Josh Steiner: Canadian and American Real Estate Markets are Polar Opposites

June 13th 2019

Erik: Joining me now is Josh Steiner, who heads up the Financials and Housing sector research department at Hedgeye Risk Management.

I always love interviewing the Hedgeye guys because they always come with really great slide decks. Josh is no exception this week. He's put together a really excellent slide deck for us. It will be a challenge to get to all of the slides.

But I'm sure that you, our listeners, will enjoy every bit of it just the same. You can find the download link in your Research Roundup email. If you're not yet registered for Research Roundup, just go to our home page at macrovoices.com and look for the red button that says Looking for the Downloads next to Josh's picture.

Josh, last time that we had you for a housing update I think was when you spoke at our live even in Toronto last summer. Give us the update on US and Canadian housing, which is the same topic we've talked to you about before. Quite a bit has happened since then.

Let's go ahead and dive into your slide deck.

Josh: Thanks, Erik. Why don't we start with the US? We've got a summary of slides here. What we do is we like to put together a quarterly themes update. These are slides from our most recent 2Q19 themes update. So just to set the table a little bit, this first slide we have really looks at the transition from lase 2018 to early 2019.

If you look at the performance across the full year of 2018, you can see that the different US housing proxies XHB, ITB, the S15HOME sub-index were the worst performing sub-indexes and ETFs across the US market for the full year of 2018, only to completely reverse course in 2019 and, in fact, lead the way from an upside standpoint.

We think that's a pretty interesting reversal. We'll get to why that is. But to summarize it quickly, a lot of it revolves around rates. There's more to it than that, but rates are the biggest single driver in the space.

If you think about what is the current positioning of the US housing market, we look at a number of different core cyclical trends.

On Slide 5, we can see where the underwriting standards are currently, relative to the trailing 15-year period.

You can see that we've bounced off the lows quite a bit. We've come up – this is the Mortgage Credit Availability Index from the Mortgage Bankers Association – we've come off the lows of around 100 to 182. That's down from the epic highs of almost 900 during the bubble years.

But we think a normalized credit underwriting environment is going to be in the 300 to 350 range. So we think we still have a long way to go from a renormalization standpoint on underwriting.

And if we look at the cycle from a construction standpoint on this next slide (Slide 6), you can see residential construction as a percent of GDP normally troughs in the low- to mid-3% range, typically peaks in the mid- to high-5% range. Currently we're at 3.9% off the lows of 2.4%.

So even though we've come a long way from the bottom, we think we're still only at the mid-point in the cycle here.

And then if we think about another phenomenon – which I'll actually come back to as it relates to Canada – on this next slide (Slide 7), if you look at the amount of home equity cashed out quarterly in the US from the mid-1990s to present, in the sort of go-go years of 2005-6-7, you were seeing anywhere from $60 to $85 billion per quarter being cashed out of the US housing market.

That was sort of the era when the home was viewed as an ATM. The proceeds were used to fund all manner of discretionary purchases.

And currently we're at just under $15 billion. So – and this is not inflation adjusted – this gives you a pretty good sense of how still tepid the environment is, relative to where we were for the better part of the 2000s.

If we think about affordability in the US – you see a lot of headline stories about places like New York City or San Francisco being highly unaffordable – but when you look at the US as a whole, affordability in the US is actually still quite good.

The ratio of median mortgage payments to median rent across the US, it typically peaks at around 2. The trough has historically been around parity, or roughly 1, and we're obviously much closer to that long-term trough than we are the long-term peak.

And if we look at median mortgage payments relative to median income levels on this next slide (Slide 8), you can again see we tend to move between this low- to mid-20% range at the trough up to 35% to 40% when we're at the peak. Currently, we're at 23.9%, so much closer to the trough.

All of this points towards this idea that we are still very much mid-cycle here in the US. And part of that is just born out of the fact that the housing market didn't really find a bottom until a full three years after the broader US economy.

So the US housing market troughed around November 2011. The US economy troughed, really, in late 2008, early 2009.

Erik: Josh, before you go on, I just want to ask you – you said earlier this is mostly about rates. And it seems to me like what we're seeing here is a lot of slides that suggest that, hey, the cycle is just getting going. There's a lot of room left to go.

