BBVA | RESEARCH

Real Estate Outlook

Mexico

August 2013

Economic Analysis

- The mortgage market has contracted in 2013, mainly due to the diversification of lending by housing institutes
- The slowdown cuts the rate of growth of loans issued by commercial banks, but does not halt it
- The crisis of the public-sector housing developers has not had a general impact on the rest of the industry
- As a way of kick-starting housing market, boosting demand will have a greater impact that stimulating growth in supply

BBVA Bancomer

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Closing date: August 15, 2013

Acknowledgments

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Summary

2013 has been a difficult year for the economy, the construction industry and the housing market. There has been a significant slowdown in the pace of economic activity, as GDP growth fell from rates of 4.3% on average between 2010 and 2012 to 1% in the first half of the current year, in real terms. On the external front, there has been a slower pace of growth in non-oil exports, which fell from rates of 17.6% in 2010-2012 to 2.1% in 2013. However, it has been the domestic component that has contributed most to recent trends.

In a government's first year in office it is normal to observe some delay in implementing the budget. In addition, in the wake of an election period, expenditure is lower than in the previous years, particularly with respect to investment in public works. This component, which represents around a quarter of construction GDP (24% on average in the last five years), has accumulated three quarters of real average negative growth of the order of 3.5%.

On the building side, there has been a downward adjustment in the residential construction, the other major component in the sector (at around 65% of construction GDP). Although some companies are facing a critical financial situation, the truth is that the industry as a whole is having to deal with a new environment. The reasons have to do with the diversification of finance in Infonavit toward housing renewals; a greater level of knowledge of members of Infonavit with respect to the options that they have for using their savings for housing; inventories accumulated from previous years; and also an increased share of existing housing in total lending.

These changes are important and healthy, as at the end of the day they point to an evolution of the market. In addition, it is important to note that by freeing the potential of demand, the housing market has a very significant potential to move forward. As we have pointed out in one of our articles, the elements that influence this include demographics; a stronger middle class; the process of urbanization and expansion of the medium-sized cities; the availability of finance; as well as the markets that are pending development, such as rented housing and the secondary housing market.

A special section deals with the situation that is being experienced by public-sector developers listed on the stock market. Although they have experienced a slump this year, in fact their problems began a few years ago. The model under which these companies grew was successful at the time, but began to demonstrate weaknesses and signs of exhaustion towards the end of the last decade. There were significant signs pointing in this direction that were not properly valued. It is true, however, that for some relevant aspects required to measure the operation of these companies, information was incomplete or not transparent. It is also true that the model itself that they had adopted reduced their flexibility.

It is important to see the situation of the private-sector companies in perspective. They provide a lesson for all the agents in the industry, but above all a distinction should be made between the case of these companies and what is happening with the rest of the industry. There is an ample base of construction companies, numbering more than 200, which have remained active for a number of years and are responsible for most of the homes constructed in the country. It will be important to keep a close eye on developments in some of them, which are gradually acquiring a greater market share. Having said that, it has to be pointed out that the leading companies in the sector in the coming years will have a different model than at present. They will construct more compact housing complexes, with lower levels of reserve land and a diversified range of products; and they will depend less on the federal budget and more on an appropriate response to demand.

On the political front, the government has decided to tackle the twin challenge that involves establishing the groundwork guaranteeing a healthy and sustained growth in the market in the medium term, while at the same time resolving the temporary conditions that the industry is having to deal with. There is consensus with respect to the problems; what will have to be ensured is that the strategies are adequate and sufficient to achieve the objectives. The efforts made in analysis and planning will play a key role in this process.

2.a. After hitting a peak in 2012, construction is now starting to grow again from lower levels

Introduction

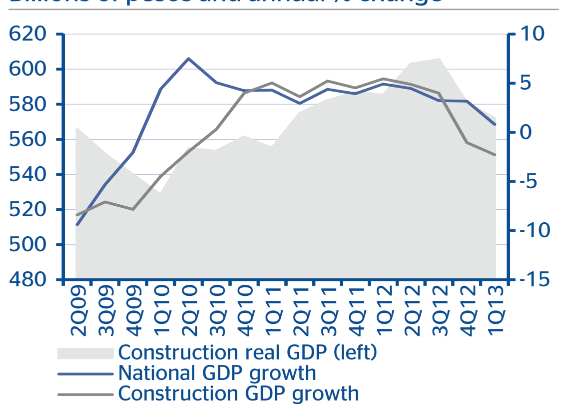
In 2012, the construction sector reached a peak in terms of its gross domestic product (GDP), practically equaling the all-time high of 2008. Since then, the sector appears to be starting on a new trend towards a peak, which this time we expect to be higher than the others. The start of the dip in the sector is due to the end of the boom in residential building and a lag in infrastructure works. However, the upturn appears clear in the mid term, fuelled by public works through an ambitious National Infrastructure Plan (PNI) and the Public-Private Partnerships Law. Building itself may take a little more time to recover, however.

Having reached a peak, construction begins a downturn

In 2012, construction GDP averaged 594 billion pesos, and was thus a hair's breadth away from reaching the all time high of 596 billion pesos reported in 2008. Construction GDP had thus completed its economic cycle and now we can observe a dip in its performance. One distinguishing feature of the construction sector is that it is procyclical; in other words when it grows it does so more quickly than the economy and when it slows it also does so to a greater degree. The positive side is apparent with the growth rates reported in 2011 and almost the whole of 2012; while now, as the economy has slowed, construction has declined in the last two quarters. This performance is not therefore surprising, but simply a reflection of the natural cycle so typical of this sector.

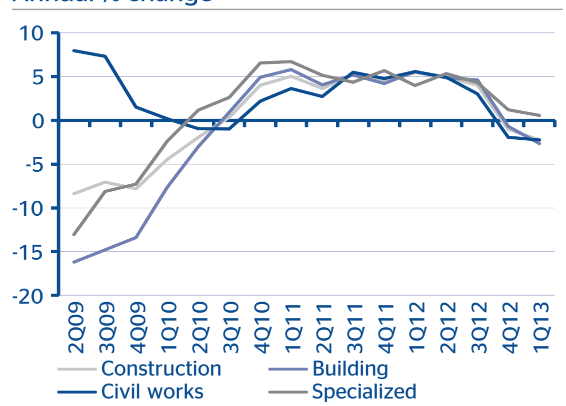
As we expected, the sector's outperformance of the economy in terms of growth could not continue in the short term. However, the slowdown has been sharper than expected, and the sector is actually declining. This is because its two main components, building and civil works, reported negative results in the fourth quarter of 2012 and in the first of 2013. The fall in building is due to a drop in residential construction and the slowdown in commercial and industrial building. Civil works have been particularly hard hit, due to a drop in public infrastructure, as spending at the end of the previous administration and the start of the current one was down. This phenomenon had not been observed at the outset of the two previous administrations. The recovery in residential building could be slower, but we expect the National Infrastructure Plan to bring about a recovery in public works, above all in 2014.

Chart 1
Domestic and construction GDP
Billions of pesos and annual % change



Source: BBVA Research with INEGI data

Chart 2
Construction GDP by components
Annual % change



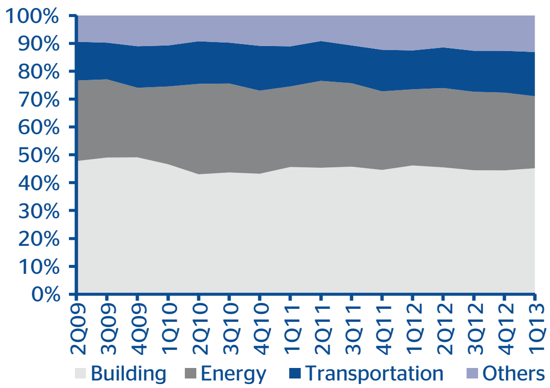
Source: BBVA Research with INEGI data

The sector's performance depends on residential building and infrastructure

Building continues to be the main component of construction, but its level has fallen, above all in its residential part. Construction of new homes has steadily fallen, due to the adjustment in demand for these kinds of works. This is a result of a replacement effect as people turn to existing housing and other housing solutions. Meanwhile, commercial and industrial building has begun to slow. Growth in commercial and services constructions has slowed, but remains at the same level in industrial works and office buildings.

Chart 3

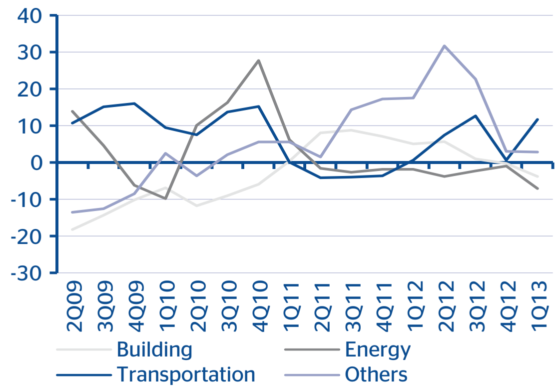
Value of construction output by type of work
% share



Note: Energy includes electricity, oil and petrochemicals works; Others includes water, sewerage, etc.
Source: BBVA Research with ENEC, INEGI data

Chart 4

Value of construction output: types of work
Annual % change

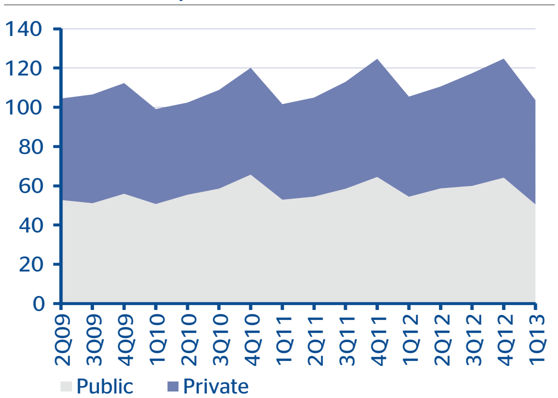


Note: Energy includes electricity, oil and petrochemicals works; Others includes water, sewerage, etc.
Source: BBVA Research with ENEC, INEGI data

The end of the previous administration and the entry of the new federal government have had a greater than expected restrictive effect on construction (there were no signs of lower public activity at the start of the two preceding administrations). This has had a negative impact on public works. Spending on physical investment has declined since the end of 2012, and this has been carried over into the first months of 2013. This is reflected in the falling value of works in this construction component; for example, construction companies have seen business decline in telecommunications and transport. The exception has been the energy sector, which has remained positive, but it has not been enough to shore up public works, as it is outweighed by telecommunications and transport.

Chart 5

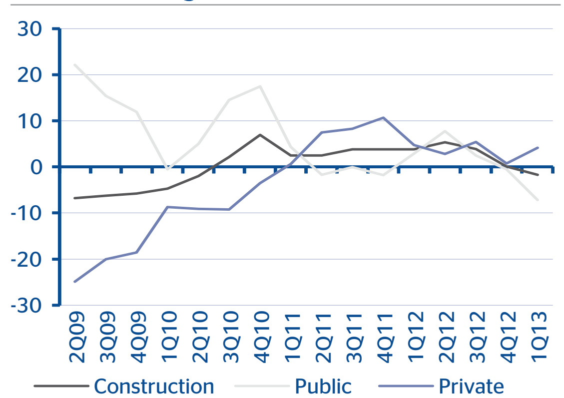
Value of public and private-sector output
Real billions of pesos



Source: BBVA Research with ENEC data, INEGI

Chart 6

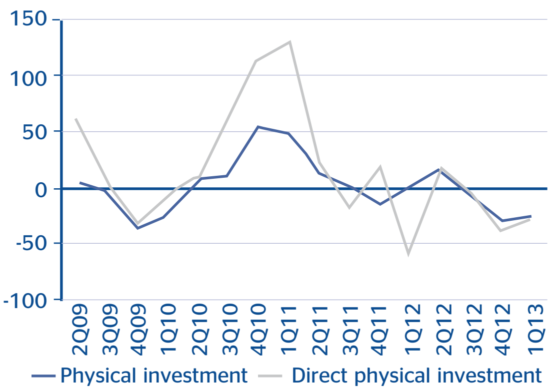
Value of public and private-sector output
Annual % change



Source: BBVA Research with ENEC data, INEGI

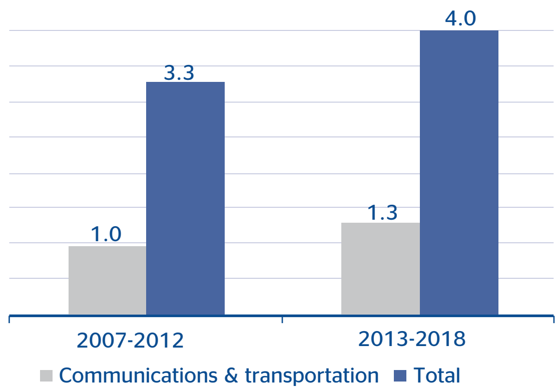
The delay in the definition of the National Infrastructure Plan has played a part in making the sector contract faster than expected. Now that the Plan has been announced, however, we expect activity to recover and in fact public works could recover more quickly than building. We can see how ambitious the PNI is if we look at the amount of infrastructure investment announced from 2013 to 2018. In comparison with the previous six-year period, investment in communications and transport increases by 30%; while the total amount rises from 3.3 to 4.0 billion pesos. We can therefore expect a sharp impact on construction if the projects are fulfilled. However, the details of this plan, including projects and amounts, the processes for assigning them and forms of finance, will have to be defined quickly. A greater level of investment through the Public-Private Partnerships Law would act as an incentive for private participation, thus reducing dependence on public finances.

Chart 7
Physical investment by the federal government
Annual % change



Source: BBVA Research with INEGI data

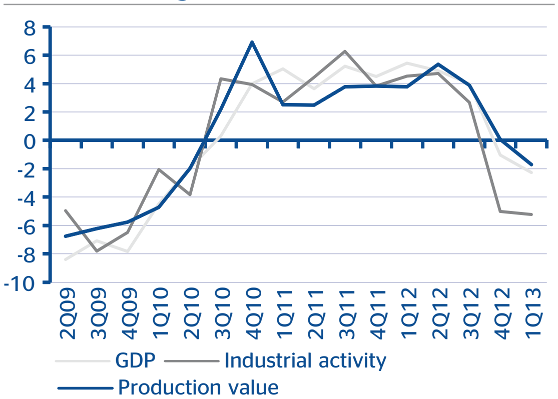
Chart 8
National Infrastructure Plan
Billion 2013 pesos



Source: BBVA Research with data from the Office of the Presidency

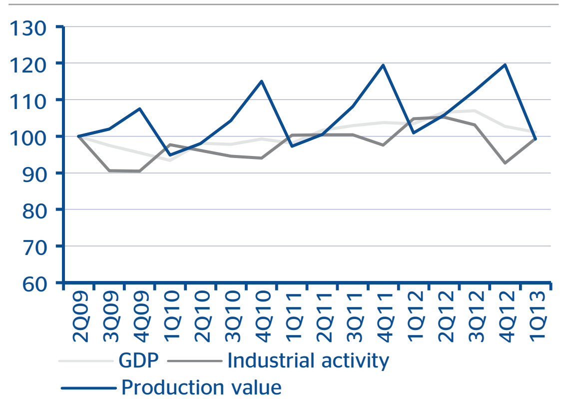
The different construction sector indicators confirm a fall in activity and not merely a slowdown. The fourth quarter of the previous year, and the first of 2013, show negative results in terms of GDP, industrial activity and output, which is very likely to have continued in the second quarter of 2013, judging by the two months already observed. If we compare with 2008, indicators fall short of the peak achieved that year, but prompt recovery could lead that historical high to be exceeded in the medium term.

Chart 9
Construction activity indicators
Annual % change



Source: BBVA Research with SCNM and ENEC, INEGI data

Chart 10
Construction activity indicators
4Q08 = 100



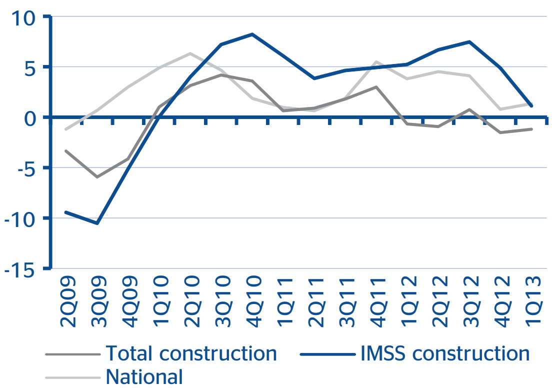
Source: BBVA Research with SCNM and ENEC, INEGI data

Construction companies have already begun to adjust their outlook

In keeping with the fall in activity, construction companies have reduced their demand for work and supplies. Total employment in the sector has fallen since late 2012 and this has continued so far in 2013. At the same time, although the rate of job creation in the economy overall has slowed, it remains positive. There has been a growth in construction employment according to figures from the Mexican Institute for Social Security (IMSS), even higher than that of the economy overall. However, given that the total for the sector overall continues to fall, the IMSS figures probably only reflect stricter enforcement by the authorities of employment regulations. The IMSS rate in fact suggests an increase in the proportion of employees with social security cover, not that construction employment is growing.

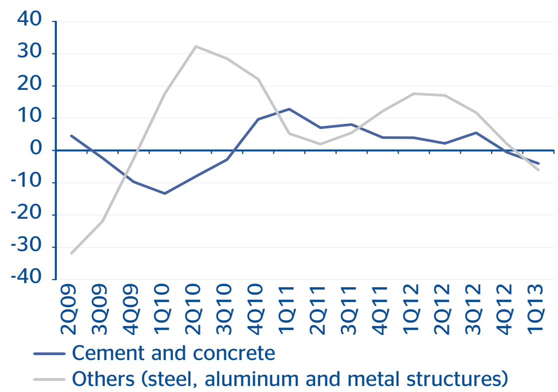
At the same time, though more gradually, the pace of sales of the main construction supplies has fallen until reaching negative levels in 2013. There has been a downturn in cement and concrete sales since mid-2012. Metal-related supplies, on the other hand, reflect a more cyclical trend: sales increased in 2011 and 2012, but fell back into negative territory in 2013.

Chart 11
Employment: total and construction
Annual % change



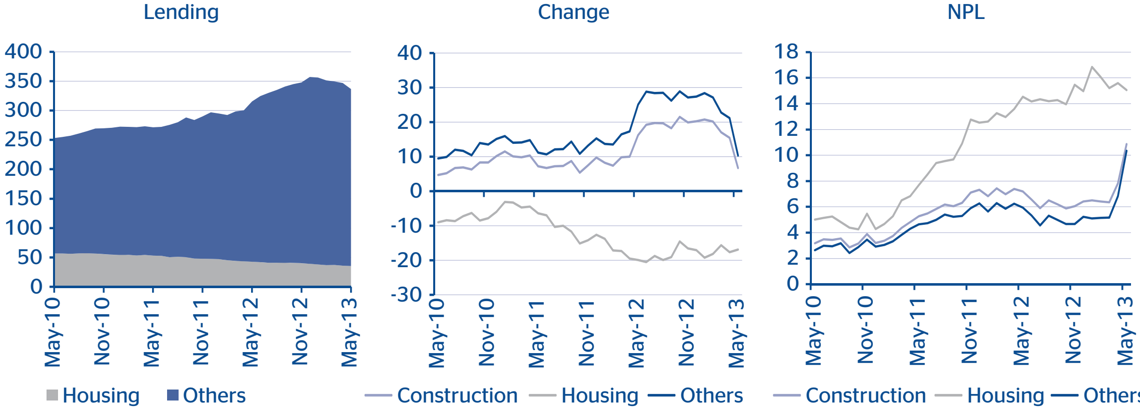
Source: BBVA Research with ENOE and INEGI data

Chart 12
Main construction supplies
Annual % change



Source: BBVA Research with EMIM data, INEGI

Chart 13, 14 and 15
Real outstanding balance of construction lending, annual % change and NPL ratio
Billions of pesos and %



Source: BBVA Research with Bank of Mexico data
Note: Others includes roads, commercial building and other engineering works.

The financial sector reflects economic activity

Lending to the construction sector has begun to reflect the fall in economic activity. Although there are individual differences depending on the type of project, the rise in lending volume peaked and has now slowed. Reflecting the results of the value of output by type of project, the main reason for the fall in the construction lending portfolio is reduced lending to residential developers. This due both to lower demand by developers, given fewer projects, and also to the sharp deterioration of their credit quality. In contrast, lending for engineering works continues to rise.

Conclusions: construction is re-emerging from lower levels and will recover in the mid term

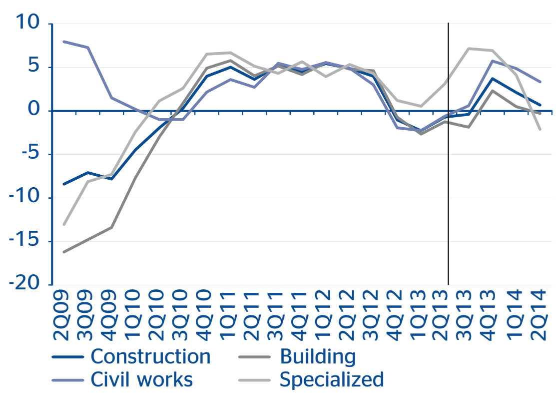
In previous issues of ***Mexico Real Estate Outlook*** we had expected a slowdown in the construction sector, but not that it would be so pronounced. Two factors have played a critical role: the adjustment in residential building after the real estate boom, and a drop in public works due to the delay in applying infrastructure investment. This means the economic cycle in the construction sector has turned full circle, and from now on it should resume its growth trend. For the time being, we are not expecting major rises, but looking ahead to late 2013 and the start of 2014, there should be two drivers of growth in the sector: the Public-Private Associations Law, and an ambitious infrastructure plan. Furthermore, energy sector and tax reforms might have a positive impact on investment in the construction sector. We therefore expect construction GDP to be negative in the second quarter of 2013 and to finish the year with growth of around 0.1%, followed by steady growth from 2014 on.

Table 1
Construction GDP and components
Real annual % change

Period	Construction	Building	Civil works	Specialized works
2009	-7.8	-14.8	5.6	-9.5
2010	-0.5	-1.2	0.1	2.0
2011	4.6	4.8	4.1	5.5
1T12	5.4	5.6	5.6	4.0
2T12	4.9	4.8	4.9	5.3
3T12	4.0	4.6	3.0	4.3
4T12	-1.0	-0.7	-1.9	1.2
2012	3.3	3.6	2.9	3.7
2013	0.1	-0.9	0.9	4.4

Source: BBVA Research with INEGI data

Chart 16
Construction GDP and components
Real annual % change



Source: BBVA Research with INEGI data

2b. Housing: slowdown in supply, but demand continues to grow

During 2013, the housing market has been influenced by a variety of factors, some of which have detracted from growth, while others have boosted it. These factors include: the change of administration, the process of adjustment in industry, the economic slowdown, the diversification of financial products offered by housing institutes, and greater competition between financial intermediaries in the private sector.

While so far the factors which have tended to curb activity have dominated, some of these had been anticipated since the start of the year, such as economic downturn and the new government. At the same time, it is important to note that some of the changes in the market, such as the diversification in forms of finance, the type of housing built and the characteristics of financing in the sector, could have more long-term effects.

Short-term conditions make the daily news, but for the different agents in the market more attention should actually be paid to the structural component. It is these components that will be needed as a basis to successfully compete on the market in coming years.

Slowdown in mortgage activity in 2013

In 2013, the mortgage market has performed weakly as a whole, although with strong disparity between housing institutes and commercial banks. The figures as of June show a 15% contraction for the former, both in the number of loans and in finance granted in real terms. In contrast, the loans granted by commercial banks using bank capital show rises of 2.1% and 5.6% in real terms in both indicators.

Table 2

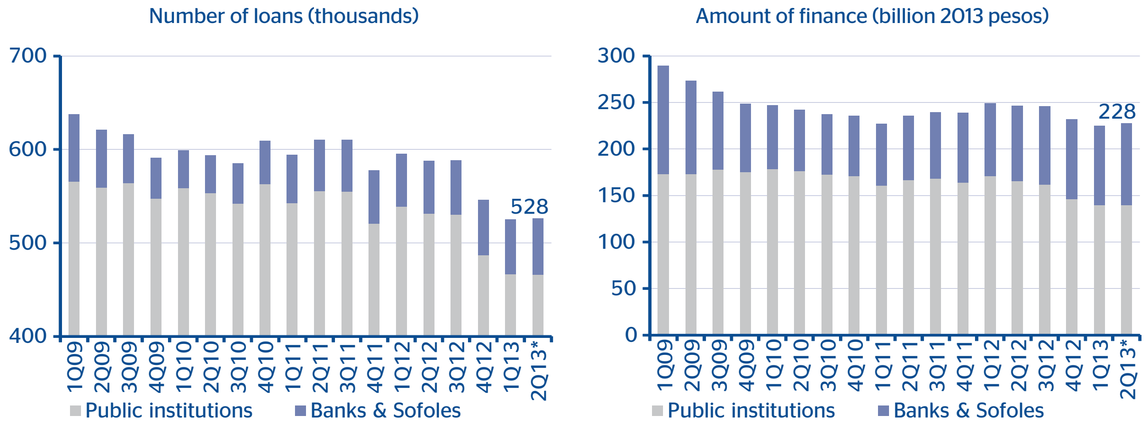
Summary of mortgage lending (annual aggregate, billion pesos at 2013 prices)

Institution	Number of loans (thousands)			Amount of credit (Billion pesos)		
	Jun-12	Jun-13	Ann. % chge.	Jun-12	Jun-13	Real ann. % chge.
Public institutions	251.9	213.2	-15.4	74.5	63.3	-15.0
Infonavit	217.5	182.6	-16.0	56.7	48.0	-15.4
Fovissste	34.5	30.7	-11.0	17.8	15.3	-13.9
Private institutions	40.3	40.9	1.3	39.6	41.7	5.2
Banks	39.6	40.4	2.1	39.3	41.5	5.6
Sofoles	0.7	0.4	-40.3	0.3	0.2	-39.8
Subtotal	**292.2**	**254.1**	**-13.1**	**114.1**	**105.0**	**-8.0**
Co-finance (-)	12.6	11.9	-5.6	---	---	---
Total	**279.7**	**242.2**	**-13.4**	**114.1**	**105.0**	**-8.0**
Informative figures						
Total co-financing (-)	27.1	27.2	0.4	-	-	-
Total Infonavit (-)	14.5	15.3	5.5	-	-	-
Other co-financing (-)	12.6	11.9	-5.6	-	-	-

Source: BBVA Research with Infonavit, Fovissste, ABM and National Banking and Securities Commission (CNBV) data

In annualized terms, the market has grown by around 530,000 loans, with total loan volume of 230 billion pesos. Compared against the close of 2012, the number of loans is lower, but the total loan volume has remained virtually unchanged. In other words, in terms of resources channeled into the sector, the outlook this year is simply of a slowdown in growth.

