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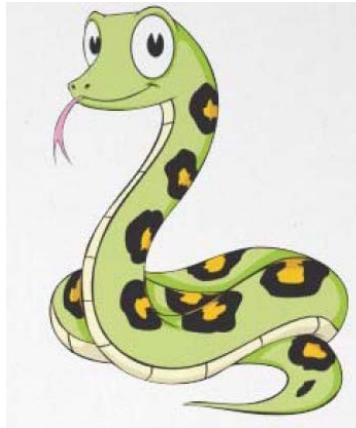
*A Commentary by Harley Bassman:*

## THE CONVEXITY MAVEN

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Value Concepts from the Credit Suisse Trading Desk  
January 12, 2012

### "The Pig in the Python"



It is often said that there are only two certainties in life: Death and Taxes.

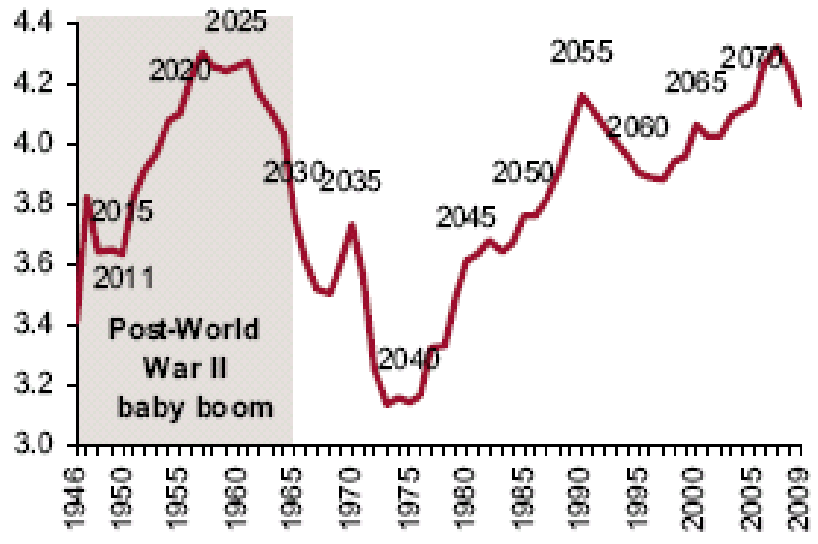
And so I would like to contribute my two certainties for investing:

- 1) The only ways to resolve a debt crisis are Default or Inflation. And since the US Government cannot default (they can print legal tender dollars), Inflate we must. I can assure you, the FED will create inflation; the only question is whether it takes six months or six years.
- 2) Demographics drive all ultra long-term outcomes as the realities of life are translated into actions and prices. As such, investment themes that do not consider the current bi-modal distribution of the US population are doomed to be inefficient at best and an utter failure at worst.

In preview, we suspect that the aging of the "Echo Boom" should finally place a floor under the fragile US housing market, and thus, mitigate a real estate led double dip. As such, we suggest you consider investments in RMBS bonds.

While literally a tad gruesome, the best way to view the US economy, during the post-war period, is to consider the sight of a Python digesting his latest porcine meal. Just as the large bulge constricts its way through the snake, so does the enormous US “Baby Boom” population, born in the years between 1946 and 1964, push its way through the Domestic economy. We will refer often to the **-red line-** below that tracks the birth pattern of the US population.

Live births in millions. The year they turn 85 marked on top of the line.



Source: US Census Bureau, Centers for Disease Control and Prevention, Credit Suisse

There are certainly plenty of ways to measure the system wide impact that Baby Boomers have had on the US Economy, from bicycle sales to college applications. But since we are financial types, let us focus on the money vector.