But at the same time, we're also in a cycle of rates coming down for the last several months.

I don't think it's going to happen, but some people think that the bond yields are just way to low, it's going to reverse, we're headed back to 3.5% to 4% 10-year yields. I don't think that's going to happen. But if it did it, seems to me it would really, really squash this cycle that is otherwise recovering.

Would you concur with that? And what do you see as the risks of a change in sentiment in the bond market?

Josh: The premise of the question is completely in that we've done work that looks at the sensitivity of housing equities to short-term expedited rate changes, both on the way up and the way down. And, effectively, what happens is the housing equity driver framework essentially converges down to a one-factor model, which is rates.

Unfortunately, I don't have the chart in this deck, but we do have a chart where we look at the rolling Delta or rolling changes in the 10-year Treasury relative to its correlation to housing equity price performance.

And when you get up to around two standard deviation moves in that 10-year yield, again, you do see that correlation with equity price performance for housing equities approach 1. So it really is a one-factor model when rates are moving significantly.

As far as the outlook for rates, we do have a slide in here which I'll get to in a little bit. But I don't think probably the path for rates is to move meaningfully higher over the intermediate to longer term.

We'll cover that in a little bit, but I don't think that's the direction we're likely to take. If I'm wrong, then this housing trade will go the other way. But we'll cover why we think that's not the case in a little bit.

On Slide 10, this is yet another backdrop slide for where we think we are on the cycle and why we think demographics is going to be one of the big ongoing drivers here for the US housing market.

If you look at the number of people in the US who are currently aged either 32 or 33, relative to those who are aged 26-27-28, there is a large difference. You can see there is a spike in the number of 28- and 29-year-olds.

The reason those age spans are relevant is because currently in the US the average age of the first-time home buyer is 32 to 33 whereas the average age of the first-time renter is 26 to 27. As those renters age up from being 26-27-28-29-30 to being 32-33 and start to look to buy their first home – the point of this chart is just to show that there are many more people who are going to be looking to buy their first home in the coming 2 to 3 to 4 years than there are currently.

We think this creates a nice demand tailwind over the intermediate 2-3-4-year timeframe. We've laid out why we think we're mid-cycle here on a number of other fronts. This would be another factor in support of that.

If we look at the shorter term, so thinking about quarter-to-quarter changes here on this next slide, Slide 11, the Housing Surprise Index is a simple measure of whether the fundamental housing data is coming in better or worse than expectations.

It's basically a diffusion index and what's interesting about it is that late last year, around December of 2018, this series actually hit an all-time low. Pretty remarkable, considering that in 2007 and 2008 we were going through the grips of what was the largest housing correction since the 1940s.

Coming off an all-time low it sets up a pretty asymmetric bounce environment. And that's really what we had in the first quarter of 2019. You can see that, at least through April of this year, we had moved back essentially to the zero-bound. So things had really gotten bound out there over the last four to five months of 2018, bounced back pretty nicely during the first four months of 2019.

If we look at the fundamental data (Slide 12), these are the weekly numbers for mortgage purchase applications put out by the MBA (the Mortgage Bankers Association). You can see that, going into late last year, activity levels were very subdued relative to where they had been during the first 7 months of 2018.

And then, beginning really in January but trending through March and through April, activity levels have generally been on the rise. If we think about the setup going forward (Slide 13), the nice thing is that the comp setup for pending home sales – sales of existing homes in the US – are going to get easier beginning, really, in August but very much easier beginning in November and December.

So you're going to have this really nice comp dynamic setup as we move into the fourth quarter of 2019. Really, in just a couple of months we'll be at a point in time when people are going to be starting to think about this environment.

So we generally talk about home prices whenever we talk about the fundamentals of the housing market.

On Slide 14, you can see a snapshot of how those home price trends have been going – in a word, not great. We've seen deceleration in home prices at both the national level and at the 20-city level. And that's coming off what were essentially the high-water marks in the March-April 2018 timeframe when US home prices were rising between 6% and 7%.

