

Real Estate Outlook

Colombia

2013
Economic Analysis

- **Investment in building construction to grow by an annual 7.1% between 2013 and 2015, very close to the long-term trends in the sector.** This growth is not as strong as between 2002 and 2007 and at the start of the 1990s.
- **Construction sector will have a higher proportion of social housing** (in line with higher potential demand by lower-income people) and of non-residential construction.
- **Housing prices have accelerated recently. However, adjusted by household income level household purchasing power remains high,** though the return on housing investment through rental flows has fallen.
- **The restrictions on expansion in cities, expected increases in interest rates, price rises and regulatory changes in Bogota,** will be the main challenges faced by the sector in coming years.

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Closing date: December 5, 2013

1. Summary

The building sector accounts for 6.5% of GDP, totaling COP 47.6 trillion at current prices. Demand for raw materials amounts to COP 23.300 trillion at current prices.

Construction permits began a cycle of expansion at the end of 2012, when Bogota started to reverse its negative performance of 2012. **In housing, this trend favored social housing (VIS)**, with an annual growth of 75.2% in the year to September, compared with a fall of 0.2% in non-social housing. **Commercial constructions picked up pace particularly in the regions.** The total area in the process of construction in cities other than the capital grew by 42% per year in the second quarter (the figure for Bogota was 22%).

However, permits have been losing their capacity as leading indicators of construction, as they have anticipated regulatory issues without necessarily being associated with more construction starts. The housing indicators only grew by an annual 2.6% in the last 12 months to September. The biggest falls were in Cúcuta (down 49.0%), Nariño (down 48.4%) and Bolívar (down 37.2%), while the best results were in Santander (up 49.8%) and Risaralda (28.0%).

Housing sales grew by 13.2% in the 12 months through September, with a similar rate in social and non-social housing. This growth in sales in a context of a slowdown in housing project launches has led to a reduction in the supply of an annual 10.9% and lower supply rotation periods. In the year to date, the biggest positive gap (sales exceeding new supply) between sales and project launches is in the district of Risaralda, followed by Cúcuta. Among the big cities, Bucaramanga and the towns close to it have the biggest gap, followed by Bogota and its outskirts and Cali. At the opposite end are Caribe and Medellín, where supply is outpacing effective demand.

In the market for existing housing, selling periods are growing steadily. This situation is clearest in the case of housing in stratum 6 of society. The behavior is related to the increased presence here of buyers for investment, who in 2011 and 2012 accounted for 37% and 30% of sales, respectively, of new housing in stratum 6, while their share of the market before this was around 30% (La Galería Inmobiliaria).

The real-estate sector has some factors supporting it that will ensure it can achieve stable growth in the coming years. Household income is expected to grow, while interest rates will remain low in the next two years, reaching a neutral level in 2015; the financial sector is steadily increasing its share of housing finance; public policy is committed to supporting demand; and finally, households maintain their confidence about the country and employment.

Housing prices should slow down starting in 2014, to the extent that the main support factors will be coming to an end or stabilizing. First, government subsidies to middle-range housing should end next year. Second, the terms of trade will be less dynamic. Third, the medium-sized cities where prices have risen greatly recently will moderate their rises.

BBVA Research expects a rising cycle of investment in residential construction, although not as significant as the growth cycle between 2002 and 2007 (13.3% each year) and the start of the 1990s (an annual 14.3%). **According to our estimates, between 2013 and 2015 on average residential investment will grow by an annual 7.1%.**

The building sector will be faced with a number of challenges in the next few years: restrictions on expansion in cities, expected increases in interest rates and price rises. In addition, **the new Plan de Ordenamiento Territorial (Land Administration Plan - POT) in Bogota has to address four basic challenges:** maintain private initiative in social housing construction; improve the provision of urban infrastructure; establish an efficient criterion for locating commercial and residential activities, and improve urban public transport.

2. Introduction

In 2013 investment in buildings amounted to 6.5% of GDP, a level close to its highest ever in 2008 of 7.0% of GDP. According to the most recent calculations (DANE and CAMACOL), the value of output in the sector amounts to COP 47.6 trillion at current prices, of which COP 23.8 trillion (49.9% of the sector total) can be explained by housing activity, COP 18.9 trillion (39.7%) by non-residential building, COP 4.7 trillion (9.8%) by repairs and maintenance and COP 0.3 trillion (0.6%) by equipment leasing.

These amounts differ from the percentages observed in 2000. In that case, commercial construction was slightly more important, with a contribution of 41.8%, while the share of new housing construction remained at a low 33.7%. As a result, repairs and maintenance activity had a greater share, at 24%. The current lower share of repairs and maintenance may be a sign of the higher standard of living of people in Colombia, which has given them access to new homes, rather than having to carry out repairs on existing ones. Finally, the building sector requires raw materials for COP 23.3 trillion at current prices. The most important are non-metal mineral products (such as cement, bricks, concrete and glass, at 30.5% of the total) and basic metal products (23%).

Investment in buildings picked up pace at the end of 2012 and the first half of 2013, from an annual average of 5.6% recorded last year to expansion at an annual 9.4% at the start of this year. This upswing was supported by the upturn in Bogota, following various quarters in a row with low growth, and following positive indicators in medium-sized cities.

The results in the sector were close to those estimated in our previous editions of Real Estate Watch, where the building sector was described as one of the drivers of GDP growth in the country. This has been the case since 2012, when it grew above the average of the economy. In the future, the sector is expected to consolidate its position, but at lower rates to those in the first half of the year. Overall, between 2013 and 2015 residential investment should grow at an annual average of around 7.1%.

Public housing policy will be key in this respect, both in its support to the lower-income population and in its incentives to the purchase of medium-priced homes. The challenge will be to find an efficient combination that guarantees greater access to housing without generating pressure on prices that could exacerbate recent movements in residential prices. For this to happen, urban land must be made available with a network of public services in the main cities in the country, to reduce significantly the relative absence of land for construction in some urban centers.

3. Recent building activity

Construction permits and new project starts move in different directions

Construction permits began a strong cycle of expansion at the end of 2012, when Bogota began to reverse a trend for moderation begun in the fourth quarter of 2011. The new movement in permits for both residential and commercial buildings was positive. Residential permits had fallen by an annual 17.8% in 2012, but this year through September they have grown by an annual 17.9%. Commercial licenses have bounced back from a fall of 21.6% in 2012 to a rise of 20.3% this year to date (Chart 1).

Commercial construction in areas other than Bogota performed outstandingly at the start of 2013. According to the census of buildings, the total area in process of construction in cities other than the capital grew by an annual 42% in the second quarter (22% in Bogota), with a

share of 71.4% of national activity, when a year earlier the figure had been 68%. Among these new starts are offices, commercial premises and public buildings in Medellín, warehouses in Barranquilla and Bucaramanga and hotels in Cartagena. In line with these better results in terms of project starts, building output, divided between housing and commercial, has been more buoyant in commercial constructions after the fourth quarter of 2012, since when it has risen at an average of 22.1%, above the rate of 14.1% in housing.