Chart 17 and 18
Placement of mortgage lending by institution (annualized figures)



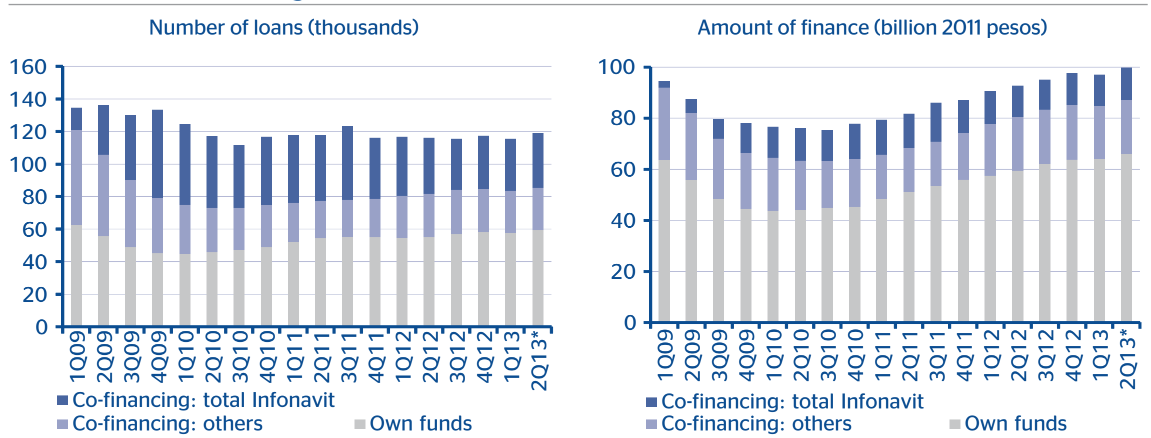
*Figures through May
Source: BBVA Research with Infonavit, Fovissste, ABM and AHM data

Bank lending, competition counteracts slowdown

For commercial banking, mortgage lending has been fuelled by the increased competition between financial intermediaries offering more attractive financing conditions. However, it has been curbed by the environment of economic slowdown, with GDP falling from an average of 4.7% in the first half of 2012 to 3.2% in the second, and to 0.8% in the first half of 2013.

Loans granted by banks can be divided into two major categories: those which are financed exclusively or with their own funds; and those granted on a co-finance basis with housing institutes. Co-financed loans, in turn, have to be divided between traditional co-finance and the product called Infonavit Total, which are loans placed by Infonavit and administered by banks. Loans issued using the banks' own funds account for roughly half of the total number of loans granted, but two thirds of the loan volume. In fact, most of the growth in mortgage lending by commercial banks is through these kinds of loans.

Chart 19 and 20
Commercial bank lending

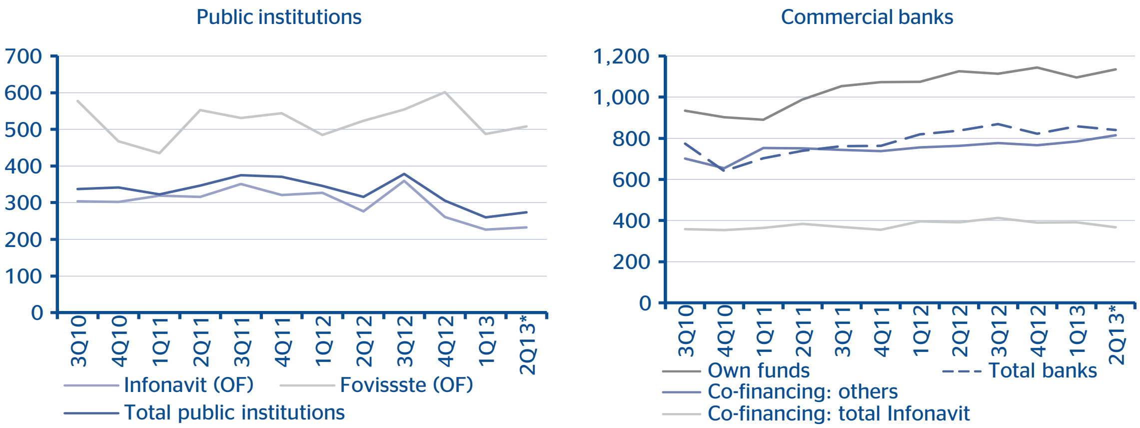


*Figures through May
Source: BBVA Research with ABM data

In addition, the average loan amount has increased significantly since 2010, as part of the strategy used by banks to improve their service to the medium and high income segment, which is their natural market. For example, for loans using their own funds, the average amount in 2010 was in the region of 900,000 pesos, while for 2013 it was 1.1 million (all at 2013 prices). In contrast, co-financed loans (excluding the Infonavit Total product) have remained at around the 800,000 peso mark.

Chart 21 and 22

Average mortgage amount (thousands of pesos, 2013 prices)

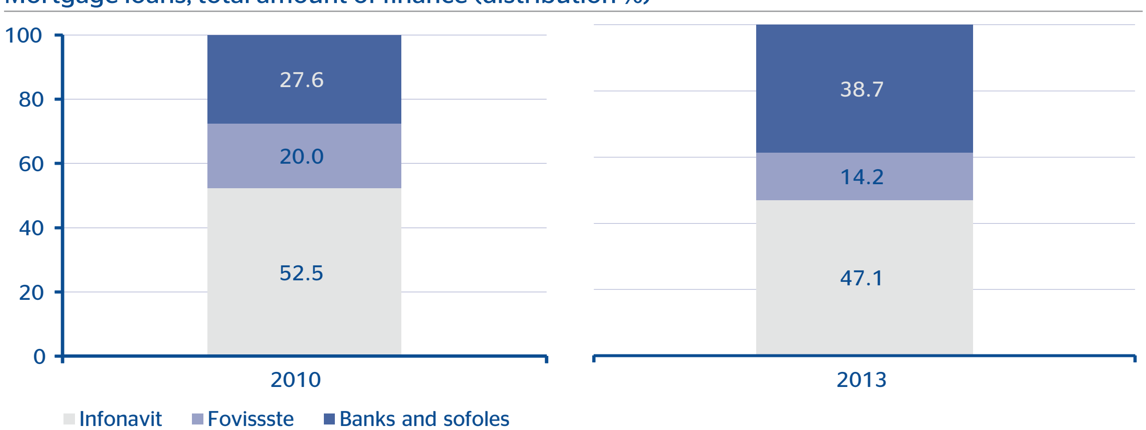


*Figures through May
OF: own funds
Source: BBVA Research with Infonavit, Fovissste and ABM data

There have been two important changes in the mortgage market in recent years that have not received much attention. First, the banks' share of total finance has grown significantly, from 28% in 2010, to 39% in 2013. Infonavit's share has been reduced from 53% to 47%, while that of Fovissste is down from 20% to 14%.

Chart 23 and 24

Mortgage loans, total amount of finance (distribution %)



Source: BBVA Research with Infonavit, Fovissste, and ABM data

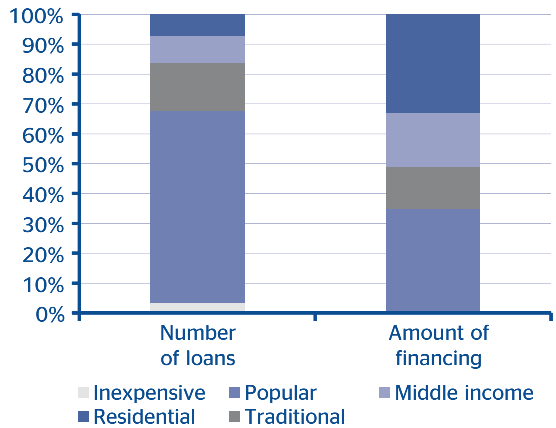
Second, in the mortgage market the highest-value segments are gradually acquiring a more important weight. Taking loans for new homes, estimated to amount to 360,000 in 2012[1], as a reference, it can be observed that while the number of loans for the low-income segments account for around 84% of the total, in amount financed the figure is only 49%. In other words, middle-income residential housing represents more than half of the loans granted for new housing.

Table 3
Housing segments (AHM classification)

	Price range (thousand pesos)
Low income	
Inexpensive	Up to 230
Popular	231 to 400
Traditional	401 to 700
Middle-income	701 to 1,500
Residential	1,501 to 3,000
Residential Plus	More than 3,000

Source: BBVA Research with AHM data

Chart 25
Share of loans and finance (2012, %)



Source: BBVA Research with Infonavit, Fovissste and ABM data

A final point to be taken into account regarding the credit granted by commercial banks is that despite the competition for a greater share of the mortgage market, credit standards have not eased. Interest rates have fallen and mortgages have become longer, but the loan-to-value ratio is at levels of close to 65%, and default is under control, at around 3.5%.

Chart 26
Interest rate & term (% & years)

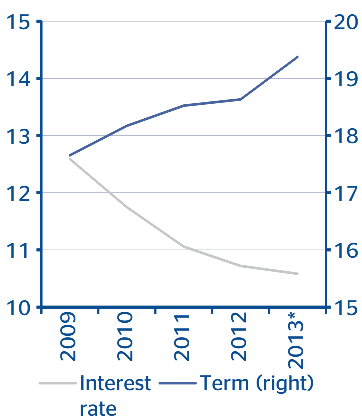


Chart 27
Loan-to-value (%)

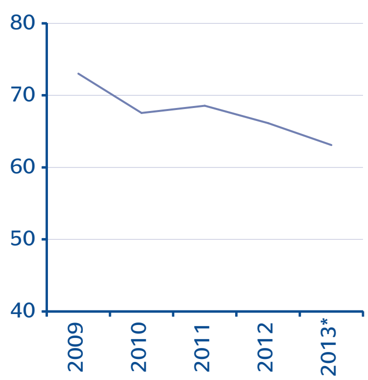
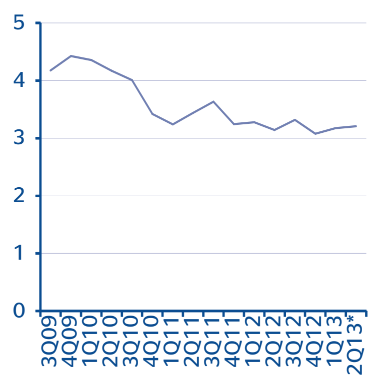


Chart 28
NPL (%)



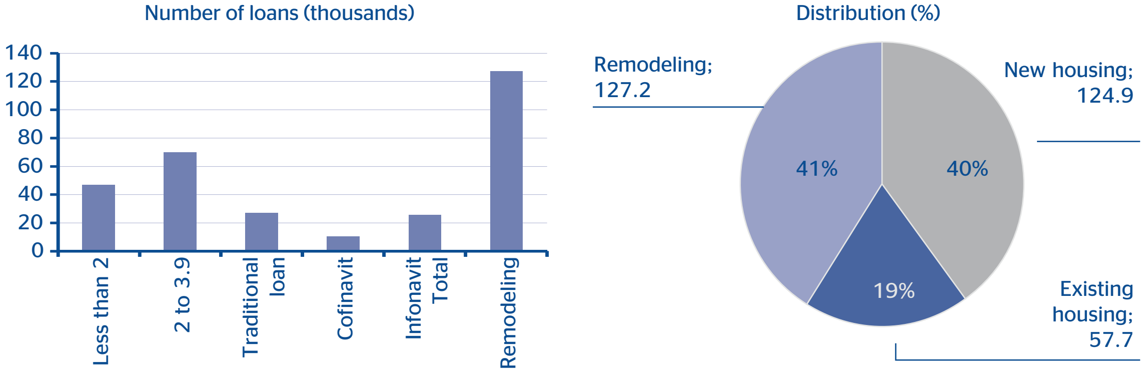
*Figures through May
Source: BBVA Research with CNBV data

[1] For banks, the difference between availability of new and existing homes is subject to a validation process, and is not yet fully reliable. However, for both public institutions and for banks, the information on the value of the financed home has been verified and is reliable.

The diversification of loan products has an impact on housing institutes

The lower rate of activity of housing institutes can be associated with the strategies which they have maintained. In Infonavit's case, loans for refurbishment are playing an increasingly important role, and at the end of the first half of the year already accounted for 41% of the total. This figure is significantly higher than the share registered at the end of 2012, which was 25% (almost 144,000 loans out of a total of 578,000 granted).

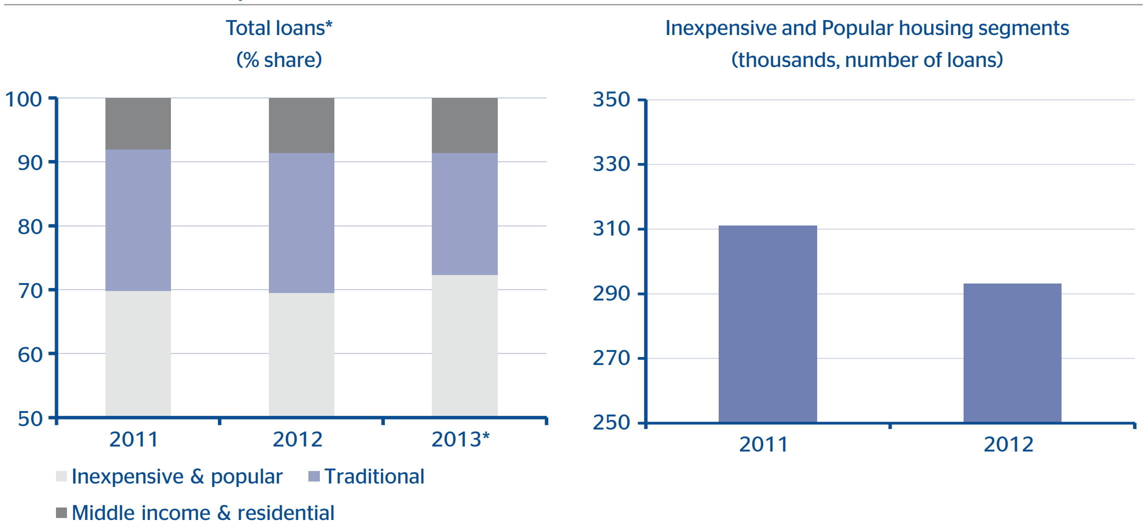
Chart 29 and 30
Infonavit Loans 2013*



*Through June
Source: BBVA Research with Infonavit data

The situation affecting the industry through the financial crisis of public-sector corporations may also play a role, but this is not entirely clear. The increase in refurbishments may have something to do with this effect. However, the segments known as "Inexpensive housing" and "Popular housing", where these companies operate and where subsidies are granted, were already reporting lower growth in 2012. And so far in 2013, the share of these segments in total loans is not very different from previous years. In other words, the fall in loan placements by Infonavit appears to apply to all segments and not only to those which work with public-sector developers.

Chart 31 and 32
Infonavit loans, completed homes

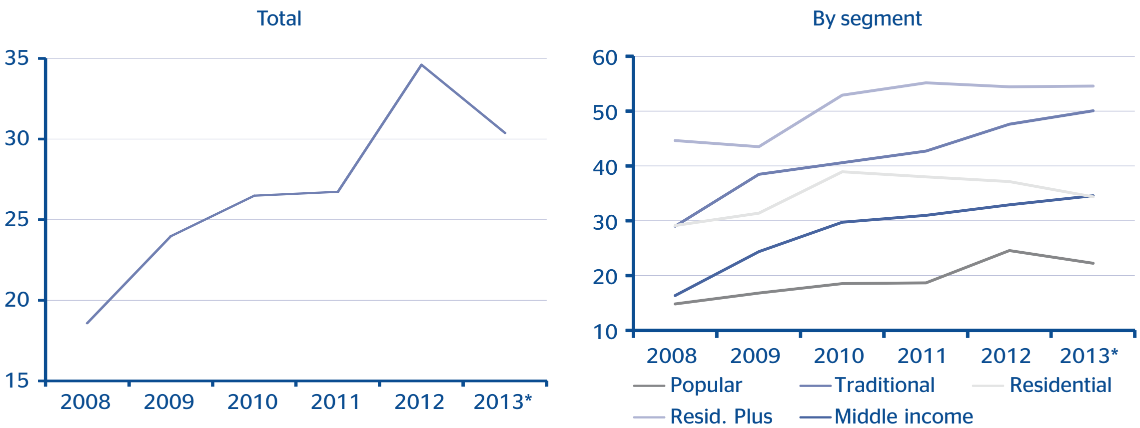


*Figures through May
Source: BBVA Research with Infonavit data

In addition to the diversification of loans, existing housing also plays an important role in measuring the needs for housing finance and construction. Existing housing accounts for around 31% of total loans granted by Infonavit.

Chart 33 and 34

Infonavit: existing housing (% share of loans)



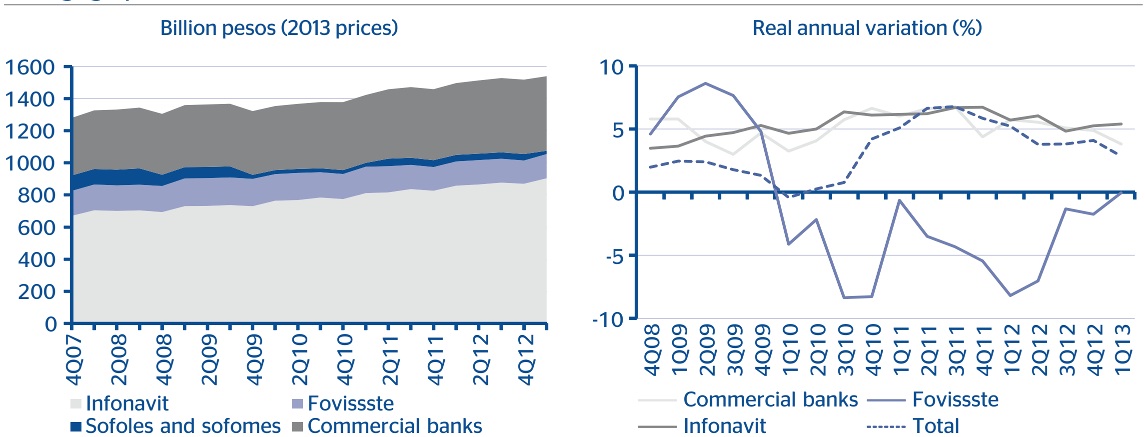
*Figures through May
Source: BBVA Research with Infonavit data

Fovissste's activity has fallen in recent years from 100,000 loans in 2009 to 65,000 in 2012. For 2013, the target initially planned was 70,000 loans, though halfway through the year it was announced that the total might reach 90,000. In any event, the volume granted by this institution depends on budgetary conditions rather than demand. Loans are granted using a draw of lots, with only one in three of the applicants proving successful. Fovissste is also starting up a refurbishment loan program, so that some of its loans will be for this kind of solution.

In short, it is important to distinguish between the roles that public and private intermediaries play in mortgages. Growth in public-sector intermediaries, which generate loan numbers, has slowed; but private intermediaries continue to grow, despite the slowdown, and make an increasingly large contribution to the financial volume of lending. Lastly, the upturn in the mortgage portfolio balance continues; and 40% of it is held by banks, when in 2007 this figure was only 30%.

Chart 35 and 36

Mortgage portfolio balance



Source: BBVA Research with Banxico data

Source: BBVA Research with Infonavit and Banxico data

Supply is linked to the activity of housing institutes

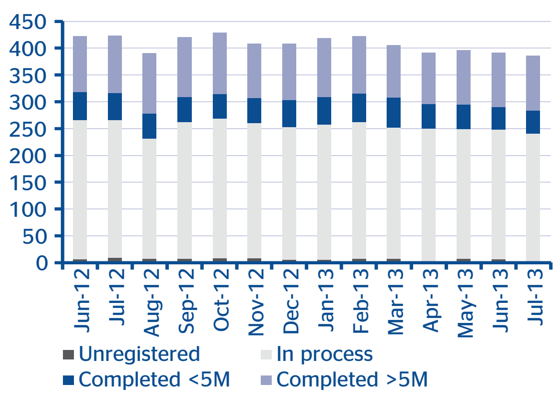
Housing construction has slowed, reflecting reduced activity by housing institutes and the federal government's budget for subsidies, given that a significant proportion of housing construction is channeled into this segment. The potential for placing new homes has therefore slowed, and this explains the lower growth in construction.

Within this general trend, certain points should be highlighted. First, housing registrations are in excess of new home placements (382,000 completed or in construction compared with 357,000 new homes placed in 2012); although homebuyers might have fewer options to buy new homes in certain areas, it is also true that pressure is not being exerted towards accumulation of stocks.

Chart 37 and Table 4

RUV register: active homes

Total (thousands)



Distribution (%)

	Jul-12	Jul-13	Differ.	% chge.
Total	**414.0**	**382.4**	**-31.6**	**-7.6**
Completed	156.7	143.7	-13.0	-8.3
>5 months	107.0	103.1	-3.9	-3.7
<5 months	49.7	40.6	-9.1	-18.3
In process	257.3	238.7	-18.6	-7.2
No occup. certif.	30.3	32.6	2.3	7.4
80-99%	48.4	44.7	-3.7	-7.6
60-79%	38.9	35.8	-3.0	-7.8
40-59%	25.7	24.4	-1.3	-5.1
20-39%	19.2	18.4	-0.8	-4.1
1-19%	35.7	33.0	-2.7	-7.5
No progress	59.0	49.7	-9.3	-15.8
Unreported	9.0	10.0	1.0	11.4

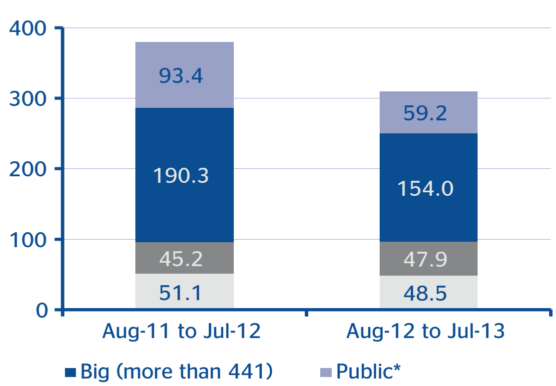
Source: BBVA Research with RUV data

Second, the adjustment in supply less notable than the fall in output of public-sector developers. One possible reason for this is that in home placements, inventory accumulated from previous years is being shifted through existing homes.[2] In turn, companies at the next level are gradually increasing their market share; for example, comparing the records of the last two years of homes registered in the RUV registry, it can be seen that SMEs[3] have increased their market share from 25% to 31%, while large companies have remained at around 50% and the public-sector ones have slipped back from 25% to 19%.

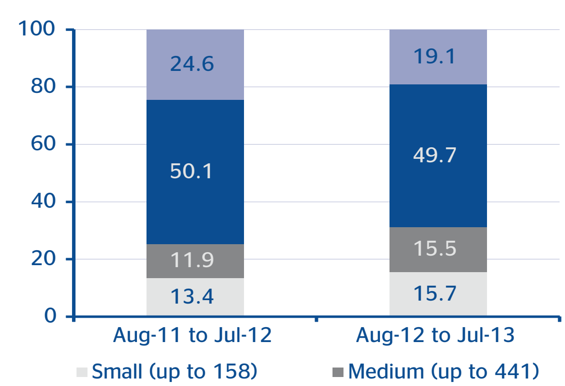
Chart 38 and 39

RUV registry: homes registered by developer type

Homes (thousand)



Distribution (%)



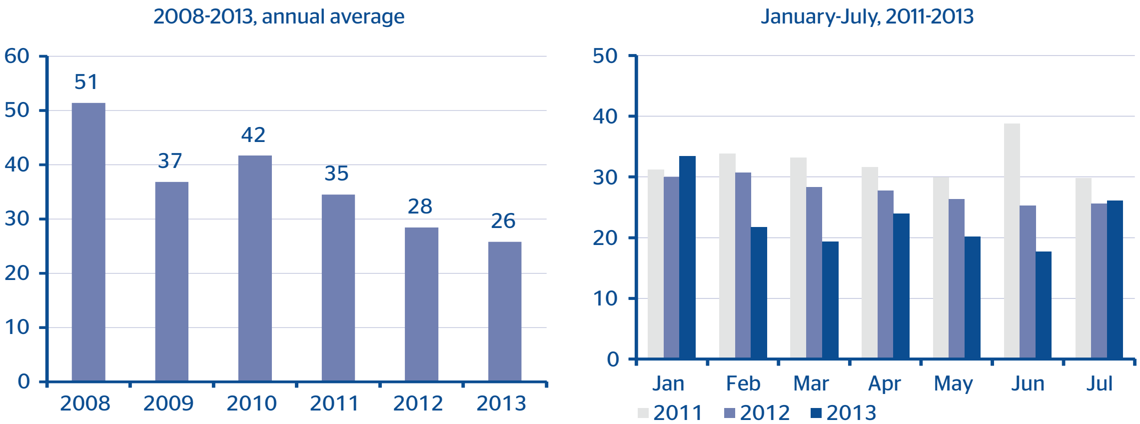
*Ara, Geo, Homex, Sare and Urbi
Source: BBVA Research with RUV registry data

[2] Existing homes represent around 50% of loans for workers earning between 4 and 6 times the minimum wage..
[3] According to the RUV registry, small companies in the sector register up to 158 homes a year, medium-sized ones between 159 and 441, and large ones in excess of 441.