Since then, they've slowed down to around 3 to 4%. We think that trend is going to continue at least through the next several months. I don't know if we'll get down into the 0% to 1% range, but I would expect at least another 100 to 200 basis points to come off of these because home prices are very lagging.

They're really reflecting or mirroring what's happening on the fundamental side on a very significant lag, anywhere from six to nine months. So those will continue to soften for the next few months and then probably begin to stabilize as we get into the August-Septemeber timeframe.

Erik: Josh, I have a question about the composition or the sectors within the housing market. Something I can't help but think about as you're talking there, is you're describing why so much of the demand is going to come from people buying their first homes. That means small homes.

And, although you didn't really get into it, another big part of this is boomers downsizing. It seems like that should put a lot of demand on smaller homes and probably leave a glut of large homes.

Is that true? And is there a way to play that from an investment standpoint?

Josh: That's definitely the trend. You've got this sort of classic pincer movement on both sides with, exactly right, entry-level looking to buy their first homes tends to be on the smaller side and, as people continue to age up, looking to reduce their footprint.

So, yeah, the challenge has been that most home builders have generally not been catering to that smaller footprint because the costs to do so just really haven't worked out terribly well. It's expensive to permit and develop land. And generally, when you do that, you want to get the most bang for your buck.

There's also a fair amount of risk embedded in the fact that first-time home buyers aren't necessarily always a slam dunk. Sometimes they come in with thin credit profiles. Their ability to secure financing still isn't great.

We looked at that chart showing the underwriting cycle still has a long way to go from a renormalization standpoint. So I think that's absolutely right.

The one name where they're really in the sweet spot for this would be D.R. Horton (ticker DHI). These guys are more exposed to that entry-level segment than most of their peers. And, on top of that, geographically they have a very nice footprint, which is predominantly in the southeast.

If you look at where most construction is taking place, it's really the south and southeast are sort of the biggest segments of the country. So D.R. Horton is a pretty nice fit into both of those different bins.

I foreshadowed earlier that we'd look at rates and the effect rates have played here. So, without further ado, we've got a series of slides here.

Slide 15 is actually from our deck at the beginning of the quarter. It shows that the 30-year fixed-rate mortgage – this is the Freddie Mac Primary Mortgage Market Survey – that 30-year had come in from around 5% down to 4.08%.

Well, since then it's actually moved down to almost 3.8%. So we're down close to 120 basis points off the peak of late 2018. That's a pretty enormous move on a six-month basis.

If we look at the next few slides, Slide 16, at some of these rate shock analogs, you can see we've got three periods we're highlighting here.

So the late '93-'94 timeframe when rates moved up by 240 basis points and then thereafter had a comparable move down in late '98 through spring 2000 – a 180 basis point move up followed by a roughly 250 basis point move down.

And then, more recently, you had the taper tantrum in late 2012 running through fall 2013 when rates moved up 118 basis points very quickly, and then gave that back over the course of the following year.

In each of those three instances, on the following slide here (Slide 17), you can see what the impact was following those rate increases – meaning when the rates came back down on the fundamental activity levels of home sales.

We show that in those green rectangles on Slide 17. You can see that sales activity generally picked up quite nicely in the wake of that. And that's exactly what we've seen, at least so far through the start of this year.

If you look at the equity side – home prices for homebuilding stocks in this case (Slide 18) – it's a similar dynamic. Here we're actually highlighting the declines in those homebuilding stocks during the periods when rates rose. If we skip ahead, we'll take a look at what happened on the rebound.

But, before I get to that, I want to spend just a second on Slide 19. I think, really more than any other, at least in this deck, this slide embodies this idea of what we were talking about earlier. Which is, if you look at this yield spread – in this case just the spread between the 10-year Treasury yield and the 2-year, versus the Fed funds rate – you can really get a sense for cycles in their broader context.

I think what it speaks to is we map out this progression where you have Stage 1, Stage 2, Stage 3, Stage 4 and you can see how those have played out, really, over the last 40 years across cycles.

The idea is that, when you get the yield spread as compressed as where it is today, it really tends to happen late in the cycle and after the Fed has already been raising rates for some time.

