Bienville Macro Review

U.S. Housing Update

July 26, 2013

Prepared by:

Blake Bennett
blake.bennett@bienvillecapital.com

Billy Stimpson
billy.stimpson@bienvillecapital.com

BIENVILLE
CAPITAL MANAGEMENT

U.S. Housing Update

Summary

It has been more than a year since we updated our original U.S. housing review (May 2012), an investment initially monetized through a dual approach of both debt (RMBS) and equity (Gulf Coast Opportunities Fund, LP). Our thesis has played out so far. Despite the recent rise in mortgage rates, U.S. housing fundamentals continue to support the mounting recovery…

- The S&P/Case Shiller 20-City Composite Home Price Index has risen 13.6% since its bottom in March of 2012.
- Rising home prices have had a positive effect on the value of U.S. households' real estate assets, which have increased by $2.4 trillion since the end of 2011, helping to repair household balance sheets. Additionally, residential investment as a share of GDP has begun ticking up, but remains the lowest on record and less than half its historical average.
- An improving labor market is helping support the increase in household formations, in turn providing more sustainable demand to the growing recovery. At the same time, U.S. homeownership rates have returned to normal. A deficit in housing starts since the crash has created excess 'pent-up demand' for new homes, a positive sign for U.S. homebuilders. However, the recent turn in market leadership from the homebuilder index could be signaling a slowdown in activity.
- New and existing home sales continue their strong performance, rising by 65% and 21% over the past year, respectively. The strong correlation between new home sales and homebuilders' expectations of futures sales has recently diverged, with homebuilders' expectations far outstripping actual new home sales. Either homebuilders' expectations need to come down, or new home sales are soon to increase rapidly.
- Total housing supply remains tight. New and existing homes months of supply are nearing all-time lows, while investment programs such as REO-Rental have been effective in reducing the number of vacant homes for sale on the market.
- Although mortgage rates have recently risen by 1%, the <u>absolute level</u> of rates remains near historical lows. While this 'spike' in rates could mark an end to the recent refinancing boom, statistical analysis suggests that there is nearly <u>zero</u> relationship between rising mortgage rates and new mortgage applications. The fear of higher rates may in fact pull potential buyers off the sidelines and propel near-term activity. Of course, a *material* increase in interest rates would adversely affect housing fundamentals.
- Despite the increase in home prices and rise in mortgage rates, it remains cheaper to buy than to rent, while the Housing Affordability Index still shows that housing remains inexpensive relative to median incomes. While a further rise in rates would act as a drag, it is unlikely that the Federal Reserve would allow sustainably higher real interest rates.
- Mortgage collateral pools have benefitted from improving fundamentals as 'credit burnout' has removed the least-creditworthy borrowers. This, combined with a decreasing mortgage delinquency rate and fewer monthly foreclosure filings has helped subprime RMBS prices (the focus of our RMBS allocation) rally sharply since the end of 2011. To be clear, this trade has matured and we are less constructive on the asset class than we were 18 months ago.

*This document is not a solicitation to invest in any investment product nor is it intended to provide investment advice. Please see the "Disclaimer" slide for information about Bienville Capital Management, LLC and for certain disclaimers relating to this presentation.

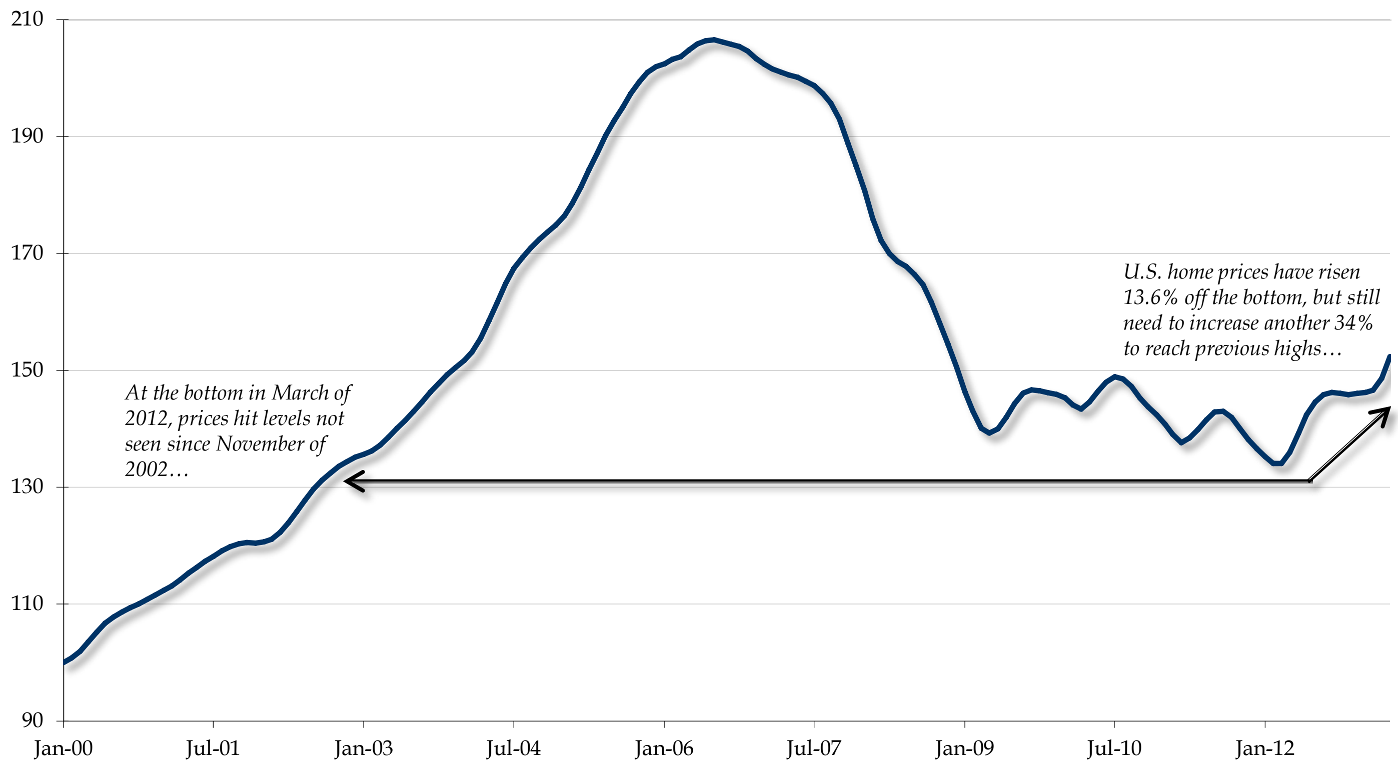
U.S. Housing Update

At the bottom in March of 2012, prices reached a level not seen since November of 2002, meaning nearly a decade worth of gains were extinguished…

…despite the rally off the bottom, U.S. home prices remain one-fourth of their way back to prior peak levels

Since 1970, there have been 24 major housing busts in 15 OECD countries. The average duration of each decline was 6.25 years with an average cumulative decline in home prices of 31%. In line with historical housing busts, U.S. home prices fell 35% from their peak in July 2006 to the bottom in March 2012. Despite the recent recovery, home prices remain far from their highs…

