Real Estate Watch

What’s behind the low supply of existing homes for sale?

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The inventory of existing homes for sale has declined year-over-year for 21 consecutive months

Locked low mortgage interest rates and short supply of new housing have contributed to the current situation

The high share of homeowners underwater does not seem to currently play a major role

Low unsold inventory is expected to persist, underscoring the need for new housing units

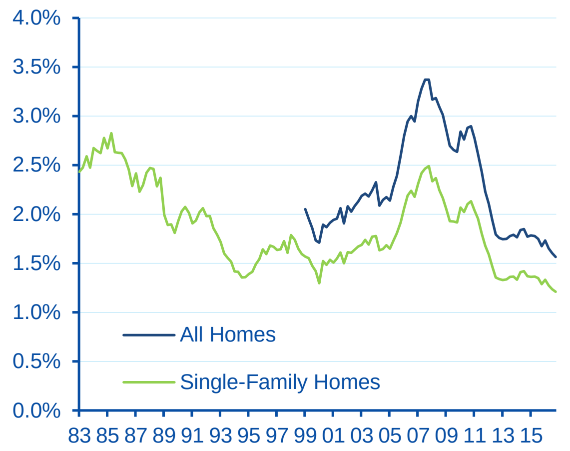
The existing homes market is experiencing significant supply shortages, supporting strong price appreciation. According to the National Association of Realtors (NAR), the supply of existing homes for sale in the fourth quarter of 2016 was close to four months at the current sales rate (seasonally adjusted), versus a historical average of around seven. During the first two months of 2017, market conditions tightened even further, prompting further price appreciation and pressures on affordability. As a result, the ratio of homes for sale to the housing stock has reached a historically low level (Figure 1). This brief analyzes three often cited supply-side causes behind the current existing home market tightness and draws conclusions on what we can expect in the short- to mid-term.

Homeowners underwater?

One of the explanations offered as a reason for the low supply of existing homes is the elevated share of homeowners underwater — 10.6% in 4Q16 according to Zillow. The logic is the following: homeowners that are underwater are less willing or able to sell their property, which leads to lower listings. While changes in the share of underwater mortgages lead and are negatively correlated with changes in inventory of single-family homes for sale (Figure 2), an analysis that takes into consideration changes in prices and actual sales does not provide clear evidence that the share of underwater homeowners is a driving factor, but rather an effect from declining prices due to lower demand (Figure 3). While the large share of underwater homeowners was likely one of the channels through which the decline in prices led to a drop in listings earlier in the recovery, it is likely not a significant factor currently. Looking at 2015 data, we find that the relationship between the share of homes underwater and the ratio of listings to the total number of homes in twenty of the largest metropolitan statistical areas (MSAs) is positive and significant (Figure 4) and not negative as the hypothesis would suggest. This finding holds true even when using a larger sample of MSAs and adding some time perspective using a fixed error panel regression model, which by its nature, accounts for some of the differences across MSAs. Furthermore, if the share of underwater homeowners was a significant contributor during 2016, we would have likely seen stronger increases in the number of homes for sale due to the steady and significant decrease in underwater homeowners, not a decrease in new listings in the second half of the year, as was the case.

Figure 1

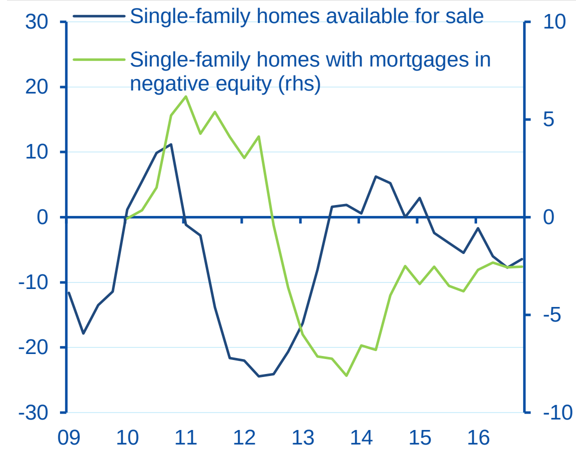
Existing homes for sale (seasonally adjusted) to housing stock
Ratio %



