Some Thoughts on the Financial Crisis

THE LONG AND THE SHORT (TERM) OF IT

The calamity in the mortgage market spread to other financial markets and across the world and despite the narrowing of spreads and the machinations of central banks and the recovery in the stock market, we haven't seen the end of it. For the media, reporting on the latest financial distress has become the newest blood sport. The world of finance where the masters of Wall Street and Canary Wharf – that's some of you – can slice and dice risk in a thousand little pieces and put them together is the newest evil empire along with its dreaded weaponry, 'derivatives'.

The current crisis is often compared to the Great Depression, although the hope of all is that this will be more of an extended footnote to history than a chapter. But a better historical precedent can be found in the European crash of 1873. I can do no better than quote from an email I received from Scott Reynolds Nelson, a historian who studies the 19th century:

"In the Austro-Hungarian Empire, formed in 1867, …. the emperors supported a flowering of new lending institutions that issued mortgages for municipal and residential construction, especially in the capitals of Vienna, Berlin, and Paris. Mortgages were easier to obtain than before, and a building boom commenced. Land values seemed to climb and climb; borrowers ravenously assumed more and more credit, using unbuilt or half-built houses as collateral. The most marvelous spots for sightseers in the three cities today are the magisterial buildings erected in the so-called founder period.

But the economic fundamentals were shaky. Wheat exporters from Russia and Central Europe faced a new international competitor who drastically undersold them. The 19th-century version of containers manufactured in China and bound for Wal-Mart consisted of produce from farmers in the American Midwest. They used grain elevators, conveyer belts, and massive steam ships to export trainloads of wheat abroad. Britain, the biggest importer of wheat, shifted to the cheap stuff quite suddenly around 1871. By 1872 kerosene and manufactured food were rocketing out of America's heartland, undermining rapeseed, flour, and beef prices. The crash came in Central Europe in May 1873, as it became clear that the region's assumptions about continual economic growth were too optimistic. Europeans faced what they came to call the American Commercial Invasion. A new industrial superpower had arrived, one whose low costs threatened European trade and a European way of life. As continental banks tumbled, British banks held back their capital, unsure of which institutions were most involved in the mortgage crisis. The cost to borrow money from another bank — the interbank lending rate — reached impossibly high rates. This banking crisis hit the United States in the fall of 1873. Railroad companies tumbled first. They had crafted complex financial instruments that promised a fixed return, though few understood the underlying object that was guaranteed to investors in case of default."

Substituting Asia for America and the West for Europe we get a description of what has happened in the current crisis. The West has been financed by the new producing economies of the East and that fueled a housing and consumption binge. Not unlike 1873, the financial institutions and the new financial instruments made this easier, and the role of government to prod an expansion of affordable housing played a major role.

Crises are inevitable perhaps because they are baked into such interactions between politics and finance in 2008 as they were in 1873. Financial companies hold reserves against, say, a 1 in 100 year event, although, I must say, it seems as though 1 in 100 year calamities occur about every 5 years. Why, then, don't firms hold more reserves? The tax system alone penalizes them for holding excess reserves. If they try to hold more as their finances deteriorate they will get little sympathy from analysts and shareholders. No matter how prudent their underwriting, they will fail when the storm comes. Every 100 years or less each major financial institution will 'fail'. If the hurricane of 1938 were to be exactly repeated next year it would bankrupt nearly every major insurance and reinsurance company. In 1938 the hurricane went over Long Island potato farms and now it's one of the most densely populated areas of the country. When these major companies do fail and when the entire market is stressed, the only place to turn is to the one agent with unlimited resources, the government. It's time to stop whining about too big to fail; they are too big to fail and they should be. Of course, saving the company as an ongoing concern is not the same as rescuing the shareholders.

THE PROXIMATE CAUSES OF THIS CRISIS AND SOME PROPOSED SOLUTIONS

ACCOUNTING

There is a difference between failing by not having the liquid assets to pay your bills and failing because your assets are insufficient to cover your liabilities. The crisis had more examples of the latter than the former, particularly if one considers firms with adequate cash on hand, but a need to access the capital market at a time when they are believed to be underwater on the balance sheet. Failing because your assets are below your liabilities is, to some extent, a consequence of the way we regulate firms today, and that, in turn, is a function of statute and accounting. Mark to market accounting is merciless and it is inherently inaccurate. By marking only a part of the balance sheet and not taking account of the discounted value of future earnings, accounting commits a fundamental error and ignores the very asset that firms with an ongoing value once used to ride out financial storms. Banks and insurance companies today argue that they will make earnings going forward that will cover past losses and the evidence is mounting in support of that view. This issue would probably not matter as much as it does if it were just a matter of accounting, but the problem is exacerbated

by regulation that, by statute, must pronounce a financial institution bankrupt if GAAP or IAS assets fall below liabilities.

