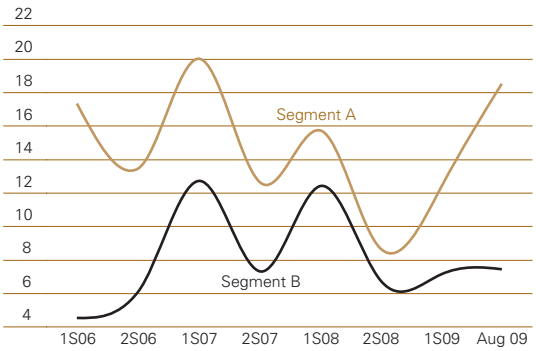
But in the Medium- and High-Value Segments, they Continue to Rise

Inventories in months of sale required to completely consume the stock



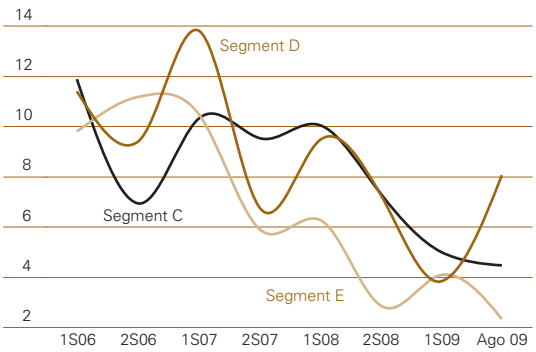
Source: BBVA Bancomer with Softec data

In view of the Drop in Inventories, the Supply Rallies in the Low-Value Housing Segment
New housing as % of the total available



Source: BBVA Bancomer with Softec data

. . . and, in Turn, in the Medium- and High-value Segments, the Developers Have Decided to Wait a Little Longer
New housing as % of the total available



Source: BBVA Bancomer with Softec data

or segment E, where the time required to move the projects has doubled between the beginning of 2008 and mid-2009, from 20 to 40 months. The reasons that explain it is that, in this segment, there are niches such as the second residence or tourist, where the drop in demand has been quite severe. The medium segments (C and D) show a performance heading toward possible stabilization.

Construction of new housing linked to inventories

How do housing developers incorporate the information on inventories? It is clear that they follow the trend that could be anticipated, that is, they act in accordance with the performance of the economic cycle and, therefore, of housing sales. If the sales time is reduced, more housing units are built and vice versa, that is, they act "procyclically" but, it is not so clear that the response in the change of the cycle is so immediate, that is, from recessive stages to recovery, they adapt in time or in magnitude to the change in sales. There is a lag in construction that takes inventory levels into account..

An example with certain peculiarities is found in the lower value segment, in particular the A segment, and to a lower extent B, where construction has grown significantly throughout the last year despite the economic recession, although the inventory reduction suggests that sales are advancing even faster.

In the high and medium value segments, the trend in construction is still low, especially in segment E. Builders are probably expecting an unequivocal sign of recovery in sales and a drop to more manageable inventory levels, prior to starting new developments. Although with some caution, builders, focused on the middle segments of C and D, seem to be already advancing somewhat in the start of the recovery. An improvement will be necessary in economic activity and, particularly in employment—which will come gradually in 2010—so as to have a more palpable improvement in developers' confidence that will encourage housing construction in segments other than the low-income[1].

…and the availability of bridge loans

It is a fact that as a result of the financial crisis and, particularly, of the solvency problems that the Sofoles and Sofomes that participate in the sector have faced, loans for housing construction or bridge loans have been reduced significantly throughout 2009. In the first seven months of the year, the bridge loans granted by the banks had been reduced by 18% in real terms compared to the same period of 2008. On the other hand, the drop in the case of the Sofoles and Sofomes was higher than 63% in real terms. It is not a minor topic. In practice, it has implied reducing financing for 30,000 homes[2] (from

1 Another interpretation is that public housing agencies seek to meet their housing placement goals, especially through the low-income segment and the developers are followers of these goals.

2 Probably, it has not been only a topic of lower access to financing, but also of demand conditions or the impact of the recession on the market served by the Sofoles and Sofomes. For example, figures from the Mexican Mortgage Association show that, in terms of portfolio (with reference to the number of loans), Baja California, a state strongly battered on the in-bond-manufacturing for export activity due to the U.S. recession, this is twice as important for the Sofoles and Sofomes as for the banks.

122,000 in 2008 to 92,000 in 2009, in the January to July period) and directing it more toward the lower value segment (the average loan amount fell from P$158,000 to P$130,000).

To summarize, in the medium- and high-value housing segments, the market dynamics (a contraction in demand and restrictions to financing for developers) have combined for a more severe adjustment, in accordance with conditions in the economic cycle. The reactivation of productive activity should set the pace so that both the housing supply and demand resume the expansion course. The story is different in the low-value housing segment, where, on the one hand, housing demand remains in expansion (in the end, it is linked more to the support programs to mitigate the effects of the recession), although it is not clear that supply will do so at the same rate. One of the questions that arise is that, in the end, the goals for the placement of the loans established by public organizations will be affected due to the scarcity of housing supply.

So, are enough homes being built?

Based on information from the Infonavit in terms of the loans placed by housing segment (lower income and higher than four minimum wages) together with the supply registries of new and used homes in the Sole Housing Registry (RUV for its Spanish initials), it Is possible to establish a reference as to the equilibrium between housing supply and demand.

For the lower-income-value segments (income of up to four minimum wages), the placement goal for 2009 was considered at 270,000 loans. Through July, 163,000 were already formalized and 107,000 still had to be placed. However, the RUV figures reveal that only 43,000 new homes had been registered, even counting those in the construction phase) and 21,000 used ones. Thus, even in the best of scenarios (will all housing sales registered), the placement goal by Infonavit for the lower value segment will remain short in 2009 at 42,000 homes or 15% of the total considered for the year.

Doing a similar exercise for the segment earning over four minimum wages (counting used homes as well), an equilibrium is practically observed (a surplus of two thousand homes) between the placement targets and the available supply. Adding both segments, the result is that the supply deficit will be equivalent to 40,000 homes in 2009, or 9% of the total goal for Infonavit loans at a national level (450,000).

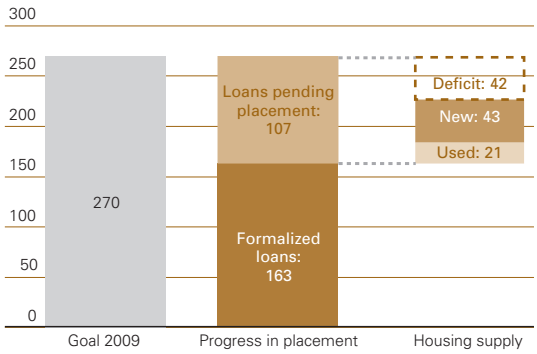
For some states, this deficit is quite significant. As a proportion of the sales for the year, in Baja California and Chiapas, it represents close to 40%; even in states of higher weight, such as the Federal District, the figure is equivalent to 20% of the goal.

Conclusions

Inventories, combined with the sales rate, are a good indicator of the response of housing builders to adapt to the trend under the market´s demand conditions. In the current cycle, the efforts by the government to maintain housing placement mainly attending to the

In the Low-Income Segment, the Scarcity of Supply Limits the Infonavit Goals

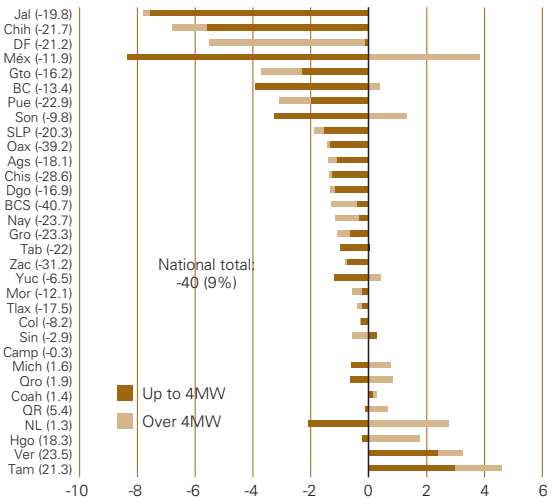
Infonavit loans income lower than 4MW*, thousands



* MW = Minimum Wages
Note: Figures at the end of July
Source: BBVA Bancomer with Infonavit data

Where is there a Housing Scarcity?

Infonavit, supply - available loans*, thousands



Notes:
1 Figures at the end of July
2 The supply considers the housing units (new and used) that are registered, even if they are under construction. The available loans are the difference between the goal and what has been realized.
3 Figure in parenthesis denotes % share in the 2009 placement goal
Source: BBVA Bancomer with Infonavit data

lower-income population are very commendable. Even if housing construction has rallied, it should do it faster in these segments and review in a very detailed way the regions showing greater housing scarcity, so as to guarantee that the supply is sufficient for the demand requirements. In this year, the Infonavit goals for the placement of housing for the low-value segment (up to four minimum wages) could remain limited at 15%, due to the lack of available housing, not to the lack of financing. For the higher value segments (over four minimum wages), the situation is not so dramatic, given that when considering used housing for sale, the availability of loans is practically equal to the supply. In any case, the figures provide evidence of the strong impact of the economic and financial crisis on the housing market, reducing demand, but especially construction, where the restriction to financing has been a determining factor. Given the time required to have the conditions of the projects for their execution such as, for example, the obtainment of permits and establishing the land apt for urbanization and basic infrastructure of services, the subject of the scarcity of housing supply for the low-income segments of the population could remain in force throughout 2010, which is why it is necessary to reinforce the plans that will guarantee the availability of financing for the sector.

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How do the Prices of Fuel Products and Electric Power Affect the Housing Sector?

Introduction

The economic crisis seen in 2009 once again revealed the structural weakness of public finances in Mexico and the scant maneuvering margin that the government has to face abrupt changes in the economic cycle in an agile, efficient manner. Loss of tax revenue due to the recession, added to the continued reduction of crude oil production leaves the government few alternatives to finance its expenditures. One of these will undoubtedly be to raise taxes and the prices of the goods and services it provides.

This section studies the impact that eventual increases in government-managed and regulated prices of goods and services, particularly fuel products and electricity, will have on the construction industry and on the housing sector. This analysis is based on econometric estimates, derived from a stimulus and response model to measure the behavior of construction costs in light of price variations of some fuel inputs and based on this, their transfer to the housing market.

Determining factors of construction costs

In their most general form, the components that determine the evolution of costs in the construction industry are prices of materials—metal and non-metal—wages and the rental of machinery. In the index of construction costs (ICC) prepared by Banco de México, the share of these components represents around 80% of the total (60% metal products and 20% non-metal products).

That is, when speaking of construction costs, these are mainly prices of steel and other metals, and the price of cement. Throughout 2009 (up to August), the ICC averaged an annual growth rate of 3.6%, 1.6 percentage points below inflation to the producer (5.2%); this stability coincides with the drop in the international prices of inputs for the industry, of more than 41% (January-August average). In contrast, for 2007 and 2008, the sharp rise in the international prices of raw materials, led the ICC to grow at significantly higher rates than the average for prices to producers[1].

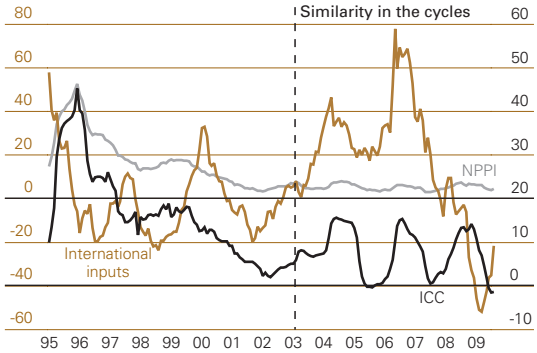
For 2010, the expectation of a relatively slow recovery of the world economy does not generate important additional pressures on raw material prices. The question is whether the eventual increase in prices and rates set by the government for products and services such as fuel products and electric power will exert upward pressure on construction costs.