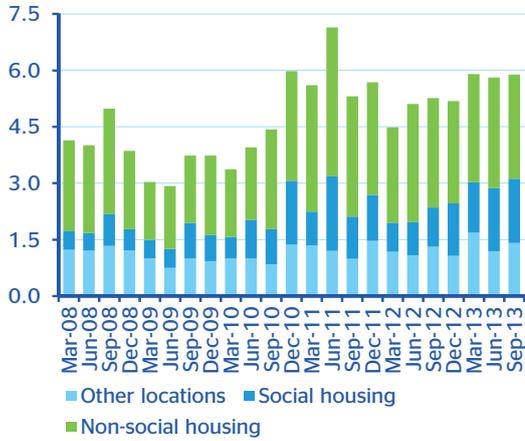
There has been a difference between the level of permits for social-interest housing (VIS) and those for more expensive housing (non-VIS). Social-interest housing grew by an annual 72.2% in the year through September, compared with a fall of -0.2% in non-social housing. This happened despite the fact that Bogotá, a city that currently accounts for 24% of the housing permits in the country, has been more buoyant in the non-social housing construction sector. Thus while in Bogotá the social housing permits declined by 4% in the last 12 months to June, the non-social housing permits grew by 133% in the same period. However, in both cases Bogotá lost its position at national level with respect to the figures achieved in 2011. That year building activity in housing in Bogotá accounted for 28% of the total in the country, and hit minimum of 21% mid-way through 2012, after which it has recovered slightly.

In addition, despite the fact that construction permits in 2013 were on average 142% up on their average since 2002, construction starts have been weak, as shown by the data collected by the sector's association CAMACOL. Housing starts only grew by an annual 2.6% in the last 12 months to September, and declined steadily from a high of 118,000 units at the start of 2012 to 110,600 housing starts in the most recent data (Chart 2). The biggest falls in starts were in Cúcuta (down 49.0%), Nariño (down 48.4%) and Bolívar (down 37.2%), while the best results were in Santander (up 49.8%) and Risaralda (28.0%).

The gap between project starts and permits may be maintained in the future, perhaps even wider than now, judging by the figures for new project launches registered by the sector (Chart 2). Project launches fell by 5.4% in the last 12 months to September, with major falls in Nariño (49.0%), Boyacá (down 48.8%), Cundinamarca (down 19.7%) and Bogotá (down 18.9%). The case of Boyacá reflects a normal correction after a boom period of project starts last year. In Nariño, Cundinamarca and Bogotá, however, the figures show an extension of the low levels in construction recorded since 2012, when project starts had already fallen by 35.8%, 7.3% and 28.1% respectively over the same period.

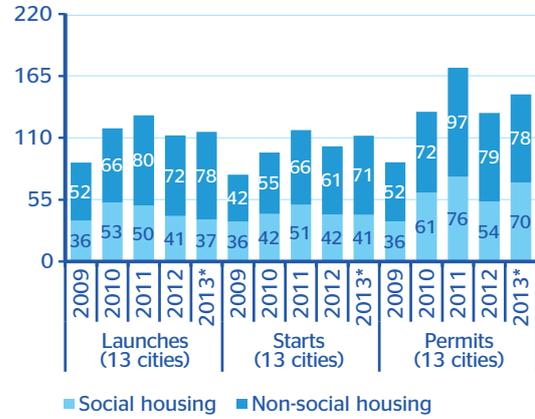
The gap between the two indicators of supply (permits and starts) and the relative loss of construction permits of their capacity as an advance indicator began at the end of 2011. At that time, construction companies tried to speed up permits in the face of a regulatory change regarding seismic resistance requirements for constructions; the figure did not correspond fully with an intention to start work immediately. This divergence was then heightened in the case of Bogotá due to the political uncertainty involved in whether or not the new Land Administration Plan (POT) would be approved for the city. Here too, the companies would have preferred to have kept the previous regulations in place in terms of costs and requirements for site plans.

Chart 1
Building permits by location.
Quarterly aggregate, millions of square meters



Source: DANE and BBVA Research

Chart 2
Project launches, starts and housing permits.
Thousands of units



*Cumulative between September 2012 and August 2013.
Source: CAMACOL, DANE and BBVA Research

A new gap: the fall in housing starts is accompanied by high real-estate sales

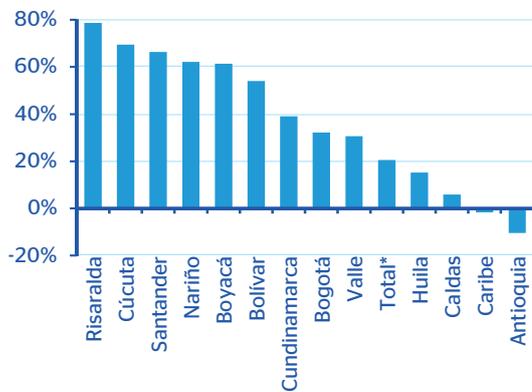
Sales of housing at national level grew by 13.2% for the 12 months through September. In the 14 districts of the country included by CAMACOL in its figures, only two saw falls: Nariño (down 24.6%) and Bogota (down 0.9%). The figures were headed by Huila (112.8%), Bolívar (69.1%), Caribe (39.2%), Tolima (37.3%) and Boyacá (36.9%). By type of construction, sales of social housing performed as well as the higher-value homes, unlike what happened with permits, where social housing led the way. Sales of both social housing and non-social housing grew by 13.2%.

This growth in sales in a context of decline of housing project launches has led to a reduction of 15.2% in the stock of units on offer, from 79,000 in the fourth quarter of 2012 to 68,000 at the close of 2013. This means that the construction sector has responded to increased demand by decreasing stocks, with the aim of making up for the fact that the level of new projects is below that of a year earlier and below the level of sales.

As a result, this year there has been a growing gap between sales and new project launches, so demand has exceeded new supply by 21% (Chart 3). In addition, rotation of inventories (the number of months that the existing stock takes to sell at current rates) fell from 7.2 months at the end of 2012 to 5 months recently, with a greater reduction in the case of social housing (Chart 4).

This year to date, the widest gap between project launches and sales is in the district of Risaralda (79%), followed by Cúcuta (70%). Among the large cities, Bucaramanga and the towns close to it have the widest gap (66%), followed by Bogota and its outskirts (35%) and Cali (31%). The opposite can be seen in Caribe (- 2%) and Medellín (- 10%), where supply is outpacing effective demand. As a result, in the cities where there is strong demand housing prices may increase more sharply; while in those where the supply is stronger, there could be an increase in the level of risk in the construction sector and a possible correction in its rate of growth (see section on prices in Section 4).