So even though the absolute magnitude of what the Fed has done isn't all that profound, at least so far, the reality is that where we are, from a yield spread standpoint, coupled with looking at what the Fed has done at the short end in the context of these prior environments, it really does look very similar.

So for that reason, we think the most probable path here going forward is that the long end of the curve is likely to remain under pressure.

That's not to say if the Fed is shifting from being on the front of its feet to shifting back onto its heels you can't get a little bit of a relief rally. But from a broader standpoint, where we are on the cycle, we think it's very late-cycle. So that's the idea there.

And then to come back to rates and their role in housing, here on Slide 20, we've put together a simple snapshot here. If you look at the X axis, you've got the quarter-over-quarter change in the average 10-year yield. And then on the Y axis, you've got the quarter-over-quarter change on a relative basis, relative to the S&P 500 of homebuilding stocks.

As you'd expect to see, there is a negative slope here, a negative correlation. And the idea is that, when you get more than a 50-basis-point change in the 10-year on a quarterly sequential basis, you tend to see these homebuilding stocks move up or down in the opposite direction by around 10%. And that's exactly what we saw over the course of the first quarter.

So you can see what the predicted was and what the actual was. A pretty good fit.

And then a little bit bigger picture on this next slide (Slide 21), I talked about these three prior analogs for rate shocks and what happened on short of the other end of things.

To look at those briefly, you had the December '94 to December '95 period. This is the year following that significant increase in rates. So here you had the S&P 500 homebuilding index gain 35% over that 12-month period.

In the May 2000 to May 2001 timeframe, S&P homebuilding stocks were up 75%. Remember that was a very challenging time for the broader market. Especially in tech stock land I know you're familiar. But during that same timeframe, housing stocks were up 75%.

And then following the taper tantrum, September '13 to September '14 timeframe, homebuilding stocks were up 19%. Not a great relative return, but, again, a pretty good absolute return.

And then, a pretty similar dynamic, if we go to this next slide (Slide 22), at the bottom left of this table you can see in the first quarter of 2019 homebuilding stocks were up 18.4%. So a pretty remarkable turnaround from where we'd been, really all year, in 2018.

And, I guess, one final point on the US market, on this slide (Slide 22), is that there is an interesting recurrent phenomenon from an equity price performance, which is that most of the time, usually about two-thirds of the time, you get very positive performance in housing equities in the fourth quarter of each calendar year. And then you tend to also see strong positive performance in the first calendar quarter of each year.

Whereas the middle of the year, so really 2Q and 3Q, these stocks tend to tread water. I think part of why that's the case is you have this recurrent "hope springs eternal" sort of spring buying enthusiasm that begins to take hold really around the October-November timeframe.

So we think that's part of what we're seeing here again. We think things are setting up very well for this fourth-quarter rally. That's what I would leave you with on the side of the US housing market.

Erik: Okay, so with respect to US housing, this sector looks pretty strong right now. The one thing that could turn it around completely on its head would be a reversal in the direction of interest rates. But neither you nor I think that's about to happen.

And, meanwhile, the best action seems to be in the builders of smaller homes (regardless of the size of the homebuilder) who are going to be addressing the markets where the most demand exists.

Let's move on to Canada and see how that situation compares with the US.

Josh: Canada is almost a mirror image of the US. Canada is very late-cycle. Canada has a very significant over-leveraging problem at the consumer level. And for these reasons we'll take a look at why we think the Canadian housing market and the Canadian banking system are going to face a number of years of significant headwinds to come.

So let's dive into a few of the more salient points that are really just inexorable fundamental headwinds that the Canadian economy is facing.

The first is (Slide 24) just a snapshot of mortgage debt. And a lot of these slides juxtapose Canada relative to the US. I think it's important to have things to give you a frame of reference. We know, obviously, how the US experience evolved over the last few decades. So I think comparing that to Canada's experience is instructional.

On this first slide (Slide 24), we can see that the Canadian housing debt relative to GDP has swollen pretty significantly, particularly since the start of 2000. And relative to the US, it's now at levels comparable to where the US was at its peak, right around 70% of GDP.

On the right side, we show household mortgage debt to 1970. And on that basis, obviously, Canada is beginning now to – well has been, really, for the last decade – leaving the US in its wake.

