

Guest Commentary, by Doug Noland

How could Irving Fisher have been so wrong?

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My thanks to Mary McDaniel, Managing Director for the SNL Center for Financial Education, for inviting me to speak this week at their conference. I hope it will help to distill and synthesize my analysis of credit and the current historic credit bubble.

"For too long, financial creativity has been lavishly rewarded. For years, the most aggressive money managers have achieved the greatest success, while accumulating enormous assets under management. The most aggressive bankers have seen their stocks rise the most. The most aggressive entrepreneurs have reaped the greatest rewards. The most reckless borrowers have often made the greatest returns. And the most aggressive managers have risen to the top, with the most aggressive accountants having garnered the most business.

What I am professing today is that this game is coming to an end - an historic inflection point has passed and the cycle is turning. I am very confident of this analysis because I believe I understand the source of the boom – the source has been credit excess. We have been in an historic financial bubble and this dynamic is faltering, with the collapse in the Internet and Telecommunications bubble as the catalyst. Importantly, the financial sector is today increasingly impaired from boom-time lending errors, is caught heavily exposed, and this dilemma will only become more problematic going forward.

In early 1997, I read with some surprise a report where one of the major rating agencies assigned a top rating to a pool of auto loans in Thailand. The analyst basically concluded that "an auto loan is an auto loan," no matter where it is located. Apparently, to the rating agency, the collateral backing these securities was the same whether it was a U.S. auto loan or one in Thailand. Of course, only a few months later Thailand was in the grips of financial and economic meltdown with the rating agencies, Wall Street, credit insurers, and investors caught completely flat-footed.

I also remember being stunned after reading a story in the Financial Times in early 1998 detailing the extraordinary growth in the notional value of derivative contracts in Russia. And while the thinking at the time was that this proliferation of derivatives was a result of prudent hedging activities, this view was terribly misguided. These derivatives were, instead, a critical aspect of massive leveraged speculation. By late summer, of course, Russia was in financial collapse with massive counter-party defaults that nearly pushed the global financial system over the edge.

I mention these two examples as I think they provide clear illustrations of what is really an astounding lack of understanding and appreciation for macro financial and economic issues throughout the financial and regulatory community. We live in a complex world and it is often

difficult to see the forest for the trees. What I will attempt to do is bring some clarity to the forest with my focus on the general environment here in the U.S. Most unfortunately, there are some ominous parallels today to Thailand and Russia before their severe financial dislocations.

First, however, I would like to thank the folks at the SNL Center for Financial Education for inviting me to speak today. I don't get invited out much, and I consider it a special honor to be before you today. I also would like to extend a special thanks to Jim Chanos for suggesting that my work might be of some value for this conference.

For some time, I have been writing financial market commentaries for our website – <http://www.prudentbear.com>. I want to say right up front, I'm not here to talk my book. I am here to present sound analysis and I care deeply about the quality and integrity of my work. Every Friday evening, after what is consistently a mad scramble, I post my Credit Bubble Bulletin. As the name implies, my analysis is quite focused. I don't know a lot about a lot of things. Although I did my stint as a CPA, please don't ask me about the latest FASBs. My analysis is all about credit, about markets, and about economics – all subjects that seem to have been lost in the age of reams of data and statistics, legions of "quants," and a bevy of sophisticated financial models. It may be the "Information Age," but it is anything but the "Age of Sound Analysis."

And for those not familiar with my work, I am committed to "calling them as I see them." I pull no punches and am content to "let the chips fall where they will." If there is anyone here from Fannie Mae, you will not be pleased by my assessment of either your company's role in fueling this dangerous bubble or your company's prospects. For those from the Federal Reserve, you will not likely appreciate my view that those at the very top of your organization have failed miserably in protecting the integrity and stability of our nation's financial system. As far as I am concerned, the Greenspan Fed has been either negligent or incompetent in carrying out its responsibilities – a truly historical and regrettable blunder. I figured it was good to get that off my chest early.

