

THE

JULY 2009

VIGIL

The Global Financial Crisis

What happened?
Where are we now?
What can we expect for the future?



*“VIGIL: from the latin ‘Vigilare’.
Keeping awake at a time when
sleep is customary; an act of
watching; surveillance” - Merriam
Webster*



N A T C A N
INVESTMENT MANAGEMENT

«The investment universe is characterized by constant movement and change. To successfully navigate therein one must demonstrate intellectual conviction and discipline. One must be capable of reading signs on the distant horizon while avoiding shoals in the near and present. One must also show humility, realism and maintain a good dose of humor. In short we must never fail at being vigilant.

Those qualities are brought forward daily by Natcan's team of professionals. The following commentary reflects the views and opinions of our team on issues impacting Canadian investors and their advisors. »

- Pascal Duquette, president and CIO

>>> NATCAN

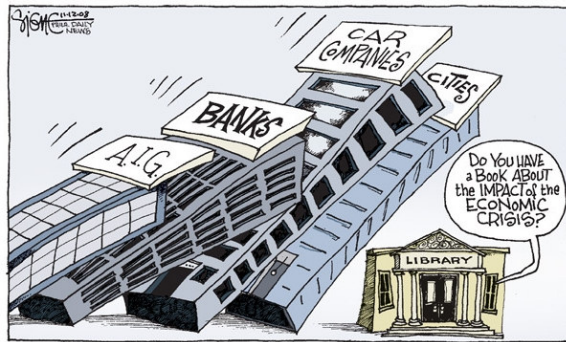
Founded in 1990, Natcan Investment Management Inc. is a subsidiary of the National Bank of Canada with approximately 23 billion dollars under management. Natcan is one of the premier institutional money managers in Canada. Our investment leaders follow their convictions with discipline and rigour to serve the best interests of our clients and their financial advisors.

>>> THE AUTHOR: PASCAL DUQUETTE, M.Sc., CFA President and CEO



Pascal is President of Natcan Investment Management, a position he has occupied since 2004. Prior to that, Pascal spent 18 years leading CN Investment's Global Equity team. He began his career in 1986 as equity research analyst, rose to the position of portfolio manager for European equities in 1993 and to portfolio manager for global equities in 1998. During this period, Pascal also served as a member of different equity and management investment committees that oversaw CN's overall investment strategy. He obtained his Master's degree in Science (finance) from Université de Montreal in 1989, and is a holder of the right to use the Chartered Financial Analyst designation. He is also member of the Canadian Advocacy Council for Canadian CFA Institute Societies.

It's easy to point a finger at a residential real estate bubble in the U.S. fueled by the irresponsible lending practices adopted by many financial institutions as the root cause of the global recession we are currently experiencing. There is an element of truth in this, but it is a bit of an oversimplification. For a better understanding of how we got where we are, and perhaps even more important, what we have to do to get out of this predicament, it is useful to step back, and look at bigger pictures and longer-term trends.



In essence, the spectacular collapse we have experienced over the past eighteen months is a result of society as a whole changing its attitude toward risk, and ultimately assuming a lot more of it than may have been appropriate. When so much leverage gets embedded into the system at every level, any disruption can cause a spectacular chain reaction - and exactly how and where such a chain reaction will end is difficult to predict.

We will examine how a culture of entitlement and changing attitudes toward risk created a climate that was ripe for a "financial crisis of a lifetime". Then we will look at some of the impacts of this crisis, on the concrete world around us and on financial markets. Finally, we will take our courage in both hands and make a few comments on the investment strategy to favour in this climate.

HOW DID WE COME TO THIS?

Regulation: From Less to More... and Back to Less?

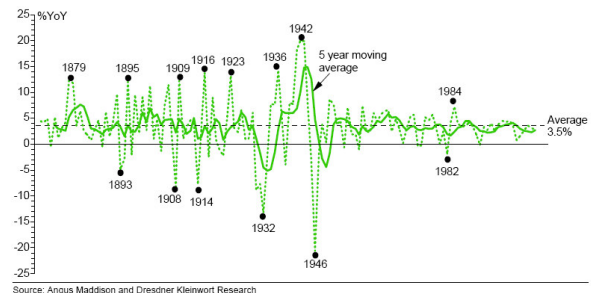
When looking at a long-term chart of GDP growth, we are struck by the fact that this 135-year span can be neatly divided into two periods: pre and post World War II. The pre-war years show fairly large GDP swings

corresponding to wild boom/bust economic cycles, whereas in the early 1950s, we see much more stability beginning to arise. In the pre-war years, the U.S. was an industrial society with a small government and little regulation. The market was generally left to be the ultimate decision-taker and with the exception of Roosevelt's New Deal, governments adopted a laissez-faire attitude.

