



Credit Becomes the Spotlight

The Question Is Not “If” We Are in the Worst Credit Environment Since the Great Depression, But “How Long” and “How Bad” Will This Deteriorating Credit Cycle Be?

“All crises have involved debt that, in one fashion or another, has become dangerously out of scale in relation to the underlying means of payment.”

—John Kenneth Galbraith

Was it the second quarter or third quarter of 2006 that marked the turn in the credit cycle? When it first occurred, no one seemed to notice. Credit metrics were so benign, why should anyone have been concerned? Unfortunately, whether it started in the second quarter when credit quality no longer improved and loan-loss provisions increased or in the third quarter when the U.S. banking system had its first double digit jump in delinquencies and write-offs, the credit cycle had very clearly turned. Now, the banking industry and the economy are at risk of being overwhelmed by deteriorating credit.

Prior to the start of the deteriorating credit cycle, credit metrics had gone through a period of ever-improving trends to the point of reaching one of the lowest levels of delinquencies and charge-offs in modern times. The U.S. economy was growing at a healthy pace and unemployment was low. Bolstered by a multi-year period of strong home-price appreciation, consumers found easy access to credit, whether to refinance existing debt or extract equity in their homes for spending. Similarly, private equity firms used the substantial liquidity available in the high-yield and leveraged loan markets to spark record levels of LBO activity. To say the least, credit was incredibly cheap and incredibly available on very relaxed terms. Unfortunately, it was during this time period when all the problems we are experiencing in the credit markets today were created.

As we have written extensively about over the last four years, the surge in asset value appreciation was largely a byproduct of the unprecedented stimulus that the Federal Reserve and federal government provided after the Internet/technology bust of 2000-2001. The Fed used the housing market as the principal vehicle to re-inflate the American consumers' balance sheet and economy after suffering over \$1 trillion in losses, due to the Internet bubble. Unfortunately, the Fed's actions simply laid the groundwork for another even more extensive bubble in housing as well as leading to a series of smaller bubbles in almost every asset class. As all asset classes were rising in value, this created a false sense of wealth and led to credit improvement for both borrowers and lenders. In a 2006 Fed study, besides the wealthiest top 10%, income for U.S. households from 2001 to 2004 was largely stagnant and the primary reason for an increase in household net worth was due to the appreciation of housing values. **Consequently, credit quality, in our opinion, did not truly improve; it just became a function of housing values.**

Once the housing market cooled and the fundamentals started to take hold, the underlying problems in the credit markets began to surface—marking the beginning of a rapidly deteriorating credit cycle in the U.S. that, in our view, will progressively worsen over the next eighteen months. The turmoil that began in the U.S. subprime mortgage market in early 2007, sparked by a sharp slowdown in the housing market, led to a repricing of credit risk across the global fixed-income capital markets that exploded into a full-blown credit freeze by August. Investment grade and high-yield credit spreads exploded and the record pace of leveraged buyout activity ground to a halt.

In the mortgage market, subprime and Alt-A mortgage issuance has evaporated and even prime jumbo mortgage borrowers have found it difficult to obtain a loan. The Fed has acted aggressively to stem the tide—pumping hundreds of billions of dollars of liquidity into the financial markets (in conjunction with foreign central banks) and lowering the discount rate at which it lends to banks and reducing the fed funds rate by 300 basis points from September 2007 to March 2008.

While the rate cuts have provided some relief for fixed-income investors, the Fed's actions have not (and, in our view, cannot) address the fundamental problems in many areas of the credit markets—particularly the structured finance market. Mortgage rates have not fallen nearly as much as the fed funds rate, as credit spreads have blown out and the yield curve has steepened. The high-yield corporate market has been significantly curtailed and the commercial mortgage-backed security (CMBS) market has witnessed a rapid repricing of rates to the upside. As a result, credit quality concerns and risk premiums have far outweighed the benefits of lower short-term rates. In many parts of the asset-backed markets, liquidity has completely dried up. We have now experienced four consecutive quarters where major commercial and investment banks, both in the U.S. and abroad, have taken investment portfolio write-downs and credit charges related to asset-backed and leveraged-loan securities and commitments totaling in excess of \$325 billion. In each of the last three quarters, we have seen increases in charges, delinquency rates, and write-offs...and they are by no means done. According to J.P. Morgan Chase, the banks' total losses related to structured finance in 2007 and 2008 could ultimately reach \$500 to \$600 billion. Further, the IMF recently projected that the total mortgage-related losses could reach *almost \$1 trillion*. This speaks to the speed at which prices are falling and liquidity is drying up for some securities, particularly asset-backed collateralized debt obligations (CDOs) backed by residential mortgages.

Many bulls have argued that what is occurring is simply a crisis of confidence. Once people calm their nerves, credit spreads will tighten and, in turn, the equity markets will return to solid appreciation. They believe that corporate balance sheets remain healthy with ample cash on hand and will provide a level of stability for the economy. Further, they insist that the Fed's actions will ultimately be the saving grace through its ability to infuse liquidity and lower rates, and that the housing market will bottom out in 2008 and begin to rebound in 2009. Lastly, these proponents believe that once the banks take their charge-offs, lending will return to its normal course and the economy will return to a period of stable expansion.

So, the question is whether this credit crisis is just a tempest in a teapot, or is it something that will have a

much longer lasting impact throughout 2008 and beyond as the credit markets continue to experience further deterioration and turmoil? In this *Industry Update*, the latest in a series of comments we have made over the years on issues affecting the financial-services industry, we will argue the latter. We believe that the U.S. economy is on the cusp of a meaningful turn in consumer and (eventually) corporate credit. As you may recall, we argued in the beginning of 2007, in our *Industry Update* discussing the overall economy, that we felt the housing market would continue to turn meaningfully down and drag the entire economy into a recession. Unlike some, who argued at the time that we had somehow entered into a new credit paradigm, we never believed that the historical pattern of credit cycles had come to an end. Quite simply, as we have learned in past credit cycles: **when the cost of credit increases, and the access to and availability of credit is restricted, credit losses inevitably accelerate.**

Credit deterioration does not occur overnight, as historical precedent suggests it generally takes 36 months to go from peak to trough in a credit cycle. We think this cycle is likely to follow that timeframe. In fact, given how loose and poor underwriting standards were over the last few years and how out of alignment the housing market became, we think that this credit cycle could, unfortunately, extend even longer than 36 months. The *Financial Times* put our current environment into even greater historical perspective: **in the decades following 1950, nearly \$1.50 of credit was being generated for every \$1 of GDP growth, with the ratio climbing in the 1980s and rising to \$3.50 during the 1990s. Amazingly, by 2007, almost \$4.50 of credit was created for each \$1 of GDP growth.**

As a result of this accelerated and loose lending environment, almost all forms of credit have now started to deteriorate. Obviously, we have seen this most significantly in the mortgage market. Unfortunately, credit has also started deteriorating in all forms of consumer credit (e.g., auto, credit card, student loans). Corporate credit is now starting to see the beginning signs of defaults as the institutional loan default rate rose to almost 2% in the first quarter of 2008, compared to just a 0.1% average in 2006 and 2007. Additionally, there are a number of high-yield issuers that are starting to experience some significant financial stress. We fully expect that this negative trend will continue to spread through all asset classes and that the banking industry and overall financial system—which has now experienced at least six negative quarters of delinquencies, foreclosures, and write-off charges—will continue to deteriorate throughout all of 2008 and well into 2009. Unfortunately, the huge positive impact that the easy availability of credit and benign credit metrics had on the U.S. economy, and indeed

on the global economy on the way up, we view will have a similar negative toll over the next two to three years as credit availability is withdrawn and credit quality worsens.