Source: NAR, Census & BBVA Research

Figure 2

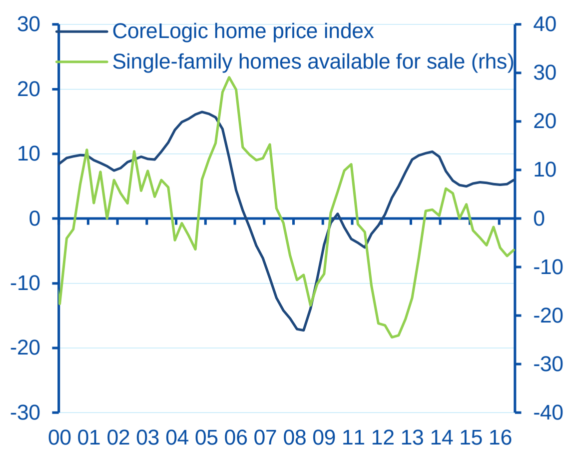
Inventory for sale and share of underwater mortgages
% YoY and p.p. YoY



Source: NAR, Zillow & BBVA Research

Figure 3

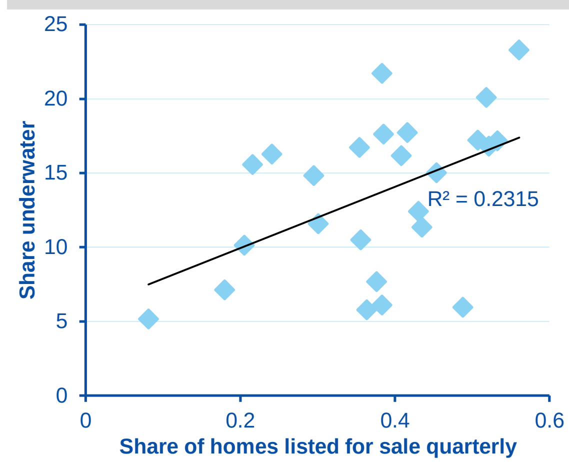
Home prices and existing homes inventory
% YoY



Source: NAR, CoreLogic & BBVA Research

Figure 4

New listings versus homes underwater by MSA in 2015, %



Source: BBVA Research calculations based on data from Zillow, Redfin & Census Bureau

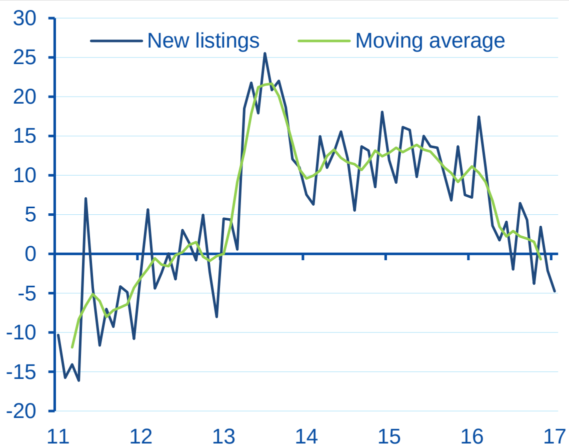
Low interest rates locked in?

The noticeable slowdown in new listings in the second half of 2016 is visible in the data provided by Redfin (Figure 5). One of the possible explanation behind this trend is that a large number of potential sellers have already locked in mortgages with low interest rates after purchasing or refinancing their homes during the post-crisis low-interest rate period. With mortgage interest rates increasing and labor market conditions improving, these potential sellers could be more reluctant to upsize, downsize or relocate if they are confronted with higher monthly payments.

