

Ruminations® – July 2012

H. Bradlee Perry

Marble Harbor Investment Counsel Advisory Board Member

Investment Consultant

The Perils of Complexity

Five years ago, just as the financial crisis was about to erupt, I wrote about “the new financial world” – summarizing a series of dramatic changes in the way key elements of the financial sector were functioning compared to the past and citing the many new financial instruments that brilliant mathematicians, the “rocket scientists” of Wall Street, had developed. I said most of these were very complex and potentially risky trading vehicles. But little did we know then how badly they would turn out!

The first to blow up were collateralized debt obligations, pooled funds of mortgages. Typically each CMO contained several thousand home mortgages, which no one could analyze adequately to determine their credit quality – either the investment bankers who created and sold CMOs to investors, or the institutional buyers of these pools.

Furthermore, each CMO was carved up into segments called “tranches” of varying risks. At the bottom was an equity tranche that incurred the first losses from any loan defaults. Then there were about four tranches above them of progressively less exposure to losses, and correspondingly lower interest rates at each level of risk. This was a nice concept, but since most CMOs contained only junky, “sub-prime” mortgages, the whole barrel was full of rotten apples. So even the upper tranches were subject to losses from within the pool, and from credit rating downgrades. Those became widespread in the real estate collapse, causing big losses for investors. Due to their complexity, almost no investor truly understood the nature of CMOs, and especially the high risks they contained – even though their buyers were all substantial, and supposedly knowledgeable, financial organizations. So in a term used in the auto industry, they all bought “lemons.”

Now, a few years later, we’ve seen another example of the perils inherent in complex financial instruments. This is on a much smaller scale, but because of the victim, it’s quite striking. In early May, J.P. Morgan Chase, universally regarded up to that point as a bastion of astute management and great financial strength, announced it was suffering “significant losses in a portfolio of credit investments.” These included derivatives that had been acquired several years earlier to hedge against potential losses in the bank’s bond portfolio.

But that move eventually began to sour as the market turned negative, so the traders handling the hedge, in the explanatory words of Morgan’s recent mea culpa, “...embarked on a complex strategy that entailed adding positions to offset the existing ones, but these trades morphed into something that rather than protecting the firm, created new and potentially larger risks...and at the end of April the value of the total position deteriorated rapidly.” It certainly did because by early May the losses had reached \$2 billion. They’ve since gone much higher as Morgan tries to work out of its huge position in an adverse market. Ultimately the total loss could reach \$7-9 billion.

Why did this happen? Mainly because credit derivatives and other hedging vehicles are complicated, and when they’re used with other instruments in a big combination of trades, the resulting package is incredibly complex – beyond the capacity of most human minds to understand all the possible outcomes that might result.

Clearly, the rocket scientists at Morgan (who look more like The Three Stooges now) did not understand what they had designed, nor did the risk officer overseeing this activity. And the greatly admired CEO, Jamie Dimon, sitting atop his giant, hugely complex bank, was not fully informed about this big, complicated trading maneuver.

The J.P. Morgan experience highlights how the massive banks that have emerged in recent years have become extremely complex organizations, embracing many activities that contain potentially large risks.



With their huge size, it has become widely accepted that these banks are “too big to fail” – because the failure of even one of them would have devastating consequences for the whole financial system. Further, their great complexity makes them very hard to manage effectively and safely. So some observers are wondering now if maybe we should conclude that they are also “too complex to exist.” Given this situation, Gillian Tett, assistant editor of the *Financial Times*, asks if they need to be shrunk and simplified. Good question. (This problem was one of the concerns that led Moody’s to lower the credit ratings of most large banks on June 21.)

A third instance of financial complexity in recent years – even though it was phony complexity – is the sad story of Bernie Madoff’s illusory hedge fund. After considerable success as a leading market maker in NASDAQ stocks, some twenty years ago he started a fund ostensibly using sophisticated, proprietary trading techniques. Over time it generated very consistent, strong returns.