Real Estate

Residential

The U.S. residential housing sector is inextricably linked with the credit markets. The mortgage market is the largest single asset class of debt in the U.S. at \$10.1 trillion outstanding, versus \$6 trillion in corporate debt outstanding and \$9.4 trillion in government debt. In the early years of this decade, the mortgage and housing markets created a virtuous cycle: as the economy slowed following the Internet and technology bubble, the Fed cut interest rates to historic lows; these low interest rates initially improved housing affordability and spurred an increase in demand that began to drive home prices up. In turn, this led to increased lending opportunities and improving credit trends, which encouraged mortgage lenders to provide financing to more and more homebuyers with increasingly relaxed underwriting standards. This access to cheap and easy mortgage financing, coupled with little or no down payment requirements, led to even greater housing demand from traditional homebuyers (families) and investors/speculators alike. Once again, this continued to drive home prices higher, which made credit look better and ultimately led to even more relaxed underwriting standards as the mortgage lenders struggled to find ways to maintain “affordability” in the face of ever-increasing prices—thus, keeping the virtuous cycle going. The homebuilders were clearly along for the ride in all of this, as they continued to rapidly expand their inventories throughout that period in an effort to keep up with what seemed like an ever-increasing demand from both traditional homebuyers and the growing throngs of speculators and investors. Yet, as we have discussed in numerous *Industry Updates* over the past three years, the housing market became an unsustainable bubble that has turned down dramatically, and turned the virtuous cycle into a vicious one. Poorly underwritten credit and excess inventories were the catalysts for the housing bust. A rapid acceleration of subprime mortgage losses in late 2006 and early 2007, led to rising delinquencies which had a profound negative impact on the asset backed securitization market and to subprime lenders. Consequently, banks pulled funding lines for these lenders, forcing almost the entire industry into bankruptcy, and credit spreads blew out starting the rapid downturn in housing.

The federal government and the Fed are now trying to stabilize the housing market. **However, we do not feel that they will be capable of “re-inflating” the housing**

market and we see the following five issues weighing on housing throughout 2008 and beyond:

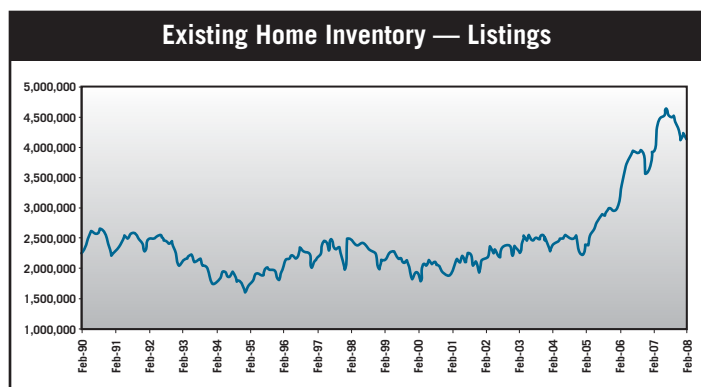
- *Excess inventory.* Over the last five years of the housing bubble, we estimate there were approximately 1.5 million excess homes built. Additionally, there are currently 10 months of excess inventories of existing homes for sale. Further, there are 14.1 million investment homes and 7.6 million vacation homes—both of which are the first assets individuals typically try to sell in a recession.
- *Collapse in demand.* Over 50% of the homes sold between 2003 and 2006 were to investors and subprime borrowers. These sources of demand have completely evaporated for the foreseeable future.
- *Toxic nature of mortgage product.* Since April 2007, \$40 to \$60 billion of interest only “2/28” and “3/27” adjustable rate mortgages (ARMs) have been repricing monthly, causing massive payment shocks—a dynamic that will last until the end of 2008. Unfortunately, beginning in January 2009, payment option mortgages start their repricing wave where, again, the payment shock can average between 40% to 60%.
- *Foreclosures.* Most do not appreciate the complexity and length of the foreclosure process and that the time involved varies depending on whether a state has a judicial or non-judicial process. At the end of 2007, there were 2.2 million homes in foreclosure, which is up 75% from the prior year.
- *Affordability.* Housing prices need to come down by an additional 15% to 25% for homes to be affordable again for a typical buyer using a traditional mortgage. According to the National Association of Realtors (NAR), the historical average for U.S. existing home prices is three times the median family income...as of February 2008, this stood at 3.9 times.

As such, we see housing prices continuing to fall until excess inventory levels have been absorbed, which will likely not occur until late 2009, and then staying at or near a bottom for an extended period of time, with no rebound occurring at least until the end of 2010 or beyond. Why will prices continue to decline and for such a sustained period? One might think that with the subprime and Alt-A mortgage market having already contracted and prices having already come down, prices would stabilize as buyers who had previously been on the sidelines jump back into the market. In a typical housing decline, prices at first moderate, then sales activity slows down, as buyers pull back from the market due to a retrenchment in credit and sellers unwilling to adjust to the new pricing reality. The meaningful decline in home prices occurs as sellers' patience wears out and

foreclosures start hitting the market, causing pricing to crumble. These forced sales become the new marginal price-setting benchmark. We see the current housing bust progressing along these lines.

Unfortunately, even two years after housing began to turn down, the inventory of homes for sale has not declined (see below). According to the U.S. Census Bureau, some 2.2 million vacant homes were for sale at the end of the fourth quarter in the U.S., or 1.7% of all homes (the latest data available). Over the past 40 years, the percentage of homes for sale has averaged 0.9%, and had never risen above 1.2% until 2005. Another major source of excess housing supply stems from investor-owned inventory, which can be measured by examining single-family homes in the rental pool. As investors were unable to sell their units, they attempted to rent them, driving vacancy rates in single-family rental properties to 9.5% in the fourth quarter of 2007 compared to the average over the past 40 years of 5.0%.

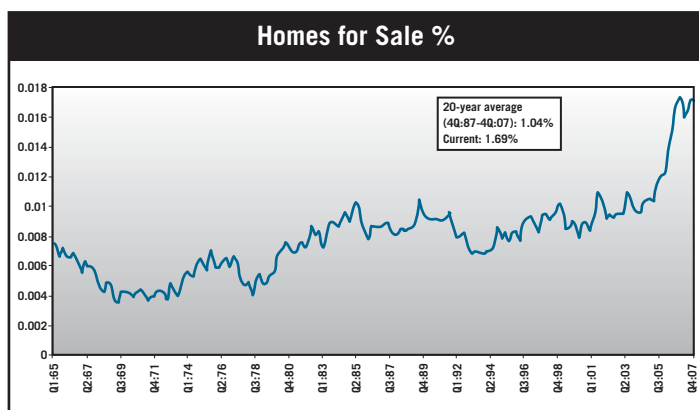
In order to return to the long-term averages for these measures, approximately 1.4 million homes must be sold (assuming no new supply is added), which approximates two years' worth of supply at the most recent pace of new home sales. This does not factor in homes that were previously listed and were taken off the market temporarily due to poor market conditions. We would also argue that recent government sales data for new and existing home sales does not factor in cancellations, which makes sales appear stronger and inventories lower than what truly exists. Further, government data does not factor in concessions by homeowners or homebuilders, which, in many cases, can total 20% to 25% of the sales price and, thus, does not provide a true reflection of how home prices have already weakened.



Source: National Association of Realtors

As a result of the mortgage turmoil, the availability of mortgage financing has been severely restricted to buyers with weak credit and small or no down payments. Subprime and Alt-A mortgage issuance has been almost completely eliminated. These two classes of mortgage borrowers represented approximately 50% of originations in 2006 and reached well over 50% of home buyers in some markets, such as California and

Florida, in recent years. The prime mortgage market has become stretched, as well. Many prime home buyers spent more than they could afford, enticed by low monthly payments and the potential for rapid price appreciation. So, the capacity of mortgage financing has been reduced across the credit spectrum. Almost every subprime mortgage originator entered bankruptcy in 2007. Further, Countrywide Financial, the largest mortgage originator in the U.S., has stopped originating subprime mortgages entirely. Many borrowers, both prime and subprime, were previously able to buy homes with low or no down payments. Now, those same buyers must put a meaningful amount of cash down. In sum, working off the excess housing inventory given the contraction in financing availability will be a multi-year process that will contribute to further price reductions.