Third, although housing registrations have slowed, and this year stand at only half the levels recorded in 2008 (monthly average of 26,000 compared with 51,000), following the federal government's announcement of an increased budget for subsidies this year[4] the number of registrations in the RUV registry rose significantly against the previous months, from an average of 20,000 per month in the second quarter to 26,000 in July.

Chart 40 and 41

Homes registered in the RUV registry (new registrations, thousands)

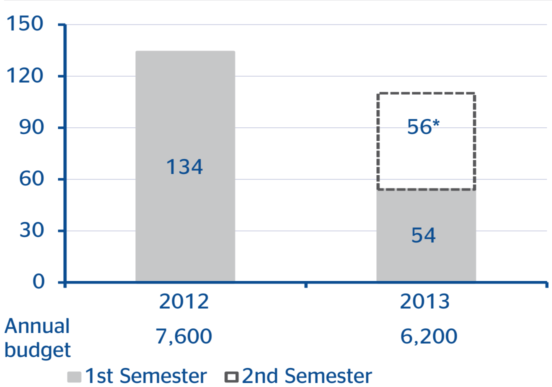


Source: BBVA Research with RUV data

It is important to make a point about the subsidies paid out, the subsidies pending payment, and the housing constructed to receive them. In June, Conavi paid 54,000 subsidies for completed housing, with a budget execution of 3 billion pesos. Considering that a similar amount will be paid in the second half of the year (in the region of 3.2 billion), the number of subsidies pending payment could be approximately 55,000. In RUV registrations, there were around 84,000 homes under construction for the subsidies market at the end of June. In other words, the risk of stock accumulation is in this segment. It is important for the government to dampen expectations regarding the number of homes which can be supported through this program, otherwise there will be constant pressure towards increasing the budget, and it will be more difficult to make significant changes in policy, as is planned from 2015 on.

Chart 42

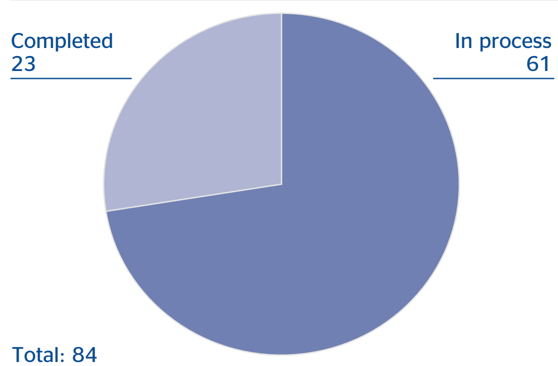
Conavi: subsidies for home acquisition (thousands)



*Estimated
Source: BBVA Research with Conavi data

Chart 43

Homes registered in the RUV registry to receive subsidies (thousands, June 2013)



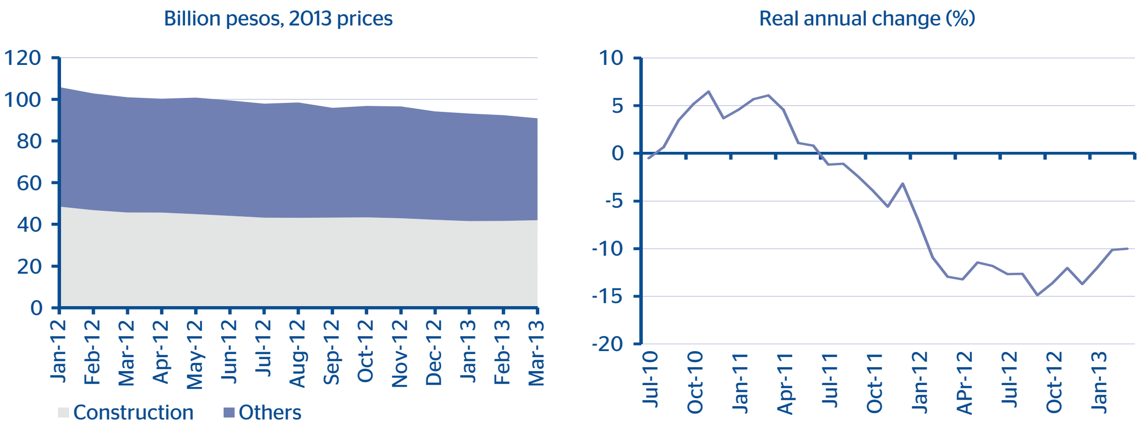
Source: BBVA Research with RUV data

[4] For a total of 6.2 billion pesos, taking into account only home acquisition.

Finance for housing constructors progresses in accordance with market requirements. Bridging loans, which stand at around 40 billion pesos, account for less than half of total bank finance, which amounts to around 100 billion pesos. With respect to the efforts made by the federal government to increase finance to housing constructors, it is important to note that they may take some time to be consolidated; in addition, they run the risk of increasing stocks by building housing which might then be hard to sell.

Chart 44 and 45

Finance to housing developers, commercial banks



Source: BBVA Research with Banxico data

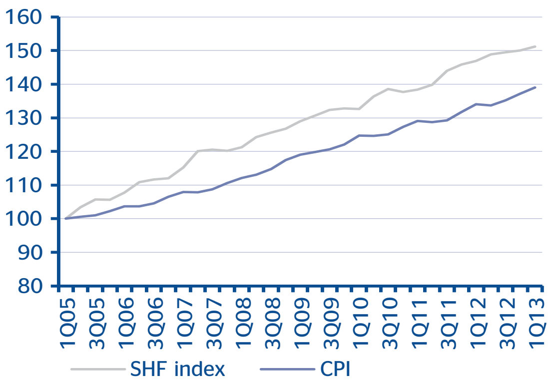
In short, in terms of supply housing construction is a long way off the levels of previous years (in 2008, the rate of construction growth was around 650,000). It will only return to such levels if the mortgage lending of housing institutes is relaunched, and conditions are created to be able to give a greater boost to the capacity of sectors of the population which have until now not been served by the housing institutes to access mortgage loans. It should also be noted that the housing model which the government will try to promote, of more compact building inside cities, will need more time to be developed. It is important to decide how many buildings can be built under this new scheme, for what segments, in what cities and in how much time. None of this will occur in the short term.

Housing prices show stable growth, with a few exceptions

Domestically, housing prices show gradual growth, at rates of around 4% per year, in line with inflation, which has grown at the same rate over the course of the year (average of 4.1% during the first half of the year). For most of the 37 municipalities included by the SHF in the housing price index, growth in prices is close to that of the national average, taking into account the accumulated period from the start of the index (first quarter of 2005) to date.

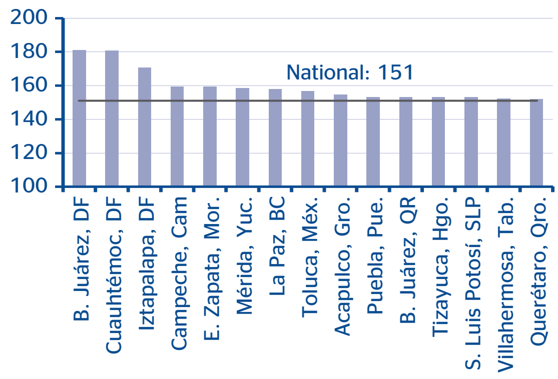
Exceptions are found in certain boroughs of Mexico City, particularly Cuauhtémoc and Benito Juárez, where there have been more notable increases in prices. These two boroughs share the following characteristics: first, their importance in terms of economic activity, as they are ranked first and fourth, respectively in terms of their contribution to the GDP of Mexico City; and, second, the shortage of land, given that in both cases apartment buildings account for over 70% of total inhabited housing, when in the country as a whole the average is 5%. One of the challenges to be faced by the government will be to ensure stable growth in land value by promoting housing in central areas.

Chart 46
SHF housing price index (1Q05=100)



Source: BBVA Research with SHF data

Chart 47
Municipalities with highest increase in prices (1Q05=100)



Source: BBVA Research with SHF data

Conclusions

In short, the volume of mortgage loans has slowed due to greater diversity in Infonavit loan products. In the market where banks operate, the slowdown was less steep, but only that. On the supply side, the market is affected by the reduction in the placement rate of completed homes. The change sweeping through the sector in terms of the situation of public-sector companies, may also have an influence, albeit a temporary one. Judging by current trends, the number of loans granted over the year by the financial system will be in the region of 530,000, with total funding of around 250 billion pesos.

At a deeper level, however, the volume of construction needed to maintain the dynamic mood of the mortgage market is linked to potential demand. If adequate conditions are established, there could be a substantial rise in demand from population segments which so far have not been adequately covered. The financial reform initiative promoted by the federal government should make it possible to establish the conditions for banks to play a greater role in the mortgage market. The important thing is that promoting growth through demand would have a greater impact than the programs intended to boost supply. These programs should complement finance granted by banks and not compete with it. They will also take some time to be implemented, so it is important not to risk building in excess of the market's capacity to absorb housing. The government is also aiming to promote a model of housing that obliges companies to carry out appropriate planning of the processes and markets which they can best serve. It is vital to insist that financing should not restrictive but rather grow at the rate required by the market.

For the remainder of this year and part of 2014, housing supply will remain sluggish. In the consolidation process affecting the sector, the important point is to identify changes in demand. Too much attention has been paid to subsidies, while other questions which really affect the market have been overlooked, such as employment, income, stock levels, prices, interest rates, and, in general, the terms of financing. It is also important to pay attention to consumer preferences. It is crucial to identify these preferences and to meet them with the appropriate products in order to maintain growth in the mortgage market in the medium term.

Box 1: Regional outlook for mortgage lending

At the national level, mortgage lending by the housing institutes has fallen in recent years, although at the regional level there is significant variation. The same is true of the characteristics of the loans placed, as in some states their structure is very different from others. Analyzing the development of Infonavit loans by state in recent years it is possible to confirm these variations, which in the end tend to go unnoticed due to the significant weight of some states.

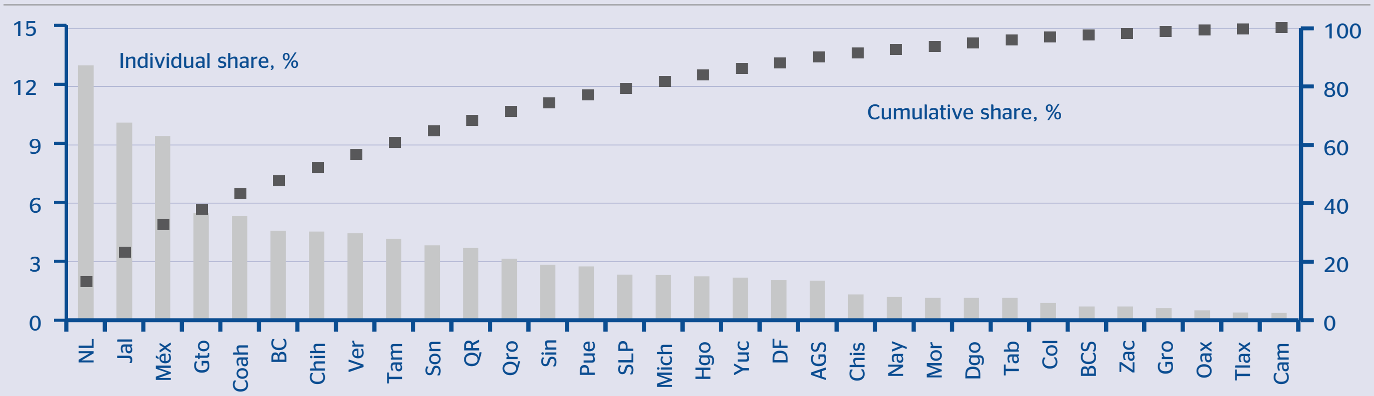
Mortgage lending is strongly concentrated at regional level

Four states in the country account for 40% of the mortgage loans granted by Infonavit: Nuevo León, Jalisco, Estado de México and Guanajuato. If we add Coahuila, Baja California and Chihuahua, the figure rises to 50%. Adding the next seven states we reach 80%. This means that the trends at national level are in fact explained by only a few regions.

It may be thought that the concentration of lending will reflect the demographic structure of economic activity in the country, which is also highly concentrated. However, the relationship is not at all clear. The case of the Federal District is an important exception, as it accounts for around 17% of domestic GDP and jobs, but only 2% of lending. Excluding it from the sample, a regression analysis shows higher results in R2, particularly in the case of jobs.

Chart 48

Infonavit loans 2013* (% share)

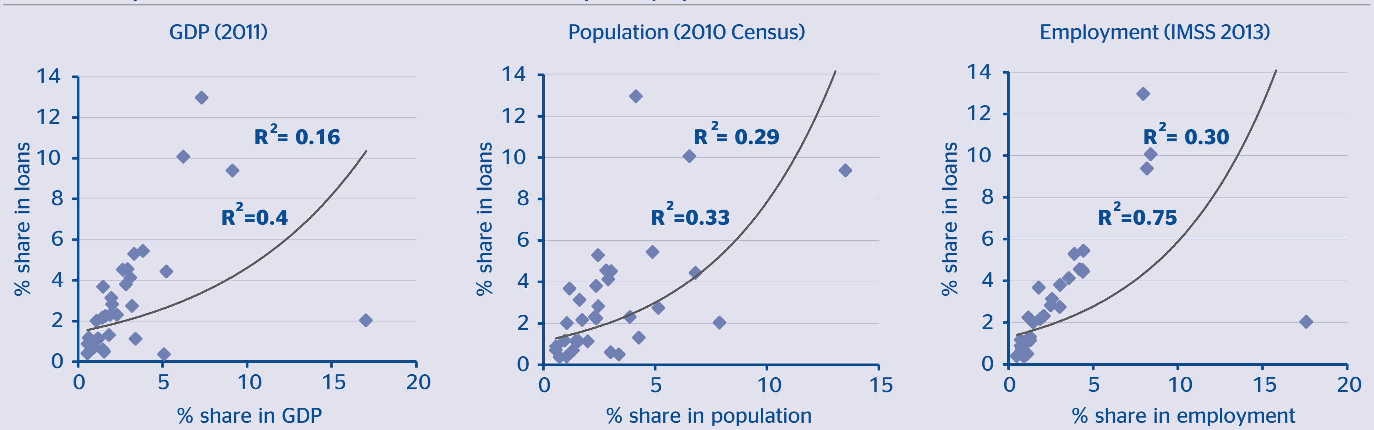


* Figures through June

Source: BBVA Research with Infonavit data

Chart 49, 50 and 51

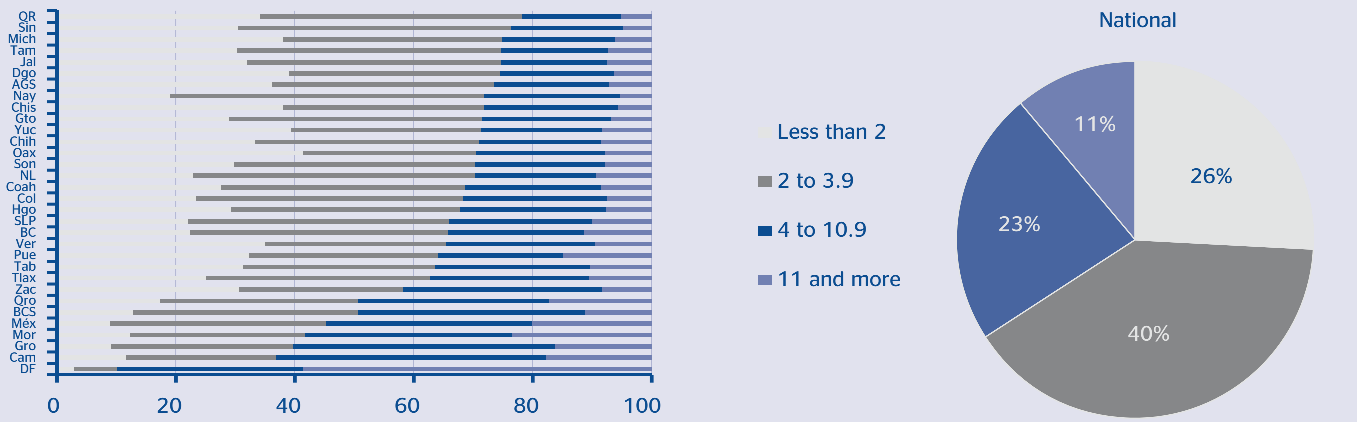
Relationship of Infonavit loans to economic activity and population



Note: The figures in bold represent the coefficient of determination, or R2, when the Federal District is excluded from the sample

Source: BBVA Research with Infonavit, Inegi and IMSS data

Chart 52 and 53
Infonavit loans, 2013* (% share)



* Figures through June
Source: BBVA Research with Infonavit data

This is an important subject that should be the focus of priority action by the authorities and bodies responsible for designing and operating housing programs and policies. If workers do not have access to affordable homes close to their place of work, there will be no way of restricting urban growth to the periphery. More generally, loans should be focused in zones of greater economic growth, but this is not happening; and it is because, as has been repeatedly stated, the location of homes does not respond to demand, but rather to other factors, such as availability of land, or the ease of obtaining construction permits and licenses. This is the key subject that should be dealt with to ensure orderly urban growth.

... and in the low-income segments

Among the characteristics of mortgage lending is also that it is strongly linked to the low-income population. A quarter Infonavit loans is for workers with an income of under twice the minimum wage; this proportion rises to two thirds if we include those of up to four times the minimum wage. It is important to carry out an evaluation exercise to measure whether the structure of lending has any relationship with income, considering not only the wage component but total household income. It is possible that if we incorporate additional sources of income, the population may be in a condition to access homes of greater value.

There are also significant regional differences here. For example, Quintana Roo has the highest proportion of loans for workers with income of under four times the minimum wage, at 80% of the total. At the other extreme, in the Federal District the proportion of loans for workers with salaries amounting to more than 11 times the minimum wage is 60%.

The credit squeeze is not uniform

If we compare the number of loans granted in 2012 with those in 2008 it can be seen that at national level there has been a fall from 486,000 to 422,000 loans. However, here also there are significant differences, as in 15 of the 32 states in the country, the figures are at the same level or higher.

Conclusions

A review of the trends and structure of mortgage lending in recent years confirms its high level of concentration in terms of geography and segments, and also the major differences at the level of states. Some states should be the subject of more in-depth studies to find long-term solutions to the problems that have arisen as a result of urban growth.

3.a Medium-term housing needs

From a medium-term perspective, housing needs in Mexico will be boosted by both structural factors and the emergence of new markets. The structural factors have an inertial component, though they could accelerate, depending on the economic and social situation. The new markets will respond primarily to the development of adequate conditions for their development, especially in the legal and financial spheres. In this section, we will present a general overview of these forces and their possible effect on housing demand. However, we should point out that, in some cases, due to the lack of information or the incipient nature of the market, the estimates must be studied in further detail.

A. The structural component

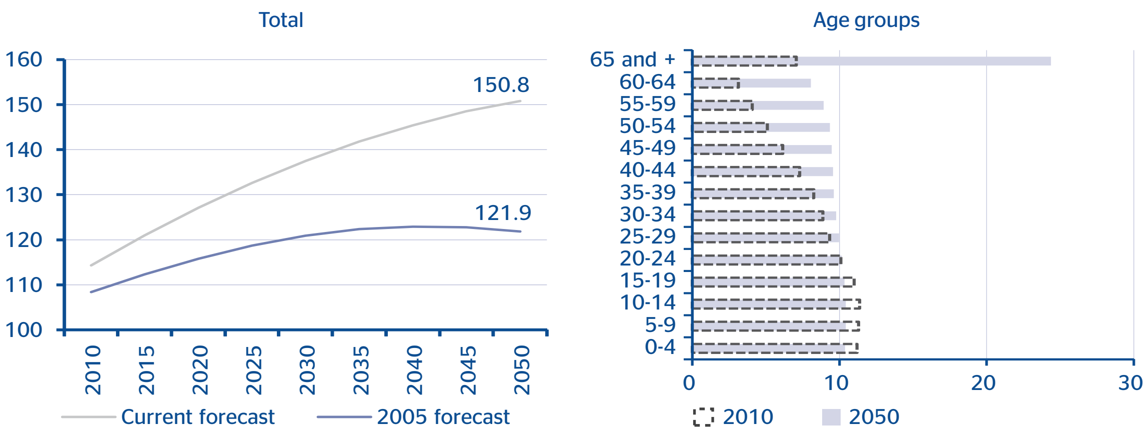
The structural forces that will apply pressure on housing needs are connected to the demographic structure; the accelerated formation of households; the attention to lower-income groups, or housing deficits; the strong trend towards urbanization and growth of medium-sized cities; as well as the increase in people's spending capacity resulting from the "demographic dividend" and the emergence of the middle class.

The demographic factor

Starting with the demographic component, housing needs will be substantially greater than expected only a few years ago. This is the result of higher-than-expected population growth rates. Prior to the 2010 Census, the population estimate from Conapo (the National Population Council) for 2050 was 122 million. However, the figures were revised upwards to 151 million (Conapo, 2013).

Chart 54 and 55

Mexico: population forecasts (millions)



Source: Conapo, US Census Bureau, World Bank and BBVA Research estimates

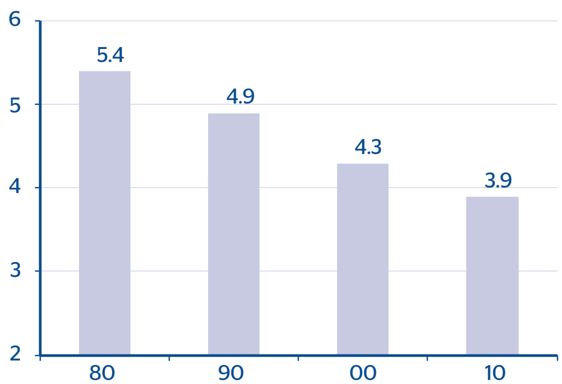
This change in population forecasts will have significant implications for housing demand. And this is not due solely to the greater volume of the population, though this is of major importance,[1] but also the age structure. The original projections indicated a rapid aging of the population, or a swelling of the population pyramid in the 65 and over age groups; however, now a more balanced distribution of the young and adult population is anticipated.

[1] The average value of the new estimates, at 150 million, would indicate a 23% increase of the population by 2050.

The demographic component, in addition to population growth, also includes the social dynamic. This has a major implication on the rate of household formation, which is double that of the population. In 2005-2010, while the population grew at an average annual rate of 1.7%, housing formation was expanding at a rate of 3%.

Household structure and size has also changed significantly in recent years. In 1980, every household had an average of 5.4 members, but the number fell to 3.9 by 2010. One reason is that women are having fewer children, due to factors that range from the increase in their economic participation rate to campaigns encouraging a greater use of contraceptives. The fertility rate in the 1970s stood at 6.5 children per woman of childbearing potential, while the rate in 2010 was 2.4.

Chart 56
Household size (average number of members)



Source: BBVA Research with INEGI data

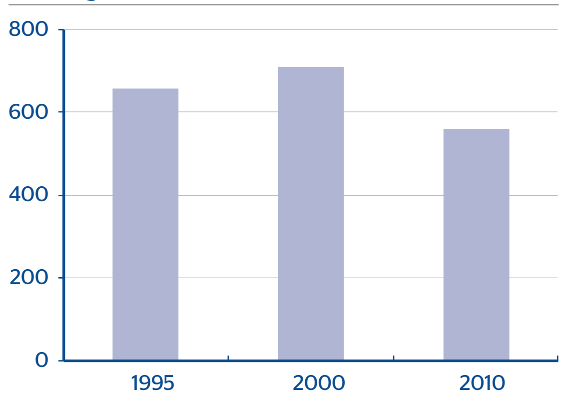
Table 5
Household structure (%)

	1992	1997	2006	2010
Total	**100.0**	**100.0**	**100.0**	**100.0**
Nuclear[1]	68.3	67.4	64.3	64.9
Extended[2]	24.5	24.4	25.9	24.3
Compound[3]	1.2	1.3	1.8	1.4
Multi-family[4]	0.5	0.4	0.4	0.5
Single-person	**5.5**	**6.5**	**7.6**	**8.9**

[1] Parents and children
[2] Parents, children and some other family member(s)
[3] Two or more families with family ties
[4] Two or more members without family ties
Source: BBVA Research with Conapo and INEGI data

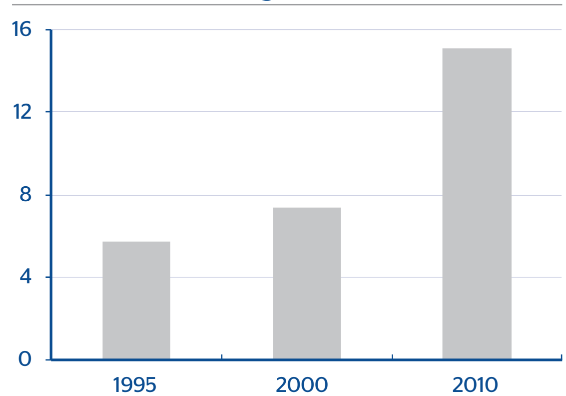
A second factor is the growth of single-person households. In the early 1990s, they accounted for 5.5% of total households, but by 2010 the figure was nearly 9%. In contrast, a decrease was observed in the weight of traditional, nuclear households with parents and children; in 1992, they made up 68% of the total, while in 2010 the figure was down to 65%.