If we think about home prices, or the asset side as opposed to the liability side, on Slide 25 you can see where US home prices were in 2000, where they peaked in 2006, where they corrected to in 2012, and then where they've since reflated to.

And, really, over that timeframe Canadian housing prices haven't really looked back. They did very briefly in the wake of the Great Recession. But the magnitude of the drop was *de minimis,* and the rally then from 2010 to 2017 was pretty remarkable.

Thinking about household debt relative to disposable income on the right, you can see how Canada has really undergone this enormous divergence relative to the US. We've got a couple of lines in there for the US, one which is excluding health care costs and the other which tries to make the US more apples-to-apples to Canada, considering Canada's health care structure.

Then if we think about debt service ratios, which is really the important barometer – this is the amount of money you're spending to service your debt – on Slide 26 you can see on the left BIS data (Bank of International Settlements data) that compares Canada to the US.

Again, obviously a very significant divergence that has only grown wider over the last 10 years. On the right is that actual divergence mapped.

And then on the next slide (Slide 27), the same basic idea: debt service ratio. Here we're going about it slightly differently. We're using Federal Reserve data for the US and StatCan data for Canada.

We're showing that divergence on the right here in terms of standard deviation bands. And you get a sense for just how dislocated these two markets have become on that basis.

Erik: Josh, help me out here, because these slides are striking to me. I mean, it really just jumps off the page. It appears that everything was the same in the US and Canada until about

2000.

Then prices went crazy in both countries starting around 2000. The US had a peak and a collapse in the event that we all know so well in 2008 and ‘09. And Canada just kept on going.

Is there some fundamental reason that Canada is immune from gravity? Or is it different fundamentals that caused the event in the United States? I mean, certainly the corruption around sub-prime mortgages and the underwriting, and Canada doesn’t have the kind of structured products and sophisticated CDOs and so forth that got us in so much trouble in the US. But even if you separate out those factors, the Canadian numbers look kind of nutso to me.

Am I missing something? Or is it really a situation where Canadian housing is just crazy high numbers that look unsustainable to me?

Josh: I don’t think Canada is immune to the realities of the fundamentals. And that’s really what these charts are designed to illustrate. I think the reality is that Canada had a minor correction following the crisis.

I think sometimes what happens in studying examples throughout history is that economies come out the other side of things – whatever doesn’t kill us makes us stronger seems to be the prevailing wisdom.

And I think, based on the fact that the Canadian banking system appeared to be pretty all-weather and came out the other side relatively unimpaired really emboldened the confidence.

Two of the markets where you really saw this were both Canada and also Australia, very similar markets in a number of respects. And I think that’s part of what creates the real risk in the market is that you get this sense that, well, we came out of that crisis okay, so therefore things must be fine.

And you’ve really only seen this sort of leveraging inclination rise over the last 10 years. So it’s really created a lot of the same sort of backdrop that we had in the US a decade earlier: a growing number of households that are extremely stretched from a debt standpoint.

I think there was some data that came out the other day talking about how 48% of Canadians are less than $200 away from being unable to meet their obligations. Pretty extraordinary numbers.

And you think about the vulnerability of a system that itself is so dependent on the housing market from an employment standpoint and the spending standpoint and the wealth effect standpoint, and you have that large a share of its base that close to financial trouble, you have a really delicate at-risk framework that really just isn’t prepared to deal with any kind of exogenous shock.

So that, to me, it's really a risky situation you've got. And I think these numbers in these charts speak to why that's the case: very high levels of debt, very high levels of debt service ratio.

Erik: Josh, how much of this is being driven by the fact that so many wealthy Chinese who were trying to smuggle money out of China are favoring the Canadian housing market as their favorite place to buy high-end condos? Particularly Vancouver and Toronto.

And, particularly, you said what if there was an exogenous shock? Well, what if China were to really clamp down on that and actually stop that capital outflow? And suddenly the demand by external Asian buyers for Canadian condos went to zero overnight? Talk about exogenous shocks. That would be a big one, wouldn't it?

Josh: It sure would. And actually it's already been playing out to a fairly high degree.