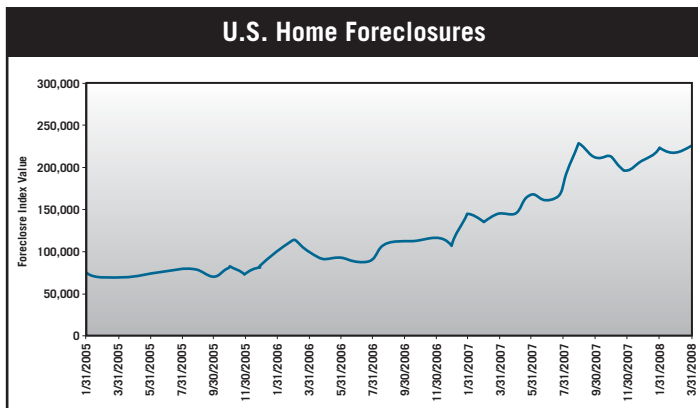


Source: U.S. Census Bureau

The surge of mortgage foreclosures is just now starting to affect the housing market in a meaningful way. Mortgage foreclosures have indeed been rising for some time, increasing by nearly two-thirds by the end of March from a year earlier to almost 235,000 nationwide, according to RealtyTrac (see below). However, what people misperceive is that the foreclosure surge being tracked are not foreclosed properties on the market for sale today, but foreclosure actions being started in the judicial system. As a result, given the lengthiness of the foreclosure process in most states, foreclosure activity will only really start to have its true impact on the housing market as we move through 2008. In judicial states (of which there are 37), a judge has to oversee the foreclosure process, which can take 12 to 18 months to complete. In some jurisdictions, judges may sit on foreclosure cases and not process them because they do not wish to throw families out of their homes. We have seen numerous cases of judges taking even more aggressive approaches of preventing foreclosures, as witnessed by an Ohio judge dismissing 14 foreclosure cases brought by Deutsche Bank in October 2007, and a Philadelphia judge blocking auction foreclosures from proceeding in April. Further, the state of Maryland has just passed a law

which will add an additional 135 days before a lender can even begin the foreclosure process.

In non-judicial states, the duration of the foreclosure process varies. In California, for instance, an applicant must wait 120 days after an application is approved to execute a foreclosure. However, even in a non-judicial state, it will take a couple of months for a foreclosure company to get the application in order and start the process. And once the lender or its agent seizes the house, it can often take several months to refurbish the house and prepare it for resale, given that foreclosed homes are often in a state of disrepair when vacated.



Source: RealtyTrac

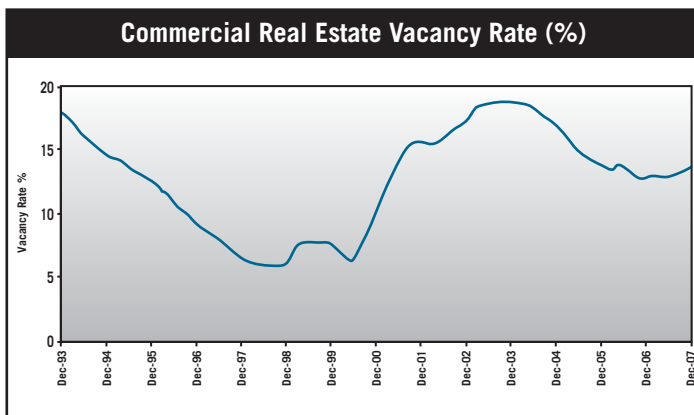
In sum, despite the wave of mortgage delinquencies and foreclosures beginning in late 2006 and early 2007, the impact on the housing market is *just now* being felt, and will last until 2009 and beyond. In fact, the only two states that have seen substantial foreclosure activity so far are Michigan and Ohio because housing markets there turned down a solid year before the rest of the country. Substantial volumes of ARMs will reprice at rates meaningfully higher than when the mortgages were sold several years ago. Merrill Lynch estimates that *total* mortgage resets could reach \$650 billion in 2008—up from \$500 billion in 2007—including \$420 billion of subprime loans compared to \$350 billion in 2007, which will only exacerbate the foreclosure wave.

The lag effect of foreclosures means that bank credit quality has not yet been fully impacted by mortgage foreclosures. Recall that residential mortgage credit is the largest single asset class for the banking industry. As a result, the foreclosure cycle will have an even more crippling effect on bank and thrift balance sheets over the next 12 to 24 months as homeowners default.

Commercial Real Estate

We do not foresee anywhere near the level of credit losses in commercial real estate that we expect to see in residential real estate. However, we do expect that there will be problems in the commercial market. While the overall economy has grown steadily and the corporate sector is relatively healthy, the national commercial

vacancy rate of 14% is relatively high compared to the last cycle peak in the late 1990s (see below). And in many markets (even in some where the local economy is good, such as Atlanta and Chicago), the vacancy rate is well above the national average (see below). Vacancies have remained elevated in part due to a wave of new commercial construction in recent years. And while residential construction has contracted meaningfully, the pace of commercial construction has been robust. As a result, we are now, unfortunately, starting to see an increase in vacancy rates. The recent national commercial real estate vacancy rate upticked to 14.2% from 13.9% in the previous quarter.



Source: CB Richard Ellis, Bloomberg

Suburban Commercial Real Estate Vacancy Rates:
(as of December 2007)

Current % Vacancy Rank		
1	Detroit	24.6
2	Dallas/Fort Worth	21.5
3	Cincinnati	19.2
4	Atlanta	18.4
5	Cleveland	18.1
6	Columbus	18
7	Chicago	17.7
8	Kansas City	17.1
9	Charlotte	16.5
10	Phoenix	15.3
11	Palm Beach	15.3
12	Denver	15
13	Sacramento	14.5
14	San Diego	14.3
15	United States	14.2
16	Orange County	14.2
17	Las Vegas	13.7
18	Philadelphia	13.6
19	Westchester	13.2
20	Ventura	13.2
21	Tampa	13.2
22	Oakland	13.2
23	St. Louis	12.7
24	Jacksonville	12.7
25	Albuquerque	12.7

(Source: CB Richard Ellis, Bloomberg)

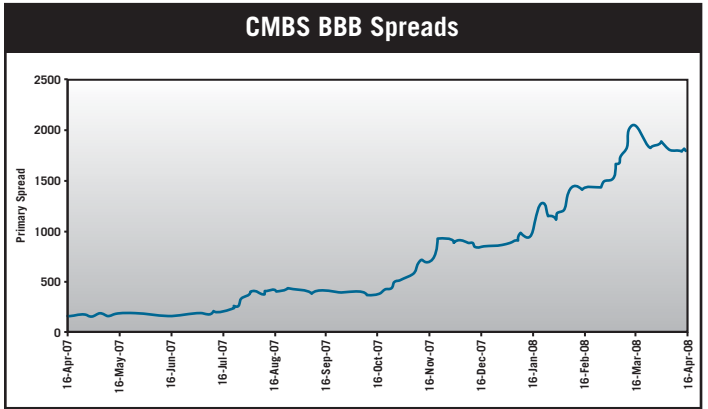
In many markets around the country, a high concentration of commercial businesses is tied to the

residential housing market: mortgage brokers, title insurers, bankers, real-estate agents, engineering companies, and architectural firms. Many of these tenants have scaled back or gone out of business. For instance, Orange County, California, had one of the lowest commercial office vacancy rates and had been one of the strongest commercial real estate markets in the country over the last 10 years. However, over the last year, Orange County has lost millions of square feet of occupied office space due to the collapse of the many prime and subprime mortgage companies headquartered there. As a result, this county's office vacancy rate has increased to 14.2% in the fourth quarter from 11.5% in the third quarter of 2007, and it is up from 8.8% in the fourth quarter of 2006. Furthermore, if you factor in commercial real estate shadow space (i.e., space that is currently leased but not being used or offered for sub-leasing) it is estimated to be 22% to 23%. Additionally, Orange County's unemployment rate jumped to 4.3% in February from 3.6% a year earlier, led by losses in the financial-services sector, and is expected to continue to rise, which will put even greater pressure on their commercial property market. This dynamic is starting to unfold across the entire U.S.

