THE BRAVE NEW HOUSING CYCLE

9/15/15

By Joshua Pollard, CEO of Omicelo

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THE BRIGHT SIDE I ONE

The US housing market is entering a period of accelerated price appreciation that I call *The Brave New Housing Cycle* - a reference to *The Brave New Business Cycle - No Recession in Sight* by Bill Dudley, the President of the New York Federal Reserve Bank. Dudley's 1997 piece, co-authored by Edward McKelvey, purported that structural changes - technology, a supportive monetary policy regime and positive impact from external countries - had altered the frequency and magnitude of US recessions.

Home prices are likely to rise 15% between now and the end of 2017 because of housing-specific structural changes - sizable repairs to the US housing finance system, once-in-a-lifetime monetary policy, and the advent of real estate technology. Well-located real estate will continue to be sought by yield focused investors and a new wave of consumers with checkbooks in hand. A return to rapidly rising home prices, reminiscent of the appreciation the US witnessed in 2004-05 and 2012-13 will emerge in published national data in the coming few months, reflecting the yet-to-be-reported upward price shift that occurred this summer.

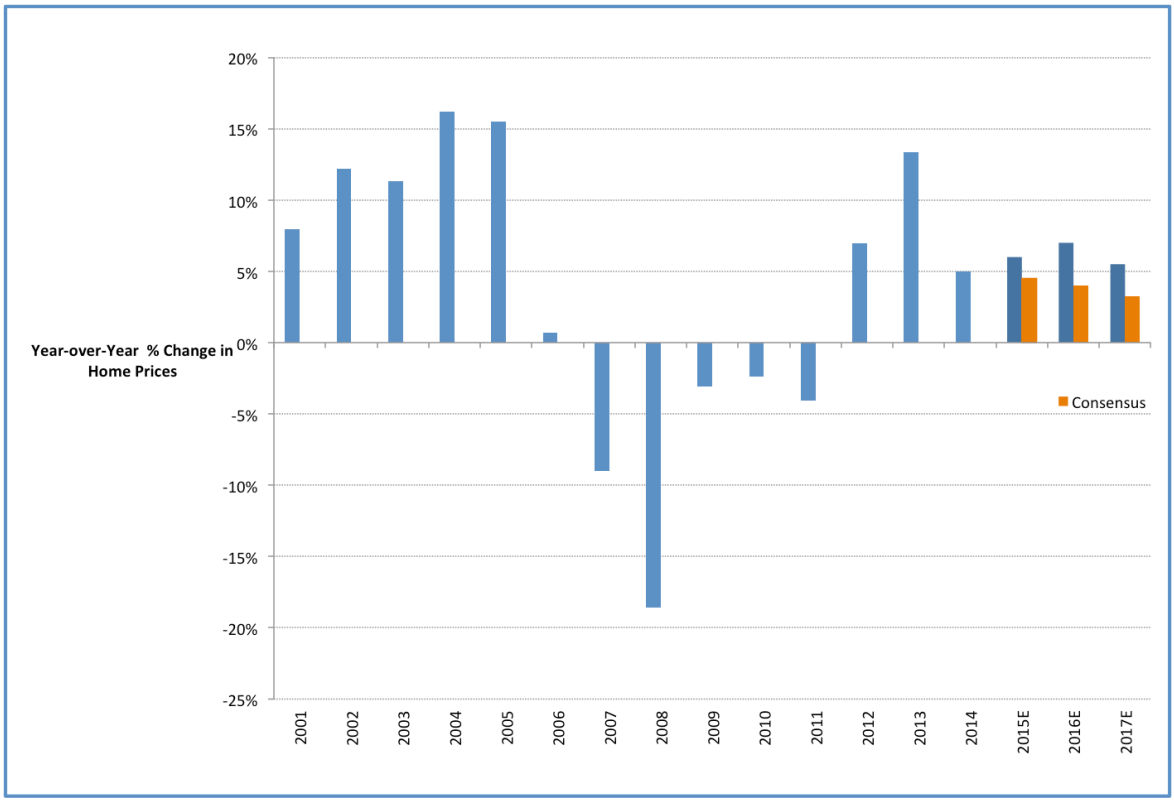
THE DARK SIDE I TWO

Dr. Janet Yellen, now the Chair of the Federal Reserve, described Dudley's *The Brave New Business Cycle* in terms that I believe are relevant for the US housing market today: "[Dudley] was one of the first forecasters to see that structural changes associated with the new economy had altered the nature of the business cycle [positively]. He also recognized that the U.S. investment boom could go bust - that the 'Brave New Business Cycle' could have a dark side."