Here's what I would like to do. I decided somewhat at the last minute against coasting through my charts as the basis of my presentation. Instead, I typed "How Could Irving Fisher Have Been So Wrong?" at the top of the page and attempted to assemble a comprehensive and pertinent analysis. This extraordinary environment simply beckons for analysis. We are going to get my through my charts quickly and focus – for better or worse - on concepts. If you desire more quantification of this historic Credit Bubble, please visit our website, look at our many charts and browse through some of our analysis. For today, I would really like to stress Qualitative analysis rather than Quantitative. We have experienced an historic credit bubble and it's now ending. I will focus on many aspects of what has brought us to this precarious crossroads, but my overriding aim is to simulate thinking as to the profound ramifications for the future. A history lesson is most valuable if it enlightens, while clarifying the future.

It has been said, "a culture of optimism is a culture of denial." The first point I would like to make today is that it is most critical to recognize and appreciate the severity of the unfolding financial crisis. This is definitely not the time for denial.

To understand the roots of the developing crisis, I would like to discuss the principle that credit excess distorts the market pricing mechanism. Moreover, the longer the system accommodates credit excess, the greater the divergence from equilibrium – away from a position of stability. Over time, credit excess develops into a self-feeding bubble with only more severe and debilitating structural distortions and imbalances to the financial system and real economy.

This is a key point - I want to make it very clear that presently both the U.S. financial system and economy are grossly maladjusted and acutely unstable. Unfortunately, these are the unavoidable consequences of years of runaway credit and speculative excess, and the Fed repeatedly "Putting Coins in The Fuse Box." We saw similar credit bubble dynamics in the late 1920's that led to depression. Perhaps some of you can relate to this, but I remember first reading about the Roaring '20's, particularly the wild euphoric period of 1928 and much of 1929. I just couldn't comprehend how everyone was so fooled. How could even the brilliant economist Irving Fisher see permanent prosperity, when the Nation was heading right into the Great Depression? I would today argue that he and virtually everyone else failed to see how acutely fragile the financial system had become and how imbalanced and distorted the economy was beneath the surface of strong nominal growth and rising asset values. Importantly, Irving Fisher failed to recognize that the U.S. was in the midst of an enormous financial and economic bubble – that the U.S. had become one momentous bubble economy within an increasingly fragile global backdrop.

However, one needn't go back 70 years to witness credit bubble dynamics. Much more recently, a rather stunning proclivity of unrelenting global credit and speculative excess has fostered numerous booms and busts, including those in Japan, Mexico, SE Asia, Russia, and emerging markets generally. I strongly argue that contemporary uncontrolled credit systems are dysfunctional, both domestically and globally. More on this later.

First, I would quickly like to look at the basics of credit. It is rather surprising how little mention is made of such an important subject. Even Alan Greenspan rarely utters the word credit, choosing instead to ramble on about lasers, fiber optics, and productivity. Actually, we can look at this simplistically, but come to a very important understanding: credit expansion is the creation of additional liabilities that provide additional spending power. This is simple enough, yet there is this misperception – one that is a major hindrance to sound analysis - that holds that the Federal Reserve creates the money supply, and that only banks create credit. This is certainly not the case. Instead, I think it is very important to appreciate that it is the financial sector that predominantly creates money and credit, and this process occurs generally through the expansion of financial sector liabilities. Really, what we have is this enormous electronic bookkeeping system. Money is created through additional entries on the electronic ledger – it's a system of electronic money and credit. Actually, I see this era as one big failed experiment in electronic money, uncomfortably reminiscent of John Law's infamous failed paper money experiment in early Eighteenth Century France.

And while the consensus believes that only banks create credit, the truth of the matter is that during this long boom cycle the aggressive non-bank financial institutions have played a powerful role in money and credit expansion. As the chart from a few minutes ago illustrated, the Government-Sponsored enterprises have increased their liabilities by a staggering \$770

billion during just the past 11 quarters. In less than five years, GSE balance sheets have increased by almost \$1 trillion in history's greatest credit expansion. The capital markets have also played a key role, with the proliferation of mortgage and asset-backed securities. And since these non-banks are unconstrained by capital and reserve requirements, I use the terminology of an "infinite multiplier effect" to describe our contemporary credit system. This "infinite multiplier" has given rise to an absolute explosion of money and credit.