Chart 57
Marriages (thousands)



Source: BBVA Research with INEGI data

Chart 58
Divorces (% of marriages)



Source: BBVA Research with INEGI data

The proportion of single-person households could increase in coming years, with increased labor mobility, young people becoming independent at earlier ages or marrying later, or couples that separate. The marriage and divorce figures are very telling in this regard. On the one hand, the population is less likely to marry: while in 2000 just over 700,000 marriages were recorded, in 2009, with 10% total population growth, the figure barely reached 560,000. On the other, and perhaps even more significantly, the rate of marriage dissolution in 2000 was 7.4% and in 2009 had more than doubled to 15.1%.

Therefore, for demographic reasons, housing needs could remain within a range of 600,000 per year for the next two decades. When measured against the 2010 housing stock of 36 million homes, this would indicate a 33% increase.

The housing deficit

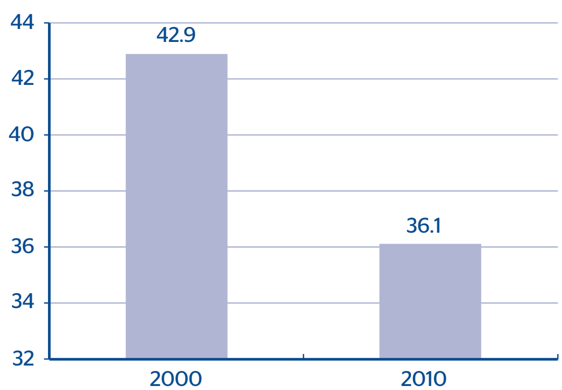
The population living in deficient housing conditions[2] does not form part of housing demand, but it does present another dimension of the challenge to be addressed. The national housing policy includes some government-backed programs designed to address this issue.

Depending on the situations in which they are carried out and the variables considered, the estimates for these housing deficits vary significantly. However, there is a certain degree of consensus among the leading public and private institutions and bodies (Conavi, SHF, Sedesol, Infonavit and BBVA Research), indicating that at the end of the last decade, there were between 9 and 10 million households in unsuitable conditions (BBVA Research, 2010).

The first important point is that this deficit has been reduced significantly in recent years. The percentage of deficit housing out of the total housing stock fell from 43% in 2000 to 35% in 2010. This fall may seem modest, but it is actually quite significant, given that the basis for the comparison expanded significantly from one year to the next: in the past decade, the housing stock grew by nearly 40%, 26 million homes, to 36 million.

Secondly, the make-up of this deficit has also changed. With the strong boost to housing construction over the last decade, the percentage of the deficit that required a complete home fell from 25% to 15%. This drop is even more important when considering that it implies that the majority of the population living in deficient conditions requires alternatives other than a new home. These are less costly but also require a detailed analysis of how to best address this issue.

Chart 59
Housing deficit (% of homes)



Source: Conapo and BBVA Research estimates

Table 6
Housing deficit by type of need (% distribution)

	2000	2010
Total	**100**	**100**
New	25.5	15.5
Remodeling and expansion	74.5	84.5
Remodeling	60.7	78
Expansion	13.8	6.5

Source: Conapo and BBVA Research estimates

[2] Lacks a home, or the materials in the current home have exceeded their service life or are unstable.

Addressing the housing deficit for those whose home needs to be replaced could require nearly 150,000 homes per year over the next decade. Again, in order to be able to achieve this, financial assistance programs fully-financed by government funds are critical.

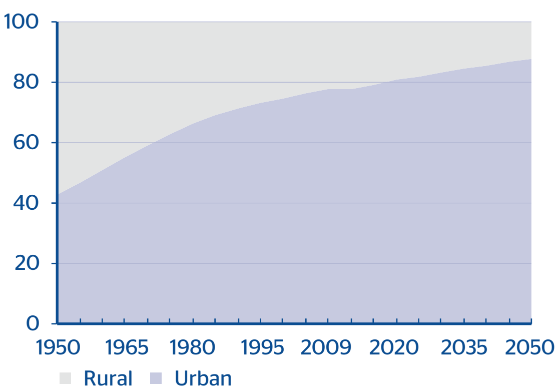
Growth of medium-sized cities

The urban population will be an additional element putting pressure on housing demand in coming years. It is the result of migration from the countryside to cities, which is highly impacting growth. In 1950, the percentage of the population living in urban areas was only slightly over 40%; however, by 2010, this number had risen to nearly 75%. Furthermore, forecasts indicate that this trend will continue, and that the urban population could reach 85% in 2050.

Migration to areas that have consolidated their position as manufacturing hubs is easily understood. But what has occurred in recent years could actually be more closely linked to a growth phenomenon in medium-sized cities and the consolidation of metropolitan areas. The population growth rates reflect this idea.

Chart 60

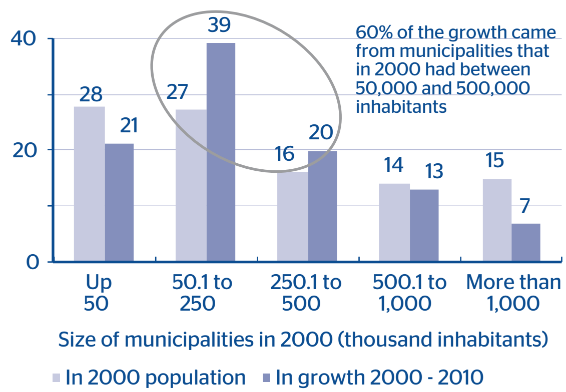
Population in Mexico: urban vs. rural (% distribution)



Source: BBVA Research with World Bank data

Chart 61

Population growth in Mexico: 2010 vs. 2000 (% share by city)



Source: BBVA Research with INEGI data

When categorizing cities based on their population in 2000, those with a population of between 50,000 and 500,000 had the biggest share in the growth of the total population, at nearly 60%. However, cities with under 50,000, which are mostly rural, recorded a population decrease; although they represented nearly 30% of the population in 2000, they only grew by slightly over 20%. The same occurred in cities with more than one million inhabitants, which in 2000 accounted for 15% of the population, but whose contribution to total population growth was only 7%. These figures confirm the lower presence of the population in rural areas, the phenomenon of consolidation in metropolitan areas and the major growth of medium-sized cities.

The middle class

Though there is no consensus on the definition of the middle class, it has been the subject of several estimates in recent years. This is because the income levels in emerging economies have been growing in recent decades, and as a result, so have the population's consumption patterns. In Mexico, INEGI calculated that the middle-class population grew from 37 million to 44 million between 2000 and 2010 (INEGI, 2013). Other measurements, using definitions adopted by the OECD (Kharas, 2010), the World Bank (Ferreira, Messina, Rigolini, López-Calva, Lugo and Vakis, 2012), and BBVA Research (BBVA Research, 2013), present similar figures in absolute terms. Moreover, according to any of those definitions, the middle class has grown in recent decades,[3] and the forecasts for 2020 indicate an additional increase of between 5 and 10 million people.[4]

Various elements, to a greater or lesser extent, justify this idea: convergence of inflation, trade openness, economic growth, macroeconomic resilience and financial inclusion.

First, inflation: rates in recent years have dropped significantly. While in 2000 they were close to 10%, they fell by half over the last decade. Between 2011 and 2013, the rate has hovered around 3.5%. The autonomy of the Bank of Mexico has played a key role in this regard. Lower inflation means stable purchasing power and allows interest rates to be reduced, thus resulting in a reduced household debt burden.

Second, there is trade openness. As a percentage of the economy, foreign trade (exports plus imports) accounts for nearly 60% of GDP, making Mexico one of the most open economies in the world. By way of comparison, the figure is 27% in Brazil, 48% in China and 30% in the United States. This is especially important because it fosters competition and puts an upper limit on the price of goods in the local market.

The third aspect is the growth of economic activity and employment. Various estimates indicate that the potential growth of the Mexican economy lies within the range of 3-3.5%. However, between 2006 and 2012, the GDP growth reached or exceeded 4% on four different occasions. In turn, formal employment surpassed the growth of the economy as a whole throughout this period, averaging 3% against 2.5% for GDP.

The fourth clement is the prudent management of public finances. There is no significant pressure on the fiscal balance or public debt. Between 2000 and 2012, the fiscal deficit was at levels below 1% of GDP. Total public debt, domestic and foreign, barely exceeds 30% of GDP; this figure is much lower than in other countries like the United States (90%), or the European Union average (91%). Orthodox management of economic policy has led to a lower risk premium, lower interest rates and lower inflation.

Chart 62

Mexico: middle-class population (millions)

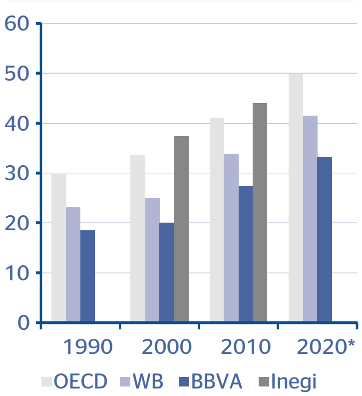


Chart 63

Population by income level (% distribution)

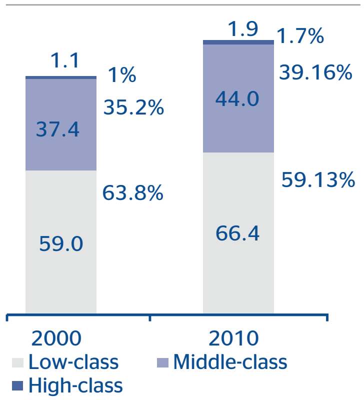
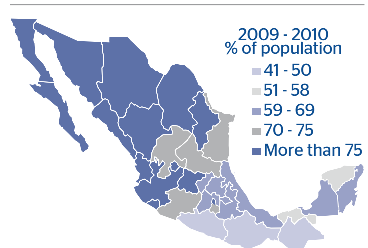


Chart 64

Middle-income population* (%)



*Includes lower-middle, middle and upper-middle income brackets

Source: BBVA Research with AMAI data

[3] Although income levels were down in periods of economic crisis such as 1985, 2001 and 2009, the decade-end figures present an upward trend.
[4] We assumed an inertial growth of GDP of 2.8% in constructing the forecasts; i.e., we did not take structural reform scenarios into consideration. In addition, the income level of the population by decile is based on the assumption that household income grows at the same rate as GDP and income distribution does not change over the decade. The definition of each institution was then applied, and the result shows growth of the middle class between the two periods. Given that the income distribution was kept constant, the estimate only reflects the increase in the middle class by demographic factors, or a greater population in each income decile.

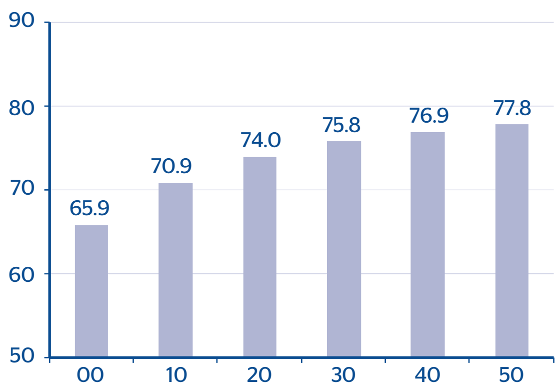
The last component is financial inclusion. The population using banking services rose from 33 million in 2006 to 51 million in 2012, marking an annual average growth rate of 7.5%. Likewise, the expansion of banking services through correspondents has allowed the coverage of those services to be extended, especially in areas where, due to the size of the town or other factors, banking presence is insufficient. According to CNBV figures, the use of correspondents has enabled banking services to reach up to 59% of the population, nearly 66 million inhabitants.

The sum of these elements help explain why, according to INEGI, the middle-class population in Mexico rose from 35% to 39% between 2000 and 2010. By region, the population that can be considered middle-income (from lower-middle-income to upper-middle-income) may represent more than 75% of the population in the northwestern region of the country (Consulta Mitofsky, 2010).

Looking to the future, the effect of the demographic structure on the population's consumption capacity must also be considered. The combined effect of households with fewer members than in the past and the gradual incorporation of the younger population into the workforce will reduce spending pressure on households in terms of maintenance. The forecasts indicate that by 2030, the pressures will re-emerge, but will now be focused on maintaining the older generations. However, when that occurs, household consumption capacity will be favored by this demographic factor.

Chart 65

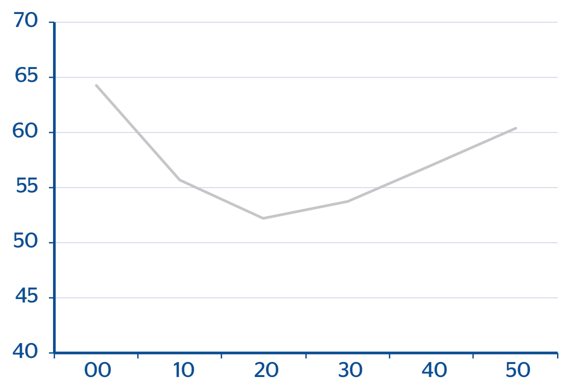
Population of working age*
(% share of total population)



*Population 14 years of age and older
Source: INEGI and BBVA Research estimates

Chart 66

Dependency rate*
(%)



*Population between 0 and 14 years and 65 years and over, against the population aged 15 to 64 years
Source: INEGI and BBVA Research estimates

We have taken the case of housing accessibility as an example to measure the impact a stronger middle class could have on housing demand. Between 2000 and 2010, 2.2 million households may have entered the market as potential homebuyers (with the minimum income needed to pay a mortgage); at the same time, 3.3 million may have improved their access to finance (i.e. have the capacity to access a loan, and be in a position to acquire a more costly home). If out of this second group we only consider households that were able to move up from social housing to the middle segment, the figure stands at 2.1 million; this means that the market served by the banking system could be growing by approximately 200,000 households per year.

B. Markets to be developed

The housing market will grow thanks to both inertia and structural factors. It could also be boosted with the development of markets that are currently underserved or at an incipient stage.

At least four have a high potential: rental homes, the need to replace the housing stock, or housing that, due to location, size or age, no longer satisfies the needs of its occupants; mortgage refinance; loans for the population not covered by public housing institutes; and second homes, also known as secondary-use homes. These markets have not been able to be consolidated for various reasons, though under adequate conditions, they could provide extremely important leverage for housing demand and the mortgage market.

Every one of these markets merits an in-depth analysis, but here we have only presented certain elements to help demonstrate their potential.

Rental homes

According to the ENIGH (Household Income-Expenses Survey) conducted every two years by INEGI, the percentage of households renting the home they reside in has increased steadily over recent years. In 1992, it was at 11.6%, and it rose to 13.2% in 2000 and to 14.3% in 2010.

In absolute terms, the 2010 figure is a total of 4.1 million households, and the difference with respect to 2000 is 1 million (3.1 million in 2000). This provides a baseline measure of the size of the market. Based on this, we would have to identify who could meet the conditions for a financial product for housing rental.

An initial examination of the population that rents could identify those who are members of the public institutes. In this case, the balance of their housing sub-account could be used as collateral for the payment of a home. According to the ENIGH, this group could total 2.3 million households.

Subsidy programs could also be a viable option of this kind. If subsidies were given to guarantee rent payments for a certain period rather than to purchase a home, it would provide a boost for the building of housing complexes designed for rent. This would unquestionably be a shift from the system that has been implemented (first of all, it would change a fixed subsidy to a program of guarantees against default); but it would also enable the housing loan schemes for the lower-income population to be broadened.

Mortgage refinancing

Refinancing mortgages is common practice in countries where the mortgage market is well developed. Under the right conditions, not only would it involve the financial product, but it would also (predominantly) affect the legal framework and the costs associated with real-estate transactions; mortgage holders could take better advantage of mortgage-backed loans to purchase an additional piece of real estate or other capital goods. Another option could be for people to negotiate a change in the mortgage conditions and purchase a home of greater value or one that better adapts to their lifestyle needs.

One way of measuring the volume of business that could be generated through mortgage refinancing is through prepayment figures. These figures reduce the flow of income that financial intermediaries forecast when granting the loan and therefore have a negative impact on the profitability of the product. The banking system could make an effort to re-attract the lost income through a loan replacement or a new loan with different conditions. CNBV figures show that prepayments on mortgage loans account for nearly 7% of the current portfolio balance for the banking system. With portfolio levels of approximately 400 billion pesos, this would be equivalent to nearly 28 billion pesos annually.

When extrapolated to the number of loans, and considering that each loan granted by the bank is for an average amount of 800,000 pesos, the amount of prepayments could translate into 35,000 new mortgage loans. In aggregate numbers, this would be the potential size of the market lost by not having favorable conditions in place for mortgage refinancing.

Population not covered by the public institutes

There is a major market in the population not covered or only partially-covered by public housing institutes. This market includes those who are not members of the system. At their most aggregate level, i.e. taking into account only whether they have the minimum income to pay for a mortgage, the figure could total nearly 8 million households. This figure must be filtered to identify more precisely those who could receive a loan, who could need a home and who could be covered by the banking system. Having taken these points into consideration, BBVA Research estimates show that, for those who could require a home, the market could be divided in two. First, those who could be served exclusively by banks (with their own funds and no government support programs), at a total of nearly 700,000 households. The other group would include those who would be eligible for guarantee programs, totaling nearly 3.4 million households (BBVA Research, 2012).

This figure should also be broadened to include public-sector workers who, despite receiving housing assistance or having a permanent work contract with a branch of government, cannot apply for a mortgage loan or for whom the outcome of an application is uncertain. Workers who are Fovissste pension-savers depend on the outcome of a draw of lots to exercise their right to a mortgage loan. This is also the case for state and municipal government employees who are not members of Fovissste. In aggregate terms, both groups total nearly 4 million workers.

Therefore, the combination of individuals who are not members and those who are but are inadequately served, gives a potential mortgage market for banks, in aggregate terms, of around 750,000 per year for a decade.

Renovation of the housing stock and second homes

Other markets that could boost housing demand in coming years are connected to the need to renovate the housing stock and to second homes.

Reconstructing homes or demolishing and building on land occupied by homes that have exceeded their service life could also give a significant boost to the construction and housing finance market. However, only very limited information is available on this matter. Most information is drawn from the 2010 ENIGH, which indicates that, of the entire number of households living in their own home,[5] 17% estimate that the home is over 30 years old, which could be an initial criterion (still fairly broad) to understanding which would be candidates for renovation.

Then we would have to subtract those without title deeds, which could be the case for 25 to 30%, according to the ENIGH and a study conducted by the SHF.[6] Next, additional considerations would have to be made about the type of real estate that could be most attractive (if greater densification of urban areas is permitted, etc.), the most appropriate type of finance, and who should provide the funds.[7] The key point here is that there is considerable room to boost housing demand in coming years. For housing developers, support programs under this type of scheme could be as or more attractive than the current subsidy program.

Regarding second homes, the recently-launched Infonavit program gives a good idea of their potential. According to the institute's figures, there are nearly 350,000 potential beneficiaries who satisfy the conditions for acquiring a second loan (they have already paid off the first and their age makes them still eligible to apply for a second). The institute estimates that this could result in an annual demand for 50,000 additional loans.

[5] The organization that would have the most information on the age of the property. Those who rent or occupy a home without being the owners would probably have the least knowledge in that regard..

[6] A study on the situation of existing homes (Sedesol, 2009) cites a survey that shows that nearly 30% of real estate lacks deeds.

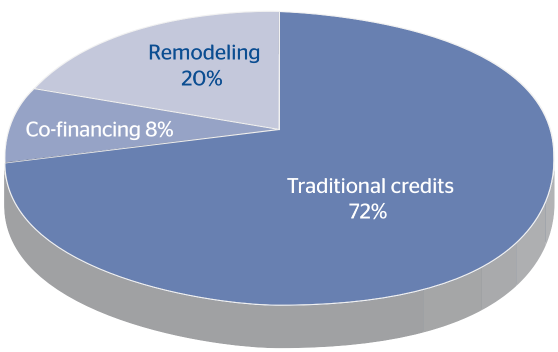
[7] It could be a good idea for the federal or state governments to contribute to the reduction of housing construction costs for the low-income population in well-located areas.

To summarize, housing demand will intensify in coming years

The availability of adequate financing products, more so than potential demand itself, led to the explosion in the housing industry in the last decade. Having consolidated the first stage, that of covering the need for a first home and addressing the housing deficit, the next stage should be to create new financial products that enable other markets to be developed. As a result, housing construction and mortgage loans could also experience a new boost in coming years.

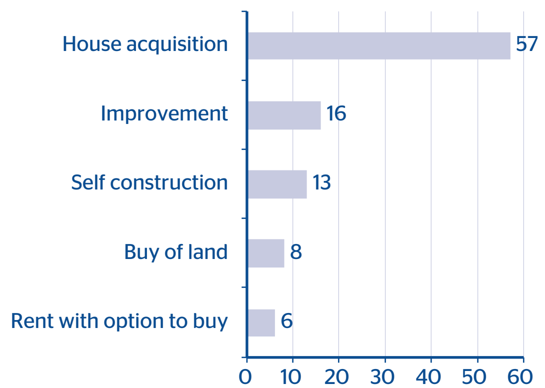
However, it should be noted that not all housing demand implies the construction of a new home. Infonavit's remodeling program has greatly exceeded expectations and makes the need to diversify financing options and the allocation of funds even more apparent: In less than two years it has come to account for one of every five loans granted. In surveys conducted by Infonavit itself on its members' preference for resolving their housing needs, only 57% have considered purchasing a home; the rest have opted for other solutions, such as renting, remodeling or building their own home.

Chart 67
Infonavit loans (% distribution, 2012)



Source: BBVA Research with Infonavit data

Chart 68
Housing solution preference (Infonavit beneficiaries, % distribution)



Source: BBVA Research with Infonavit data

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3.b The new housing policy: between short and long term

The arrival of the new government brought with it important changes in the country's housing policy. So far the policy has had to balance the fundamentals providing the support and continuity needed to achieve long-term consistency against the short-term solutions that help improve the conditions the industry is suffering from. This article in Mexico Real Estate Watch sums up and assesses the most important aspects of the new policy. It is important to note that the housing markets continues to offer a high potential. Taking full advantage of it depends on the institutional framework and a correct reading of the current and future needs established by demand.

A new policy focus

From the start, the new policy has set out to change the approach to the sector. Its core elements are greater institutional coordination, orderly urban growth and greater diversification in the support programs.

Strengthening institutional coordination

Beginning with institutional coordination, the Secretariat for Agricultural, Territorial and Urban Development (Sedatu) was created to integrate urban development and housing policy into a singe entity, which in addition handles subjects related to land and agricultural policy.

Sedatu has also become the leading institution in the sector. As a result, it has acquired the powers to coordinate the efforts of other institutions, such as the Federal Mortgage Society (SHF), Infonavit and Fovissste. It has also absorbed the functions of the National Housing Commission (Conavi).

This integration is in itself a significant advance, as it reflects a broad vision of the subjects related to housing, which range from property and the use of land to urban development. It also helps reach closer agreement between the federal government and the support institutions. This becomes particularly important given that the housing institutes have achieved such a high level of capacity, operational level, finance and management that their decisions end up impacting the whole of the country's housing market.

Promoting orderly urban growth

Another of the objectives of the new policy is to make progress toward more orderly urban growth. To this end, the new government proposes to promote vertical building, increase density in residential zones, and strengthen the Integrated and Sustainable Urban Developments (DUIS), promoted by the previous administration, under the new name of Certified Developments.

It also proposes to establish agreements with the 60 municipalities where most housing is constructed across the country to update their municipal development plans and ensure that they are in line with those of the federal government. It is true that housing construction in Mexico is highly concentrated: 76% of housing registered at the Single Housing Register (RUV) in 2011 and 2012 was located in just 86 towns. The strategy of focusing efforts on coordination in the main cities therefore appears appropriate.

However, the strategy has to go beyond this. Many of the problems in terms of the form in which cities have grown over recent years derive from the decision-making autonomy granted under Article 115 of the Constitution to municipalities on matters of urban development. Although respect for municipal autonomy is a positive element, mechanisms ensuring greater participation by the federal government in urban development plans have to be strengthened.

The subject has been the subject of discussions in Congress for some time. A number of different initiatives have been presented to improve the management of urban development. In 2010, the federal government coordinated efforts with various committees in both the Chamber of Deputies and Senate, and proposed an initiative to modify some articles of the Constitution, as well as the General Law on Human Settlements. The aim of this initiative includes aspects such as the link between urban development plans and orders governing environmental matters; short, medium and long-term planning; the limits set between the responsibilities of the different levels of government; and recognition of the metropolitan phenomenon in the growth of cities. It is essential to speed up the discussions and necessary modifications of the law on urban development; to a large extent the success of housing policy depends on it.

