The Affordable Mortgage Depression

Government policies were designed to increase homeownership. Affordable Mortgages, created to realize this goal, were responsible for the Housing Bubble and distorted the economy. The unwinding of these distortions will result in a Global Depression.

Why this Economic Downturn is "The Affordable Mortgage Depression"

AMD.com readers who have fully reviewed "The Affordable Mortgage Depression Manifesto" may find this more focused analysis of Affordable Mortgages to be redundant.

In order to understand the Housing Bubble and its pervasive impact on the broader economy it is necessary to identify the mechanism that allowed and compelled housing prices to reach valuations never before experienced on a national scale.

"Affordable Mortgages" and their peculiar characteristics dramatically altered the incentives of buyers and decoupled the relevance of house prices from the fundamental determinants of value.

From a macroeconomic perspective the value of housing is determined by a large number of factors. Supply, demand, credit availability, mortgage terms, expectations for the future, perceived risk, cultural and social factors, tax treatment and recent performance trends to name a few.

At the individual level, though, the ability to purchase a home and the amount that a person can afford to pay is restrained by access to credit, capital and cash flow. A potential buyer must have credit sufficient to get a mortgage, capital sufficient to make a down payment and cash flow sufficient to service both mortgage interest and capital repayment requirements.

Affordable Mortgages Were the Lynchpin of the Housing Bubble

Reduced credit requirements and access to mortgages were important to increasing demand, but the Affordable Mortgage characteristics which changed the capital and cash flow requirements necessary to buy a home were responsible for dramatically distorting economic incentives, home purchasing behavior and the broader economy.

In the 1990s the challenge facing private lenders was how to meet government mandates for subprime lending and, once a profitable subprime model was identified, how to structure mortgages so that they could be accessed by subprime borrowers with insufficient capital and cash flow to qualify for traditional mortgage products. Thus were born Affordable Mortgages.

Down Payments

Low down payment mortgages reduced or eliminated the capital requirement of owning a home. Whereas a subprime borrower might have struggled to come up with a down payment to buy a modest home under traditional lending requirements, the same borrower could now “buy” a much more expensive house with nothing down.

Down payments are difficult to come by. They require a substantial effort to save. Accumulating such savings depends on deferred consumption. Once accumulated, there is a substantial opportunity cost involved with using the capital as a down payment. The more expensive a house is, the higher the down payment must be. The higher the price of a house, the more savings, deferred spending and opportunity cost are required. When buyers invest their hard earned money to buy a house they are sensitive not only to price, but to value. As valuations increase relative to economic fundamentals, purchases become more risky and the potential for capital loss increases. Down payments regulate how high house prices can climb and correctly align the incentives and behavior of prospective buyers.

Low down payment and no down payment mortgages remove this fundamental impediment to rising prices. 100%-plus loan-to-value mortgages actually provided cash to people who bought houses, further distorting the incentives and behavior of buyers. These mechanisms incentivize buyers to purchase larger and more expensive homes as there is no incremental marginal cost in terms of capital required.

In the case of 100%-plus mortgages there is a negative marginal cost. The buyer becomes disconnected to the fundamental value of the home. Price doesn't matter as much when you can borrow all the money necessary to purchase an asset. For the first time in history, on a national basis buyers were not sensitive to the price or fundamental value of a home. Even stranger, rising house prices encouraged buyers instead of acting as a structural deterrent.

Transitioning from a down payment environment to a no-down payment environment will inevitably lead to increased demand, rising prices and decoupled valuations. This would be true for any asset class. Imagine if investors could put nothing down to buy stocks. What if private equity and hedge funds could buy companies with 100% borrowed funds. These 100% financing models effectively afford the buyer infinite leverage. In an environment of rising prices, optimistic expectations and low perceived risk, investors will access such leverage voraciously. Buyers no longer are sensitive to price or fundamental value. Based on expectation and perception, the elimination of down payments incentivized buyers to purchase as much house as possible irrespective of price, thereby maximizing expected leveraged returns.