I think the profession of accounting has lost its way and the consequences of this are not fully appreciated. The problems began before Enron but that's not a bad place to start. Whatever your views on the ethics of Enron and Arthur Anderson it is hard to believe that the competitive landscape for audit services was improved by extinguishing one of the big five to create an even bigger four accounting firms staffed, by the way, with Arthur Anderson alumni. With the elaborate requirements of auditor independence we are running out of accounting firms that can service major clients. This is certainly not a good thing for efficiency and it is certainly a suboptimal way to determine industrial policy.

The ill intended consequence of these changes is that auditors behave differently today than they did before. Just as American doctors practice defensive medicine and order more tests than they think are necessary so as to avoid being sued, so too auditors take overly conservative and cautious interpretations of accounting to avoid lawsuits and failures. Nor is there much comfort in the interpretive guidance from accounting bodies like FASB. Enamored of finance but not necessarily fully aware of its implications, accountants replaced the old fashion accounting of early US TV's Dragnet and Sergeant Jack Webb who used to say 'Just the facts, maam' with the new view that we should look to the markets for accounting data and mark everything to market. But, instead of giving us a better and more accurate view of the firm we get a hodgepodge that marks part of the income statement and the balance sheet to market – often derivatives – while the rest is held at book. A firm that wants to use the financial markets to hedge out the volatility in its future income is discouraged from doing so because a rise in its income prospects won't show up in earnings but the decline in its derivatives position will.

Accounting also wants to be 'accurate'. That means, for example, that an insurance company has to take the correct level of reserves and not 'conservatively' reserve. Conservative accounting and reserving used to be a good thing not a bad thing. Steadily rising corporate earnings were a goal and now they are taken as a prima facie case of bad behavior and earnings manipulation. Has anyone ever produced any evidence whatsoever that investors suffered and were mislead by having firms adopt accounting mechanisms that informed investors of what they thought were the true underlying core earnings of their businesses and not the day to day variations from 'accurate' accounting?

Furthermore, in the depths of the crisis, in a world without well functioning markets for many securities, the search for 'market prices' is naïve and forlorn. Firms can mark to models – financial engineering models – and that is probably the best they can do. The world anxiously awaits the next rulings from the accounting governing bodies to decide whether or not it can engage in some piece of financing or whether there will be a whole new way to account for it. I

yearn for a return to the old Jack Webb approach – just give me cost-based accounting and the analysts and me will do the computations to estimate value.

And, as the world has become ever more complicated, matters only get worse as accountants struggle with dealing with hedges. I've listened to top accounting experts debate how to account for a particular derivatives transaction unable to reach closure on the matter. This is completely unsatisfactory and it has to be changed.

REGULATION

With the media like a chorus of Luddites calling for the end of mechanized weaving looms, and with Congress feeding on a Populist frenzy, and with and with popular sentiment focused on identifying villains rather than structural issues, regulatory 'reform' is inevitable. The architects of the proposed regulatory reform say that they don't want more regulation, they want smarter regulation. They want regulation that will spot crises and prevent them. In Genesis God said 'let there be light', and there was light, but I don't think Congress or Parliaments can be quite so confident of the outcome.

Those who cite lax regulation as the key flaw in the current system, fail to grasp the role that the existing regulation played in the current crisis. By imposing risk control regulation on financial institutions so as to make each institution safer, regulation fostered an environment that produced an excessive amount of high grade but highly vulnerable securities. As financial assets built up at banks and other institutions, regulation required 'prudent' risk control led them to invest in highly rated debt instruments. This created an enormous and artificial demand for AAA and investment grade instruments that Wall Street accommodated. It is not the case that the AAA tranches of a CMO with 20% subordination are, as some would have us believe, intrinsically flawed and doomed to failure. What is the case is that they are vulnerable to precisely the sorts of drops in the underlying collateral values, residential house prices that we have experienced. Nor is it the case that the financial institutions had fundamentally flawed risk models; keep in mind that even the best of models are probabilistic and doomed to fail in critical times. Keep in mind, too, that the regulators were fully aware of the risk models used by the financial institutions. Spreads to Treasuries fell to historically low levels along with other measures of ex ante risk such as equity implied volatilities. In hindsight, but clearly observed by many, the premium for taking credit risk had gotten too low and the market's perception of the risk itself was far too low. Unfortunately, there are signs that this is happening again.