Measuring the effect on construction costs of the prices of electric power and fuel products

What can we expect for construction costs in view of an eventual increase in the prices of electric power and fuel products? With

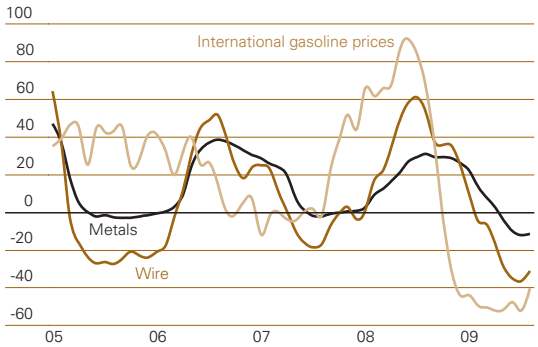
1 With regard to fuel products, the high prices seen in 2007 affected global economic activity considerably, but the contagion effect toward Mexico was marginal. When international fuel prices increased nearly 90% in the middle of the past year, domestic prices of metal inputs increased around 27%, while toward the middle of 2009, when fuel prices fell almost 50%, metal costs fell only 10 per cent.

Economic Cycle of Construction Costs
Annual % change



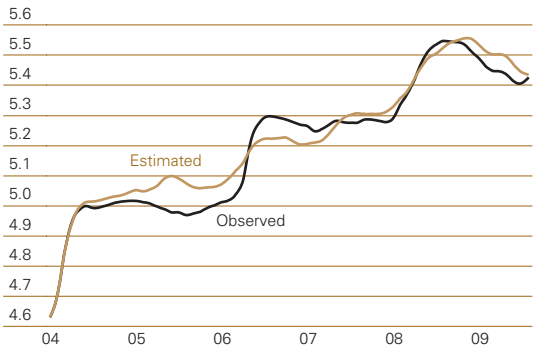
Source: BBVA Bancomer with Banco de Mexico and IMF data

International Price Performance of Fuel Products and Metal Inputs
Annual % change



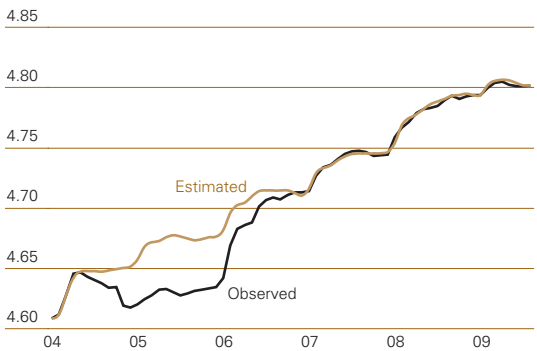
Source: BBVA Bancomer with Banco de Mexico and IMF data

Cost Simulation of Metal Inputs



Note: Estimated with self-regressive vectors
Source: BBVA Bancomer with Banco de Mexico data

Cost Simulation of Non-metal Inputs



Note: Estimated with self-regressive vectors
Source: BBVA Bancomer with Banco de Mexico data

this scenario, we conducted an exercise of sensitivity in order to determine the short-term effect of an increase in public prices on the components of the costs considered.[2]

According to the results of the simulation, it was found that, for each percentage point increase in the public prices considered, after one quarter, the costs of metal inputs rise 0.4 percentage points on a permanent basis, and those of non-metal products rise by close to 0.1 percentage points. As a result, at the end of a six-month term, that is, after two quarters, the total contribution of construction costs would be lower than the total initial impact of one unit and would be transferred by 0.5 per cent.

Due to the fact that the weighted share of non-metal inputs is lower, their contribution to construction costs in view of the change in prices presents a more modest adjustment. In contrast, the effect of metal inputs is much higher and takes more time to stabilize.

These estimates, combined with the relative share of each of the inputs, offer a frame of reference in calculating the potential impact of a rise in the prices and rates of the public sector on the construction industry. In a hypothetical scenario of a rise between 10% and 20% in these prices, construction costs would rise within a range between 5% and 10%.

Of construction costs on housing prices

In this section, we analyze the sensitivity of housing supply and demand to increases in construction costs[3]. In previous editions of Real Estate Watch, Mexico, we have dealt with the subject of sensitivity in the response of demand to prices, where it is shown that for housing buyers in the low-income and economic segments (more than 70% of total housing sales), the factors for purchase decisions are more associated with income availability. After the crisis of 1995, it is evident that demand in the low-income levels has been more in line with the economic cycle (income of the economy), while on the side of supply, developers tend to transfer a greater share of construction costs to the high-income residential segments and above. For this reason, in the higher value segments housing prices have a greater significant weight. This simply means that, in the case of housing for the low-income population segment, increases in construction costs could be transferred in more variable proportions, since housing characteristics (size and finishings) can be modified in a more flexible manner, contrary to what occurs in the more expensive segments[4]. This has been partly the reason why prices have remained stable, since in this way, developers try to maintain their sales levels in the market.

Consistently with these findings, upon conducting a simulation to measure the effect of an increase of 1 unit in construction costs on

2 We used the cost index of metallic minerals, to explain the cycle with reference to the international trend. In addition, we added the component of non-metal inputs because this item includes production costs related with cement and concrete. It should be considered that Mexico ranks third in world production of cement.
3 As a variable to simulate supply, we used housing construction. For demand, in turn, we used the added value of construction, which is the component that provides the greatest value to the industry.
4 See Real Estate Watch, Mexico, January 2009.

the supply and demand of housing , there is an increase of 0.6 basis points on the former and a reduction of 0.4 points on the latter[5].

That is, the estimates indicate that the increase in costs ends up stimulating housing construction, which could be explained by the fact that, given that the support programs by the government imply a pre-established financing goal, demand (for the lower-income segments) would decrease less in proportion to the increase in prices. Another conditioning effect is the fact that, independently of the price, in the low-income segments buyers require subsidies and aid programs to finance housing. Thus, developers incorporate this information and make the upward adjustment in costs in terms of size (more housing units in the same space, which explains the positive coefficient in view of the simulation) and quality in the finishings[6].

Given that demand would take more than a year to recover, this would mean a contraction of sales in the short term, since the purchasing power of the buyer would have to reach an equilibrium with higher prices.

Conclusions and perspectives

Costs in the construction industry, where the greater weight is in inputs (predominantly metal products), have been subject to strong volatility over recent years, mostly as a result of the rise in the international prices of raw materials. In the recessive environment seen in 2009, and expectations of a slow recovery in the world economy, a rally in the prices of construction inputs associated with international prices is not very likely. In turn, the source of pressure could come from an eventual increase in the domestic prices of fuel products and electric power.

Derived from the statistical and econometric analysis, we deduct that the potential transfer of the increases in the prices and rates of the public sector (electricity, gas and gasoline) to construction costs could be up to 50%, or, if the prices of electric power and fuel products rise 10%, construction costs could reflect this in an increase of up to 5%. However, the impact would not be immediate, but would take at least six months[7].

Therefore, the question is how this increase is transferred to housing prices, who pays for it and what the process of adjustment entails. The results of the simulation exercises applied to housing supply and demand are consistent with the analyses presented in previous issues of Real Estate Watch, Mexico, which show that, at least in the segments that carry a greater weight in sales (that is, low value housing), the consumer (and the government) end up absorbing the costs. Developers, in turn, made the adjustment in costs, not through a greater supply, but in the characteristics of the type of housing they place in the market.

5 The effect is calculated by applying a response stimulus to the errors generated by the simulation, considering the approximate time taken by the variables (supply and demand) to reach a new equilibrium in the market in the estimation period (2003-2009).

6 In fact, the adjustment due to size could be an element that explains the low response of buyers to adjustments (upward) in prices: buyers in these segments do not fully incorporate this information in their decision to purchase housing.

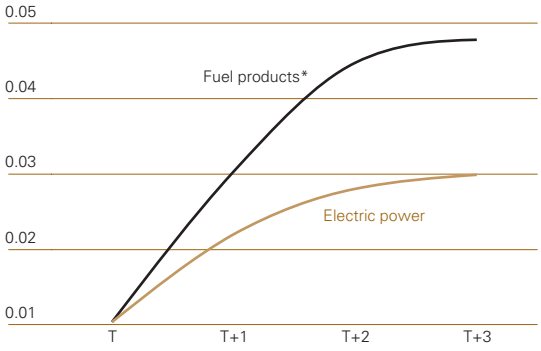
7 It is also important to say that these excercises do not consider the position of the economy with realtion to it's potential growth, that in times like the current can soften and delay this impact.

Analysis of Sensitivity of Costs

Magnitude	Changes* 10%	15%	20%
Weighted effect on construction costs	5.09	7.61	10.03
Metal inputs (60%)	3.97	6.36	8.65
Non-metal inputs (20%)	1.12	1.25	1.38

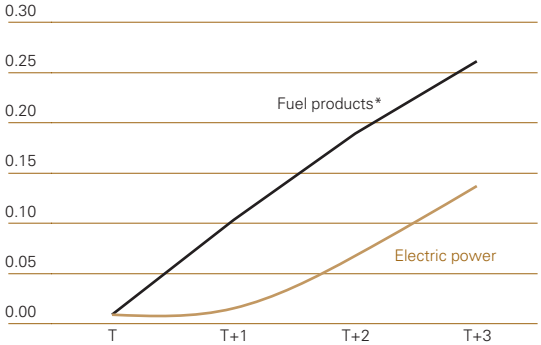
* Changes in public prices. Considers fuel products and electric power
Note: In parenthesis, the relative weight in construction costs
Estimated based on self-regressive vectors
Source: BBVA Bancomer with Banco de Mexico data

Sensitivity of Non-metal Inputs to Changes in Public Prices



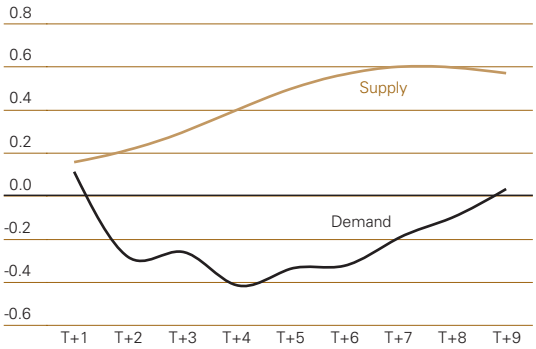
* Considers natural gas and gasoline
Note: Estimated with self-regressive vectors
Source: BBVA Bancomer with Banco de Mexico data

Sensitivity of Metal Inputs to Changes in Public Prices



* Considers natural gas and gasoline
Note: Estimated with self-regressive vectors
Source: BBVA Bancomer with Banco de Mexico data

Sensitivity of the Market to a Positive Imbalance of 1 Unit in Prices



Note: Estimated with self-regressive vectors
Source: BBVA Bancomer with Banco de Mexico data

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The Establishment of Urban Land in Mexico

Introduction

Hand in hand with growth in cities, derived from the high demand for housing, the need for urban land development and residential construction is rising. An input that has risen in price since 2002 is land that can be used for construction, the cost of which is transferred to the price of housing and consequently limits its acquisition in particular for the low-income population[1]. Also, cities or municipal governments face an important restriction in resources, which limits the expansion of urban infrastructure. This matter, as has been commented in other editions of Real Estate Watch, is one of the most important restrictions for maintaining sustained growth in the sector.

