Josh Steiner: Global Housing Market Analysis
January 11, 2018

Erik: Joining me next on the program is Josh Steiner who heads up the entire financials research department at Hedgeye. Part of that, of course, is housing sector research, and that's what we're going to focus on today. Patrick has been looking for a guest for some time who could really talk intelligently to the various different housing bubbles that we see forming around the world.

And, Josh, I've got to hand it to you. I love interviewing Hedgeye guys, because you always come with fantastic slide decks. Folks, you're not going to want to miss this download. If you are a registered user at macrovoices.com, the download link is in your Research Roundup email. If you're not yet registered, just go to macrovoices.com and look for the link to get the downloads, next to Josh's picture on our home page.

Josh, before we dive into your excellent slide deck here, I want to start with a really high-level picture, which is what is the macroeconomic thesis of why is it that it seems like these resource-rich countries like Canada and Australia are very prone to having housing bubbles. And that these bubbles seem to just keep blowing up for a long time.

What's going on here with the big picture?

Josh: I think it's a good question to start with, but I would actually disagree slightly with the premise. I think most people look at countries like Canada and Australia and tend to think of them as being resource-driven economies. And I think up until about 10–15 years ago that was definitely the case.

But our work has shown that really in the last ten plus years, especially in the last five years, these are largely FIRE-driven economies. We've looked at the contribution to both the economy at large – the share of growth in the economy from financing, insurance, real estate, construction, across both Australia and Canada. And we've sort of likened them to one-cylinder engines where, really, the bulk of growth is being derived from appreciation in collective property values, the financing of it, the insuring of it, the construction of it, and the wealth effect created thereby.

So I think, definitely, looking back through time, there's certainly a resource-driven component, and that's still there. But when you really dissect the source of new growth for these countries over the last half decade or decade, it is pretty surprising just how much of it has come from the property markets.

Erik: I want to cover Canada, Australia, and the United States in this interview. Why don't we start with Canada and dive into your slide deck? It looks like starting on Page 3 you've got an excellent sequence of slides focusing on the Canadian real estate situation.

Josh: Yeah, absolutely. Just, if I can put in a little plug here, when we do these decks here at Hedgeye, they tend to be anywhere from 100 to 150 slides. I've selected 10–15 slides for each of these respective markets, but suffice it to say that there's a lot more to it than what we've got here. But I think the slides I've selected are a pretty nice cross-section and a reference point, at least for starting to think about what's going on across some of these different markets.

If we take a look at Canada (maybe start on Slide 4). I think there's a lot of slides out there, presentations that I've seen, that draw some sort of overlay between the Canada and US and other markets just for context. And, frankly, we've done that here as well, but I think we've tried to do it through a slightly different lens.

On Slide 4, basically what we're looking at is residential investment, the share of GDP is expressed here in terms of standard deviation relative to the longer-term average. We're basically looking at Canada relative to the US. You can see that Canada has been steadily grinding higher, really, since about 12–13 years ago and it's now at a level just shy of where the US peaked in late 2005.

If we go to the next slide, Slide 5, I think this one speaks volumes to – when you think about property markets and you ask the question: Are they in fact bubbles? And, if so, how do I attempt to gauge when they're at that peak point, ready to go the other way?

Really what you're looking for is what's referred to as this Minsky Moment, meaning when things truly go non-linear or parabolic. And I think this chart on Slide 5 does a decent job of reflecting that. What we're showing here is the share of Canadian GDP attributable simply to ownership transfer costs, which are just broker commissions, real estate broker commissions.

We show it in percentage terms on the left axis and in standard deviation terms on the right. And it's relative to its longer-term 40-year history. Currently, we're north of three standard deviations.

If you go to the next slide, Slide 6, and you look again, compare and contrast with the US, I think there's an eerie similarity between what's happened just in the last four years, which is where that Minsky component comes in, in Canada, and where the US was. The parallels are pretty uncanny.