Without too much mental stress, let's interpolate from the chart above to propose that the average birth year of the Baby Boom population was 1955. Let's also consider that the peak earnings period for working Americans is roughly the ages of 30 to 50. Finally, it is probably not a too much of a leap to assume that until recently, Social Security was not relied upon as a pensioner's sole income stream, so workers were previously motivated to save for retirement. Sewing these notions together, we can conclude that the Baby Boomers invested most heavily for retirement between the years 1985 and 2005. And almost serendipitously, as seen by the **-blue line-** on the next page, the twenty year flat-line performance of the S&P Index (presented in a Log2 scale) from 1965 to 1980 was followed by a surge in Equity prices for the next twenty years, almost precisely matching the Baby Boomers prime earning years.

## S&P 500 Index 1960 to 2011

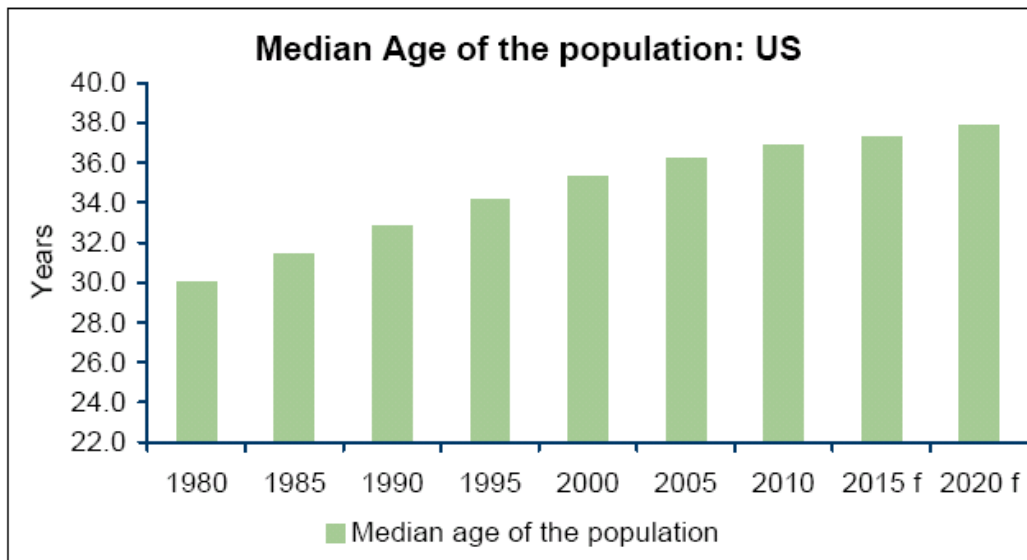


Source: MSN Money

I am sure that many hard core “Red State” Americans are convinced that this pecuniary expansion was due almost entirely to the policies of President Ronald Reagan and the passage of TEFRA; and certainly even some “Blue State” devotees, who cried “Voodoo Economics”, now give The Gipper credit for economic reform. But just as paddling a canoe upstream is possible with hard work, conversely, so is riding with the strong current effortless and relaxing.

This might also explain the performance of the financial markets over the past decade. Referring again to our chart of the S&P 500, prices have basically been unchanged since 2000. This correlates well with the twisting of the US population demographic as the Baby Boomers advanced to retirement age while the “Echo Boomers” of 1980 to 1995 were still in college. One can presume that as people retire from the workforce, they transition from savers to spenders as they sell assets to fund that long dreamed for cruise to Alaska to view the Polar Bears. Since the Echo Boomers had not yet reached their prime earning years, the selling of equities by Baby Boomer overwhelmed the market.

Bond traders should not feel that they have been left out of this story. There is an old investing adage for long-term personal portfolio management that promotes that one should invest one’s age in bonds. So a thirty year old would have a portfolio structure of 70% stocks versus 30% in bonds. As he ages, he would sell stocks in substitution for bonds since he required more stability. The certainty of Income was more important than the possibility of greater Capital Gains. In essence, it was an acknowledgement that as one ages, they would have less time to make back mark-to-market losses in the stock market in time for retirement.