Introductory Adjustable Rate Mortgages

The other important characteristic that determines an individual's ability to buy a house and regulates home prices is the cash flow requirement necessary to service a mortgage. Under the traditional mortgage model home buyers service market interest rates and typically repay a percentage of borrowed capital. Buyers are restrained with respect to how much house they can purchase by their cash flow. It is for this reason that house values have typically had a steady relationship relative to income levels. The more house a person buys, the higher the cash flow required. Buying a more expensive house means allocating a higher percentage of one's disposable income to servicing the purchase. Based on this traditional model, overall housing prices are restrained by the income levels of individuals within a relevant market.

The financial innovation of adjustable rate mortgages reduced or functionally removed this important control on house prices. The marginal introductory rate of ARMs and Option ARMs dropped the effective interest rate to as low as 1%. For several years a buyer could service a mortgage for a small percentage of the traditional market rate. An important restraint on the price an individual could pay for a house was eliminated.

Beyond the ability to buy an expensive house, adjustable rates created another nefarious economic distortion. Renters were powerfully incentivized to buy houses irrespective of their financial circumstances. The security deposit necessary to rent an apartment represents a capital requirement that no longer existed when purchasing a home. Even more distorting was the reality that the cash flow requirements to service the introductory rates on adjustable mortgages were lower in many cases than the cost of renting an apartment. Many renters bought houses without regard to price because it made economic sense to do so for the duration of the introductory interest rate.

Those buyers who considered the implications of the eventual adjustable rate reset were assured that they would have the ability to refinance their mortgage based on rising equity, or that the house could be sold at a higher price resulting from expected appreciation.

All things being equal, the lower the capital requirement necessary to buy an asset, the higher the asset's price will appreciate. All things being equal, the lower the effective interest rate on capital borrowed to buy an asset, the higher the asset's price will appreciate. The only missing ingredients for such appreciation are confidence and greed.

Parallels with the 1920s and The Great Depression

Low down payments and interest rates were the conditions which precipitated the stock market bubble of the 1920s. Margin requirements to buy stocks were 10% and interest rates were as low as 1%. The ability of individuals to buy stocks in highly leveraged transactions with low maintenance cash flow requirements allowed for stocks to decouple from fundamentals and rise to unsustainable levels. Once these conditions existed, the only other ingredients necessary for an asset bubble were perception of risk and future performance expectations. A lack of material impediments to buying stocks at any price caused investors to become detached from their actual fundamental value. Speculators had the ability to leverage their capital dramatically, service the interest of this debt cheaply and had the expectation of receiving positive leveraged returns.

These conditions were duplicated by Affordable Mortgages and applied to the housing market to much greater effect. At the margin, the housing bubble was defined by 0% down payments and teaser rates as

low as 1%. People with bad credit, could put nothing down and service a mortgage at a below market rate for years. It was these extraordinarily low effective interest rates and the absence of capital requirements that caused the Housing Bubble and sustained lofty valuations.

Given the relatively larger size and greater rate of participation in the residential real estate market, the impact of these conditions was in many ways more widespread and pervasive than that experienced during the stock market bubble of the 1920s.

The Ponzi Scheme

Lenders and borrowers participated in the Ponzi scheme based on the assumption that prices would rise into perpetuity. As long as prices continued to appreciate both parties assumed that mortgages could always be refinanced and houses could always be sold for more than the value of the mortgage. Capital was assumed to be available and demand for houses was projected to continue. Competitive pressures and the pursuit of ever increasing profits sent this model to its logical extreme. Loans were extended to borrowers in amounts that could only be serviced at the teaser rates. Loans began to be made in excess of the value of the transaction. Option Arms were designed with the expectation that the value of the loan would continuously increase above the original transaction value. At the end of the bubble, defaults began to occur within months of loans being issued as borrowers were unable to service even the introductory rates.