Third quarter 2005 ownership transfer costs relative to US GDP reached just over three standard deviations. And Canada as of early 2017 had reached a similar level. These are slides from our deck we put together in August of 2017, so we're a few quarters out of date. But, obviously, there's a longer-term phenomenon. And I think the message is very clear.

Nobody should be surprised by this next slide, Slide 7, which shows the growth in household or private mortgage debt in the US relative to Canada. Obviously, Canada continues up into the right here.
And then, if we look at home prices on Slide 8, pretty much a steady trajectory in Canada really up until about a year and a half ago. And then just in late 2015 to 2016, 2017, you really started to see Canadian home prices begin to take off.

And they certainly have moved well out of range relative to certain anchor points like DPI on Slide 9.

There's a lot of policy change that's taking place in Canada. We've laid that out on Slides 10 and 11. I think a couple of the bigger ones were these foreign buyer taxes implemented in Vancouver and then more recently across the Golden Horseshoe.

But the one that's top of mind at the moment are these B-20 guidelines or rules that have been put in place effective just about a week ago. And the B-20 rules, effectively make it harder to qualify for a traditional mortgage from an underwriting standpoint because the rate at which you need to qualify is now meaningfully higher – also harder to source down payments through non-traditional means.

Both of those factors are coming at a time when unaffordability is already at extreme levels and you've got a bit of a waning in foreign demand coming in. We're sort of at a critical time here in thinking about Canadian property and whether these gains that have been realized over the last several years are even remotely sustainable.

I won't go into all the slides because I think there's a lot here and I don't want to put people to sleep. But a few things I would call out is that, in the twilight of these property cycles, historically, one of the things you see without fail is a wholesale shift in terms of the financing structure in these markets.

If you go to Slide 15, I do think it's notable that when you look at, for instance, the share of loans being sourced by mortgage brokers. Even just moving from 2016 to 2017, those shares have risen very significantly. So, for instance, first-time buyers in 2016, just about a quarter of them sourced their loans through mortgage brokers. And then in 2017 that number had risen all the way to 35%. That's a very marked shift in a relatively short span of time.

And a lot of people talk about the foreign buyer component and what's going on. This, in a way, comes back to the resource-driven component of the original question. If you go to Slide 16, this encapsulates what's happening there reasonably succinctly.

Essentially what happened is in mid-2014 oil peaked. It basically sold off very aggressively up until around February 2016. During that timeframe, the Canadian currency lost a significant amount of its value relative. And so you saw, not surprisingly, foreign buyers really pile into the

Canadian property market.

Here on Slide 16 it's showing the Canadian dollar relative to the US dollar and what happened coincidently in both the Toronto and Vancouver markets. As you saw the blowback from that energy-driven weakness, it really attracted foreign investment.

I think that's something to keep in mind when you think about foreign investment. I'll talk more about that later when we look at Australia. But I do think we're sort of on the other end of that. On the wrong end, I guess, from a bullish housing frame.

Erik: Let me ask a couple of questions about the Canadian situation before we move on to Australia. As I look at all these slides – I guess, when I think about the psychology of a bubble, it seems to me that the way they work is it starts with everybody thinks that something bad is not possible. You know, the famous comment from Ben Bernanke in 2005 about how housing has never gone down across the board, it couldn't happen, nobody's worried about it.

And then there's a catalyst. In the case of the US housing market, it was in the first quarter of '07. There was a big wave of adjustable rate mortgage resets, where all of a sudden people's payments went up dramatically. And that was kind of the catalyst that caused everybody to wake up and say, wait a minute, this is crazy. And then, of course, the rest is history.

So what I tend to look for is, first, how is it possible in Canada – I mean, obviously the US housing bust was big news, everybody knows about that, so everybody knows it's possible. It seems like it's going anyway. A lot of it, maybe, is driven by foreign buyers.

So what would we be looking for as investors for the catalyst that's going to pop this bubble? It's not going to be adjustable rate mortgages like it was in the US, because it's always something different. Is there a clear sign of what might be the pin that pops this bubble?