S&P/Case Shiller 20-City Composite Index



Source: Bloomberg data, Hayman Capital, Bienville Capital Management

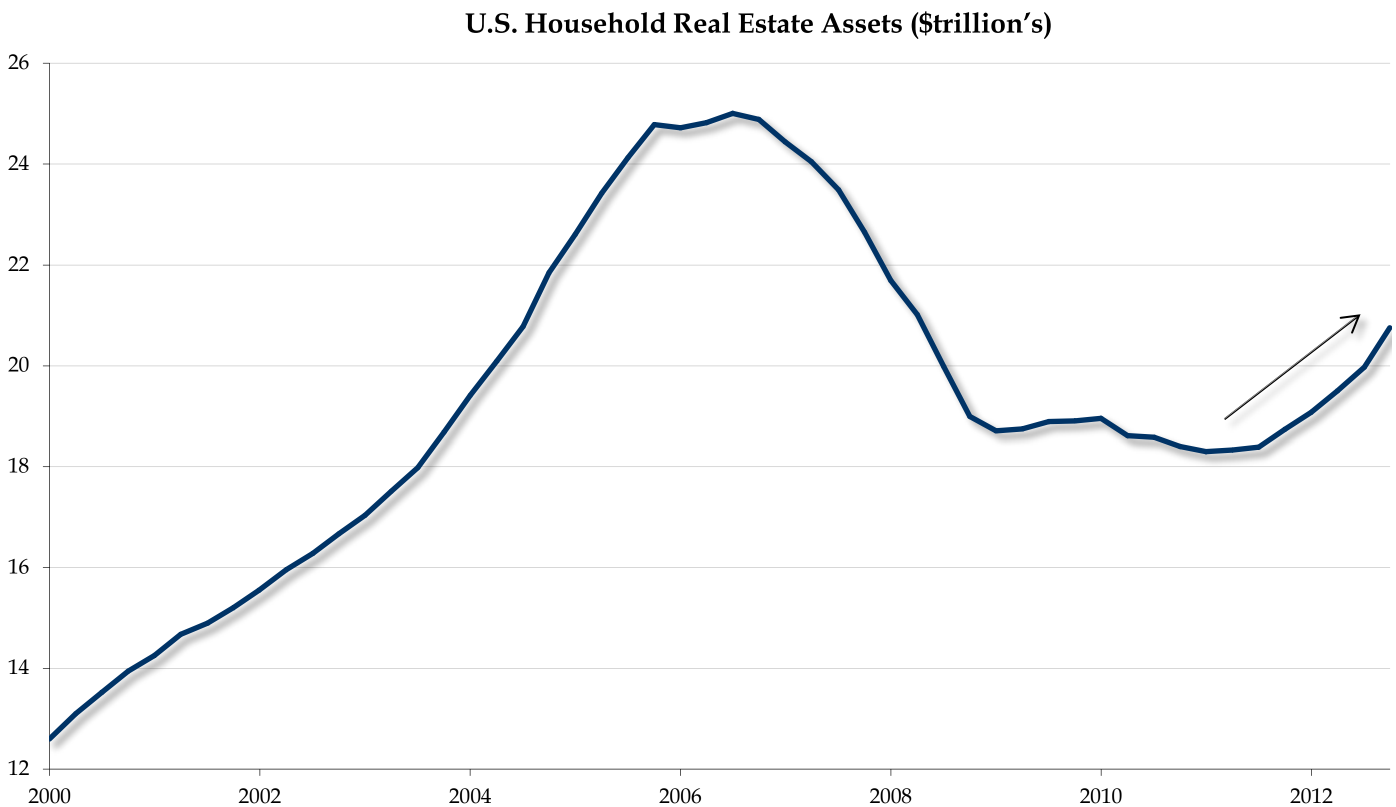
Any financial indicators or benchmarks shown are for illustrative and/or comparative purposes only. Certain information has been provided by and/or is based on third party sources and, although believed to be reliable, such information has not been independently verified and its accuracy, timeliness or completeness cannot be guaranteed.

U.S. HOUSING UPDATE

Not only does this help lift borrowers with negative equity back above water, it also incentivizes them to stay in their homes…

After falling by $6.7 trillion from the peak in Q4 2011, U.S. households have recovered roughly 1/3 of their real estate wealth

After stabilizing from 2009-2011, U.S. household real estate wealth has picked up considerably, rising by **$2.4 trillion** from the bottom in June of 2011, increasing overall household net worth…



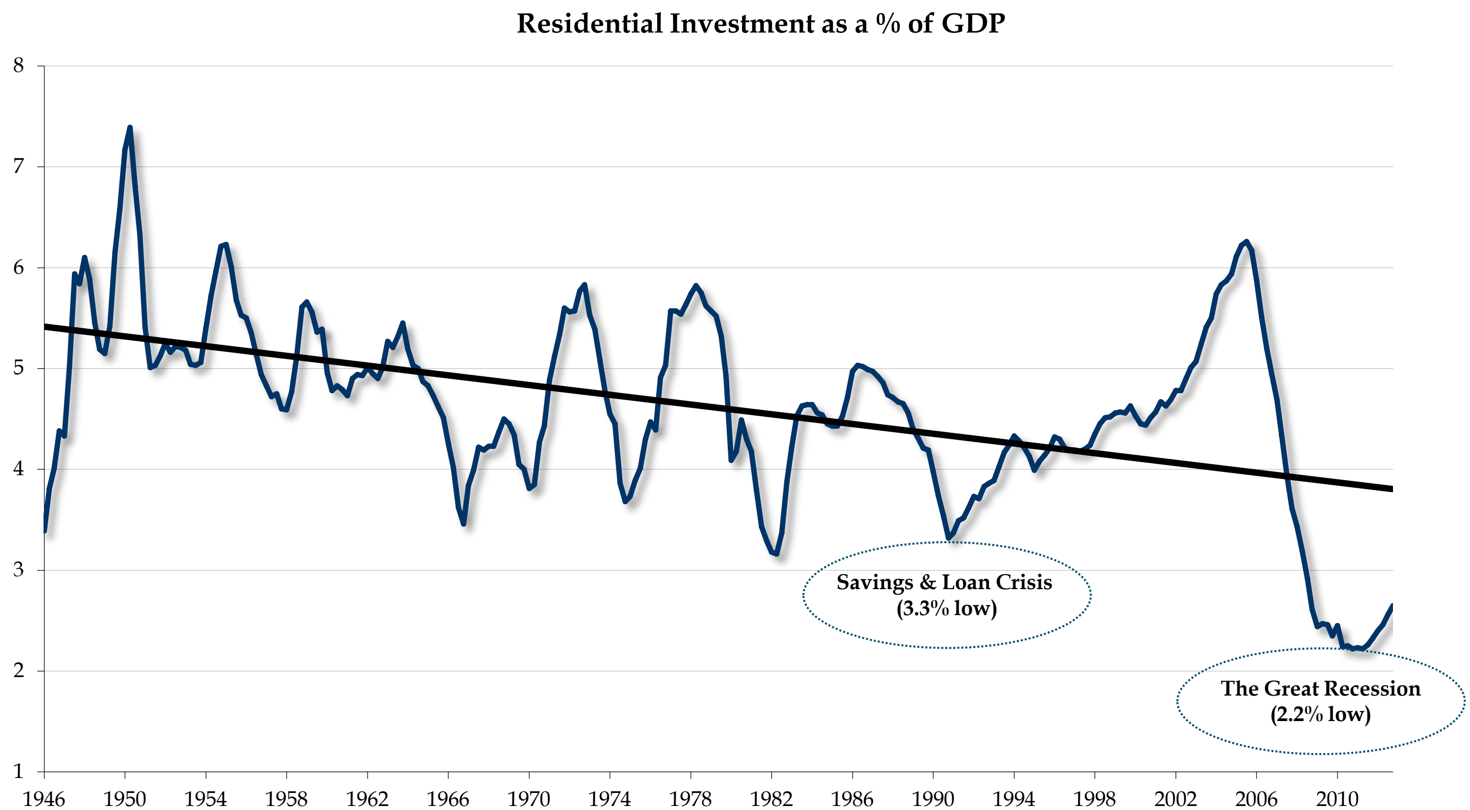
Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

By historical standards, the most recent housing bust was by far the most costly in terms of detracting residential investments' share of GDP…

….which is still below its downward sloping long-run trend

Residential investment has averaged 4.6% of GDP since 1946, however it has been gradually trending lower over time. The Financial Crisis destroyed the residential investment component of GDP, bringing it to a low of 2.2% in the third quarter of 2011 before rising to 2.6% in Q1 2013…