Highly levered loans, on overvalued assets, serviced with introductory interest rates scheduled to reset much higher on a predetermined date are effectively economic time bombs. Neither lender nor buyer anticipated that these time bombs would explode. Both parties expected to be able to refinance the loan or sell the houses based on an assumption of continued price appreciation. And why not? Prices had been rising nationally for 60 years. Appreciation had been outpacing inflation since the mid-1990s. The federal government was using its resources and influence to expand access to mortgages, lower interest rates and manipulate homeownership higher.

Like all Ponzi Schemes a collapse was inevitable. The supply of new construction far outstripped demand. Investors gobbled up theoretical condos, but once completed had no intention of closing on the purchases, much less living in them. At the end of the boom valuations had risen to heights that were straining even the Affordable Mortgages' ability to support them. Defaults began to occur shortly after mortgages were issued. Homebuilders began to struggle to unload inventory. Price cuts began, initially in the form of material incentives such as free pools. Soon builders and home owners were slashing prices in the hope of eliminating the financial burden of continued ownership.

Once expectations of future appreciation vanished and the risk premium returned, the allure of infinite leverage attached to overvalued assets quickly evaporated. Without the rosy expectations of perpetual appreciation the whole scheme failed.

Price Reversion Driven by Dramatically Different Market Conditions

Now that the market has recognized the excesses of the real estate bubble, these affordability characteristics, which disguised dangerous leverage and distorted housing valuations, have disappeared. Homebuyers are faced with the prospect of putting capital at risk, committing to service a mortgage at higher interest rates, in an environment where real estate values are high in historical terms, and are faced with the prospect that those values may continue to decline. It is not difficult to see why prices are falling at record rates.

The structural market changes which drove price appreciation and homeownership gains have evaporated. Home prices are unsupportable given a reversion to the credit availability, capital requirements and effective interest rates of the pre-bubble environment.

Almost every fundamental determinant for the market value of houses today is less favorable than that which existed in the late 1990s, with the exception of population. The supply is higher as there are more vacant houses than at any time since the Census Bureau started keeping such data in 1960. The increase in housing stock has far outstripped the rate of population growth, more than offsetting any potential benefit from a larger pool of potential buyers. Demand is lower as a result of the decline in the availability of subprime and Alt-A mortgages. Credit is much tighter. The availability of highly leveraged and 100% loan-to-value mortgages, which had the effect of decoupling housing values from underlying fundamentals, are less prominent. Marginal effective interest rates are much higher. Houses are no longer perceived to be safe investments. Potential buyers no longer expect houses to appreciate rapidly and are increasingly worried that prices may continue to fall. Changing expectations have eliminated the

home's value as a leveraged investment opportunity. Cultural and social values attached to homeownership are being eroded.

One can reasonably expect homeownership rates to return to the 65% level which the U.S. economy structurally supported for 30 years prior to 1995. But the economic environment hasn't simply reset to that of the mid-1990s. The terms and availability of mortgages have reverted, but credit is far tighter, the perception of real estate's risk is different, the expectation of future performance has changed and the cultural value of homeownership has dramatically changed.

There are two discreet components to the value of a house which affect price. These include the value of a house as shelter and as an investment. The investment value is the component of housing prices which skyrocketed during the boom and is evaporating during the bust. The value of shelter is relatively static and related to income and relative rents. The investment value will continue to fall year after year until foreclosures are no longer happening in material numbers, credit isn't restricted, buyers don't expect real estate to continue to fall and inventories of houses for sale aren't above historical norms. As long as expectations are negative and risk is high relative to fundamental value, prices are unlikely to stabilize until they approach the value of homes as shelter.

Economic Distortions Caused by Affordable Mortgages and the Housing Bubble

For a decade the Housing Bubble dramatically distorted economic activity. These distortions and the inevitable impact as they unwind have important implications for the length and severity of the downturn.

A Dramatic Increase in Leverage Underwritten By Unsustainable Asset Values

During the Housing Bubble debt attributable to houses increased in real and relative terms by an amount never seen before in history. The value of the U.S. housing stock more than doubled as it expanded by in excess of $9 trillion. Under normal circumstances such an increase would have contributed to a substantial expansion of home equity for existing owners. Instead, during this period of real estate appreciation, the ratio of debt relative to the value of housing increased dramatically.