An explosion of money and credit is, by definition, highly inflationary. After all, the excessive creation of new financial claims – or new credit – fuels over spending and what should be recognized for its unmistakable inflationary effects. Let me state that the old Austrian School economists understood credit and inflation much better than we do today. Their thinking had it that credit excess creates inflationary manifestations in several distinct processes. Obviously, additional buying power may increase the prices of consumer goods and services – this is precisely what most contemporary observers consider "inflation." Importantly, however, there are several other forms of destabilizing inflation that go unappreciated, despite being the major inflationary manifestations during this cycle. Excessive new credit creates additional purchasing power to fuel an investment boom with both over-investment and malinvestment. The consequences are a misallocation of resources, wasted resources and impaired financial assets. Also, additional purchasing power can be directed at asset markets and can fuel asset prices and asset bubbles. And finally, additional purchasing power can be directed at imported goods and lead to larger trade deficits and a dangerous accumulation of foreign liabilities. In all cases, credit excess fosters over spending with detrimental effects on the financial system and economy.

Ironically, consumer goods inflation – what most consider the only form of inflation - is the least dangerous. Why? Because it is both conspicuous and easily rectified by aggressive action from the monetary authority. However, asset inflation, distortions in the saving and investment process, and trade deficits are a much different story. Investment distortions, as we are beginning to experience in the technology sector, can destroy profitability and create financial and economic instability. Trade deficits lead to problematic financial imbalances – as is clearly evident presently with our current account deficit ballooning to \$400 billion annually. We will return to this subject later on.

Right now, I would like to focus on asset inflation, a subject at the very heart of current financial sector vulnerability. First, it is important to appreciate that asset inflation is particularly problematic for several reasons, including that it is incredibly seductive. Larry Kudlow and many others like to incorrectly refer to rising equity and home prices as "wealth creation." Yet, true economic wealth is not created by additional entries on the electronic ledger. Politicians, of course, love asset inflation and the resulting surge in tax revenues and campaign contributions. Such inflation spawns dreams of perpetual government surpluses. As such, politicians and special interests are adamantly opposed to any central bank intervention aimed at the stock market. And can you imagine the Federal Reserve coming out and stating that they are aggressively raising rates to squelch rising home prices? Obviously, that's not going to happen.

So it is vital that central banks nip asset inflation in the bud, because once it takes hold it's "off limits." But central banks, as we have seen with the Federal Reserve, are quite prone to ignore

initial asset inflation, perhaps because they don't recognize it. Often, even top central bankers fall prey to manic notions of New Eras, New Paradigms and economic miracles. And the longer asset inflation is accommodated – allowing asset inflation to forge a bubble economy - the greater is the structural impairment to the economy and financial system, and the more dangerous and difficult asset inflation is to control – as we've seen. Indeed, the Federal Reserve spent years attempting to determine if we were in an asset bubble before Chairman Greenspan seemingly ended the debate by stating that it is impossible to know until after the fact. This is most unfortunate analysis.

I don't believe one can overstate the implications that the present asset bubble has for both the soundness of the U.S. financial sector and for future economic prospects. And I am not just talking about the stock market. We are in the midst of an historic real estate bubble throughout much of the country, with the market in California particularly out of control. I think California real estate poses big problems. For too long, asset-based lending has created a self-reinforcing dynamic where credit excess has fostered higher asset prices, creating additional collateral for further borrowing and more asset inflation. The dilemma is that this process doesn't work well at all in reverse. Declining asset prices weaken financial claims and impair lenders. Sinking markets also tend to expose previous entrepreneur and investment errors, as well as the degree of underlying market leverage. When excessive financial claims are backed by depreciating asset prices, the viability of the entire credit system is in jeopardy. With this in mind, we have today all the makings for a devastating debt deflation.

Or let's look at this from another angle: It is quite easy to finance an asset when its price is rising, as bull markets create their own liquidity. It is, however, an entirely different story to maintain leverage when asset prices are declining, as bear markets by their very nature savagely destroy liquidity.

