

# Should People Invest in Complex Financial Products?

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## *Executive Summary*

The history of markets is one of booms and busts. The volatility of the cycles is magnified by leverage and tempered by transparency. The development of new financial instruments set the stage for this crisis because they were effective at pumping up the amount of leverage and masking the magnitude of risk in the system. The crisis has spread due to a systematic failure of the regulatory system. Over the last 20 years regulations that fostered market stability were eliminated, and new financial instruments were allowed to propagate without any real oversight.

This paper throws light on the nature and risk associated with the complex financial products. It suggests measures which can be adopted by the investors. Furthermore, the role of regulator, market participants and investors have been studied and recommendations have been made in order to avoid future occurrence of financial crisis.

## *Introduction*

Since the financial crisis erupted, fear that the failure of large financial institutions could have devastating repercussions throughout the U.S. financial system has prompted unprecedented government intervention in the markets and the private sector. Consequently, much of the debate about financial reform has focused on the need to monitor and address future systemic risks.

However, even though we avoided the worst financial and economic outcomes, the fallout from the crisis has nonetheless been very severe, as reflected in the depth of the global recession and the deep declines in employment both here and abroad. With the financial turmoil abating, now is the time for policymakers to take action to reduce the probability and severity of any future crises.

Fortunately, forceful and coordinated policy actions averted a global financial collapse, and since then, aided by a range of government programs, financial conditions have improved considerably.

## *Synthetic Products: Too difficult to understand*

### **The Risks**

Complex investments may have risks that are not apparent, or easy to understand. As a result, it might be difficult to determine how the investment will make money. For example, when an investor buys a simple equity mutual fund, the investor will make money if the market goes up. However, in a fund of hedge funds it is next to impossible to determine how the investor will make money. It is essentially unknown. Similarly, principal protected notes (PPNs) are also derivative products, as they include a combination of guarantees and embedded options. As such typical investors have no understanding of how to evaluate a PPN. They do not know whether it is a "good" investment or if they are paying too much for the product's underlying features.

The more complicated the product, the less transparent the risks. This was made apparent by the subprime mess. Many investors might have understood the potential for a poor real estate market and the possibility of foreclosures. However, while many investors owned securities that were based on subprime mortgages, they were unaware that these securities were so vulnerable to a poor housing market. As such, they were not able to make the connection those foreclosures in Cleveland, Atlanta or Los Angeles would negatively impact the investments they purchased locally.

## The Investing Process

The most important place to start with a manufactured product is with the information that is provided to the buyer.

How is the money to be invested? Can you understand how the product will generate returns? What would cause you to lose money? Can you duplicate the results in a simpler fashion?

There is nothing to force an investor to buy an investment product he or she does not understand. If you cannot explain it to a friend, then it is probably too complicated.

If an advisor is recommending it, ask questions. Nobody ever loses money by asking too many questions.

If the advisor cannot explain a product adequately, stay clear. The more complicated the product, the more investment knowledge and experience you will need to buy it.

The most complicated products are often sold to unsophisticated and unsuspecting investors who cannot adequately evaluate them.

## Final Thoughts

For complex products, "the devil is in the details". Reading the fine print about any investment product is a necessary requirement. This includes information about guarantees, about the features that limit the upside, about risks to the products, the fees and commission, and the liquidity of the product.

## *Role of Regulators*

Regulators around the world, due to their supposed lapse of supervision on the international securities industry, have come under fire for their role in allowing the crisis to occur. There were several regulatory causes which led to the crisis.

The first international agreement on bank capital requirements, Basel I, which was introduced in 1988, imposed an 8 per cent capital charge on assets, with half the capital to consist of equity. This led banks to securitize high-quality assets to get them off their balance sheets, and was seen to result in a lowering of the quality of bank balance sheets. Basel II had several innovations. It gave mortgages a favourable risk weighting of 35 per cent, while lending to companies rated AA- or above was weighted at 20 per cent.

Moreover, banks that could satisfy their regulator that they had sophisticated risk management models were allowed to set their own capital allocations against different assets.

Basel II required banks to provide some capital for off-balance sheet exposures. This encouraged off-balance sheet exposure to be concentrated in products with low capital weighting. When the crisis struck, it had total assets of 113.4 billion but shareholders equity of only 2.2 billion. Under Basel II, the "risk-weighted" assets were only 18.9 billion and the bank appeared to have a strong capital buffer. Basel II also encourages pro-cyclical risk taking, with the scope it allows for judgment resulting in risks being under-estimated in good times and over-estimated in bad.