As property values rose potential buyers would normally have been prevented from or have found it increasingly difficult to purchase houses. Affordable Mortgages enabled buyers to rely on increasing percentages of debt to purchase higher priced houses. This capital was available for a myriad of reasons including government intervention, the Federal Reserve's decision to lower interest rates, yield hungry foreign capital seeking risk-adjusted returns, the influence of securitizations, and a full continuum of companies working to facilitate the creation of mortgages. In many cases people borrowed 100% or more of the perceived value of the property to finance purchases. Others took out Option ARMs which resulted in debt levels far in excess of the transaction value of the home.

Another "financial innovation", the ability to monetize theoretical equity gains through home equity loans, further exacerbated the leverage problem. Owners with rising equity and expectations of further increases cashed out their paper gains in favor of current consumption. As such, theoretical equity gains from rising prices were diminished or erased. This is the equivalent of Internet investors in 1999 borrowing money secured by unsustainable stock values in order to finance the consumption of motorcycles, boats, vacations and flat screen TVs.

As prices have fallen the equity gains are evaporating but the debt which was incurred remains. As leveraged as the asset class was at the height of the Housing Bubble, every day it becomes more leveraged as prices fall and equity disappears even more rapidly. Homeowner equity is at the lowest level as a percentage of total home value in U.S. history.

This extraordinary level of debt has dramatic implications for the economy as home prices continue to fall. Consumption is effected and consumer confidence is eroded. Consumer focused businesses suffer and unemployment rises. The debt must be serviced and repaid. When it can not be serviced or if owners decide it is not in their best interests to do so, foreclosures result which further erode home prices and destroy the capital base of our lending institutions.

The Wealth Effect of Rising Home Prices

Consistent and rapidly rising home prices distorted the economic decisions of home owners. As home values rapidly appreciated, leveraged equity returns contributed to a dramatic wealth effect. When

people gain wealth they choose to consume more goods and services. As 75 million U.S. households experienced rising house values the impact of the bubble affected the entire economy. These people spent more money.

Rising values also dramatically distorted the U.S. savings rate. Americans consistently lowered their rate of savings as the Housing Bubble persisted. The savings rate dropped to zero and then went into negative territory during the worst of the mania. Such decisions seemingly made sense to homeowners as their wealth rose regardless of individual savings rates. Why save a small percentage of your paycheck when the consistent appreciation of your home increases your net worth by many times that which you could have saved?

Home equity loans facilitated this distortion as individuals could monetize their increasing equity for current consumption. The government's tax policies further incentivized this activity. For anyone with a credit card balance, the prospect of accessing a home equity loan was an obvious benefit. Instead of paying recurring fees and high interest rates, a home owner could borrow money via an equity loan and deduct the interest for tax purposes. With the expectation of future gains, most borrowers anticipated that rising home values would effectively pay off the loans.

Home equity loans constituted approximately 3% on consumer spending from 2002 through 2005. This source of consumer spending has been removed from the economy. Record low savings rates further fueled the Housing Bubble driven consumer boom. Not only is the incremental consumption gone, but Americans will have to increase the rate of savings to pay back debt, make up for years of missed savings and restore equity in their houses. Such activities will further damage consumer spending. Even conservative people who didn't over borrow or access home equity loans may reduce spending due to negative wealth effects from falling home prices, stock market losses, rising unemployment or impaired consumer confidence.

The Direct and Indirect Economic Impact of the Housing Bubble

The impact of the housing boom on the industries that constructed new housing, facilitated mortgages and executed home transactions was profound. While these segments are small relative to the total economy, their impact was dramatic, extended far beyond those specific sectors and dominated economic gains at the margin.