The retail sector also benefited tremendously from the housing boom, and is now feeling the effects of the bust. Millions of square feet of space in malls and shopping centers have been absorbed by home-improvement and home furnishings stores. This sector is starting to show meaningful strain, with notable recent bankruptcies such as Bombay Company, Linens 'n Things, and Sharper Image. Additionally, Centro Properties Group, the second largest shopping center owner in Australia and the fifth largest in the U.S., announced in mid-December that it had experienced a financial shortfall of over \$3 billion. Shares plunged by as much as 80% in Australia, as the company stated it required an extension to refinance its credit facilities in light of the tightened credit conditions, and cut its profit forecast for 2008 due to the higher debt costs. Again, what will compound the problems in the retail sector is the amount of new retail space that is in development that will be coming online over the next 12 to 18 months.

In 2001 and 2002, when commercial vacancy rates started to rise, many commercial property owners were able to refinance their mortgages (the largest single cost for most office buildings) at the low interest rates available at that time. However, in this cycle, most of the buildings have been refinanced at interest rates lower than what would be available today. And while the fed funds rate may continue to come down, even to the lows of 2001 and 2002, credit spreads have blown out. Furthermore, by 2005, we started to see some of the sins of residential mortgage lending creep into commercial mortgage

lending as well. Lenders provided financing on commercial properties at exceptionally low capitalization rates, five- and 10-year interest only mortgages started to become common, and bridge and mezzanine lending on aggressive terms also became prevalent. Consequently, many commercial properties are financed at high valuation levels with low levels of equity. Now, spreads on CMBSs have widened dramatically since early this year, increasing the cost of capital-markets financing. From a five-year low of less than 70 basis points over LIBOR in February 2007, CMBS BBB spreads rocketed to roughly 400 basis points in late August, and then surged up again to over 900 basis points (see below) by the beginning of 2008. This is having a profound effect on the financing markets for commercial real estate, which will have an equally profound effect on commercial real estate values.



Source: Banc of America Securities

Against this negative backdrop, there is one significant benefit for most MSA commercial property markets, in that a vast majority are controlled by strong holders—such as large REITs, pension plans, and endowments. The benefit of having strong institutional capital owning a large portion of commercial properties, particularly in many central business districts of our major cities, is that we will not see a wave of foreclosed commercial properties like we witnessed in the late 1980s and early 1990s and, as a result, we will not have a collapse in the rental rates. In sum, while the commercial real-estate market is in better shape than the residential side, clearly there are meaningful strains in the commercial property and financing markets that will contribute to a meaningful slowdown in commercial construction.

It is interesting to note that we view the real estate markets as almost a reversal from what transpired 20 years ago, where it was the commercial market that completely collapsed because of the lack of equity and aggressive financing prevalent in the mid-1980s. During this time, residential markets nationwide—with the exception of high-end coastal homes—held up

relatively intact, experiencing only one year of price decreases. Conversely, this time around, the sins of poor underwriting were most dramatic in the residential market and it is the commercial market that is better positioned.

Fixed-Income Capital Markets

The credit crunch that began in 2007 in the subprime mortgage market has intensified and widened to include nearly every fixed-income asset class across the cash and derivatives markets outside of U.S. Treasuries. The crisis could ultimately result in over \$500 to \$600 billion of losses for the banking and investment banking industry. In recent months the contagion has spread beyond borrowers with suspect credit metrics and is now affecting all forms of consumer credit, from auto loans, to credit cards, to student loans and other asset classes. Further, the crisis has moved from subprime mortgage companies and highly leveraged firms, to affect investment-grade companies at the highest ends of the credit spectrum as well as university endowments, municipalities, and public agencies.

Similar to other junctures in this credit crisis, bullish market observers have said the emerging problems in the fixed-income markets are being driven by a temporary lack of liquidity. These analysts are among the most supportive of the Fed's continuing campaign to reduce short-term interest rates and (in a coordinated effort with other central banks around the world) to pump liquidity into the financial system, arguing that at some point the banks' actions will restore confidence to the system and liquidity will return.

In our view, the current crisis is instead the result of legitimate investor, underwriter, and even issuer concerns about the complexity of the credit markets and various financial instruments (particularly in structured products), the excessive leverage in the system and, importantly, the deterioration in credit quality, with the latter issue increasingly being viewed against a backdrop of slowing economic growth. It is not a question of liquidity—there is plenty of capital available. And rate cuts will likely have little near-term impact, just as the 300 basis points of Fed easing since last September has had little impact on the credit crisis so far. In sum, there is no quick fix. Spreads will need to continue to widen to compensate investors adequately for the risks they are assuming, leverage will be reduced (on the part of both issuers and investors), and some of the more esoteric products will more than likely go away.

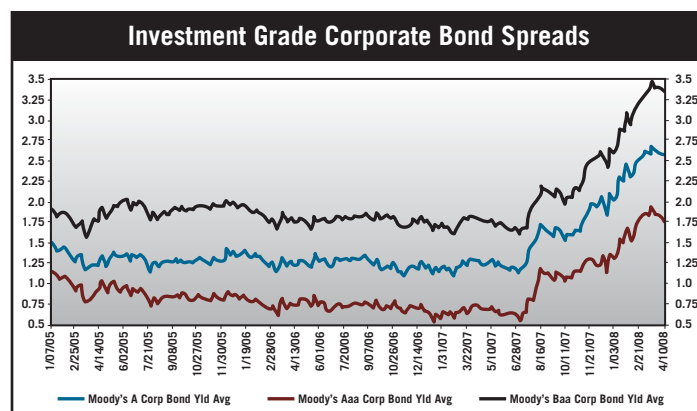
In the following sections, we will summarize recent developments in the investment grade, high-yield, and structured finance markets, and conclude with some thoughts on the overall dynamics and structure of the fixed-income markets.

Corporate

Investment Grade

In some ways, the fundamentals of the investment grade bond market are reasonably healthy. The long period of economic expansion from 2003 to 2007 allowed companies to improve margins, generate record profits, and build up substantial cash reserves. Compared to prior economic expansions, employee hiring and growth in capital-expenditure levels have been relatively restrained. Chastened by the last economic downturn (which was sparked, in part, by high-profile bankruptcies by debt-burdened companies such as WorldCom and Global Crossing), investment grade corporate debt as a percentage of cash or total capital has remained relatively low compared to historical averages.

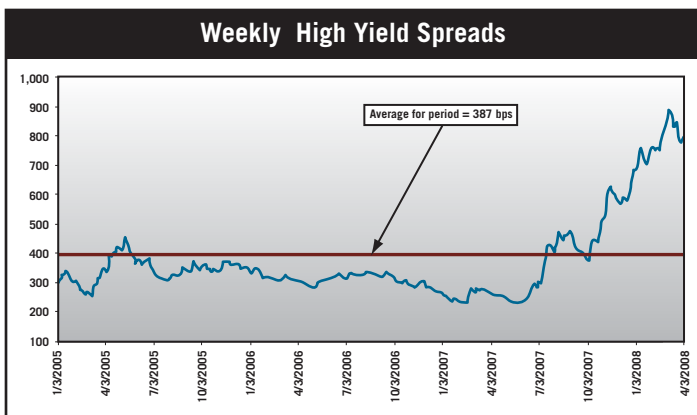
All of that said, as with most fixed-income products, investment grade corporate debt issuance reached record levels in recent years. Investment grade debt issuance reached \$2.5 trillion in 2007, up 15% from 2006 and up 87% since 2001. Amazingly, the record issuance in 2007 occurred despite a nearly 30% decline in monthly issuance levels in the second half of the year versus the first half, as underwriting volumes in the second half were hurt by the credit crisis. And, while not as vulnerable to an economic slowdown as their less creditworthy peers, investment grade companies would certainly be hurt by a recession. These two factors have combined to lead to a significant widening of investment grade credit spreads in recent months that have accelerated in recent weeks. The Moody's AAA corporate bond index has more than doubled since July 2007 to more than 200 basis points over Treasuries, and the single-A and Baa indices have roughly doubled to 275 over and 350 over, respectively (see below). While the market for investment grade debt remains open, and Fed rate cuts have reduced the impact for borrowers in terms of absolute borrowing costs. However, spreads probably will not tighten meaningfully until a better consensus emerges on the depth and severity of the economic slowdown, and the more troubled sectors of the fixed-income market return to some degree of normalcy.