Unfortunately, regulators and supervisors did not identify and remedy many of those weaknesses in a timely way. Accordingly, all financial regulators, including of course the Federal Reserve, must take a hard look at the experience of the past two years, correct identified shortcomings, and improve future performance. The challenge for regulators and other authorities is to create an environment that supports greater bank intermediation, which should help to restore the health of the financial system and the economy. The critical financial institutions should hold more and higher-quality capital, improve their risk-management practices, have more robust liquidity management, employ compensation structures that provide appropriate performance and risk-taking incentives, and deal fairly with consumers.

### **Issue of Guidelines**

"This guidance should encourage banks to meet the needs of creditworthy borrowers in a manner consistent with safety and soundness."

The Central Bank should issue regulatory guidance to promote greater lending by banks. This guidance should encourage banks to meet the needs of creditworthy borrowers in a manner consistent with safety and soundness--specifically, by taking a balanced approach in assessing borrowers' ability to repay and making realistic assessments of collateral valuations. Additional capital, liquidity backstops, and regulatory encouragement should all reinforce financial stability and set the stage for increased bank lending.

### **Ineffective Supervision**

Steps should be taken to strengthen oversight and enforcement and use system-wide approach that should help us better anticipate and mitigate broader threats to financial stability. The importance of effective consolidated supervision, particularly at large, complex organization has been realised and that supervisors can properly understand risks and exposures that cross legal entities and business lines. Secondly, the effort to address systemic risks will require a more system wide or macro-

prudential, approach to the supervision of systemically critical firms. More generally, supervisors must go beyond their traditional focus on individual firms and markets to try to identify possible channels of financial contagion and other risks to the system as a whole.

### **No check on risk taken by financial firm.**

“Supervisory Capital Assessment Program, popularly known as the stress test, U.S. supervisors took a significant step toward ensuring that our banks hold adequate levels of high-quality capital.”

The regulatory standards should be set up that limit the risks taken by financial firms and establish the capital and liquidity buffers that they must hold. Through the course of the crisis, it became increasingly clear that many firms lacked adequate capital and liquidity to protect themselves as well as the financial system as a whole. For example, by conducting the Supervisory Capital Assessment Program, popularly known as the stress test, U.S. supervisors took a significant step toward ensuring that our banks hold adequate levels of high-quality capital. The program evaluated the capital needs of 19 of the largest U.S. banking organizations by estimating their expected losses and earnings capacity through the end of 2010 under a more-adverse-than-expected macroeconomic scenario. Firms that were not projected to have enough high-quality capital under this scenario were required to raise additional capital within six months.

### **Weaknesses in liquidity management by major firms**

Short-term secured funding of long-term, potentially illiquid assets through repurchase agreements and asset-backed commercial paper conduits became unavailable or prohibitively costly during the worst phases of the crisis, both here and abroad. Quantitative standards for liquidity exposures similar to those for capital adequacy should be set up, with the goal of ensuring that internationally active firms can fund themselves even during periods of severe market instability.

### **Flawed compensation practices at financial institutions**

Compensation, not only at the top but throughout a banking organization, should appropriately link pay to performance and provide sound incentives. In particular, compensation plans that encourage excessive risk-taking can pose a threat to safety and soundness.

### **Unfair and deceptive consumer practices**

Flawed financial instruments can both harm families and impair financial stability. There is a need of strong consumer protection helps to preserve

household savings and to provide families access to credit on terms that are fair and well matched with their financial needs and resources. At the same time, effective consumer protection promotes healthy competition in the financial marketplace, supports sound lending practices, and increases confidence in the financial system as a whole. For example, last year the Federal Reserve Board adopted new regulations under the Home Ownership and Equity Protection Act to better protect consumers with higher-priced mortgages. These rules strengthen underwriting, restrict prepayment penalties, and require escrow accounts for property taxes and insurance.

Strengthening consolidated supervision, setting up a mechanism (such as a systemic oversight council) to identify and monitor risks to financial stability, and creating a framework that allows for the safe unwinding of failing, systemically critical firms are among the essential ingredients of a new system that will reduce the probability of future crises and greatly mitigate the severity of any that occur.

### *Role of Investors & Market Participants*

The question one must pose to investors is whether they all knew and understood what they were buying. The crisis has arguably been driven among investors by an intense search for yield; a desire to gain as much as possible at a 'risk free rate'. These imbalances stimulated demand which has been met by a wave of financial innovation in the form of complex securitisation.

Investors are reliant and unchallenging of normal channels of information like annual reports and company announcements. Long term investors must assess all risks to a business and be challenging of the information offered by a company, and perhaps interrogate that which is made freely available. The investors should lay emphasis on the accounting principles used by the companies and especially more emphasis on off-balance sheet risks.