With this emerging strength I foresee homes could quickly - in roughly two years - become susceptible to corrections stemming from small negative shocks. Together, the energy of the current home price resurgence should be harnessed in ways that benefit US consumers and banks. Downward home price pressure on the dark side of *The Brave New Housing Cycle* is sharp. It could cause generational damage to consumer wealth and confidence in homes as a safe asset class for millennials that have already seen one major correction in their lifetime.

Special Thanks to Ed McKelvey, PhD, William Dudley's co-author of *The Brave New Business Cycle - No Recession in Sight* and *The Dark Side of the Brave New Business Cycle*. Mr. McKelvey is a Visiting Professor of Economics at Oberlin College following his 25-year career as senior economist at Goldman Sachs.

Exhibit A: Year over Year Change in Home Prices



Source: Case Shiller, Omicelo estimates

3 STRUCTURAL FACTORS BEHIND THE BRAVE NEW HOUSING CYCLE I THREE

There are 3 structural factors supporting our Brave New Housing Cycle thesis and 3 cyclical factors that further support our +15% home price forecast between now and year-end 2017:

Housing lenders are on the offense

In the last 12 months, housing policy has become more aggressively pro-cyclical, the GSEs (Fannie Mae and Freddie Mac) are transferring risk to private investors, and bank lending standards are easing.

Positive signs are emerging in the US housing finance system - it has been under forced repair since the Great Recession. First, the Common Securitization Platform that Fannie Mae and Freddie Mac have created together under conservatorship is the safest, largest and now most consolidated technology platform for global investors to access the secondary lending market. Through late-2014 the GSEs shared $400 billion of mortgage risk with private investors and re-insured $100 billion of mortgages, well in excess of their initial goals.

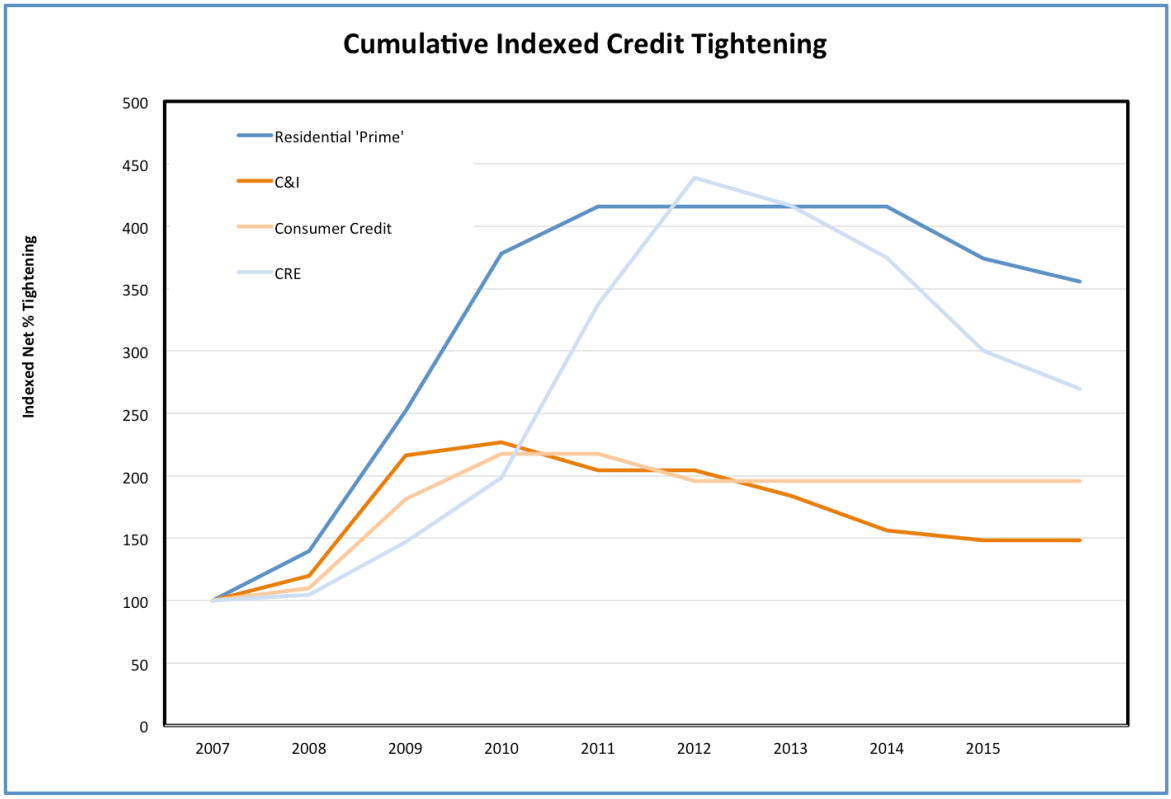
Second, mortgage lending clarity is emerging and banks are responding by easing lending standards. Qualified mortgages and qualified residential mortgages have similar definitions, mortgages that perform for

36 months have limited putback risk for lenders, and after the upcoming changes (October 2015) to mortgage disclosures the rules of engagement for mortgage underwriting will be clearer than at any point in the last 10 years.