Source: Bloomberg data, Bienville Capital Management

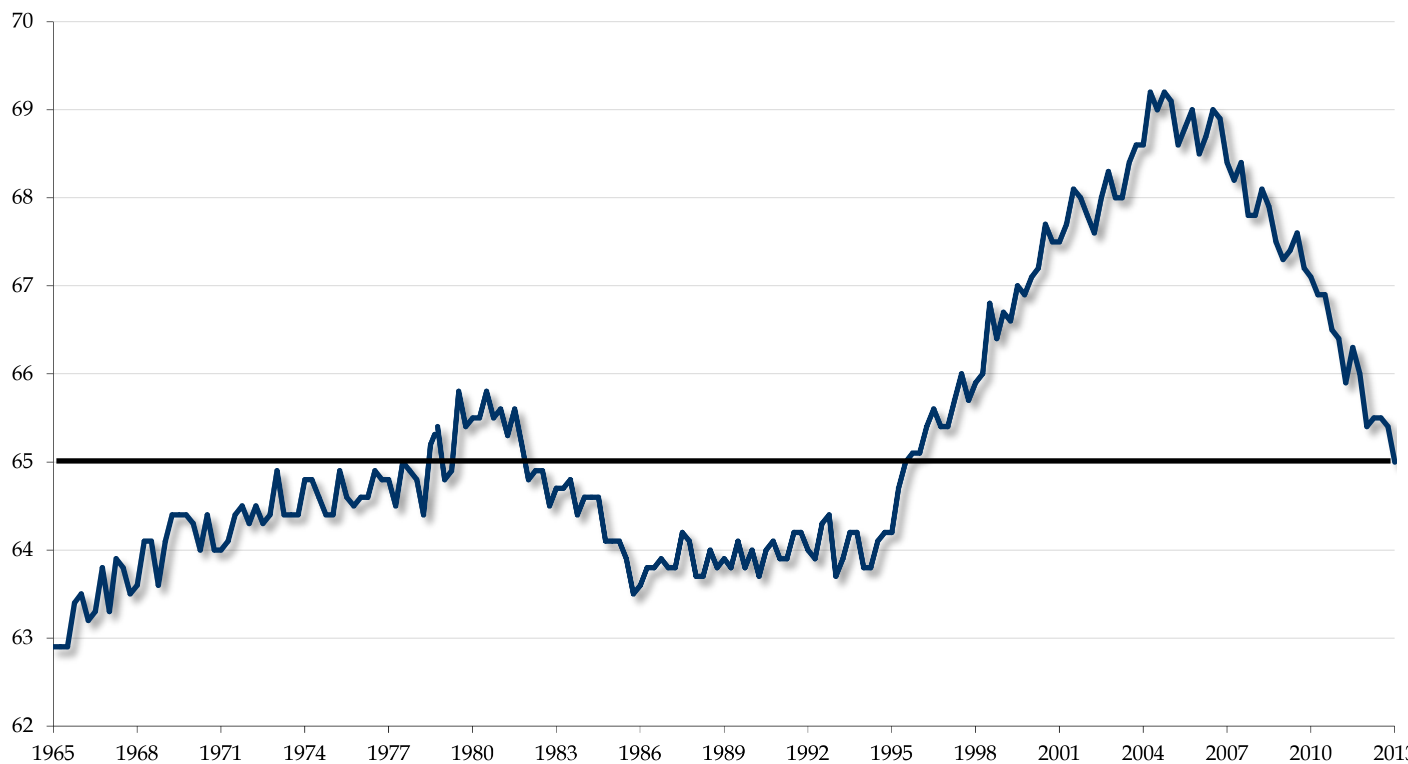
U.S. Housing Update

The long-run average of U.S. homeownership is roughly 65%…

…this ratio has returned to normal levels

After peaking at 69% between 2004-2006, U.S. homeownership rates have now reverted back to historical levels…

U.S. Homeownership Rate (% of households)



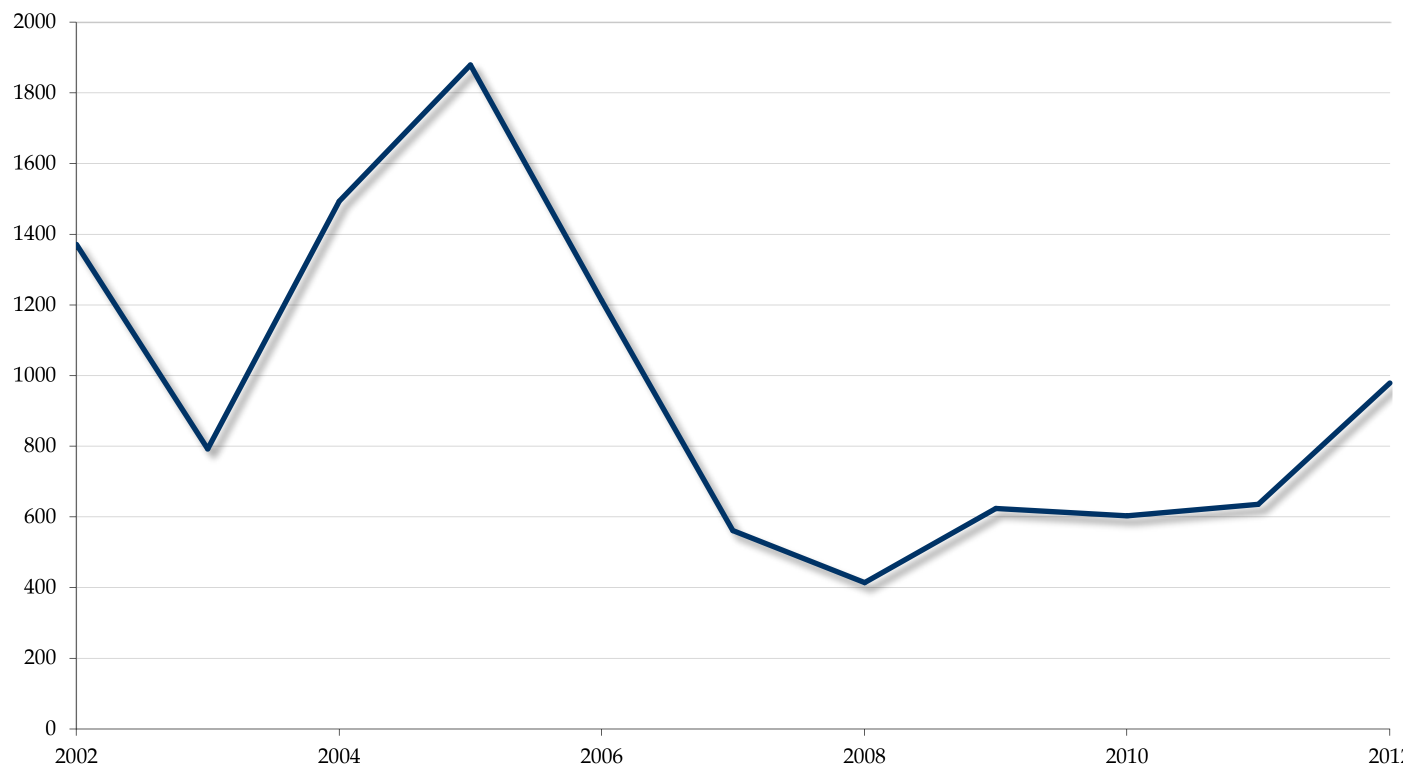
Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

…as an increasing number of households are formed, this should help solidify the demand for both single and multi-family U.S. housing

U.S. household formations are once again rising after falling dramatically during the recession…

U.S. Household Formations (in thousands)