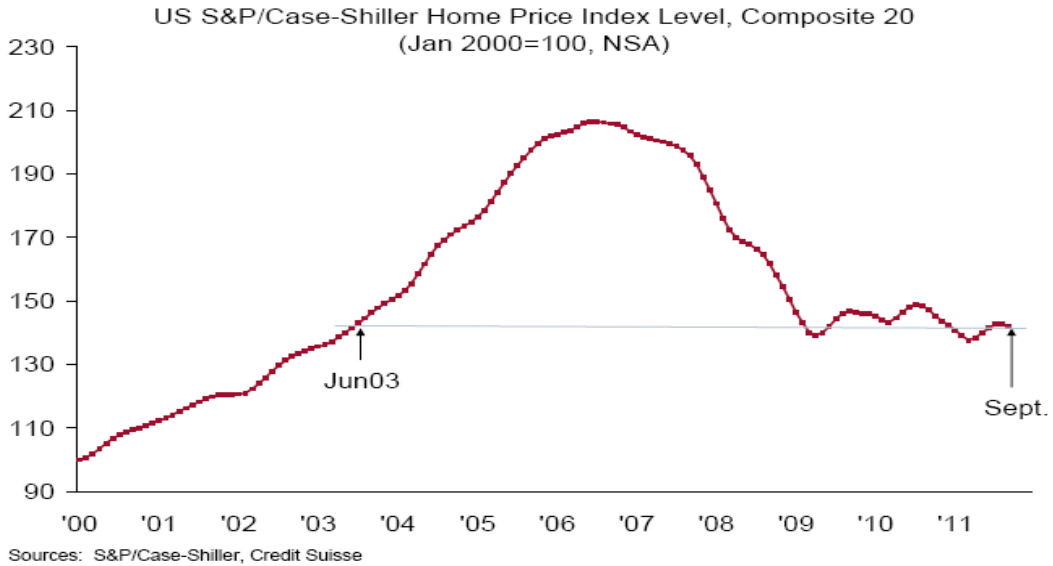


Source: Credit Suisse

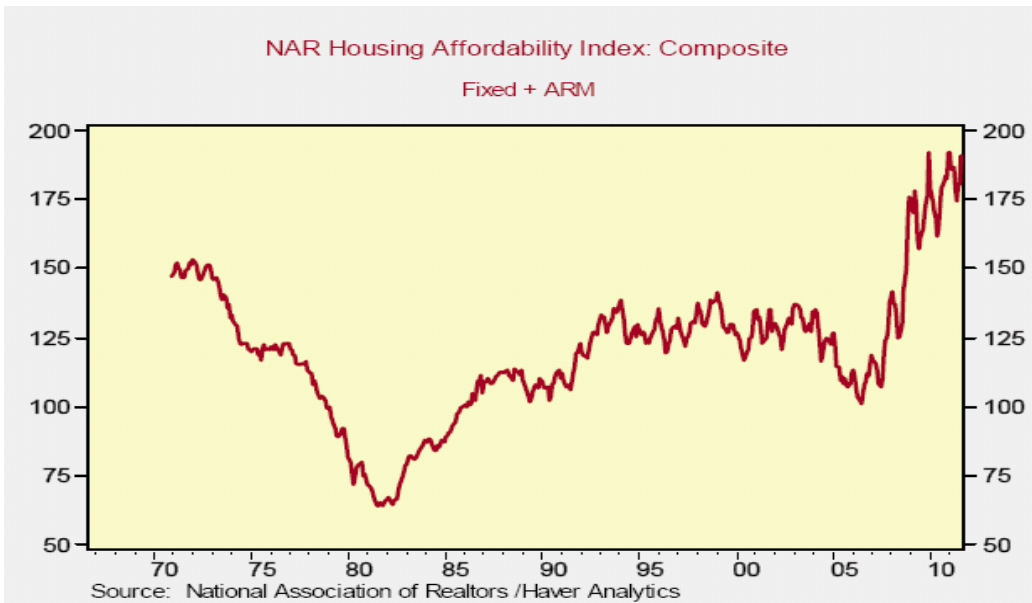
Shown in the **-wasabi chart-** above, as the Baby Boomers have worked their way through the reticulation of society, the Median Age of the US population has increased. In fact, from 1980 to 2010, this median age increased by over 23% from 30.0 years to 36.9 years. At first blush, this might not seem consequential; but by simply applying our “investment rule of thumb” and much of the price action of the past decade becomes congruent with our theme. Sourcing data from the Federal Reserve’s Flow of Funds report, if the average household changed their bond allocation from 30% to 37% (and reduced their equity portion from 70% to 63%), on a gross basis, the US investor would need to sell \$1.4 Trillion of equities to invest in bonds.