Josh: Well, again, I guess I would maybe disagree a bit with the premise. The way I think about housing bubbles is that housing sort of takes on one of two forms at any given point. And the curiously repeating phenomenon with housing bubbles is that housing undergoes, if you will, this phase transition from what's called a basic good to what's called a giffen good.

A basic good being something you buy more of as the price goes down and a giffen good the exact opposite, something you buy more of as the price goes up. And why on earth would anybody buy more of something as the price goes up? The reason is because it transitions from something you consume, a consumption good, to an investment good.

And you saw this in the US. You've seen it in every property bubble globally, historically. People buy the most of these things, the most housing, when the prices are at their most extreme, i.e. their most unaffordable. And then, conversely, when things are incredibly cheap, they buy the least. And that's because people's perception around what a house represents has undergone this phase transition from somewhere I live to an investment, back to somewhere I live.

And it's this normal and recurring pattern. So what happens, or at least what happened in the US, is you have these 129s and 228 products – these resetting ARM loans and option ARM loans – they were coming up for renewal in early 2017. But the reality is these were largely one- and two-year products that had been in place for quite a while. And they had been coming up on resets repeatedly.

The issue wasn't so much that. It was really that prices ran out of steam. In other words, you never have delinquencies when prices are appreciating rapidly because it's almost impossible to fall behind, because you can just sell the property. It's appreciated in value, it's easy to get out of, you have a very liquid market.

So the issue in the US that – take a step back further – if you think about the sequencing of housing markets and the way they evolve, the first thing you see when a market starts to go in the other direction is you see volumes begin to roll over, meaning transaction volumes of homes. In the US that happened in the middle of 2005.

Right around July '05, you had the peak growth rate in transaction volumes in homes. Homes, home prices are a very sticky asset. It takes people a while, sellers, to basically come to grips with reality i.e. the market isn't what it once was. They're very reluctant to lower the price at which they're selling their house. So there's about a one-year lag between when volumes inflect, from a second derivative standpoint, and when prices inflect.

So, again, if you look at the US, volumes peaked from a rate of change standpoint in mid-'05. But prices didn't peak and begin to roll until mid-'06. And by the time you got to early 2007, prices were actually decelerating aggressively and it started to roll over negative. It was the fact that prices were going that made it impossible for people to roll over these mortgages.

That was the real catalyst. So you hit peak buyer in mid-'05 and then a couple of years later you hit all these problems in the sub-prime market. This whole cottage industry of sub-prime originators basically collapsed and went bankrupt over the course of the first half of '07. And then it was even a full year and a half after that before you had the full-blown, full-throttle financial crisis that took down Lehman Brothers and the general banking system.

So there's a long lead time, is kind of the point – between when you see the first signs of problems, which are peaks in volume, and when you see the obvious front page of USA Today when everybody is broadly aware.

To come back to your original question, which is what's the catalyst? Maybe it's not a great headline, but I think the catalyst is really that you just run out of steam with new buyers. Affordability hits a critical threshold, and you experience this phase transition.

And what Canada is doing right now, between these foreign buyer tax disincentives, the B-20 guidelines making it much harder for people (first-time buyers especially) to qualify – all of this is sort of feeding that, fueling that fire that's really going to suck the life out of the would-be first-time buyer.

Think of housing as a ladder where everybody simultaneously moves up a rung. But it's not possible if you don't have that first-time buyer getting on that first rung of the ladder.

So that's our thesis – that all these new rules going into effect, and confluent with Chinese demand beginning to wane, are really going to impact the low end of the Canadian market. And that's going to disrupt the whole property ecosystem across Canada.

Erik: My other question is, in the United States I think a big part of the reason there was contagion from the housing sector to the banking system and financial system in general is that almost all of the mortgages in question were securitized. And a lot of people who bought the paper didn't understand what they were buying, and all the CDO tranches and so forth.

Now, as I understand it, for the most part Canadian real estate mortgages are not securitized that way. They're portfolio lenders. So what do you see in terms of differences of how this would unfold? And how would that difference in terms of securitization of these loans change?