Combating the housing deficit

Among the objectives of the new policy is to combat the housing deficit. According to various estimates, around 9 million households lived with some kind of housing deficit in 2010. It should be clarified that not all households with a housing deficit need a new home; many (around 7 million according to our estimates) could simply require improvements and extensions.

Another part of the new strategy to beat the housing deficit is to improve the housing conditions in the 400 towns with the highest levels of marginalization in the country. The actions include recovering public and communal spaces, improving housing units and even crime prevention programs.

The specific programs designed to reduce the housing deficit will have to be examined carefully. There has been talk of a million actions every year to deal with this issue, 500,000 of them new construction and the rest support for land and extension and improvement work. Greater precision is required in this area; for example, between the objectives aimed for in urban and rural areas.

Lastly, there is a proposal to improve living conditions to ensure that every home financed with public funds has at least two bedrooms. It is important to note that the needs for housing space depend on the structure and size of households, and these have been changing quickly over recent years.

Adjustments to support programs

The support programs run by the government will be steadily modified. Housing renewal will take a greater proportion of the work, as will the support programs for self-construction or the acquisition of land for building. However, the subject that has received most attention in the new policy is a change in the rules for operating the federal government's subsidy program "Ésta es tu casa" (This is your home). This is for two reasons: first, because it was the former government's most important program in terms of meeting the needs of the lowest-income population; and second, because it has a direct effect on the conditions in the business model of the companies that operate in this segment.

The new rules include a bigger budget for the program[1], with a greater differentiation between the subsidies according to the location and characteristics of the home. There has also been an attempt to lessen as far as possible the impact of the changes on homes that are already being constructed or planned for construction. Thus the minimum eligibility requirements for receiving the subsidy have been made more flexible, while at the same time increasing its amount (or the permitted value of the home) for the best located homes (DOF, 2013).

According to details of the registered land reserves, 68% of them may be eligible for subsidies from the federal government, whether because they are within defined urban development areas (intra-urban zones or U1 and U2 peripheral zones), or because, though not within these areas, building is already underway there or because they are part of the Certified Developments.

Land reserves outside these areas will require a certification process to provide the infrastructure and services needed for development before they can receive support from the federal government. Whilst

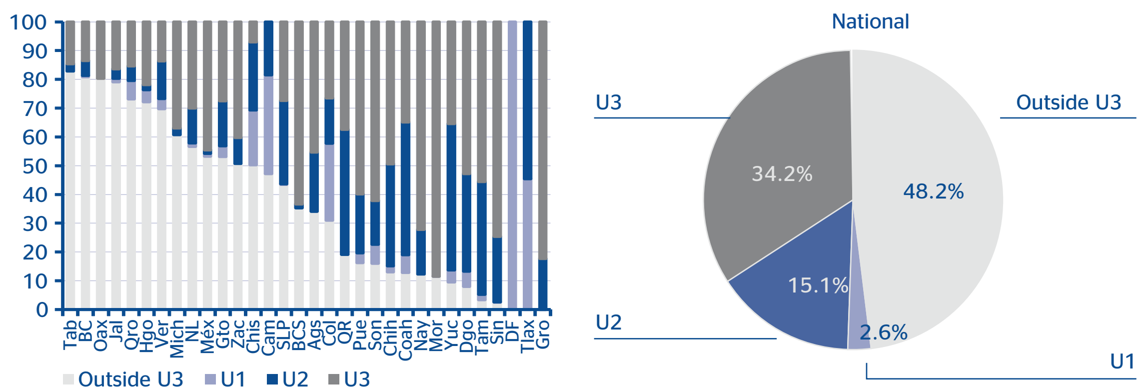
[1] An increase of 1.5 billion pesos was authorized for the program's budget for 2013, on an initial total of 5.3 billion.

developers will be able to build and sell housing in these areas through Infonavit and Fovissste in 2014, there will be no subsidies for this. Starting in 2015, lending from these bodies will also be restricted for housing built outside authorized areas. The projects in these areas must be registered to receive Development Certificates, the program that has replaced the Integrated and Sustainable Urban Developments (DUIS). It is important to review this subject in some detail. The reserve located outside U3 amounts to over 40,000 hectares and certifying it is a major challenge. It also has to be remembered that without guaranteed transport connections or economic activity, there may be little demand for homes in some of these areas. In short, a decision will have to be made on what part of the reserve will have to have a different use.

For large housing developers with major land reserves in peripheral areas in the cities, this represents a major challenge. Of the 347,000 homes registered in the RUV at the close of the first half of 2013, 48% are outside the Urban Restriction Perimeters (PCU).

Chart 69 and 70

Location of homes registered with the RUV (%)



Source: BBVA Research with Conavi data

Short-term solutions

In the short term, as a response to the situation that the market is going through, the government has also been promoting various initiatives to boost the supply and demand of homes.

On the supply side, the Federal Mortgage Company (SHF) has been announcing a series of programs designed to increase finance. They include a program of guarantees for housing constructors, syndicated loans with the development bank[2], and a program to issue debt or senior bonds (Cebures) on the securities market. Overall, the budget for these programs totals around 15 billion pesos, with which the government expects to generate a significant boost for the sector.[3]

At the same time, Infonavit has promoted a program to boost vertical housing, and advanced up to 70% of the payment for homes against a deposit of 50%. The total amount of this program is 3 billion pesos.

The government initiatives reflect its legitimate interest in kick-starting the housing industry, in order to reach the levels of previous years. However, it has to be noted that the reduction of activity in this

[2] These loans consist of revolving credit lines, administered in a way similar to bridge loans in terms of period (two years with a one-year extension, and payments made against progress in the construction work), but with the difference that the revolving period may be from 5 up to 8 years. The SHF has also developed a methodology to evaluate constructors, request guarantees and set interest rates according to the risks in each case. This methodology is still being developed, and in part because of this it was decided to start the program with a company that already participates in the debt market, and thus already has a rating from rating agencies.

[3] With the guarantee program, which offers up to 30% of the loan, the government expects to generate an impact of 15 billion pesos. Combined with the other two programs, with a total budget of 10 billion, the total finance could be 25 billion pesos for the year. This accounts for a quarter of the balance of banks' housing construction portfolios, which amounts to around 100 billion pesos.

area has been influenced by factors such as the lower rate of loans granted by housing institutes, with mortgage loan placement targets down in recent years; at the same time, there has been a greater effort by the institute to focus on the housing needs of its members, and the different financing alternatives available.[4] There is also existing housing, which increased from 17% of total Infonavit loans in 2007 to 35% in 2012. Finally, the accumulated stock and awarded housing also have to be taken into account. None of these factors has to do with a lower level of finance for housing construction.

Another point that has to be made is that the effectiveness of these programs will depend on their capacity to sufficiently improve the profile of new home construction projects, to ensure they match the needs of demand. At the same time, the financial viability of the projects largely depends on how they are supported by studies of demand, cost structure and profitability. The latter two factors ultimately hinge on construction companies' own experience and capacity. In any event, it is important to ensure that the support programs do not deviate from their initial target[5] and end up being more lax in the process of granting loans, thus creating incentives for financial institutions to adopt excessive risks.

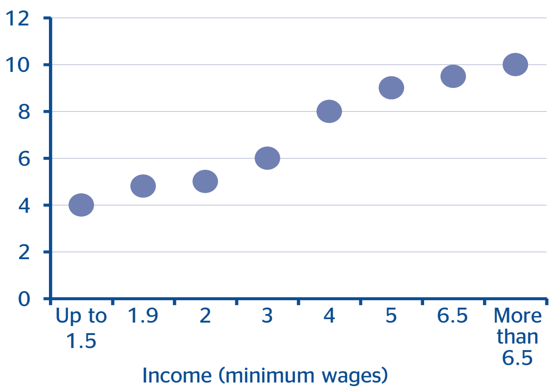
A variety of initiatives have also been promoted on the demand side. Infonavit will increase the mortgage for workers with income of over 5.5 times the minimum wage.[6] At the same time, granting mortgages has become more flexible for those with income under this level, as the process of evaluating borrowers at this wage level has been eliminated. In addition, in co-finance loans, 100% of the balance of the housing sub-account may be used, rather than in piecemeal way as until now over the first five years of the loan. Another initiative that has been suggested by Infonavit is the possibility of meeting the needs of state and municipal workers, and former members of the Institute.[7] Finally, following the strategy of diversifying loan options, a pilot program has been launched to promote rented housing.

Easing conditions to boost demand offers a very broad growth potential for the housing market. The programs being promoted are along these lines and should give favorable results. To capitalize their potential as much as possible, it is important to make better use of the relative advantages of the public and private sector. For example, in the case of former members (until now of Infonavit, but it should also include Fovissste) as well as public-sector workers for the federal government who have not been successful in the draw of lots, or state and municipal public-sector workers, the banks may offer better financing conditions than the housing institutes. First, because they are designed to deal only with active workers;[8] and second, because they offer more competitive financing conditions in terms of interest rates. In fact, for workers with an income of over four times the minimum wage, the rates offered by banks are more competitive than those offered by Infonavit[9] (Infonavit, 2012). The real-estate market would be more dynamic if the workers (and former workers) who are members of Infonavit or Fovissste could use the savings they have deposited in their housing sub-account (SCV) in a more flexible way. For example, for savings products for people who do not want to buy a house, or to pay debts, so that people who have a mortgage with a bank could have the possibility of repaying their loan early and thus be in a position to buy a new home.[10]

[4] This very important work has received a major boost over recent years. It provides information to the worker on loan alternatives, about the use that may be made of his or her housing sub-account, and on the costs involved in acquiring a home.
[5] For example, the first syndicated loan was granted to a company with a solid balance sheet and in fact it already trades on the debt market. In theory, it does not form part of the group of companies that has to improve its profile in order to receive finance from private agents.
[6] These workers are more profitable for the Institute because they pay a higher rate and have a lower chance of falling into the default portfolio. They also have a shorter loan repayment term because their payment factor is adjusted to wage increases. The Institute's 2013-2018 Finance Plan includes a proposal to increase the amount of finance for these workers.
[7] It is worth pointing out that these last two initiatives, to deal with workers who are not members of the Institute and former members, require changes to the Law governing Infonavit.
[8] The law regulating them also specifies that these institutions can only grant loans to workers who are currently employed.
[9] This is because the Institute applies a policy of cross-subsidies, by which workers who get more than four times the minimum wage pay higher rates than workers under this wage level. The subject is relevant and has not been discussed in depth. Workers with higher incomes have their credit capacity reduced by this policy: each percentage point of difference in the rates may change the value of the home they can afford by up to 7%. Second, and equally important, the task of redistributing income corresponds only to the Secretariat of Finance.
[10] Currently the condition for using the SCV balance to pay debts is very limited, as it requires the balance of the loan payable to be lower than that of the SCV.

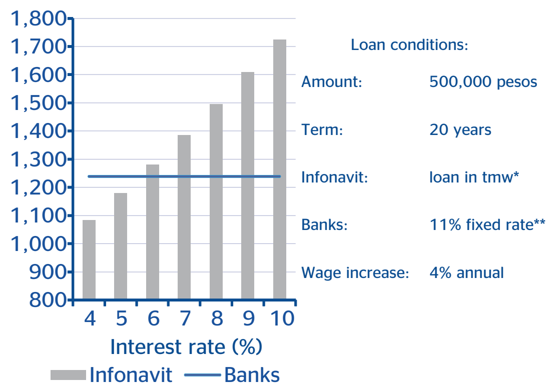
In fact, the proposal that should be discussed is that of total portability of the housing sub-account, so that workers can use their savings in the institution that offers the best financing conditions. This scheme works in Brazil, where there is also a system of contribution as a part of the salary. The worker makes a request to the institution that administers the funds, which transfers them to the institution of choice (IDB, 2011).

Chart 71
Interest rates: Infonavit loan
(%)



Source: BBVA Research with Infonavit data

Chart 72
Total amount paid: Infonavit vs. banks
(thousands of pesos)



tmw: times minimum wage
*The unpaid balance of the loan (and monthly repayments) are adjusted in line with increases in the minimum wage
**The monthly repayments are fixed for the whole life of the loan
Source: BBVA Research with CNBV data

The key issues

Those who design and operate the programs supporting housing must keep in mind some considerations with respect to housing policy. First, this policy should not be seen in isolated fashion, but rather as part of urban development policy. It should consider the issues of sustainability, infrastructure and services, economic activity and housing. The vision and focus must undoubtedly be on the medium and long term.

Second, the government must use the different instruments it has to regulate urban growth. The LGAH itself offers a variety of mechanisms for this, and others have to be strengthened. For example, mechanisms such as the property tax have to be boosted, not only to improve tax receipts but to regulate building; as well as the collection of capital gains on land to restrict speculative activity. Metropolitan zones should be created, allowing their administrative and budget management to be regulated. The same could be said on the subject of environmental regulation, which has to be made compatible with urban development, as the two are not currently linked. Finally, the mechanisms for adequate accountability should also be strengthened through transparency and explicit penalties.

Third, with respect to the housing market, the focus should be on freeing the potential that exists on the demand side. There should also be a common vision on the role that can be played by the different agents participating in the market. The public and private sector should complement their efforts rather than compete. Development banks and public entities supporting the sector should take advantage of their structure and range to reach population groups that are outside the scope of the private sector. In a broader context, the public and private sector should work together on schemes for financing urban development, including infrastructure, facilities, transport connectivity, sources of economic activity and housing.

Conclusions: The most important point is to set targets and a strategy for the medium term

The federal government has been promoting new rules for the housing market, with the emphasis on achieving a more orderly urban growth. The main mechanism has been through the modification of the rules of operating the subsidy program. At the same time, to boost activity in the short term there has been an attempt to extend demand through a diversification of financing options. There has also been an attempt to increase supply by various schemes for financing construction.

All these initiatives will to a different extent help restore the conditions that will allow the housing market to return its path of growth. However, it is essential to take a close look at the long-term situation. It is also important to strengthen the connections between the different agents participating in the industry in both the public and private sectors. This will help offer a common vision of the challenges and way to tackle them, as well as complementing efforts in the area of how the programs operate, and above all, finance. Given clear rules, the housing market offers a very attractive growth potential for companies participating in the industry.

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Box 2: Financial reform and mortgage lending

The proposed financial reform presented by the federal government in the first half of 2013 includes 13 initiatives and the modification of 34 legal orders, which could in the medium term have a significant impact on the credit and finance market. Particularly in the case of the mortgage market, the most important initiatives involve the speeding up of the time taken to execute guarantees and conditions that allow the portability of loans. Also included is an initiative to set up a new company providing credit information, which can link the databases of the two existing companies.

A universal credit bureau could increase competition through greater banking penetration

The proposal is to create a state-owned agency answering to the federal government as a credit information bureau that forms part of the system. This new company, or credit bureau, will try to integrate information on credit transactions carried out in the banking and non-banking sector.

The proposal to create a universal credit bureau was first made a few years ago. It derives from the need to integrate the databases that register the credit history of both the population that uses banks and those that do not. This is because at present the two credit information agencies that administer this information, Buró de crédito and Círculo de crédito, have separate databases. In the end, the lack of adequate knowledge of the payment profile of the population without a credit history in a financial institution raises the costs of lending.

The number of users of the banking system is estimated at 47.5 million in 2011, while according to the National Population Council, the population aged over 18 was 75.2 million in the same year. The difference of 27.7 million is the population that does not use banking services, and if it accesses the finance market it does so through other agents (pawnbrokers, credit unions, etc.). According to the records of BBVA Bancomer, up to 40% of the population without a credit history with banks handles its credit very responsibly once it receives it. This means that if the databases were integrated, just over 11 million people could use banking services, which have a lower cost and offer a broader range of financial products than the rest of the financial agents. This would generate greater competition between banking and non-banking institutions, in turn helping to reduce the cost of finance.

A universal credit bureau would also integrate the information of the different financial institutions that currently do not report to credit information agencies, such as credit unions, the Institute of the National Fund for Workers' Consumption (Infonacot), the National Institute for Workers' Housing (Infonavit) and the Housing Fund of the Social Security and Services Institute for State Workers (Fovissste). This is particularly important when measuring the total financial burden of households and their capacity to absorb greater levels of credit.

Making easier the recovery of guarantees will reduce credit risks

Initiatives to speed up the processes of collecting and executing guarantees will be of vital importance in the financial reform. This is also an long-standing claim. Currently, the process of recovering mortgage loans takes between two and four years, and involves significant costs.

The changes proposed by the Commercial Code will reduce these costs. For example, in commercial cases the creditor will be given the possibility to choose the legal procedure carrying out the corresponding actions; at the same time, the duration of the different processes involved will be shortened (notifications, admission of evidence, eliminating actions that extend the main proceedings). In commercial cases of enforcement, the proposal is to execute documents in this way if they include obligations that can be demanded before notary. The Federal Commercial District Courts will also become the possible first instance for commercial cases, which will help expedite them quicker.

These measures will have a significant impact in reducing credit costs. The expenses associated with the process of recovery can represent up to 25% of the total value of the guarantee. For example, in the case of Infonavit, it is calculated that credit risk adds around 300 basis points to the interest rate.

The portability of loans would allow the development of new markets

Among the initiatives making up the financial reform, the portability of loans is also important for the mortgage market. The modification proposed to the Law on Transparency and the Promotion of Competition in Guaranteed Credit, makes it easier to refinance a mortgage loan with the financial institution offering the best conditions. This possibility was already in place in the law through creditor subrogation; but its use was difficult as it involved a new process of notarization and other costs associated with registration in the Public Property Register (RPP). This proposal eliminates these costs by registering the subrogated loan in the Public Commercial Register and from there requesting its entry in the RPP. At the same time the aim is that through agreements between the Secretariat of the Economy and the state and municipal governments, registration costs and notary fees are eliminated in the case of subrogation.

Under current conditions, there has been little refinancing of mortgages precisely because in practice it means issuing a new deed, with the costs that this involves. The taxes and duties, notary fees and registration costs in the RPP mean that the purchase costs of an existing home may represent up to 10% of the value of the property.

This measure will therefore give a significant boost to the mortgage market. First, it will promote competition between agents that will aim to improve the finance conditions for customers who have shown themselves to have a good credit history. Considering that in the case of commercial banking, defaults on mortgage loans are at the levels of around 3.5%, the measure could reduce the cost of finance for 96.5% of those who currently have a mortgage loan with a commercial bank. In addition, the initiative will also help develop a secondary mortgage market to the extent that borrowers may repay their mortgages early and acquire homes of greater value if their income allows it. With respect to this last point, according to Infonavit around 27% of workers with a mortgage loan receive wage increases amounting to at least a minimum wage in the first four years of having received a loan. Given that Infonavit has granted around 4.5 million mortgages in the last decade, this could mean that the average proposal would benefit a potential 1.2 million workers, based solely on the figure for those who received a loan from this institute.

Conclusions

The initiatives included in the financial reform will help provide a significant boost to mortgage lending. It will not necessarily take place in the short term, as it still has to be seen how these initiatives are implemented and consolidated, and this could take time. Attention will also have to be paid to how these measures evolve to ensure that they perform as expected in practice. For example, in the case of the universal bureau, it is not very clear that the best way of stimulating competition in the market is to create new state entities. Progress is being made in the regulations to guarantee exchange of data between currently existing information agencies. Meanwhile, the measures proposed to reduce execution times of guarantees and make loan portability easier are very promising, although they will have to prove their effectiveness over time.

It is heartening that the initiatives coincide basically with the suggestions that have been made for some time by the private sector to promote a more dynamic mortgage lending activity. But it is important to consider other initiatives that may help contribute toward this end, strengthening the institutional framework and establishing the conditions to boost healthy and resilient demand in the medium term.

Box 3: The “Ésta es tu casa” subsidy program 2014 operating rules

The 2014 operating rules of the housing subsidy program “Ésta es tu casa” (This is your home) modify some aspects to achieve a more orderly urban development, although they try to provide support to a greater number of homes than are currently being constructed. Location acquires greater importance, and criteria are established to support the development of the land reserve located outside the urban area.

For example, a home located in a peripheral area known as U2 (outside the urban core but with at least a 75% coverage by basic services such as water and sewerage) and that located in U3 (areas where coverage of basic services such as water and sewerage is below 75%) receive more points than in 2013: 250 points in the case of U2 and 250 compared with 90 in the case of U3.

Table 7

Classification of land reserves and housing

1. By location		2. Land reserve development		3. Level of economic activity	
U1	Intra-urban zone Area that makes up the gravitational center of economic activity inside the town or city	R4	Use of land, infrastructure and constructed homes	A	Has at least 500 homes and 250 jobs
U2	First belt. Area that surrounds the intra-urban zone and has a 75% coverage of water and sewerage services	R3	Use of soil and infrastructure	B	Does not have 500 homes or 250 jobs
U3	Second belt. Perimeter of between 400 and 800 meters	R2	Use of urban soil		
		R1	Scrubland		

Source: BBVA Research with Sedatu data

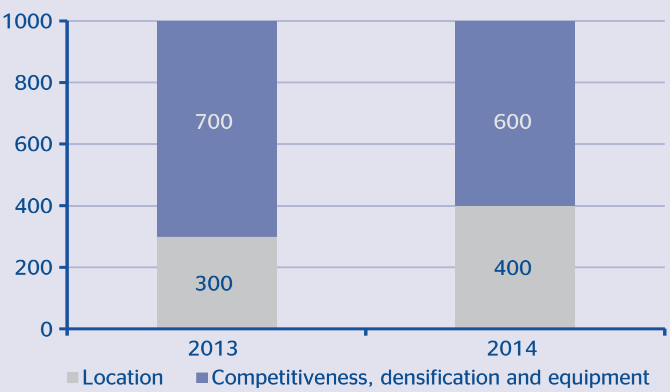
The new rules maintain the dimensions established in 2012 to classify the home: location, density, facilities and competition. Location acquires the most important weight, as it has increased from 30% to 40% in the points scale. In the other three, density maintains its points score of 23%, while facilities and competition account for the remaining 37%.

An important point is that although more points are given to homes in inter-urban areas, support is also given to homes in peripheral areas, which are given more points than in 2013.

The new rules establish three different categories for classifying the land reserve. The first is by location, as was planned in 2012, according to its urban belt (called the urban restriction perimeter or PCU). The other two were designed with a view to the housing constructed in the most distant peripheral zones (outside the PCU): one related to the level of development of the reserve (i.e. distinguishing between scrubland and land that already has housing constructed, regardless of location); the second, related to the level of

Chart 73

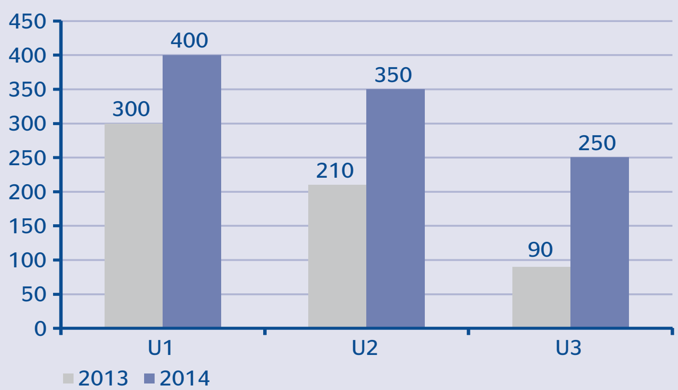
Rules for awarding points for subsidies (share by category)



Source: BBVA Research with Sedatu data

Chart 74

Points in the location category (points, urban restriction perimeters)



Source: BBVA Research with Sedatu data

Table 8
Maximum amount of subsidies (as a factor of minimum wage)

Housing in urban restriction perimeters (PCU)				Housing outside PCU		
	Value of the home (x minimum wage)	Amount of subsidy 2013	Amount of subsidy 2014		A	B
U1	Up to 200	33	33	R4	25	25
U2	129 to 158	32	34	R3	25	---
U3	Up to 128	33	37	R2	---	---
				R1	---	---

*For people with income of up to 1.5 times the minimum wage
Source: BBVA Research with information from Sedatu

economic activity, based on a minimum number of homes and jobs identified in the zone. The latter classification allows government support for housing to be extended to land with an intermediate level of development (i.e. with little constructed housing so far but with use of soil and infrastructure), or based on the R3 classification.

Thus, even when the home is located outside the PCU, if it meets the conditions of being in the upper middle level on the development scale, and also has at least 500 homes and 250 jobs (level R3 on the development scale and level A on the economic activity scale) it is eligible for a subsidy. While the 2013 rules did not consider the possibility of awarding points to these zones, in 2014, it allowed them a subsidy of up to 25 times the minimum wage. Another change in the 2014 rules is that the amount of subsidy for homes with the highest classification has been increased from 33 to 34 times the minimum wage; and for beneficiaries with income of up to 1.5 times the minimum wage an extra subsidy is granted equivalent to 3 times the minimum wage.

Thus between location and income level, the range of subsidies granted to each home was extended from 25 to 37 times the minimum wage, when under the previous rules it was 32 to 33 times. The minimum points required to access the subsidy was increased from 200 in 2013 to 350 in 2014; at the same time, the points bands have been broken up from 4 to 13, to make a greater differentiation in the amount of subsidy to be received.