Finally, the Federal Housing Finance Agency has lowered consumer down payments to 3-5%, the Federal Housing Administration (FHA) has cut its fees, and Fannie Mae is now offering closing costs assistance up to 3% of the purchase price of a home for first-time buyers purchasing their excess inventory.

There are still some very important pieces of legislative work for Congress over the coming 3 years, but the largest lenders in the US have the proper internal regulatory teams (and lobbying support) to digest future changes. Banks have returned to competitive tactics which inherently increase the pace of standards easing. Relative to commercial & industrial, commercial real estate, and consumer lending there is plenty of room for banks to ease residential mortgage lending standards further, while non-banks are aggressively lending to consumers. In fact there are still 100-200 bps of loan level price adjustments that are likely to offset potential increases in benchmark interest rates.

Exhibit B: Mortgage and Asset Easing



Source: FRBNY Consumer Credit Panel, Federal Reserve Bank of New York

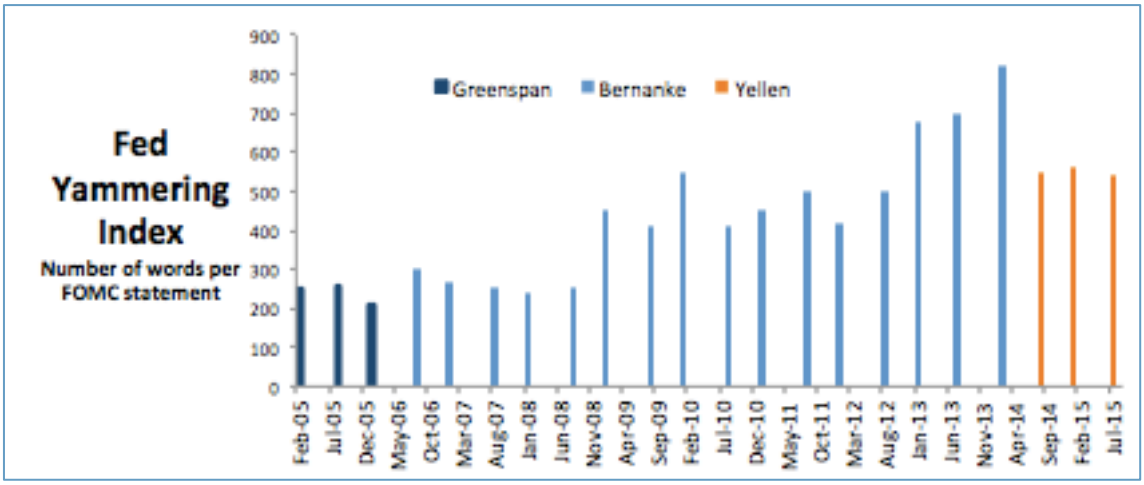
A "Patient" & Communicative Federal Reserve

From a communication standpoint, the Federal Reserve is already raising interest rates. It is not having an overly negative impact on lending rates because the Fed's communication has matured and is more predictable than at any time in history.

As the Federal Reserve changed hands to Dr. Yellen in 2014, the risk of an asset and stock market crash was much higher than normal; each of the previous heads of the Federal Reserve were greeted by a stock market crash in their first 24 months (1979, 1987 and 2008). The Fed, having learned critical lessons from the Great Recession and the 100 basis point interest rate shock of 2013, has been very patient. More importantly, the makers of monetary policy in the United States are communicating clearly with the global marketplace. If this continues the United States could transition the global economy smoothly back to healthy and rising interest rates.

Communication from the Janet Yellen Fed has negated the potentially hawkish impact of signaling interest rate increases (the 10 year yield at 2.19% is still 50 bps below its 52 week high.) By forcing market operators to think about the data used to make decisions, interest rate policy is more predictable than at any time in history. Not to mention, the transcripts of most Fed communications are made readily available, re-read and analyzed millions of times around the globe. Transcripts and analysis like this are common in today's global financial system, but did not exist the last three times the Fed engineered rate increases. Put simply, it is highly unlikely that the money market investors will be shocked in the same way Greenspan surprised the market in 1994 - lifting benchmark rates with limited forewarning - without a preceding shock from economic data.