### **Over-Reliance on Credit Rating agencies**

The issuer compensation creates inherent conflict of interest among the rating agencies . Moreover they were the ones who aided the structure of 'AAA' financial products. Investors rely a lot on credit rating agency's external advice and show a willingness to accept the views presented. These are often geared around quarterly reporting cycles and do not, therefore, encourage investors to make a more long term assessment.

This issue is exacerbated by the so called free-rider problem in that an investor who has engaged earlier than others bears a greater cost of their actions. Other investors tend then to be less inclined to engage or the herd mentality comes into play with little challenge of others views. The institutional investors accepted high returns in the financial sector without adequately investigating the basis for the returns and asking the question about whether they were sustainable and might pose systemic risk. Additionally, there had not been concern for systemic risk, which has resulted from the piling on of multiple firm, sector and financial instrument risk.

### **“Too Big To Fail”**

Investors had the notion that too big companies cannot fail. But the recent crisis shattered this myth. The state sponsored entities have been given unfair advantage due to which they enter into excessive risk taking positions. And when they default, the government is ready to bail them out.

### **Insurance without Reserves is not Insurance**

Investors must remember that owning hedges does not guarantee a hedged position. There might be counterparty risk which the investor ignores. Moreover the false sense of security leads to excessive risk taking positions.

## *Risk Management*

In general, the credit crisis revealed a lack of enterprise-wide risk management, a failure of risk management techniques and, in some cases, an outright disregard for well-informed risk managers, the problems began in the housing market. After 2003, when the prices of homes began to deviate from historical relationships with inflation, income and productivity, a time bomb was created for their collapse.

Some of the reasons which explain the failure of the risk management are the following:

- ✚ Many sophisticated investors did utilize complex financial models to measure their risk, and were no more successful insulating themselves from loss. It's true these financial securities are opaque, but with correct assumptions of home price declines and the severe constriction of credit that ensued, the models do provide a mathematically correct description of the crisis. The models went astray largely because the likelihood of

these market conditions was not given due weight. Undoubtedly, there was widespread error in judgment, but before deriding the modelers too harshly.

- ✚ A lot of risk models incorrectly assumed that positions could be fully hedged. After LTCM and the crisis in emerging markets in 1998, new products like basket indices and credit default swaps were created to help offset a number of risks.
- ✚ Risk models failed to capture the risk inherent in off-balance sheet activities, such as Structured Investment Vehicles. It seems clear now that managers of companies with large off-balance sheet exposure didn't appreciate the full magnitude of the economic risks they were exposed to; equally worrying, their counterparties were unaware of the full extent of these vehicles and, therefore, could not accurately assess the risk of doing business.

The industry let the growth in new instruments outstrip the operational capacity to manage them. As a result, operational risk increased dramatically and this had a direct effect on the overall stability of the financial system.

While there's no panacea for risk management, there are steps which can be taken. One of the likely benefits of this crisis will be greater appreciation for risk management, both by managers and investors.

More thoughtfully designed, shareholder approved pay packages that incorporate risk-adjusted performance measures (likely measured over time) can send important messages to firm managers about the risk level with which they are comfortable.

Many regulations are aimed at preventing the powerful from taking advantage of the weak, but the real problems with the credit crisis were caused by people systematically acting in opposition to their long-term self interest. Predatory lenders did take advantage of naive borrowers, but by and large these lending businesses no longer exist.

We should recognize that the accuracy of a model is limited to the accuracy of the input assumptions. Complex models can provide a false sense of security, hiding the evidence that the entire range of indications may hinge on one or two key assumptions. Use data-driven assumptions, making sure the time series includes stressed environments when possible.

The test key assumptions should be stressed. In most insurance risk modelling exercises, the correlation assumptions between lines of business and between other risk elements drives the tail of the results. These correlation assumptions should be transparent, while the model needs to be able to stress test the impact

of increased correlation between risk elements. Each new market crisis demonstrates that correlation in stressed environments is much higher than historical averages would indicate.

Regulators should develop enhanced guidance to strengthen banks' risk management practices, in line with international best practices, and should encourage financial firms to re-examine their internal controls and implement strengthened policies for sound risk management. Supervisors should ensure that financial firms develop processes that provide for timely and comprehensive measurement of risk concentrations and large counterparty risk positions across products and geographies. Firms should reassess their risk management models to guard against stress and report to supervisors on their efforts. The Basel Committee should study the need for and help develop firms' new stress testing models, as appropriate. Banks should exercise effective risk management and due diligence over structured products and securitization.

International standard setting bodies, working with a broad range of economies and other appropriate bodies, should ensure that regulatory policy makers are aware and able to respond rapidly to evolution and innovation in financial markets and products. Authorities should monitor substantial changes in asset prices and their implications for the macro economy and the financial system.

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