



Home Truths about the Housing Market

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The sub-prime mortgage crisis and the credit crunch that has followed in its aftermath are taking their toll on the housing market. On August 28, the S&P Case-Shiller U.S. National Home Price Index showed that home prices fell 3.2% in the second quarter. According to the National Association of Realtors, the inventory of unsold homes is at a record high. As sales have fallen, many home builders have seen their stock prices drop by more than 60% during the past year. How serious is this situation? Is there light at the end of the tunnel? [Joseph Gyourko](#), director of Wharton's Samuel Zell and Robert Lurie Real Estate Center, and [Todd Sinai](#), a professor of real estate, spoke to Knowledge@Wharton about these questions and more.



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Transcript:

Knowledge@Wharton: The S&P/Case-Shiller Home Price Index, whose latest figures were announced on August 28, indicated that U.S. home prices fell 3.2% in the second quarter. What impact have these slowing sales had on home builders?

Sinai: The slowing sales are really a reflection of the slowing of the housing market, which is a sign that the home builders really don't have a lot of demand to build into. You can see that in their share prices; you can see that, during the boom, these companies were doing very well -- and that when we have a slump, it dries up.

During the boom, you need a lot of construction. People were moving into new households, or so people believed, and the construction increased in order to meet that supposed demand. And, when that demand dries up, for whatever reason -- and at this point it seems to be drying up for credit companies -- then there is no one to build for.

These are companies that have two sources of value: One is the flow of new construction delivering housing to the market, and the other is speculating on land in the future. And, in an era where there is less demand and declining values of housing and land, those two assets are going down.

Knowledge@Wharton: Thanks, Todd. Joe, do you have anything to add to that?

Gyourko: Just one point. I think the issue for home builders, as Todd noted, may not be so much the price as it is the declining transactions volume. The number and velocity of sales are going down. They'd certainly like to sell their homes at higher prices, but home builders are really manufacturers. They're just manufacturers of a good called "housing," and they make their money on volume to a large extent. And when volume goes down, they're hurt, and that's why their share prices are down.

Sinai: If I can jump in for a second, I think that there are two factors that go into that. One is the transactions that Joe just mentioned: They make their money on volume. But the other is -- if you [use] the manufacturing analogy -- they've built up inventory. They've been building up a tremendous amount of inventory -- which, I think, they've priced on the assumption that it would sell. And what they are finding themselves with, essentially, is the equivalent of warehouses full of stuff that's really not selling just yet.

Now, the good news for them is that just pure population growth means that they can sell two million of their inventory per year. So an overhang of 3-4 million houses means that you're looking at a year's worth

of excess inventory at normal rates of acquisition. But they've built a lot, and right now they're not going to be able to sell it until the credit markets turn around.

Gyourko: One final point: The other major loss that they're having is in land value. They're having to write down the value of their land because this inventory of land that they've built up -- [if] they can't put homes on it and sell those homes -- is worth much, much less than what they bought it for. And that's the other thing that is depressing their share prices.

Sinai: I think that it is also important to keep in mind that we tend to talk about home builders as these big national entities, and some of them are. But, really, the effects on their land and their inventory of houses really depend on the markets that we are talking about. Really high excess markets, like south Florida, are where home builders are basically in trouble, and I don't think that we've seen the bottom of that. I think that it's going to go down quite a bit.

And then there are other markets where it historically has been tough to build. A lot of houses were not built in those markets. Those areas are not overbuilt and the land hasn't come down. So, for the country as a whole, I think we are seeing a big decline. But for various cities, it depends really very much on what city you are talking about.

Gyourko: Right, if you look at the Case-Shiller Indexes, which were down in aggregate year over year and for most cities, in Seattle they were still up, year over year; and in Charlotte, they were up a decent amount. So, these markets are local -- most are down, but not all.

Knowledge@Wharton: As both of you have said, home builders clearly have a problem. The credit supply is tight, demand has fallen, stockpiles of unsold inventory are going up and their share prices are coming down. Did you find that there were any home builders who are adopting innovative strategies to deal with this downturn? Or, if not, what advice would you give them? What should their strategy be in this downturn?

