

# The Gray Swan

By Leo Melamed

**Peking University**

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There are some people in the financial world claiming that the colossal global meltdown that has occurred in financial markets is an example of a “Black Swan” event. In other words, it was unpredictable.

The black swan, of course, is a large waterbird, *Cygnus astratus*, and is common in the wetlands of south western and eastern Australia. It is the official state emblem of Western Australia and is depicted on its flag. But the history of this rare bird is steeped in myth. It was first described in 82 AD by the Roman satirist Juvenal who used the term “black swan,” to depict a creature that did not exist. Aristotle used examples of white and black swans to distinguish reality with the improbable. Thus, for the next 1500 years the black swan lived as a metaphor for something that did not exist. That myth was exploded in 1790 when the black swan was discovered by English naturalist John Latham. It suddenly proved the existence of the improbable.

In his 2007 book “The Black Swan, Nassim Nicholas Taleb, used the improbable bird to explain that the belief “all swans are white” is based on the limits of our experience. In other words, some occurrences are unpredictable because they deviate so far beyond what is expected. Taleb’s book is a highly regarded treatise on the nature of scientific knowledge. The author makes a convincing case to show that a Black Swan event is more relevant than the ordinary, due to its unpredictability and its impact. He demonstrates that we can protect against what we know, but we cannot protect against what we do not know. Black Swan events are random and unexpected. I highly recommend Taleb’s book. But I am here to argue that the global financial meltdown that we are currently experiencing was not a Black Swan event. It was predictable.

Allow me to examine what in my opinion were some of the salient underlying causes which produced the recent financial tsunami and see whether their consequential result was predictable or unpredictable? Was it a Black Swan event, or not? To put it another way, I will argue that even if it was not a White Swan event, at worst, it was a Gray Swan event.

Let’s begin by stating that the primary underlying factor for the boom and bust that occurred was easy money. During the past decade the financial world became awash with liquidity. This was true for Europe, Asia, and certainly for the U.S. The American Federal Reserve held its target interest rate, especially, from June 2003 to June 2004 at 1%, well below historical levels and guidelines. Easy money led to global excesses. In my opinion, it was the root cause of most of the problems.

Second, because easy money means low interest rate structures, there was a global pursuit by investors—businesses, banks, financial firms and individuals—to find means to enhance their returns. That is a predictable consequence. It is also no secret that by definition higher returns means higher risk. One modern-day approach to achieve a higher return was through over-the-counter (OTC) derivatives. Beginning in about 1988, investment banks found ever-more-clever ways to repackage

trillions of dollars in loans, selling them off in slivers to investors around the world. It began with the introduction of a financial derivative known as a Collateralized Debt Obligation, (CDO), or Structured Investment vehicle (SIV). The value and payments of these asset backed securities were derived from a portfolio of underlying assets that were packed into the instrument: e.g., corporate bonds, emerging market bonds, asset backed securities, subprime and other mortgage backed securities, REITs, bank loans, and student loans. There was little if any regulatory oversight. During the next decade and a half, CDOs and SIVs became the fastest growing sector of the asset-backed synthetic securities market and were sold to investors over-the-counter. The greater the risk pieces of a CDO or SIV, the greater returns to their investors. Rating agencies would rate the tranches being sold without fully understanding the totality of the risks involved. It was a recipe for disaster.

Here, I must digress. When talking about the derivatives markets it is imperative to understand the difference between OTC traded derivatives and exchange traded futures which are sometimes also referred to as derivatives. The two instruments of finance are galaxies apart and must not be confused. In December 2007, The BIS Quarterly Report explained some of the differences:

- § First and foremost, OTC markets do not have the protective components of the futures exchanges, namely: daily mark-to-the-market value adjustments, margin deposits, price and position limits;
- § In the OTC markets it is up to the banks to set the reserves for their open positions while at futures exchanges margin requirements are set by an independent entity---the clearinghouse.
- § OTC markets do not have the guaranty of a central counterparty clearing system (CCP).
- § The hallmarks of exchange traded instruments are their disclosure and transparency procedures.
- § In the OTC market the original contract remains in place, sometimes for many years, increasing the total size of the market even where an economically offsetting transaction is in place. Not so in futures where an offsetting position eliminates the original contracts and the obligation they represent;
- § The OTC market greatly overshadows the exchange traded market, something on the order of five times as large;
- § The OTC markets generally lacked the regulatory control of federal authorities to which futures and options exchanges are subject under the Commodity Futures Trading Commission (CFTC).

These differences are dramatic. While nothing is perfect and no one can foresee all eventualities, the structure and procedures at regulated futures exchanges represent a time-tested mechanism—the very essence of their default-free success. On regulated exchanges, not only are there daily clearing mechanisms, there can be no doubt about the integrity of their daily settlement procedures. On the other hand, in the OTC derivatives market, values are often measured on the basis of the original model when the instrument was created. Rating agencies make a value determination at that time. Over time, without some form of an updating mechanism, these valuations become stale and meaningless.

Consider: In stark contrast to the turmoil of recent events, the CME clearinghouse has operated for more than 100 years without failure. Consider, during the current unprecedented financial crisis, as marquee names of finance such as Bear Sterns, Lehman Brothers, Merrill Lynch, and Bank of America failed or trembled, the CME performed its

operational functions without a disruption. No failures, no federal bailouts. As I stated, OTC derivatives and exchange traded financial futures are galaxies different.