This environment is forcing an improvement in the policies and mechanisms for forming land reserves and equipping land for urban use. Also, it is recommendable to generate incentives for better urban development that will take into account, among many other aspects, the re-densification of some cities and vertical residential development. These mechanisms broadly encompass: the availability of information on the value, use and registration of land ownership, as well as the administrative negotiations involved in processes for the conversion of rough ground into urban, the availability of infrastructure for basic public services and the transfer of ownership. Thus, the cost of information and transaction plays a fundamental role in the construction and marketing of housing and in urban development in general. This article analyzes the essential characteristics of the land market in Mexico and considers some initial proposals to make it more efficient, thereby contributing to reducing the cost of information and transactions and thus improving the accessibility of housing within the country's current model for housing growth.

The importance of access to information and transaction costs

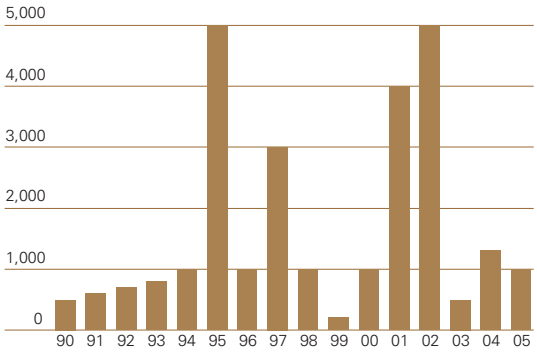
Even though the trend in the housing market has been that of a marked expansion in recent years, there are diverse "bottlenecks" inhibiting its potential for development in the medium term. Of note among these is the legal uncertainty in the buying and selling processes, associated with the lack of information regarding the availability and use of land; the lack of adequate rules for its transformation for urban purposes; obsolescence in the public registries, insufficient regulation and supervision of processes entrusted with administrative negotiation and the creation of infrastructure; and limited information regarding trends in the sector that will allow developers to achieve better planning of constructions.

More efficient mechanisms are still lacking for identifying and establishing land reserves in the country, with a comprehensive vision for urban development and more effective regulation of the processes for the conversion of land for residential use and/or urban development. These processes are slow, on occasion uncertain, and have important differences at a state level. The municipal or city governments play a central role both in land buying and selling policies and in establishing

1 Review the article "*Costos indirectos en la adquisición de vivienda*" ("*indirect costs in the acquisition of housing*") in **Real Estate Watch**, September 2008, Economic Research Department, BBVA Bancomer.

Land Expropriations in Mexico

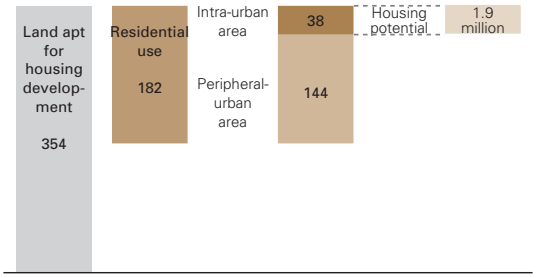
Actions



Source: BBVA Bancomer

How Much Land is Available for Housing Construction?

Thousands of hectares, cities of 50,000 and more inhab.



Source: BBVA Bancomer with Sedesol data

land reserves. Nevertheless, there is little transparency with regard to the sale processes and the establishment of urban land, and equally lacking is a general model of homogenous information that will allow knowing, accounting and evaluating the land reserves with greater accuracy at a national level.

Traditionally, the most common mechanism for the formation of land reserves has been converting land adjacent to cities into urban land, be it that forthcoming from agricultural uses, etc. or even land that is constituted as communal land (the "*ejidos*" or small agricultural plots). In most cases, the requests for modification in land use are incorporated in the urban development plans of the municipal or city governments, within a broader context of general residential development plans for the states. Nonetheless, there are restrictions due to the lack of resources and deficiencies of an institutional order[2] that would allow a faster and better-quality endowment of infrastructure, and that will also respond to more balanced and efficient urban development.

Nevertheless, there is also another more limited and less extended manner, which might be considered as having a marginal nature for creating land reserves for residential use through expropriation. In Mexico, there are on average 1,600 expropriations annually, for diverse public ends, where it should be mentioned that there is a notable lack of information on this subject[3].

An interesting and promising alternative to land reserves, at least in some places, consists in Sustainable Comprehensive Macro Urban Developments (DUIS[4] for its Spanish initials), projects in which the three governmental branches and housing promotion organizations participate in building large-scale housing developments, literally new cities. The DUIS seek to serve the housing needs of the low-Income population under a comprehensive urban development plan with benefits for their users and their localities. In this sense, care is taken to provide these developments with characteristics of sustainability as regards the management of natural resources so that conditions may be generated for the provision of urban services such as education, health and entertainment centers, as well as centers that generate employment. Although progress in the DUIS has been limited up to now, in part due to the current slowdown in the economy, it should be considered as an interesting solution of the problem for specific cases and, therefore, offers important potential for the medium and long term.

2 These deficiencies can be associated with the uncertainty generated, on the one hand, by not having definite terms for the resolution of the processes involved in the changes in land use, and, on the other, compliance with the processes through the mechanisms that could differ from state to state and even among the municipalities of one same state.

3 In Mexico, there is a permanent commission for formalizing landholding (Commission for the Regulation of Landholding, Corett) whose function is to facilitate the purchase and sale of land and the formation of land reserves appropriate for urban development, as well as the relocation of the population settled in risk areas. It should be mentioned that it has had a more relevant role in this phenomenon since the modification of Constitutional Article 27 which incorporates communal land ("*ejidos*") to the land market system. It also attends to the land needs for the population that is affected by natural disasters.

4 For a detailed description of the characteristics of the DUIS and of its advances and potentials, review "***Real Estate Watch***", January 2009, Economic Research Department, BBVA Bancomer.

Among the 121 cities in the country with a population higher than 50 thousand inhabitants, there is a total of 354 thousand hectares appropriate for urban development. Of these, close to half (182 thousand) have housing use, of which close to 38 thousand hectares (20%) are in intra-urban areas and the rest in areas denominated as "peri-urban", or in the peripheral areas surrounding urban centers. Thus, the area available in the inner cities (38 thousand hectares) would be enough to build up to 1.9 million homes [5].

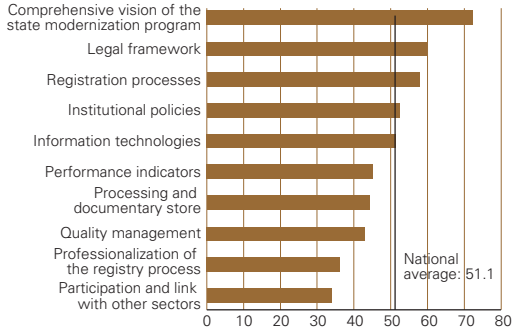
In addition to information on available land, it is important to know its price, which shows marked differences among the various regions, which is reflected in the fact that in the costs of the finished home, the land could represent from 5% and up to 20% of the value. It should be mentioned that this market is, in general, relatively non-elastic, that is, the supply of land does not rise if its price rises, particularly for the low-value housing segments (A, B and C), which face important restrictions for generating urban land or the possibility of becoming urban land in the amounts that the current housing model (based on horizontal compounds) requires. On the other hand, for the high-value housing developments (segments D and E), due to their characteristics (location in or close to urban centers and high appreciation) there is greater flexibility in the land market.

At the same time, another facet that limits housing development and marketing is the need for modernization of the public registries and of government real estate valuation offices, which has had limited success. The former are the responsibility of the states, while the latter correspond to the municipal or city governments. They are not necessarily coordinated, nor do they present in all cases similar conditions in terms of their updating. Also lacking is the establishment of a federal agency that will take charge of directing and standardizing the modernization of the ownership valuation of real estate that the local units have to carry out in a similar effort to that which is being carried out through the National Public Registry Modernization Program.[6]

The administrative costs are also high and equally tend to limit the development of the sector[7]. Proceedings such as the negotiation of permits and licenses before the authorities must be conducted before several offices and agencies of state and municipal governments, which delays the processes and increases the costs of constituting urban land. Moreover, notarial activities are not fully framed in markets under the most desirable conditions of competition and the limited number of agencies authorized in certain federal states to carry out

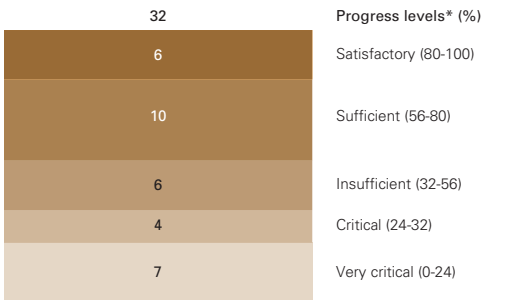
The National Public Registry Modernization Program has had Limited Progress

%



Source: BBVA Bancomer with SHF data

…and the Disparity in the Progress Levels of the Program is Considerable



* Groups of states formed by the Dalenius and Hodges Method (minimum variance between elements of the group and maximum among groups)

Source: BBVA Bancomer with SHF data

5 Assuming that the average required area for a housing unit is 50 m^2.

6 In 2007, the National Program for the Public Property Registries, which currently is administered by the Legal Consultant's Office of the Federal Executive, with support from SHF (the Federal Mortgage Association) and Conavi. So far, the progress that has been achieved with this program has been limited: first, the participation of the states in this program is voluntary and to date there are nine states that are still not participating in it. Second, the evaluation with respect to the advances of the Integral Public Registry Model, done at the end of 2008, shows progress of 50% and is still reflecting strong regional disparities: Thus, for example, while for 15 states the result of the evaluation showed satisfactory or very satisfactory levels; for 11 states, the result was "critical" or "very critical", while for the six remaining ones, the result was "insufficient".

7 Review "Costos indirectos a la adquisición de vivienda" ("Indirect costs in the acquisition of housing" in ***Real Estate Watch***, January 2009, Economic Research Department, BBVA Bancomer.

Average Costs of Transactions

	% of the housing price
Total	**9.84**
Real-estate agent fees	4.80
Acquisition tax	2.02
Notarial fees	1.31
Public Registry fees	0.73
Socio-economic study	0.31
Other evidence of proof	0.28
Appraisal (2.5 x for each thousand)	0.25
Real estate valuation office for tax determination	0.12
Official real estate value certificate & ownership	0.02

Source: BBVA Bancomer with SHF data

these negotiations, gives rise to practices that are not necessarily competitive. Commissions tend to be determined discretionally and as a percentage of the value of the transaction, instead of having a fixed fee which could probably result in a lower cost. In the case of used housing; for example, the explicit transaction costs could represent up to 10% of the value of the real estate. Of that cost, most of it corresponds to various taxes related with the registration and transfer of the property, notarial and real-estate agent fees.

Finally, the lack of adequate, timely and reliable indicators on the performance of the housing sector raises information costs. Three examples illustrate the importance of this topic. First, the lack of a generalized method among developers regarding solid estimates of potential and real demand, which would allow for better planning and execution of projects that would lead to a more efficient use of resources. Second, currently, Infonavit sets the pace and a "guideline" for the construction of low-income housing at a state level and by segment, in terms of its loan placement goals, which the developers take as sole reference and which, in turn, is subject to significant changes from one year to the next and is executed through models and methodologies that are not made known to the public and have not always been accurate. The result has been that, in some locations, housing construction volumes have been posted exceeding the capacity of the market to absorb them, generating transitory episodes of an oversupply of housing, or after they are built, they give rise to lower quality standards. This, in some cases has generated a depreciation in real estate stock and in land reserves. Third, the lack of reliable information on real estate values, due to the weakening of the link with appraisals, translates into the demand for greater guarantees by the financial institutions or into a lower loan-to-value ratio on real estate.