And I guess a particular question that's on my mind is in the US nobody was immune because almost everybody had exposure to the paper if not to the real estate. If I think about the big Canadian banks – like the Royal Bank of Canada, which was famously immune to problems in the 2008 crisis when the rest of the world was going through a lot of trouble – are they exposed to this?

Or is it just mortgage lenders in Canada? Where's the risk, where are the shorts, where is the investment trade here?

Josh: I think that's a profoundly important distinction. But I have a lot of conversations with investors on this point – this exact point – and I guess I come at it from a slightly different angle. Which is those are definitely reasons why this is a different market than the US. It's like the old Twain shtick about history doesn't always repeat but it rhymes.

I think the reality here is a little bit different. I don't think you have this ticking time bomb in the form of exotic CDOs, CDO-squared products, lacing the balance sheet across the entire banking system.

But what I do think you have is an enormous amount of concentration risk on the part of first and second lien mortgages across the "Big Six". Like I said earlier, I think the Canadian economy has really become very much a one-cylinder economy that's driven by this property bubble.

And then from a valuations standpoint, you have a lot of the large banks – you mentioned Royal Bank as being one – where valuations are north of two times tangible book value.

So think about what I said earlier, which is that when home prices are appreciating rapidly you have all-time lows in delinquencies. That's an absolute function. It's like the economic equivalent of a physical law, like gravity. When prices are appreciating rapidly and an asset class is inflating, naturally you're going to have very low delinquency rates. And that's exactly what the rear view of the last 12–18–24 months looks like across the big Canadian banks.

Our point is that when prices start to slow down – God forbid they should actually start to go negative – those delinquency rates are going to rise. And as they rise, the banks will have to provision for those loan losses. And that's going to erode earnings power.

Kind of like what I was saying about the housing system, where you can have this collective mindset undergo this phase transition of thinking i.e. one day I think of housing as a consumption good (I need somewhere to live), and the next day I think of it as an investment good. All my friends and family made all this money on real estate, I should be there too. Then all of a sudden the bottom falls out and now it's back to being a consumption good.

Bank stock investing is no different. When things are good, you trade these things on earnings. When things aren't great, they start to converge between earnings multiples and book value. And when things are poor, then you throw out the book and you trade straight to tangible. And then it's well, how low, how long, how fast? And then it's what level of discount do I apply to tangibles?

Our thought process is that if you have a market that's coming off its fastest rate of appreciation in history, and delinquencies are at all-time lows and understated, and you've got the banks reflecting that (trading north of two times tangible book value), and you think the earnings power is at significant risk because delinquencies are going to rise, then I think there's a lot of downside.

And the way I frame it up is that it won't take much of a property correction for earnings power to be largely impaired for the banks across Canada. In that scenario you can undergo this pretty rapid phase transition from trading from an earnings multiple to suddenly, well, what are the earnings? The earnings are shrinking. Are the earnings potentially going to go negative for a period of time? Therefore I trade to tangible. And that equates to 50%–60% downside for most of these banks.

So you don't need, necessarily, this gigantic powder keg of CDO exposure to catalyze a significant amount of downside when you're trading at pretty high multiples.

Erik: You've got a whole bunch of fantastic slides on Canada. I want to encourage our listeners to check those out. But, in the interest of time, I want to make sure we leave room for the rest of this story.

Let's move on to Australia. What's the story there? How is it different from Canada? What are we looking at?

Josh: Australia, in a fair number of respects, is analogous to Canada. They, too, are perceived as this resource economy but, in reality, are as much if not more than Canada a one-cylinder FIRE-driven economy. Like Canada, where it's this two-horse race between Toronto and Vancouver. Australia mimics that in being a Sydney-Melbourne–driven property market.

There are, however, some idiosyncratic factors in Australia that make it, at least in my mind, even more dangerous a housing market than what's going on in Canada. And a few of the big callouts – one, I think, the construction phenomenon in Australia is even more robust.

For instance, we have a chart here. This deck is a little bit dated. We put our big Australia deck – like 150 pages – we put that together in the middle of '16. So now it's about a year and a half old. But just to give you an idea.