Chart 3
Gap between sales and housing project launches.
Sales/launches. As a percentage



*Cumulative between September 2012 and August 2013.
Source: BBVA Research with CAMACOL data

Chart 4
Housing inventory rotation. Number of months



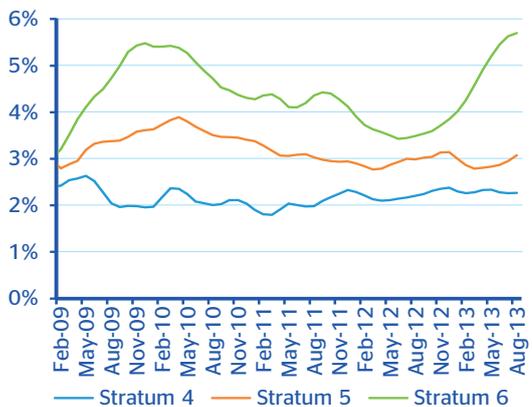
Source: BBVA Research with CAMACOL data

In the market for existing housing selling periods are growing steadily, as is the unsold or unrented supply. This situation is particularly clear in the case of homes in stratum 6, which had a vacancy rate of barely 3.6% at the start of 2012 and today have a vacancy rate of 5.7%, similar to that in 2009 (Chart 5). This situation is undoubtedly linked to more buyers for investment, who in 2011 and 2012 accounted for 37% and 39%, respectively, of new housing sales in stratum 6, while the rate before this was around 30%.

The commercial market: the end of the adjustment, recovery is underway

Construction permits for commercial buildings gathered pace from a fall of an annual 7.4% in 2012 to an increase of an annual 20.3% this year through September 2013. The biggest acceleration was in permits for office construction (Barranquilla, Bogota and Cundinamarca, Armenia, Bucaramanga, Ibagué and Cali) and warehouses (general across the whole country). In contrast, the premises for retail trade continued their 2012 fall, assisting the corrections that were needed in the sector.

Chart 5
Existing housing offered for rent or sale.
As a percentage



Source: La Galeria Inmobiliaria and BBVA Research

Chart 6
Time taken to sell commercial constructions.
Number of months



Source: La Galeria Inmobiliaria and BBVA Research

According to data from La Galería Inmobiliaria, in Medellin and Bogota the rotation rates for commercial buildings have fallen dramatically in recent years (Chart 6). In fact, at the end of 2009 the stock of offices would have taken 2.5 years to be sold at the then rates of sale. Today, the stock would be sold off in 1.3 years. Similarly, in mid-2010 commercial premises would have required 3.3 years to be sold, while the available supply in August this year would have taken 0.5 years.

The positive news is that the rotation time has been reduced more by sales speeding up than by a continued fall in new projects (except in the case of commercial premises, which only posted a recovery starting in July this year, without returning to the highs of 2011). The supply of offices in the two biggest cities in the country grew by an annual 42% in August and there were 80% more warehouses available.

The New Land Administration Plan in Bogota forces a rethink of the future of construction in the city

The Land Administration Plan (POT), which has just been decreed by the Mayor of Bogota, includes profound changes in the urban structure of the city, an updating of the new demographic trends and regulatory simplification, which will have consequences on the form, types and location of construction.

First, it restricts construction in zones bordering the city, establishing a greater number of spaces of environmental protection (36,900 hectares in total), some also located in zones inside the city (5,254 hectares in total). The arguments for this decision involve environmental reasons of water conservation and other biodiversity considerations that are still important in the city, as well as the difference in population densities between the center and periphery. The center has a density equivalent to 20-40% of the periphery. According to the arguments presented by the mayor, this requires a re-densification program in the extended center (a geographical area bordered by the ring-road to the east and Avenida Longitudinal de Occidente to the west, the Avenida Primera de Mayo in the south and Street 80 in the north). More high constructions will even be permitted under the plan.

On the positive side, the new restrictions on construction included in the plan could lead to a fall in costs of some infrastructures as the need to provide utilities and public services in the periphery is reduced (roads, water, sewerage, energy, parks, etc.). However, these freed resources (and perhaps others) should be allocated to implement substantial and necessary improvements to the infrastructure in the center of the city. In fact, there has to be a gradual replacement of the inefficient and insufficient road infrastructures, public services and telecommunications, without which densification and compacting are not possible. Currently there are obvious bottlenecks in the provision of the water and sewerage supply in highly populated areas of the city as is the case of the neighborhoods in Cedritos.

At the same time, the Land Administration Plan means a structural change to the city's urban planning, as the previous plan aimed to admit a controlled growth toward the periphery, generating new urban land at lower cost, a requirement for making the construction of social housing more profitable. Thus by locating social housing in more central parts of the city in order to reduce transport costs, the new Land Administration Plan could deteriorate private initiative in this segment of homes, and endanger the marginal progress made in reducing the housing deficit for the middle-lower and lower income groups of the population. In fact, 73% of the families in strata 1 and 2 live in the periphery.

Second, the Plan increases the contributions paid by constructors to finance (partially) the integrated transport system, which implies building a metro, a light railway and an a cable railway. It also aims to get funds for the construction of public spaces. The aim is to improve the deteriorated mobility levels in Bogota (currently with an average speed of 27.23 km/h and an average of 64.8 minutes for the most frequent trip), which has a high impact on stratum 1

in journey times (this stratum takes 37 minutes more than stratum 6 to get to work, according to the District Secretariat for Mobility of Bogota). However, the major point of debate will be the tax burden for the constructors. If the restrictions to urbanization in the periphery will make land initially more scarce and more expensive, this greater burden in resources for mobility and public spaces could lead to a steeper fall in the profitability of construction activity. Without a doubt, this could once more endanger private initiative, particularly in low-value housing, where the city's quantitative and qualitative deficit is focused.

Third, the Plan proposes a mixture of uses for urban land. Among other things, the aim is for people to have easy access to a set of commercial and public activities. In the case of commercial buildings, there will be freedom to construct some commercial businesses (stores, repair services, etc.) by residential properties; in the case of the public sector, the construction of judicial and government administration buildings in neighborhoods with a high population density.

The challenge of this proposal is to guarantee that the "high-impact" uses (as adult entertainment services are called) are not located in areas close to schools and spaces that are exclusively residential or for employment. In addition, it is not clear that there has been a study of spatial optimization for the location of state institutions (such as courts), or for the assignment of correct competence over the new buildings created. According to López (2000)¹ if there is no versatile and objective methodology, we run the risk of making decisions that are not efficient in terms of geographical distribution. In the case of justice, López claims this would imply more expensive procedures for individuals, an incentive to conflict resolution outside the law and a greater chance that cases could end up without a resolution.

