# The Credit Crunch: The Roller Coaster Ride Continues

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#### **ABSTRACT**

Borrowers face tight credit markets after years of easy credit. This study examines the events that led to the credit crunch and its impact on global economies.

#### INTRODUCTION

fter years of easy credit, the world suddenly changed for borrowers. The first signs of change occurred in the mortgage market as people hoping to buy or refinance their homes found tightening credit standards which pushed many of them out of the market. However, the change soon spread to other markets and those looking for credit for anything from an automobile loan to a student loan found the door closed.

Closing doors signaled the start of a "credit crunch." A credit crunch occurs when financial institutions, such as banks, face delinquencies and defaults in their loan portfolio, and write-down the value of these loans. Financial institutions are highly levered which means the majority of the funds they loan out are borrowed. Leverage amplifies returns, but also amplifies losses. It also means there is little equity to offset the decrease in the value of assets. Financial institutions must act quickly to stave off insolvency. They set aside reserve funds to make up for the loan loss and tighten lending practices to increase the quality of their loans. Tighter credit standards can signal the beginning of a credit crunch.

The current credit crunch followed a decade of turmoil in financial markets. This study will examine the events that got us to this point, how the credit crunch is impacting global markets, and what actions can be taken to get us out.

#### A DECADE OF TURMOIL

The last ten years have been filled with events that led to turmoil or scares in financial markets. The first of these events was the 1997 Asian Financial crisis. The problem began with a shortage of foreign exchange which caused the value of currencies and equities in Thailand, Indonesia, South Korea and other Asian countries to fall dramatically. This financial contagion swept through the region as capital fled from one economy after another. The International Monetary Fund (IMF) and other international organizations came to the rescue pumping in foreign exchange and supporting currencies and equity markets. The recovery of these economies has been impressive by most measures.

This was followed by the collapse of Long Term Capital Management (LTCM) in 1998. LCTM was created by some of the "best minds" in the industry. It used leverage (up to 25 times its capital base) and produced returns in excess of 50 percent. However by September 1998, LTCM had increased its leverage to over 100 times its capital and the returns began to disappear. The end came, according to rumor, as Bear Stearns froze the fund's cash account following a huge margin call. The financial system was badly shaken until the Federal Reserve Bank of New York stepped in. It arranged and facilitated a recapitalization, with 14 banks investing \$3.6 billion for a 90 percent stake in LTCM. The Federal Reserve (FED) also assisted by cutting the interest rates in October 1998. The stock market bounced back and the LTCM crisis became a thing of the past.

The markets again were shaken in 2000 with the dotcom bust. After hitting 5,049 in March 2000, the NASDAQ stock index – which lists many technology firms – plunged downward reaching its bottom of 1,114 in October 2002. "Paper" wealth evaporated and faith in the "new economy" disappeared. Overconfident investors who had embraced technology companies that had yet to produce a profit began to reevaluate their investing strategies.

The events of September 11, 2001 once more tested the confidence of financial markets. The U.S. economy had begun to slip into a recession in early 2001 and 9/11 pushed it down further and faster. The FED stepped in immediately and started lowering interest rates. Soon market participants saw interest rates at 40 years lows and they reacted – they borrowed.

# THE SUB-PRIME MESS

The low interest rates allowed more Americans to qualify for homes and the increased demand caused prices to rise. The rising prices caused speculators to jump into the housing market as returns exceeded those on other investments. Additionally, low interest rates increased the demand for second homes. Increased demand from speculators and buyers of second homes put upward pressure on home prices.

The rapid increase in home prices caused many borrowers to be priced out of the market. Financial institutions reacted by offering a wide variety of mortgage instruments such as low or no documentation of income, adjustable mortgages with low teaser rates, adjustable rate loans with low fixed rates for the first two to five years, no down-payment loans, 0 percent interest for the first year(s), and interest-only loans with negative amortization. To encourage loan officers to approve loans, compensation was often based on the number and size of mortgages, not the likelihood that the borrower could repay.