On Slide 26, these are the number of current residential construction cranes operating in the Australian market, in the big cities. We've got Sydney, Melbourne, Perth, and Brisbane here. This is updated, actually, through the third quarter of this year. But you can see that right now you've got 350 residential construction cranes operating just in the Sydney market alone.

To put that in perspective, on Slide 27, this is the RLB crane index for all of North America. So this includes the major metro markets of North America – NYC, DC, Boston, Toronto, Chicago, Denver, Phoenix, Austin, LA, San Fran, Portland, Seattle, and Calgary. And across all those markets combined you have – this is back in early '16 – you had about 190 total residential construction cranes as compared with 350 in just Sydney. And I went back and checked on this yesterday ahead of our talk here, and that number for North America has actually declined a bit. It's now just under 175.

So you literally have more than twice as many cranes building residential towers in Sydney than you have across all of North America. Just to put that in perspective. On Slide 28 we just make that apples to apples to truly show the ridiculousness of it. So I think there's a lot more construction.

The other thing that's going on big time across Australia from a funding standpoint – and, again, for Canada I talked about this idea of how the hallmark of property bubbles is that you always see creativity on the financing side towards the twilight.

So in the US it was obviously the sub-prime loans, the liar loans, the ninja loans, the wrapping of the paper into the securitization structure, and the rewrapping into collateralized debt obligations, and so on and so forth.

In Australia they have IO loans, just like we had here in the US. The predominant term on their IOs is five years, but they have 58% payment shocks when those IOs come up for reset.

And, if you look back at Slide 31, really there's two categories of paper in Australia. One is owner-occupiers, the other is investors. For investors, interest-only loans account for north of 70% of all loans – investors are using interest-only to fund their purchases.

And owner-occupiers have been steadily trending higher on the IO side as well. Again, this is what you would expect to see in a market where affordability is transitioning to increasing levels of unaffordability. People are basically reaching to be able to buy the house. They can't qualify based on their income and a traditional mortgage, so instead they go with one that has no principle component to increase their affordability.

The problem is that these will all come up for reset. And that's increasingly going to start to hit in 2019, next year. I think that's one of the big factors.

To their credit, the Australian regulators, from APRA and the RBA, have begun cracking down on this, so they've put some limits around the allowable growth rates for the big four Australian banks around IO lending.

But, again, you talked about what's the catalyst to undo all these markets, and I think that's it. You get regulators who finally – usually at the twilight, which is like the worst possible time, they step in with these regulatory interventions intended to facilitate a soft landing, but really they catalyze the undoing.

Another idiosyncrasy to the Australian market is what they call negative gearing. This one is pretty wild. Basically, I showed earlier how about three quarters of investment purchases of Australian investment property are done with interest-only mortgages. Well, there is a provision in the Australian tax code that allows you to deduct losses from rental properties against your income.

What people do is they go out and they buy homes that produce losses, investment properties that produce losses. And they fund them with interest-only loans. So, think about this for a minute – they do it solely so they can deduct the losses against their income.

So you've got a house that you're not actually building any equity in, because it's an interest-only funding structure. It's generating operating losses for you, and the only way that you ever realize any return on that is through capital appreciation. So you've got a huge swathe of the market set up this way. It's fundamentally nonsensical. But, because Australian home prices have risen so much for so long, the idea that they could not keep going up is just this far-removed crazy risk thought that the average Australian doing this just doesn't really think about.

When I was in Australia I interviewed numerous people from all walks of life – sophisticated, unsophisticated – this idea that negative gearing is a no-brainer is pervasive. So I think that sets the stage for a fair amount of risk.

The other thing that I found interesting and differentiated about the Australian market is that there's a lot of home equity withdrawal. If you go to Slide 34, one of the hallmarks of the US going into its full bubble phase was that you saw the amount of home equity being taken out of homes to basically buy things like vacations, pay for college, buy a car, as well as home-enhancing things like home improvement – really rose pretty dramatically.