After World War II, the economy began shifting away from its industrial base toward services, which lent itself to greater stability. But governments also became much more proactive in attempting to manage economic cycles by using a broad range of monetary and fiscal tools, and introducing tighter regulation for key sectors and industries. In recognition of this, the latter half of the 20th century is sometimes referred to as the golden era of central bankers, and our chart does make a strong case that government intervention can play a role in promoting economic stability.

ECONOMIC ENVIRONMENT: BEFORE AND AFTER WORLD WAR II

Two Rounds: Stability and Instability
(U.S. GDP Growth from 1871 to 2006)



The western world underwent a not-so subtle ideological shift beginning in the 1980s, moving toward a philosophy of classical economic liberalism. This school of thought advocates that all problems can be solved in the marketplace through the interplay of the forces of supply and demand. Ronald Reagan and Margaret Thatcher were two unabashed champions of economic liberalism. Reagan started down air traffic comptrollers early in his first mandate, and Thatcher did the same with the coal miners, helping to change the balance of power between capital and labour in the U.S. and the U.K., and to a lesser degree in other western nations, with capital coming out on top.

One of the tenets of economic liberalism is that government regulation of the economy should be reduced to a minimum. Near the end of his second term in office, Reagan appointed Alan Greenspan as Chairman of the Federal Reserve. Greenspan is often identified as the architect of a sweeping deregulation of the U.S. banking and financial system that took place during his 18-year tenure in this all-powerful position. His enduring legacy is an economy that is more prone to asset bubbles, corporate scandal and financial crises, but robust enough to ultimately survive such shocks. Interestingly, even with wake-up calls such as the Savings and Loans Crisis, the role played by derivatives in bankrupting Barings Bank and Orange County, the collapse of Long Term Capital and the Enron accounting scandal, Greenspan resisted repeated calls for tougher regulation of derivatives, hedge funds and the use of “special purpose entities” to hide indebtedness from investors.

Risk, Financial Engineering and “Innovation”

As mentioned in the introduction, risk is at the root of the troubles we are currently going through. Consumers, corporations, financial institutions, money managers - in fact, society as a whole - simply took on too much of it. One of the principal factors explaining this willingness to assume more risk is hubris, which is defined as a demonstration of arrogance, or pride that ultimately leads to one’s downfall. In this case, the arrogance was industry professionals believing they could use financial engineering to circumvent the most basic tenet of investing: that risk and return are directly proportional.

Columbia University defines financial engineering as a “multidisciplinary field involving financial theory, the methods of engineering, the tools of mathematics and the practice of programming”¹. In practical terms, the objective of financial engineering is to create computer-driven mathematical models that provide guidance tools for portfolio management, security valuation and project financing. Examples of such tools would include the capital asset pricing model (CAPM), the

Black-Sholes options pricing model and Markowitz’s efficient frontier, which is the foundation of modern portfolio theory.

Financial engineering gave many industry professionals the comfort - or at least the impression - that they had a good understanding of risk. It is also used to create sophisticated tools that purport to accurately measure risk and complex derivative-based products that are supposed to control it. Once you think that you understand risk, that you can accurately measure it, and that you can control it, the natural tendency is to be willing to assume a lot more of it.

Financial engineering was used to create credit default swaps, collateralized debt obligations, securitization and complex derivatives - tools that were supposed to allow investors to enjoy the higher yields of sub-prime debt without being subject to its risks. As far back as 2003, Warren Buffet referred to these “innovations” as financial weapons of mass destruction, and he presciently warned that they would end up harming not only their buyers and sellers, but the whole financial system.

Banks = Hedge Funds?