To be clear, in no way are we claiming to have revealed the “Secrets of the Temple”. In fact, this is probably not even the most significant input factor. Fundamental economic considerations must take priority. But what we will repeat is that it is easier to sail with the wind to your back than into your face. As such, demographic winds can greatly accelerate or somewhat mitigate other factors. The point here is that one must be respectful of the financial churn that bulges just before and slightly after the Baby Boom population as it glides through the economy.

So now let’s apply the concept of demographics to the housing market, and more specifically, to RMBS bonds. As seen with the **-maroon line-** on the next page, the benchmark Case-Shiller housing Index has been stable for the past few years. While somewhat comforting to real estate investors, this information alone truly cannot be called either bullish or bearish. We will need to look at other input vectors to build a compelling case to take real estate risk via RMBS bonds.

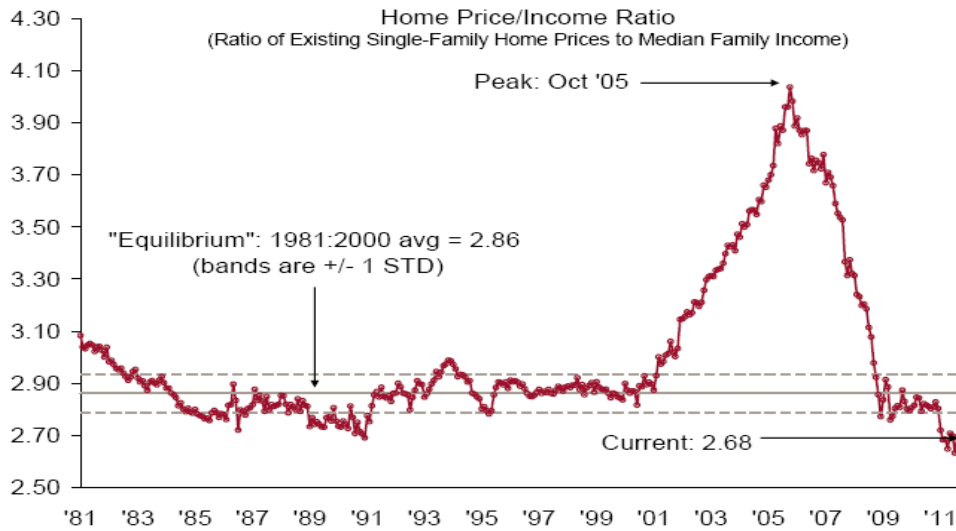


A look at the underlying financials of homeownership is a fine place to start. One can infer from the chart below that any demand for residential housing would not be thwarted by pure economics. The Housing Affordability Index is at the highest (best) level recorded in forty years. This is the result of stabilizing Personal Incomes, lower House Prices and much lower Interest Rates.