To sum up, the new subsidy program aims to provide appropriate incentives for building inside the urban area, although it recognizes that this should be done in a gradual way, as much of the land reserve held by construction companies that concentrate their activity in these segments is outside the cities. With the aim of generating the lowest possible impact on these companies by the change in policy, new criteria and greater differentiation have been established in the ranges of subsidy by which they can be incorporated into the program. With these new rules, the government aims to maintain a balance between the policy objectives and the difficult situation currently being experienced by the industry. Although the changes are gradual, they lay the foundations for more orderly urban growth in the medium term.

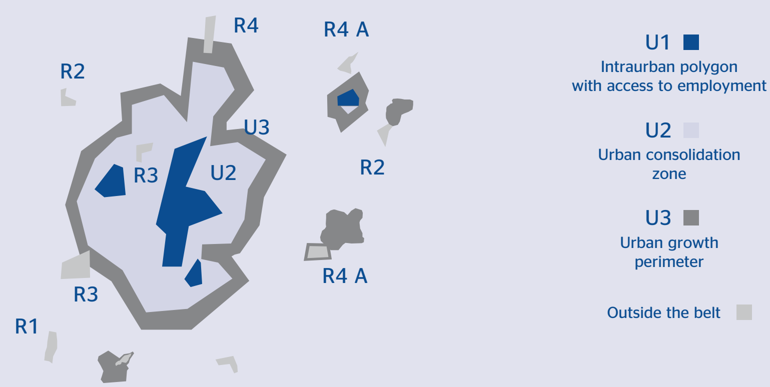
Chart 75
Defining the urban areas

For its development degree

R1 Soil acquired
+
R2 Residential land use
+
R3 Infrastructure investment
+
R4 Built housing

For the environment conditions:

A: Acceptable levels of employment & housing
B: Without employment or housing or neither



Note: Zones U1, U2 and U3 correspond to urban areas. The classification R1 to R4 was included to catalog the reserve outside U3, and another, A and B, to identify the level of economic activity in these areas. As a result, the zones that were outside U3 would not have received subsidies under the 2012 rules of the subsidy program, but with these new criteria they can receive a subsidy starting in R3.
Source: BBVA Research with information from Conavi.

3.c Listed Homebuilders: a Foretold Ending?

2013 has been a particularly difficult year for housing, due to the change of government and the political vision towards the sector, and also to the accelerated financial unravelling of the public housing companies in the stock market. In the period of six months, the capitalization value of these companies declined around 85%, some had to announce a process of restructuring of liabilities with their various creditors, and their operating scale has been reduced by more than 50% compared to the previous year.

The current turmoil is the result of different factors, although none of them is recent. In essence, the model of the public housing companies that are currently facing difficulties was one of huge volumes at a very low price; and it was very successful in meeting the housing needs of significant segments of the population that were just entering the mortgage market. However, the model turned out to be rather inflexible in adapting to the changes in the environment, that included from the economic to the social aspect, as well as the programs and policies supporting the sector. The signs that pointed to the exhaustion of the model were not interpreted correctly either. In any event, it is important to emphasize that the public companies turmoil is not widespread in the rest of the industry. Among the companies at the next level, there are some that maintain healthy financial credit terms and have not slowed down. In the reconfiguration of the industry that will take place in the medium term, these companies have significant room for growth.

A 2013 chronology

We will start with a review of the events that have defined the development of listed housing development companies throughout the first half of 2013.

At the beginning of the year there was a delay in the operation of housing programs with the change of government. Payment for the homes placed by Infonavit and Fovissste was delayed and the budget for subsidies began to be executed at the end of the first quarter.

The federal government announced the general guidelines of the new housing policy at the beginning of February. Among them, the one to promote a more structured urban growth and to establish a two-year transition period for the housing development companies to adjust to the new model increased the doubts over the value of the land reserves of these companies.

In March, the tenth Mexican Housing Day, an event in New York promoted by the industry to present the housing market's prospects, could not totally dissipate the uncertainty regarding the viability of the companies with the new policy. On that date, the federal government announced through the Federal Mortgage Society (SHF) a guarantee program to support home construction, and there were some doubts regarding its effectiveness, impact and implementation time.[1]

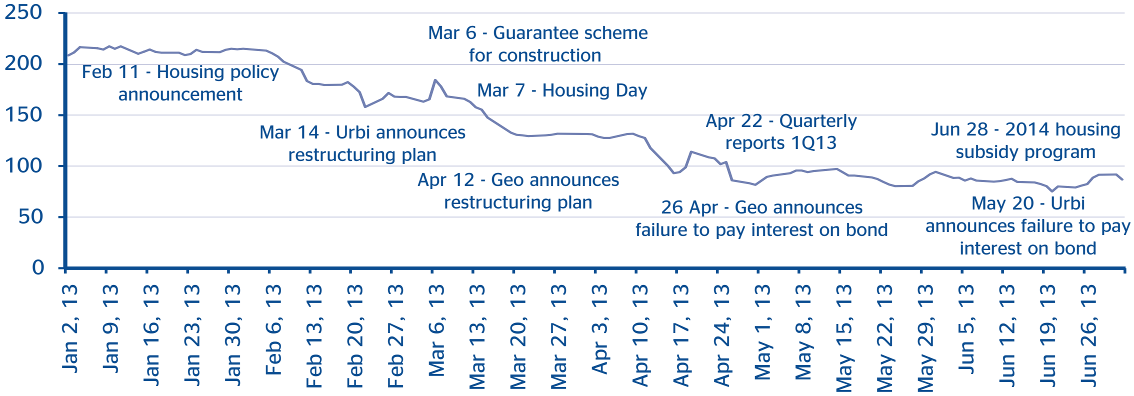
In April, the quarterly reports of Geo, Homex and Urbi showed a decline in sales of 38%, 46% and 85% annually, respectively. In addition, liquidity was eroded, making it difficult for them not only to face their liabilities with banks, investors and suppliers, but even to continue in operation.

Around May, Geo and Urbi announced their inability to meet the interest payments for their bonds issued in foreign currency. In that month, Infonavit announced a foreclosure affecting Urbi, Geo and Homex for their failure to meet their payment obligations in the 70-70 program applied in 2012, whereby the institute paid 70% of the value of the homes once 70% of the construction work was completed.

At the end of June, the government announced the operating rules for 2014 for the housing subsidy program, which relaxed the criteria for delimiting urban areas, as well as the minimum conditions to access the subsidy for housing located in the outskirts. In addition, new initiatives to boost finance for construction were announced.

[1] See, for example, the note released by BBVA Research, Mexico Real Estate Flash: The construction guarantee program: is this what is needed? March 7, 2013.

Chart 76
Habita Index* (points)



*Index consisting of the weighted average of the price of stocks of the housing development companies listed on the Mexican Stock Exchange: Ara, Geo, Hogar, Homex, Sare and Urbi.
Source: BBVA Research with BMV data

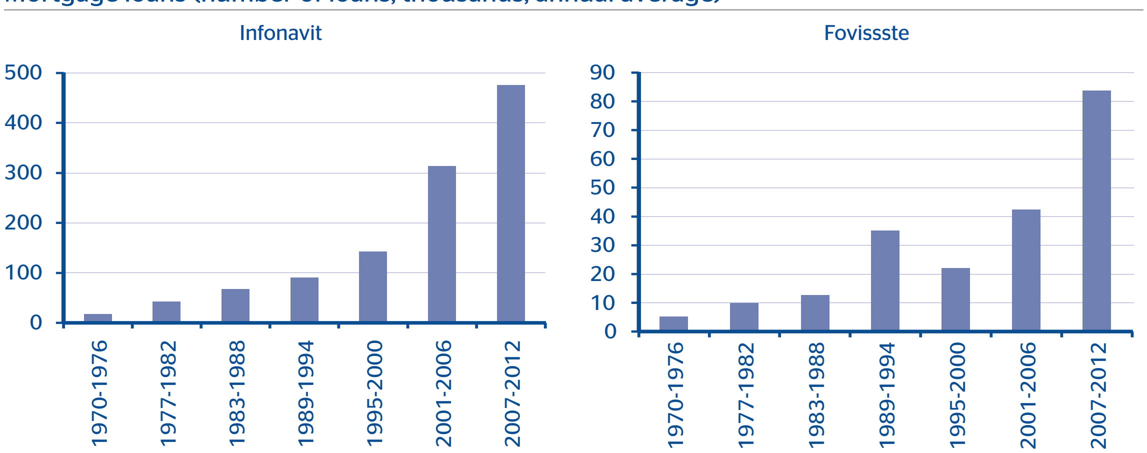
How have we arrived here?

The current turmoil cannot be explained with one reason only, but rather with a combination of several elements that include the housing model itself, the turmoil in 2009 and its impact on the financial sector, the changes in the policies for the sector and the accounting regulations, the limitations of the companies to adapt to the changes in the environment and the decisions they took to tackle them.

The model that gave rise to the development of the industry encouraged accelerated growth rates

The housing model adopted by public developers that are currently facing difficulties was one of high production volumes and small margins. The vertical integration (from manufacturing of concrete to home construction), the technology (construction based on molds) and the availability of land allowed for the creation of significant economies of scale. With this combination, it was possible to build large housing volumes, at a low cost and in very short periods of time. It must be acknowledged that here, the industry was very efficient and as we documented in the January 2013 edition of Real Estate Watch, it became an international benchmark in this area, even for countries such as China and India.

Chart 77 and 78
Mortgage loans (number of loans, thousands, annual average)



Source: BBVA Research with Infonavit data

Source: BBVA Research with Fovisste data

Among the factors that made the consolidation of this model possible we can mention, first, the wide availability of financing for workers in the formal sector with low wage levels, whose housing needs were just being addressed through mortgage loans. The individual housing accounts, as well as the operational modernization of the financial institutions set up to support the sector, such as Infonavit and Fovissste, gave access to the mortgage market for an important segment of the population whose needs had been neglected until then.[2] The number of loans granted by Fovissste and Infonavit respectively, went from averaging 30 thousand and 124 thousand annually in the 1991-2000 period, to 61 thousand and 376 thousand between 2001 and 2010. In addition, the creation during the mid 1990s of non-banking financial intermediaries, the sofoles, channeled the resources to the market, through bridging loans for housing construction, as well as through mortgage loans.[3]

The placements of mortgage and bridging loans in the secondary market, or stock market issues, provided an additional boost to financing. From 2003 to 2009, between the sofoles and the banks, these issues amounted to a total of 65 billion pesos. To put it in context, the total amount issued by the sofoles throughout this period, 44 billion pesos, represented nearly half the balance of the total holding that the sofoles averaged in 2008 (89 billion pesos).

Table 9

Financial indicators for public housing companies

	Public per stock						Public per debt			
	Ara	Hogar	Geo[2]	Homex	Sare	Urbi[2]	Cadu	Javer	Ruba	Vinte[2]
Sales[1]										
Units (thousands)	13.5	1.9	55.5	46.4	0.3	28.2	6.8	8.1	9.5	2.7
Billion pesos	6.3	0.8	17.4	19.9	1.1	10.5	2.2	2.5	3.3	1.6
Operating profit[1]										
Operating margin (%)	10.2	-2.9	10.7	-242.9	-147.7	-45.0	18.4	11.0	9.2	15.9
Net margin (%)	7.9	-3.8	2.7	-226.1	-134.1	-65.6	14.38	-2.1	7.1	10.4
Ebitda margin (%)	12.4	-3.9	17.0	-1.6	-105.6	18.0	24.19	11.0	10.3	19.1
Financial assets	3.3	-2.3	2.7	-3.0	-25.4	2.5	4.4	-1.4	4.8	8.0
Debt										
Total liabilities / total assets (%)	16.4	15.6	34.1	49.7	44.2	42.2	41.8	434.0	4.6	34.7
Net debt / stockholders' equity (%)	16.0	46.8	121.3	143.2	138.8	132.8	90.6	197.0	2.1	70.4
Net debt /Ebitda (times)	2.2	35.8	5.1	6.9	9.9	18.6	1.9	4.7	0.6	1.92
Total liabilities (million pesos)	3.2	0.0	25.5	18.4	1.7	22.6	1.2	4.2	0.2	0.6
Banking loans	3.2	0.0	16.0	6.7	1.6	9.7	0.9	---	0.2	0.3
Financial leasing	---	0.0	9.5	11.7	0.1	13.0	0.3	4.2	0.0	0.2
Credit ratings										
Fitch	---	---	Ca	C.mx	Caa1	C.mx	BBB+.mx	B2	A-	Ba1
Moody's	---	---	D	---	mx.A-2	D	BAA2.MX	B+	A-	---

[1] Last 12 months
[2] Figures as of 1Q13
Source: BBVA Research with BMV data

Secondly, current regulations generated incentives for growth, through the investment in land as well as in the housing development. On the one hand, taxation allows investments in land to be deducted, so, with the expectation of continued strong activity, incentives to the accumulation of land reserve were

[2] Even more if we consider that after the turmoil of 1995, mortgage lending had become limited.
[3] The sofoles financed the construction companies with bridging loans and, in turn, these linked their customers with the same sofoles for the acquisition of housing, all in turn, funded with SHF resources.

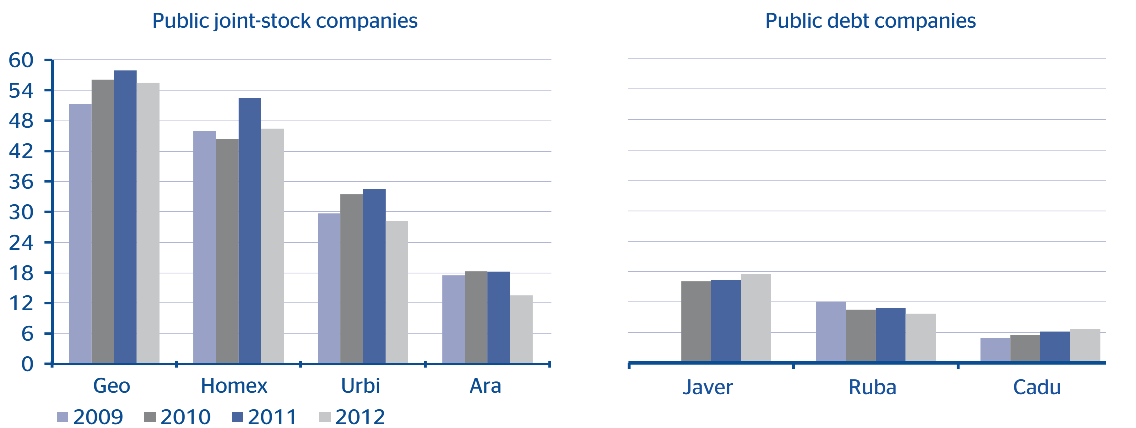
generated. On the other hand, from the accounting point of view, until 2010 the companies were allowed to report construction underway as sales, which generated incentives to maintain an accelerated pace in construction. The result was an excess of inventory and land.

Thirdly, the expectations regarding the housing needs and the way the public sector would seek to address them were very high. It was based on the premise of a high housing deficit (at the time it was estimated at around four million homes) and a housing formation that grew by 650 thousand a year. Against this background, the 2007-2012 National Housing Plan set the goal of reaching one million annual financing operations for the acquisition of housing.[4] It was also established that the annual budget for subsidies (measured at 2006 prices) would be in a range of seven thousand to 12 billion pesos.[5] In the end, the budget for subsidies was below that range.[6] Meanwhile, in 2005 Infonavit anticipated that, subject to the availability of resources (not to demand), towards 2010 it could be granting a little over one million loans (Infonavit, 2005). The highest volume of mortgage loans that the institute reached was 494 thousand, in 2008.

It is important to also include under this item the pressure of the market itself. During the years of expansion, in the second half of the last decade, stock market investors contributed significantly to the growth in sales, even more than to the generation of free cash flow. In this regard, it is worth highlighting that not all the companies participating in the low-income market face the same financial situation. Public debt companies have healthier conditions, despite the lower growth in sales.

Chart 79 and 80

Homes placed (thousands)



Source: BBVA Research with data from the companies

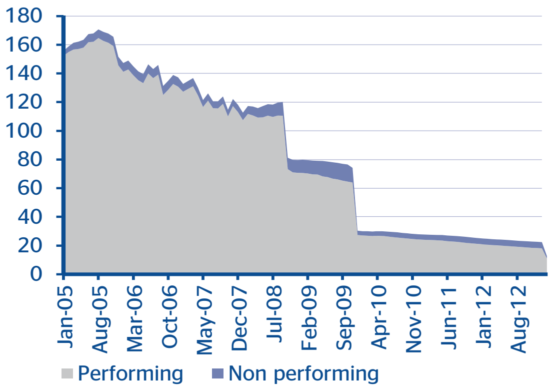
The turmoil in 2009 shook the market

The turmoil in 2009 triggered a significant change in the housing market. On the one hand, demand fell. The financing granted by commercial banks for individual loans dropped by 35% that year, while for Infonavit the decline was 12%, all in real terms. From maintaining an annual average rate of growth of 22% in housing sales of public developers between 2004 and 2008, for 2009 these dropped by 9%.

On the other hand, the financial support of developer companies, the sofoles, disappeared when they began to face difficulties to fund their operations. With the reduction in demand, high levels of overdue portfolio in bridging and mortgage loans, as well as a strong unravelling in the performance of the securitized portfolio, the sofoles dramatically reduced their capacity to grant financing. From its highest level at the end of 2007, at close of 2009 their bridging loan portfolio went from 15.2 billion pesos to 4.5 billion (a 67% reduction measured in real terms), and for 2011 it was just 2.4 billion.

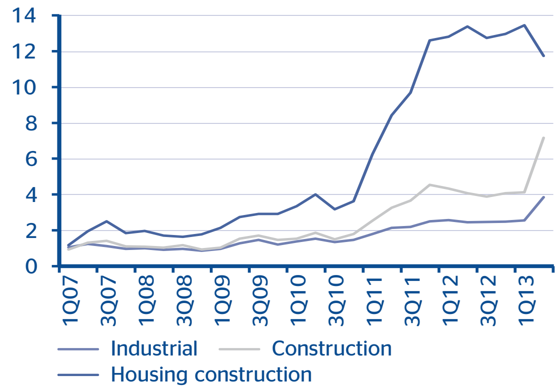
[4] This was an important failure, as here it should have been announced that, in fact, it is not an effective housing demand. In order to abate it, a specific program is required in any event, funded with subsidies.
[5] This last figure was proposed subject to approval of the structural reforms
[6] Measured at 2006 prices, the annual budget was of 5.2 billion pesos.

Chart 81
Financing to developers: sofoles (billion pesos, 2013 prices)



Source: BBVA Research with RUV data

Chart 82
Default rates*: housing construction companies vs. industrial sector (%)

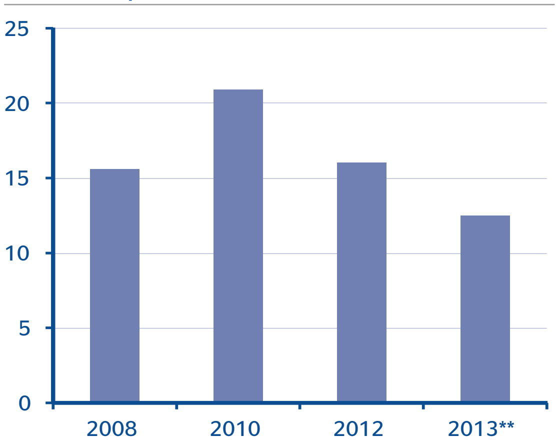


* Loans from commercial banks
Source: BBVA Research with Banxico data

The turmoil affected all the industry. The past due portfolio of the housing construction companies in general (not only public) has presented in recent years higher levels of unravelling than the rest of the construction industry.

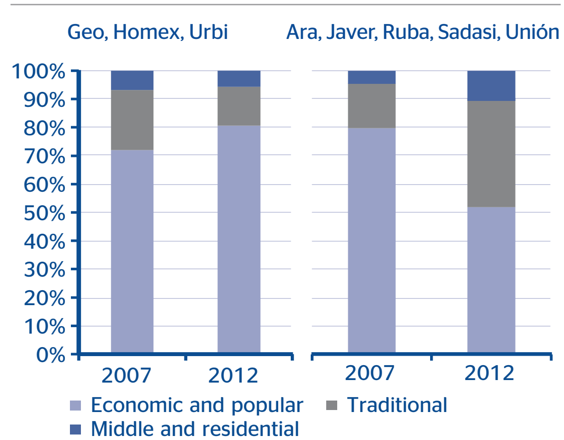
Public companies changed their strategy, focusing more on the low-value, subsidized housing market, expecting it to be the one showing more stability. Thus, on the one hand, their share in the number of loans granted by Infonavit rose from 16% to 21% between 2008 and 2010. Likewise, their new loans were more focused on housing for the low-income segment, particularly subsidized housing. Public companies which are currently in a critical situation increased their new loans for this type of housing from 70% to 80% between 2007 and 2012; in contrast, other large companies opted for greater diversification, so that the share of subsidized or lower value housing in the total number of new loans went from 80% to 52% in the same period.

Chart 83
Public companies share* in Infonavit (%)



*Ara, Geo, Homex, Urbi
** Figures as of June
Source: BBVA Research with Infonavit data

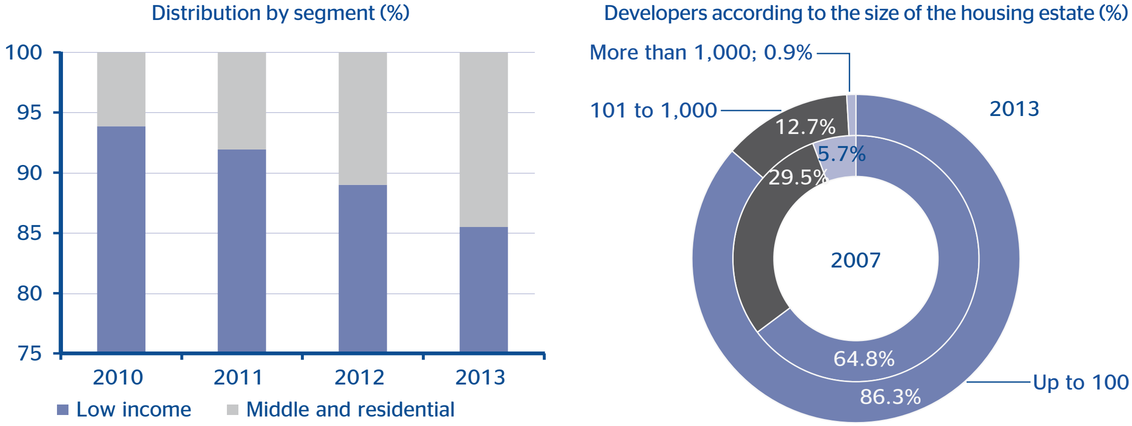
Chart 84
New loan mix (% distribution)



Source: BBVA Research with RUV data

Chart 85 and 86

Housing registered with RUV



Source: BBVA Research with RUV data

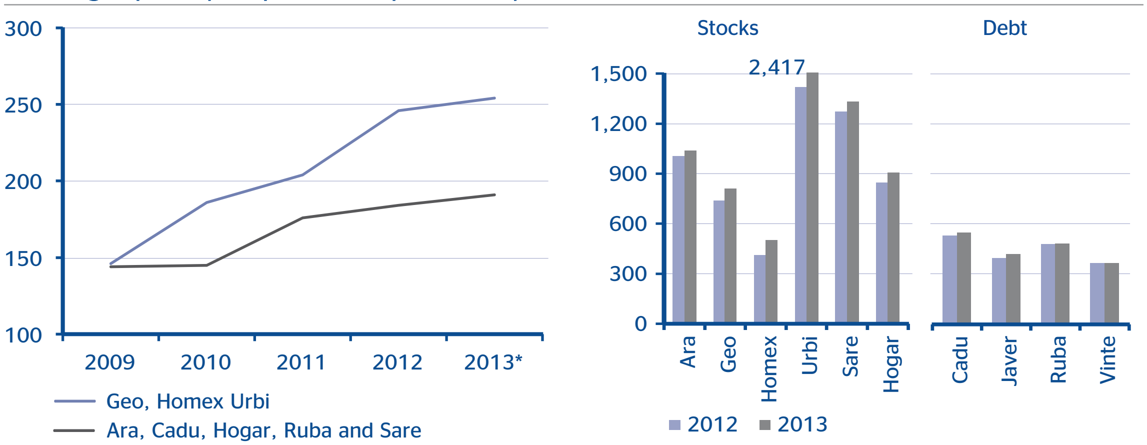
Regarding this point, it is also worth mentioning that in the total of RUV records, the share of the medium and residential segments has achieved growing importance. Although its weight continues to be significantly lower than that of social housing or for the low-income population, the relevant aspect is that this change has not received the attention of public developers; or simply, their business model, based on very large housing estates, did not match the needs of these segments. It is also important to mention the change in the type of housing that is being built. The estates have become more compact, or with a lower number of homes per estate, and this is also an important difference with respect to the public companies.

... and from there, deeper changes would come

Although the turmoil triggered the adjustment in the industry, it was not the only cause or the most important one. From 2010, the changes in housing policies, as well as the adoption of new accounting regulations, also had a significant impact on the sector.

Chart 87 and 88

Working capital cycle, public companies (days)



* Figures as of June
Source: BBVA Research with RUV data

Figures as of the first quarter
Source: BBVA Research with Convixión data

The policies to support the sector gradually began to be modified in order to correct the problems generated by the housing location and, in general terms, to raise the satisfaction level of buyers. Thus, the federal government, through Conavi, as well as the housing institutes Infonavit and Fovissste, began to raise the criteria for measuring the housing quality and the environment of the housing estates. The operating rules of subsidies were modified, first to incorporate elements of environmental and density sustainability, and later to generate incentives for a better location. Meanwhile, the SHF began to measure the satisfaction level of housing buyers through the Residential Satisfaction Index, while Infonavit adopted measurements such as the Borrower Satisfaction Index (ISA) and the Housing and its Environment Opinion Survey (Ecuve).