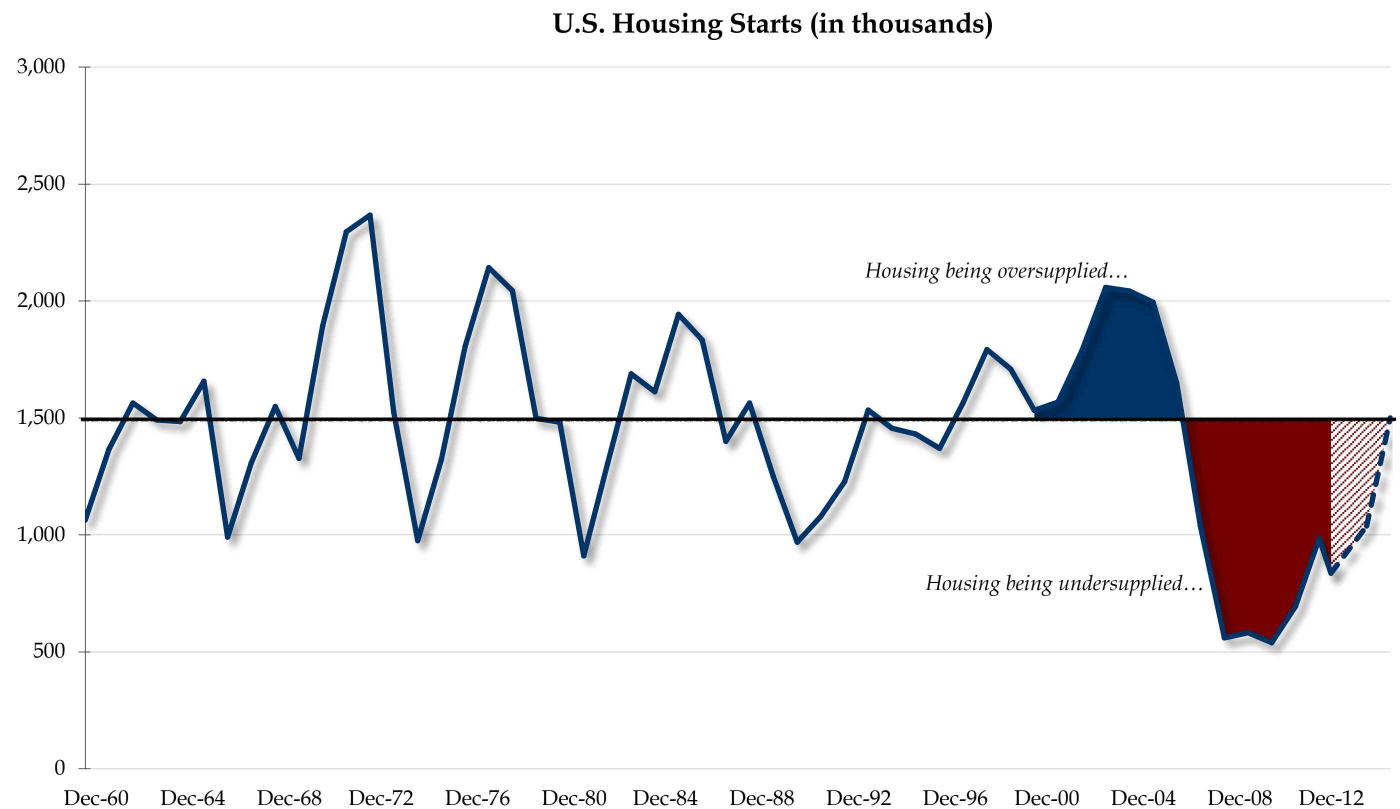
Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

Additionally, it if takes 3 years before returning to the 1.5mm trend, another 1.3mm units would be undersupplied, resulting in a total of 5.9mm total units being underbuilt…

*…the 2.1mm units being overbuilt during the bubble years minus the 5.9mm units being underbuilt since the crash would leave **a total net shortfall of 3.8mm units of "pent-up demand" by the end of 2015***

Based on a long-run average of 1.5mm new housing units built per year, 2.1mm housing units were *overbuilt* during the bubble years. Since the crash, historically low housing starts resulted in 4.6mm units being *underbuilt*. This net shortfall represents "pent-up demand"…



Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

…now that this ratio has recently stalled, it may be suggesting that U.S. housing could be entering a period of slower improvement or even contraction…

…however, given the fundamentals previously outlined, we believe the market is resting on robust support

After a period of considerable outperformance, homebuilders' recent lack of leadership relative to the broader market is something to watch…

Homebuilders' Relative Performance to the S&P 500

Source: Bloomberg data, Jefferies, Bienville Capital Management

U.S. Housing Update

Sales of existing homes have been rising for more than a year…

…existing home sales have carved out a volatile bottom as a result of government first-time homebuyer credits pulling demand forward

Sales of existing homes collapsed following the housing crash, falling 52% from the peak. After bottoming in July 2010 at an annualized rate of 3.45mm, existing home sales have risen by 50% to 5.1mm…

Sales of Existing Homes (in millions)

Source: Bloomberg data, Bienville Capital Management

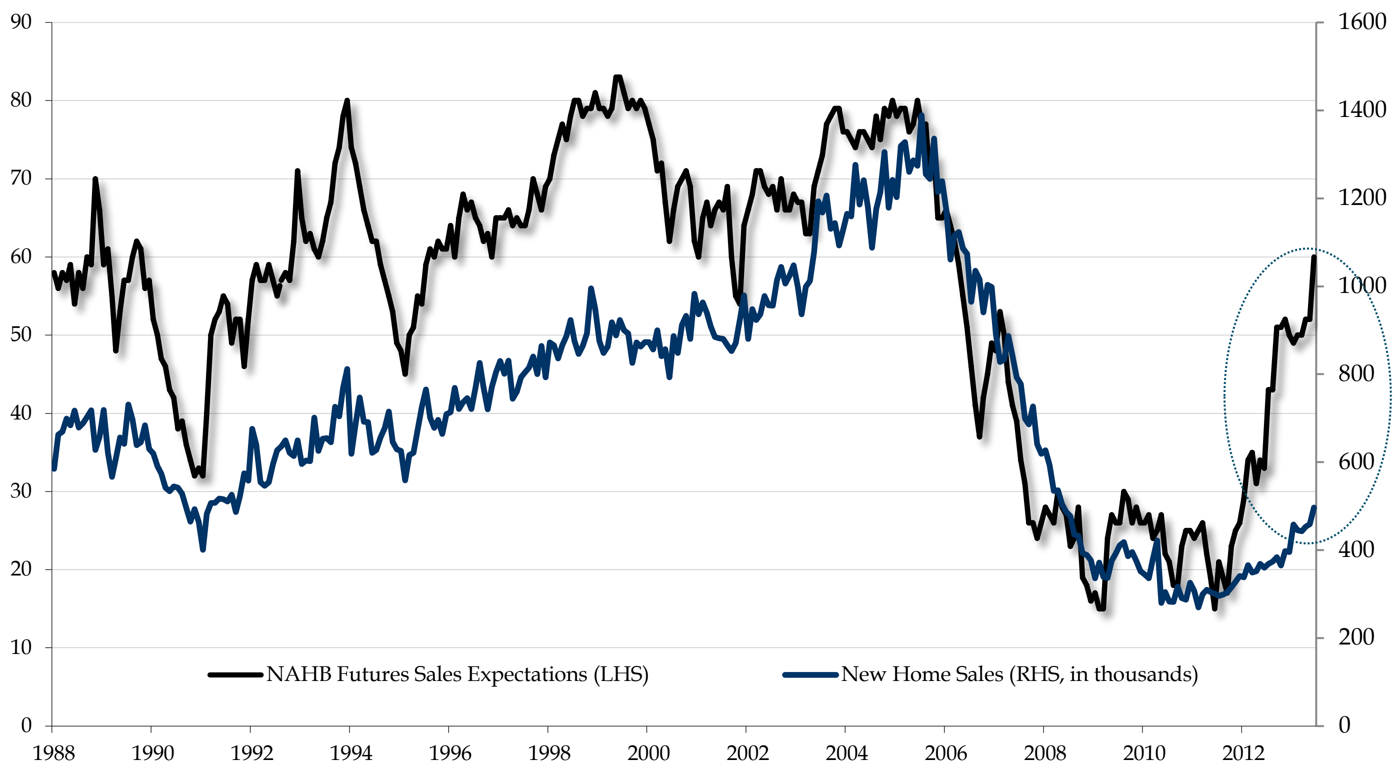
U.S. Housing Update

The NAHB index has remained below 50 since July of 2006, before finally turning positive earlier this year…

…more important, these expectations led new home sales on the way down, and if this pattern holds true on the way back up, new home sales should continue higher

Homebuilders' expectations of future sales have recently surged, while current levels of actual new home sales have lagged, despite their tight correlation since 2005…