Exhibit C: Fed Yammering Index

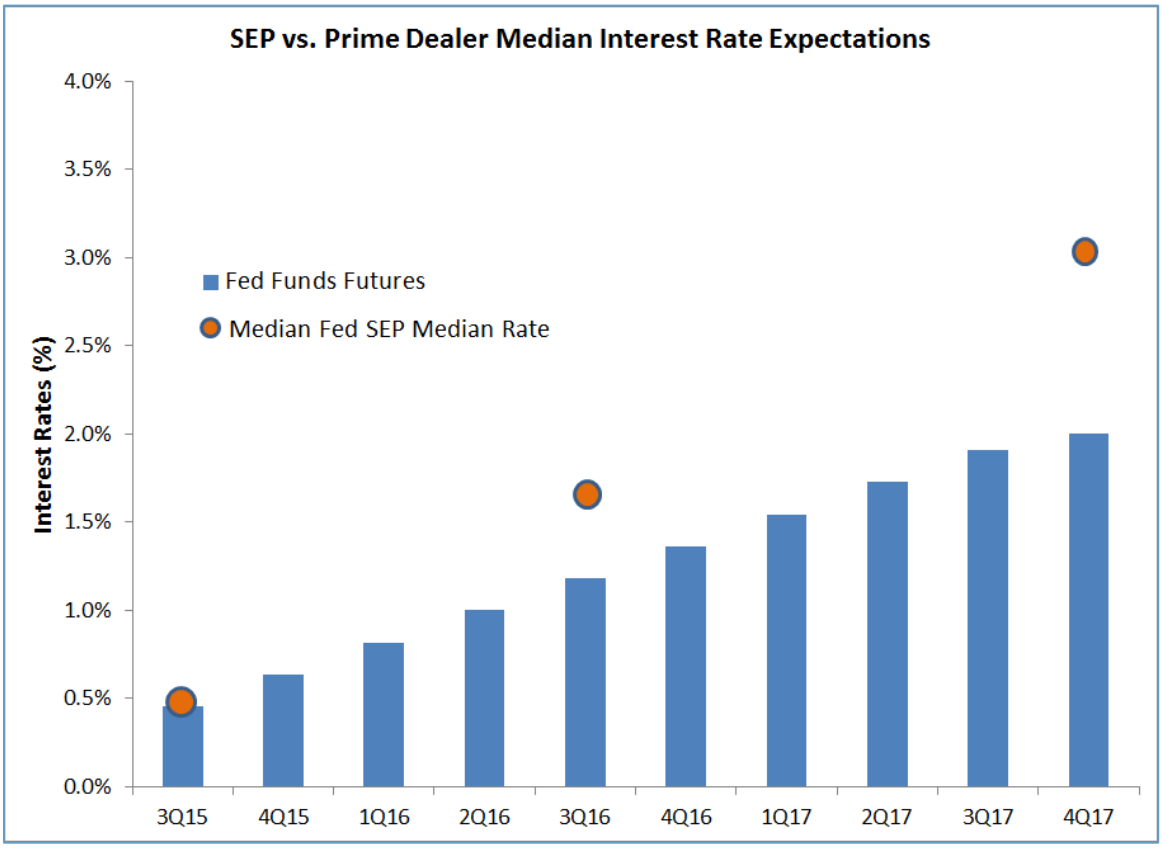


Source: Wall Street Journal

Ben Bernanke, in his March 30,2015 piece titled "Why Are Interest Rates So Low?" explains that interest rates will remain very low for a very long time around the world unless asset prices rise further. Put another way, if the Fed can avoid shocks in market-based interest rates (greater than 50 basis points in one month) home prices will return to the accelerated appreciation trend that started in late 2011. The 2014 slowdown in home price growth was a direct consequence of a surprise 100-basis point increase in interest rates in June

2013. If the Fed can avoid a shock this and next year as it portends to raise benchmark rates then the higher trend of home price appreciation will resume for at least another two years.