The adoption of new criteria and standards was one part of the change in policies. The other was to diversify the financing solutions. Infonavit promoted remodeling in 2010 through a pilot project, but it was such a success that by 2012 it already represented one of every four loans granted by the institute. Existing housing went from 17% of the loans awarded by Infonavit in 2007 to 35% at the close of 2012.

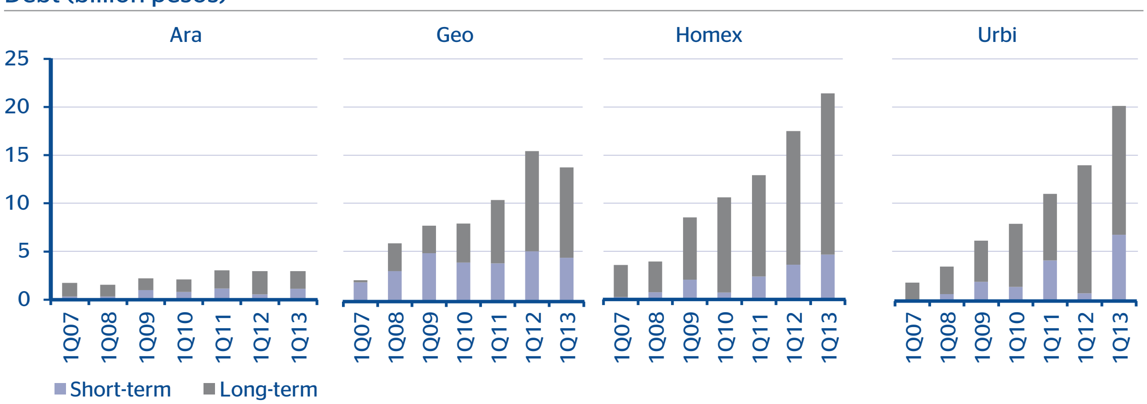
The change of policy to promote vertical housing had consequences for the companies, particularly through increasing the working capital cycle. This generates longer times in the movement of units, an accumulation of inventory, as well as an increase in the cost of financing.

The adoption of new accounting regulations involved another important change in the industry. Until 2011, the companies could register housing under construction as sales; however, with the adoption of the International Financial Reporting Standards (IFRS) in 2012, only individual housing is considered as a sale. This, combined with the criteria adopted by the policy regarding location in 2012, generated speculation about the value of the land reserve of housing construction companies and their capacity to maintain their operations.

It is also true that their model limited them to make major changes: they had an extensive land reserve, a business model based on high volumes and a leverage level that forced them to maintain a high pace of activity in order to generate flow and to cover their liabilities. The debt of public housing companies increased three-fold and even four-fold from 2008 to 2012.

Chart 89, 90, 91 and 92

Debt (billion pesos)

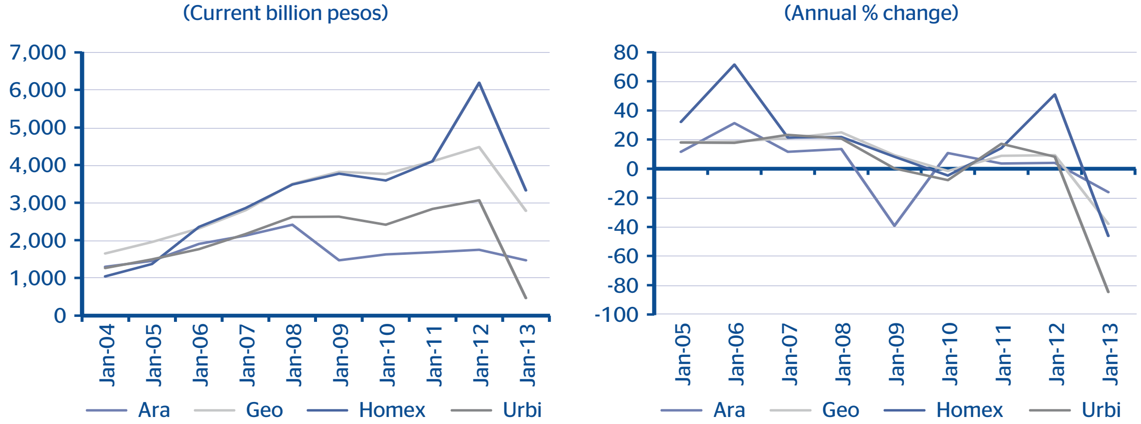


Source: BBVA Research with Bloomberg data

Thus, despite the changes in the environment, public construction companies in the stock market maintained the activity volumes at high levels. The number of homes placed by these companies maintained the upward trend between 2010 and 2012.

Chart 93 and 94

Sales (figures as of the first quarter of each year)



Source: BBVA Research with Bloomberg data

The warning signs were not fully sized

In recent years there were several signs that showed some deterioration of the housing model adopted by public developers. Starting with the high levels of vacant housing documented in the 2010 census. In the 2011-2015 Financial Plan, Infonavit estimated that one out of four homes placed by the institute from 2006 to 2009 were vacant; in the same way, in more than 90% of the cases, the reason was attributable to location problems (Infonavit, 2010). In this sense, in 2011 Infonavit reported that of the total number of vacant homes identified, 30% corresponded to public companies (including those from the stock market as well as debt).

Even after the results of the census were known, housing continued to be built in the same areas where high rates of vacant housing were registered. The reason was simply because it was where the largest developer companies had their land reserves. This helps to explain to a large extent the negotiation with authorities to relax the criteria to delimit the urban areas and thus continue to benefit from the subsidies.

Housing location problems were fully identified. The central topic has been the lack of transport connectivity, rather than the distance. Traveling by public transport from the center of the Federal District to some of the towns in the State of Mexico where more housing has been built can involve a monthly cost that represented more than half the mortgage payment.[7]

Lastly, among some of the market participants it was known that the subsidies were being diverted from their original purpose of giving access to housing to the population lacking it and without enough income to paying the monthly installment of a mortgage loan. Instead, it became common to offer the subsidy as a discount on the value of the home and not necessarily to live in it, but as an investment, or to enable workers to use the housing sub-account.[8] In this sense, the subsidies encouraged the construction of low-value housing, without strictly meeting the needs of the targeted population. Infonavit's 2013-2017 Financial Plan establishes that, based on a calculation made from the Home Income-Spending Survey (2006), just over half the members of the IMSS (54%) could qualify for a subsidy for having individual incomes lower than three minimum wages;[9] the reality is that just one out of four is in that situation, as the remaining 29% have household incomes above 5 minimum wages (Infonavit, 2012).

[7] According to figures from the Residential Satisfaction Survey published by the National Mortgage Society, in 2012, for the 139 towns considered in the survey, the average monthly transport expense was 570 pesos, although in some towns this figure doubles or even trebles. Although for the national total there is no direct relationship between transport expenses and vacant housing, in some cases it can be an important factor. For example, in some towns in the state of Hidalgo, where travel expenses can exceed 1,200 pesos, the amount is equivalent to more than 60% of what a subsidized home would pay, around 2 thousand pesos a month if the home's value is between 250 thousand and 300 thousand pesos.

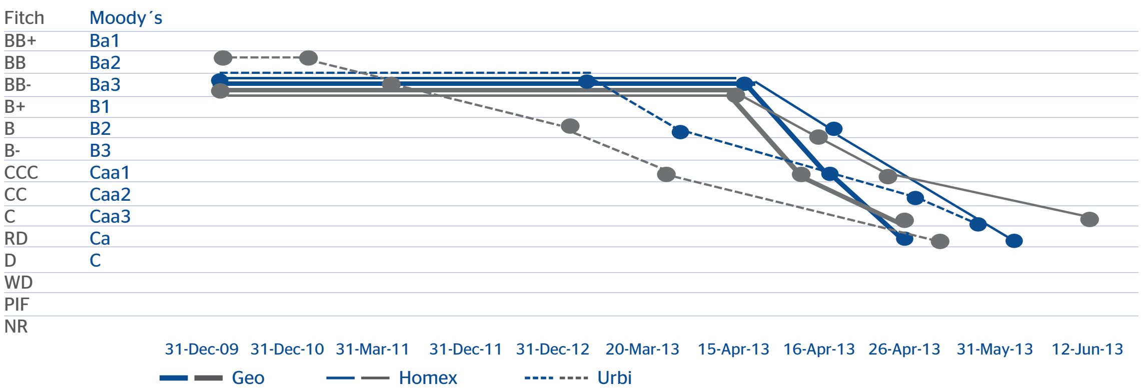
[8] Until 2011, the prevailing idea was that if the loan was not taken, the saving in the housing sub-account was lost. In fact, it could only be recovered through legal action. It was in 2012 when it was stipulated that the refund of that balance should be automatic.

[9] The subsidies are granted to homes with up to 2.5 minimum wages.

... and the problems were bigger than expected

It is fair to say that although there were doubts about the viability of the business model of the public construction companies with the change of the policies supporting the sector to encourage intra-urban construction, the size of the problems of these companies were far from being known.

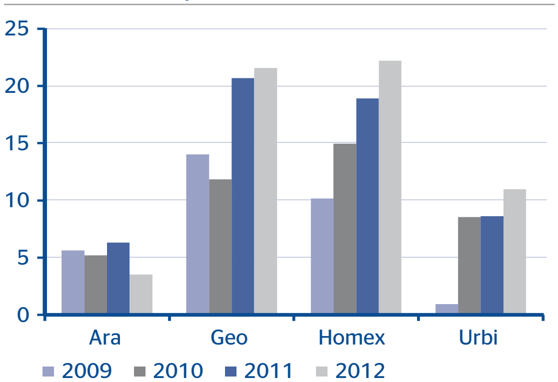
Chart 95
Rating Agencies
(Rating on bonds issued by developers)



Source: BBVA Research with Bloomberg data

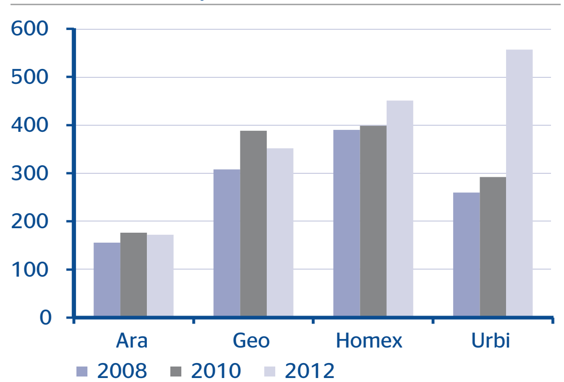
On the one hand, the portfolio of public companies did not show significant levels of impairment, or not above the rest of the companies in the sector. Meanwhile, the rating agencies did not notice bigger risks affecting these companies when rating their debt issues, which remained unchanged until April 2013, just a few days before the earnings for the first quarter were announced.[10] The same can be said of the boards of directors of these companies, that did not detect significant problems either, or did not express them timely.

Chart 96
Inventories: work in process
(Current billion pesos)



Source: BBVA Research with Bloomberg data

Chart 97
Land reserve
(thousands of equivalent homes)



Source: BBVA Research with Bloomberg data

[10] Although it has to be said that Fitch downgraded Urbi's rating from the first quarter of 2011

The housing bodies did not detect a serious problem either. However, Infonavit's 70-70 program did reveal some liquidity problems that the developers were facing, because they took the money but did not finish the homes and these could not be placed. Here there was not a problem of lack of buyers, as the program already linked the home with the customer.

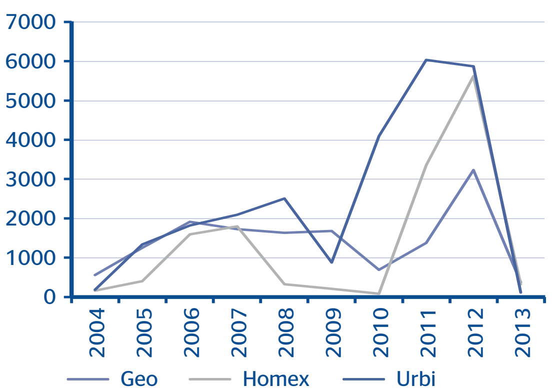
There is evidence that the information presented in the quarterly reports did not fully reveal the financial situation of the companies. For example, it was difficult to precisely measure the level of accumulation of inventories, as a part of them were registered as work in process, when in fact in some cases they were stopped projects. The land reserve, measured in housing units, continued to grow despite the economic environment at the end of the last decade; in any case, it covered more than 10 years of the activity level of the companies. Meanwhile, the companies that used the lease-purchase scheme showed little clarity in the sales done under this model.[11]

In the same sense, the information relating to the land reserves was insufficient and not too transparent. Aspects such as the geographical distribution, location, extension, the right to use the land and, in general, the potential to develop housing in those reserves have not been clear. The value of the land reserves was adjusted downward, first, by the adoption of the accounting IFRS, that changes the valuation criteria for the value of the home to be sold by the replacement value of the land, and second, because with the incorporation of the location as the main criterion for the granting of subsidies, a part of the reserve did not qualify for them or did so only partially.

Bond issues, especially in 2011 and 2012, gave oxygen to the industry, by providing them with liquidity again, which had declined steadily since 2007, but did not solve their underlying problems. In the end, it forced them to generate more cash flow, something difficult to achieve when new housing sales declined, and when they had problems placing the type of housing they were building.

Chart 98

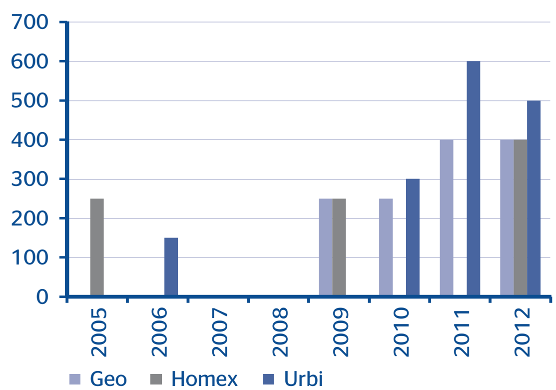
Liquidity* (Current billion pesos)



*Cash and cash equivalents, as reported on the balance sheet of the companies
Source: BBVA Research with Bloomberg data

Chart 99

Bond issuance (million dollars)



Source: BBVA Research with Bloomberg data

What could be anticipated from now on?

Without a doubt, the situation of the developer companies will herald a new stage for the housing industry. What can be anticipated until now, although in a general manner, is a reconfiguration of the main participants of the housing construction industry in the country, but also in the way housing has been built so far, and even in the role of the public and private sectors regarding urban development.

[11] For example, the construction company sells the home to a company (owned by its shareholders) and the latter leases it to the potential buyer for a six-month period, at the end of which the sale is completed. For the construction company this was a house already sold, although pending collection, and for its collection it receives unsecured promissory notes. There was not much clarity regarding the number of buyers who failed to pay the rent during the established period, or the construction company's commitment to the real estate agency in the event of default. However, Urbi's 2011 annual report states that the amount to collect for these sales totaled 11.9 billion pesos (7.5 billion corresponding to 2011 and the remaining 4.4 billion corresponding to 2010).

First, it is clear that the scale of operations of the public companies will have to be moderated. Apart from the arrangements that each one can reach with their creditors, the truth is that their capacity to produce housing at the previous levels has been reduced significantly. It is even possible that some companies could end up in an insolvent situation.

Second, some medium and large non-public companies will have the chance to expand, either by acquiring projects from public companies or strengthening their presence in the areas where the government will give a greater boost to housing construction, and orienting their business model towards the type of housing with greater demand. Here, the key is, on the one hand, the liquidity these companies may have, and on the other hand, the availability of land at affordable prices.

Third, the government could take a more active role in the development of areas in the outskirts of the urban perimeter, but where housing has already been built. These areas on their own could take years to consolidate, but the process could be accelerated with the support of the government in the updating of the development plans, in the contribution of land, as well as in the investment in infrastructures, urban equipment and transport connectivity.

In a scheme comparable to the so-called Certified Developments, the participation of the public and private sectors could be possible, to consolidate, in the medium and long term, the urban centers that are currently half developed. So far, most investments related to urban development in the towns where housing construction has been more significant have been made by the private sector. However, the housing development companies should only focus on this activity; other companies could handle the development of commercial or office areas, while the government, through development banking, could boost the investment in infrastructure and services. The experience with the Comprehensive and Sustainable Urban Developments (DUIS) shows that the institutional coordination in this field can be highly effective.

Conclusions

The business model adopted by the public development companies, based on huge volumes at a low price, although far from urban centers, was successful during the first year of the last decade, when the low-income population gained access to mortgage lending and there was a significant housing lag. However, at the end of the decade, the model already showed some signs of exhaustion. The change in the economic environment after the turmoil of 2009 in the policies to support the sector and in the regulations in the following years, significantly changed the environment in which the companies were operating, while their adjustment capacity was limited by their own structure. It must also be said that although the scale of the developers' financial turmoil was not easy to measure, there were warning signs that appeared in recent years and that were not assessed adequately by the different agents that participate in the housing industry.

Regardless of the final outcome, it must be said that public housing companies have accumulated extensive experience, which will undoubtedly be very important for the future development of the housing market. In fact, some of the areas where housing has been built and which are now facing infrastructure and urban services lags (and where the land reserves of the public developers are located) continue to grow. The important thing will be for this growth to take place in a context of greater planning, coordination between the public and private sectors and with a long-term vision.

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Box 4: The impact of the crisis of public-sector developers

What implications does the crisis of public-sector housing developers listed on the stock market have at macroeconomic and sector level? To analyze these issues, we have reviewed the links between housing and the different economic sectors, using an input-output matrix; at the same time, we have presented some figures that help give an idea of the impact of the situation of these companies on the financial sector and on the housing market in general.

The impact of the crisis

At the most aggregate level, the financial situation of the developers is reflected in the economy as a whole by the links that the construction industry has with the different productive sectors. To measure the effects associated with changes in output in one sector on the rest of the economy we have used an Input-Output Matrix updated to 2008 (MIP 2008) at the level of the 262 branches of economic activity. Based on this we have estimated the impact on output derived from a change in final demand through the method known as the Leontief model.

In essence, the method measures the impact of a change in the final demand of a sector on total economic production. Of the components of final demand, investment registers the impact of a fall in activity of one of the sectors. The first thing to be done is therefore to measure the impact of the investment associated with a fall in the output of the public-sector companies. To do so, one can use as a reference value the sales of the public-sector companies between 2010 and 2012 (in the order of 62 billion pesos per year) and the proportion this represents of building GDP, around 11% in these years. Taking into account that the residential component averages around 52% of the total value of building production, the share of public-sector companies in the GDP of residential building in recent years has been at a level of close to 20%.[1] In the aggregate of the economy its importance is much more modest, as it accounts for barely 0.4% of GDP.

When it comes to measuring the impact on different branches of economic activity, it is important to make some assumptions and qualifications with respect to the information. First, we have to take into account that the exercise presented here is static, in other words it does not consider intertemporal effects. This is an important restriction, as in reality what happens is that provided there is sufficient demand, when companies stop carrying out certain activity they are gradually replaced by others.

It is also important to make assumptions about the form in which companies construct homes, or the production process. It is assumed that a fall in production will reduce the intensity of the use of inputs to the same extent;[2] in other words, that if production falls by 10%, the use of capital and labor will also fall by 10%.

Having made these assumptions, the impact of the crisis of public-sector developers has been estimated based on changes in residential investment. Specifically, if the amount of investment made by these companies is reduced, there would be an impact across the whole industry and in related activities. Although this is an interesting exercise, this is a static or one-off effect, even though the second-round effects may result equally or even more important; for example, if the production of some constructors is replaced by that of new participants.[3]

Table 10

Impact of a fall of 1% in residential investment

Branch	GDP (Real % change)	Jobs (thou-sands)
Residential building	-1.0	-28.6
Lime and plaster	-0.4	0.0
Cement and concrete	-0.4	-0.2
Wood laminates and composite boards	-0.4	0.0
Other non-metal mineral-based products	-0.3	-0.1
Other specialist construction work	-0.3	-0.1
Installations and equipment in constructions	-0.3	-1.0
Non-metal mineral products.	-0.3	-0.3
Basic iron and steel industry	-0.2	0.0
Molding for metal smelting	-0.2	0.0
Work on finishing buildings	-0.2	-0.1
Architectural, engineering & related activities	-0.2	-0.1
Metal structures and iron products	-0.2	-0.2
Prods. based on refractory clay and minerals	-0.2	-0.3
Mineral coal mining	-0.2	0.0
Manufacture of other wood products	-0.1	-0.1
Other branches	0.0	-4.2
Total	**-0.1**	**-35.2**

Source: BBVA Research with INEGI data

[1] It has to be assumed that the share of the value of output also applies to the GDP.
[2] In other words, the function of production has constant returns to scale. It also has to be assumed that all the companies share the same technology
[3] Although the time this would take is not clear.

Perhaps the most important point is the effect on other branches of the economy. Thus, for example, for each percentage point of fall in housing production, the supplies for construction, such as cement, lime, rods and bricks would fall between 0.2 and 0.4 percentage points. In the case of employment, for each 100 direct jobs lost in the housing industry, a further 30 are lost indirectly.

As well as the impact in the macroeconomic area, it is important to consider the impact of the situation of housing construction companies on specific sectors and activities, such as finance, the rest of the construction industry, and the mortgage market.

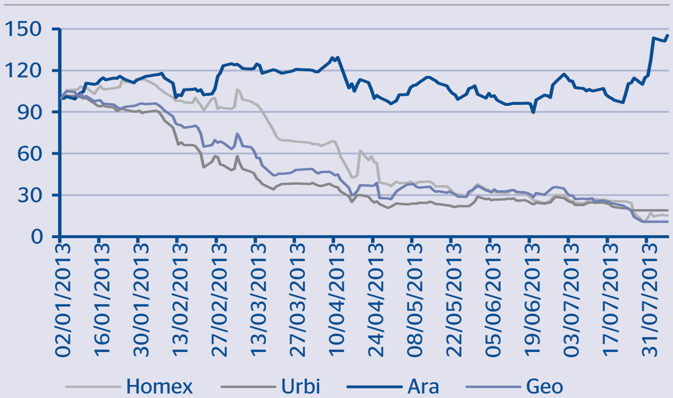
In the financial sector, the different creditors of the housing construction companies have paid a high cost. The debt with the banks at the close of the first quarter of 2013 amounted to around 37 billion pesos.[4] At the same time, the volume of bonds issued amounts to 34 billion. Among these investors are the Afores, which have channeled 3% of the value of their portfolios (57 billion pesos out of a total of 1,900 billion) to the housing sector.[5] There are also the institutional funds, which have invested in land banks through joint projects with construction companies.[6] Finally, there are also the minority shareholders, as in 2013 alone the share price of these companies has fallen by over 80%.

For the housing industry, the situation of construction companies has both positive and negative implications. On the one hand, it means an opportunity for growth for SMEs in the sector; on the other, there is a risk of contagion in terms of the perception of risk in the sector. The different programs supporting finance for construction promoted by the Federal Mortgage Company (Sociedad Hipotecaria Federal, SHF) over this year, such as those relating to guarantees, debt issues and syndicated loans with development banks, all help lessen this impact. There is also a considerable impact for the supply chain; at the close of the first quarter the debt with suppliers of Geo, Homex and Urbi totaled 15.3 billion pesos.

It could take some time to fully recover the volume of construction achieved by the public-sector housing companies. First, because they were built on a model that integrated the whole supply chain, from the manufacture of concrete to mold-base building, and even at an earlier stage, urban planning. This model requires high levels of capitalization and liquidity, which in the current environment could be a limiting factor. Second, because the model aimed for is one of more compact housing units and the biggest incentives for building are inside urban areas. The cost of land in these locations will be higher; and as a result, the type of home that will be constructed will be somewhat different from the present.

Chart 100

Capitalization value (01/01/2013=100)



Source: BBVA Research with data from Bloomberg

Table 11

Capitalization value and debt (billion pesos)

	(billion pesos)		Ratio
	Capitalization value	Total debt	Debt to Mkt Cap
Ara	6.3	3.0	0.47
Geo	0.9	13.8	15.01
Urbi	1.5	20.1	13.12
Homex	1.3	21.5	17.01

Source: BBVA Research with data from Bloomberg

4 As well as direct debt, there are financial institutions that keep on their balance sheets part of the housing pending sale held by some of the construction companies.
5 Includes issues by institutions such as Infonavit and Fovissste.
6 There is insufficient information on the amount and terms of investment by these funds.

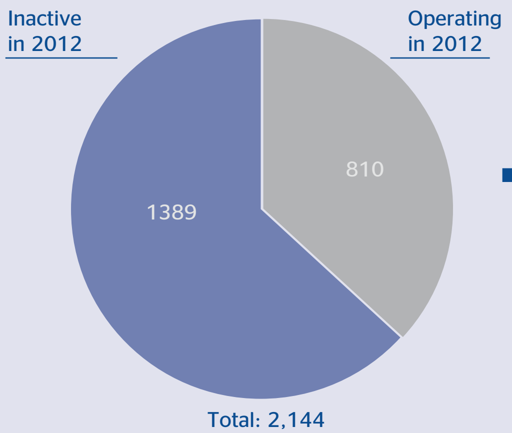
Having said that, it is also important to note that although public-sector companies have received a great deal of attention, they are not the most important in the industry. There is a base of over 800 construction companies that have been active since the mid-2000s, and as a whole they produce more than 70% of the housing at national level. This group has to be watched closely, because it is from among them that companies will emerge that may increase the scale of their operations significantly over the next few years.