There's been a number of regulatory changes that have been put out at the provincial level. If you look at the West Coast, Vancouver (well, really, British Columbia) started this whole thing off with their foreign buyer tax back in 2016.

And then recently, I believe it was February of this year, they raised that from 15% to 20%. And then on top of that you've had home owner vacancy taxes. You've had a number of initiatives put in place, really to discourage foreign purchasing.

The CMHC came out recently and said that they have pretty good data now to show what the percent of demand coming from overseas really looks like. And for Greater Vancouver over the 2016 and 2017 timeframe, it looks like between 20% and 25% of all demand was originating from China.

So that market has definitely cooled down very dramatically. Volumes there in Greater Vancouver have fallen at 40% year-over-year for the last few years. And a lot of that is being driven by this reduction in foreign demand.

Ontario and the Greater Toronto market are exposed to the same dynamics but to a slightly lesser extent. Part of it is just a function of proximity. Obviously, Toronto is quite a bit further from China than is Vancouver. It's also a larger market. So the ability for China simply play as large a role in a larger market like Toronto is a little bit more constrained.

But the dynamics are the same. You've seen this foreign buyer tax imposed across the Greater Horseshoe Region. That had a significant chilling effect when that went into place.

The other thing that's interesting, and we've been hearing more and more about recently, is this idea that some of these Canadian housing markets are really being used for money laundering purposes on the part of overseas buyers. And that's been an area that has not, until recently, received much attention on the part of Canadian regulators.

Just now, really since the start of this year, you're starting to hear the volume get cranked up. You're hearing different prominent Canadian regulatory folks begin to finally talk about the scope and magnitude that this problem has played across these housing markets. And they're finally really beginning to crack down on it.

So we think that's going to be the next shoe to drop that's going to further curb foreign demand.

And then the other thing to think about is that, from the standpoint of the Chinese buyer, foreign property is not quite perfectly, but almost, fungible – in the sense that they can buy property in Australia, in Canada, in California, in different parts of Southeast Asia. And so they really do look at a lot of these markets on a relative basis.

So if Canadian house prices have risen threefold in Vancouver, which they have, and at the same time now you have to pay a 20% tax to buy property that's risen threefold, and you're considering that relative to, let's say, buying something in Thailand or Vietnam or somewhere else, that disparity, that relative divergence has just grown incredibly wide.

And so, all else being equal, Chinese demand for property in Canada and even on the margin in Australia, has really been receding over the last few years.

If we go back to some of the Canada fundamentals here (Slide 28), one of the things you look for are these so-called Minsky moments, these moments of extreme blow-off top behavior. Think Nasdaq, late 1999 or early 2000.

One of the gauges for that would be to look at the amount of brokerage activity, really just as a share of GDP, in the Canadian market relative, in this case, the US (Slide 28).

And you can see on the right that in the US versus its long-term average US real estate commissions as a percent of GDP hit about 3 standard deviations versus their long-term trend. And in Canada it hit about 2.75 standard deviations at the beginning of 2017. So pretty much a very similar dynamic.

Again, this is what we look for when we think about housing markets that are in excess. We look for similar patterns, similar dynamics. So I think this is one that speaks volumes to some of the similarities.

And then it's important to remember that, even though it's been a really long time since there's been a housing correction in Canada, there are prior examples.

If we look at Slide 29, this is what happened to Canadian home prices in the early 1980s. You had a 17% decline nationally. At the same time, you had the TSX, the Canadian stock market, drop by 42%.

Obviously, a lot of that was clearly driven by the energy policies of the late ‘70s, early ‘80s, the price run-up, and then the subsequent housing boom that occurred in conjunction with that. But you can see that there is in fact vulnerability to this market.

We had a similar episode in the early 1990s. This one was fueled primarily by a much narrower window into the Canadian housing economy, which was the Toronto condo market. But here, just the Toronto condo market price corrections triggered an 11% national home price correction, which also drove an 11% TSX correction.

So it’s not without precedent. It’s just been an incredibly long time, about 30 years, since the last time there was a meaningful correction in home prices nationally across Canada.