Exhibit D: Interest Rate Expectations



Source: Federal Reserve, Bloomberg

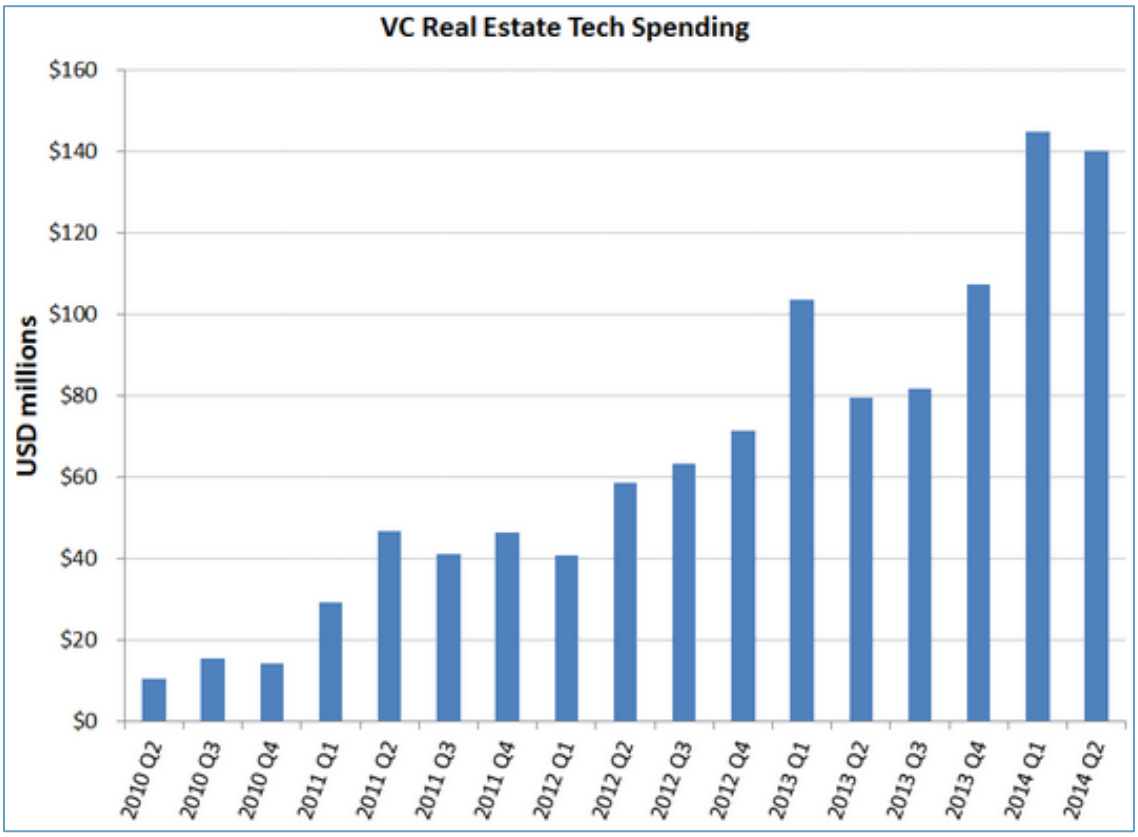
Technology is just beginning to impact housing

The just-in-time mortgage market, or technology-enabled crowdfunding, is creating a new wave of non-bank lending.

The US real estate market is in 1997 in technology life-cycle terms. The real-time data that is necessary to make the housing market truly fluid is just emerging. For instance, the country just reached critical mass (two-thirds of US and all major cities) of electronic deed recordings. Additionally, Intuit, who led most of the country to self-tax filing via TurboTax, only turned on e-signatures for mortgages in January 2015.

Real estate technology is attracting enough capital to catch up with other major pieces of the digitized economy like e-commerce and online travel. Today, there are over 100 real estate crowdfunding platform vs. 35 a year ago and real estate tech investments have more than tripled since 2012. The number of crowdfunding platform will likely triple in the next two years as new platforms focus more locally.

Exhibit E: Real Estate Technology Investments



Source: CB Insights

Peer to peer lending platforms are expanding beyond debt transactions and providing equity of up to $2 million to investors on their platforms vs. maximum levels below $1 million in just eighteen months. New platforms are emerging focused purely on commercial real estate transactions at large ticket prices.

Altogether transaction speeds in the housing market will grow as these technologies mature from their nascence. The just-in-time mortgage market is not captured in the standard metrics that investors and regulators use to measure the health of the housing lending market. More lending will have an inflationary impact on home values.