NAHB Future Sales Expectations vs. Actual New Home Sales



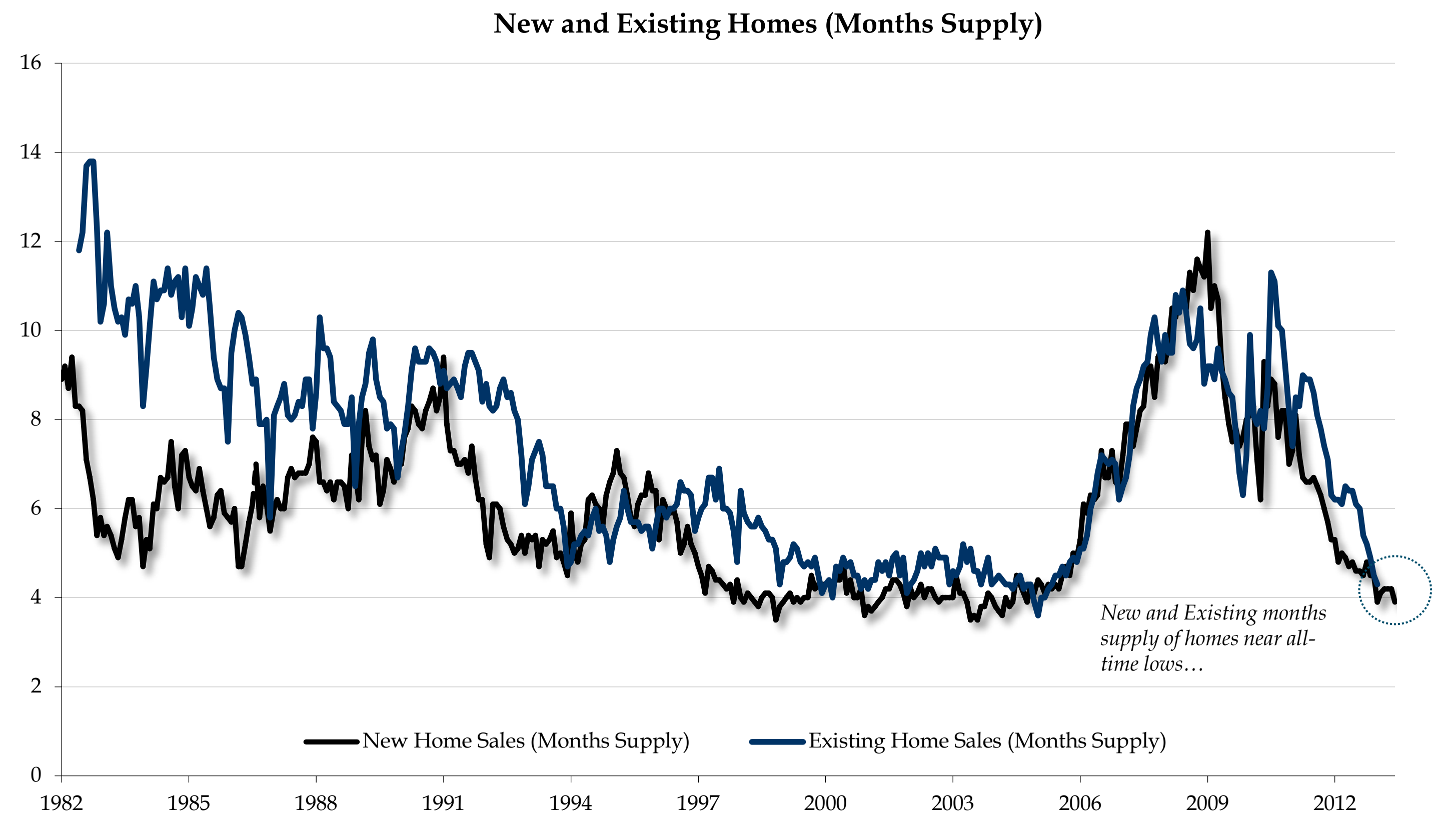
Source: Bloomberg data, Bienville Capital Management

U.S. Housing Update

The oversupply of new and existing homes have largely been cleared…

…in fact, the data suggests a tight market by historical standards

Supplies of new and existing homes relative to current demand indicate a tight market, suggesting continued upward pressure on home prices…



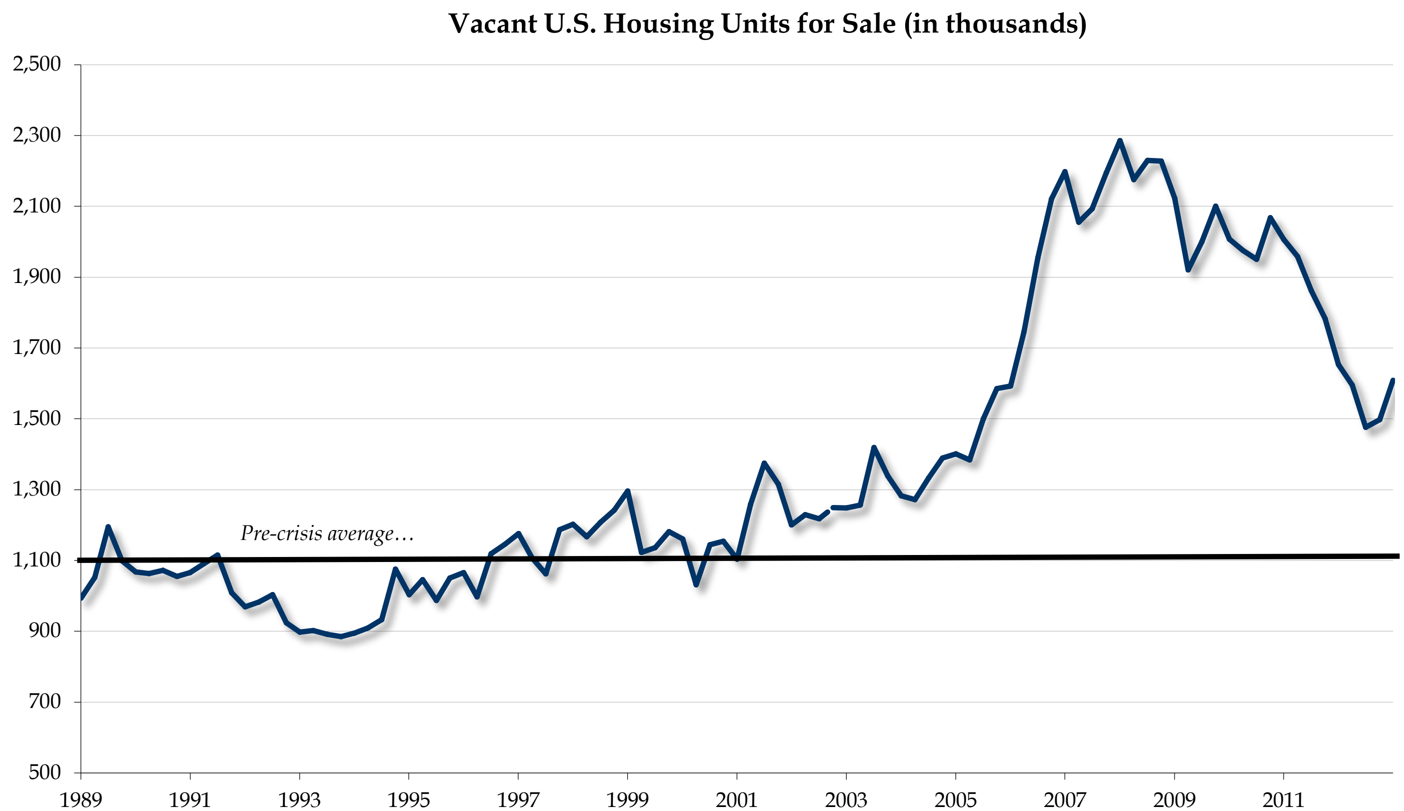
Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

The peak in vacant homes for sale reached 2.3mm units in 2008…

…this represented more than twice the pre crisis average of 1.1mm homes

Housing inventory has come down significantly from the peak. Large pools of capital investing in “REO-to-rental” programs seem to have helped remove many of these homes from the market…