Gyourko: Well, I think that different home builders have tried different things, and we don't yet know what will work because the negative market effects are overwhelming almost anything that anyone is doing right now. Some home builders have tried to reduce inventory by cutting prices; others have decided that they're not going to cut prices and that the market will recover relatively quickly -- and that, therefore, they should just hold their inventory. I suspect that the former are more right than the latter. But this is a really pretty severe negative effect for them, and I'm not sure that there's a really great strategy out there. What I think this reminds us all of is that the land market is volatile, and you better not over-lever.

I think that is going to be the lesson in this cycle, which is the same lesson from the last down housing cycle. Those who really over-levered got into serious trouble. And I think that is really going to be the case here because we have a credit crunch, not just a fall in demand for housing.

Knowledge@Wharton: Todd, do you have anything to add?

Sinai: I think that's pretty much exactly right. As Joe noted, I think the really important point here is that we are really at the very beginning of seeing what is going on. And, what we are seeing in the credit markets is a re-pricing of risk.... Initially, investors were pricing their investments, and the kind of deals they were asking for were ones where they had a historically low premium required for the risk that they were taking. And now, the pendulum has swung much the other way because I think that people really don't understand exactly how much risk they are taking and I'm sure that they are waiting on the sidelines to see.

The fortunes of the home builders, in large part, are going to depend a lot on how quickly that pendulum swings back to the middle. This is because so much of the value of the assets they held, the ability of people to buy these houses and the value of the land that they were putting these houses on, was so dependent on the credit market and the fact that credit was easily available. This also means that they were highly susceptible to a tightening of the credit markets.

They get that at two ends now. One is the value of their assets and the other is the cost of their leverage and the cost of their capital that they are using. So, to Joe's point, highly over-levered companies are in

trouble for two reasons: One is the cost of their capital -- their debt capital is more expensive; the other is that they can't ride out the downturn. But, this just means that they are even doubly sensitive to changes in the credit market.

Knowledge@Wharton: What are some of the changes that are happening, then, with the actual sub-prime lending market, that are directly impacting the homebuilding industry?

Gyourko: It's radically shrinking. I think this is a longer-term phenomenon, not just the short-term phenomenon that we had seen in August, where the credit market seized up and for a couple of weeks you couldn't get jumbo loans in the prime markets. In other words, these were not credit impaired borrowers; these were regular people, with good FICO scores and the like, who, if it wasn't a conforming loan, they couldn't get a loan for a couple of weeks. That hiccup has, I think, disappeared largely.

But what you are seeing is -- to Todd's point on the re-pricing of risk -- we now understand that really highly levered mortgages to people with impaired credit, or with very, very little equity down payment, possibly none, have higher default rates and they're riskier. I think the biggest change that we're seeing now is the elimination of these mortgage lending programs, particularly by non-banks. Capital One has shut down its sub-prime unit. Lehman Brothers shut down its sub-prime unit.

I do believe the regular banks with stable depositor bases will step into this void, but it will take a while. If you look at the data, the fraction of non-prime mortgages issued tripled in this last up cycle -- from below 10% to about 33%. I think that it's going back to below 10%. And, by the way, that would be no different than what happened in the last down cycle, in terms of really highly levered loans and loans to people without sterling credit. So, that market is going to shrink and it will just cost more to get that debt. Right now you can't get it at all, almost -- but that will pass.

Sinai: I'm not quite as bearish as Joe is here. I think the sub-prime portion of this market is really a bit of a red herring here. I think it's a focal point that people are concentrating on. It really is a nice catch phrase for the kinds of excesses that were going on in the lending market. But I don't think that it was driving home values. I don't think that it was driving most of the markets that we were looking at.

It's absolutely true, I think, that sub-prime lending has shut down. That's a very small sector of the market. I think it was even smaller than it looked on paper because people who could have gotten non sub-prime loans in part were shifted to sub-prime because it looked like easy money. And so, I don't think the credit markets have dried up for those people. I think that it has gotten more expensive on the whole to borrow. But, we have seen that kind of increase in the expense before.

This increase in expense has really been driven by a couple things. The first is that the whole risk of the kind of securitization structure that has driven the availability of cheap capital is being re-evaluated to a degree. Keep in mind that one of the things that has happened over the last decade is that we have had a really quite impressive decline in the cost of capital, as you can see reflected in the kind of interest rates that are charged.