To summarize, the deficiencies in the land market have at least three important implications on housing development in Mexico. First, they generate legal uncertainty in view of sudden and—discretional—changes in land use policies, even in some cases generating a certain uncertainty in the legal security framework as regards land ownership. Second, they generate incentives for developers to acquire large land reserves at the lowest price possible and recently, in a more limited way by land banks, with no regard for the distance to the urban centers, which ends up generating higher housing construction costs and, later for users, higher costs in terms of travel time and access to public services. Third, consequently, this increases the price of housing, since the urbanization and equipping of public service functions are assumed by the developers (which, in addition, generally lack quality standards), who transfer, partially or totally, the cost to the final buyer (via the price, size or quality of the housing units).

About the challenges to the proposals

Making the land market more flexible is closely linked to an institutional reform on the acquisition of land for urban use and the formation of land reserves. There can be multiple solutions, although, according to what the international experience shows, the municipal or city government is the "corner stone" that should be modernized to achieve greater effectiveness in the actions of the State and, thereby, coordinate greater investor participation in equipping projects, city

services and infrastructure, taking as a basis the land as a collateral asset for financing these projects.

Currently, the major housing developers base their competition and growth strategy on the generation of extensive land reserves where, on occasion, they invest in infrastructure to stimulate urban growth. The mechanisms to acquire this land are of a diverse nature: purchase/sale, association with landowners, auctions, etc. This is the initial step for obtaining the permits for land use and construction from the municipal governments, based on local and state urban development plans. Both market agents, the governments as well as the developers, try to converge with regard to the objective of creating a system of mixed land uses that will allow the proper equipping of the housing developments.

In Mexico's case, there is ample space for innovation in this field and achieving a better link with the employment, transportation and housing markets in the city. However, it is necessary to explore several alternatives between immediate and medium-term measures, due to the implications, both legal and economic, that are involved. In general terms, to simplify the processes of planning, reordering and diminishing transaction costs, the following should be considered:

First, encourage the participation of the local governments in the National Public Registry Modernization Program and of the real estate valuation registry offices. In order to bolster the participation of the states and municipalities in these modernization programs, progress in this could be included in the formulas for federalized resources, in particular of "federal participations".[8] This will help in correcting the heterogeneity that currently exists at the state and municipal levels regarding official real estate valuation registries, real estate title registration offices, transactions, permits and authorizations that slow down negotiations and increase costs. Also, the progress in the modernization program will contribute to eliminate the obstacles being faced at this time for establishing a land supply that is apt for urbanization and the marketing of new and used housing.

Second, to selectively encourage urban re-densification and vertical development programs, integrating public services in a better manner. Vertical development in some cities can generally offer the advantage of access to public services at lower costs and a better integration of housing with the community. The re-densification of some areas would allow increasing population density in some metropolitan areas and ordering their expansion rate toward the peripheral areas at a rate that infrastructure and urban services would also do, facilitating better planning and an orderly growth of cities. This would help to eliminate the trend of recent years of building housing developments in increasingly more distant locations from the urban areas, which makes housing construction more expensive and generates additional costs for the users of these housing locations.

8 The federal participations are ruled by the Fiscal Coordination Law. Since it is a secondary legislation, any modification to its contents, as the distribution criteria would require only approving judgment by the Budget Commission of the Chamber of Deputies, that is, it does not pass through the joint session of Congress.

Some Mechanisms of Land Acquisition and Public Management of Land Reserves

According to international experience, we present a classification of the main mechanisms of acquisition and options of public management for incorporating land for urban development.

1.- Municipal-urban infrastructure: this allows the conversion of land into municipal property to finance urban infrastructure with public-private co-investment mechanisms with the land as collateral and reserve asset for the projects of each local government. In some cases, the municipal governments have land reserves as well as a lag in urban development. Due to this, they tend to sell them to generate a certain local appreciation.

2.- Land banks and land reserves: Land sales of public property and of the State should be done under the justification of expansion projects and the improvement of public services and goods. Also, the development companies have used the accumulation of land banks as a competition strategy in the sector. This is a space for co-investment and opportunity for carrying out better urban plans in cities.

3.- Land and transportation nodes: this mechanism links the points of interest of cities under the strategy of linkage of land use with transportation networks and thus generates urban spillovers due to trends of agglomeration and residential construction. It is considered a method to integrate in the best way the population with public services.

4.-Land auctions: this stimulates the metropolitan integration and the equipping of land that is apt for urban development through auctions by private and public agents motivated by the limited amount of land supply appropriate for urbanization, which derives in high prices, public land inventories and inefficient methods to offer a local urban space. This alternative is used when there is an interest in developing specific urban areas.

Source: BBVA Bancomer

Third, to generate mechanisms that will facilitate the expansion of infrastructure based on medium-term urban development plans. It is necessary to explore new alternatives for boosting the creation of urban infrastructure with private funds that will mitigate the restriction of public resources (review the chart on international experiences).

Fourth, to homogenize license and permit models, to establish urban land at a national level that will reduce the time of approval and of granting, and by this, reduce the uncertainty in the process. The experience of the DUIS should be used to generate these coordination mechanisms among the various public agencies. It would be convenient to generate a "one-step" service window to receive and process transaction applications among the various government venues.

Fifth, to generate more and better statistics and indicators regarding the sector. This activity should include the integration of efforts that are currently being realized in various venues such as the National Housing Information System (SNIIV for its Spanish Initials), the Housing Quality Index (ICAVI for its Spanish Initials), the SHF (Federal Mortgage Association) Housing Price Index, as well as other indicators that are being generated

Sixth, greater regulation and supervision of the practice of real-estate appraisal. There should be a national registry of expert appraisers and also supervision and certification mechanisms of this activity. The regulation of this method will contribute to reducing transaction costs in mortgage loans, which, according to what was mentioned in the diagnosis, could represent up to 10% of the value of the real estate.

Seventh, to regulate and generate greater competition among notarial negotiations and real estate brokers. A plan that will allow advancing in this sense would be to establish the fees as quotas and not as percentages of the value of the real estate, which would contribute to the approval of charges and reduce the space to discretional methods in this activity.

Eighth, to incorporate "municipal panels" for the registration and quantification of the value of land reserves. The balance panels of the public states are the most utilized instrument for administrating urban land and the assets owned by the local governments. Under this method, it is highly feasible to make a quick transition of land for urban infrastructure assets, particularly in those cases where there is a deficit in urban development. This process is carried out through the sale or concession of the land held by the government, through mechanisms of public-private financing; then the municipalities make an adjustment in their panel, which implies a generalized restructuring of public assets with two additional benefits: one is the existence of greater development through a higher number of urban infrastructure projects, and the other is the presence of a lower inventory level of land reserves.

Conclusions

An improvement in the institutional framework for the constitution of urban land is indispensable. There is room for significant

improvement that could have repercussions on a decrease in the costs of transactions and information for housing construction and marketing. These steps should be complementary to the incentives for reconversion of the land, to foster the vertical growth model and consolidate the mixed uses of the metropolises. And, for intermediate cities to establish more stable urban growth lines, in particular with a better equilibrium among the municipal urban development plans with migration, agglomeration and population congestion trends. It is also important to reinforce the legal guarantees of property rights and the regularization of landholding. All these elements as a whole could facilitate incorporating more segments of the low-income population as well as the informal market in the dynamics of urban development in the country.

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Some International Experiences in Urban Land Development

Governments' capacity to acquire and use land in urban development projects depends mainly on factors such as their ability to purchase land from communal and private parties; their capacity to identify the necessary urban public work projects, their innovation in designing rules to distribute the benefits derived from the value added to the land, within an appropriate institutional framework that promotes balanced medium and long-term urban development. This article will discuss some international experiences in the acquisition and use of land.

a) Additional fees for infrastructure development: Poland and Sydney, Australia

In Poland, in 1997 a law was approved on land management so that local authorities could impose additional fees on the owners based on the appreciation in the value of land due to the installation of local public infrastructure that the government was providing such as highways, sewage systems, water, electricity, gas, and telecommunications. This law allows taxes for improvements involving up to 50% of the costs of the project and it has been implemented in most jurisdictions with relative success. Australia has experimented with these fees involving up to 30% of the value added as a result of plans authorized to transform land into urban use. These gains in value were estimated as of August 1969 and since then the collection of the fees has been used to finance required urban infrastructure with a priority on providing water, solid waste treatment, and sewage systems.

b) Impact Fee: Phoenix, Arizona

An Arizona state law was designed to prepare a long-term investment and urban infrastructure development plan based on a tax formula that takes into account the weighted growth of its localities. Costs are estimated for new types of infrastructure and public facilities considering the use of land, construction, lot size, hydraulic facilities and the rest of the amenities. This regulation was recently modified to establish the need for these incremental fees to be estimated by independent experts and published for disclosure and publicity purposes as a clear effort at transparency in the cost of public services that are supplied to the community. It should be mentioned that exemptions are applied in urban areas based on the consideration that the incremental capital costs are marginal and therefore these fees are only applied to areas with rapid growth to the north and south of the city.

c) The role of the municipality in urban expansion: Cairo, Egypt

The Republic of Egypt has implemented an expansion strategy in its new cities, which is also the case with other North African countries, based on the idea of municipal authorities as a checkpoint on new population centers. In Egypt, 20 new cities have been established and 44 new venues for community settlements have been identified. The New Urban Communities Authority (NUCA) controls the allocation of land units and planning for new developments with a peripheral extension of 5 km.

Most of these towns are located around Cairo, which has considerable experience with irregular settlements in which more than 10 million inhabitants reside on agricultural land because such land is private property and its owners have sold it for its informal use. It is estimated that 121,000 hectares have been lost, or are under-utilized due to the uncontrolled expansion of the city. Egypt has established a policy of public-private collaboration to install infrastructure with real estate promoters based on a program of private negotiations or sale of land for investments in housing, business, and industrial clusters. Traditionally, the NUCA installs local infrastructure based on the sale of land and recently this policy has been further defined to provide greater responsibility to infrastructure project developers. For example, in Cairo the public sector transfers the private property while investors develop the project for its subsequent sale with commitments to invest more than one billion dollars.

d) Taxes for improvements: Bogotá, Colombia

Colombia has been broadly mentioned in literature on the subject due to its success in the tax program for improvements known as "improvement taxes" to finance urban infrastructure. The valuation process involved a mixed program of capitalization benefits and recovery cost. However, in point of fact, this law defines a mechanism that is relatively broad and has been used for the construction of highways and improvements in major arteries. The law proportionally assigns increases in land value as a result of capitalization due to public work projects[1]. Nevertheless, between 1968 and 1978 the benefits from improvements fell more than 50%,

1 The recovery cost is defined by 100% of the budgeted investment, 10% corresponding to a contingency fee and 30% for administrative costs. It should be mentioned that the formula to determine the increases in land value are not calculated by market prices but by a combined equation of the size of the land parcel, use of the land, and where the public work project is located.

and between 1980 and 1990 from 15% to 5% due to the excessive ceilings on recoverable benefits and the economic situation at the time.

In 1997 the government made the decision to modify key aspects of the law to apply the improvement taxes to authorized urban development plans with emphasis on the conversion of rural land to urban use and high-density zoning with a more modest recovery charge from 30% to 50% at the discretion of the municipality. Currently these jurisdictions have access to the recovery of valuation fees on infrastructure costs as well as the elimination of administrative and contingency costs.