U.S. banks have gone through a profound metamorphosis over the past two decades. Borrowers are increasingly finding their sources of financing in the open market and today, only 40% of lending comes from traditional sources. Banks have had to look elsewhere for sources of revenue, and the wave of deregulation that saw the light of day in the 1980s created many avenues to be explored. The Gramm Leach Bliley Act of 1999 repealed key parts of the 1933 Glass Steagall Act - depression-era legislation that forbid commercial banks from engaging in investment banking. Since 1999, U.S. banks have been busily using financial engineering to orchestrate credit expansion and earn more fee revenue. Essentially, this involves using structured finance to magically transform liabilities (mortgages of varying quality) into assets (securities, also of varying quality). From a sleepy business model that consisted of taking in cash in the form of deposits, lending out the money and earning a spread in the process, banks have evolved to the point that they now look more like a combination of an investment bank and a hedge fund.

¹ Columbia University, Industrial Engineering & Operations Research, M.S. Financial Engineering Graduate Program, http://www.ieor.columbia.edu/pages/graduate/ms_financial_eng/index.html (last accessed June 15, 2009)

Securitization - The Outsourcing of Credit Risk

First, there was the light bulb, then sliced bread, then... modern alchemy: the discovery you could outsource credit risk but still collect underwriting fees. This recent financial “innovation” is called securitization. It involves packaging together bundles of debt such as mortgages, car loans or outstanding credit card balances, and selling them to institutional and individual investors in search of yields higher than those provided by conventional fixed-income securities. These new bundles of debt go by various names: mortgage-backed securities, collateralized loan obligations and collateralized debt obligations.

Of course, credit originators quickly discovered that having outsourced the risk, it made economic sense to lend as much as possible, with no consideration for the probability of the loans ultimately being repaid. This quickly gave rise to all sorts of questionable mortgages being written, such as sub-prime, no money down, interest only and adjustable rate mortgages. This easy access to credit caused consumers to overextend themselves, and sent real estate valuations through the roof.

This bundling process tends to reduce transparency, making it hard to properly value these innovative new securities. When even rating agencies cannot accurately assess the overall risk of the bundled underlying loans, we shouldn't expect the market for these securities to be efficient. Of course, at the end of the day, someone ends up holding the bag. In this case, that someone is an investor: another bank, an investment dealer, a pension fund, mutual fund or hedge fund, an insurance company, or even an individual. Since the process of securitization is exportable and the market for the securities being manufactured is global, this financial rot that originated in the U.S. quickly spread all around the world.

Behavioural Finance: The Supply Side


The limitations of volatility as a risk measurement tool became evident on “Black Monday”, when stocks lost more than 20% of their value in one trading session on October 19, 1987. In response, financial engineers created VaR, or Value at Risk, a tool designed to measure how much a given investment or portfolio could lose in a worst case scenario.

VaR has three components: a confidence level (typically 95% or 99%), a time period (a day, a month or a year) and an estimate of the potential loss, expressed either in dollars or percentage terms. In practical terms, an example would have VaR showing that with a 99% confidence level, a portfolio's worst daily loss should not exceed 7%.

Unfortunately, what VaR does not measure is the potential loss that could result should a totally unforeseen event such as 9/11 put you into the uncharted 1% or 5% territory outside your 99% or 95% confidence level. Widespread use of VaR has resulted in investment choices with a bit more risk being taken in order to earn a slightly higher return, ignoring that 1% or 5% chance of losing far more than what VaR calculations predicted. History shows us that “Black Swan” events do occur, and the resulting losses can dwarf the small incremental returns earned by assuming more risk. Total losses associated with the sub-prime crisis have been pegged at \$4 trillion, far in excess of the total incremental profits earned by opting for risky fixed-income securities as opposed to “safe” ones.

Finally, we have the issue of relative performance. Portfolio managers are usually evaluated and compensated based on how well they perform compared to their peers, rather than on the actual returns they deliver. This unfortunately tends to promote a herd mentality. Early on in their careers, portfolio managers are given the message that instead of being rewarded for doing what's right for their clients, they will be penalized if they don't follow the crowd.

It is useful to remember that computers have only become ubiquitous in the past three decades. In the pre-computer era, portfolio managers typically had to wait two or three weeks after the end of a period for a comprehensive report card. Back then, calculating investment performance was a complex, labour-intensive endeavour that was only done as often as regulatory bodies required - typically once a quarter. Today, thanks to computers, managers see their performance numbers live, in real time, minute by minute. With fund net asset values published daily in most newspapers, many money managers can also rank themselves against their peers on a daily basis. This further



adds to the already huge pressure to do whatever is required to match up against industry benchmarks.