I would like to make another point: I am not here to argue for the gold standard, but it is critical to understand that a purely fiat currency regime is highly unstable with a strong proclivity of fostering booms that inevitably go bust – and there should be no denying that this is categorically a fundamental flaw of the contemporary global financial system. Conversely, if a monetary system is backed by something of relative stability – it could be gold, or even, let's say, the circumference of a growing pine tree – there would at least be a mechanism to harness money and credit expansion. In our present system – one I see as little more than "wildcat finance" – a preponderance of money and credit is backed by asset values - predominantly real estate and financial assets. It should be obvious that such a situation is highly unstable. In such a system, unfettered credit excess begets higher asset prices and over spending, providing the additional borrowing power that begets only more self-reinforcing asset inflation and an unsound bubble economy. Again, the current system is a dysfunctional mechanism that breeds spectacular booms and devastating busts, and I really see no other way of looking at it. This protracted U.S. boom has not been the result of new technologies or some productivity miracle, but about truly historic credit excess, rampant speculation, and unprecedented asset inflation.

Of course, Wall Street loves asset inflation, which brings me to another concept. I would like to underscore the critical importance of monetary processes. What do I mean by monetary

processes? Well, let's look at two examples.

First, let's consider the process – or monetary flows - that develop through traditional lending at the local bank. Here, the prudent loan officer endeavors to make only sound loans, fully expecting to live with lending decisions until maturity. This lender focuses diligently on enterprises that are quite likely to achieve the necessary cash flows to meet debt service and repay loans.

Now, let's compare this to modern Wall Street finance. Here the investment banker is king. The investment banker, as compared to the local loan officer, specifically seeks out ventures that burn cash. After all, negative cash flow businesses make the best clients, as they must continually return to the trough. At the same time, risky borrowers willingly pay high fees and interest rates, which in today's world can flow directly to the bottom line. The investment banker absolutely loves high-yielding securities, such as subprime auto loans, telecom equipment leases and credit card receivables – that can be structured and sold for large accounting gains. Higher yielding securities are also great fodder for their hedge fund clients, as well as their own derivative desks and proprietary trading operations. Nothing creates Wall Street profits like matching high-risk borrowers with leveraged speculators seeking high-yielding securities. The Wall Street firms nurture and profit from speculation – through IPOs, trading, derivatives and, importantly, lending to the speculators. The emphasis for Wall Street finance is aggressive growth in risky lending, creating and marketing high-yielding securities, security financing, and trading – and in all cases, the more the merrier.

Hopefully, it is obvious that these two competing lending mechanisms – the prudent local banker versus the Wall Street Security firm - create wildly divergent monetary processes that are as different as night is to day. And over time, these two credit mechanisms have profoundly different consequences for the soundness of the financial system and economy.

Here, it would be an injustice not to mention the great work of the late economist Hyman Minsky. Minsky recognized how capitalist economies naturally develop increasingly risky means of finance over the life of a boom. As he saw it, early in the cycle there would be what he termed "hedge finance" – or the type of sound lending that our prudent local loan officer would extend, where, and I'm quoting from Minsky here - "cash flows are expected to exceed the cash flow commitments on liabilities for every period." Further along in the cycle, "speculative finance" would take hold, a less sound situation where cash flows, although inadequate to fully service debt in the short-run, are generally sufficient over the longer-term. Then, in the euphoric late stages of the boom, unsound "Ponzi Finance" – or what I will call "Investment Banker Finance" – takes over where "cash flows from assets in the near-term fall short of cash payment commitments" and only with some future "bonanza" will cash flows ever be sufficient to service debts and provide any realistic hope of generating profits. Importantly, again quoting Minsky: "a 'Ponzi' finance unit must increase its outstanding debt in order to meet its financial obligations."

I want to share another quote from the great Hyman Minsky "...the greater the weight of speculative and Ponzi finance, the greater the likelihood that the economy is a deviation amplifying system...Over a protracted period of good times, capitalist economies tend to

move...to a structure in which there is large weight to units engaged in speculative and Ponzi finance."

This concept is so critical today because Wall Street – or "Investment Banker Finance" - has been at the epicenter for unprecedented money and credit excess throughout this protracted boom cycle. And it has been an enormous expansion in financial sector liabilities, in particular, that has been fueling "Ponzi Finance." This has especially been the case for the past two years – what I refer to as the "terminal stage of credit excess." After the "reliquefication" following the 1998 global crisis, there was an episode of "Ponzi Finance" unmatched in history – particularly the financing of the Internet bubble and what I refer to as the great "communications arms race." Now, the chickens are coming home to roost, and the risk of "Ponzi Finance" is becoming clear.