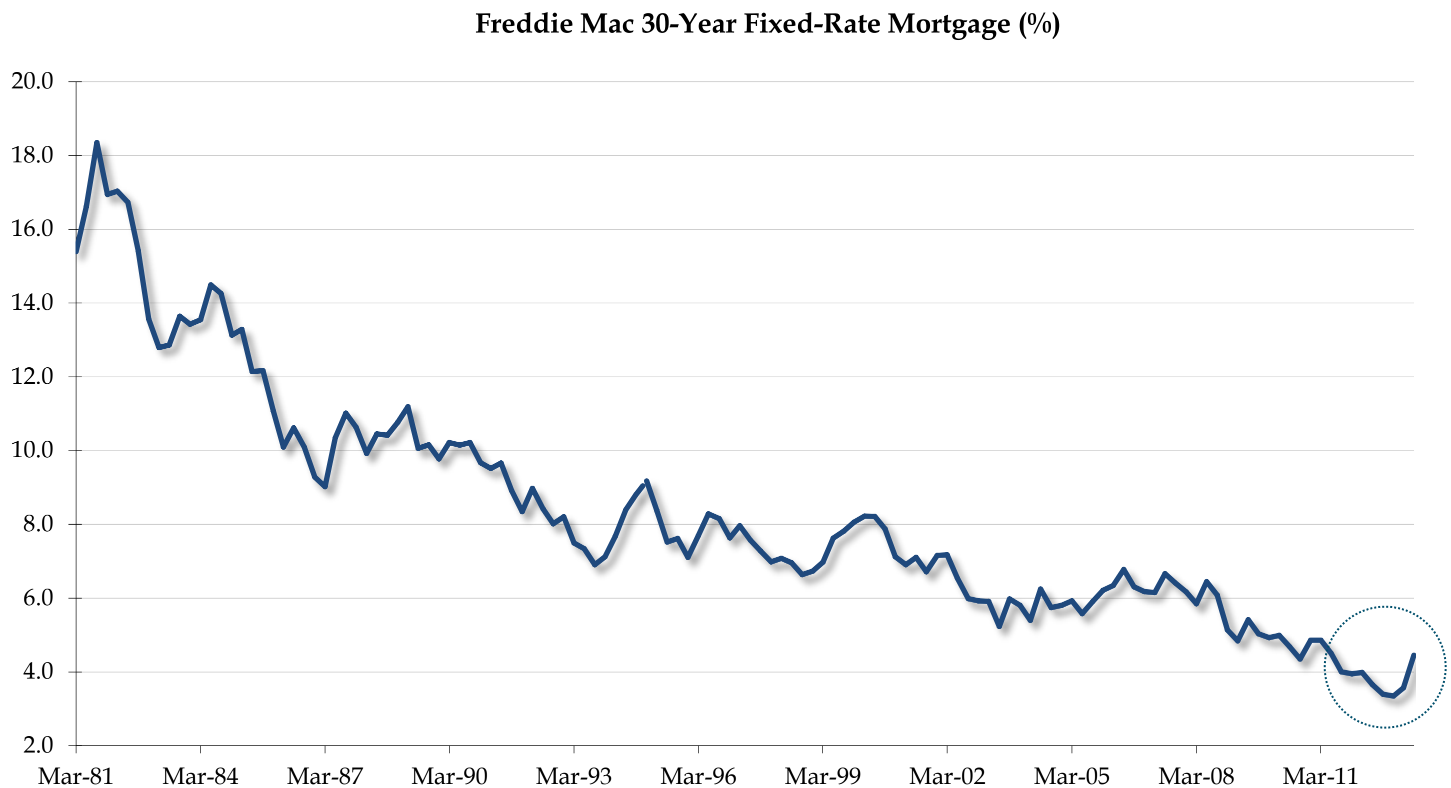


Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

The Federal Reserve's quantitative easing programs have largely been focused on Agency mortgages and U.S. Treasuries, both of which have helped push mortgages rates even lower…

While mortgage rates have recently risen, they remain near historical lows…



Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

Still, from the bottom in weekly mortgage refinancing applications in July of 2008, more than 900,000 homeowners have taken advantage of lower mortgage rates…

The recent sharp rise in rates could mark an end to the recent refinancing boom. Since May of this year, refinance applications are down 55% as 30-year fixed mortgage rates rose by 1% to 4.46%…

Weekly Mortgage Refinancing Applications

Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

New mortgage applications are recovering slowly, but improving nonetheless…

…and should continue as home affordability remains at all-time highs

However, home sales follow a different path. Statistically, a regression between new mortgage applications and prevailing mortgage rates have produced a historical R^2 of 0.02. This indicates mortgage rates have had nearly zero effect on new purchase applications, albeit over an era of falling rates. With that said, a material rise in mortgage rates would be detrimental to the recovery.…

New Mortgage Applications Index

Source: Bloomberg data, McAlinden Research, Bienville Capital Management

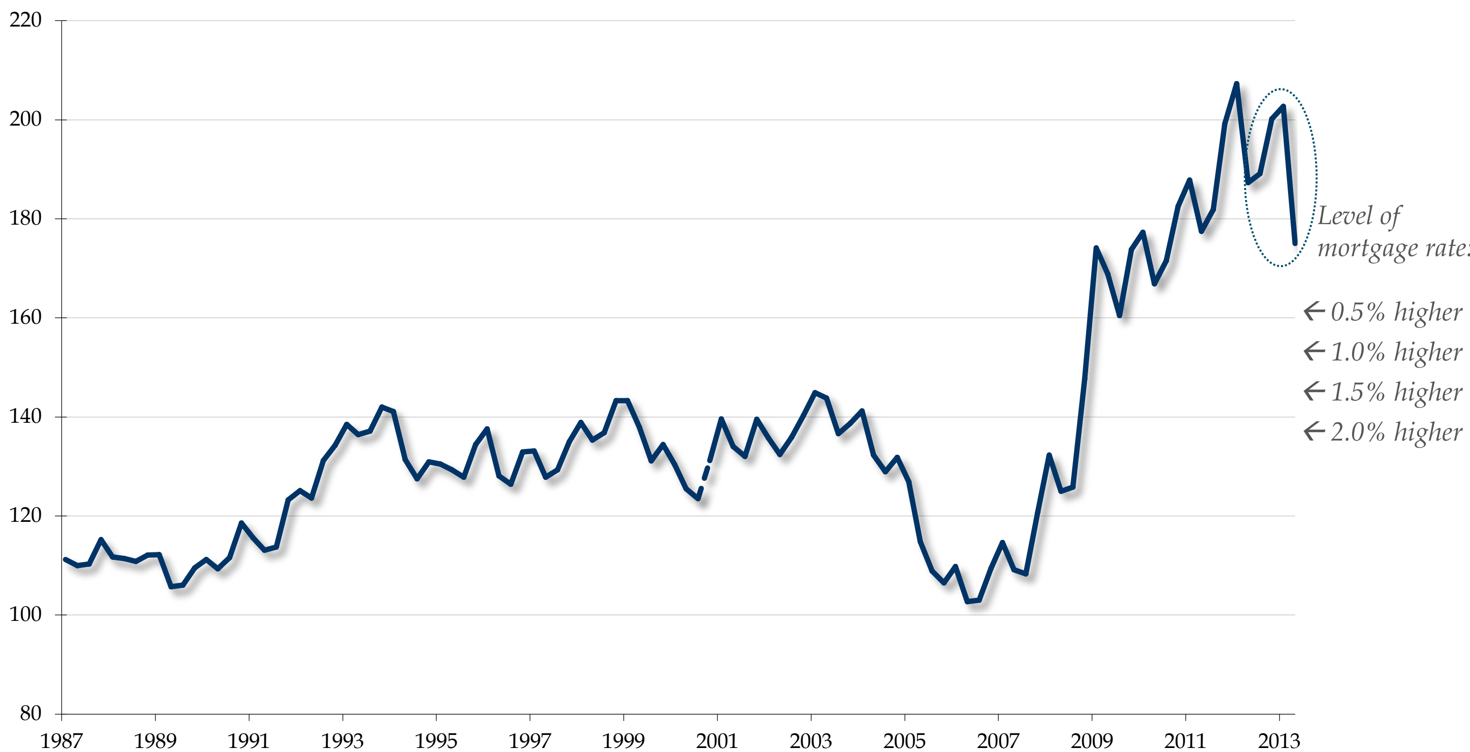
U.S. HOUSING UPDATE

A value of 100 implies that a family with a median income can qualify for a prevailing-rate mortgage loan on a median priced home, assuming a 20% down payment…