Source: Banc of America Securities

High-Yield

The non-investment grade bond market is experiencing much greater stress than the investment grade market. High-yield spreads have more than tripled to 850 basis points over Treasuries from 250 basis points over last summer (see below). To a certain extent, the spread widening is typical of the early stages of a credit downturn. Periods of elevated high-yield issuance are typically followed in two to four years by rising default rates, as more marginal credit runs into problems meeting its obligations. Given that high-yield issuance accelerated in 2005 and 2006, it is natural to expect defaults to begin to rise in 2008 and to peak in 2009 and 2010. **Recently, Moody's forecast that high yield defaults would increase to 3.5% in 2008 and 4.5% in 2009, from just 1.5% in 2007. We would not be surprised if this forecast proves too conservative—note that high-yield default rates peaked at 12.8% in 2002 and 10.3% in 1991—given the record levels of issuance, the loose covenants on high-yield deals in recent years, and the rapid contraction of credit availability to below-investment-grade companies.** Almost all high-yield issuers also are very vulnerable to an economic slowdown and rising commodity prices.

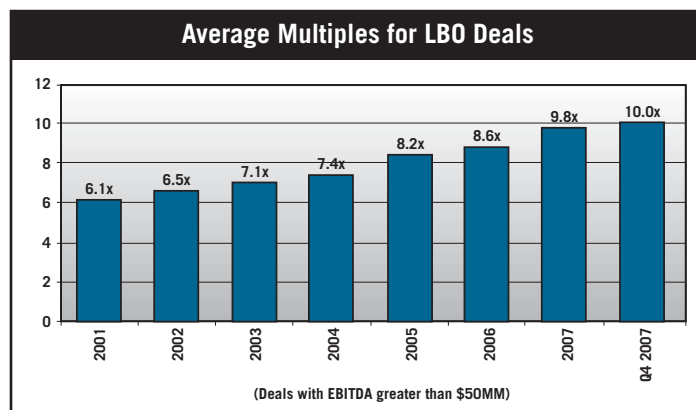


Source: Banc of America Securities

The problems in the high-yield market, in our opinion, will also be exacerbated by the excesses in private equity. In 2006 and early 2007, activist hedge fund and private equity firms tried to capitalize on what they viewed as the under-levered balance sheets of Corporate America. Hedge funds put companies into play, agitating for management to buy back stock, sell off individual businesses or put the entire company up for sale. Private equity firms levered up the balance sheets of companies or the individual business units they took private, using the ample and exceedingly cheap financing available in the high-yield and leveraged loan markets, which the underwriters sold to (you guessed it) hedge funds as well as yield-starved pension funds, endowments, mutual funds, CDOs and collateralized debt obligations (CDOs).

As with rising home prices and mortgage finance, the combination of private equity, aggressive lenders, and hedge funds was a powerful one when spreads were low and equity prices were moving up. Nine of the 10 largest leveraged buyouts in history were announced in 2006 and the first half of 2007 (Kohlberg, Kravis & Roberts' infamous 1989 buyout of RJF Nabisco is the lone holdout from days gone by). High-yield issuance was up 44% in 2006 to a record \$283 billion and was poised to shatter that record through the first six months of 2007, running at an annualized rate of \$370 billion, up 30% from 2006. Similarly, leveraged-loan issuance in the first half of 2007 was up 40% over the record level of \$482 billion in 2006.

But, as with any bubble, excesses crept into the leveraged-finance market, as the boom stretched on. Lured by the hundreds of millions of dollars of fees private equity firms were offering to finance their multi-billion dollar transactions, Wall Street investment banks began to stretch their underwriting standards. "PIK toggle" deals, which allow an issuer to suspend cash interest payments and instead make interest payments in the form of additional debt (i.e., payment-in-kind), became common, a disadvantage to debt owners should an issuer run into financial trouble. Similarly, banks began to offer "covenant light" structures that reduced the conventional debt covenants that typically limit debt levels and interest-coverage ratios in LBOs. Finally, banks offered guaranteed financing for LBO transactions, essentially shifting the financing risk from the issuers to the banks. All these factors combined to lead to higher prices paid for LBOs, leaving less margin for error in case companies fell short of the results private equity sponsors expected. **The average Enterprise Value to EBITDA (earnings before interest, taxes, depreciation and amortization) multiple for LBOs rose to 10.0x in the fourth quarter of 2007, up from 7.4x in 2004 (a 35% increase) and 6.1x in 2001 (a 64% increase) (see below).**



Source: Standard & Poor's LCD

Unlike the collapses of subprime mortgage lenders in 2007, which cast a pall over the entire mortgage sector,

the LBO boom did not end because of one or two high-profile deals gone awry. The market merely seemed to sag under its own weight. Over time, investors began to balk at some of the more aggressive financing terms for large LBOs. And the forward calendar of some \$200 billion in high-yield financing and \$300 billion in leveraged loans for announced LBOs became too large for the markets to digest.

After an initial sharp drop when credit concerns first intensified last summer, the leveraged loan market attempted a recovery in the fall, as several high-profile funds were raised to invest in loans trading at discounts to par. The market has since fallen back to levels seen last summer, as the still, large backlog of un-syndicated deals has combined with intensifying concerns about economic growth to weigh on the market. Average high-yield bond issuance fell 60% in the second half of 2007, from the record pace of the first half, leading to an overall decline in high-yield issuance, to \$268 billion—still the second-highest total ever after 2006. Leveraged-finance volume fell 57% from the first half of 2007 to the second—the largest such decline since 2001.

The forward calendar has declined materially as some LBOs have been financed and private-equity sponsors have backed away from some others (including high profile transactions, such as the failed \$25 billion buyout of student lender Sallie Mae and the \$19 billion LBO of Clear Channel Communications). However, as of late March 2008, nearly \$150 billion of leveraged loans were awaiting financing. In many cases, banks have agreed to hold the loans and bonds on their books if they cannot find buyers. Finally, for those who wind up owning the debt and equity, the newly private companies must operate with large debt loads in an environment in which economic growth is slowing and prices for many commodities continue to rise.

What is the potential impact of the problems in the high-yield market on the capital markets and the economy overall? First, while the investment grade bond market is much larger, the high-yield market still encapsulates a large portion of the economy—according to Fitch, **18% of the \$3.7 trillion corporate bond market, or \$666 billion, was speculative grade as of June 30, 2007.** The private equity boom of recent years turned well-known companies such as HCA, ALLTEL, and Harrah's into privately held, highly levered companies. Should the economic slowdown continue, these companies have less margin for error than their investment grade counterparts because of the high interest payments they must meet. This increases the risks that these companies will seek bankruptcy, further compounding the problem in the economy and credit markets. Second, high-yield bonds and leveraged loans are the lifeblood of most private equity firms.

Announcements of new LBOs of meaningful size have essentially ground to a halt, and the market is likely to remain closed until the logjam of pending deals clears and spreads stabilize. This has eliminated the “private equity bid” that had provided somewhat of a floor under equity prices and was a key factor contributing to the rise in stock prices through mid-2007. Finally, while major global commercial and investment banks have taken investment portfolio write-downs and credit charges related to asset-backed and leveraged-loan securities and commitments totaling tens of billions of dollars, if the recent widening of high-yield and leveraged loan spreads continues or even stabilizes at current levels, banks will be forced to write down billions more in assets, pressuring their already thin capital bases. In sum, ***it is not an exaggeration to say that continued deterioration in the leveraged finance market could contribute to another leg down for the U.S. economy, and this market will need to show signs of improvement before a meaningful economic recovery can occur.***

CDOs, CLOs and SIVs—The Shadow Banking System

The traditional banking system is relatively easy to understand. Banks take deposits and make loans. The business is highly regulated and has existed and operated efficiently, more or less, in its current form for decades. Whether publicly traded or not, all U.S. banks and thrifts have publicly available financial statements.