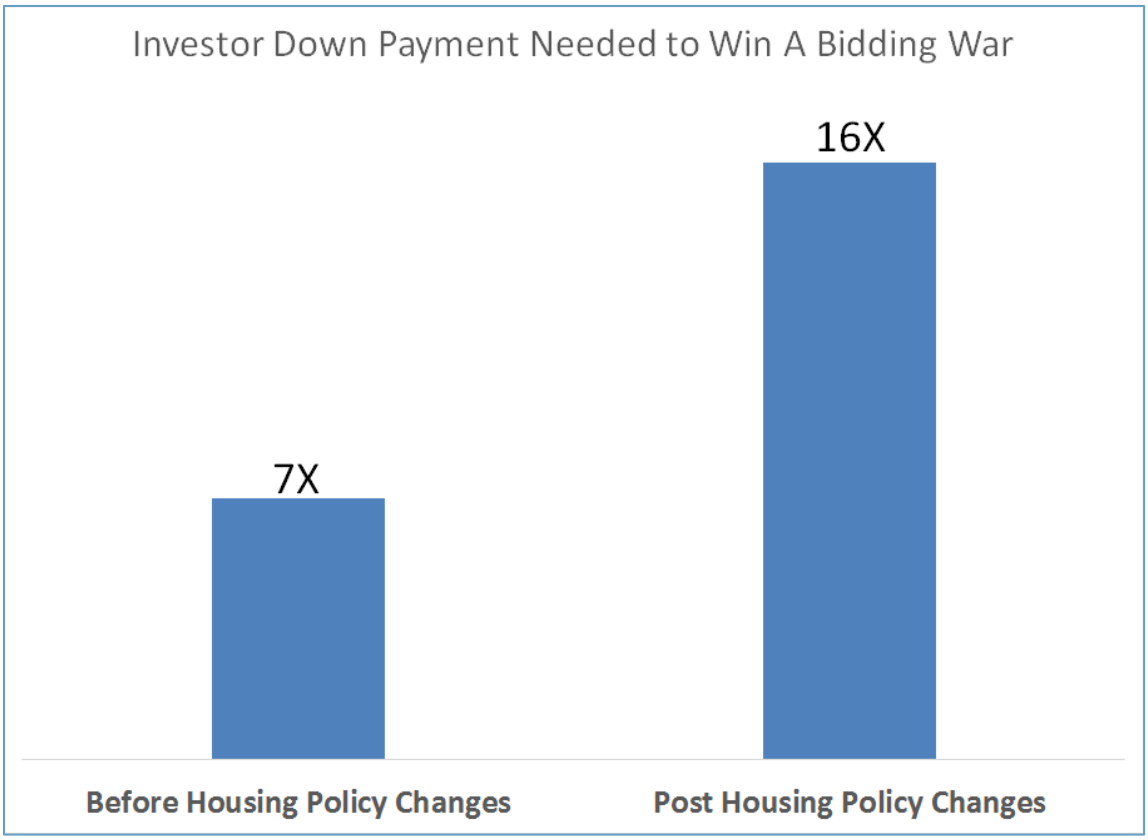
3 SUPPORTIVE CYCLICAL FACTORS I FOUR

Consumers are competing ferociously with investors for well-located homes

Consumer confidence is back to early-2000s levels, consumers' relative purchasing power has improved vs. investors, and consumers are reacting quickly to secure good homes. All this is happening while investors remain thirsty for rental income.

The reduction in down payment requirements by the FHA reduces the upfront cash necessary to secure an owner-occupied home. With limited change in the down payment requirements for investors, consumers are in a better position to compete and they know to travel with their checkbooks. Today an investor needs 16-times a consumer's down payment to win a bidding war; before recent changes in housing policy an investor with 7-times a consumer's down payment could secure great investment returns and win a bidding war. A reacceleration of home prices is the most likely result of hungry investors and revived consumers competing in the same cities.