…the current level of 175 suggests that families can easily afford to buy a home should they be able to obtain a mortgage

Overall, despite the "spike" in mortgage rates and the double digit YoY increase in home prices, housing affordability remains high. According to the National Association of Realtors, a typical American household with a median income has 75% more income than is needed to qualify for the purchase of a median-priced home…

National Association of Realtors' Housing Affordability Index



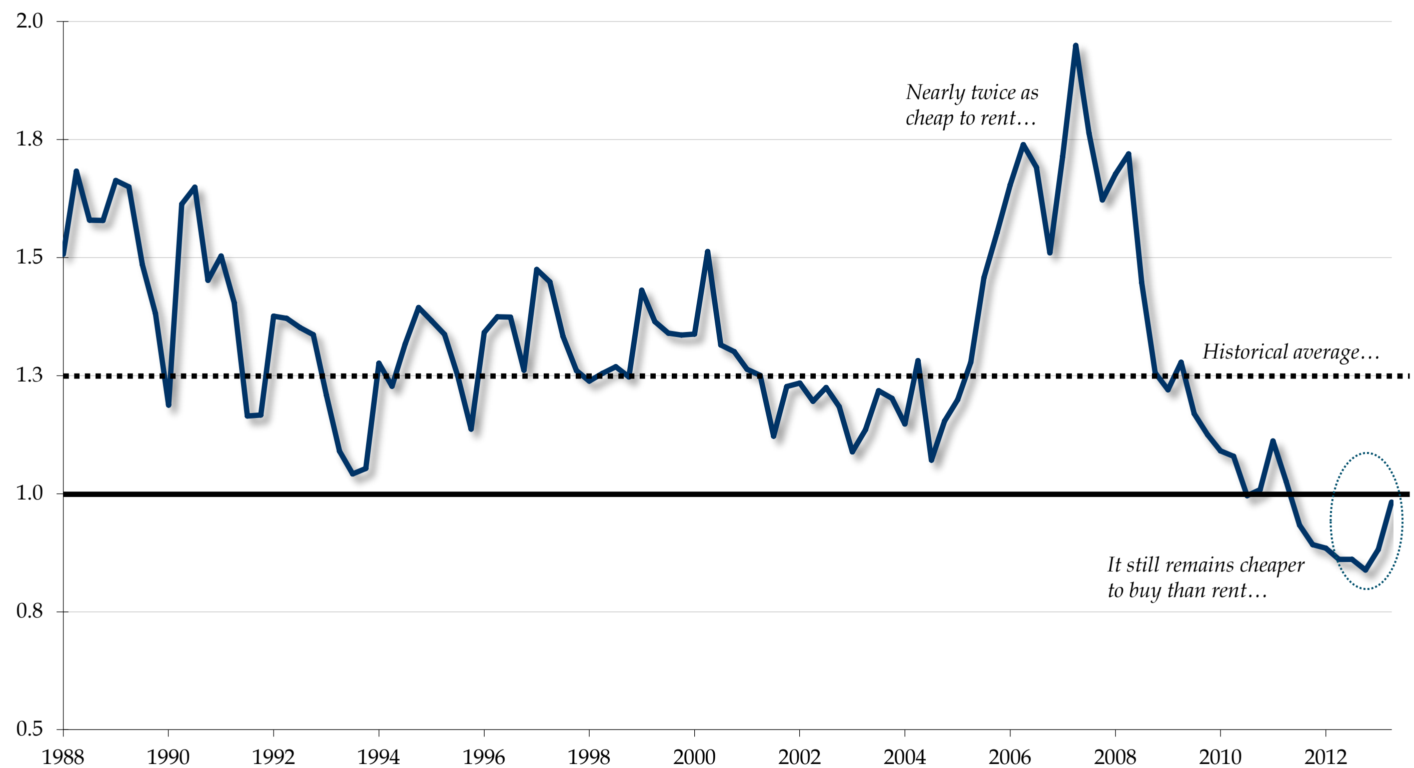
Source: Bloomberg data, Deutsche Bank, Bienville Capital Management

U.S. HOUSING UPDATE

Figures are based on median U.S. sale prices, median U.S. rental prices and a 30-year fixed-rate mortgage with a 20% down payment…

Despite the rise in home prices and recent rise in mortgage rates, it is **still** cheaper to buy a home than to rent. Furthermore, this ratio remains well below its long-term average of 1.3, meaning it has historically been 30% more expensive to own than rent a home…

Ratio of Monthly Mortgage Payment to Median Asking Rent



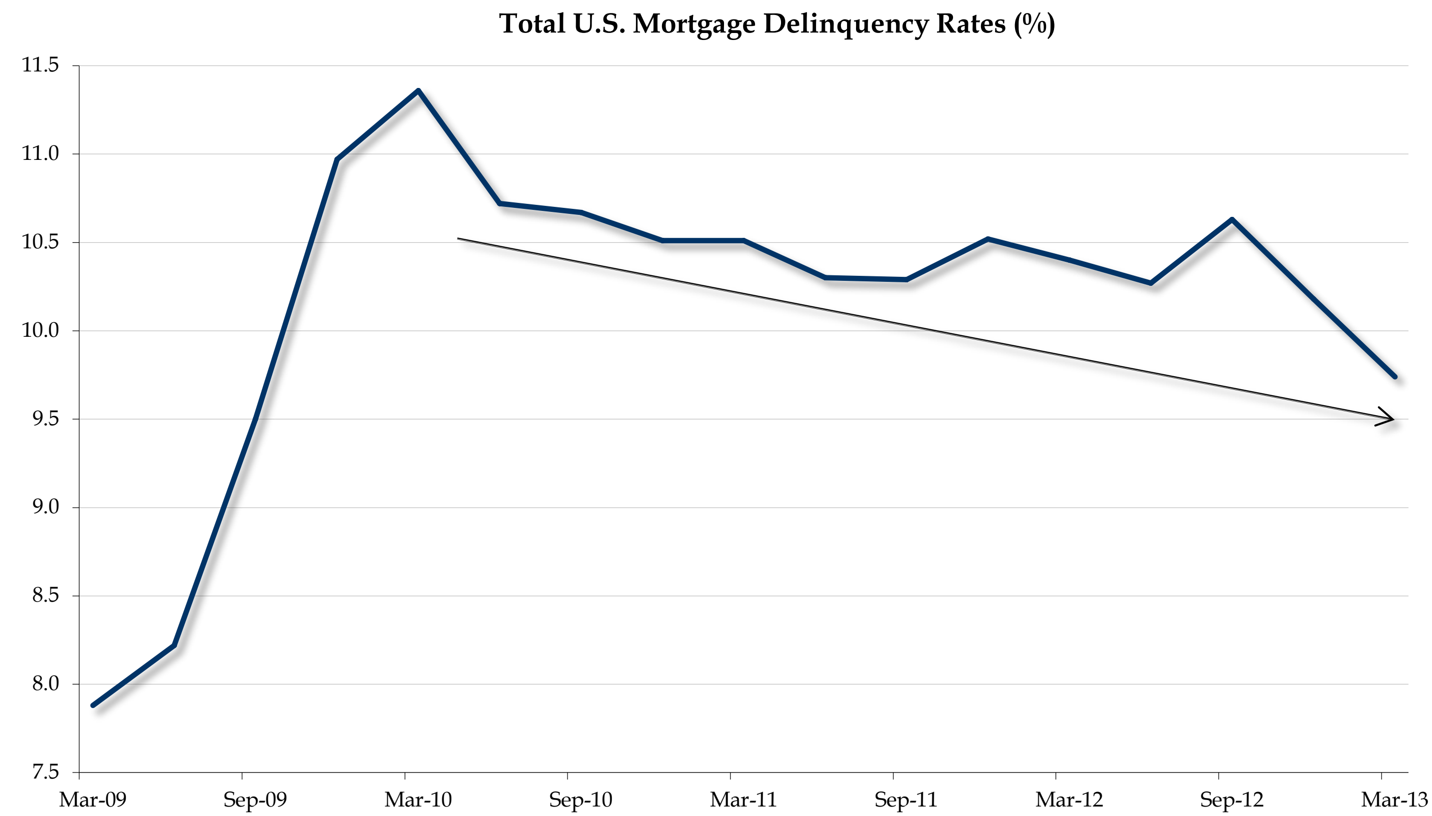
Source: US Census Bureau, Bienville Capital Management