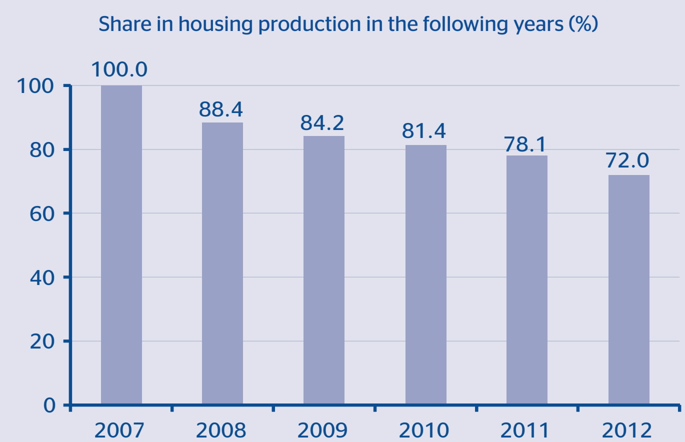
Conclusions

The impact of the financial situation of public-sector housing companies has effects beyond the housing market. The changes in the value of production in the building sector has a number of multiplying effects on the rest of the economy. Measured according to the level of activity registered by these companies between 2010 and 2012, its importance is equivalent to 0.4 percentage points of GDP. More directly, the crisis of the developers is being felt directly in the financial sector and in the housing industry. In some cases this impact will be moderate, while in others it will take some time to ease off. It is important that conditions should be established to maintain the strength of the industry in the medium term. Finally, there is a solid base of constructors in the industry. They will gradually take up the position that so far has been occupied by public-sector developers.

Chart 101 and 102

Constructors operating since 2007





Source: BBVA Research with RUV data

4. Statistical Appendix

Table 12

Annual macroeconomic indicators

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Real GDP[1] (annual % change)	0.1	1.3	4.0	3.2	5.1	3.2	1.2	-6.0	5.3	3.9	3.9
Private consumption, real (annual % change)	1.5	2.2	5.6	4.8	5.7	4.0	1.7	-7.3	5.0	4.4	3.4
Government consumption, real (annual % change)	-0.2	0.8	-2.8	2.5	1.9	3.1	1.1	3.2	2.3	2.1	1.5
Investment in construction, real (annual % change)	3.5	3.2	5.1	4.1	7.9	4.9	4.2	-6.3	-0.7	3.6	4.1
Residential			3.7	2.5	8.9	3.5	0.5	-16.5	-0.2	4.2	3.5
Non-residential			6.1	5.2	7.2	5.9	6.8	0.4	-0.9	3.2	4.4
Formal private empl. (IMSS)[2], total	12,329	12,315	12,559	12,966	13,574	14,145	14,434	13,994	14,524	15,154	15,856
Annual % changel	-0.9	-0.1	2.0	3.2	4.7	4.2	2.0	-3.0	3.8	4.3	4.6
Avge. salary of cont. (IMSS, nominal pesos per day, avge.)	158.0	168.4	179.2	189.9	200.0	211.0	222.3	231.6	239.2	249.3	260.1
Annual % changel	2.9	1.9	1.7	1.9	1.6	2.8	0.2	-1.0	-0.9	0.8	0.2
Real total wages (IMSS, annual % change)	2.0	1.8	3.7	5.2	6.4	7.1	2.3	-4.0	1.9	5.7	5.2
Minimum general salary (daily, nominal pesos)	39.7	41.5	43.3	45.2	47.1	48.9	50.8	53.2	55.8	58.1	60.5
% real annual change	0.7	0.0	-0.4	0.5	0.4	-0.1	-1.3	-0.4	0.6	1.0	-0.1
Consumer prices (end of period, annual % change)	5.0	4.6	4.7	4.0	3.6	4.0	5.1	5.3	4.2	3.4	4.1
TIIE 28 average (%)	7.4	5.6	8.1	8.1	7.0	7.7	8.3	5.8	4.9	4.8	4.8
10-year interest rate, 10 year Govt bond (M10)	10.0	8.9	9.6	9.4	8.4	7.8	8.3	8.0	7.0	6.8	5.7

[1] Seasonally adjusted series.
[2] Thousands of people, average. Seasonally adjusted series.
Source: BBVA Bancomer with Banco de Mexico, Conasami, INEGI and IMSS.

Table 13

Annual construction and housing indicators

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Real GDP[1] (annual % change)	2.0	3.3	5.3	3.9	7.8	4.4	3.1	-7.3	-0.5	4.6	3.3
Building	2.6	3.3	3.6	0.7	9.6	3.6	0.0	-14.3	-1.3	4.8	4.8
Civil engineering and major works	1.0	3.3	7.8	12.3	5.5	6.2	10.3	6.5	0.1	4.2	4.0
Specialist construction work	0.7	3.3	10.5	-0.6	2.7	4.1	-0.5	-10.5	1.9	5.4	4.3
Construc. empl. (IMSS, thousands people, avg.)	937.9	945.6	969.3	1,019.9	1,132.8	1,203.8	1,209.5	1,103.6	1,145.5	1,199.5	1,275.2
Annual % change	0.3	0.8	2.5	5.2	11.1	6.3	0.5	-8.8	3.8	4.7	6.3
Hydraulic cement prod. (tons, ann. % change)	2.4	0.8	4.0	11.1	7.7	0.9	-2.8	-3.1	-2.9	1.5	2.0
Nat'l. cement consumption (tons, ann. % chge.)	1.2	-0.3	2.9	10.1	6.7	0.0	-3.7	-6.1	-5.3	1.4	2.4
Construc. comp.[2] (real prod. value, ann. % chge.)			1.7	4.2	220.3	2.2	-2.2	-8.6	3.2	3.2	3.1
Building			16.2	9.0	238.0	7.2	-3.1	-18.5	-4.7	6.1	2.7
Public works			-6.0	0.2	229.0	-2.1	-1.5	8.0	9.7	0.1	-0.1
Water, irrigation and sanitation			31.2	-1.3	161.3	-21.8	4.1	6.3	0.1	10.7	-1.7
Electricity and communications			-15.3	-28.4	216.3	-12.6	15.4	8.2	26.8	21.5	-6.5
Transportation			-16.8	6.9	276.2	6.9	7.5	10.5	8.2	-2.9	-2.1
Oil and petrochemicals			-0.2	5.7	205.9	-4.2	-27.1	1.7	11.6	-9.6	13.1
Other			-16.4	-0.8	100.1	-10.3	0.7	-35.2	19.9	9.8	39.1
Resid. construc. prices, general (ann. % change)	5.1	7.3	14.5	0.6	11.8	2.9	13.1	-1.0	4.8	9.3	0.4
Construction materials (annual % change)			17.7	-0.2	14.1	2.6	15.5	-1.8	5.2	10.6	-0.2
Labor (annual % change)			4.5	3.8	3.8	4.4	3.5	3.1	3.3	3.8	3.2
Rental equipment (annual % change)			4.1	2.8	2.8	2.9	6.9	1.8	3.2	5.3	-0.2

[1] Seasonally adjusted series..
[2] Considers companies affiliated and not affiliated to the Mexican Chamber of the Construction Industry.
Source: BBVA Bancomer with Banco de Mexico, INEGI, IMSS and AHM.

Table 14

Annual housing finance indicators

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*
Number of loans granted (thousands)											
Total	381.8	476.0	567.5	670.8	725.7	746.5	632.8	639.7	600.8	572.4	254.2
Infonavit	297.7	306.0	376.4	421.7	458.7	494.1	447.5	475.0	445.5	421.9	182.6
Fovissste	66.4	59.4	48.7	76.6	68.4	90.1	100.1	87.8	75.2	64.3	30.8
Commercial banks and Sofoles	17.6	110.6	142.4	172.5	198.6	162.3	85.2	76.9	80.2	86.2	40.9
Reduction[1]			38.1	73.7	79.2	80.8	39.4	30.7	24.4	26.7	12.0
Equivalent purchases	381.8	472.8	529.4	597.1	646.5	665.6	593.4	609.0	576.4	545.7	242.2
Financing flow (billions of pesos, June 2013 prices)											
Total	124.1	137.3	181.6	256.1	287.0	310.0	248.7	235.9	239.1	232.2	105.0
Infonavit	82.4	82.8	105.5	119.3	128.2	140.1	120.1	123.8	127.4	112.7	48.0
Fovissste	25.8	24.0	20.8	32.8	28.0	36.0	54.8	47.0	36.8	33.6	15.4
Commercial Banks and Sofoles	16.0	30.6	55.3	104.0	130.8	134.0	73.8	65.1	74.9	85.8	41.7
Commercial banks current loan portfolio											
Balance end of period (billion pesos, October, 2012 prices)	301.9	332.9	383.0	440.9	465.5	445.2	408.4	435.3	451.4	454.9	456.8
Past-due loans index (%)	8.4	6.1	3.2	2.7	2.6	3.3	4.6	3.5	3.5	3.1	3.7

[1] It refers to financing (loans and grants) that are considered in two or more institutions.
* Figures for June 2013
Source: BBVA Bancomer with Banco de Mexico, CNBV, Conavi, Mexican Mortgage Association (AHM) and ABM.

Table 15

SHF Quarterly Housing Price Index by state (annual % change)

	10'III	IV	11'I	II	III	IV	12'I	II	III	IV	13'I	II
National	**4.7**	**3.7**	**4.4**	**2.6**	**3.9**	**5.9**	**6.2**	**6.4**	**3.8**	**2.9**	**2.9**	**3.9**
Aguascalientes	5.3	4.8	5.5	3.2	2.9	4.4	5.0	5.2	2.7	1.9	2.2	3.3
Baja California	1.7	1.0	2.4	2.2	4.7	6.4	6.4	6.1	2.5	2.0	2.1	3.2
Baja California Sur	1.8	1.4	3.6	3.3	5.6	7.5	7.3	7.8	5.1	4.5	4.8	5.1
Campeche	3.5	3.8	5.1	4.0	5.5	7.3	7.1	8.0	5.5	4.8	5.7	6.2
Chiapas	4.1	4.0	5.2	4.3	5.6	7.3	7.0	7.2	4.1	3.3	3.7	4.5
Chihuahua	6.2	5.4	7.0	4.8	5.5	6.9	6.5	6.6	3.8	2.9	2.7	3.7
Coahuila	7.3	6.8	8.3	5.8	6.0	7.2	6.7	7.0	4.5	3.7	3.6	4.4
Colima	5.8	5.2	4.7	1.1	1.9	3.3	3.9	5.1	3.0	2.3	3.1	4.5
Distrito Federal	6.4	5.0	5.0	2.8	4.4	7.3	8.7	9.7	7.0	5.8	5.3	6.6
Durango	9.5	8.8	9.2	6.2	5.9	7.3	6.9	6.7	3.4	1.9	2.0	3.6
Guanajuato	2.9	2.1	2.5	1.4	3.7	6.6	7.2	7.3	4.4	2.8	3.0	3.9
Guerrero	4.5	3.0	3.4	1.6	2.8	4.2	4.6	5.0	3.2	2.9	2.9	4.0
Hidalgo	7.3	5.9	7.5	5.7	6.8	9.8	9.1	8.3	4.1	1.7	1.4	2.8
Jalisco	1.9	0.5	0.7	0.1	1.3	3.0	3.2	3.5	1.9	2.0	2.3	3.0
Mexico	7.3	6.7	6.2	3.0	3.5	4.6	5.0	5.5	3.3	2.8	2.7	3.8
Michoacán	1.9	1.5	2.2	1.1	3.4	6.5	7.0	6.8	3.7	2.0	2.5	4.0
Morelos	4.9	2.8	3.3	1.3	3.2	6.0	6.4	6.3	3.3	2.2	2.1	3.8
Nayarit	2.3	0.7	1.5	0.3	3.1	6.2	6.7	7.1	4.2	2.8	2.6	3.1
Nuevo León	3.1	1.5	1.6	0.0	2.5	5.0	5.8	6.3	3.6	2.5	2.8	3.7
Oaxaca	4.7	4.5	5.7	4.6	6.0	8.3	7.8	7.1	3.2	1.5	2.3	4.4
Puebla	2.9	2.5	4.2	4.2	5.9	8.0	7.4	6.4	2.8	1.9	2.3	4.3
Querétaro	3.8	1.6	2.1	0.8	2.2	3.9	4.5	4.8	2.7	2.4	2.4	3.9
Quintana Roo	2.5	1.4	3.3	1.8	3.0	4.1	3.7	3.5	0.8	0.1	0.4	1.2
San Luis Potosí	3.6	3.3	3.9	2.6	4.7	7.4	8.0	8.0	5.0	3.4	3.3	4.1
Sinaloa	3.1	2.3	3.1	2.1	4.3	6.9	7.6	7.8	5.2	4.0	3.6	4.0
Sonora	5.0	3.6	5.5	3.9	5.1	7.2	7.0	7.4	4.5	3.4	3.1	3.8
Tabasco	4.2	4.6	5.9	5.1	6.3	8.0	7.6	7.1	3.6	2.4	2.9	4.1
Tamaulipas	8.0	7.6	8.8	6.1	6.1	7.0	5.9	5.8	2.8	1.2	1.3	2.4
Tlaxcala	7.5	7.7	9.4	6.6	6.4	8.6	7.6	6.7	2.8	0.6	0.9	3.3
Veracruz	6.8	6.0	7.6	5.1	5.5	7.0	6.5	7.2	4.9	4.0	4.0	4.6
Yucatán	6.2	5.0	6.0	3.6	4.4	6.4	7.1	8.0	5.3	4.2	4.3	4.9
Zacatecas	6.0	5.1	5.3	2.2	2.5	4.4	5.5	7.1	4.6	3.7	3.8	4.2

Source: BBVA with SHF data

Table 16

Quarterly macroeconomic indicators

	10'II	III	IV	11'I	II	III	IV	12'I	II	III	IV	13'I	II
Real GDP (annual % change)[1]	6.8	5.0	4.1	3.8	3.6	4.4	3.9	5.0	4.4	3.3	3.2	2.2	
Real private consumption, (annual % change)	7.2	4.4	4.0	4.5	3.9	5.1	4.0	4.2	3.8	2.1	3.4	2.6	
Real government consumption, (ann. % change)	3.9	2.4	2.4	2.7	0.4	2.1	3.1	3.1	2.3	0.4	0.2	-0.8	
Real const. investment, (annual % change)	-1.3	0.1	2.2	3.6	2.3	4.1	4.2	6.0	5.4	5.0	0.0	-1.5	
Residential	-1.7	2.8	6.4	6.1	3.4	4.1	3.1	5.2	4.8	4.8	-0.4	-2.6	
Non-residential	-1.0	-1.3	-0.2	2.3	1.7	4.2	4.8	6.5	5.8	5.1	0.2	-0.8	

Source: BBVA Research with INEGI and Banco de México data

Table 17

Quarterly construction and housing indicators

	10'II	III	IV	11'I	II	III	IV	12'I	II	III	IV	13'I	II
Construction GDP, real. (annual % change)[1]	-1.9	0.3	4.0	5.0	3.6	5.2	4.5	5.4	4.9	4.0	-1.0	-2.3	
Building	-3.0	0.9	4.9	5.8	4.0	5.2	4.2	5.6	4.8	4.6	-0.7	-2.6	
Construction engineering and major works	-1.0	-1.0	2.2	3.6	2.7	5.5	4.8	5.6	4.9	3.0	-1.9	-2.2	
Specialized construction work	1.2	2.6	6.5	6.7	5.2	4.3	5.7	4.0	5.3	4.3	1.2	0.5	
Construction companies[2] (annual % change)	-2.0	2.2	6.9	2.5	2.5	1.7	3.8	3.8	5.4	6.0	0.1	-1.7	-1.2
Building	-11.7	-9.0	-5.9	0.3	8.1	6.8	7.1	5.0	5.7	2.8	-0.3	-3.8	-4.2
Public works	7.5	13.5	19.8	4.3	-1.6	-2.6	-0.5	-0.2	0.4	3.4	-2.2	-3.8	-3.3
Water, irrigation and sanitation	-5.7	-2.1	-3.1	5.7	4.6	12.6	16.8	5.7	5.6	1.7	-15.3	-23.3	2.0
Electricity & communications	38.4	-2.3	4.9	15.0	13.2	38.2	24.3	-2.2	-4.4	-1.7	-17.2	-10.0	-11.8
Transportation	9.9	16.8	28.2	3.1	-3.8	-6.8	-4.0	-1.5	-3.1	-1.3	-1.3	-7.4	-10.0
Oil and petrochemicals	-7.3	21.5	20.8	-1.0	-9.1	-16.8	-12.0	1.5	14.2	25.0	14.4	29.0	21.2
Other	-0.3	7.1	14.5	5.4	-3.2	2.6	17.7	34.3	74.5	63.8	19.0	31.9	40.6

Source: BBVA Research with INEGI and Banco de México data

Table 18

Quarterly housing market indicators

	10'II	III	IV	11'I	II	III	IV	12'I	II	III	IV	13'I	II
Home sales by segment (quarterly flows, thousands of units)[3]													
Segment A	76.8	73.8	105.4	64.7	90.4	80.1	92.3	78.1	88.7	78.6	63.4	64.7	73.2
Segment B	45.5	42.4	66.4	31.1	42.6	33.5	49.0	31.3	38.2	35.2	39.4	25.3	35.2
Segment C	16.1	15.4	26.0	11.8	19.9	17.6	23.3	15.7	18.4	17.7	19.1	14.4	19.0
Segment D	3.5	3.6	4.9	3.4	4.4	4.0	4.7	3.9	4.3	4.6	4.9	3.6	4.7
Segment E	0.8	0.8	1.1	0.8	1.0	1.0	1.1	1.0	1.1	1.2	1.2	0.9	1.2
Total	142.6	136.0	203.8	111.8	158.4	136.2	170.4	130.0	150.7	137.2	127.9	108.9	133.3
Home sales by agency (quarterly flows, thousands of units)													
Infonavit	113.9	108.1	149.7	93.9	121.3	106.6	123.7	102.1	115.4	108.7	95.8	83.5	99.0
Fovissste	17.7	15.2	39.9	4.1	23.4	15.8	31.9	14.5	21.1	13.0	16.3	12.7	18.1
Banks	10.4	12.1	13.8	13.3	13.3	13.2	14.4	13.1	13.9	15.3	15.7	12.5	16.0
Sofoles	0.5	0.5	0.4	0.4	0.3	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2
Total	142.6	136.0	203.8	111.7	158.3	136.0	170.4	130.0	150.7	137.2	127.9	108.9	133.3

Source: BBVA Research with Banco de México, Conavi, Asociación Hipotecaria Mexicana (AHM) and Asociación de Bancos de México (ABM). data

Table 19

Quarterly housing finance indicators

Commercial banks current loan portfolio													
Past-due loans index (%)	4.4	4.2	3.5	3.4	3.6	3.8	3.5	3.5	3.4	3.30	3.1	3.5	3.7

[1] Fourth quarter estimated..
[2] Consider the value of production of firms affiliated and not affiliated to the Mexican Chamber of the Construction Industry. Data for May.
Note: Price ranges expressed in times the minimum monthly wage (VSMM) Economic and Popular Segment (118-200), Classic (201-350), Medium (351-750), Residential (751-1500) and Plus (1500 and more) SMM = 1.819 pesos in 2011 in the "A".
[3] Includes new and used homes: INFONAVIT, FOVISSSTE, Banking and Sofoles (considers reduction for co-financig).
Source: BBVA Research with INEGI, and Banco de México data.

Table 20

Monthly macroeconomic indicators

	M.12	A	M	J	J	A	S	O	N	D	J.13	F	M	A	M	J
IGAE (annual % change)	3.3	3.8	4.5	4.3	4.1	3.3	1.9	3.8	4.2	1.9	2.7	0.5	-1.4	3.9	1.1	-0.4
Construction vol. real (ann. % change)[1]	2.7	3.0	4.6	2.6	3.4	1.7	0.5	-0.2	1.5	-1.5	-3.4	-2.5	-3.3	-0.7	-4.4	-6.8
Building	4.8	4.5	5.1	3.6	3.5	1.2	-0.7	-0.9	3.3	-0.6	-5.2	-2.6	-1.7	-1.3	-5.4	-8.6
Civil engineering and major works	-1.7	-0.6	2.0	-0.1	1.4	1.2	0.9	-1.4	-3.7	-4.7	-0.6	-3.0	-8.1	-0.7	-3.6	-4.7
Specialized construction work	0.4	1.3	7.7	2.8	7.7	6.5	7.8	8.0	2.0	0.1	2.1	-0.4	-2.0	3.7	0.3	-0.1
Formal private empl. (IMSS, mills)[2]	15,696	15,706	15,732	15,807	15,849	15,920	16,033	16,182	16,295	16,062	16,106	16,227	16,281	16,348	16,355	16,357
Annual % change	4.6	4.6	4.5	4.7	4.7	4.7	4.7	4.8	4.8	4.6	4.4	4.3	3.7	4.1	4.0	3.5
Average salary quote[3]	258.4	258.4	261.2	260.4	263.7	262.8	259.6	258.3	258.9	258.6	271.8	271.1	269.2	269.1	271.6	270.9
Real annual % change	0.3	0.7	0.4	-0.1	0.1	-0.1	-0.4	-0.3	0.0	0.6	1.1	0.7	-0.1	-0.5	-0.6	-0.1
Real wage income (IMSS, ann. % chge.)	5.0	5.3	5.0	4.6	4.8	4.7	4.3	4.5	4.8	5.3	5.5	5.0	3.7	3.6	3.3	3.4
Minimum general salary (daily, pesos)	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.8	63.1	63.1	63.1	63.1	63.1	63.1
CPI (end of period, annual % change)	3.7	3.4	3.8	4.3	4.4	4.6	4.8	4.6	4.2	3.6	3.3	3.5	4.2	4.6	4.6	4.1
TIIE 28 average (%)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.4	4.3	4.3	4.3
10-year Gov. bond interest rate (M10)	6.3	6.2	6.1	5.4	5.2	5.4	5.3	5.5	5.4	5.4	5.1	5.1	5.0	4.6	5.4	6.0

[1] industrial production index
[2] Millions of people
[3] Nominal pesos per day for the number of members of the IMSS
Source: BBVA Research with Banco de México, INEGI and IMSS data

Table 21

Monthly construction and housing indicators

	M.12	A	M	J	J	A	S	O	N	D	J.13	F	M	A	M	J
Construction emp. (IMSS, thousands)	1,230	1,239	1,258	1,282	1,304	1,324	1,337	1,353	1,330	1,241	1,251	1,259	1,243	1,271	1,272	1,283
Annual % change	5.2	6.5	6.3	6.7	8.1	7.8	7.5	7.3	5.8	4.9	4.8	4.0	1.1	2.6	1.1	0.1
Cement sales (tons, annual % change)	-3.1	1.5	-1.9	3.5	11.4	6.5	4.3	3.8	-0.5	-8.8	-5.3	-6.7	-1.4	2.0	-1.3	
Cement consum. per inhab. (ann. % chg.)[3]	-2.7	2.0	-1.5	3.8	11.7	6.8	4.6	4.1	-0.3	-8.6	-5.1	-6.5	-1.1	2.3	-1.1	
Contruction prices (annual % change)	6.4	6.1	6.0	5.9	5.3	4.4	2.7	1.4	1.0	0.4	-0.2	-0.3	-0.3	-0.3	-0.5	-1.0
Materials (annual % change)	7.0	6.6	6.4	6.4	5.7	4.7	2.6	1.0	0.5	-0.2	-0.9	-1.0	-1.0	-1.0	-1.1	-1.8
Labor (annual % change)	3.7	3.7	3.6	3.4	3.4	3.4	3.4	3.4	3.3	3.2	3.0	3.0	3.1	3.1	3.1	3.1
Machinery Rental (annual % change)	4.1	4.6	5.2	5.2	4.4	2.8	1.3	0.6	0.6	-0.2	-0.1	0.8	0.3	-0.5	-1.0	-0.5

[3] The volume of cement production is used as a proxy for consumption
Source: BBVA Research with Banco de México, INEGI, and IMSS data

Table 22

Monthly housing financing indicators

	M.12	A	M	J	J	A	S	O	N	D	J.13	F	M	A	M	J
Comm. banks loan portf. (bal., bn pesos*)	401.4	401.1	403.4	408.1	413.3	417.2	423.2	427.2	432.1	437.4	444.0	443.0	450.9	453.3	456.6	453.5
Annual % change	13.9	13.1	14.1	14.7	15.1	15.2	15.5	14.8	13.9	13.3	13.0	11.8	12.3	13.0	13.2	11.1
Sofoles loan portfolio (bal., bn pesos*)	18.7	18.4	18.3	18.1	18.1	18.0	17.9	17.8	17.8	17.8	17.7	10.9				
Annual % change	-8.8	-9.3	-8.0	-7.0	-7.2	-7.2	-7.1	-6.3	-6.9	-7.5	-7.9	-42.7				
Total annual cost (CAT)	14.2	14.0	14.0	14.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.7	13.6	14.0

* June 2013 pesos
Source: BBVA Research with Banco de México, INEGI, and CNBV data.

5. Special topics included in previous issues

January 2013
Non-residential construction is the structure on which the sector builds
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