But of course, as we learned later, he wasn’t trading anything. He just created a paper portfolio with beautiful numbers, and used the increasing flow of cash from new investors, impressed by his “record,” to pay cash returns to earlier investors. This was the classic Ponzi scheme, originally conceived by a rascal named Charles Ponzi back in 1920. Until being unmasked, he defrauded thousands of investors by selling them enticing but completely phony, non-existent investments. But his nefarious scheme lay idle and largely forgotten for seventy years, until Mr. Madoff picked it up.

However, the point here is not Madoff’s crooked activities, it’s that he concocted a very complex description of how he was investing money. It was so complicated that no one could understand it; but to many naïve investors, its obvious “sophistication” made it appealing. The only people who shied away were those who fell back on the old aphorism, “When something looks too good to be true, it probably is.” Madoff’s annual returns were so consistent and so high that knowledgeable people couldn’t believe that *any* investment strategy – especially one they couldn’t understand – could produce such excellent returns every year in a period when the stock market was experiencing huge annual gyrations of 25% or more, up and down.

I could cite other examples of how complexity causes lack of understanding of today’s financial instruments and trading strategies using them, but these notable incidents should suffice. And when you think logically, it’s obvious that the more complex anything is, the greater the risk that *something* among all its many moving parts can go wrong – to the great surprise of the people who didn’t, and *couldn’t*, understand everything about it.

Turning away from finance, we also see much greater complexity in the economy and business today, that also creates new risks. In the economic sphere, much of this stems from the greatly increased role of government, and the politics that shape government in all aspects of our lives. No longer are purely commercial activities the main driver of economic trends. With government policies a far greater *influence* on economic activity and high government spending a much larger *component* of economic activity, trying to understand political trends is a new, complex, uncertain subject that we have to deal with. In the U.S. now our critical government fiscal problems (federal, state and local) are an area of great uncertainty. And they involve much more than numbers that we can just put into a computer to derive answers. The outcomes of government actions are highly dependent on human feelings and attitudes about social and political matters, all “soft” subjects that are particularly difficult to analyze and forecast. So political analysis of highly complex government matters can be even more uncertain than economic and financial analysis.

Finally, businesses themselves are often very complicated, or engaged in some highly complex activities – making them hard to analyze. One notable example is Enron, the number-one horror story of the early 2000’s. For years a simple, well-run operator of natural gas pipelines, in the late 1990s the company announced the formation of a new business: facilitating exchanges of electricity between utilities with excess



generating capacity and those experiencing temporary shortages of power due to unusual weather demands, plants down for repair, etc.

Power marketing was new, and sort of exciting for a dull industry, but its execution sounded rather complex. One of the most frustrating afternoons of my analytical career was spent with a fellow analyst from another firm in a private meeting listening to an explanation by Enron's treasurer as to how that new business would work and how it had great profit potential. But at the end of two hours neither of us could understand the complicated planned system as he described it, or how it could produce decent profits. Based on our confusion, we both decided not to invest in Enron. A very lucky decision!

Within two years it became evident, quietly inside the company, that power marketing could not generate any significant profit. Overcome by the complexities of that business, embarrassed and trying to protect the values of their stock options, management embarked on one of the greatest corporate cover-ups in history – using phony accounting to hide their problem. Enron stock continued to rise nicely for a while as it regularly reported rising earnings and as the promise of its imaginative new business still excited investors. But dirty secrets don't stay hidden indefinitely and when the truth came out, Enron soon fell into bankruptcy – and its president and chief financial officer landed in jail shortly thereafter. Thank goodness that unfathomable complexity drove us away from the company.

Coming up to the present, only now after decades of watching the former corporate icon, General Motors, sink toward oblivion are we learning that the company's problem was not just oppressive union contracts with super-high wages and employee benefits, plus very restrictive work rules. After GM's bankruptcy and government bailout in 2009, the advent of new senior management, largely from outside the auto industry, revealed what a few people had suspected but no one knew in full: the company had a thicket of complexity in its management structure that completely stifled effective operations. This mess was far worse than any outsider had imagined.