So think of it this way, increasingly during this protracted boom, the "channels of monetary circulation" have been orchestrated by Wall Street – and, virtually by definition, have been extraordinarily short-term and speculative in nature. The monetary flows have been directed specifically to enterprises with negative cash flows, as well as to asset markets - predominantly stocks, credit market instruments and real estate. And in no way should we ignore the bubble in credit market instruments. Not only has the amount of credit creation been unprecedented, the quality of the lending has been exceptionally poor – I often write that the fundamental problem for the U.S. financial sector is that it has created too much leverage and too much paper of increasingly poor quality.

Thinking back to our question of how could Irving Fisher have been so wrong – why he saw permanent prosperity, when reality was actually so ominous? Well, at the late stage of bubbles, after years of tremendous financial rewards and other powerful conditioning, most observers – especially those involved in the asset markets - enthusiastically extrapolate the "terminal stage" of boom-time "Ponzi Finance" into perpetuity. This is an enormous error, creating the Grand Canyon of gaps between perceptions and what will prove reality. Sound analysis recognizes the harsh reality that manic financial and economic excess actually ensure that the endgame of the credit bubble is at hand, and a severe downturn lies in wait.

I want to stress this point: What we have experienced over the life of this long boom is a financial system and economy that has come to be dominated by inherently unstable monetary flows created overwhelmingly by financial sector leveraging. This is acutely unstable. And this fact, amazingly, goes completely unappreciated by the economic community. There is no discussion whatsoever of the ramifications for the fact that Wall Street – and more generally the leveraged speculating community - has come to control the reins of our nation's credit system. There is also no consideration of the economic and financial consequences for what I see as the great inevitable predicament: the financial sector losing its ability to continue leveraging. I want to stress that it is a momentous development for the entire system: that the flow of extreme monetary excess is directed by securities firms, the GSEs, the hedge fund community, and the aggressive "growth" lenders that finance their risky lending through the securitization marketplace. It should be clear that such a system specifically fosters rampant speculation, asset bubbles, reckless lending, and the creation of ballooning quantities of increasingly suspect financial claims. I would like to borrow terminology from Dr. Henry Kaufman – what we have experienced is "Unguarded Credit" with a highly leveraged Wall Street community commanding

the credit machinery.

I also see a process at work that I call a contemporary Gresham's Law – where "Bad Lending Drives Out Good..." How can the prudent local banker compete with the Chase Manhattan syndicated lending desk? She can't. Why would a banker lend to a small manufacturer, when our Nation's financial architecture now overwhelmingly encourages lending into real estate markets. Lending against assets has become much more expedient than financing goods-producing businesses.

There is another facet of Wall Street finance with profound ramifications for the future. It is what is commonly referred to as "Structured Finance," although I like to use the terminology "The Alchemy of Wall Street Finance." Specifically, I am referring to derivatives, credit insurance, guarantees, liquidity support agreements and securitizations that, seemingly through "alchemy," turn risky loans into pristine marketable securities. The key point to appreciate in regard to all of these very sophisticated vehicles, instruments, and structures is rather simple – it is all about the availability of credit. The critical issue is the consequence of the marginal risky borrower having easy access to financings.

At this point I would like to discuss one of the greatest myths of this extraordinary period, a myth perpetuated by none other than Alan Greenspan who believes that derivatives reduce risk and increase wealth. Quoting Greenspan: "By far the most significant event in finance during the past decade has been the extraordinary development and expansion of financial derivatives." I don't have a problem with this quote, but I adamantly disagree with Greenspan when he associates the growth in derivatives with prudent risk management: "The reason that growth has continued despite adversity, or perhaps because of it, is that these new financial instruments are an increasingly important vehicle for unbundling risk...In short, the value added of derivatives themselves derives from their ability to enhance the process of wealth creation."

This notion of derivatives is patently inaccurate. All derivatives do is shift risk from one party to another. And, importantly, they generally transfer risk to thinly capitalized financial players and speculators lacking the wherewithal to shoulder this burden in the event of a severe market dislocation. Derivatives, furthermore, foster credit excess and speculation, which destroy wealth, not "enhance" it.