While the most important driver of new listings is home price appreciation (Figure 6), we find that the data also support the “locked in low mortgage rates” explanation. To test this hypothesis, we calculate the volume of new listings using monthly NAR data on single-family homes for sale and single-family home sales. Using an ARCH model with an ARMA process of monthly log differences of the calculated new listings as a dependent variable and log differences of the CoreLogic home prices index and five-year differentials of the 30-year fixed mortgage rate as independent variables, we find that the five-year interest rate differential is inversely and significantly correlated with the growth rate of listings. More specifically, a one percentage point differential is related to around 0.35 percentage points lower month-over-month growth of listings (see Table 1), which is equivalent to 4.3 percentage points lower growth of listings on an annualized basis.

Figure 5

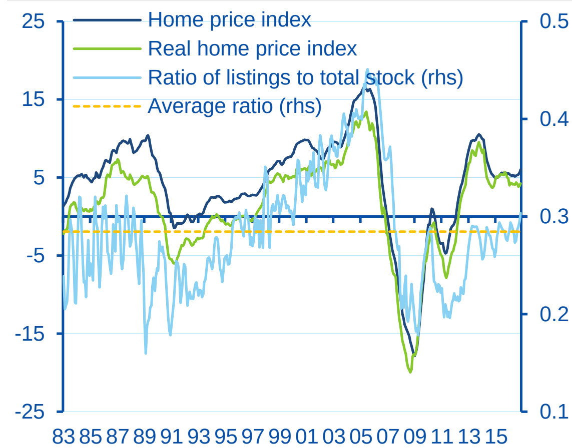
New national listings
% YoY



Source: Redfin & BBVA Research

Figure 6

Home prices and relative supply
%YoY and % ratio



Source: CoreLogic and BLS & BBVA Research calculations based on NAR data

This finding provides support to the view that the relatively low supply of existing homes for sale in light of the strong home price appreciation over the last few years is, to some extent, caused by increasing fixed mortgage rate differentials. This effect is also likely a contributing factor to the significant slowdown of listings in the second half of 2016 that was observed in the Redfin data, as mortgage interest rates bottomed out during the summer, thereafter contributing to higher and increasing mortgage rate differentials (Figure 7).

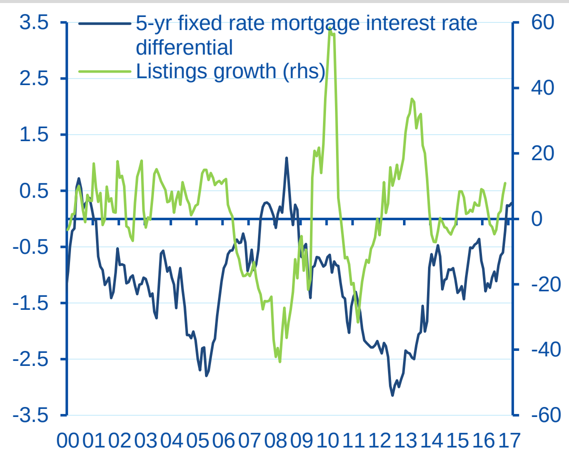
Low level of new housing units?

The third explanation for the current low supply of existing homes for sale is related to the supply of new units. This hypothesis assumes that one way to boost the supply of existing homes for sale is by increasing the supply of new units, which would positively affect new listings in at least three ways. First, newly constructed homes increase the number of homes that will be eventually resold by the original buyers at some other point of time. Second, stronger construction activity increases the options to homeowners that want to upsize, downsize or move, but need to list their original property first. Finally, increasing construction in the short run could incentivize homeowners to list their properties before the new construction hits the market.