To satisfy the demand for loans, lenders sold the (often sub-prime) mortgages they originated to Wall Street banks and other investors, and used the funds to finance additional mortgages. The purchasers of the mortgages then pooled them and sold bonds backed by the pool (securitization) to hedge funds, insurance companies and other investors.

The Federal Reserve began increasing short-term interest rates – the index for many adjustable rate mortgages – in June 2004. By mid-year 2005, market watchers observed increases in mortgage defaults and delinquencies in the sub-prime category where the delinquency rate, while still low, doubled to 6.23 percent.<sup>2</sup>

The housing market continued to flourish until early 2006 when cracks began to show. The upward march of housing prices began to slow, housing inventory began to build, and buyers took to the sidelines anticipating price cuts. Slowing prices dampened speculation and higher interest rates slowed second home purchases.

To exacerbate the problem, mortgages closed two to three years earlier began to reset. In the past, many sub-prime borrowers continually refinanced their homes with loans featuring low teaser rates and postponed large jumps in payments. But, rising delinquencies caused lenders to tighten standards, pushing sub-prime borrowers out of the refi market.

By January 2007, 14.3 percent of sub-prime loans were at least 60 days late up from 8.4 percent in January 2006. For Alt-A loans, which fall between sub-prime and prime, the late payment rate rose to 2.6 percent up from 1.3 percent in January 2006. Foreclosures continued to climb and by March 31, 2008, 2.04 percent of single-family homes were in foreclosure and 6.35 percent of all mortgages were delinquent by 30 days or more. Fifty percent of the mortgages that went into foreclosure in the first quarter of 2008 were sub-prime, but a startling 42 percent were prime loans!<sup>3</sup>

#### THE BEGINNING OF THE END

The first U.S. victim of the sub-prime debacle was the investment bank Bear Sterns (yes, the one that pushed LTCMs over the edge). Trouble began as two of its hedge funds failed in July 2007. Bear Sterns' financial

condition continued to deteriorate as its losses from sub-prime bets mounted until only a takeover bid by JP Morgan (arranged with help from the Federal Reserve) saved it from bankruptcy in March 2008. The fire sale of the institution resulted in the demise of the 85-year old firm and the loss of approximately 60 percent of the 14,000 Bear Sterns jobs.

Lenders continued to tighten borrowing standards. But, change did not come before lenders begin to feel the heat. Wells Fargo announced a drop of 11 percent in first quarter 2008 net income because of mortgage defaults. Countrywide Financial Corp. (once the largest mortgage lender in the U.S) lost \$2.5 billion over a nine month period because of the sub-prime collapse and in January 2008, agreed to be bought by Bank of America Corp.<sup>4</sup>

By the first quarter of 2008, Merrill Lynch had acknowledged almost \$25 billion worth of asset write downs and charged followed closely by Citigroup with over \$22 billion. But, the destruction was not limited to the U.S. UBS, the Swiss banking giant, announced in May 2008 it would issue \$15 billion worth of shares – its second trip to the equity market in three months – to restore capital depleted by mortgage losses. Additionally, it announced it would lay off 5,500 employees mainly in the U.S. and Britain. Even the Bank of China acknowledged that it held \$9.7 billion of securities backed by U.S. sub-prime mortgages. While UBS is the hardest hit, banks globally have written off more than \$330 billion in losses since the summer of 2007.

The write downs and losses were capped by the failure of IndyMac Bancorp. IndyMac acknowledged large losses in its sub-prime portfolio, and announced the lay-off of half its employees. However, a letter written by Senator Charles Schumer on June 26<sup>th</sup> expressing concern that the bank might fail contributed to a run on the bank which caused a shortage of cash and forced the Federal Deposit Insurance Corporation to seize the bank. IndyMac has the distinction of being the second largest federally insured institution to fail, but many fear it may not be the last.