To sum up, the biggest challenges of the new Land Administration Plan are: to guarantee profitability for private initiative of social housing; to have an infrastructure in place in accordance with the new demands of increased population density in the center of the city; to establish an efficient criterion for the geographical location of residential, commercial and public activities; to improve urban public transport and mobility rates significantly; and to tackle the possible increases in the price of land in the center and the restrictions that this may create for construction of low-cost housing.

1: López, Miguel (2000). Tribunales, territorio y acceso a la justicia. In: Revista del Instituto de la Judicatura Federal, Mexico, no. 5, January-June, pp. 45-98. A short text is available at: <http://biblio.juridicas.unam.mx/libros/1/92/14.pdf>

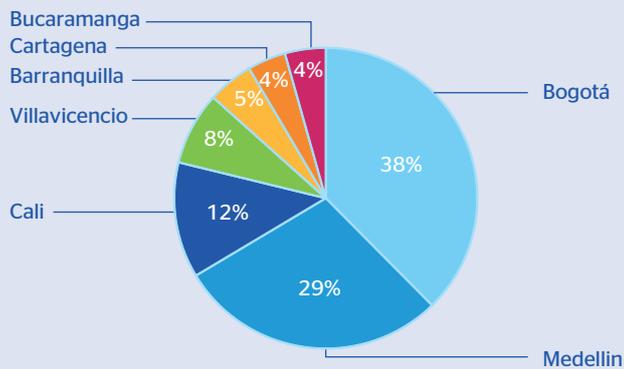
Box. Where is construction taking place and for whom? Is land a restriction?²

The increase in population, migration of people to larger cities and increased level of income in some groups of the population are the main causes of the increased rate of urbanization of the country and the resulting strength of the urban land market. Recent trends in this market have featured a high demand for housing, a limited generation of land and some steep increases in residential prices. This behavior is different by population stratum, and according to some analyses, may be a determinant for the deepening housing deficit of people with lower incomes.

An analysis of the data: the generation of urban housing in the main cities in the country

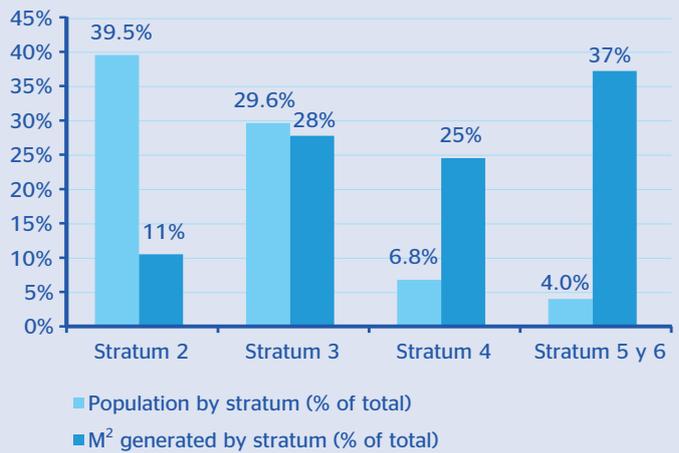
In accordance with the list of new projects in the main cities of the country (Bogota, Medellin, Cali, Cartagena, Bucaramanga, Barranquilla and Villavicencio) recorded in the database of La Galería Inmobiliaria in the last six years, of the total of 54 million m² started, Bogota accounts for 38%, followed by Medellin with 29% and Cali with 12% (Chart 7). By income level, 38% of the m² were for the middle-low income strata (69% of those in strata 2 and 3), 25% for the middle-high income segment (6.8% of the people in stratum 4) and 37% for higher strata (4% of the people in strata 5 and 6). This trend was heightened last year, when 34.6% were targeted at meeting the demand from the high strata, and 39.8% at the middle-low strata (Chart 8).

Chart 7
Construction of m² by city between August 2007 and July 2013. As a percentage



Source: BBVA Research with data from La Galer a Inmobiliaria

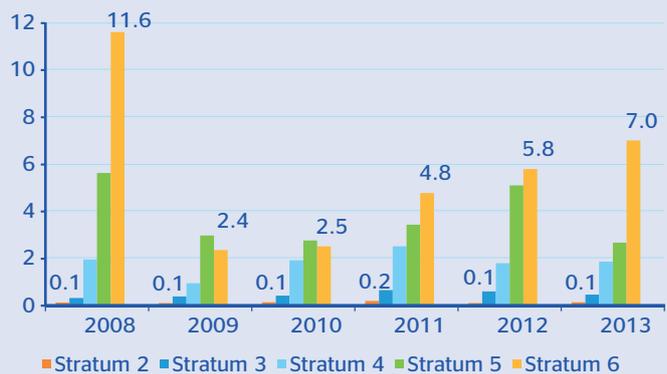
Chart 8
Population and construction of m² between 2007-2013 by stratum. As a percentage



Source: BBVA Research with data from La Galer a Inmobiliaria

An examination of the data from another perspective leads to the same conclusion. From 2008 to July 2013 on average 0.14 m² per person in stratum 2 and 5.64 m² per person in stratum 6 were constructed (Chart 9). In other words, a person belonging to stratum 6 obtains on average 4.05 m² more than a person in a low stratum.

Chart 9
M² constructed per person between 2008 and 2013 Stratified

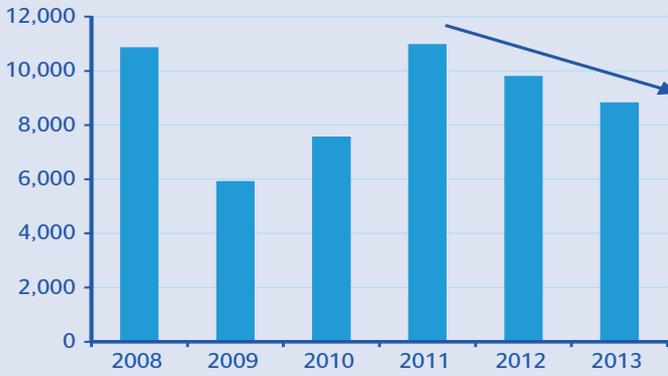


*An average of the 12 months between August the previous year and July of the year in question is used for all the years.
Source: BBVA Research, with data from La Galer a Inmobiliaria

2: This box was prepared by Natalia Montes (nataliaandrea.montes@bbva.com), an intern at BBVA Research in Colombia.