Under a top-heavy senior management, GM had many layers of middle managers in very fragmented fiefdoms making key decisions. And sitting on top of this structure was an unwieldy management committee of some 25 senior executives who met for five to six hours every week. Great for gabfests but not for getting anything done.

This cumbersome cast of thousands made it impossible to make decisions promptly and take actions expeditiously, so it was extremely stultifying to the organization. It was sort of like a football team trying to run a game with eight offensive coordinators. This generally unknown complexity was certainly a big detriment to investors trying to make money in GM stock over the past few decades.

A final example of business complexity goes back many years to the heyday of corporate conglomerates – the worst of which have long since disappeared into oblivion. Back in the 1960s, observing the success of General Electric, a broadly diversified company that had developed a variety of successful product lines *internally*, some corporate managers decided to construct similar companies *externally*, by acquisitions. But like many good ideas, this approach was carried to ridiculous extremes. So instead of sticking to a single theme, like electrical products (from small clocks and kitchen mixers to giant turbines) as GE had, they went out and bought *anything* in *any* business (egged on, of course by investment bankers eager to earn big advisory fees on the acquisitions).

So here's what they ended up with: ITT – international telephone operations (its original business), Hartford Fire Insurance, Scott's grass seed, Rayonier's wood pulp, auto parts, a technical training institute, etc.; LTV – electrical contracting, steel mills, Wilson Sporting goods, Chance-Vought military aircraft, heavy electrical cable, etc.; Figgie International – Automatic Sprinkler, American-LaFrance fire engines, Rawlings Sporting Goods, packaging machinery, electronic equipment, construction, and mining.



Obviously, these highly complex firms were very hard for investors to understand in their totality and very difficult to manage. It's no wonder that when the intense CEO of ITT, Harold Geneen, travelled anywhere, he and a couple of aides carried five briefcases bulging with his business papers – and he needed six feet of table space to spread them all out at meetings.

A few successful conglomerates, like GE (despite a recent temporary setback in its large finance activity), United Technologies, Honeywell, Danaher, and Illinois Tool Works, remain today and are prospering. But they are limited to many operations within a moderate number of product areas. And all have very disciplined management systems. The days of mish-mash – from grass seed to baseball gloves to insurance, to structural steel – are long gone because that irrational complexity just didn't work. And companies that get too complicated in their product lines and management structure nowadays are usually quick to realize this and move back toward simplicity, as Cisco has done recently.

So the picture is clear: In any area related to investing, complexity is dangerous. Usually it prevents us from gaining the understanding we must have to evaluate the merits of, and importantly the risks in, an investment. Donald Rumsfeld was not a very good Secretary of Defense under the second President Bush, but he had run large organizations long enough to recognize their problems. One was that there's lots you don't know about them. He said, "As we know, there are known knowns ... We also know there are known unknowns ... But there are also unknown unknowns, the ones we don't know we don't know." Those unk-unks are what hurt you. So we should be very wary of complex forms of investments and complex businesses that have unknown problems and risks that we can't see or understand well enough to stay out of trouble. *Keep it simple* is an excellent watchword for investors.

* * * *

We are happy to be able to provide you with Ruminations. Please be aware that while Mr. Perry is a member of our Advisory Board, he is not an employee and his opinions are his own and not necessarily those of Marble Harbor Investment Counsel, LLC ("MHIC"). MHIC has no obligation to inform you when opinions, forward looking statements or information in this issue of Ruminations change.

The content of this publication should not be interpreted as providing investment advice, investment recommendations or investment research. Further, it should not be construed as a recommendation to buy or sell any security or financial instrument. MHIC may or may not be a holder of any security mentioned and may add to or sell any shares owned. It should not be assumed that any investment in the securities discussed will be profitable. Past performance is not a guarantee of future results or a reliable indication of future performance.

Marble Harbor Investment Counsel, LLC
101 Federal Street, Suite 2505
Boston, MA 02110
617-956-6710
www.MarbleHarborIC.com