Beneath the “official” banking system, however, there is another layer of the financial markets that has grown enormously over the past six years. This “shadow banking system” is far more complicated and opaque, but is perhaps more important to understanding the current credit crisis. The shadow banking system is composed of a maze of unregulated, non-bank investment vehicles—an alphabet soup of products including CDOs, structured investment vehicles (SIVs), and variable interest entities (VIEs), asset-backed commercial paper conduits (ABCPs), and CLO conduits. These investment products proliferated in recent years because the generally low-rate, low-yield environment made it difficult to generate high returns from many traditional fixed-income products. Enter the magic of leverage. By borrowing from the capital markets—in particular, through the commercial paper market—and expanding their asset bases well in excess of their equity, these structured vehicles were able to enhance returns. Before the crisis hit in the summer of 2007, the typical CDO was levered 20-1 (assets/equity) and SIVs at 14-1, according to Banc of America Securities, with numerous examples of higher leverage.

The growth of structured finance coincided with and, in many ways, fed the housing bubble, which led to the generation of hundreds of billions of dollars more of

mortgage-backed securities (MBSs) than the pool of conventional asset-backed securities (ABSs) investors could support. ***The CDOs, SIVs and other vehicles became the dumping ground for the Wall Street investment banks to lay off the toxic credit risk to the capital markets and continue to earn their outsized fees.*** Subprime mortgage loans were packaged together and sliced into various tranches, with each tier responsible for a certain percentage of the losses of the pools. With home prices rising and refinancing options plentiful, it was easy for the Wall Street firms packaging the securities to convince investors and the rating agencies that the senior tranches in these securitizations had minimal chance of default. The shadow banking system grew to become a major part of the capital markets. ***U.S.-dollar denominated CDO issuance, for instance, more than doubled in 2006 to \$422 billion, before falling 17% in 2007, and then dropping off a cliff thus far in 2008—down 77% in the first quarter from the 2007 run rate.*** Outstanding U.S. CDOs totaled \$1.4 trillion as of September 2007, according to Banc of America Securities. As of October 2007, there were 30 SIVs rated by Standard & Poor's with assets totaling \$320 billion. These are not insignificant sums when one considers that the total assets of U.S. banks and U.S. subsidiaries of foreign banks are \$11 trillion, according to the Federal Reserve.

However, when losses began to accelerate rapidly in 2007, the structured vehicles did not have the funding structures to support the rapid decline in equity. All of a sudden, the “boring” business of traditional banking, particularly the stable funding provided by deposits, looked a lot more attractive. Starting in July 2007, the commercial paper market for many MBSs froze up, leaving many structured vehicles without a financing source. Asset-backed commercial paper outstanding doubled to \$1.2 trillion from 2003 to mid-2007, and then declined by \$200 billion in a matter of weeks in July and August, as investors pulled back from the market.

A critical aspect of the structured-finance and fixed-income markets are CDOs. CDOs are structured finance instruments composed of various securities and assets that are divided into different tranches and sold to investors based on their risk appetite, with losses applied in reverse order of seniority. In other words, the higher-rated tranches offer lower yields but lower likelihood of loss, while the lower-rated tranches offer higher yields and greater risk of loss. CDOs serve as an important funding source for fixed-income assets, including corporate loans and bonds, mortgages, credit cards and student loans. First developed in the 1980s, CDOs became an important vehicle for the MBS market. Global CDO issuance rose from \$157 billion in 2004 to \$271 billion in 2005, and to \$552 billion in 2006, according to the Securities Industry and

Financial Markets Association (SIFMA). CDO issuance fell 9% in 2007 to \$503 billion and dropped precipitously in the first quarter of 2008 to just \$12 billion—a run rate of more than 70% below the prior year. CDOs outstanding totaled more than \$2 trillion globally in September 2007, according to Banc of America Securities. Investment banks devised numerous variations on the CDO structure, with CDOs of CDOs (CDOs-squared), synthetic CDOs (which gain exposure to a given asset class by owning credit default swaps instead of cash bonds) and hybrid CDOs (combinations of cash and synthetic CDOs). CDOs became a huge business for Wall Street in both the U.S. and Europe. *The Economist* recently reported that Merrill Lynch, the leading CDO underwriter, generated revenue of \$700 million from CDOs in 2006, or 9% of its total fixed-income revenue that year.

As many CDOs are marked-to-market, the collapse in MBS prices led to substantial spread widening and billions of dollars in losses for investors who held these securities in 2007. Rating agencies failed to detect the high leverage in many of these securities, which exaggerated the impact of losses, and have downgraded thousands of CDOs in recent months. Sales and write-downs by investment banks and other CDO investors in recent months reduced the values of some CDOs to as little as 20 to 30 cents on the dollar from par just months before. After declining 7% in 2007 from 2006's record volume, CDO issuance dwindled to just \$1.3 billion from three deals in January 2008, with only one of these deals in the U.S. (the other two were in Asia).

The collapse of the CDO/CLO market and the entire shadow banking system has led and will lead to additional write-downs for the banks that continue to hold billions of dollars in these securities, given the declines year-to-date in many major mortgage and loan indices. The reduction in CDO/CLO issuance has also eliminated a key source of demand for residential mortgage-backed securities (RMBSs), leveraged loans and other new issues. Securitization volumes have fallen dramatically in every category (see below), with a slight month-to-month increase in credit-card securitization in March 2008, resulting only from the fact that issuers have increased the share of lower-rated tranches which they retain. We think any recovery in the CDO/CLO market is likely to take years, not months, and the market is not likely to return to anything close to its size in 2006 and early 2007 for many years. Next, we will look deeper into the impact that the collapse of the shadow banking system is having on the structured finance market and its ability to originate credit for all forms of lending.

(Source: J.P. Morgan Securities)

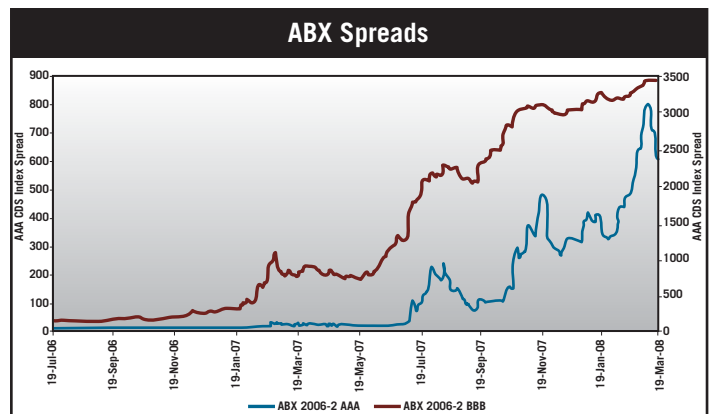
Issuance by Collateral by Month (\$ Millions)								
Date	Total	Auto	Cards	HEL	Equip	Student	Global	RMBS Other
Mar-07	91,784	2,305	8,747	47,691	1,200	12,266	16,815	2,760
Apr-07	51,294	5,277	6,474	29,955	1,001	—	2,963	5,532
May-07	74,532	9,307	8,790	28,535	—	4,336	19,560	4,004
Jun-07	67,234	8,838	7,255	31,472	278	4,871	6,813	7,706
Jul-07	23,630	2,915	8,555	3,229	—	2,591	4,625	1,715
Aug-07	21,939	4,915	6,250	7,526	—	1,500	—	1,747
Sep-07	21,631	6,381	7,868	3,194	1,846	2,020	—	324
Oct-07	36,042	7,580	15,633	5,970	438	3,918	—	2,504
Nov-07	14,989	4,297	3,225	613	1,137	5,343	—	373
Dec-07	5,014	2,303	1,700	209	499	—	—	303
Jan-08	24,366	6,479	13,388	197	—	3,814	—	488
Feb-08	7,027	1,993	3,660	—	—	1,012	—	361
Mar-08	5,374	—	4,210	—	—	1,164	—	—

Residential Mortgage-Backed Securities

As noted above, the current credit crunch had its origins in the MBS market in late 2006 and early 2007, as sub-prime mortgage delinquency rates began to increase sharply after a period of massive expansion of sub-prime and second-lien issuance (see below). Since then, the securitization market—the key source of funding for much of the mortgage market and the primary source for the subprime and Alt-A markets—has come to a screeching halt.