And that, in part, has been driven by the ability to diffuse the risk across lots of investors for securitization. That process has really driven the decline in the interest rates -- to the degree that, right now, people are quite unsure about that securitization process and whether the kind of risks that they thought they were taking when they were investing in those kind of products were really what they were getting.

We're going to have a period of stepping back. I think that we have stepped back too far. I think that we will step back again ... to not-so-far rather quickly. I think the last time we had a significant hiccup in these kind of credit markets, that was on the commercial side, was in 1998 with the Asian Debt Crisis. And that was about a six-month disruption.

In part, I think the things that make the pendulum more prone to swinging and the things that make this market much more volatile is its integration with the capital markets. And, that is the very thing that will make it swing back relatively quickly. We have very sophisticated and pragmatic investors, who have reduced the costs of borrowing in the housing market, or the commercial mortgage market, or whatever

markets that you're looking at, because they were searching for yield anywhere. And, the capital was moving to whatever was providing the best return.

After they figure out what exactly the risk-adjusted return is in this housing lending market, the capital will be there again. And this will be fairly quickly, because there will be people out there who are looking to arbitrage the rest of the world's uncertainty. You can't do it right away; people have to figure out what's going on. But I think that it will come back fairly quickly.

This is not an innovation that's just going to disappear. It's not what some people talk about as the disappearance of sub-prime and it's not the comeback. That's not really the issue. The question is: Is the availability of cheap capital -- because we're willing to let people borrow on houses through the world's capital markets, rather than from just savings and loans and thrifts and that's going to lead to cheaper lending -- is that innovation here to stay? And, I think that innovation is here to stay and that we will have lower real interest rates for the housing market going forward. Now that's the bullish part of the story.

The bearish part, however, is that we've had phenomenally low interest rates. And by interest rates, I mean cost of credit, its high long-term values, its really aggressive terms, [and] not having to advertise the mortgage quickly or even at all. All of that rolls into what I mean when I say interest rates.

You have very loose credit to the housing market, and we've had loose credit throughout the U.S. economy, in whatever sector we are talking about. And to the degree that tightens, that really has a very strong negative effect on the values of housing, as well as on a lot of other assets, but particularly housing.

A lot of the rise in house prices that we've seen over the last decade and house values that we've seen over the last decade have been driven by the decline in the cost of capital. The other side of the coin is, as that capital market tightens for housing, those prices go down. For anyone who is involved with the housing market -- meaning home builders, whose fortunes depend on the continued demand for houses -- a decline in demand, especially if it is driven by tightening credit, is going to hurt them.

Gyourko: Let me follow up with one point. I agree with Todd -- that the sub-prime market won't disappear. I also agree that the real causes of the decline in the sub-prime share -- let's call it the non-prime share, rather than sub-prime, because it's not just an issue of lending to people with impaired credit. The cost of that is going to go up, and I think that it is going to go up quite a bit.

And, given that higher cost, I think that there is going to be a lot less demand to be a homeowner from that group of potential borrowers. I think the big reason for this is because of really, really high loan to value [ratios]. Ninety-five percent plus [ratios] are largely going to disappear, unless it is done by a government agency like the FHA.

When that happens, and you have to actually put down 5-10% for a home -- a typical home will cost a quarter of million dollars; 10% percent of that is \$25,000 and 5% is \$12,500 -- that's going to take a typical household a couple of years at least to save for. And, it is during that transition period where the demand for those types of loans and to be a homeowner [will] shrink quite considerably.

I think that's the real negative force on home prices. Even if the lending market comes back, the new standards to get those loans will be sufficiently tighter; there will be a segment of the population that heretofore has been easily transitioning from renting to owning and won't find it so easy. It will take them time to amass the savings for a down payment.

Sinai: I agree. I think, however, that going from the high loan to value ratio for the young end of the spectrum to really figuring out what is going to go on in the housing market, is a fairly nuanced and complicated thing that's really hard to predict.

In particular, we've seen two trends over the last 15 years, when interest rates have been falling. One is an increase in the home ownership rate on the young end of the spectrum -- families under the age of thirty. And that undoes the trend that had been there before, with people getting married later and buying houses later. I really believe, as Joe seems to believe, that that is due to the ability to borrow at higher loans to value. It doesn't take as long to amass a down payment.