Banks and mortgage lenders were not the only institutions to be hurt by the sub-prime debacle and credit crunch. Two government sponsored institutions, Freddie Mac and Fannie Mae, saw their stock prices plummet. Freddie Mac lost \$4.5 billion dollars in the second half of 2007 followed by \$151 million loss in the first quarter of 2008. Moody's Investors Service reacted by downgrading Freddie Mac's securities and forecast that they could loose as much as \$7.5 billion over the next two years. In mid- July, the FED provided a short-term solution to liquidity worries by allowing the two institutions to borrow at the discount window. The Bush administration followed and asked Congress to approve a longer term solution which could inject up to \$300 billion in the two institutions through investments and loans. However, even this did not restore public confidence in the two and the government placed them in conservatorship in early September.

#### **GOVERNMENT SOLUTIONS**

The FED was the first to react to the melt down in the mortgage markets. During the September 2007 meeting, the FED began to lower the discount rate and its target for the Fed fund rate from 5.25 percent and 5.0 percent respectively. Decreases came often until the rates stood at 1.25 and 1.0 respectively in October 2008. The decline in interest rates helped lower the rates at which many adjustable rate mortgages reset and lowered potential payment increases for many borrowers. However, the lower rates increased the risk of inflation and, therefore, had only modest impact on the rate of 15- and 30-year mortgages.

In February 2008, the Bush Administration also stepped in with its plan called Project Lifeline. The plan allowed borrowers who were at least three months behind on their mortgage payments to ask their lender for a 30-day "pause" on foreclosure proceedings. If the delay was granted, the 30-day period could be used to negotiate more favorable mortgage terms. However, the plan did not require that a new agreement. Project Lifeline was called dead on arrival by Congress and was never enacted.

The House of Representatives passed its plan in May 2008. The major features included offering refinanced, federally insured mortgages to homeowners facing foreclosure, raising the limit on conforming loans, providing tax credits to first-time home buyers, and tightening oversight of Fannie Mae, Freddie Mac, and the Federal Home Loan Bank system. Key Senators announced a bipartisan plan later in the month which contained

some similar features such as the refinanced, federally insured mortgages, but differed on other significant provisions such as financing. Both bills faced problems before they could be passed in both houses and a potential veto by the White House.

After months of discussion, proposals, and counter proposals, Congress passed a housing bill which President Bush signed it into law on July 30th. The bill authorized the Treasury Department to extend Fannie Mae and Freddie Mac an unlimited line of credit without requiring them to trim the dividends they pay to shareholders. In addition the Federal Housing Administration agreed to refinance \$300 billion of distressed mortgages into cheaper, fixed rate loans benefiting about 400,000 homeowners. This was a voluntary program and participating lenders were required to write down the principal on these loans to 90 percent or less of the current house value. The bill was not without controversy with supporters of the legislation claiming foreclosures would be prevented and opponents calling it a taxpayer-funded bail-out of reckless borrowers.

Financial markets stumbled along until late September when events occurred fast and furiously. In a five day period, Lehman Brothers (the 158 year old investment firm) declared bankruptcy, American International Group (AIG – the insurance giant) required a bailout by the FED, Warren Buffett invested \$5 billion in Goldman Sachs (to keep it afloat), Washington Mutual was purchased by JP Morgan, and Merrill Lynch was purchased Bank of America.

The Bush Administration immediately sent Secretary Paulson to Congress with a three-page plan to give the Treasury Department the authority to spend up to \$700 billion to purchase soured mortgage-backed securities from banks. After tense negotiations, the House considered a bill that added oversight and accountability, restrictions on executive compensation, and mortgage workouts – and rejected it.

Financial markets responded. The Dow Jones Industrial Average fell 7 percent (777.68 points!), the Standard & Poor's 500 Index plunged 8.8 percent, and the Nasdaq Composite Index plummeted 9.1 percent. A total of \$1.3 trillion in wealth disappeared in one day. Markets around the world followed the downward slide.

