



SOCIETY OF ACTUARIES

Article from:

# Risk Management

March 2012 – Issue 24

# Perfect Sunrise : A Warning Before the Perfect Storm

By Max J. Rudolph

Editor's Note: This essay originally appeared in the "Systemic Risk, Financial Reform, and Moving Forward from the Financial Crisis" essay e-book in January 2011.

**THE TERM PERFECT STORM ORIGINALLY DESCRIBED INTENSE STORMS** that seemed to find the most vulnerable areas. It was made popular by the Sebastian Junger book (and movie) that described a powerful hurricane that hit New England hard. This same term has increasingly been used to describe events during a financial crisis. Pundits claim that markets

align in an unimaginable way, creating a *Perfect Storm* of risks that they were powerless to have predicted or prepared for.

Asset managers describe these events as the rarest of rare events. Their models may predict a one

in 10,000 year occurrence. Severe overuse of the term *Perfect Storm* has caused it to lose much of its original meaning.

## SIMILARITIES TO EARLIER BUBBLES AND CRASHES

The Roaring '20s, Internet era and housing bubble each showed gains over several years and the familiar retort "It's different this time!" But it never is. Greed and easy money dominate the news at those times much as fear and dread dominate during crises.

Each of the three peacetime stock market drops since the creation of the Federal Reserve Bank system have something in common—they followed periods of low volatility and positive returns. Agreement about bubble formation appears only in hindsight, but positively correlated returns were there for all to see. A keen observer saw plenty of warning signs and made better decisions as a result. Surging financial markets eventually mean revert. Contrarian thinking that avoids the herd mentality can be used to seek out mispriced assets, earning a competitive advantage by challenging the consensus.

The period 2003-07 was one of consistently positive returns, from housing to stocks. Yet little concern about stars aligning was heard. Why? People like to hear good news. Those who warn of impending doom do not get invited to cocktail parties. It is safer for investors to follow the herd than to develop and act upon their own opinions. Few economists or analysts lose their job after

agreeing with the misguided majority. The good times act as a warning. Much as a beautiful sunrise appears prior to a storm, outlier market returns provide indicators that should not be ignored.

## DODD-FRANK REFORM

The recent Dodd-Frank financial reform legislation is a positive step toward reducing systemic risk, but does not go nearly far enough. These suggestions would improve outcomes if built into the regulations.

### Improve transparency

Lack of transparency was a major factor in the recent crisis. Dodd-Frank requires more derivatives to trade on public exchanges. This is a good idea, but firms accepting counterparty risk should have knowledge of all material exposures. When government entities have insider knowledge of a firm's shaky finances, efforts should be made to disclose this information publicly. Institutional counterparty risk should never be fully guaranteed by the government. For a fully functioning financial system, counterparty risk must allow credit losses. The market will not reward investors with higher spreads if there is no downside risk.

Those who claim the ability to evaluate company financials including accrual items without fully disclosed assumptions and methods used are fooling themselves. Accrual accounting practices need improved transparency, and ideally this would include public peer review. Too many firms and regulators hide behind tightly defined rules that do not fully address the risks accepted.

### Focus on the Risks Taken

Large investment banks were a focus of the recent crisis due to the risks they accepted. Too Big to Fail should be replaced by Too Risky Not to be Allowed to Fail. A firm's size should not be the primary driver for intervention. A firm that engages in proprietary trading should not be a candidate for government bailouts. Guarantees should cover retail deposits at utility-type banks. Regulations for banks with proprietary trading operations should focus on ways to orderly shut down a bankrupt firm. During the buildup to the recent crisis, investment bankers increased systemic risk by providing advice to other entities. They found buyers for securitized assets and recommended aggressive borrowing practices to investors. Dodd-Frank has opened the discussion about advisors having a fidu-



Max J. Rudolph, FSA, CERA, CFA, MAAA is owner of Rudolph Financial Consulting, LLC in Omaha, Neb. and can be contacted at max.rudolph@rudolphfinancialconsulting.com.

ciary responsibility to retail clients. This seems obvious and should be extended to investment bankers and institutional clients. All financial professionals should be held accountable through aligned incentives.