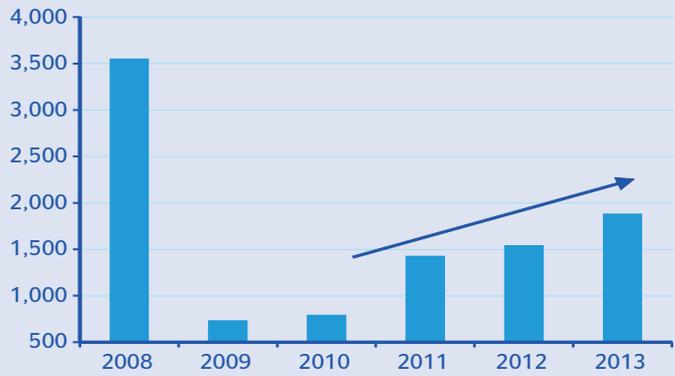
Perhaps the greater supply of homes for the high strata population is being made in anticipation of an upturn in the middle-high and high segments. In fact, in the period 2012-2014 the population with middle-high income is expected to increase by 621,000, and those with high incomes by 512,000. In addition, growth in the population with middle-low incomes should be less marked (432,000) and the low-income population could fall by 864,000. However, there could also be an adjustment on the supply side, provided that the shortage of urban land limits the area available for construction, as has been happening already in some cities. Thus in 2013 (12 months through July), compared with 2011, the m² generated across the country fell by 2.2 million (down 19.6%, Chart 10). New project launches also fell between 2011 and 2013, from 824 in 2011 to 738 in 2012 and 644 in 2013. However, despite this fall at national level, construction of m² in stratum 6 increased significantly in the same period (31.9%, Chart 11), increasing its growing share of total construction. As a result, currently 39% of the projects are aimed at strata 5 and 6, 27% at the middle-high stratum 4 and 34% at strata 2 and 3 (Chart 12).

Chart 10
Total m². Thousands of m²



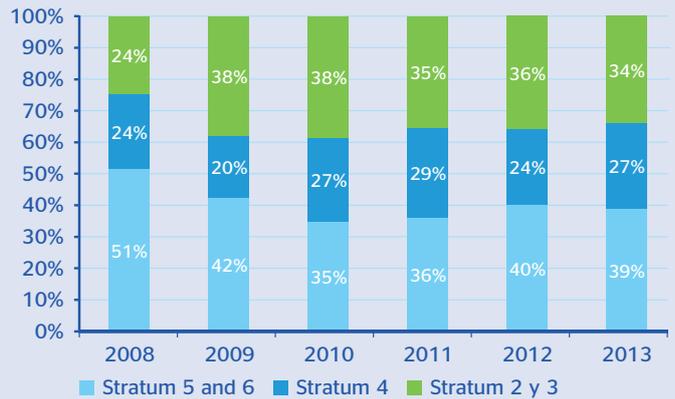
Source: BBVA Research with data from La Galería Inmobiliaria

Chart 11
Total m² in stratum 6. Thousands of m²



Source: BBVA Research with data from La Galería Inmobiliaria

Chart 12
Projects launched by stratum. As a percentage



Source: BBVA Research with data from La Galería Inmobiliaria

The housing deficit and influence of the cost of land in generating urban space

The Colombian population is concentrated in low-income groups. This is where the housing deficit and greatest potential demand is focused. Data from the national survey on the quality of life by DANE gives the quantitative deficit in the country as 406,000 homes (the difference between the number of households, 13.1 million, and the number of homes, 12.7 million). In the specific case of Bogota, with data from the multi-purpose survey of 2011, the number of households with a deficit is 258,000, of which 117,000 suffer from a quantitative deficit and 142,000 from a qualitative deficit. Once more, the relative lack of low-cost urban land appears to be the major limiting factor for the construction of social housing to reduce the housing deficit. In fact, the rise in the price of land gathered pace since the fourth quarter of 2011 (Chart 13), in a similar pattern to housing prices (Chart 14).

Chart 13
Price of land in Colombia. Nominal annual change, %



*The price of land is the result of calculating the annual change of the index of new housing prices (IPVN), minus the annual change in the index of housing construction costs (ICCV).
Source: BBVA Research with DANE data

Chart 14
New housing price index (IPVN). Nominal annual change, %



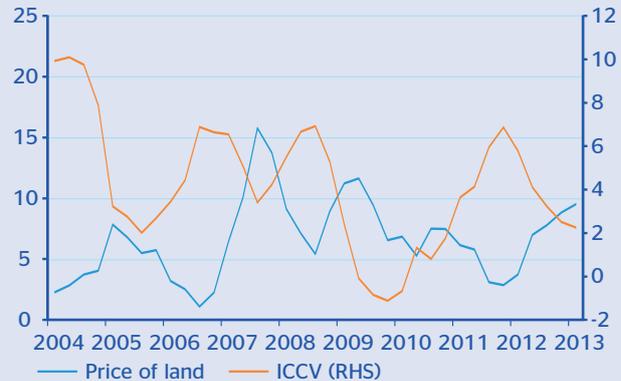
Source: BBVA Research with DANE data

According to Arditi *et al.* (2003) the cost of land is determined by three factors: its possible uses, its quality and market pressure. The latter refers to the price that potential buyers are prepared to pay for the good, depending on its location, their standard of living, alternative uses, the possibilities of development, their preferences, socioeconomic activities and the safety and security of the country. Thus urban land influences the price of housing through two channels: as material support for the building and as an indicator of location. In the former case, it is not the price of land as such that has an effect on the cost chain for the constructor, but the value of the work carried out on it, depending on its quality. In the case of location, to the extent that the home is a good differentiated by its

location, the most solvent population will be concentrated in areas with a privileged location and subjective comforts for which they are prepared to pay.

In addition, CAMACOL argues that the price of urban land is a construction cost and largely explains the recent trend in the index of new housing prices (IPVN) at national level. According to CAMACOL, the price of land may generate a downward rigidity in housing prices (Chart 13, 14 and 15). This theory, which attributes price increases to supply factors, appears to be backed by data, as cities with the biggest restriction on land (such as Bogota, Bucaramanga and Medellin) are seeing their urban prices rise most.

Chart 15
The price of land and the index of housing construction costs (ICCV). Nominal annual change, %



Source: BBVA Research with DANE data

The main challenge for the sector is lack of urban land for construction

The availability of residential land has fallen in recent years, as can be seen in the projects started and square meters generated. This reduction has been most alarming in the case of the low strata, as the current costs of land occasionally restricts the construction of lower value housing, thus extending the housing deficit. One avenue taken by the government has been to boost macro projects, which featured large plots of land on the periphery of the city. They are less expensive and available for priority and social housing. However, this solution requires a wide-ranging provision of public services, and in the absence of some of them, the journey times of residents can increase dramatically. The success of the macro projects, specifically in the city of Bogota, could be affected by the implementation of the new Land Administration Plan, as it restricts construction in the periphery of the city.

The public policy of different cities has varied to some extent. Both in Medellin and in Bogota there are restrictions on the growth of the city. The aim is thus to replace the horizontal expansion with greater urban density (vertical, for example). However, it appears that these solutions are related to new increases in the price of land and incentives to migration from these cities to nearby medium-sized towns.

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4. Prospects for the real-estate sector

Indicators of demand for housing are positive

Figures for the housing deficit based on household surveys

For 2012, the housing deficit in Colombia, measured as the difference between the number of households and the number of homes, was in the order of 400,000, equivalent to 3.1% of the total number of households (based on data from the National Quality of Life Survey, 2012). This percentage could be different to that presented in the 2005 Census by DANE, as unlike the latter, our calculations do not include the housing deficit explained by the overcrowding of households.