If certain managers begin exploiting an investment theme that carries more risk but appears to deliver results, others will have to follow, or else run the risk of being left behind in terms of performance, and see their compensation suffer as a result. This ultimately leads to more concentration, and causes a shift away from a value approach toward a momentum approach, which builds a lot more risk and volatility into markets.

WHO IS TO BLAME?

The bubble that just burst has been slowly inflated over the past three decades, as society took on increasing amounts of risk through the use of different leverage mechanisms. We can only conclude that everyone is to blame. Consider it the outcome of a great societal experiment that went wrong.

THE CONSEQUENCES

Consumers Retrench: With the “wealth effect” of both real estate and investment portfolios having gone up in smoke and unemployment edging up into double-digit territory, consumers have effectively gone on strike. This will of course impact sectors of the economy in different ways, and without wanting to rejoice in the misfortune of others, it is worth noting that a large part of the U.S. and Canadian economies are now service-oriented. One of the consequences of globalization is that the manufacturing of many of the goods we consume is now done in the countries with lower wage structures. For instance, 47% of China’s economy is linked to manufacturing, and we know that manufacturing gets hit a lot harder than services when consumers stop buying. In a nutshell, while we have lost a lot of manufacturing jobs, we have exported much of the cyclicity of the North American economy to China and other third world countries in the process!

Rising Threat of Protectionism: Of course, the impact of the “have” nations consuming much less is being felt around the world. The big question is how deep the global recession will be and how long it will last. Merrill Lynch recently estimated that there would be \$1

trillion of excess capacity to absorb in the U.S. alone by the end of 2009. Politicians fighting for their professional lives in constituencies devastated by job losses have begun to push for politically expedient but economically unsound trade barriers. So far 17 of the 20 countries making up the G20 have enacted protectionist legislation.

Shift Toward Frugality: Another big societal change is that conspicuous consumerism is now “out”, and frugality is “in”, which will translate into an increase in the savings rate and a decrease in demand for credit. Given that the U.S. consumer is far overextended, and that 24% of disposable income in the country currently goes to service debt, this cannot be seen as a bad thing, unless you are a purveyor of luxury goods or active in the lending business. Nonetheless, this is a huge change, since it will be the first real decline in consumption since the 1930s. Depending on how steep this decline in consumption turns out to be, it could put further pressure on governments to raise taxes, as if paying for the massive bailout and stimulus packages was not enough. We can also expect that attitudes toward real estate will also change - this asset class will no longer be viewed as a risk-free way to riches, since it has finally become widely understood that property values can go down as well as up.

Renewed Focus on Regulation: Finally, just as the accounting scandals at the beginning of the 21st century brought us Sarbanes Oxley and other measures aimed at improving corporate governance, we can expect our current turmoil to have a profound impact on the regulation of financial services. The U.S. banking system as we knew it is broken, and several well-known institutions may require partial or even total nationalization to fully regain their health. Once the immediate crisis has abated, there will be intense pressure from both the public and the government to tighten the regulatory framework. Part of this thrust will be aimed at curbing indiscriminate lending to those whose cannot afford to service a loan. The modifications to the Glass Steagall Act that allow banks to engage in investment banking activity will probably be revisited. It would be logical to see the introduction of accounting rules that would force more transparent disclosure of off-book assets, so that a financial institution’s capital requirements and overall



level of risk can be more easily and accurately calculated. Finally, we can expect recommendations to extend regulation to institutions such as GE Capital, hedge funds and other non-banks that now account for roughly 60% of lending without being subject to the same regulation as the banking industry.

TWO SCENARIOS AND WHAT THEY MEAN FOR MARKETS

Scenario 1: The concerted actions of central banks around the world and the hundreds of billions of dollars invested in stimulus packages produce the expected result: an economic recovery. While this scenario would be positive for equity markets, it is not without risks. Economic recovery will bring inflationary pressures into the equation, and the challenge will be to take the punch bowl away before the party gets out of hand. Preventive medicine will have to be delicately administered at just the right time - not so soon as to kill the nascent recovery, but soon enough that inflation does not get out of hand.

We can expect stocks to outperform fixed-income securities under this scenario, but higher interest rates will probably preclude a runaway bull market. With rising rates being a negative for fixed-income securities investments, high-yield bonds would be the only investment we would favour in this broad asset class.