From basically the bulk of the 1990s, even into the early 2000s, home equity withdrawal in the US ran between 1% and 2% of GDP. And then as the bubble ramped up in 2004–2005–2006, those numbers essentially tripled, even quadrupled up to around 4%, 4.5% of GDP.

So we were curious whether Australia exhibited those same tendencies. And we found some pretty interesting data from some academic studies that allowed us to figure out what was the amount of equity being taken out of homes in Australia.

It's a little bit dated – the dataset we were able to find covered the 2001–2008 period – but what we found was pretty amazing. In any given year over that period, Australians were withdrawing 13%–15% of the equivalent of their disposable income in home equity. And they were spending it on all manner of things from car repairs to home improvements to vacations to groceries to medicine.

And I think it's pervasive, like this joke. In the US – although they don't do it anymore – time was when you walked into McDonald's they would ask you if you wanted fries with that. And the joke was largely based on reality: When you walk into an Australian bank branch to do a routine transaction, they will basically ask you at the end if you'd like some home equity with that.

So these are a few of the things about Australia that are interesting.

And then, more recently, if you go to Slide 37, the Australian property market works a little bit differently than either that of the US or Canada. For instance, in the US the only auctions for properties are done in distress i.e. in the event of foreclosure. The bank now has the REO and they're looking to dispose of the property, so they do it through an auction-based process.

In Australia, auctions are actually one of the mainstays for selling non-distressed property. Whether it's in Sydney or in Melbourne, there will be a notice that there's going to be an auction for 18 Queen Street. People will show up on that given weekend, there will be anywhere from 50 to 100 people gathered around in a circle, there will be an auction barker there (basically like selling art) trying to get two or three people bidding against each other, create a carnival atmosphere of excitement and enthusiasm. The clearance rates are basically the percentage of these auctions that actually lead to a sale.

So what's interesting about Sydney is that these clearance rates have been trending lower over the last year and a half, but then more recently have dropped off pretty sharply.

Now, I talked earlier about this hallmark sequencing of property bubbles and what happens.

And, again, one of the first things – actually the first thing you see – is that volumes peak from a rate of change standpoint, then start to slow down.

And that's when you know that prices are coming somewhere thereafter, typically on about a one-year lag. And then you start to see the delinquencies pile up and, obviously, the banking sector, from an equity standpoint, take its hit. So the fact that Sydney is beginning to roll over is definitely notable.

Erik: Now, in the United States, that was a securitized market. So if you wanted to play this as an investment trade you knew the trade was basically credit default swaps to take advantage of the ability to bet against that securitized paper. And the catalyst that people who were most successful looked for is they knew that what would probably break the back of this would be some kind of adjustable rate mortgage reset. And that was what they timed it around.

In these markets that are not securitized, both Australia and Canada, what's the trade? Is it shorting the banks directly? Or are there other intermediaries? What's the big short here? And how do you know when it's time to put it on?

Josh: This has been one of the big challenges as an investor looking to try to capitalize on a falling property market in these other countries. Whether it be Australia or Canada, unlike in the US a decade ago where there were many different ways to do this, your option set is significantly more limited in both these markets.

So in Australia you've really got the "Big Four" banks. You've got CommBank (Commonwealth Bank) and Westpac and NAB and ANZ. You've got some smaller mortgage insurance companies. You've got a few property developers, Goodman, Mirvac, Lendlease.

And then, I think the one that comes up from a macro trade standpoint is the obvious one which is the currency. The Australian dollar, the Canadian dollar.

There are credit default swaps that trade on the big Australian banks, the "Big Four", but my understanding is that they're not terribly liquid, not terribly easy to take advantage of. And I think, to be fair, there is almost a national pride, pretty different – in both Australia and Canada – there's like a national pride that sort of goes alongside. In Canada the "Big Six", and in Australia the "Big Four" banks – in my mind there's a tremendous amount of willingness on the part of the government to backstop these entities from anything overly catastrophic.