Another key financial driver is the Price to Income ratio (next page please.) Just as any corporate CFO would want to manage their firm-wide leverage ratios, no matter how low rates may be, so households should also be concerned about

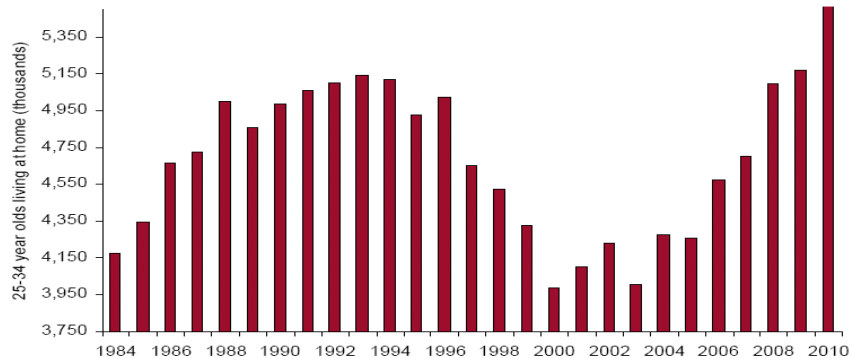
their family's balance sheet. Presently, this ratio is two standard deviations below the pre-bubble average and is resting near the thirty year low.



Source: NAR, Census, Credit Suisse

We should all be able to agree that residential housing, while not historically cheap on a real dollar basis, is certainly quite affordable and fairly priced relative to current income levels. What is missing here is the catalyst for buyers to “step up to the plate” and start to close transactions. Let’s check our Anemometers and see which way the demographic winds are blowing.

## Young workers living at home

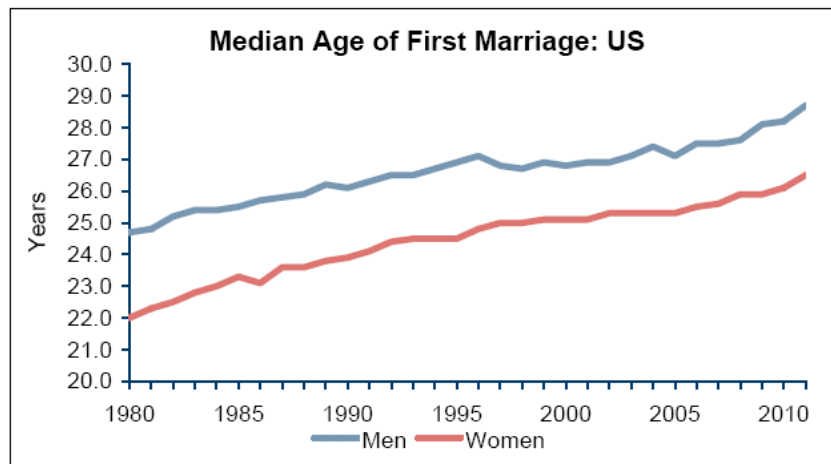


Source: Census Bureau



Most of the housing bears point to the significant supply of unsold homes overhanging the market. However, large nominal supply only matters if there is low demand. As shown by the **–crimson bars–** in the chart on the previous page, the increasing number of young adults living with their parents supports this proposition.

The combined factors of high unemployment and a more difficult loan application process, plus an overall fear of a weak economy, has led an increasing number of Echo Boomers to chose (or succumb to ) living at home. This has certainly contributed to reduced demand.



Source: Credit Suisse

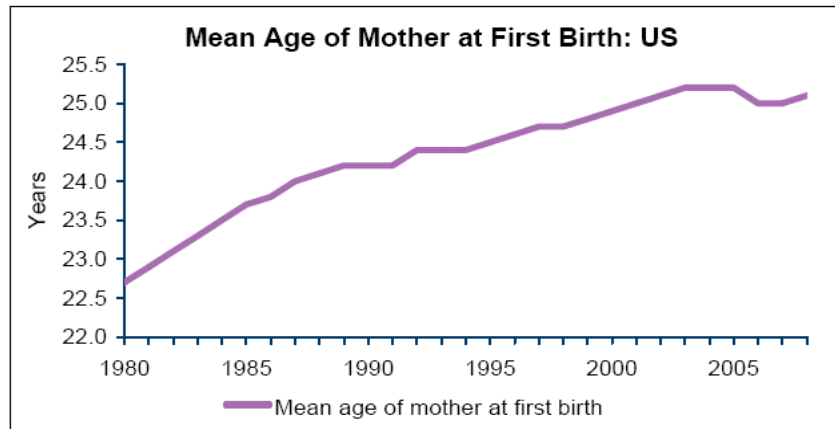
Using the data at hand, we can now weave a fairly interesting description of the demographic headwinds that have suppressed a housing recovery. Moreover, as we will discuss soon, it seems that these winds may soon be abating.