Scenario 2: All the efforts brought to bear fail to produce the results hoped for. In this case, all bets are off. Further volatility and losses in the stock market are a given. The spectre of deflation, and even depression, will be upon us, so the only investments you would want to be holding are government bonds and hard assets such as gold and silver.

Bad as all this might sound, scenario 2 does not necessarily lead to Armageddon. We will go through a long period of turbulence but upon emerging at the other end, all the excesses will have been wrung out of the system, and the result will be a proportioned and sustainable economy.

CONCLUSION

Portfolio managers are optimists by nature; we would not be in this business if we did not expect markets to rise over the long term. But as a portfolio manager, you have to be prepared for the worst over shorter periods, while still hoping for the best. We have described two diametrically opposite scenarios, and are not really able at this point to ascribe a higher probability to one over the other.

In situations like this, there is really only one investment approach that makes sense: take a cold hard look at your portfolio and other financial resources with the objective of separating your “house money” (what you cannot afford to lose) from your “play money”. Then you simply make sure your “house money” is invested in such a way that you will not lose it should Scenario 2 come to pass. Your “play” money should be deployed to take advantage of the market turnaround that would occur should Scenario 1 be the way that the short-term future unfolds.

Once the strategic asset mix decision is worked out, stick with it! There is nothing to be gained and much to be lost by attempting to “time” the market. We recommend re-balancing back to your benchmark asset allocation frequently, because with the volatility we expect from the markets, asymmetric returns from the different asset classes will quickly move you away from your benchmark asset mix, with potentially unfortunate consequences.

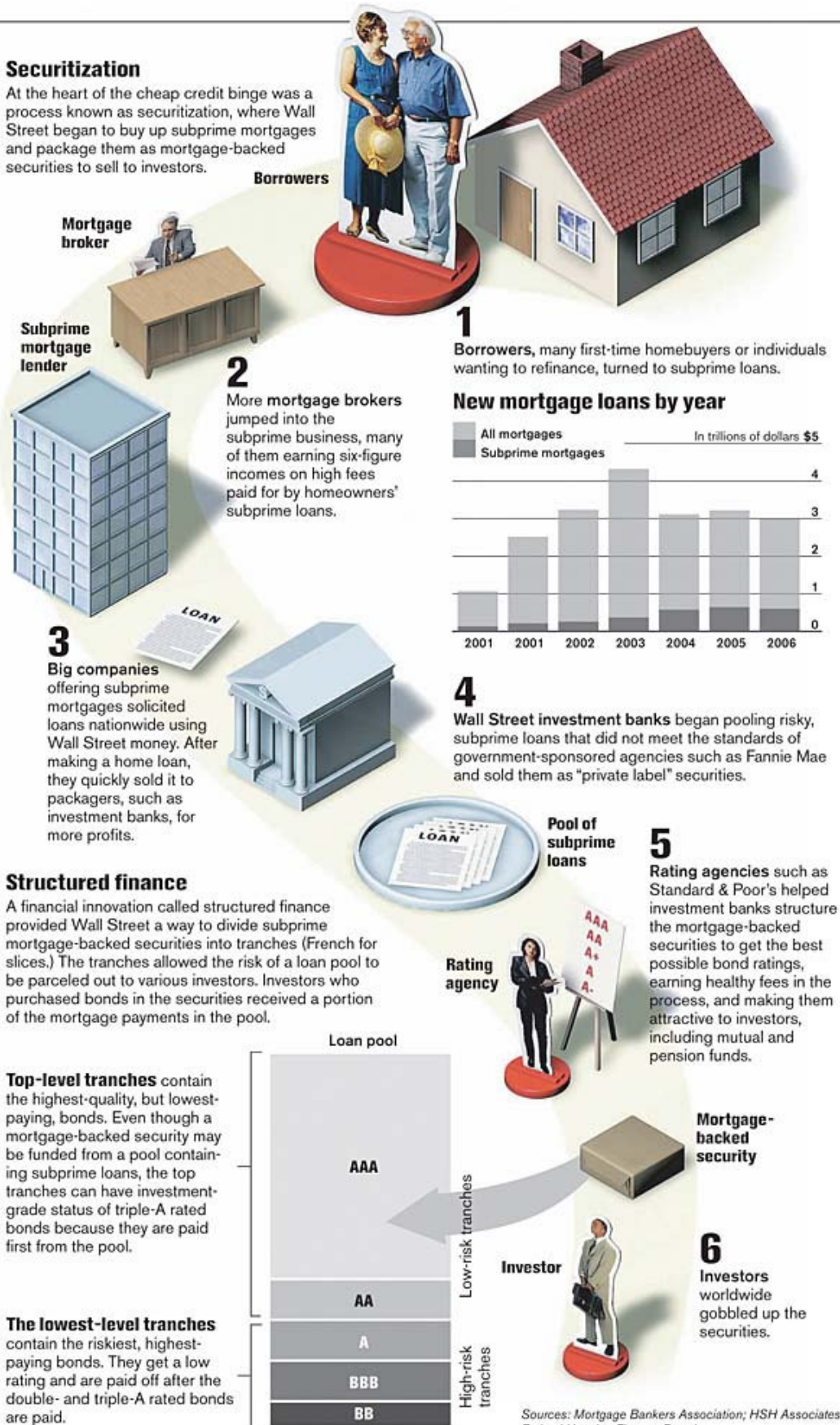
With the amount of dislocation the world economies have gone through over the past 18 months, there will be definite winners and losers, in terms of sectors and companies. Investors who think of markets in terms of stocks will have the advantage over those who simply focus on stocks as an asset class. In a stock-picker’s market, active management could deliver a premium well in excess of its cost, when compared to passive management. We strongly advise investors to focus on quality and marketability. The credit crunch has taught us that an asset you cannot dispose of readily is an asset that really is not worth much.