To stop the free fall in markets, the Senate passed the bill proposed by the House with added "sweeteners." These included raising the limit on federally insured bank deposits from \$100,000 to \$250,000 (which had broad based support). However, it also included tax breaks for domestically produced films and TV shows, tax benefits for natural disaster victims, tax credits for "clean" coal and renewable energy, tax breaks on research and development cost, and a revision in the Alternative Minimum Tax. The revisions added more than \$1 billion to the plan and the three page law exploded to 451 pages. The House passed the bill and President Bush immediately signed it.

The passage of the bailout package did not stop the hemorrhaging in financial market – and the financial contagion spread worldwide. On October 6, the Dow Jones Industrial Average dropped below 10,000 points for the first time since 2004. In Europe, London's FTSE 100 suffered its worst one day drop in history and stock markets in Germany, France, and Italy declined by 4-5 percent. Russia halted trading on its stock market 3 times and ended with a 20 percent decline. In Latin America, stock markets slid as much as 17 percent. Even Japan's Nikkei stock market index lost more than 3 percent.

As the financial crisis broadened and intensified, individual governments recognized their inability to contain the financial meltdown and begin to work together. President Bush met with Nicolas Sarkozy, the French president and current head of the EU, and José Manuel Barroso, the president of the European Commission, to discuss the crisis. They agreed to a November summit in Washington of 20 countries, including such emerging economies as China, India, Russia and South Korea. The purpose is to address a "common set of principles" for reforming the regulation of international markets.<sup>9</sup>

#### THE REAL ECONOMY

Could the credit implosion turn into a full-blown recession? A recession is defined as two quarters of negative growth. The U.S. economy recorded negative .3 growth in the third quarter of 2008, but signs are pointing

to a continued slowdown in the fourth quarter. Some market observers believe a consumer-led recession is inevitable.

In the past, consumers have been resilient and their spending helped the economy bounce back during the turmoil of the past decade. But lately, a stream of unwelcome news is testing the nerves of consumers. Property values are crashing, unemployment is rising, wages are falling, and expenses are increasing. Households face high prices, particularly in oil and food, and eroding wealth, caused by declining home and stock prices. Consumer confidence stands at an 18 year low. Consumers fear their standard of living will stagnate or decline and are pulling back their spending.

Mortgage debt is not the only worry for consumers – and the market. U.S. credit card debt stands at \$915 billion, a 435 percent increase since 2002, and approximately the same size as the sub-prime mortgage market! Additionally, about 45 percent of credit card loans are packaged into pools and sold to banks and other institutional investors. Delinquencies of over 90 days on credit card debt have increased by 50 percent and credit card companies are now writing off approximately 5 percent of payments. The question is will purchasers of credit card pools face the same fate as those who purchased securities backed by sub-prime pools?

Businesses relying on credit have felt the brunt of the crunch as no credit leads to no operating funds. Aloha Airlines, facing ever increasing oil prices, was forced to shutdown operations when GMAC cut off its credit line. In addition if a firm is lucky enough to find credit, it faces a higher cost for borrowing. In some cases, small businesses are relying on the controversial "merchant cash advances," which is defined as a "purchase and sale of future credit-card receivables" rather than an actual loan. Thus, this expensive form of credit is exempt from the usury laws.<sup>11</sup>

But, the problems for businesses, especially small businesses, exceed the credit crunch. They face an "inflationary-recession" environment in which their costs are subject to commodity price inflation, but revenues are decreasing due to a slowdown in consumer spending. With cash flow problems, these small businesses are likely to close down or go bankrupt.<sup>12</sup>

With a fragile financial system, enormous amounts of debt, and possible inflation, the U.S. economy faces severe challenges. Some market observers fear the U.S. economy is facing a double whammy – the stagflation of 1974-75 and 1980-82 coupled with the asset/credit busts of 1990 and 2001. Economist Nouriel Roubini, of Roubini Global Economics, believes this will result in a long and deep U.S. recession, which will cause a sharp economic slowdown. <sup>13</sup>

#### EROSION OF FAITH

Trust is the foundation on which the financial system rests. U.S. financial institutions were considered to be highly regulated and, therefore, their products were assumed to be safe. Unfortunately, recent events have shaken faith and confidence in our financial system as institutions worldwide recognize losses from securities backed by pooled U.S. sub-prime mortgages.

