

WEEKLY MARKET MONITOR

JUNE 23, 2008

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THE CREDIT CRISIS: THE BEGINNING OF THE END OR THE END OF THE BEGINNING?

The credit crisis that began in the summer of 2007 has resulted in announced losses to date by global financial institutions of approximately \$400 billion. To put this into perspective, a loss of this magnitude, if evenly distributed across the employees of the institutions in question, implies a loss of approximately \$1 million per employee. Battered and bruised shareholders, as well as other market participants and observers, want to know if the pain is nearly at an end. This gives us our topic for the week as we ask: Is this the beginning of the end or merely the end of the beginning?

As a preliminary to answering that question we think it helpful to briefly explain some of the origins of this fiasco. We look in particular at one of the oldest tricks in the Wall Street book: the attempt to manufacture arbitrage profits. One of the most popular arbitrage strategies during the lead-up to the credit crisis is known as the negative basis trade. Negative basis trades work as follows: A bank buys a long-dated bond and hedges the risk of the bond's defaulting with a credit default swap (CDS). The credit default swap would typically have been sold by a monoline insurer. The bank then further hedges the risk of the monoline insurer's defaulting on the CDS by hedging this risk with another monoline insurer. The purchase of the long-dated bond is funded with short-term borrowing at LIBOR.*

Oversimplifying we illustrate the process:

- Bank borrows LIBOR at 3%
- Bank buys bond paying 5%
- Bank buys CDS on bond for 50 bps
- Bank buys insurance on CDS for 50 bps
- Bank books risk-free arbitrage profits of the present value of the spread

This was an extremely profitable strategy as long as all of the assumptions held. Unfortunately for those addicted to this free lunch strategy, the world of finance has a way of enforcing its first rule: there is no such thing as risk-free arbitrage. The negative basis trade was used widely by proprietary trading units of financial firms to earn arbitrage profits on collateralized debt obligations (CDOs). The CDOs themselves typically held the highest credit ratings in part because they were guaranteed by one of the monoline insurers. Readers at this point can see the end of this particular story: Banks were borrowing short and lending long and booking profits because their long-term lending—the CDO purchases—were both hedged and guaranteed by monoline insurance companies which in turn guaranteed each other. This house of cards was of course vulnerable to any gust of wind and so the storm that began to blow in the summer of 2007 knocked the farcical structure to pieces.

Many of the CDOs in question were collateralized with residential mortgage backed securities (RMBS) backed by sub-prime mortgages. As investors realized that the credit quality of these RMBS was less than advertised, the prices of these securities in turn fell. In addition, as investors realized that the insurance written by the monolines was in effect worthless, the financial institutions employing the negative basis strategy were forced to abandon the strategy and mark their CDO and other dodgy assets to market. The resulting write-downs on these assets have thus revealed a purported arbitrage strategy as in fact a sinkhole of untold billions of dollars.

With the emperors of the financial world now standing naked, what's next for the global financial system? Are we at the end of the credit crunch now that one of the oldest

tricks in the book of finance has once again been shown to fail? Or are there more ugly surprises in store?

We are of the opinion that we are not yet at the beginning of the end of the credit crisis but that we are in fact at the end of the beginning. We expect substantial losses will continue to occur as the housing meltdown continues and additional types of assets held by financial institutions begin to experience losses. We expect that housing prices in the United States have much farther to fall and that this decline in housing wealth will continue to have significant impacts on the income statements and balance sheets of global financial institutions. We further expect that housing prices in other major economies such as the United Kingdom and Spain will exhibit a similar pattern and that these declines will also significantly impact global financial institutions.

In an economic slowdown, assets backed by consumer cash flows such as asset-backed securities (ABS) collateralized by credit card receivables typically experience higher losses. As the economic slowdown continues, we can expect a higher loss rate on this and similar types of ABS. In addition, important financial institutions typically hold significant percentages of asset types such as construction loans. The housing crisis as well as the slowdown in commercial construction activity will probably have an impact on the values of this asset type. Furthermore, the rise in gasoline prices will have a substantial impact on many of these asset types. The increase in gasoline prices of approximately 50% in less than two years is a significant burden for consumers who have seen no real wage gains for nearly a decade. For example, consider two typical households, one that drives its car(s) 10,000 miles a year and another that drives 20,000 miles a year. Suppose further that their cars get 20 miles per gallon in average driving conditions. With the increase in the cost of gasoline, these households now spend \$1,000 and \$2,000 more a year just on gas, respectively.

We expect this to contribute to higher loss rates for consumer related ABS. We also expect that this increase in gasoline prices will cause households to re-evaluate decisions on where to locate vis-à-vis their jobs. This will be to the pronounced detriment of new housing developments in the outermost suburbs. This process will in turn impact asset types such as construction

loans—an asset type held in very high percentages by institutions such as regional banks. This in part explains the disastrous equity market performance of this sector.

Credit-crisis related losses to date are just shy of \$400 billion. We expect this number to rise significantly as the full effect of the meltdown of the global housing bubble and the economic slowdown are felt. We expect that at minimum global financial institutions will incur additional losses in excess of \$100 billion. We will not be surprised if additional losses equal or surpass announced losses to date, bringing total losses to the neighborhood of \$1 trillion. In a worst case scenario, we would not be surprised if total losses ultimately exceed \$1 trillion. These expectations lead us to say that we are not yet at the beginning of the end of the credit crisis but rather at the end of the beginning.

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