That is not to say, that OTC derivatives are to be banned or feared. That would be unthinkable. For the vast majority of financial managers, whether OTC or exchange traded, these risk management tools work exceptionally well. It is estimated that over 90% of the world's 500 largest companies—domestic and international banks, public and private pension funds, investment companies, mutual funds, hedge funds, energy providers, asset and liability managers, mortgage companies, swap dealers, and insurance companies—use OTC derivatives to help manage their business exposure. Nor could it be different in today's complex and interdependent financial world. Indeed, if OTC derivatives application were suddenly not available in business today, they would have to be invented. Without them, it would be like going back to the Stone Age. Still, the lessons learned must be applied. It is imperative that OTC derivatives have a measure of regulation, transparency, and disclosure of attendant risks.

The third consequence stemming from easy money was unconscionable leverage that was allowed within financial enterprises, mainly investment banks and hedge funds. Here the U.S. government played a central role. In 2004 the Securities Exchange Commission (SEC) removed the historical ratio limit between debt to assets of about 12 to 1 and allowed it to go over 40 to 1. I don't think I need explain the nature of risk created by this eventuality. Again it was predictable.

Fourth, mortgage refinancing combined with subprime lending. Low rates and adjustable rate mortgages (ARM) created a huge refinancing industry. It spread like wildfire and resulted in a housing bubble. It substantially reduced the equity in home ownership, raising the risk to the overall housing market. Subprime mortgages were like gasoline to the eventual housing fire. Such lending practices were based on the philosophy that everyone should own a home. A worthy goal, but highly unrealistic. In other words, not everyone can afford the mortgage payments. While residential values kept rising, as they did until they peaked in mid 2006, it didn't seem to matter whether the new owner could afford the home or not. The owner was always able to re-finance at a higher home evaluation. When the boom ended home prices fell and mortgage payments could not be met by thousands upon thousands of homeowners, we experienced a rash of defaults and foreclosures. The crashing housing market became a primary cause of the recession we presently are enduring. Again, this was predictable.

Fifth, an adjunct to the subprime lending were the Federal National Mortgage Association, (Fannie Mae) and the Federal Home Mortgage Corporation, (Freddie Mac). The government mission of these U.S. government sponsored enterprises (GES) created in 1968, was to keep mortgage interest rates low in order to increase their support for affordable housing. In the past several years, these two GESs were encouraged by the U.S. Congress to continue to buy the subprime mortgage-backed securities. It created a global market for subprime debt which gave everyone a false sense of security and resulted in the toxic assets that U.S. government is now bailing out.

Sixth, the doctrine of "Too Big to Fail," was in my opinion mishandled. In theory of course, in a free market system, failure by any enterprise is an acceptable part of the bargain.

Government should never intervene to save a failing company. Let the investor lose his investment when he has invested poorly or negligently. But as we know, what is acceptable policy in theory is not always acceptable in practice. When government concludes that there exists the danger of systemic risk, in other words—when the entire economic system could unravel as a result of failure of one giant enterprise—then government accepts the role of intervention to save that enterprise. This has happened throughout American history. A word of caution, however: When government in a free market system concludes there is a need for intervention, it better be quite certain that a) there is in fact the danger of systemic failure, and b) the rules for intervention be clearly defined.

In the case of Bear Sterns, the American government judged that the company was too big to fail. However, a few months later, in the case of Lehman Brothers, it judged the opposite. Then, in the case of the American International Group (AIG), it reversed direction again. I was never convinced that Bear Sterns was too big to fail, nor was I ever convinced that Lehman Brothers was not. I became convinced, however, that there was never a bright line for the rules under which government will or will not intervene. The market cannot handle uncertainty. Our policy was incoherent and it caused the stock market to lose faith.

And finally, seventh, greed. Some market participants took advantage of the lack of regulation and lax rules. In a rush for better returns they abandoned good business practices and allowed risk to become excessively underpriced. There was a breakdown of proper risk management controls as greed replaced common sense. Thus, although most of the causes of the financial failure were government inspired, greed in the private sector was a cause factor as well. But greed is a human frailty and predictable.

There you have it. Clearly, there was no single culprit. While there are other causes, the foregoing seven ugly sins, in my opinion, were primary. Yes, there was lack of regulation; yes, there was failure of regulation; yes, there was greed on Wall Street; and yes there were misjudgments made by a host of federal officials. But surely the blame is not with the free market system. These same failures and many more have occurred under every economic model and under every type of government regime. No system is free from regulatory misfeasance and no economic model functions to perfection. Indeed, while the free market system is not free from failings, in the history of civilization no other system has produced so much good for mankind nor resulted in a higher standard of living for world populations.

Still, there are lessons we have learned. I will simply enumerate the most telling: First and foremost, capital requirement for financial institutions must be raised. Second, leverage must be contained so that enterprises cannot become too big to fail. Third, there must be regulatory oversight in OTC transactions. Finally, on a voluntary basis, central counterparty clearing for credit and OTC derivatives must be encouraged. A CCP clearing model, in my opinion would substantially reduce the probability that the failure of a significant participant in the markets would lead to a systemic failure or require government bail-out.

But, of course, that is not the point of these remarks. My sole purpose here today was to examine the cause and effect of the actions which produced the current global crisis, and

to suggest that they were all pretty well predictable. In other words, they were not black swans. Probably they were more like gray swans—and avoidable.

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