An international backlash appears to be growing as the credit crunch impacts the global financial system. Hamid Varzi, in an article written for the *International Herald Tribune*, <sup>14</sup> summarized world opinion this way: "The U.S. economy, once the envy of the world, is now viewed across the globe with suspicion."

World confidence in the U.S. is important because we depend on the rest of the world to finance our debt. U.S. government debt is at a record \$9.4 trillion and U.S. household debt hovers at \$14 trillion while U.S. savings rates remain at historical lows. Foreign investment has offset this imbalance attracted by fairly competitive interest rate, financial security and economic stability. More importantly, Asian economies with their export-led growth models purchased U.S. Treasury securities to keep their exchange rates stable by protecting their currency against the depreciating dollar. <sup>15</sup>

However, foreign investors are beginning to avoid U.S. financial relationships. Asian banks including Vietnam, Singapore, Korea, and Taiwan have stopped buying U.S. Treasury securities. China's central bank has stopped pegging its currency against the dollar and let the yuan appreciate rapidly. Oil producing countries including Saudi Arabia, Kuwait, the UAE and most other Gulf economies are threatening to break their tie to dollar. With the events of the past few years and the continuing danger of a global recession, it is likely that the world will find a new world financial order, one where America may not be the head. Dubai and Shanghai have been touting themselves as the next financial center. If U.S. markets do not stabilize quickly, market participants may start believing.

#### **BETTER TIMES AHEAD?**

In June 2008, stock markets seemed to stabilize, corporate credit spreads narrowed, and the price of gold dropped. Former Federal Reserve Chairman Alan Greenspan announced "the worst is over in the financial crisis or will be very soon." By October, he changed his opinion and stated during Congressional hearings that we are in a once in a century credit tsunami.

Is the worst over for the financial sector, the stock market, housing industry, and the economy, following one of the biggest credit bubbles of all time? There are signs that we are at or near the bottom. There are some positive signs in the housing market – where the end of the credit crunch must begin. But, the remainder of the year and into 2009 should be sluggish and the markets should continue to be volatile. So, hold on to your hats. The roller coaster ride continues!

#### **AUTHOR INFORMATION**

#### Peggy J. Crawford:

#### **Professional Experience**

Dr. Crawford has over 20 years business experience. She has consulted for a variety of firms including Klemm Consulting, Professional Development Institute, AT&T, Sprint, and the Washington Redskins (her favorite job!). She was a founding partner of Eastwind Asset Management, a California investment firm, providing financial planning and portfolio management services for individual clients.

# **Academic Experience**

Dr. Crawford joined the faculty of the Graziadio School at Pepperdine University in 1997 after serving on the faculties of the University of Houston, Fordham University, and George Mason University. At Mason, she served as Chair of the Finance Department, Director of the Executive MBA, and Director of MBA Programs. At Pepperdine, she served as Associate Dean of Academic Affairs, Director of Accreditation and Learning Assurance, and Discipline Lead for Finance.

#### Research

Dr. Crawford has published over thirty articles in a variety of practitioner and academic journals. Her research focuses mainly on corporate finance, capital markets, and real estate/mortgages topics including lease vs. buy decision, return on closed-end investment funds, risk profile of adjustable-rate mortgages, impact of the budget and trade deficits, Chinese currency policy, and speculation in oil markets.