I think this is as close as we can come to an early warning system for a financial crisis. Certainly merely observing a market where prices have escalated is completely unreliable. The rise in house prices by itself wasn't a sufficient reason to think there was a bubble. Like previous booms in the stock market, some rises are lasting and some are not. The surest sign of a bubble and a coming crisis is a deal that is too good. The famous trade where you could

short housing and if you were wrong the carry cost might be about 10%/year and if you were right you could make 600% is an example of such a deal. The real disconnect was that credit spreads had narrowed so much that there was almost no compensation for taking credit risk and the spreads in the CDS markets permitted short trade on house prices. In addition, there was a deterioration in underwriting standards not only on residential mortgages but also on corporate debt and commercial property lending.

Regulators and regulation haven't caught up to the new world and to a great extent are victims of the same problems as accounting. Basel II notwithstanding, regulation – particularly for risk control – is at sea. Regulatory bodies charged with safety and soundness regulation are guided by principles established by political acts or traditional principles. This makes evolution in a changing environment slow and difficult. Consider an agency that has to regulate a bank or a financial institution based on its GAAP results. A firm that loses money on a hedge but makes an offsetting amount on a non GAAP but true economic basis can find its GAAP equity deteriorated to a point where the regulator is compelled to take action even though the firm is perfectly sound and safe. Typically, the bias in strained credit markets will be to mark down the visible hedges despite the fact that the firm is perfectly capable of holding the position to maturity, has every intention of doing so, and upon careful consideration feel it has no significant measurable risk of impairment in any realistic dire scenario. Interestingly, apparently to date actual impairments on super senior RMBs have been minimal. But the regulator relying on mark to market accounting is required to step in and contract the business at the very time when the economy would want it to expand to be part of easing the credit problems. Regulation should be counter-cyclical and ease when needed not pro-cyclical and tighten in tight times.

We should leery of regulatory reform; the political desire to foster home ownership was implemented by lowering standards for loans, and naively ignored the inevitable abuses. We should be especially wary of new reform aimed at the incredibly complex financial institutions. If there is to be a call for increased regulation it should not be directed at large financial institutions but, rather, where it has long been used, at the level of the individual borrower.

WALL STREET GREED OR HOW WALL STREET FLEECED THE INNOCENT

Much is made of the greed of Wall Street, but finance only facilitated the speed with which the crisis unfolded; it was not the cause. Did bankers suddenly become greedier in 2008 than they were in 1998 or 1888 for that matter? Nothing has changed about financial greed, and if you think bankers are greedier today than in the past you haven't read much about the robber barons of the late 19th century or the Medici.

The new financial technology was supposed to spread risk, not concentrate it. But what of a small municipality in Norway that had 25% or more losses on their municipal funds invested in AAA CDO structures – structures invented by financial engineers? And what of the big

investment banks taking huge write-offs and needing to raise capital? Where were their much vaunted risk control mechanisms and the risk officers who oversee them? According to the press, if there is one thing we don't need more of its financial engineers.

Well, as is often the case, the press has it muddled. The fact that some institutional investors suffered is exactly what happens when risk is spread, but the press seems to think that something is wrong whenever someone suffers a loss rather than understanding that bad things will happen in the best of systems.

It is important though to distinguish between the untrained individual and the investment manager. I have sympathy for those who suffer from the consequences of bad decisions, but caveat emptor has a place here. The investment manager of the smallest of institutional portfolios should understand that while higher risk doesn't mean higher return, higher return must mean higher risk. If higher risk always led to higher returns it wouldn't be called 'risk'. When you purchase AAA mortgage backed securities because they have a higher yield than sovereign securities or than other more traditional AAA securities, you are taking on additional risk. Did you think that you were being specially blessed by the financial gods and were getting something for free? This is less an issue of high finance and more one of simple common sense. This is how the efficient markets work – there just aren't free lunches like riskless and simple ways to get high returns. Caveat emptor should apply to even small institutions and if it doesn't then we are paving the way to the end of free participation in financial markets.