Home construction, mortgage facilitation and sales functions created millions of jobs. The impact of these incremental jobs was material. Employees produced goods and services, shopped in malls, ate at restaurants, bought houses and paid taxes. Employers that serviced homebuilders including carpenters, painters, furniture manufactures, roofers, landscapers, electricians, plumbers, wallboard manufacturers, sales people and marketers directly benefited from these activities. Real estate brokers, appraisers, mortgage brokers, investment bankers, ratings agencies and title companies were enriched by increased transaction levels. Many other businesses were affected by the increased employment, higher expenditures and the non-direct, iterative impact of prosperity.

Unfortunately this homebuilding episode was an economic distortion. The demand for incremental housing supply was driven by ill-advised government agendas, dangerous, inappropriate and highly leveraged mortgages, speculative investors, optimistic buyers and a massive availability of cheap capital. Today we have the largest inventory of empty housing units in our country's history.

There is no reason to believe that any of these economic benefits will persist. We have already seen massive layoffs and contracting economic activity in the most affected geographies and industries. The employment benefits from the Housing Bubble will vanish as economic activity returns to levels last seen in the 1990s.

Impact of These Distortions

A decade of unsustainable housing appreciation dramatically distorted economic activity. The Affordable Mortgage fueled Housing Bubble created a legacy of extreme home leverage, deflating housing prices, negative wealth effects, declining economic activity and rising unemployment. The implications as these distortions unwind make it unlikely that the U.S. economy will avoid a prolonged depression.

The Nefarious and Inevitable Impact of Affordable Mortgages

The most nefarious force influencing future home prices are the structural remnants of the Affordable Mortgages which enabled unsustainable housing prices to develop during the Housing Bubble.

Economic Time Bombs

Mortgages with adjustable rates enticed buyers to purchase houses with temporarily low payments. Each of these mortgages was an economic time bomb due to explode when the interest rate adjusted. Lenders and buyers never anticipated that those time bombs would detonate based on the availability of refinancing options, a robust demand for houses and the expectation of rising home prices. When the housing market crashed equity evaporated, refinancing options disappeared and the demand for homes dried up.

As rates have reset, the economic time bombs have started to explode. Thousands of mortgages will reset every day for years to come. At minimum, the higher interest rates stress the homeowner and reduce after-mortgage disposable income, detracting from consumer spending. In many cases though, interest rate resets trigger foreclosures.

Adjustable rate mortgages provide us with a steady, visible and quantifiable source of foreclosures through 2012. These are the structural remnants of the Affordable Mortgage generated Housing Bubble.

Of even more concern, what will inevitably be the worst performing mortgage products in history, have yet to reset in large numbers. Fitch estimates that Option ARMs which won't begin to reset in large numbers until 2009 may default at a rate close to 50%. It would be no surprise if foreclosure rates exceeded this level based on an understanding of how these mortgage products work and in what markets they are concentrated. Option ARMs, issued at the zenith of the valuation bubble, have allowed mortgage balances to increase while the value of the home backing the loan has declined rapidly.

What makes Affordable Mortgages so damaging is that their existence represents a persistent, structural impediment to the stabilization of the housing market. Many underwater mortgages will inevitably result in foreclosure, yet these mortgages are serviceable under the introductory or optional payment interest rates. When an adjustable mortgage hits the reset date or when the Option ARM loan balance triggers a reset, the foreclosure results. There are millions of these foreclosures looming over the next four years. We know they will occur, we know the time period during which they will be triggered, but there is little or nothing that can be done to defuse these time bombs. Many home owners understand that foreclosure is a certainty, but are incentivized to stay in their homes until the reset occurs because the introductory interest rate still represents a low cost source of housing.

No one can accurately predict when housing prices will find a bottom given the large number of forces which will dynamically affect the market for the next several years. But anyone who understands the mechanism that determines the price of houses at the margin and who grasps the volume of impending foreclosures through 2012, can conclude that the housing market is years away from finding a stable bottom.

The residential real estate market has little chance of meaningful recovery until 2013, and there is a material likelihood that prices will fall in real terms beyond that date.

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Epic article! Great job!

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Nice post,

good to know how housing effects the economy

Thanks for writing, most people don't bother.

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That was inspiring,

Keep up the good work

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