Now, how big an impact is that? It's really hard to tell. We have decent survey evidence that before that

period, people were able to get that money for a down payment from their families. But there appears to be a correlation in the data that says that as credit has loosened, people are buying houses earlier. However, another trend is going on: People are staying in their houses longer as they get older. We are entering a period where we have a large and rapid increase in the older end of the spectrum.

You have the baby-boomers getting older, and they're not moving out the way that people have previously. So, when you think about total housing demand, you need to consider the fact that over the next year, year and a half perhaps, we're going to see less demand from people who were at the "I needed help with the down payment" end of the spectrum, but more demand from people who formerly would have moved out of their houses at a younger age, but no longer are doing that. They're staying in their houses until they're ninety.

And, those two offset to a degree, and it's really hard to tell which is going to win. It probably means, at least for the foreseeable future, that those seniors, since they're such a large demographic, are going to do well. But, you know what? The people who are just entering the home-buying age are also a relatively large demographic, because they're the Echo boomers. So, that is very difficult to tell -- which is going to win out on that front.

Gyourko: Don't you think that it will vary by project?

Sinai: I think that it is going to vary by market....

Gyourko: This is why it's hard to generalize.... Some projects home builders have are targeting the demographics that Todd's talking about. For instance the rise in the home ownership rate among those over 75 was very high and was on the order of the rise of households under 45.

It depends on which projects are targeted towards which demographics. They're often very, very different projects. So I think that Todd is exactly right. It's really hard to generalize. Although, I think that we both agree that there's been a negative demand and shock to the housing market. And, we're both glad that we're not home builders.

Sinai: Yes -- it's certainly negative relative to a year and a half ago.

Knowledge@Wharton: What kind of implications does the U.S. market have on the global residential market?

Gyourko: I think what happens in U.S. credit markets certainly can have global effects. What happens in Europe and Asia because the Miami market is depressed -- I think that it's miniscule to nothing. I think the big spillovers are from credit market problems, because we are such a big part of that. And, it also appears that foreign investors bought a decent share of the sub-prime. It was not just American. But, I don't believe in general that what happens in a local U.S. housing market has a very big effect outside of that market.

Sinai: What is happening in local U.S. housing markets is a reflection of something that is going on in the credit market. It's a symptom of something that is fundamentally going on in the U.S. economy.

Gyourko: It's the re-pricing of the risk that you were talking about.

Sinai: It's a re-pricing of the risk. It's a tightening of the credit. Now, those same fundamentals are going on in other countries as well. So, I agree with Joe completely that the risk re-pricing is global.

None of the outcomes that we're seeing in the U.S. market -- the decline in sub-prime lending, bankruptcies of a couple companies, or falling home values -- are going to affect the European market. But the same things that are causing [these things] to happen here can happen in global markets.

Gyourko: It's the capital markets that are integrated, not the housing markets, per se.

Sinai: Exactly.

Knowledge@Wharton: I'm going to ask you both to imagine that the CEO's of the top five U.S.

home builders are in the room with us right now and they have two questions for you. One is how long am I going to go through all of this pain? And, what do I do in the meanwhile? What would your advice be?

Gyourko: I'm not sure I know what they should do in the meanwhile. But I think that I may be a little more pessimistic than Todd here. I think that the slump will probably last into 2009. Before the credit crunch, I thought that sometime in 2008 we would get better. I'm more worried now.

I don't know enough about individual home companies, [except] the point I made earlier about less leverage is better in these markets -- but there may not be anything that you can do about that. Your capital structure was probably set before. I only have this, for the future: We all need to remember, leverage really is risky. And it's risky in cyclical businesses like homebuilding and real estate in general.

Sinai: We tend to get snookered by the fact that we've had a dozen years of housing sector prosperity -- from 1995 to 2007. There was really only a decade -- from 1995 to 2005. Our memories are short; we tend to only look back to that period. I think that people who are running these homebuilding companies, their memories are not as short as the rest of ours are. They recognize that their industries historically have been highly cyclical, because the housing market is cyclical.

As Joe mentioned earlier, they are in the production business, and when people need your product and you make it, you do well. And, when people don't need your product and you can't make any more, you don't do so well. This is a fact of life, and whether you want to survive the downturns, it's -- to a degree -- a matter of how much leverage you take on. This is just a choice of how much risk to take on versus how much return to take on.