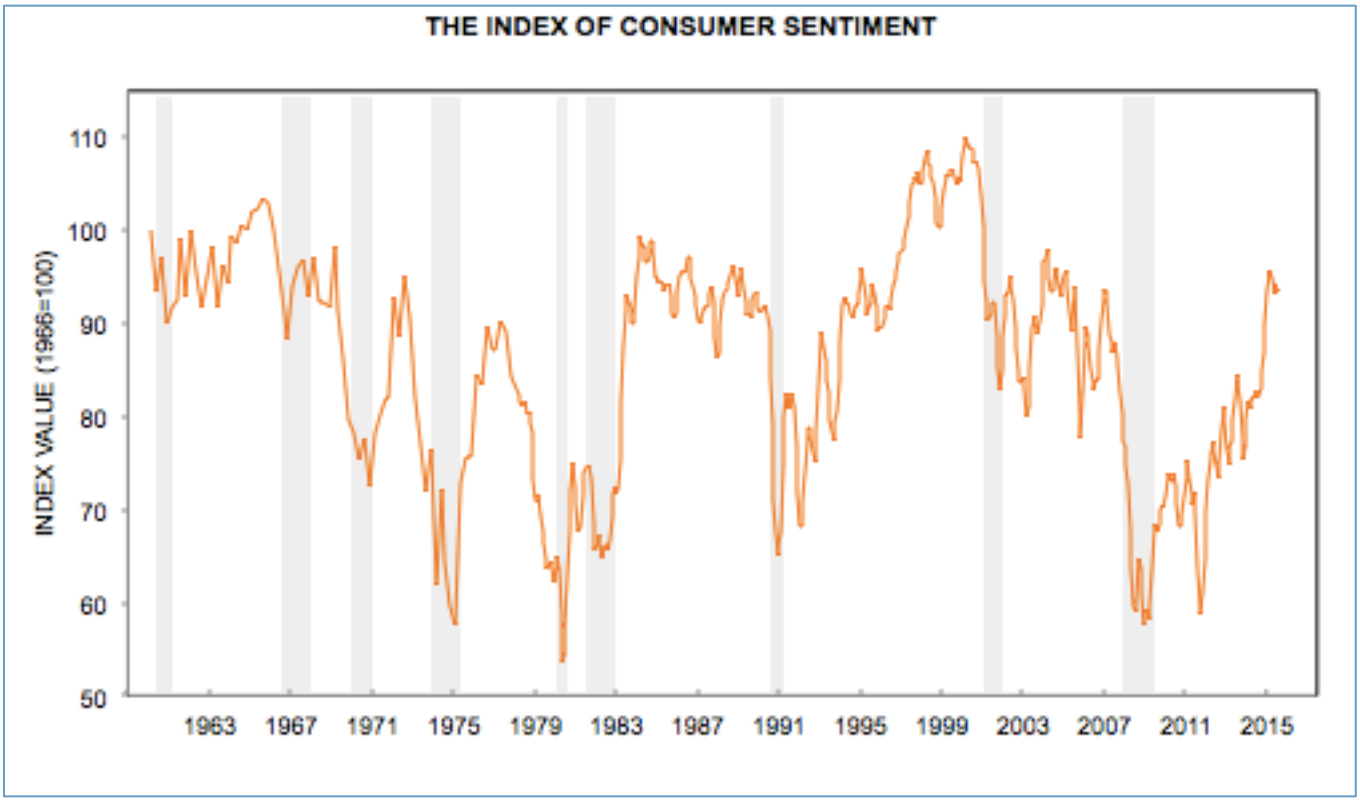
Exhibit F: Consumer Competitiveness



Source: Internal Estimates

Note: This calculation measure the amount of cash an investor paying 100% cash would have to secure vs. a consumer at an average 7-8% down payment vs. the 3% down payments that are now available via the FHA.

Exhibit G: Consumer Sentiment Index



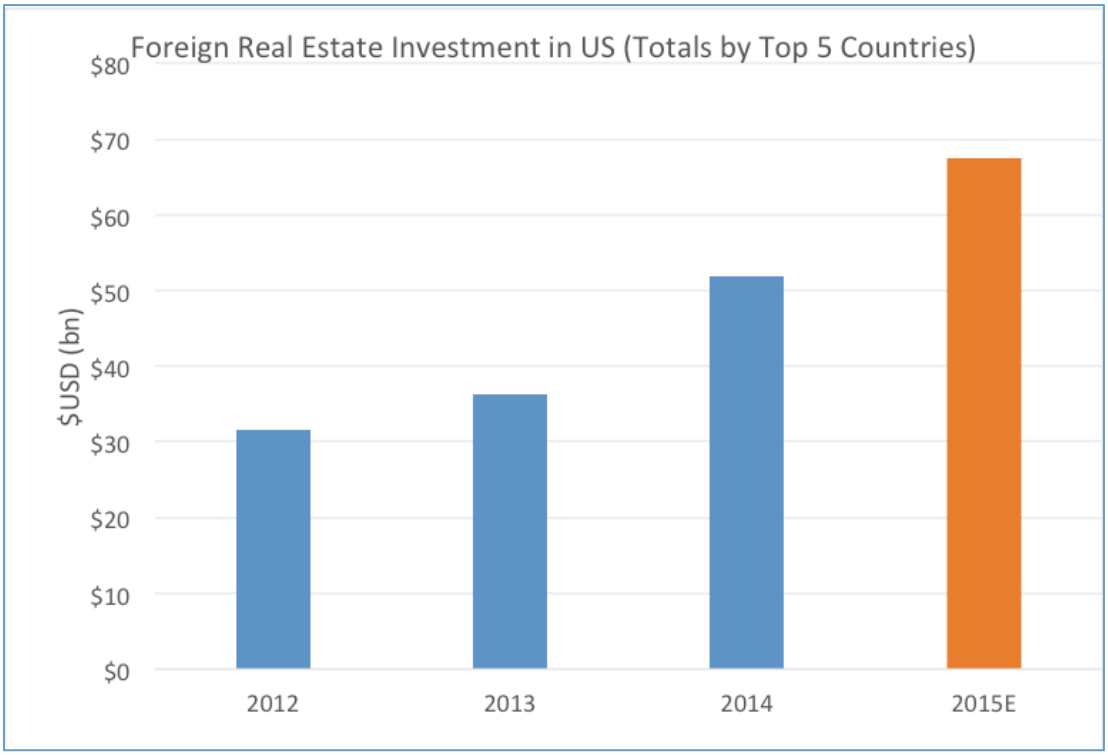
Source: University of Michigan Consumer Sentiment Index