Whereas in the US, now, the big banks of course are regarded generally as villains. A decade ago that wasn't the case, they were just sort of neither here nor there. People didn't really feel especially proud of them, but didn't think of them as this tyrannical industry. So I think that's going to be a real factor, ultimately, that helps to prevent anything catastrophic happening in both these markets.

But that's not to say you couldn't generate some pretty asymmetric returns between here and the point where that backstop really comes into play on the credit default swap side.

So we look primarily at the equities, but anybody sort of combing around for more levered ways to think about it, that's an option. In terms of timing, again, the only way I know how to do this is you watch the volumes of the property market. That gives way to price changes on a lag, and then those price changes give rise to delinquency rate inflections. And then, ultimately, the stocks finally catch on thereafter.

So it can be a long time. It can take a few years. In the US, for instance, property transaction volumes peaked in mid-'05, prices in mid-'06. But you didn't have the XLF – which is sort of the financial ETF here in the US – peak until the first quarter of '07. So it can take quite a while.

Erik: Let's go ahead and return to the US and talk about that market. We went through, obviously, a major housing crisis. Prices have pretty much recovered to where they were before the crisis. Are we at risk of another one? Or did we learn our lesson?

What's the story in the good old US of A?

Josh: The US property market is quite strong. I don't think the outlook is – for that to inflect in any sort of material longer-term standpoint. I do think in the short term you may see a little bit of weakness.

There are a couple of things. One, from a price standpoint, 2017 was just an unbelievably good year for equities, US equities that were exposed to housing. There are different ETFs. There's the XHB, the ITB. And then there's the S-5, and S-15, home super-composites, which are the subsectors of the S&P that looks specifically at home builders. And those were generally the best-performing categories within the US market over the course of '17.

And a lot of that had to do with enthusiasm around fiscal stimulus from tax cuts. But the yin and the yang to housing stock investing in the US is that what's good for the fiscal side is good for the stocks.

But, typically, the yang is that you tend to stoke inflation. And that tends to cause the rates to rise, and the long end of the curve to move up, which obviously impairs affordability. And there's an incredibly strong inverse correlation between rapid moves up in the long end of the curve and housing equity deflation.

So, in looking back over three historic periods, you've seen, basically, housing stocks get cut in half any time mortgage rates have risen by more than one and three quarter points within an 18-month period. And there's three episodes of that in the last 20 years.

So that was kind of the concern in late 2016. Between the day of the election and the end of January 2017, you had this massive move across the US equities in the US equity complex. What really got left out of that was the housing component.

But then housing stocks basically spent the rest of 2017 catching up, because the long end of the curve actually came back in. So rates stayed planted. And suddenly you had this fiscal tailwind without what is the normal offsetting complement which is mortgage rates moving higher.

And that's kind of where we're at today, is that suddenly you've got the long end of the curve moving up pretty sharply again here, so that's going to probably take a little bit of the air out of the enthusiasm post- the tax cut change.

So that's one thing to keep in mind. But, bigger picture, housing prices have risen nationally for – really since late-2011 which was kind of the low-water mark. So they've risen pretty steadily. There was a little bit of a cool-off period briefly in 2014 when these so-called qualified mortgage rules were put in place. It took a little bit of the air out for about 9–12 months.

But, notwithstanding that speed bump, the US housing market has generally been inflating pretty steadily. In the last few years, prices have been rising between 5% and 6% nationally, year-over-year.

I think what's going on now is interesting. You have this severe shortage of supply of homes for sale across the US. And where it's most acute is at the entry level, at the low end. Normally, the general route in a "balanced market" is about six months of supply. That's a level at which neither buyers nor sellers have excess bargaining power.

In that environment, what you tend to see is home prices generally rising at a rate consistent with inflation. So, if inflation is running around 2%, you see home prices in that environment going up by 2%–3%.

But what we've got instead of six months' supply is currently around three and a half. Which is all-time lows for aggregate US housing supply. And so, as a result, you're seeing home prices accelerate. Prices are now rising up between 6% and 7 % nationally, and that pressure is going to continue. And the reason is that they're not building enough homes.