And if we look at how fundamentals are beginning to trend here on Slide 31, if we look at year-over-year changes in credit growth, you can see that residential mortgage credit, consumer credit, and then household credit are all decelerating on a year-over-year growth basis.

And that’s really what is keeping the main engine of the Canadian economy going, of course, is credit. So as credit demand is decelerating, that’s going to take a toll on the potential for underlying economic growth.

And then on this next slide (Slide 32) – I had shown this slide earlier when we were looking at the US housing market as being still mid-cycle. So recall these are the quarterly cashed-out home equity numbers from 1994 through present.

What’s interesting is, if you look at Canada, right now HELOC balances in Canada on a per capita basis as of October were $4,849. If you compare that to the US on a per capita basis, US HELOC balances are $1,080. So you’ve got a four, almost five times multiple.

To put that into perspective on this chart, that would equate to quarterly home equity cash-out volume of about $67 billion in Canada versus where we are currently of around $15 billion in the US.

If you look at this chart, you can see where Canada would slot in in the sort of high 60s. Not quite as bad as we were at the peak there in 2005-6, early 2007 in the US. But clearly in a very different place than where we were post- the crisis or pre- the run-up to the crisis. Obviously, this is a slide that I think is pretty alarming.

So now let’s take a look at a few of the regional data points.

On Slide 33 we have a simple existing home sale stack here for the Greater Toronto market. So if we look at the most recent data – this is through May – the first three months of 2019, Toronto sales were running at their lowest level of the decade. In April and in May they had bounced back a little bit.

I think part of that is that rates have cooled off a bit and part of that is a bit of an easy comp phenomenon. But the reality is that, even with the bounce in April-May, we're running near the lowest levels of the last decade. Really, the only levels lower were in 2018.

If we look at the adjusted months of supply (Slide 34) – I apologize because these are not updated for the most recent data points – but we're generally running at levels that are at or near their high-water marks over the last decade.

And if we go to Slide 35, we can translate where adjusted months of supply are and what that means for home prices. When you get into this 2.5 to 3.0 adjusted months of supply range, that's going to produce basically a static home price environment, which is what you can see at the bottom there. It's highlighted and bold there. The months of supply 2.5 and 3.0 translates into 5.0 and zero.

And the idea here is really to give people a framework for thinking about what do changes in demand mean? What do changes in supply mean for home prices?

And, ultimately, it's home prices that determine losses. And losses, of course, determine bank performance but also bank underwriting standards. Because banks generally underwrite on a backward-looking basis, meaning that, as loan losses begin to build up, they tighten credit conditions. And that's what causes the cycle to go in the other direction.

I've got a number of slides here – I won't spend too much time on them – looking at some of the different markets.

In this case, within the Toronto market. Overall, if we look at detached homes in Toronto, they're down about 20% from where they were in early March 2017. The condo market has held up a bit better. The detached market, not so well.

If we look at Slide 37, some of the bigger suburbs within Toronto, Markham and Richmond down 27% and 28% since the high-water mark in March 2017.

On Slide 38 you can look at Vaughan and Ajax down 23% and 17%.

On Slide 39 we highlight a few examples. (We have a much more robust sampling, but for this purpose I just tried to trim this down a lot.)

If we look at the house on the right, just as an example, here's a house in Markham that sold in 2017 in the spring for a little over $2 million, and sold just recently for $1.3 million. So roughly a $700,000 loss, 35% in two years.

Look at the example on the left. These are two virtually identical houses just a few doors down on the same street. You've got roughly a 27% difference in the selling price between the two.

Some of the data you see, particularly from places like Teranet, conveys this underlying calm which I think is belied by the real examples you see when you delve into some of these individual markets really at the ground level, individual houses. So I think there's a lot more weakness going on than what you would take away from looking at some of these broader measures.

If we transition from Toronto to Vancouver (Slide 40), we've got this existing home sale stack again. Vancouver has just been getting worse every year for the last few years since its peak in 2017. And the first four months of 2019, Vancouver had been the worst in the last decade. In May also the worst May in the last decade. A little bit better, but we think the bounce is largely driven by a bit of weakness in rates.

If we go to the next slide (Slide 41), you can see the adjusted months of supply for Vancouver clearly trending up and to the right.