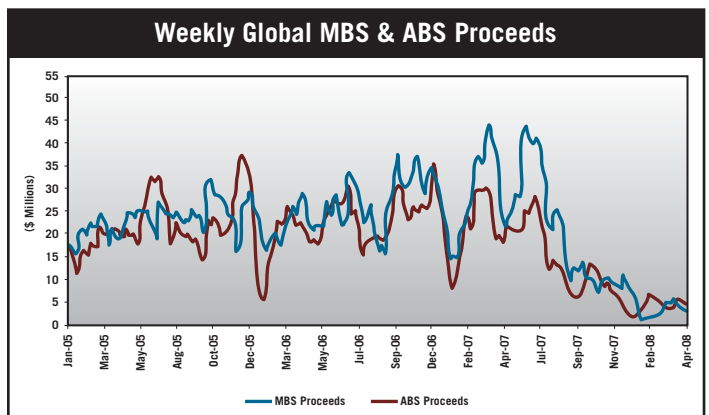
It is also unlikely that the structured finance market will open anytime soon for any mortgage product other than Freddie and Fannie guaranteed or super prime mortgages. The reason for this is that both subprime credit quality has continued to deteriorate and that deterioration has spread to the Alt-A and to the prime mortgage market, as well. As an example, the ABX BBB index, a closely watched basket of credit derivatives on subprime mortgage loans rated one notch above non-investment grade at issuance, stood at just over 3,000 basis points in mid-February 2008, up from less than 400 basis points a year ago. While less dramatic in absolute terms than the BBB index, AAA-rated ABX spreads have also widened substantially, nearly tripling since last October to more than 350 basis points, as investors grow more concerned about supposedly higher-quality tranches of these mortgage-backed securities (see below).

Some observers say new, more conservative mortgage underwriting standards, the withdrawal of weaker players from the market, and more Fed rate



Source: SNL Financial

cuts will allow mortgage credit quality to begin to improve. Yet the mortgage industry must first work through a rapidly accelerating credit cycle on existing mortgage loans. For instance, Countrywide Financial, the nation's largest mortgage lender, said its delinquencies increased to an all-time high of 7.47% in January from 7.2% in December 2007 and 4.32% in January 2007. The depressed current level of MBS issuance also reflects investor concerns. **At a current weekly rate of about \$2.3 billion, MBS issuance is running 62% lower than year-earlier levels and 90% below the \$30 billion weekly average of 2006 (see below).**



Source: Banc of America Securities

Other Asset-Backed Securities

The turmoil in the MBS market has spread to other categories of ABSs, notably consumer-related categories, such as auto loans, student loans, and credit cards. Credit metrics in these asset classes held up relatively well in 2007, as many banks and finance companies sought ways to maintain growth in loan balances, while pulling back on mortgage and home-equity loans, giving consumers access to other forms of credit.

However, in the past few months, consumer ABS credit metrics have started to deteriorate for all forms of consumer credit. For instance, AmeriCredit, one of the

largest U.S. subprime auto issuers, reported that its annualized default rate increased to 11.69% in February from 9.30% in February 2007. Capital One's credit-card delinquency rate (30-days plus) increased to 4.67% in February 2008 from 3.74% a year earlier. Even American Express, which focuses on higher-income prime and super-prime consumers, has seen credit quality deteriorate in recent quarters, and cited an increase in loss rates and a decline in spending volumes. The percentage of AmEx's revolving credit-card balances more than 30 days' past due rose to 3.03% in February from 2.56% a year earlier.

The pace of ABS issuance has followed a path similar to the MBS new-issue market in recent months (see MBS & ABS Proceeds chart). **Through March, non-mortgage ABS issuance is down 74% from a year earlier**, with student-loan ABS down 62%. American Express, Capital One and SLM Corp (parent of student lender Sallie Mae) have all seen their credit-default swap (CDS) spreads more than double over the past six months. With concerns about consumer credit intensifying and risk aversion in the capital markets accelerating, we think fundamentals in the ABS market are likely to continue to worsen in the near term.

Municipals

The market for municipal bonds would appear to be less subject to the credit and liquidity concerns that have struck other areas of the debt capital markets. Yet even this asset class has been dragged into the credit crisis.

Many states and municipalities had built up healthy surpluses given strong economic growth and increases in tax revenues in recent years. However, as we have seen with nearly all fixed-income asset classes discussed here, municipal bond issuance hit a record volume of \$400 billion in 2007, double the \$200 billion issued in 2000. Additionally, most municipalities—particularly those in markets that had once enjoyed frothy real-estate conditions, such as Florida, Arizona, California, and Nevada—had projected continued appreciation of housing prices and based their projected property-tax revenue on inflated projections. This led to ever-growing government budgets and significant increases in payrolls and future pension obligations. With assessed property values now falling fast in some of these areas, budget shortfalls are already emerging. Some will be able to handle these shortfalls and some will not. Those that cannot may have to be bailed out by their respective states, which becomes problematic, given that 25 states are already facing budget deficits in 2009. In addition to concerns about the fundamentals of the city and state governments themselves, investors are concerned about the impact of possible ratings downgrades of MBIA, Ambac and other bond insurers. The bond insurers provide insurance, or “wraps,” on about \$2.4 trillion, or half of all muni bonds.

As we recently discussed in detail in our March 2008 *Financial Institutions Monthly Overview*, for years, monoline bond insurers maintained a steady business of providing insurance for municipal bonds. However, the monolines' (namely MBIA and Ambac's) recent troubles stem from their disastrous foray into insuring toxic structured finance products during the housing boom—notably CDOs. Due to their CDO exposure, the bond insurers face the distinct possibility of becoming bankrupt and/or facing further downgrades by the rating agencies and losing their coveted AAA status.

Many traditional muni buyers did not perform extensive credit due diligence and solely relied on the monolines' ratings. Should the monolines become bankrupt or not have the capital to back these muni issues, the debt they insure is in peril of being downgraded. Consequently, fearful investors rushed for the nearest exit, capital dried up and, therefore, the auction rate securities (ARS) and variable rate market auctions suddenly began to fail. Additionally, those broker/dealers who would traditionally step in to purchase any remaining amounts of a debt issue stopped doing so, fearing potential downgrades to the underlying bonds and to the monolines, and the resulting loss of liquidity. As there was not enough demand to purchase all the ARS, the funding costs for the issuing municipalities began to sky rocket with many rates resetting to a previously “written-in” maximum rate (which can range from 175% of LIBOR to 300% of LIBOR, or a set fixed rate as high as 15%), thereby making it economically very difficult for the issuing municipality.

Taking *all* of the aforementioned factors in aggregate, municipalities are now faced with three strong headwinds. First, they are experiencing a significantly declining revenue base stemming from the drop-off in property taxes—the single largest source of revenue for most municipalities. Second, because they projected considerable revenue increases, municipalities' budgets became bloated and are now saddled with the pension fund liabilities that have been brewing for the better part of a decade and are, in turn, facing major funding implications over the next few years. Finally, because ARS and variable rate auctions have been failing, municipalities are forced to pay higher rates in order to attract buyers, therefore, greatly increasing their funding costs. Despite these headwinds, we see the municipal market stabilizing more quickly than many other asset classes. We believe new pools of capital, such as Berkshire, will emerge to provide appropriate wraps for some municipal bonds, or the stronger municipalities will issue without any insurance wraps. We do think that MBIA and Ambac will lose their AAA ratings and, as a result, it will unsettle the muni market further. The net outcome of these dynamics is similar to what is happening across the broader credit markets in that the

stronger municipalities will have access to liquidity and the weaker municipalities will need assistance from their states or be charged much higher rates.