#### Education

PhD Purdue University, in Finance

BA University of Texas at Arlington, in History

# Terry W. Young:

#### **Professional Experience**

Dr. Young has over 15 years of business experience in Asia and the United States. She has extensive knowledge of the global marketplace, with a primary emphasis on Asia. Her consulting expertise encompasses global sourcing, business start-ups, and management in many industries, including food distribution, textile/garment, agriculture, and electronics. Additionally, she has significant experience in real estate development.

#### Education

PhD University of Southern California, Los Angeles MA University of Southern California, Los Angeles

MA University of Colorado, Boulder

BA University of Santo Thomas, Manila, Philippines

### **Teaching Experience**

Dr. Young has more than 20 years of teaching experience at such institutions as Regis University, Denver, Colorado; California State University, Los Angeles; California State University, Long Beach, and the University of Southern California. She has been a full time faculty member at Pepperdine's Graziadio School of Business and Management since 1984 and is the 1994 recipient of the Luckman Distinguished Teaching Award.

#### **Summary**

Dr. Young is an experienced professor and economist and has dedicated the major part of her career to the education of others. She is experienced in the areas of U.S., European, Latin American, and Asian economies.

#### **ENDNOTES**

<sup>&</sup>lt;sup>1</sup> For a complete discussion of the sub-prime meltdown see "Will the Sub-prime Meltdown Burst the Housing Bubble," by Peggy Crawford and Terry Young, *Graziadio Business Report*, Fall 2007, Vol. 11, Issue 3.

<sup>&</sup>lt;sup>2</sup> Eisinger, Jesse, "Consumers May Be Starting to Bend, Judging by Those Subprime Mortgages", *The Wall Street Journal*, 30 November 2005, p. C-1.

<sup>&</sup>lt;sup>3</sup> Reynolds, Maura, "Mortgage troubles hit record highs," *The Los Angeles Times*, 6 June 2008, p. C-3.

<sup>&</sup>lt;sup>4</sup> Bloomberg News, "Wells Fargo home loan policies get tougher," *The Los Angeles Times*, 23 May 2008, p. C-4.

<sup>&</sup>lt;sup>5</sup> Jolley, David, "After Losses UBS Seeks to Raise \$15 Billion," The New York Times, 23 May 2008, p. C-5.

<sup>&</sup>lt;sup>6</sup> Associated Press, "Freddie Mac posts loss of \$151 million," *The Los Angeles Times*, 15 May 2008, p. C-3.

<sup>&</sup>lt;sup>7</sup> For a complete discussion of the failure of Fannie Mae and Freddie Mac see "Who is Fannie Mae?" by Peggy J. Crawford and Terry Young, *Graziadio Business Report*, Fall 2008, Vol. 12, Issue 3.

<sup>&</sup>lt;sup>8</sup> The Economist, 2 August 2008, p. 8.

<sup>&</sup>lt;sup>9</sup> The Economist, 25 October 2008, p. 11.

<sup>&</sup>lt;sup>10</sup> Schechter, Danny, "House of Cards," www.lacitybeat.com, 28 June 2008.

<sup>&</sup>quot;When Small Biz Can't Get A Loan," Business Week, 19 May 2008, p. 26.

<sup>&</sup>lt;sup>12</sup> "The Fires May Not Be Out," Business Week, 19 May 2008, p. 22

<sup>&</sup>lt;sup>13</sup> Roubini, 30 June 2008.

<sup>&</sup>lt;sup>14</sup> Varzi, Hamid, *International Herald Tribune*, 17 August 2007, p. 8.

<sup>&</sup>lt;sup>15</sup> For a complete discussion of financing U.S. deficits see "The Twin Deficits: A Looming Crisis?" by Peggy Crawford and Terry Young, *Graziadio Business Report*, Summer 2004, Vol. 7, Issue 2.

<sup>&</sup>lt;sup>16</sup> Petruno, Tom, "Stocks tumble after warning on housing," *The Los Angeles Times*, 1 August 2008, p. C-4.

# **NOTES**