Nor is this to say that what happened to many small investors was a good thing. I cannot speak to the issue of whether they were mislead by slick sales investment bankers bearing gifts who seduced them into thinking that the instruments they were buying were completely safe and had no risks. Perhaps they were. But with a modicum of common sense and skepticism they shouldn't have been. It is appropriate for government to worry about misleading workers who are self directing their 401k plans and individuals borrowing to buy a home. But institutions of any size should be expected to display basic financial common sense.

DERIVATIVES

Like steam powered looms, the genie of financial engineering is out of the bottle and it cannot be put it back in. There is no way for us to unlearn the structural building blocks of modern finance and there is no way for us to stop building products based on them. Nor is it in any way desirable to do so. When you need a new computer you don't go to a store to buy some chips and a mother board so that you can build your own; even the most sophisticated of us buy finished machines. In the same way, no matter how sophisticated you are about finance, you still buy packaged products, mortgages and annuities and the like, off the shelf. Only the richest can get a hand tailored suit and only tailors sew their own clothes.

Is financial innovation good? The question is irrelevant; innovation is inevitable. We have the ability to craft financial contracts to precisely target the needs and demands of traders who want to express different views than those of the market and of retail clients who have particular needs and wants. Banning the use of derivatives makes about as much sense as banning knives because some people get hurt. Tell that to cooks and surgeons.

The problem isn't the explosion in the financial markets and the explosion in the practice of financial engineering. It's not that the markets have expanded too quickly; it's that the rest of the world hasn't kept up. Neither accountants nor regulators nor tax authorities nor the press seem able to deal with the complexities of financial engineering and the new finance. But financial engineers are not entirely innocent and have made their own contribution to these problems. Models for valuing mortgage backed securities were developed and estimated in better times when national house prices went up not down. We are very good at analytic models and not very good at models that need a lot of data. That has to be improved.

As a final observation on the regulation of derivatives, much has been made of the need to put CDS and other derivatives onto organized exchanges and to curtail or eliminate OTC transactions. This challenge, however, is to maintain the obvious need to tailor transactions that OTC transactions fulfill. It is no accident that despite the outstanding OTC S&P index options is multiples of that on the exchange. Furthermore, while the clearing house mechanism of exchanges permitted them to ride out the storm, it should be kept in mind that the swaps market functioned throughout the crisis. The private insistence on mark to market collateral was a very adequate substitute for the clearing mechanism of a public exchange without the 'one size fits all' approach. That being said, though, I have some cautious optimism that properly done, central clearing will increase both safety and liquidity. But the caveat is very important because a heavy handed approach will cause more harm than good.

THE PRESS

Last, but hardly least, is the press. When you know something about a particular matter and you read about it or see it on the news, it's often a difficult task to figure out if the press is even talking about the same thing you know about. The press is challenged by, and not really interested in, the complexities of the new finance. Their attention span is short and easily seduced, and who can blame them. It is a lot easier and juicier to blame villains whenever some dramatic financial event occurs than to come to grips with the system wide incentives and effects that are the real culprits.

It is difficult for people to believe that crises are endemic to the political-economic system and even more difficult to believe that crises and failures will always be a feature of political economic systems. Instead of looking for institutional causes, we naturally want to find evil doers like investment bankers and punish them as the personifications of greed and

excesses in the financial markets. A friend of mine once said that capitalism coexists with democracy because every few years we get to sacrifice a capitalist in the public square.

I think we should try to help the press out. Just as some scientists and doctors become authors and journalists and write about the latest scientific and medical breakthroughs, I think some financial engineers should do the same and write about the new world of finance.

CONCLUSION

What will happen going forward? My gravest concern is that with all the talk about reform we really haven't done anything that we can confidently say will stop or even make a second crisis less likely. The banks, for example, will still have razor thin equity margins and governments will still provide the backstop.

But despite this gloomy tone, I am at heart an optimist and I am hopeful. Whatever policies governments pursue they will be far more enlightened than those of the past century when the response to a crisis was to close banks. That was the height of the fallacy of composition; each bank was dealt with individually and the entire banking system contracted precisely when it should have been expanded. Hopefully, too, policymakers will not just think in broad strokes about traditional monetary and macro solutions and will, instead, listen to some more detailed capital market approaches. The capital markets is where the crisis first began, and the solution is the hair of the dog that bit you.