U.S. HOUSING UPDATE

'Credit Burnout' is driving the weakest borrowers out of mortgage pools, helping enhance the underlying quality of Residential Mortgage Backed Securities bonds…

As the faultiest borrowers are "kicked out" of the mortgage pool, RMBS fundamentals continue to improve…

…delinquency rates have fallen from a peak above 11% in Q1 2010 to 9.7% as of Q1 2013



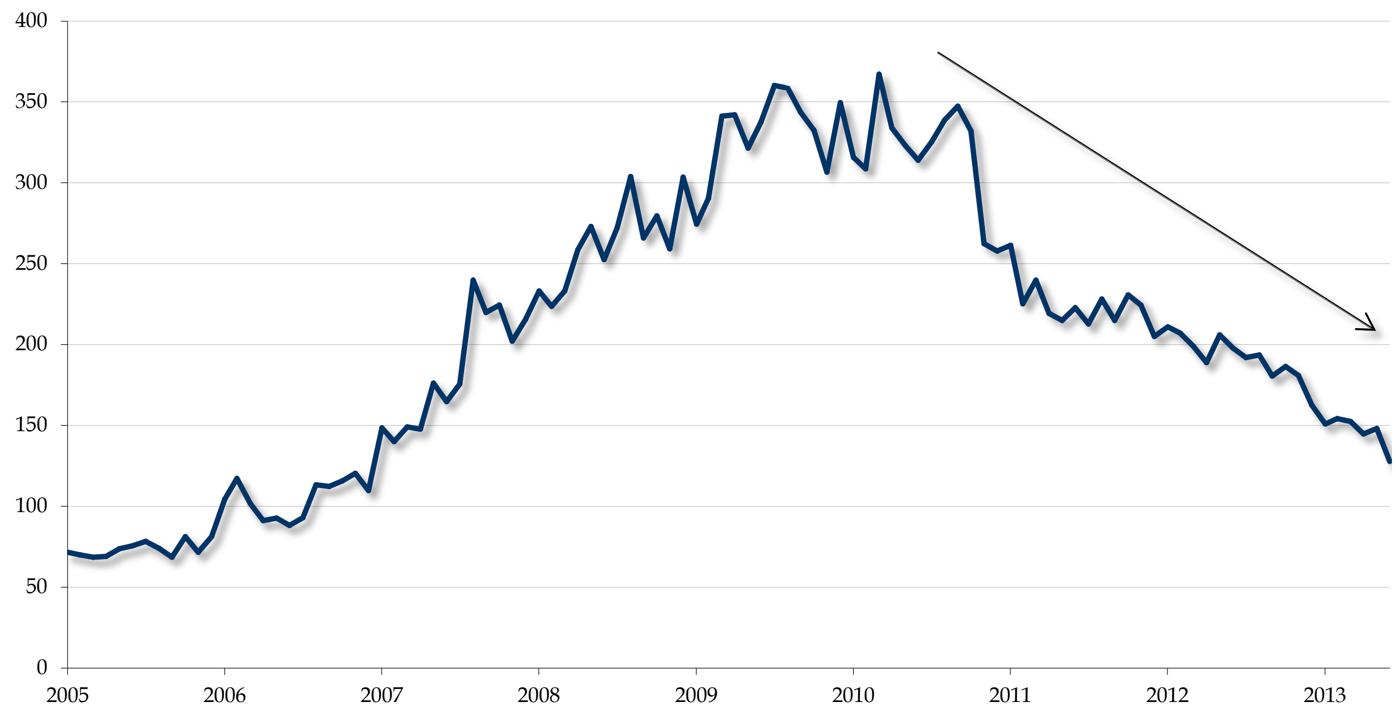
Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

…RMBS is further helped by a rapidly shrinking number of homes filing for foreclose

New monthly foreclosure filings continue to trend downwards…

Monthly Foreclosure Filings (in thousands)



Source: Bloomberg data, Bienville Capital Management

U.S. HOUSING UPDATE

… driven by falling mortgage delinquencies, higher recoveries on foreclosed homes, and an increasing number of borrowers being pulled back "above water" by rising home prices…

…since digesting the sales of Maiden Lane portfolios from the Federal Reserve, Non-Agency RMBS prices have risen by 41% from their bottom in November 2011

In turn, helping drive RMBS prices higher…

ABX 2006 Vintage Subprime Index

Source: Bloomberg data, Bienville Capital Management

Disclaimer

Disclaimer

The Bienville Macro Review (the "Presentation") is a distribution which highlights the research of Bienville Capital Management, LLC ("Bienville") in different areas of interest across the macro landscape. Bienville believes that understanding the global macroeconomic backdrop is a prerequisite to efficiently allocating capital.

The Presentation is not intended to be an all-encompassing review of the financial markets. Rather, it should serve as a concise summary, which provides clients with an update of Bienville's areas of focus within its research process. We hope that the Presentation will create an ongoing dialogue with our investors on the global dynamics that drive the financial markets. The topics covered in the Presentation may or may not be related to Bienville's active positions or investment strategies.

The content of the Presentation includes forward-looking statements, estimates, projections, assumptions, beliefs and opinions (collectively, "Projections"), which may prove to be substantially inaccurate or based upon flawed reasoning and assumptions. Moreover, Projections are inherently subject to significant risks and uncertainties beyond the control of Bienville and its affiliates, including Bienville Capital Partners, LP, Bienville Capital Partners Offshore, Ltd. and Gulf Coast Opportunities Fund, LP (and collectively with other private investment funds that Bienville or its affiliates may form and manage in the future, the "Funds").

The information contained in the Presentation regarding Bienville and the Funds has been prepared solely for illustration and discussion purposes. Except where otherwise indicated, the Presentation speaks as of the date hereof, and Bienville undertakes no obligation to correct, update, or revise the Presentation, or to otherwise provide any additional materials. Although Bienville believes the Presentation is substantially accurate in all material respects and does not omit to state material facts necessary to make the statements herein not misleading, Bienville makes no representation or warranty, express or implied, as to the accuracy or completeness of the Presentation or any other written or oral communication it makes with respect to the tactical positions or investment strategies described herein. Bienville expressly disclaims any liability relating to the Presentation or such communications (or any inaccuracies or omissions herein). The Presentation merely constitutes an opinion or belief based upon the information set forth herein, which opinion or beliefs may prove to be wrong. The information and opinions contained in the Presentation are based on public information.

Neither Bienville nor the Funds makes any commitment or undertaking to take or refrain from taking any investment decision or other action with respect to the tactical positions or investment strategies described herein. Bienville may change its views about the tactical positions and investment strategies described in the Presentation at any time, for any reason. Bienville and the Funds may buy, sell, or otherwise change the form or substance of any of their investments at any time. Bienville disclaims any obligation to notify any recipient of this Presentation of any such changes.

The Presentation is not investment advice, or a recommendation or solicitation to buy or sell any securities mentioned herein or otherwise. If any offer of interests in any Fund is made, it shall be pursuant to one or more definitive private placement memoranda for such Fund which would contain material information not contained herein and which shall supersede this information in its entirety. Any decision to invest in a Fund should be made after reviewing the definitive private placement memoranda for the Fund, conducting such investigations as the investor deems necessary and consulting the investor's own investment, legal, accounting, and tax advisors in order to make an independent determination of the suitability and consequences of an investment in the Fund.

This Presentation and its contents are confidential, and proprietary information of Bienville, and any reproduction of this information, in whole or in part, without the prior written consent of Bienville is prohibited. For additional information about Bienville, including fees and services, please see our disclosure statement as set forth on Form ADV. Additional information is available from Bienville upon request.