You can take on more leverage and take on more risk and also get a higher return and you'll see when the market turns. And so, companies can easily have different strategies about that. I think the issues going forward are really going to depend on what happens in the credit markets. Joe said that his view depended on what happened with the credit crunch for the kind of softness that we had seen in the housing market.

Even before the credit crunch, I thought that some markets were very overpriced. I'm not a person who believes in housing market bubbles. But, I am a person who believes that housing markets really have fundamentally, in the last decade, been driven up in price by the availability of credit. And, in some markets it was clear that prices were unexplainable, and most of south Florida would fall into that case. Even before the credit crunch, I thought that house prices were 30% overpriced there.

After the credit crunch, I think that there is no place for them to go but down --though you might not actually see them go down. You might just see nothing much sell and eventually the market will catch up. But for the rest of the country, the states that weren't quite as out of balance as places like south Florida -- what's going to happen?

Well, the higher costs of capital, the tighter credit, really have a disproportionate impact on what we thought of as the "hot" markets. These are the markets that were really booming before, the San Franciscos of the world, the New Yorks, the Bostons and the Los Angeles. They'll take a disproportionate hit in overall demand, not just from sub-prime, but the fact that it's going to be more expensive across the spectrum to get capital for housing. So, depending on which market the home builder concentrates in, they're going to see a differential impact....

If the credit crunch gets worse, I think we will see an even bigger impact in the housing markets and therefore an even bigger impact on the home builders. It's going to be even more protracted.... We were talking about the two things that home builders have -- the value of the land that they hold and then the production business of building houses. The value of the land that they hold can go down quite a bit. While at some point, we're going to need to produce more houses just because we're not getting any fewer people.

We've got to keep in mind that as the credit market tightens, we're still growing in population. We're still going to need houses eventually. And, that puts a cap on the home builders not producing housing. Though, Joe mentioned that one thing that happens is that the home ownership rate goes down. So, some of the housing that might get produced might not be single family detached houses that these home builders are making. They might be apartments that get produced in the future, because people can't

afford to own their own home. But that is one factor that goes on. But what it means is that what happens with the Fed and what happens with the global capital markets really are going to determine this.

And, in particular, because interest rates in the credit market have been so loose, just little bits of tightening, things that we wouldn't have worried about a decade ago -- 50-point basis increases in the borrowing rate or a percentage increase in the mortgage rate -- really have an enormous impact on the pricing of houses and the pricing of land.

So, my big fear is that the credit market is going to tighten a little and that that is going to affect the housing markets a lot -- which means this is going to affect home builders a lot. We'll just have to wait and see if that happens. If that happens, we'll have a long way to go to get out of this. If the credit markets aggressively return to close to 2005 kind of levels, then I think that this is relatively short lived.

Gyourko: Regarding your second question about what would I do if I were a home builder? Assume I had a strong enough capital structure to ride out the downturn. I would really start thinking about how I can prosper from the distress that you see out there and that is coming. There is going to be consolidation in the home building and housing market.

In the last down cycle, the big home builders took market share. It would not surprise me if they did this again. I suspect they are thinking hard about those opportunities to take advantage of the distress that they actually see in their industry.

Knowledge@Wharton: That's exactly right. In the downturn that followed the debacle in the Thrift industry, in the late 1980s and early 1990s, there were lots of home builders who found tremendous opportunities. In fact, it was at that time that the securitization really stepped in to bring capital back to the market, and I think that we might be seeing similar opportunities today.

Gyourko: Well, in the early 1990s, the home builders that had the strongest balance sheets were able to buy the land on which they made such great profits over the last decade at very, very low rates/low prices. And I think that they are going to try to do that again. And that will be the next big play -- to try to buy cheap land amidst all of the distress.

Knowledge@Wharton: Is there a current equivalent of the Resolution Trust Corporation [RTC], where those deals are available?

Gyourko: I don't think it will come to that, because the RTC got started because a sector of the banking industry, the thrift sector, basically disappeared. I don't think that's going to happen here. As I said, what you are seeing disappearing are the sub-prime operations of pure capital market players without depositor bases. I think that this is going to be buying from one private party to another. I don't believe that you're going to see a government entity come in and reorganize the industry, as it were.

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