If you will bear with me for a few minutes, I have my favorite analogy of the present derivatives bubble – "A Derivate Story" telling a tale of a spectacular boom in flood insurance.

"Imagine a quaint and tranquil town near a pristine river. Throughout history, this river has been prone to the occasional dangerous flood that would completely wipe out the few unfortunate homeowners within the flood zone. Demonstrating the prudence that comes from a keen appreciation of history, few individuals were willing to take the big risk of gambling with Mother Nature. But after many floodless years an enterprising local insurance company began offering limited flood protection. Cautiously, this initial coverage was only for homes constructed outside of the 100-year flood plane, the policies had large deductibles, and were offered only at premium rates. A few daring residents jump at the opportunity of living along the river, although they chose the plots on the highest ground. Building commenced on several

structures, as word of flood insurance profits traveled quickly.

Soon, other firms offered flood insurance and, seeing extraordinary profit potential, most soon provided insurance within the 100-year flood plane. Insurance rates drop precipitously, and insurers became increasingly accommodative. Not surprisingly, the new insurance was quite popular and construction soon commenced on homes up and down the banks of the river. An economic boom took hold throughout the community, for the homebuilders, the carpet weavers, cabinet-makers and, certainly, the real estate agents. The local banks were absolutely ecstatic with surging loan growth and lending profits. The insurance companies, of course, also prospered mightily with flood insurance revenues soaring as new homes popped up all along the water. And the greater the economic boom, the more residents that desired to live on the river. Soon, writing flood insurance became the most profitable business in town.

Before long, insurance companies were moving in from out of town to set up shops to write flood policies. The local banks began peddling flood insurance as well. An active market developed in reinsurance, as a few of the writers of flood protection sought to shift some of their growing exposure. Importantly, the low cost and ease of availability of flood insurance incited an unprecedented building boom along the river. Throughout, all agreed that flood insurance and the ability to mitigate risk was the greatest thing that had ever happened to the community – it ushered in a "New Era." With euphoria overflowing, everyone extrapolated recent wealth increases far into the future, while the local economy prospered like never before. After all, each year the new homes became larger and more extravagant, property values rose, and the profits from writing and trading flood insurance grew exponentially.

Over time, the local economy comes to revolve around the activities of writing flood insurance, lending and financial services, home building, foreign car dealerships, retail and luxury goods and, importantly, the active trading of reinsurance contracts. And as these "New Economy" enterprises flourish during the boom, the community loses interest in "Old Economy" businesses. With bankers and financiers allocating funding to homebuilding, financial services, and "New Economy" startups, many previous stalwart "Old Economy" businesses wither and die. Previous successful machinists and craftsmen close down their shops, some taking sales jobs at the new malls and restaurants. Others set up digs in one of several flashy new office buildings. There they become employees of the many rapidly expanding enterprises seeking in some manner to profit from escalating home prices, "New Age" startups, and rising asset prices generally. Virtually everyone endeavors to profit from the insurance boom. Many citizens quit their jobs to trade contracts in the booming flood reinsurance market, as speculative trading flourishes throughout the thriving community.

And after years of drought, the aggressive insurance companies have come to dominate almost all financial and economic aspects of the community. They solely determine which industries and companies have access to capital. The conservative banks that in the past guarded carefully against excess were either taken over or went out of business. Some of the surviving "old community" banks, having struggled to profit in an increasingly competitive lending market, are now the largest providers of flood insurance and active traders in reinsurance contracts. Hubris runs very high, and the financial sector becomes increasingly expansive. All the major financial firms now employ the most brilliant weatherpersons. Virtually all, curiously, believe that there

has been a permanent change in weather patterns. The faith in the "New Era" takes firm hold, with nothing but blue skies ahead. After all, why worry when the most successful insurance companies now employ the best and brightest young mathematicians and weather forecasters. Besides, these "rocket scientists" have developed sophisticated "dynamic hedging" models and strategies that call for active buying in the re-insurance marketplace in the unlikely event of any significant change in atmospheric pressure. I will end my foray into fiction writing with torrential rains inundating the community and the levies beginning to give way."