Conclusion & 2008 Economic and Financial Outlook

The question we are now faced with is: at what point in the credit cycle are we today and for how much longer will the deleveraging and credit destruction continue? Unfortunately, as we have examined the disruption that is happening across every area of the credit spectrum, the fact that the real economy outside of housing is just at the early stages of feeling the credit contraction, and with the total amount of leverage that was built into the credit markets, it is hard to draw any other conclusion than that we are not even midway through this painful process. As a result, while it would be nice to have the Polyanish view that so many market participants espouse in the capital markets, it is hard when you look at the cold hard facts to draw any other conclusion than that we are headed into a long and potentially deep recession—with further deterioration in the credit markets leading the way. Please appreciate that our views do not mean that we will see a continued contraction in GDP every quarter. ***We fully expect that with the Fed and federal government's actions, it will occasionally produce GDP growth, potentially even for consecutive quarters. However, over the next few years, we expect an overall contraction in the U.S. economy.***

To understand our views in simple terms, we turn to a basic analogy that we have often used: ***the financial services industry and the capital markets are the gas station to the economy. Quite simply, if a gas station shuts down or starts to severely ration gas to only a certain number of automobiles, it would not be long before the activity on the roadways was materially impacted.*** The cars with little fuel in their tanks would quickly run out of gas and stall. The big gas guzzlers and those cars with a moderate amount of fuel would run out of gas shortly thereafter; and it would only be those automobiles with a full tank or that are extremely fuel-efficient that would be driven for a period of time until they started altering their driving patterns. That is essentially what is happening in today's economy. Companies and individuals that have poor credit health and shaky balance sheets (i.e., little fuel in their tanks) are being completely shut out. Others that have marginal credit quality and somewhat stable balance sheets will still have some level of access to credit and liquidity, but at a much higher cost. It is only those very strong balance-sheet consumers and companies that still will have relatively easy access to the credit markets.

Now, some will argue that the Federal Reserve will be the savior and fix the liquidity problem. However, there are numerous flaws to that view. First and foremost, as we

have argued all along, this is a credit quality issue that is causing a liquidity issue—not the reverse. ***Ultimately, the credit cycle began with housing and will end when housing finally stabilizes.*** Always remember that housing is the single largest and most important asset to the American consumer and U.S. economy. Unfortunately, what most do not understand is that the housing sector is what the Fed has always historically used to lift our country out of recession. By dropping interest rates, it has always had the most leveraged effect on housing for two reasons. First, as we have already mentioned, housing is the largest debt market in the economy and, by dropping interest rates, it reduces borrowing costs for the American consumer, stimulating refinancing activity and consumer spending. Second, it has always stimulated new housing construction, which then feeds into all of the other related industries which comprise 25% to 30% of U.S. GDP. This is exactly what the Fed used to address what should have been a very profound recession after the Internet and technology collapse of 2001. Now that housing is the core problem, and it is still declining in value for the numerous reasons we have cited, they do not have another sector as interest rate-sensitive to re-inflate the economy. Further, as we have already cited earlier, we do not believe that the Federal Reserve and federal government can re-inflate housing values. At best, they can slow the rate of depreciation and cause the floor in values to be set at a higher level than if they took no action. However, it is also important to point out that sometimes government actions, intended to help, can actually produce very negative unintended consequences that will only compound the current crisis. Obviously, some of the proposals being discussed by Congress would have that exact negative effect. As a result, if housing is still declining in value, investors and financial institutions will continue to absorb losses, which, so far, are at an ever-increasing rate, and the broader economy will continue to weaken.

Another reason we feel the Fed is limited in its ability to address the current crisis is that there is a profound lack of understanding of how much the Fed's actions of providing mechanisms, such as the Term Auction Facility (TAF) and the Term Securities Lending Facility (TSLF), will provide for the free flow of credit availability across the consumer and corporate sectors. In our view, the Fed is “pushing on a string.” We clearly appreciate the liquidity that the Fed is providing will help stabilize the funding for many of our large financial institutions and will certainly help save many financial companies and avert an even greater financial collapse. However, it does not mean that the financial services industry will resume lending at the same pace and replace the credit availability that was attainable just a short time ago. The pain that will be felt by the collapse in the structured finance markets will be profound because, even though the Fed is providing liquidity to the banking and

investment banking industries, they are in no position to absorb the credit origination volumes of these markets. Financial service companies, in large part, are undercapitalized with ever-worsening credit quality. At the same time, the structured finance markets have come to a grinding halt. **Investors have justifiably lost complete confidence in the investment banks who originated these securitizations, the monoline bond insurers who have insured much of these securitizations, and the rating agencies that provided the ratings for these securitizations.** Most investors in Wall Street securitizations are shell-shocked. The losses they have absorbed—be it pension funds, endowments, banks, foreign private and institutional investors—far exceed the losses the U.S. investment banks have absorbed. Consequently, it will be a very long time before investors come back to participate in the structured finance markets other than buying the very senior tranches of very high-quality securitizations backed by prime credit. In some respects, over the long-term, this may be a favorable outcome. The concept of disconnecting the originators of credit from the end holders of the credit risk is fraught with conflicts that, in our opinion, ultimately prove disastrous. We are clearly witnessing that dynamic today. In fact, when you analyze all of the factors that brought us to this point, there are two overwhelming reasons. One was this separation between the originators of credit and those who ultimately held the credit risk. Second, was the insatiable greed by many participants in the housing and capital markets that led to a complete breakdown of their morals and ethics. The outcome of these dynamics is that credit availability is going to be materially impacted regardless of the Fed's actions and, as we mentioned earlier, when the cost of credit increases and the availability of credit is restricted, credit losses will accelerate. **Increasing credit losses will force the entire financial system to continue to delever, thus, further restricting credit availability and apply downward pressure on all asset values.**

Another factor that the Fed can only marginally influence is employment. We are just now seeing the first meaningful signs of a slowdown in employment growth across the entire economy. Initially, we saw layoffs occur among just those companies with the greatest direct exposure to the housing market: homebuilders, manufacturers and distributors of housing products, and real estate and mortgage brokers. However, the economic repercussions of the housing meltdown have now spread to consumer spending, which is affecting the entire economy. **It is important not to forget that consumer spending generates approximately 70% of U.S. economic activity.** As consumer spending continues to tighten, all industries will begin to rationalize expenses and contract employment. Only over the last quarter, has the economy seen a material downturn in employment. We fully expect employment trends to worsen throughout the year, with the financial

services sector acting as the largest catalyst. The financial services sector has been approximately 21% of U.S. GDP over the last eight years, and has been the largest sector in the U.S. economy. Given what is transpiring today, the financial sector will be very hard pressed not to lay off significant numbers of employees in an effort to reduce expenses. Obviously, there have already been some stark examples of this occurring, such as the massive contraction in employment on Wall Street over the last few months.

Lastly, what many market participants do not understand are the limitations and size of the Fed's own balance sheet, which consists of approximately \$800 billion and is largely comprised of U.S. Treasury securities. The Fed has already utilized their balance sheet at a very rapid pace although it can expand its balance sheet by lowering interest rates, thereby increasing the value of their Treasury holdings. However, when one looks at the rate at which the Fed has already aggressively used its balance sheet—through funding the TAF, TSLF, and the bailout to Bear Stearns—it is not too far off, that if they continue to use their funds at the current rate, that the Fed will have little capacity left. Further, the Fed has already begun to change its own balance sheet by putting Treasuries into the market and taking MBSs and other questionable ABSs on to its balance sheet to prop up the U.S. financial system. Thus, when you consider the additional needs to address housing, student lending and a variety of other forms of credit, it is not too long before the Fed will deplete its ammunition. At that point, the Fed is left with very limited options, with the most likely being to take their fed funds rate to zero and running the monetary printing press. The concept of reaching this point would be devastating to the U.S.'s role in the global economy and the value of the dollar—potentially causing a massive further inflationary spike in prices of certain hard commodities (such as oil) and agricultural products.

It is unfortunate that our country is now facing such perilous economic conditions. Please appreciate that we do not take pleasure in coming to these conclusions. However, it has been frustrating and difficult to watch many of our economic policies and business practices over the last 10 years. The very misguided monetary and fiscal policies, the lack of ethics, the reckless use of debt and leverage, the incredibly negligent underwriting standards, the rapid off-shoring of our manufacturing base, lax regulatory oversight, and, lastly, the incredible greed that drove far too many participants to put their short-term economic interests ahead of the country's greater good—these are the catalysts that have brought us to this point. Let us hope that American ingenuity will help us avert this crisis from spinning out of control.



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