The Baby Boomers, with a current average age of 57, have certainly not been net buyers of housing. In fact, they may even be sellers to downsize into rental communities in Florida. The only mitigation to this process would be the fact that their children are not leaving home as fast as they used to.

However, this is not as strange as it may seem. The average Echo Boomer marries at about age 27, four years later than their Baby Boom parents who married at about age 23. (See chart with the **–rose line–** and the **–sky line–** above.) As such, Baby Boomer Wall Street economists may read this as solely a negative economic, but unwed Echo Boomers may see this as chance to live at home and save up for a peer appropriate marriage.

An Echo Boomer at the inflection point of the front of the “bulge” did not mark his 27<sup>th</sup> birthday until 2012. As such, a single young adult staying at home for the past few years would not be outrageous. Additionally, this is also about the

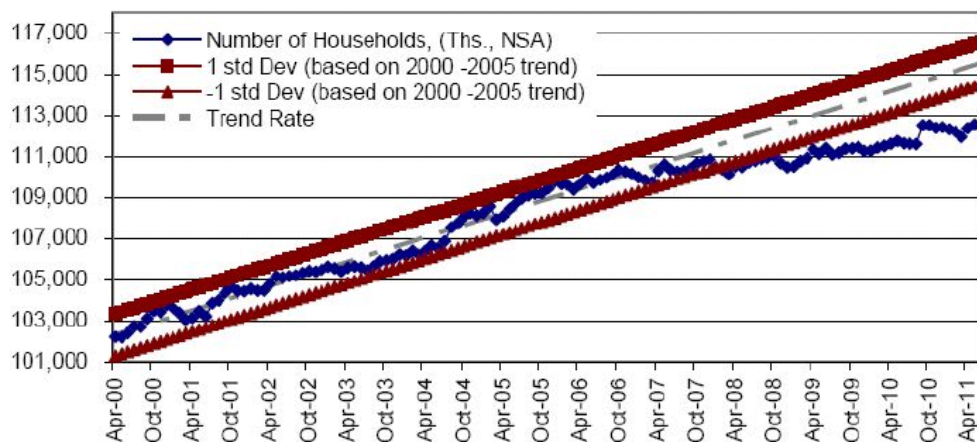
same time that Echo Boomers have their first child, the **-purple line-** below. This should provide another motivation to soon leave the parent's nest. The lesson here is that Boomer parents should not be too concerned when Baby Huey is living in the basement alone, I can assure you that upon their nuptials, he will soon be moving out with his new bride.



Source: Credit Suisse

Upon reflection of the above, the demographic story follows recent events rather well. As Baby Boomers aged, they sold stocks and bought bonds to adjust their portfolios. They also started to downsize somewhat in their housing. However, the yawning population lacuna between the Baby Boomers and the Echo Boomers created a short-term (relatively) supply::demand mismatch. Echo Boomers who marry and conceive children at an older age stayed home with their parents to wait out the weak job market. This combination of delayed marriage and a poor economy would explain why household formation **-the blue line-** has been below trend for the past few years.