Compounding and interacting with other systemic risks is leverage. Large-scale borrowing practically guarantees eventual failure, especially when combined with short term funding that requires a continuously liquid market. The market can stay irrational longer than a borrower can stay solvent, and when trouble hits it quickly becomes clear that buying on margin allowed no room for error.

### Required Capital and Stress Testing

Capital should be regulated at the group level, with regulation and peer review by teams of experts looking at prioritized risks across multiple time horizons. Growing risks should be addressed before their exposure levels become large.

Ideally, regulatory stress tests should focus on the primary systemic risk driver, concentration. When “all your eggs are in one basket” there is no built-in redundancy. Preventive measures include spreading the risks around, having multiple products, vendors, geographic locations and generally diversifying the risk. These risks will also interact, sometimes in unexpected ways. Contrarian thinkers should be welcomed as stress tests are developed. Their peer review will challenge assumptions, improve brainstorming activities, and ultimately help an entity make better decisions. Concentration risk also occurs based on the way regulators or risk managers view risk. A focus on a single metric or report will seem to work well until it doesn’t work at all. For example, Value at Risk (VaR) is an excellent metric when used without the knowledge of the business unit being measured, but is easily manipulated when managers become aware of its use for incentive compensation. In another example, liquidity in short-term borrowing facilities was assumed to always be present and when it shut down surprised almost everyone.

### SYSTEMIC RISKS

Some can identify systemic risks in advance, but it takes an independent mindset and broad latticework of knowledge and historic context. History does indeed repeat itself. The analyst must look skeptically at recent successes to see if they are sustainable. Those who identify



bubbles as they form will perform well over a long-time horizon but underperform in many periods. This will be hard for those in publicly traded firms, even though it provides a competitive advantage in the long run. Scenario planning looks at a variety of events that drive outcomes. This will help identify some unintended consequences of a seemingly benign product as it marginally interacts with existing business plans.

Regulators are tied to the political process, so an independent mindset at the new Financial Stability Oversight Council is unlikely to prevail. During boom times a politician’s incentives are to feed the fire, not put it out. Congress works on a seniority system, so mere survival is rewarded with power. This discourages contrarian thought.

What should governments do to reduce future systemic risk events? Holding officials accountable for past actions would be a good start but is unlikely. The federal government should create an independent risk office that considers contrarian views as well as those of the major-

CONTINUED ON **PAGE 30**

---

Perfect Sunrise | from Page 29

ity to identify potential emerging risks and coordinate action plans. This office should be spread geographically around the world to avoid concentration of ideas such as occurs “inside the beltway” in Washington, DC. Systemic risks are best managed at the federal level with one regulator rather than with the states and multiple regulators. Fraud will find weak practices and exploit them.

Both countries and firms should debrief and look forward after events occur. The recent pandemic provided a great learning opportunity. What was done well, and by whom? What could be done better? Is this knowledge transferable to other risks? The value of having thought about an event is to maintain flexibility. Being able to adjust as events develop provides more value than a plan built around a single scenario that is unlikely to play out exactly as imagined.

## CONCLUSION

When an outlier event occurs, it often follows a period of stability that lulls most into a false sense of security. Risk assessment is an art, not quantifiable science. Experience matters. Firms and countries alike should seek out views that disagree with the consensus and look for indicators that a change is near. Much like the sunrise that is beautiful to look at but warns of impending storms, boom times do not last forever and actually predict the eventual crash. Innovators make great wealth when the masses adopt their idea, but beware when followers join the party late in a bubble. Those who recognize the *Perfect Sunrise* as a warning are better able to reduce their risk exposures. Those who arrived late will enjoy the *Perfect Sunrise*, but when the storms come they will be pummeled by the next *Perfect Storm*. ■