One of the characteristics of the housing deficit in Colombia is its greater impact in cities than in the country: the urban deficit is 3.4% of households, compared with 2.2% in rural households. This is presumably the result of increased need for housing in cities due to the urbanization process taking place in Colombia. Breaking down the housing deficit by cities, based on the household survey in the thirteen biggest cities, the highest ratios of households per home is in Bucaramanga (1.15), Cali (1.08), Barranquilla (1.07), Montería (1.06) and Villavicencio (1.06). These cities thus would have the highest housing deficits. The cities with the lowest average ratios of households per home are Bogota (1.03), Medellín (1.02) and Manizales (1.02).

These data also suggest that the housing deficit is more prevalent among the lower strata of the population. In fact, the relationship between the number of households per home in strata 1-3 (combined) is 1.1., compared with an average of 1 in strata 4-6. In the case of stratum 6 the ratio is precisely 1, showing the absence of the housing deficit for this socioeconomic level. It is worth mentioning in this respect that the strata with the lowest percentage of households with a housing deficit represent the smallest proportion of households in Colombia (12.3% of households are in strata 4-6).

Households consider this is a good time to buy a home

The indicators of housing demand remained strong in 2013. The willingness to buy a home (according to the household confidence surveys), corrected slightly with respect to the average level of 2012, was above the historical average for the indicator. To October, the average level of the balance of the indicator was 26.8 (in a range of between -100 and 100), while the average since 2001 has been 21.5. By cities, the households are most optimistic in Barranquilla, a city that has experienced a major urban development in recent years. The indicator in the city of Caribe stands at 35.8, above that of Medellín (32.0), Cali (26.1) and Bogota (17.4). In fact, perhaps due to the uncertainty associated with regulatory issues, Bogota has been the main reason for the national indicator to have moderated slightly in recent years.

In Cali, in particular, optimism is the result of the new economic strength of the Pacific zone, benefited by the increased international maritime trade, the trade agreements signed recently, the entry of foreign direct investment and improved municipal administration. In addition, this city had been lagging behind the average of the country in the last expansion cycle in the building sector, as its unemployment and income indicators were worse than other major cities. This led to lower housing price increases than in the rest of the country. In other words, it has remained attractive for investors and new residents. Now the new regional strength should favor an increase in building for the middle-high and high strata and consolidate a recovery in residential prices.

Low interest rates will continue to stimulate home purchases, although less strongly than at present

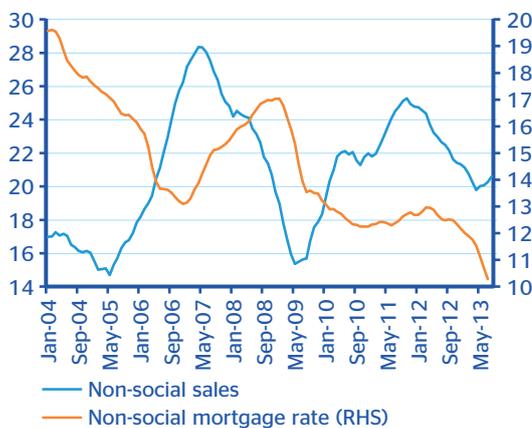
The low interest rates in the financial system have been a fundamental stimulus for home purchase. They are the result of the expansive monetary policy maintained by the Bank of the Republic (Chart 16). The Bank reduced the intervention rate to 3.25% in March 2013, very close to its all-time low of 3.00% in 2010. In 2014, once the economy shows clearer signs of a recovery and consolidates economic growth at its potential level, the profile of monetary policy should begin to reverse, with an accumulated increase of 100 basis points in the interest rate in 2014 and a similar increase in 2015. However, these movements by the Central Bank should not exercise greater pressure on the housing market (or perhaps only marginal pressure), as there will be a positive income effect on households to help offset the greater cost of debt.

However, there is a risk associated with the increased rates of long-term government bonds and their transmission to mortgage lending rates; two financial assets that the economic literature has traditionally connected. Rates would increase against the background of reductions in excess liquidity in the United States, once the Federal Reserve decides to cut its monetary expansion. Its biggest impact is expected to be felt in the first half of next year.

The risk still has a low probability. Since May 2013, when the markets reacted to the announcements by the Fed with increases in the TES rates (Colombian government treasury securities), mortgage rates have barely responded. Thus there is no certainty that if bond purchases in the United States were reduced, with part of the effect already factored in by the markets, there would be an effect on mortgage lending. In fact, mortgages will continue to gain depth in the housing market (Chart 17).

Chart 16

Mortgage interest rate and housing sales in Bogota. E.A. as % and annual aggregate in thousands



Source: Superfinanciera, La Galería Inmobiliaria and BBVA Research

Chart 17

Mortgage loan payments. Trillions of pesos. Quarterly aggregate



Source: BBVA Research with data from Superfinanciera

The financial system has managed greater penetration in the mortgage market

The balance of the mortgage portfolio has steadily picked up the pace of its year-on-year growth since April from 13.5% to 14.0% now, thus increasing its share of GDP from 4.3% in mid-2012 to 4.7% of GDP in June this year. This greater financial depth is a fundamental requirement for converting households' greater willingness to buy into real sales.

Mortgage lending, as well as gaining in share of GDP, has been focused more on higher-value homes (not social housing), which continue to gain a share of the total (70%, compared with

67% at the end of 2010 and 63% in 2007). This trend is a result of the recent boom in the middle classes in the country and provides a positive reading of the demand capacity achieved by Colombian households, which could consolidate in the coming years.

Of the total value of outstanding mortgage loans, the banks account for 77%, the National Savings Fund (FNA) for 14%, and other cooperatives, friendly societies and employee funds the remaining 9%. This competition between traditional banks and the FNA (a publicly-funded body) has allowed the market to deepen its presence in the housing finance. Public policy has also emphasized the role of the financial sector in the mortgage market.

Some of the public support/subsidies for home purchase and mortgage loans will still be in force in the coming months. First, there is the subsidy for the acquisition of a home according to household income, established since the 1990s. Households with income of less than four times the minimum monthly wage (COP 2.4 million) are given a subsidy of up to COP 13.0 million, or up to COP 20.6 million if the family was displaced as a result of violence.

Second, there is still relief on interest rates on mortgage loans when buying a new priority VIP social housing home for up to COP 40 million and from the VIP limit to COP 76.5 million in the case of VIS social housing. The relief consists of a discount on the mortgage interest rate of 500 basis points in the case of the VIP housing and 400 basis points in the case of the VIS housing. As of October, 75,741 quotas were approved in total, 21,040 for VIP homes and 54,701 for VIS homes; under the FRECH II scheme, there was a total of 51,088 quotas, 14,717 for VIP and 36,371 for VIS.