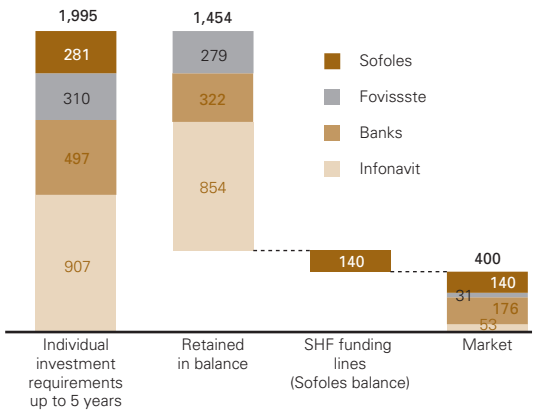
e) Municipal population density control: Hong Kong, China

China in 2000 had a floating population of 80-120 million inhabitants who resided irregularly in urban areas. There are basically three types of regulatory techniques to manage the phenomenon of the development of cities and metropolitan areas: urban growth controls and building codes for subdividing parcels of land. Although currently there are population density controls in place, there has been an emerging market of urban land since 1987 in which local governments can gradually manage the sale of rights for the use of land as part of a long-term urban development plan that is known by public opinion.

Hong Kong is an example of a city with a highly regulated system with incentives aimed at potential urban development. This regulation is based on public ownership of the land and a contractual relationship between private developers and the State through territorial reserves and zoning plans. For example, public transportation and electric power services are directly provided by the government or their users are highly subsidized. Since 1978, four modernization efforts have been applied to the acquisition system that have led to a more precise system of prices and land has become a scarcer asset with a sustained increase in cost since the 1990s.

Long-term Financing: "Covered Bonds"

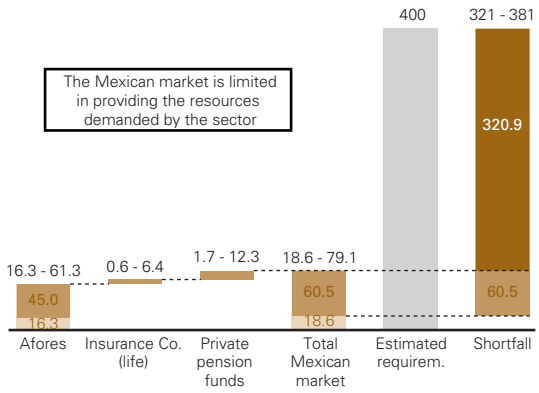
Available Funding Requirements up to 2014



Retention assumptions in balance:
- 50% of Sofoles are funded through the SHF
- Fovissste retains 90% of its portfolio
- In bank balances, the mortgage portfolio is not more than 30%
- Infonavit retains a proportion of that observed between 2004 and 2009 (that is, a proportion of non-securitized portfolio/total portfolio is assumed that is equal to that of the 2004-2008 period.

Source: BBVA Bancomer based on Hipotecaria Nacional estimates

Available Long-term Resources through 2014



Note: The resources available , 18.6 to 79.1 billion pesos, are assumed as a range from 2% to 5% of the projected investment portfolio of institutional investors (Afores, Insurance companies and Private Pension Funds).

Source: BBVA Bancomer based on estimates by Hipotecaria Nacional

Introduction

With the end of the economic recession and of the global financial crisis in sight, the housing market is shaping up to resume the course of accelerated growth that it had maintained since the beginning of the decade. In terms of demand, conditions of access to housing will gradually improve, such as the reactivation of employment, the rebound of real wages and the stabilization of interest rates. In terms of supply, the commitment of housing associations to achieve their credit goals will help financing for developers through interim financing. That is, the recovery of the economy will bring renewed strength to the housing sector. However, from a medium-term standpoint, it is important to analyze the sources of resources that the economy has for financing the sector, or in other terms, if there will be sufficient funds (both for construction as well as for mortgages) to finance the housing that the country will demand in the next few years. The response is not trivial and deserves in-depth analysis. Based on projections of the resources needed for the housing sector in the medium term and the available sources currently existing in the country, this article proposes the incorporation of new financial instruments in the market that, while contributing toward the improvement of some practices in the market, will also reduce the cost of financing and increase the appeal of investment in the sector.

The starting point, a growing demand for resources

Based on medium-term projections for population growth and the formation of households (the latter with annual average rates close to 2%), the potential growth of the economy (between 3% and 3.5% annually) and a gradual effort to reduce the gap in the housing backlog (estimated in 2008 at more than 8 million housing units), the Federal Mortgage Association (Sociedad Hipotecaria Federal, (the SHF)) is projecting that the mortgage portfolio balance in the country could quadruple between 2008 and 2020, from levels of 1.1 trillion pesos at the end of 2008, or 9% of GDP, to nearly 4.4 trillion pesos, or 36% of GDP in 2020. This will mean an annual growth rate along the order of 12%, which will surpass financing capacity based on internal sources: traditional deposits, for example, in July 2009 reached a balance of nearly 18% of GDP, although with lower than 4% real annual growth; Siefores, in turn, which manage around 9% of GDP, will also not be sufficient (despite also posting high growth rates in the next few years) due to the needs for portfolio diversification.

The alternative is the sale of portfolio by public and private financial intermediaries, that is securitizations. The question is, if, as they currently operate, they will continue to be adequate for the system or if they will provide the necessary resources for the sector in the next few years[1].

Financing through securitizations

Since their incorporation in the Mexican market in 2003, securitizations have been used increasingly by the financial intermediaries

1 If there are no reforms to bolster internal savings or financing sources, it will be necessary, as in the past, to resort to external savings (reflected in a greater current account deficit).

participating in the housing market[2] as long-term financing. This began with the Sofoles, followed by the financial institutions with mortgage-backed bonds called Borhis; later, the Infonavit introduced Cedevis (Housing Certificates) and, as of 2009, Fovissste launched the Tfovis. By the first half of this year, the placement of off balance portfolio, that is the Borhis, Cedevis and now the Tfovis, had a balance of close to 90 billion pesos (0.8% of GDP). The figure is modest compared to the total size of the portfolio (the securitized balance considering only banks and Sofoles represents around 6% of the total), although with rapid growth that slowed down, but did not stop with the global financial crisis (nearly 25% of the total securitized portfolio was issued between the third quarter of 2008 and the second quarter of 2009).

What has occurred is that the market has become more demanding when investing in these securities. While in the beginning the greater part of securitizations were issued by Sofoles/Sofomes, in 2008 it was the banks that offered 75% of the issues placed in the market, and in 2009 only the latter have securitized portfolios. This reflects both the difficult conditions to access financing due to the global crisis, and also responds to the quality of the securities issues.

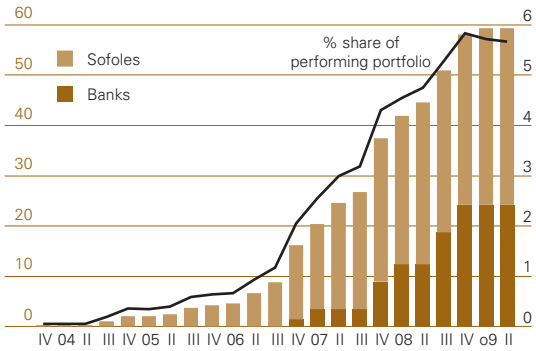
In fact, despite the advantages and their important growth as a source of financing, securitizations, under their present scheme, present some limitations that could inhibit their future development, and that have become evident as a result of the most recent financial crisis and delinquent payment problems mainly in the non-bank financial institutions, Sofoles and Sofomes.

This is because, in the manner in which they are currently structured, there is no absolute clarity regarding the quality of the portfolio that backs the issues, and the institutions transfer part of the risks to the market. Another deficiency consists in the difficulty of evaluating the underlying risk, where other factors enter, such as the probability of delinquent payment (with which we return to the quality of origination), the execution of guarantees and in some cases, the severity of the losses. An additional topic is the scant availability of information regarding housing prices, or the proper valuation of real estate properties; the prices of new housing are generally set by the developers, with clear incentives toward overvaluation. Then there are the costs associated with the verification of the collateral guarantees (the housing units that back the mortgages), which require the modernization of the public registry of properties. Finally, it should be said that the reference commonly used to establish the price of securitizations are the udibonos, which have the disadvantage of not being very liquid and having relatively

2 In essence, securitization consists in the sale of the mortgage portfolio to a trust that issues bonds backed by the portfolio and whose flows are paid with the amortizations of the mortgages. In order to achieve their packaging, the mortgages included in the securitization must possess common characteristics in terms of credit quality, term, interest rate and loan-to-value ratio (LTV). Also, given that the trust acquires the rights of the mortgages, their execution must be easy and of low cost. In addition to the advantage of advancing the flows generated by the mortgages, the originators of the credit transfer portfolio risk to the market—once the operation allows them to discount them from their balance—at the same time strengthening their financial position, due to lower capital requirements.

Securitizations are Increasingly more Important in Financing for Housing

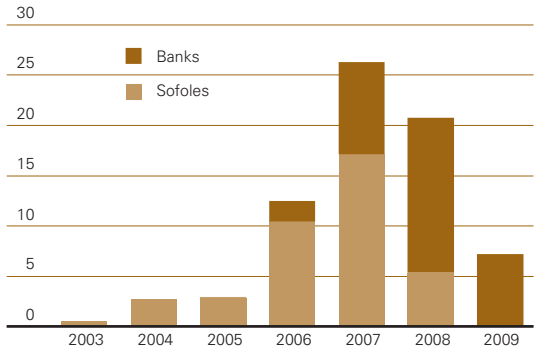
Billions of pesos and % of performing portfolio



Note: Only the private sector
Source: BBVA Bancomer with Banco de Mexico data

. . . and the Market is Increasingly More Selective

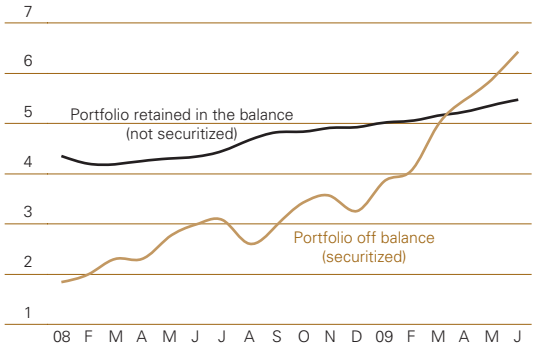
Securitized portfolio, billions of pesos



Source: BBVA Bancomer with SHF and AHM data

The Securitized Portfolio* is Deteriorating Rapidly

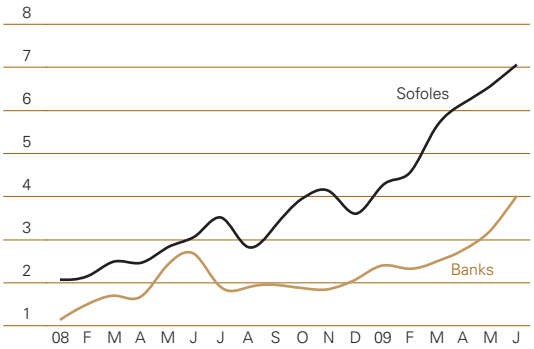
Past-due indebtedness, %



* Banks and Sofoles/Sofomes (doesn't include Infonavit or Fovissste)
Source: BBVA Bancomer with AHM data

. . . Particularly in the Case of Sofoles and Sofomes

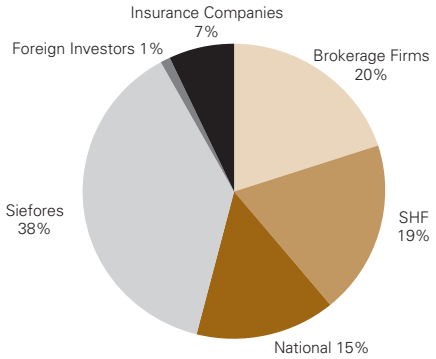
Past-due Indebtedness, %



Source: BBVA Bancomer with AHM data

Institutional Investors Benefit from Higher Quality Assets

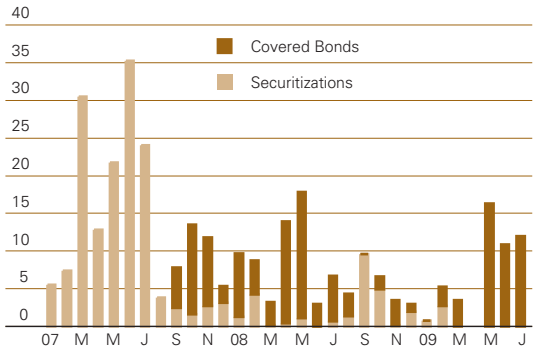
Share in Borhis holdings



Source: BBVA Bancomer with SHF data

As a Result of the Global Financial Crisis, Investors Prefer CBs Over Securitizations

Spain, billions of Euros



Source: BBVA

short terms[3] with the mortgage terms greater than those of the instruments that back them.