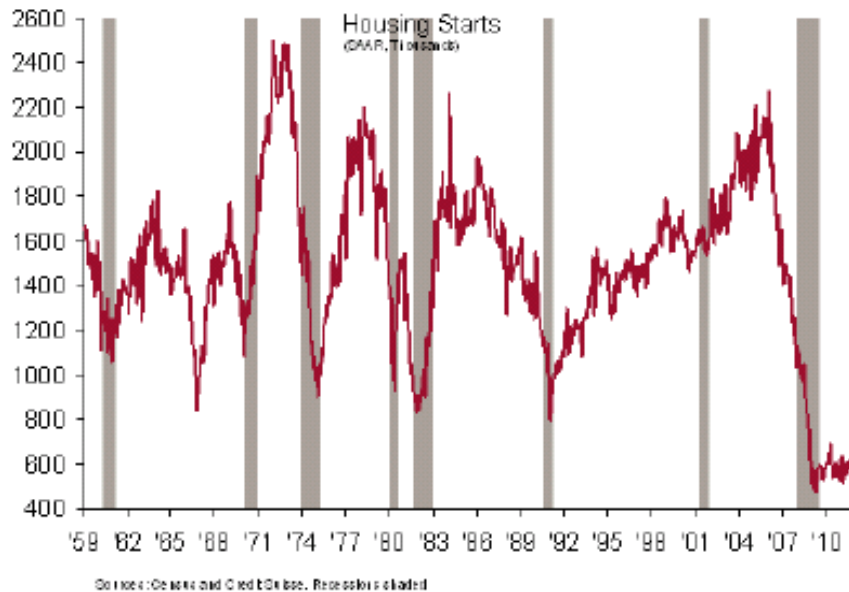
**Exhibit 44: Household formation is running below trend by almost 3 million**



Source: Credit Suisse



It would also explain why the demand for new housing –the red line- has collapsed to the lowest levels in fifty years. But this cannot last indefinitely. Unless the birth rate dramatically declines, or we have net emigration, mathematical population growth is greater than current new home construction. Unless one foresees vast tent cities built in the National Parks, this is not a sustainable situation.



Ultimately, the US Government will direct policy to insure that the vast majority of our citizens will live in some sort of constructed housing; either via private ownership, market rental, or public support. This means that a mortgage nearing default cannot be considered a net new supply of housing; the financially troubled owners do not disappear. These people will eventually transition away from home ownership and become renters (maybe of the same homes). Moreover, the FED's policy of ultra low rates will make investing and managing rental property both fashionable and extremely profitable. One might recall this is precisely what happened after the last housing bust in the early 1990s (the previous record low in housing starts) where the FED cut rates and steepened the Yield Curve.

The fact that household formation is three million units under its long-term trend is nothing more than dry kindling that will eventually catch fire. The Echo Boomers are on the cusp of entering their prime earning years and forming the next bulge in the Python (that we usually call the US economy). It is the curse of the Baby Boomers to have a Ptolemaic view of the world where all others revolve around them. [Read *"Boomtown"* by Christopher Buckley for a more

entertaining description of this phenomenon.] But as the sun rises in the East, so will the Echo Boomers take their place and eventually control the economy.

The grand summary here is that the wind of the Baby Boomers was concurrent with the last decade's movement in Equities, Rates, and Housing. This wind exacerbated the bad fundamentals of an over leveraged economy. Over the next few years, the wind of the Echo Boomers will reverse course. This will initially mitigate a further housing decline and soon be followed by higher nominal prices as the FED's inflation policies merge with changing demographics.

As such, RMBS bonds that are priced for at least a double dip (and for some bonds a triple dip) are too cheap. As outlined in our Commentary – *"The 2012 Stocking Stuffers"*, December 7, 2011, we suggest you to call your Credit Suisse salesperson to discuss investing in well structured non-agency bonds that can sport loss adjusted yields of 7.5% to 11.5%, depending upon their place in the waterfall.

As we always say: "It's never different this time." The lemmings are running after yesterday's news. Do your homework by having your Credit Suisse representative arrange for a conversation with our Research team's Dr. Amlan Roy, a renowned expert in Demographics and a font for a portion of this data.

The FED has clearly stated their desire to direct investment flows out of US Treasuries and into other assets will more directly support the economy and increase Monetary Velocity; and they do have the printing presses and helicopters necessary to ensure their success. **Don't fight the FED.**

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January 12, 2012



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