Third, the Plan to Boost Productivity and Employment (PIPE) of April 2013 extended coverage of the interest rate on homes with a value greater than the VIS limit but under COP 198 million. In this case, the government provides a subsidy of 250 basis points, and the financial system undertakes to reduce its interest rate by a further 250 basis points. At the end of October, 19,267 quotas were assigned for non-VIS homes under PIPE, and 12,651 were taken up.

The policy of providing relief on interest rates, in all its versions since 2009, has been very effective, judging by the increased sales following its implementation. Its continuity will be a key determinant to boost demand for housing in 2014 and 2015 (homes with a value of under COP 198 million) and to reduce the eligibility requirements for access to a loan. In addition, there would be greater participation by the financial system in the financing of the mortgage market, which has grown in recent years. In fact, the percentage of new homes financed through the financial system increased from 51.2% in 2011 to 53.1% in 2013 through June. What is more, the perception of demand for housing loans, as noted by the credit institutions, is at its highest level since 2008, the first time the survey was taken. Financial institutions also show some limited concerns in offering mortgages, which could be related to the good asset quality that has been characteristic in recent years (Report on the Credit Situation in Colombia by the Bank of the Republic with a cut-off date of September 2013).

Supply remains strong due to the new focal points of development other than the capital

The confidence of constructors has remained high, confirming that they maintain a substantial stock of work in progress and with a positive valuation of the situation of sector, although they are alert (and concerned) about the regulatory changes, mainly in Bogota. This corresponds to the good health of supply in the sector, where in the three biggest cities in the country (Bogota, Medellin and Cali), only 2.4% of the supply is finished and unsold, 22.2% is in construction and unsold and 75.4% of the projects are pre-sold before work begins.

This better performance of construction, which starting in April with the PIPE plan has reduced its level of stock significantly, is reflected in the upturn in employment in the sector starting in June. In the moving quarter between June and August employment in the sector grew by an annual 4.6% at the national level, after seven consecutive months of falls. Among the main

cities, employment performed best in Medellín (up an annual 18.9%), Barranquilla (up 11.6%) and Cali (11.0%). In contrast, in Bogotá employment in the construction sector continues to fall (down an annual 7.3%) after 11 consecutive months of job destruction.

Demand for supplies and finance also shows a significant change in trend, which will lead to a cycle of expansion in the sector over the coming years. Dispatches of cement, which had fallen by an annual 1.0% in the first half of the year, have begun a steady recovery in the second half to an annual growth of 3.7% between July and August (despite the social protests in August and part of September). As in the case of employment, cement dispatches performed better in some cities other than Bogotá, such as Montería (up an annual 32.4% in 2013 through August), Cartagena (up 18.7%) and Barranquilla (up 17.9%).

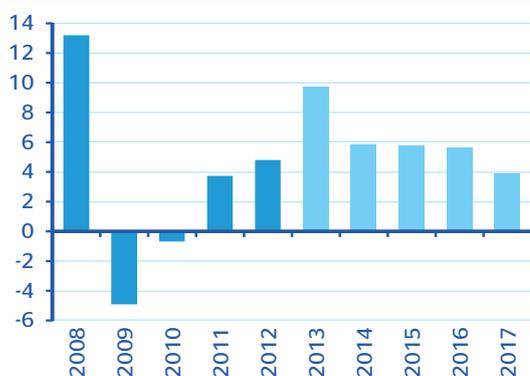
The lower prices of the factors of production (materials, labor force and machinery and equipment) have supported this positive movement. While in 2011 costs increased by an annual 6.9%, they moderated to an annual 2.5% in December 2012, continued to fall to an annual 2.0% in August 2013 and picked up to an annual 2.4% in September this year, perhaps due to the partial closures of some roads by demonstrators.

Meanwhile, new loans for constructors, in a cumulative figure this year to July, were at their highest level since the series began to be published in 2002. In the first seven months of 2013 the financial system paid out COP 1.8 trillion, compared with COP 1.4 trillion in the same period of 2012 (up an annual 29%).

As a result, BBVA Research expects a rising cycle of investment in residential construction, although not as significant as the growth cycle between 2002 and 2007 (13.3% each year) and the start of the 1990s (an annual 14.3%). According to our estimates, between 2013 and 2015 on average residential investment will grow by an annual 7.1% (Chart 18). In addition, if we define the output gap in the sector as the difference between the value observed in investment in buildings and its long-term trend, we see that these prospects for growth would imply the current negative gap will close and a new positive gap will open at lower levels than those previously recorded.

The negative gap in the sector began in 2010, after two consecutive years with lower than trend growth. It will close completely in 2013 and there will be a positive gap from then. The gap will be an average of 0.8% (with respect to the long-term trend). This level is lower than the figure recorded in the 1990s, when there was a positive gap of over 3% (Chart 19). This more moderate expansion in the sector is more in line with the characteristics of expected demand and the higher interest rates faced by those financing a home, which will make expansion more sustainable over time.

Chart 18
Residential Investment. Year-on-year change, %



Source: DANE and BBVA Research forecasts

Chart 19
Residential investment gap. Percentage of the long-term level



Source: BBVA Research

The increased share of social housing in construction permits, from 27% of the total in 2012 to 36% now, partly explains the limited intensity of the new growth cycle: this type of construction contributes less added value to GDP due to the lack of finishing work and the use of lower-value land. In any event, the greater relative importance of social housing is also in line with requirements on the demand side, as we know that the housing deficit is concentrated among people with low incomes.

Housing prices gather pace in 2013

A fundamental factor that will determine the capacity of demand over the next few years will be the price of housing. At a national level, new housing prices increased by a real annual 8.7% in 2012 and accelerated to a real annual 9.6% in June this year. The prices of existing housing also posted high growth rates, with a real annual change of 12.4% in 2012 (Chart 20). Part of this growth in prices can be explained by the relative shortage of land in some large cities (Bogota, Bucaramanga and Medellin) and its different use in high and low value constructions (see Box). In particular, the difference between residential prices in the outskirts of Bogota and nearby towns and those in central areas of the city validate the hypothesis that prices are high due to supply-side restrictions, rather than a general increase in residential prices.