To summarize, among the lessons derived from the recent financial crisis is the importance of advancing simultaneously in terms of transparency and the valuation of assets, with instruments that meet the needs of the market and provide sufficient financing for the housing sector toward the medium term, something that is still not guaranteed.

The advantages of introducing instruments such as "Covered Bonds"

It is a fact that the market has become more selective when it is time to invest in portfolio issues, and for those institutions with clear deficiencies in origination and/or transparency regarding the quality of the collateral, they will face strong restrictions in accessing financing. Moreover, the development of the financing market for the housing market requires instruments better adapted to the conditions of the sector. Thus, new securitization schemes must be considered that motivate the entry of investors, with attractive profitability levels and fewer risks. One alternative in this sense are covered bonds (CB), also known as mortgage debentures or mortgage bonds, which have been used for some time in various countries in Europe and in some Latin American countries, such as Chile (see inset on the international experience).

The CBs are issues on the mortgage portfolio, which unlike traditional securitizations, remain in the balance sheet of the issuer and are covered additionally with other assets of the issuer. The assets used as collateral are reduced from the issuer's sellable assets and also, in case of the issuer's insolvency, the holder of the CB maintains the benefit of the cash flows generated by the mortgages that back the issue. One additional characteristic of the CB is that in case of delinquent or past-due payment, the unpaid mortgages must be substituted by others in the group of mortgages that back the issue.

The issues have a simple, standardized structure, typically bonds that amortize the principal on the expiration date. The payment of interest on the bond is made directly from the issuer's treasury with the flows generated by the loan portfolio; the payment of principal is made upon expiration of the bond, typically refinancing the issue.

What advantages do the CBs offer?

In the first place, since they have a double resource—from the asset that backs the issue and the collateral—, these are high quality credit instruments, with an even higher rating than that of the issuer, and protection against the risk of bankruptcy. Greater quality translates into a lower cost for the issuer: in the experience of the European countries, the spread between the yield of traditional securitizations and that of CBs is more than 100 basis points (difference between securitizations in the European Monetary Union (EMU) and the CBs

3 The securitizations of the Sofoles and Sofomes, as well as those of Infonavit, are tied to Udis, except in isolated cases in which the issue is denominated in pesos. For the banks, the issues in pesos have been more common, although Udis also predominate among the banking institutions.

in Germany, France and Spain. 3Q08-1Q09 period). The instrument also contributes to the development of long-term financing schemes, as a good option for institutional investors and reducing the risk of market flaws, such as the "moral risk" on the part of the issuer or the incentive it might have to incorporate in the securitized issues mortgages of poor origination and/or high risk.

On the other hand, unlike securitizations, covered bonds allow offering issues in a great variety of currencies and terms, by which these can be offered and placed among a very diverse universe of investors. That is, the market for CBs is greater than that of securitizations. Moreover, since it is a widely known instrument that is accepted internationally, its incorporation in the Mexican market would make it easier to attract external financing, including that of institutional investors.

The use of CBs as a financing source has a long history (they were introduced in Germany since the XVIII century) and are currently used in more than 30 countries, mainly in the region of the European Union, where the issue of CBs significantly surpasses that of securitizations and other issues; in that region, nearly one sixth of the total value of debt issues are associated with CBs.

What is required for using the CB scheme in Mexico?

There is a series of minimum conditions that must be covered prior to the incorporation of CBs in Mexico, such as having mechanisms for the constant valuation of the issues and accurate and reliable information on housing prices; in this sense, the effort currently undertaken by the SHF (Sociedad Hipotecaria Federal or Federal Mortgage Association) for the formation of price indices will be an important advance.

Furthermore, greater legal security on these instruments must be offered to investors, particularly with regard to the guarantees that back the issues. This covers from the standardization of the processes to constitute the guarantees, such as eligible collateral, maximum acceptable loan-to-value ratio (LTV), and also permanent supervision mechanisms of these guarantees (quality, maturity terms, among others).

To guarantee compliance with these conditions, we again use as reference the European market, where a specific legal framework has been designed for CBs. Among other aspects, this legislation assigns a 10% weighted capital risk to CBs, and flexibility to the limit of participation for institutional investors. In Mexico's case, this would contribute toward boosting demand for CBs by the Siefores.

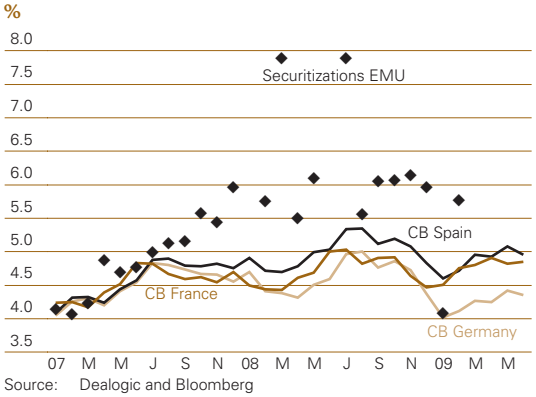
Finally, in order to apply the CB scheme in Mexico, evaluation mechanisms must first be established by the CNBV (Comisión Nacional Bancaria y de Valores, the National Banking and Securities Commission) and the Banco de México (the central bank) so that the issue of CBs is evaluated with efficient classification and valuation procedures.

Comparison of Securitizations and Covered Bonds

	Covered Bonds	Securitizations
Issuer	Normally universal banks or universals	Without restrictions
Legal frameworkl	Statutory, with a special legal framework for mortgage debentures	Without a specific legal framework
LTV limitation	Maximum limits defined by law (between 40% and 80%, being generally 60%)	No maximum
Types of mortgages	Mortgages for residential and commercial sectors and loans to the government	Varied
Coupon	Normally fixed	Normally varied
Structure	Assets normally remain in the issuer's balance, although they are identified as belonging to the pool that backs the mortgage debentures	Assets are transferred to a special entity off balance
Issuer's responsibility	In case of failure of the mortgage debenture, the holder may go against the assets of the originator as any other holder of senior debt	In case of failure, the holder of the title only has access to the pool of assets that back the title

Source: BBVA Bancomer

Interest Rates of Securitizations and Covered Bonds



Source: Dealogic and Bloomberg

Conclusions

The housing market in Mexico has shown accelerated growth over the last decade and to guarantee that this expansion is maintained in future years, it will be necessary to have sufficient financing mechanisms for the sector. Portfolio securitization has contributed to expanding the availability of resources, although this model has begun to show some limitations. The sudden deterioration of the securitization portfolio, in particular that of the non-bank financial institutions, during the past financial crisis and the recessive cycle of the economy, made evident the need to advance toward models of portfolio issues that demand greater transparency in terms of the quality of assets, as well as improving the valuation mechanisms. Although as of now the market will be more selective and demanding when acquiring securitized issues, the concern continues to be guaranteeing sufficient resources. The incorporation of new financing schemes, such as CBs is a promising alternative to finance expansion in the sector.

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The International Experience with Mortgage-Backed Securities

Introduction

The issue of mortgage-backed debt securities have followed different schemas, depending on the experience in terms of their use and the degree of maturity of the financial markets in which they have been placed. This article will discuss the cases of Denmark and Chile, which illustrate the differences that the use of different issuance models have for the market.

The Danish model

Danish mortgages are characterized for being convertible in tradable bonds, managed by a single regulator. Their mortgages must be financed through bond securitizations that adhere to the "principal balance", that is, the bonds' maturity and cash flows must be almost completely equivalent to those of the fundamental loans. The bonds are reimbursable, to reflect the risk of advance payment of the fundamental mortgage. Those that favor this model emphasize the advantages of liquidity and protection that they offer vis á vis variations in interest rates.

Liquidity is the result of the standardization of bonds in large funds that benefit from a more efficient management of advance payments. At the same time, the combination of fixed rates and the advance payment option help protect borrowers from the risk of high interest rates. If the benchmark rate rises, the mortgage rate does not increase and if it falls, it is not very costly to cancel the previous mortgage and obtain a new one at a lower rate.

In Mexico, the George Soros Foundation, a non-profit organization, created by the pension fund manager of the same name, joined with Hipotecaria Crédito y Casa, one of the country's most important mortgage lenders, to establish a company known as HiTo, with the aim of creating a bridge between the Danish mortgage loan model and the bond market.

However, the Danish model can face difficulties when exported to other not very liquid markets. In these cases, conditions of stress can substantially affect bond prices, hindering buybacks.

In addition, since the system's liquidity is based on bond standardization, its application in the Mexican market could discourage investors due to the dissimilarity of mortgage products and clients.

The Chilean model

Mortgage bonds began to be issued in 1977 and they were practically the only instrument for financing home purchases until the middle of this decade. They had an important secondary market among institutional investors, which is important since differences between the market value and the par value represent a loss or gain for the debtor. Thus, a liquid market and high demand result in an above-par market price.

Toward the year 2004, yields were at historically low levels (minimums at 1.75%). The mortgage bond yields were low, and therefore this made them not very attractive since they were trading below par. In 2005, BBVA introduced bank loans without LHR (Re-adjustable Mortgage Bonds) for mortgage financing. These would be the first 30-year mortgages in pesos, with a variety of conditions, from variable rates, mixed variable and fixed rates, and what has been known as the "fixed-fixed" rate, which means that in the short term (for example the first three years) the rate would be established below what it would be set for the entire term, and then in the remaining years (for example, 17 in the case of a 20 year credit) it would be set above that level.

After the innovations developed by BBVA, the mortgage market based on direct bank credits (mortgage mutuals) replaced bank bonds. The reason is that mortgage mutuals provide greater flexibility, in terms of rates, currencies, terms, and amount of debt, which makes them more attractive for clients and they give banks more sale arguments, that is, they add greater value. Contrary to the re-adjustable mortgage bond business, where the banks gained a fixed commission for the transaction, in the case of mortgage mutuals, banks gain based on the margins between loan placement rates and funding costs, which makes the business more attractive for the banking system.

Housing loans can be structured as mortgage mutuals (endorsable or not) or as mortgage bonds.

Mortgage bonds are "instruments issued by banks and financial institutions in order to finance housing

construction or other productive activities." They are re-adjustable based on the UF[1] (*Unidad de Fomento*, or Unit of Account) and the minimum investment should be 10 UF and as a maximum 75% of the value of the home (the lesser value between the bank appraisal and purchase-sale price). These instruments can be prepaid at the issuance rate, except in the months of lottery type drawings (March, June, September, and December). They pay equal quarterly coupons and are issued at 20 year terms. According to the Sociedad Bancaria e Intermediarios Financieros (SBIF, the Banking and Financial Intermediaries Association), they can be traded by the bank on the stock exchange or can be acquired by the same bank or a related third party. The price that is obtained from the sale of these bonds varies according to market conditions, and therefore a difference with the par value can arise, which is charged to the debtor and that banks usually finance with a complementary consumer credit.