So, in the most recent data, single-family starts were running at about $930,000. That's seasonally-adjusted annualized. Our math shows that that number would need to be all the way up around $1.5 to $1.6 million (up from the current $930,000) in order to essentially equilibrate that supply-demand imbalance, get the three and a half months of inventory back up to six months.

And so the good news/bad news is – well the good news is that's really good for builders. Because it means there's a path for them to basically double output if they can source the land and if they can source the incremental construction labor, both of which are sort of hard to come by these days. The point is there's a long-term tailwind there, not going away at least for the next five to six years.

And the reason why is because, if you look at the demographics of the US, we're at a really interesting point. So right now – people talk about the millennials. The millennials are an incredibly important generation from a housing standpoint. If you look at the numbers – I'm trying to remember if I put a chart in here – unfortunately I did not – but we have this chart that shows the number of people in each age cohort.

So the number of people who are 26, the number of people who are 27, and so on and so forth – what's interesting is that, currently, the average age at which people rent their first property is 26 to 27. Meanwhile, the average age at which they buy their first home is 32 to 33.

And what you've got is this thing sort of creeping into the investment lexicon: "peak millennial". Which is the largest cohorts of millennials right now, those who are 26 and 27 i.e. first-time renters.

Meanwhile, you've got a much smaller number of 32- and 33-year-old millennials. What that means is that, over the coming five to six years, these 26- and 27-year-olds become 32- and 33-year-olds. You're going to have this tidal wave of tailwinds of millennials moving out of renting into home ownership for the very first time.

And behind those 26- and 27-year-olds, there are far smaller numbers of 25-, 24-, 23-, and 22-year-olds. So what you've got coming down the pike from a housing standpoint in the US is you're definitely at peak in terms of rental demand. And you're going to start to see that industry begin to – which has benefited, by the way, over the last five to six years from enormous tailwinds demographically – but they're now just about to be on the other side of that.

Meanwhile, you're going to have enormous tailwinds shifting into first-time home buyers. So if you're a large publically-traded builder who has a focus increasingly gravitating toward first-time buyers in some of these states like Florida and Texas and elsewhere, you've got the wind at your back for the next five to six years.

And in terms of affordability, which is the longer-term governor on what is possible across the housing landscape, nationally affordability trends still look incredibly favorable. Home ownership relative to renting is still much closer to its all-time lows than its all-time highs. So that looks very favorable.

Now, once you dive into certain select cities like San Francisco, Manhattan, Boston, the affordability dynamic there is much less compelling. And, by the way, that's also part of the reason why these people, these peak millennials are now moving out of the cities once again.

For the last five years the narrative around these people was they want to live in urban centers, they're different than previous generations. All of that is sort of a fallacy. Really, they're no different than previous generations. They're just more stunted or lagged from a progression standpoint.

So what's going to happen over the next five years is the millennial generation is going to do the same thing that previous generations have done. They're going to start to want to move out of the city, buy a house, get married, have kids, have a back yard and a dog and some property or some land. So that's going to be the next five years, what you're going to see increasingly across the US.

Erik: Josh, I cannot thank you enough for a fantastic interview. I want to encourage our listeners to check out the wealth of graphs and charts that we didn't have time to get to. And I'd also, as we close, like to go to that last slide and talk about where our listeners can follow more of your work.

We do have a large institutional audience, which I know is your role at Hedgeye. Where do our institutional listeners find out more about what you do there? And also for individual investors, our friend Dan Holland at Hedgeye has been kind enough to extend an offer on your Market Edges product to get a free trial. Please tell us about that as well.

Josh: Actually we have a little promotional slide here at the end of the deck. We cater to really two different sets of investors. Institutional investors, which is who I primarily work with. If you have any interest in seeing more of our work you can email us at sales@hedgeye.com.

We also have an individual investor product. We actually have a number of different offerings. As you mentioned, we are running a deal right now. You can get a free month of Market Edges. All the details around that product, and actually all of our different products, can be found on our website hedgeye.com.