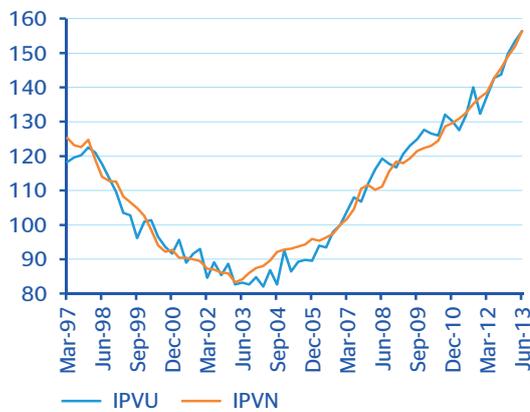
The cities with the biggest gap in sales/supply (see Section 3) have a high rate of price growth. In order according the size of the gap (the difference between sales and new supply), prices in Pereira and Bucaramanga grew by a real annual 9.4%, in Bogota by a real annual 12.6% and in Cali by a real annual 3.9%. In Cali prices do not appear to be reflecting the strong demand, so an upturn is possible in property prices. In contrast, cities where new housing supply is growing more than sales have posted a slowdown in residential prices. In Barranquilla, for example, the rate of growth fell from a real annual 10% in 2011 to 6.0% at present. In Medellin the increase moderated from a real annual 6.8% to a real annual 4.9% in the same period. In total, the phenomenon of price growth has a high level of dispersion in the cities, which is an argument against a country-wide generalization on the overvaluation of housing.

Despite the significant growth in prices, a comparison of household income (corrected for interest rates) concludes that the ability of households to raise finance remained relatively stable between 2008 and 2012 and has fallen marginally in 2013 to date. This can be deduced from the proportion of disposable income that households dedicate to the first payment of their mortgage, called the Index of Effort.

According to the most recent figure, families dedicate 24.7% of their income for this purpose (calculations of BBVA Research), under the limit of 30% imposed by the law. At the same time, when comparing the average price of a home with the average annual income of a household, it can be seen that this indicator has been stable since 2011, although above the levels mid-way through the previous decade. In total, a household would have to dedicate 3.6 complete years of its disposable income (after tax) to buy a home, above the 3 years required in 2005 and 2008 (Chart 21, calculations by BBVA Research).

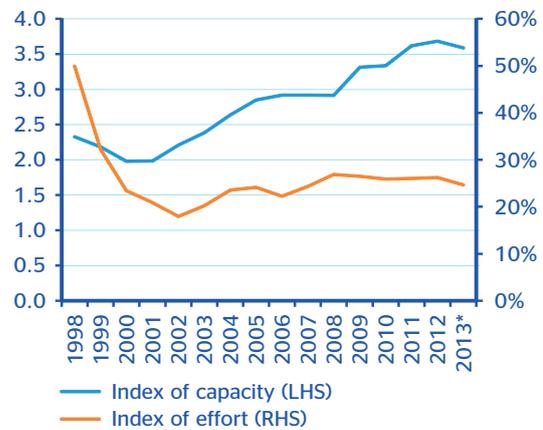
By way of comparison, in Spain households had to use 7.7 years of their disposable income to buy a home and 39.7% of their monthly salary to pay the first mortgage payment in 2007. In other words, also in international terms, the current indicators appear healthy. At the same time, despite price growth, families have maintained a similar purchasing power (or even higher thanks to low interest rates) to that of the years before the international crisis of 2008-2009. This provides room to maintain structural demand for housing in Colombia, particularly given the high housing deficit in the country (see Box).

Chart 20
Real new and existing housing prices.
Annual % change



Source: BBVA Research with data from DANE and the Bank of the Republic

Chart 21
Index of capacity* and effort**.
Number of years and percentage



*Number of years of disposable family income required to buy an average-priced home **Percentage of family income dedicated to the first payment of an average mortgage.
Source: BBVA Research

However, the profitability of housing, measured through the indices of rentals, has been deteriorating fast, at the fastest rate since 2003 (Chart 22). This indicator contradicts the measurement of the value of housing, as according to a financial theory, the price of an asset is determined as the sum of all its future expected returns. If this idea were true, it would anticipate a fall in housing prices to coincide with its lower returns.

Even so, recent progress in infrastructure, mining and the urban economy, with the resurgence of major new urban centers, have maintained significant support from the demand side, reducing the risks involved in the valuation of housing. In the future, however, a correction is necessary in price growth to avoid a greater overvaluation.

There are some factors of a political and practical nature that will support price growth. First, the government subsidies to middle-level homes should end next year, because the upturn in economic activity in 2014 will make public support unnecessary. If the subsidy were maintained, the effect on prices and the speculation by investors buying property would outweigh the boost to activity. Second, the terms of trade will be weaker, as oil prices have less room for growth and the price of coal will remain limited by the supply of non-conventional hydrocarbons. Three, medium-sized cities with recent high price rises will moderate their prices, as they are already closing the gap they had with other cities that had developed earlier. Finally, although prices will grow at a slower pace, they will be sustained by the shortage of land (mainly in Bogota, Bucaramanga and Medellin).

Chart 22
Rental/housing price ratio 2005=100



Methodological note: rentals taken from the CPI. Housing prices refer to the main cities.
Source: BBVA Research

5. Conclusions

The building sector will be one of the leaders of GDP growth in the coming years. Its performance will be boosted both by greater strength of household income and by the consolidation of the public policy of support to the sector (through stimuli to demand). However, this expansion will not be as strong as in 2005-2007 and at the start of the 1990s; in other words the gap with respect to long-term levels will be positive but narrower than in the previous expansive cycles. This is due to the fact that there is more concentration in social housing, where demand and the housing deficit is greatest. It will not be offset by the better balance of commercial buildings with a high added value. Thus we consider that this growth cycle will be more sustainable over time and have fewer pressures on household and constructor debt, giving room for the expansive phase to be longer-lasting.

In addition, the reduced supply of high-value housing, in some cases restricted by lack of urban land, will allow a gradual adjustment of the market for existing housing in the high strata, thus reducing their selling times. It will also allow new more vertical constructions to be offered in the Colombian cities that still have room to increase their height (such as Bogota, Bucaramanga and even Medellin in some specific areas with low geological risk). Regionally, a strong upturn is expected in Cali, first in the middle strata, then after a few years of consolidation of trade, income and the labor market, in the middle-high and high strata.

The building sector will have to face a number of challenges in the coming years. First, restrictions on expansion in cities (Bogota, Medellin) will change the model of housing supply from peripheral areas to central areas, with high constructions. Local governments will have to commit themselves to better and more extensive public infrastructure to avoid a collapse of the processes of housing concentration.

Second, the expected increases in interest rates as a result of the withdrawal of the monetary stimulus in the United States and Colombia, could end the trade-off between the lower cost of finance and increased prices and steadily reduce the purchasing power of households, despite the expected growth of their average income.

Finally, the increase in prices of itself also constitutes another risk factor if it remains significant and therefore above the increase of internal wages for a number of years. According to our calculations, to avoid these prices will have to rise under an annual 6% real growth in the coming years. This slowdown will correct a moderate overvaluation in the residential market, with a greater focus on some of the country's cities. In addition, it would be more consistent with the indicator of rentals as a proportion of the housing price. Lower prices would be justified in the stability of the terms of trade, lower public subsidies to the middle classes and weaker property prices in medium-sized cities with greater recent development.

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