In case the debtor does not pay the mortgage loan, the bank should exercise the bonds that it issued and, simultaneously, take the necessary steps to recover the bonds by liquidating the debtor's mortgage guarantee. Thus, the issuing bank becomes joint co-debtor. In the event the bank goes bankrupt, the liquidator establishes a separate balance with the housing loans with mortgage bonds (assets) and issued mortgage bonds (liabilities) and this balance can be sold to a third bank. The transfer also includes the mortgages associated with these loans.

1 The *Unidad de Fomento* (UF), created in 1967, is a unit of account indexed to inflation for the month immediately prior to the period in which it is calculated. Before the ninth day of every month, the *Banco Central de Chile* publicly announces the value of the daily UF for the period between the 10th day of the month in progress and the ninth day of the following month, registering a variation between the two dates equivalent to the variation in the Consumer Price Index of the immediately previous month.

An additional advantage is that the debt-guarantee ratio in the case of the mortgage bonds would be lower than with mortgage mutuals, since a maximum of 75% is financed. This makes the instrument's risk lower (and therefore, the yield sought is lower), if viewed from the standpoint of the institutional investor.

Meanwhile, capital requirements for mortgage mutuals and mortgage bonds are the same. For purposes of weighing risk, loans with mortgage guarantees are classified in category four, with 60% risk. Financing the mortgage mutuals is not a problem since bank deposits from the Pension Fund Administrators (AFP) represent an important source of resources.

Conclusions

The international experience with mortgage backed securities indicates that to the extent that there is greater transparency and adequate regulation of the market, that is, conditions of greater certainty for participants, the use of these instruments increases and benefits are obtained for the entire market. For the issuers, lower issuance costs, flexible maturity terms for the securities, and lower interest rates; for the investors, high-quality securities with appropriate yields, given the maturity and risk profile. The diversification in issuance plans contributes to advancing toward mortgage market maturity. However, the particularities of each case should be taken into account when evaluating the advisability of their application. Thus, for example, in Mexico issuance standardization, such as in the Danish case, is difficult due to the considerable degree of dissimilarity between mortgages and investor segments. Therefore, it is extremely important to borrow from the international experience those factors that support the most appropriate design, so that the positive characteristics offered can be taken advantage of.

Statistical Appendix

Annual Macroeconomic Indicators

	2001	2002	2003	2004	2005	2006	2007	2008	2009e	2010f
Real GDP[1]										
Annual % change	-0.2	0.8	1.3	4.0	3.1	4.9	3.6	1.3	-7.2	3.1
Real Private Consumption										
Annual % change	2.5	1.6	2.2	5.6	4.8	5.6	4.0	1.5	-7.7	3.2
Real Government Consumption										
Annual % change	-2.0	-0.3	0.8	-2.8	3.5	0.3	2.5	0.6	1.7	2.7
Real Investment in Construction (Annual % change)	-4.6	3.5	3.2	5.1	4.1	7.8	5.1	-0.4	-5.1	3.9
Residential				3.7	2.5	8.9	3.4	-1.1	-7.2	3.4
Non-residential				6.1	5.2	7.0	6.2	0.1	-3.0	4.3
Total Private Formal Employment (IMSS)[2]										
Average, millions of persons	12,541	12,436	12,368	12,505	12,892	13,485	14,046	14,326	13,867	14,098
Annual % change	-0.5	-0.8	-0.9	1.6	3.0	4.7	4.0	2.9	-3.2	1.7
Average Wage for Social Security Contrib. (IMSS)										
Average nominal pesos daily	146.2	158.0	168.4	178.6	188.9	198.5	209.2	220.3	230.4	240.6
Real annual % change	6.0	2.9	1.9	1.3	1.7	1.4	1.4	0.2	-0.1	4.2
Real Total Wages (IMSS)										
Annual % change	5.5	2.0	1.0	2.9	4.8	6.2	5.4	3.1	5.4	5.3
General Minimum Wage (daily)										
Nominal Pesos	37.57	39.74	41.53	43.30	45.24	47.05	48.88	50.84	53.59	56.44
Real annual % change	0.6	0.7	0.0	-0.4	0.5	0.4	-0.1	-1.1	-0.1	4.3
28-day TIIE, average (%)	12.9	8.2	6.8	7.1	9.6	7.5	7.7	8.1	5.4	4.5
10-Year Government Bond interest rate (M10)	10.8	10.1	9.0	9.5	9.7	9.8	9.9	10.0	7.9	7.5

Annual Construction and Housing Indicators

	2001	2002	2003	2004	2005	2006	2007	2008	2009e	2010f
Real Construction GDP (annual % change)	-5.7	2.1	3.3	5.3	2.5	7.9	5.6	-0.6	-6.7	3.9
Construction				3.6	0.8	9.4	3.7	-0.9	-6.1	3.8
Civil Engineering or Heavy Works Construction				7.8	7.3	6.1	10.1	0.2	-6.5	4.3
Specialized works for construction				10.5	-0.6	2.7	4.0	-1.8	-11.3	3.6
Construction Employment (IMSS)										
Total (average, thousands of persons)	900.5	896.0	907.8	969.4	1,020.1	1,133.1	1,203.4	1,207.7		
Annual % change	-3.5	-0.5	1.3	6.8	5.2	11.1	6.2	0.4		
Hydraulic Cement Production (metric tons)										
Annual % change	-4.3	2.4	0.8	4.0	11.1	7.7	2.0	-3.0		
National Cement Consumption (metric tons)										
Annual % change	-5.5	1.2	-0.3	2.9	10.1	6.7	1.1	-2.8		
Construction Companies[3]										
Real production value (annual % change)										
Total				1.7	4.2	7.5	2.8	-0.8		
Construction				16.2	9.0	9.5	9.2	-0.9		
Public works				-6.0	0.2	8.7	-3.2	-0.2		
Water, irrigation and drainage				31.2	-1.3	-18.5	-22.0	4.9		
Electricity and communications				-15.3	-28.4	12.5	-15.2	19.6		
Transportation				-16.8	6.9	6.9	7.8	13.7		
Oil and petrochemistry				-0.2	5.7	26.3	-5.6	-26.3		
Others				-16.4	-0.8	-6.9	-5.8	-3.3		
Residential Construction Prices (annual % change)										
General	3.5	3.5	6.9	12.2	-0.4	8.5	3.0	19.9		
Construction Material	2.2	2.7	7.2	14.8	-1.6	10.0	2.6	24.5		
Labor	10.1	7.6	5.4	4.4	3.7	4.0	4.4	3.5		

e estimated
f forecast
1 The INEGI modified its registration methodology in the SCN based on 2003=100. The previous data are under review by the INEGI Meanwhile, they are presented based on 1993=100
2 Seasonally-adjusted data. The IMSS modified its methodology to register the number of affiliated workers. As of 2003, said modification is reflected. The previous data are under review by the IMSS itself.
3 Considers the affiliated and non-affiliated firms with the Mexican Chamber of the Construction Industry.
Source: BBVA Bancomer with Banco de México, Conasami, INEGI, and IMSS data

Annual Housing Market Indicators

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009[3]
Housing Sales (thousands of units)											
Total	242.0	282.2	253.2	343.6	400.5	418.6	554.9	538.9	512.1	501.7	219.4
Segment A	103.3	93.1	63.4	75.6	83.2	94.2	105.3	137.0	120.0	187.0	84.0
Segment B	127.1	172.1	162.2	223.8	259.5	246.4	363.2	275.0	250.0	188.0	79.0
Segment C	7.4	12.0	21.3	34.3	44.2	54.8	58.8	85.0	90.0	82.5	36.3
Segment D	2.2	2.8	3.7	6.4	9.1	13.8	18.9	23.5	31.2	30.6	14.0
Segment E	1.9	2.1	2.6	3.6	4.4	9.4	8.8	18.4	20.9	13.6	6.1
Housing Price (thousands of constant pesos[2], average)											
Average****	390.1	411.2	457.5	476.8	519.7	334.8	533.8	604.1	689.4	577.3	596.5
Segment A	258.2	260.4	266.4	250.7	254.0	238.1	240.9	234.0	239.1	221.5	226.9
Segment B	367.6	386.5	377.2	388.5	415.3	38.2	402.5	379.1	389.3	369.1	370.3
Segment C	984.4	869.6	880.7	866.4	936.7	851.7	841.3	785.8	812.2	765.7	767.6
Segment D	2,078.3	1,986.5	1,978.5	1,939.4	2,052.7	1,470.4	1,914.4	1,894.1	1,855.6	1,752.6	1,899.5
Segment E	4,771.6	4,482.4	4,482.0	4,396.3	4,301.1	4,410.7	4,456.0	4,232.8	4,595.1	4,562.8	4,605.9
Housing Price per Sq. Mt. (constant pesos[2], average)											
Average****	5,720	5,930	6,119	6,088	7,008	6,762	6,970	7,030	7,556	6,977	7,334
Segment A	5,048	5,051	5,270	4,867	5,505	5,293	5,667	5,549	5,704	5,444	5,638
Segment B	5,840	6,069	5,934	5,864	6,783	6,292	6,557	6,330	6,590	6,358	6,471
Segment C	8,076	7,905	8,119	8,404	8,983	8,432	8,539	8,117	8,356	8,142	8,444
Segment D	12,468	10,896	10,907	10,804	12,618	11,600	12,195	11,724	12,218	11,906	13,513
Segment E	17,080	15,761	15,136	15,174	17,155	17,001	17,943	17,474	19,339	18,469	21,064

Annual Housing Financing Indicators

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009[3]
Number of Loans and Subsidies Granted (thousands)											
Total	279.5	331.9	326.8	400.3	500.7	532.0	525.6	655.5	636.9	1,065.1	331.7
Infonavit	195.4	250.1	200.5	268.7	291.4	300.8	371.7	418.0	456.0	494.1	204.4
Fovissste	17.9	24.3	26.6	11.1	66.4	59.4	48.7	76.5	70.5	90.1	40.2
Fonhapo	6.4	6.7	21.1	24.1	23.1	31.0	33.0	91.5	35.7	222.0	81.9
SHF/Fovi	59.1	46.7	47.6	46.1	54.2	65.3	54.4	37.1	32.6	128.4	30.7
Commercial Banks and Sofoles	0.8	0.8	3.7	9.7	20.7	37.5	49.0	92.8	191.2	207.2	72.9
Others**		3.2	27.3	40.5	44.8	37.9	21.5	17.3	14.4	49.9	26.0
Reduction***							-52.8	-77.7	-163.5	-126.6	-124.8
Financing Flow (billions of pesos*)											
Total	69.8	89.2	89.1	105.2	148.3	165.0	181.1	242.7	266.7	262.6	98.6
Infonavit	51.2	65.5	52.9	69.4	72.3	73.0	92.5	105.0	112.6	112.9	44.3
Fovissste	4.6	5.3	7.1	4.8	22.6	21.1	18.2	28.9	24.6	36.4	18.1
Fonhapo	0.6	0.9	0.1	1.3	1.5	2.3	1.9	4.3	2.1	2.3	1.2
SHF/Fovi	6.4	9.9	17.7	13.8	18.2	25.3	20.1	13.1	12.7	12.4	3.7
Commercial Banks and Sofoles	0.8	1.0	3.3	8.1	14.0	26.9	48.4	91.5	114.8	98.7	31.3
Commercial Banks Current Loan Portfolio											
End of Period Balances (billions of pesos*)	83.6	75.9	71.7	69.8	79.9	91.6	168.9	229.2	275.6	313.0	324.1
Default Index (%)	22.3	13.7	12.6	11.2	8.4	6.1	3.2	2.9	3.1	3.1	3.1