To put that into the same context as we looked at earlier in Toronto, on Slide 42 you can see that nine months of adjusted supply works out to a home price environment where you're going to see prices declining roughly 10% on a year-over-year basis. So obviously a pretty weak environment.

Slide 43, just a snapshot of different housing categories in the Greater Vancouver area. You've got single family, two stories, apartments, composite, all categories rolling over – the change on a year-over-year basis (there on the right) clearly moving lower and at a pretty steep rate.

Then if we look at just West Vancouver – as we did for Toronto, where we looked at some of the specific markets – if we looked at West Vancouver, you've got average sale prices of detached homes down 32% from the peak in 2016. So obviously a lot of weakness there.

The other thing that's going on across Canada more broadly, which is very interesting, is you're starting to see a very significant rise in consumer insolvencies. So we actually – this data goes back all the way to the early 1990s.

Beginning in 2012, they broke this data out from being just total consumer insolvencies to being both proposals and bankruptcies. And then the sum of the two, which would be total consumer insolvencies.

And you're seeing this just explosion in consumer proposals, which are really restructurings of debt.

If you look at the trend – if we look at Ontario, for instance, consumer insolvencies in Ontario are up year-over-year every month now for the last seven months. They're up double digits every month so far in 2019.

Again, this really comes back to this idea that you have a very large number of people who have borrowed very large amounts of debt, and their ability to service that debt is very strained. And as home prices come down a little bit, and the employment picture dims a little bit – and, remember, we talked about 48% of people being $200 away from being able to service their debt – it's not surprising that you're seeing these consumer insolvency numbers really break out to the upside. We would expect to see that trend continue.

So this is a pretty important barometer, one that we keep tabs on monthly. There's actually some great follows on Twitter for people who are specialized in this business, if you're interested.

These last few slides are really just a snapshot of exposure profiles across the big six banks in Canada. We profile residential mortgage and HELOC exposures on both an insured and uninsured basis as well as the uninsured books relative to their respective regulatory capital levels. I won't spend too much time going through that. And I'll leave it at that.

Erik: Well, Josh, I can't thank you enough for a fantastic interview. It's amazing how much this story has changed since we got the last update from you, which was back in Toronto. So we look forward to getting you back on the program soon.

Before I let you go though, we've got another big change from our friends on the marketing side at Hedgeye. The last time we had you guys on, they were promoting the All Access Pass. Hedgeye has introduced a new premium product called Hedgeye Pro. And I had to call my friends in the marketing department to find out the difference.

Hedgeye Pro is more organized toward longer-term investors. So, where the All Access Pass includes those daily risk limits and some of the things that are more trading oriented, Hedgeye Pro is more of the longer term.

Now they've included in Hedgeye Pro a new product offering from Hedgeye which is called QIO (Quarterly Investment Outlook).

For those of you who are familiar with Keith McCullough and The Morning Show, Keith loves to take everything and break it down into what's the most three important things this day that we need to talk about today.

What Hedgeye has done is structured a product: What are the three most important trends in the upcoming quarter? And they've written entire research pieces on each of those three topics and that's called the Hedgeye Quarterly Investment Outlook, a brand new product being introduced by Hedgeye. And it's included in the new Hedgeye Pro product.

Patrick has done a fantastic job, as always, at beating down our friends Dan and Matt over at Hedgeye to get a better deal. They're running a big introductory promo on the website. It's

$899 for Hedgeye Pro and we got an extra $150 off for MacroVoices listeners only.

The process there is buy it on the website for $899 and then email Matt Moran (mmoran@hedgeye.com) and tell him you want your $150 refund because you're a MacroVoices subscriber. And Matt will hook you up.

You can find all of that information on the final slide in the slide deck here or you can just go to hedgeye.com or email sales@hedgeye.com – and be sure to tell them you're a MacroVoices listener to get that $150 discount.

Josh, we need to leave it there in the interest of time. It's really great having you back on the show. We look forward to having you back as the housing market evolves to whatever comes next.

Josh: Happy to do it, Erik. Thank you. See you next time.

Erik: Patrick Ceresna and I will be back as MacroVoices continues, right here at macrovoices.com.