While housing starts are coincident and strongly correlated with new monthly listings (Figure 8) because they are both driven by the same fundamentals, two statistical models provide support to these hypotheses. An investigation into the relationship between housing starts and new listings suggests that the causality, as expected, runs from housing starts to new listings. Moreover, stronger growth of housing starts in one year contributes to a strong increase in listings during the following four years (Figure 9) with a relatively small pullback thereafter. Thus, as expected, the increase in construction activity has positive mid-term effects on the supply of existing homes. This also implies that the low levels of housing starts after the financial crisis is a contributing factor to the current existing home market tightness.

Figure 7

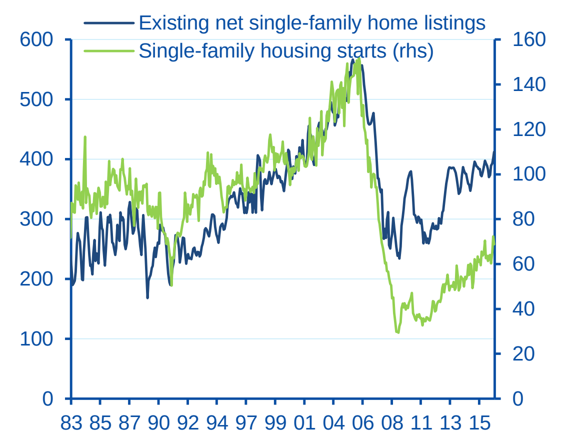
Interest rate differentials and new existing home listings
P.p. and %YoY



Source: FRB & BBVA Research calculations based on NAR data

Figure 8

New monthly listings and housing starts
Thousand units, seasonally adjusted

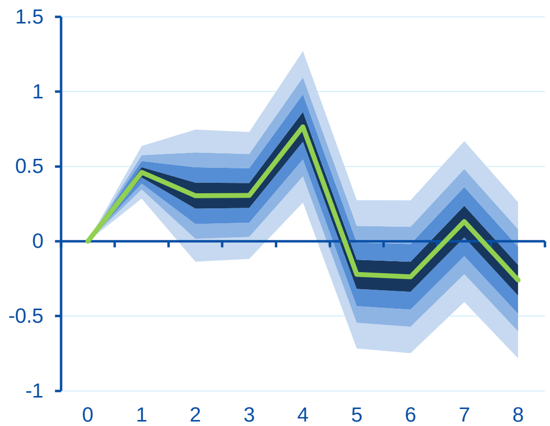


Source: Census & BBVA Research calculations based on NAR data

To investigate the more immediate effects of housing starts on new listings, we add the monthly data on housing starts in a log difference form as an independent variable to the previously-described ARCH model. The results confirm that the increase in the level of housing starts leads and is significantly positively correlated with the increases in new listings (Table 1, Model 2), while taking into account the effects of home prices and mortgage rate differentials. These results suggest that while increases in interest rate differentials will have a negative impact on new listings, the effects could be mitigated if housing starts accelerate.

Figure 9

Impulse response function (impulse=growth of starts, response=growth of listings)
Years



Source: BBVA Research

Table 1

ARCH model results
Dependent variable: new listings

	Model 1	Model 2
Home price index	0.5932***	0.5512***
Interest rate differentials	-0.0035***	-0.0035***
Housing starts (L1)		0.0243**
Housing starts (L2)		0.0216*
Constant	-0.0048*	-0.0047*
ARCH (L1)	0.2237***	0.2266***
GARCH (L1)	0.7495***	0.7468 ***

* p<0.1 **p<0.05 ***p<0.01%

Source: BBVA Research

Bottom line

This brief looked at three potential supply-side explanations for the low supply of existing homes for sale. We find no evidence that the elevated share of homeowners underwater is currently significantly suppressing the supply of existing homes for sale. However, we do find evidence that supports the other two explanations — that the period of low interest rates after the crisis and the low level of new housing supply are negatively affecting the existing homes market. These findings also suggest that listings will be constrained in the foreseeable future because interest rate differentials are likely to be higher than in the past, as interest rates continue to gradually increase. However, if housing starts increase at a faster pace going forward, the pressures can be contained.