Note: Price ranges expressed in times monthly minimum wage (tmmw). Seg. A (61-160 tmmw); B (161-300); C (301-750); D (751-1,670) and E (1,671 and more). MMW=1,595.7 pesos in 2009 in national average
* June 2009 pesos
** Fonhapo, Sedesol, state agencies, Banobras, Issfam, Pemex and CFE
*** Refers to financing transactions (loans and subsidies) that are being considered in two or more institutions
**** Weighted price by sales volume
1 Se refiere a la meta anual 2 June 2009 producer prices 3 First semester
Source: BBVA Bancomer with Banco de México, Softec, CNBV, and Conavi data

Quarterly Macroeconomic Indicators

	IV'06	I'07	II'07	III'07	IV'07	I'08	II'08	III'08	IV'08	I'09	II'09
Real GDP[1]											
Annual % change	3.7	3.2	3.2	3.9	4.2	2.6	2.9	1.7	-1.6	-8.0	-10.3
Real Private Consumption											
Annual % change	4.3	4.9	4.1	3.5	3.6	2.8	2.7	2.2	-1.3	-8.7	-9.6
Real Government Consumption											
Annual % change	-1.3	0.8	1.3	3.5	4.4	0.9	1.1	0.3	0.1	3.7	1.0
Real Invest. in Const. (ann. % change)	6.9	7.3	4.0	4.3	4.7	0.6	2.1	0.1	-4.3	-5.2	-4.8
Residential	7.6	6.2	2.7	2.2	2.8	-0.2	1.3	-0.8	-4.7	-7.0	-8.6
Non-Residential	6.4	8.0	4.9	5.9	6.1	1.2	2.7	0.7	-4.0	-3.9	-2.2

Quarterly Construction and Housing Indicators

	IV'06	I'07	II'07	III'07	IV'07	I'08	II'08	III'08	IV'08	I'09	II'09
Real Const. GDP (ann. % change)	6.2	7.2	4.5	4.8	5.8	0.7	2.0	-0.7	-4.4	-7.2	-9.2
Construction	8.4	6.3	2.7	2.7	3.1	0.1	1.9	-0.8	-4.5	-6.7	-8.6
Civil Engineering & Heavy Const.	4.1	10.4	9.0	9.8	11.3	1.5	2.0	0.7	-3.4	-6.7	-9.2
Special Works for Construction	-2.5	2.7	2.9	3.1	7.8	2.2	2.3	-4.3	-7.7	-13.3	-14.0
Construction Companies[2]											
Real production value (annual % change)											
Total	6.9	3.7	2.3	2.3	2.8	0.4	1.9	-1.8	-3.2	-5.0	-6.3
Construction	13.2	10.5	9.3	8.6	8.6	5.2	3.1	-4.0	-6.7	-18.6	-19.4
Public Works	3.2	-1.9	-4.3	-3.5	-2.8	-5.0	0.3	1.1	2.3	18.1	18.4
Water, irrigation and drainage	-23.6	-28.2	-27.8	-16.1	-16.8	5.6	28.5	3.4	-9.5	-2.6	6.0
Electricity and communications	43.0	-10.4	-26.5	-10.1	-12.0	3.2	31.7	8.5	32.5	58.0	34.7
Transportation	4.9	5.8	4.0	17.3	4.4	12.0	14.9	14.2	13.4	30.0	19.1
Oil and petrochemistry	7.7	3.5	0.8	-20.2	-4.4	-29.2	-32.1	-22.7	-20.5	-7.4	14.7
Others	-5.8	-7.2	-6.6	-6.3	-3.6	-4.4	1.9	-1.7	-7.9	-21.5	-37.9

Housing Market Quarterly Indicators

	IV'06	I'07	II'07	III'07	IV'07	I'08	II'08	III'08	IV'08	I'09	II'09
Average Housing Price (thousands of pesos[3], eop)											
Segment A	234.1	244.9	244.2	235.5	240.1	232.1	223.5	219.5	219.3	226.4	230.1
Segment B	381.0	385.3	390.6	394.3	400.3	392.6	371.4	366.4	360.5	369.3	375.9
Segment C	790.0	813.0	813.5	829.2	821.3	813.1	766.1	759.4	754.0	773.8	770.8
Segment D	1,836.4	1,897.1	1,861.8	1,869.6	1,869.6	1,815.4	1,758.4	1,746.9	1,754.1	1,901.1	1,921.1
Segment E	4,264.6	4,362.6	4,627.1	4,703.5	4,841.4	4,745.9	4,594.0	4,515.8	4,565.6	4,614.5	4,653.9
Average Housing Price per Sq. Mt. (pesos[3], eop)											
Segment A	5,639	5,833	5,670	5,740	5,774	5,695	5,468	5,432	5,386	5,627	5,719
Segment B	6,346	6,457	6,537	6,761	6,827	6,732	6,409	6,352	6,187	6,479	6,543
Segment C	8,152	8,348	8,342	8,506	8,518	8,514	8,236	8,066	8,061	8,488	8,504
Segment D	11,751	11,918	12,344	12,566	12,461	12,257	12,056	11,794	11,951	13,539	13,652
Segment E	17,642	18,243	19,816	19,718	20,227	19,428	18,719	17,746	18,694	21,376	21,008

Quarterly Housing Financing Indicators

	IV'06	I'07	II'07	III'07	IV'07	I'08	II'08	III'08	IV'08	I'09	II'09
Commercial Banks Current Loan Portfolio											
Default Index (%)	2.7	3.0	3.1	3.1	3.1	2.9	3.1	3.3	3.5	3.8	4.3

1 Base 2003 = 100
2 Considers the affiliated and non-affiliated firms with the Mexican Chamber of the Construction Industry. Real production value, annual % change
3 June 2009 producer prices
Note: Price ranges expressed in times monthly minimum wage (tmmw). Seg. A (61-160 tmmw); B (161-300); C (301-750); D (751-1,670) and E (1,671 and more). MMW=1,595.7 pesos in 2008 in national average
* June 2009 pesos
Source: BBVA Bancomer with INEGI, Softec, and Banco de México data

Monthly Macroeconomic Indicators

	Oct'08	Nov'08	Dec'08	Jan'09	Feb'09	Mar'09	Apr'09	May'09	Jun'09	Jul'09	Aug'09
GEAI (Global Economic Activity Index)											
Annual % change	-0.7	-2.3	-2.4	-9.0	-10.4	-5.1	-12.2	-11.0	-8.0	-6.9	
Real Construction Volume (annual % change)	-1.4	-5.0	-7.2	-7.9	-10.8	-3.0	-11.7	-9.4	-5.8	-5.1	-7.8
Construction	-1.3	-4.8	-7.7	-7.4	-10.2	-2.4	-11.5	-8.6	-5.1	-4.4	-7.3
Civil Engineering and Heavy Works Construction	-0.8	-4.3	-5.2	-7.2	-10.3	-2.4	-10.6	-9.7	-6.1	-5.7	-9.0
Specialized Construction works	-5.1	-8.3	-9.8	-13.3	-17.7	-9.0	-17.8	-14.0	-9.0	-7.9	-7.4
Total Private Formal Employment (IMSS)[1]											
Total (thousands of persons)	14,565	14,505	14,178	14,073	14,027	14,040	13,980	13,868	13,871	13,887	13,919
Annual % change	1.4	0.4	0.6	-1.7	-2.6	-2.5	-3.5	-4.0	-4.2	-4.1	-3.7
Average Wage for Social Security Contrib. (IMSS)											
Nominal daily pesos	219.9	221.4	222.2	230.3	232.0	228.6	228.5	231.2	230.7	231.5	230.9
Real annual % change	0.0	-0.4	-1.0	-0.2	-0.1	-1.6	-1.5	-1.2	-1.1	-1.3	-1.1
Real Total Wages (IMSS)											
Annual % change	1.5	0.0	-0.5	-1.9	-2.6	-4.1	-4.9	-5.1	-5.2	-5.3	-4.4
General Minimum Wage (daily)											
Nominal Pesos	50.8	50.8	50.8	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
Consumer Prices (end of period)											
Annual % change	13.1	14.1	13.1	10.8	8.1	7.0	4.5	1.7	-0.6	-1.6	-1.4
28-day TIIE, average (%)	8.7	8.7	8.7	8.4	7.9	7.6	6.7	5.8	5.3	4.9	4.9
10-Year Government Bonds Interest Rate (M10)	8.5	9.8	8.0	8.0	8.2	7.8	7.8	7.6	8.2	8.1	8.1

Monthly Construction and Housing Indicators

	Oct'08	Nov'08	Dec'08	Jan'09	Feb'09	Mar'09	Apr'09	May'09	Jun'09	Jul'09	Aug'09
Construction Employment (IMSS)											
Total (thousands of persons)	1,236	1,207	1,099	1,101	1,094	1,102	1,101	1,099	1,113	1,120	1,121
Annual % change	-2.2	-3.7	-3.3	-6.8	-8.5	-7.0	-9.1	-9.8	-9.4	-9.9	-10.1
Hydraulic Cement Production (metric tons)											
Annual % change	-0.2	-7.6	-7.5	3.9	-5.4	1.8	-9.8	-1.5	6.1	1.1	
Cement Consumption per Inhabitant (kg.)[2]											
Annual % change	-1.0	-8.4	-8.3	7.7	4.0	-0.8	-6.5	-9.1	-1.7	-3.6	
Residential Construction Prices											
General (annual % change)	20.1	21.4	19.9	10.8	8.1	7.0	4.5	1.7	-0.6	-1.6	-1.4
Materials (annual % change)	24.6	26.2	24.5	12.5	9.2	7.7	4.6	1.1	-1.7	-2.9	-2.7
Labor (annual % change)	3.6	3.9	3.5	3.5	3.4	3.5	3.8	3.6	3.7	3.8	3.8

Housing Financing Monthly Indicators

	Oct'08	Nov'08	Dec'08	Jan'09	Feb'09	Mar'09	Apr'09	May'09	Jun'09	Jul'09	Aug'09
Commercial Banks Current Loan Portfolio											
Balances, billions of pesos*	278.3	280.6	280.8	286.2	287.9	290.7	292.3	296.6	301.5	304.1	299.2
Annual % change	4.7	2.3	1.9	2.0	3.7	6.1	7.4	9.6	11.4	11.4	10.3
Loan Portfolio Sofoles											
Balances, billions of pesos*	82.2	79.8	80.7	81.4	74.3	74.8	74.5	74.8	75.3	75.4	74.5
Annual % change	-31.4	-39.0	-35.9	-33.2	-38.0	-37.4	-37.5	-35.5	-35.1	-35.5	-37.1
Average CAT in pesos at a fixed rate	14.48	14.59	14.69	14.66	14.69	14.87	14.77	14.77	14.78	14.74	14.79

1 The IMSS modified its methodology for registering the number of affiliated workers. As of 2003, said modification is reflected. The previous data are under review by the IMSS Itself
2 The cement production volume was used as a consumption equivalent
* June 2009 pesos
Source: BBVA Bancomer with Banco de México, Conasami, INEGI, IMSS, CNBV data

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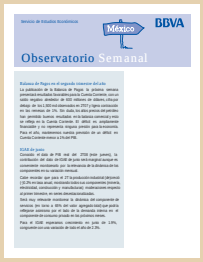

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