International capital is fleeing to US housing

Rising interest rates, while feared by many, welcome large international capital flows to the US. Yes, lending is more expensive, but the premium for US capital safety should be rising, considering the global monetary competition and the volatility of asset prices (think oil) in other parts of the world.

International capital naturally flocks to high and safe return opportunities. Brazilian partnerships with the United States now own Heinz, Kraft and a host of otherwise US brands. These investments, where very consistent dividends are the primary value, are moving beyond blue chip companies and New York City real estate.

Exhibit H: Foreign Real Estate Investments



Source: NAR, OFII
Top 5 countries referenced: Canada, China, Mexico, India, and the United Kingdom

International capital is now moving aggressively to concentrated coordinates in large multi-employer US cities across the country. Detroit, Cleveland and Pittsburgh are seeing large new cash supplies from the international community. This group of investors is doubling their 2012-2013 investments and they think of US real estate like bonds. The current 6-8% annual cash return alongside mid-single digit home price appreciation is very attractive to this group of hungry buyers.

On balance, lower energy prices are good for housing

The housing market is a beneficiary of the energy price correction, no different than it was in the early 2000s following the tech bubble burst.

In the late 1990s, the last time consumer confidence was as a high as it is today, technology investors lost faith in valuation and the Nasdaq fell 76% in 6 months (oil fell 63% from June 2014 to March 2015.) There were very negative impacts on the technology supply chain, however US real estate was a net recipient of capital. Investors began to flock toward "real" assets and home prices rose at least 5% every year thereafter. The capital that has left the energy sector will inherently go toward high risk-adjusted returns. US real estate is a natural safe-haven for excess capital and will benefit from lower energy prices on a cost and capital basis. Ultimately the loss of jobs in the US energy sector, in specific cities like Houston, does not offset the positive direct impact of lower prices at the pump, lower inflation in building products across the country, and the need for investors to place their capital in safer investments across the nation.

CONCLUSION I FIVE

The next two to three years will be defining for the $23 trillion US housing market: If violent shocks in interest rates are avoided, asset values will rise materially, just ahead of the important decisions legislators need to make surrounding Fannie Mae and Freddie Mac in 2018. Recent government intervention, a growing will to lend and the forthcoming impact of technology will have positive impacts, but current and future lawmakers, for the benefit of the country, should consider safeguarding the American Dream with sound policies that support healthy home price increases and naturally rising wages that make these homes affordable for our children.

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About the Author

Joshua Pollard is a US real estate expert and founder of Omicelo - a real estate and real estate technology investment firm and consultancy.

Joshua led US housing research for Goldman Sachs through the Great Recession from 2009 to 2013. He spent the previous five years as a critical member of the firm's universal research team that found equity capital markets opportunities in real estate, transportation, business services, autos, engineering & construction, coal, electronic manufacturing and alternative energy. During this time at Goldman Sachs Joshua led the $1 billion IPO of Realogy, received numerous awards including an addition to Forbes' 30 under 30 list and he was the youngest person in Goldman Sachs' history to lead a research team.

Before founding Omicelo Joshua used a psychology-based investment strategy to drive $100 million of residential and commercial real estate capital investments for Pine River Capital Management. Joshua earned his Bachelor of Arts from the University of Rochester with dual majors in economics & statistics and a special finance citation. Joshua has a scholarship at his high school alma mater Sewickley Academy, just outside Pittsburgh, PA to support long-term quality education for underinvested youth from towns like Braddock, PA where he was raised.

Joshua is happily married with two sons.