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ANNEX 1 - THE PROCESS OF SECURITIZATION ILLUSTRATED

Securitization

At the heart of the cheap credit binge was a process known as securitization, where Wall Street began to buy up subprime mortgages and package them as mortgage-backed securities to sell to investors.



Borrowers

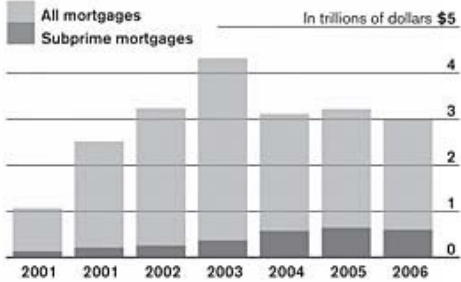
Mortgage broker

Subprime mortgage lender

2 More mortgage brokers jumped into the subprime business, many of them earning six-figure incomes on high fees paid for by homeowners' subprime loans.

1 Borrowers, many first-time homebuyers or individuals wanting to refinance, turned to subprime loans.

New mortgage loans by year



3 Big companies offering subprime mortgages solicited loans nationwide using Wall Street money. After making a home loan, they quickly sold it to packagers, such as investment banks, for more profits.

4 Wall Street investment banks began pooling risky, subprime loans that did not meet the standards of government-sponsored agencies such as Fannie Mae and sold them as "private label" securities.

Pool of subprime loans

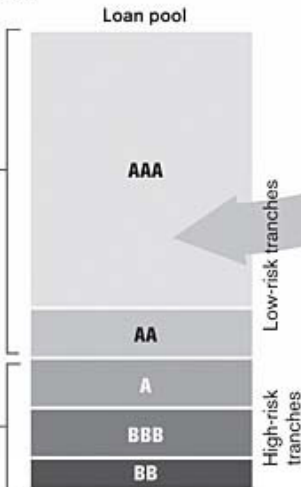
5 Rating agencies such as Standard & Poor's helped investment banks structure the mortgage-backed securities to get the best possible bond ratings, earning healthy fees in the process, and making them attractive to investors, including mutual and pension funds.

Structured finance

A financial innovation called structured finance provided Wall Street a way to divide subprime mortgage-backed securities into tranches (French for slices.) The tranches allowed the risk of a loan pool to be parceled out to various investors. Investors who purchased bonds in the securities received a portion of the mortgage payments in the pool.

Top-level tranches contain the highest-quality, but lowest-paying, bonds. Even though a mortgage-backed security may be funded from a pool containing subprime loans, the top tranches can have investment-grade status of triple-A rated bonds because they are paid first from the pool.

The lowest-level tranches contain the riskiest, highest-paying bonds. They get a low rating and are paid off after the double- and triple-A rated bonds are paid.



Rating agency

Mortgage-backed security

Investor

6 Investors worldwide gobbled up the securities.

Sources: Mortgage Bankers Association; HSH Associates; Federal Housing Finance Board; LoanPerformance, a First American Co.