One of the points I am trying to make with my flood insurance analogy is that the ease of availability of insurance changes behavior and fosters credit and speculative excess, as well as endemic over spending. Without the proliferation of insurance, there would not have been a building boom along the river and an unsound boom throughout the community. Furthermore, let's recognize that the boom has profound effects on the structure of both the economy and the stability of the financial system. Sure, the boom has all the appearances of healthy prosperity on the surface, but it is unsustainable, with the foundation of this prosperity very frail and in wait of the inevitable accident. Importantly, the boom in insurance contracts creates processes that greatly increase systemic risk to the next flood. And with an entire community having sprouted along the river, there is no doubt that the next flood will be a complete wipeout. When the heavy rains come and the river begins to overflow, the speculators will move to dump the insurance contracts they have written or they may attempt to reinsure. But there will be no liquidity in this market— no one to take the other side of these speculative trades. After all, with everyone having accumulated so much risk during the boom, who has the capacity to step up to the plate in the face of potential catastrophe? And when the catastrophic flood damages are sustained, there will be no one with the wherewithal to settle the massive claims and the insurance market will collapse.

Continuing this line of analysis, I would like to address the Long Term Capital Management F.I.A.S.C.O., because I really see LTCM as a microcosm of what is terribly flawed with the U.S. financial system. One of their problems was that their models made two particularly dangerous false assumptions: continuous markets and liquidity. Still, after their spectacular collapse they have claimed – and people seemed to believe them - that they were hit by a 100-year flood. No. This is flawed analysis. I think it is important to look at LTCM differently. Disregard standard deviations, long tails, and regression analysis. It was not that they were victims of the perfect storm – it was nothing of the sort. Instead, the once-in-a-lifetime event was actually the extraordinary environment that accommodated a crazy idea that more than \$100 billion of risky assets and \$1 trillion of notional derivatives could be accumulated by a speculative fund with \$5 billion of equity. Once such leverage was incorporated - especially in a general environment of endemic reckless leveraging and speculation - I would strongly argue that their failure was highly predictable.

I would also argue that a serious flaw that brought down LTCM is readily at work today throughout the U.S. financial sector – the reliance on historical risk models. First of all, the history built into these models does not adequately incorporate an environment where the leveraged speculating community has come to possess trillions of dollars of positions, and where highly unstable global financial systems and economies have been wildly distorted by years of reckless credit excess. In short, these financial models simply cannot be expected to incorporate

the dynamics of the greatest bubble in the history of mankind. Again, it was not a 100-year flood that hit LTCM. I think this is very critical: Again, the key concept to recognize is that it is the current general environment that is in fact the once-in-a-lifetime event. Historical models are simply not relevant to a system with unprecedented credit excess and historic bubbles in asset markets and economies. And, importantly, these very models that so many today depend on, have been significant factors in fostering the unprecedented bubble excesses that now create the perilous circumstance where risk-measuring and monitoring models are incapable of functioning as expected and advertised.

I would now like to pinpoint some specific areas where I see potential for major financial system dislocation.

The first is credit insurance, which I see as little more than a bull market phenomena. As you are likely aware, the two largest credit insurers are MBIA and Ambac Financial, although many institutions have jumped into the fray. MBIA now has net insurance written of a staggering \$670 billion. These policies are supported by a "capital base" of \$4.4 billion, thus creating a "capital ratio" of 152:1. At Ambac, net insurance in force of \$402 billion is supported by "capital" of \$2.7 billion, or 149:1. So, for these two credit insurers, over \$1 trillion of credit insurance has been written, supported by a capital base of \$7 billion. Their models must say this is reasonable, but this is not reasonable at all. In this bubble environment, credit insurance is one big systemic accident waiting to happen. Really, this is little more than aggressively writing flood insurance during a protracted drought. And like the Thai auto loan example from earlier, individual credits may look sound, but the great risk lies with systemic issues. Furthermore, the current popularity in credit derivatives is all too similar to the proliferation of derivatives in SE Asia and Russia prior to their spectacular collapses.

Now a few words about the Government-Sponsored Enterprises. Unfortunately, these institutions have developed into Long-Term Capital Managements, but on a much grander scale, with the implied backing of the U.S. taxpayer thus far providing them with unlimited access to the capital markets. With implied government guarantees, aggressive use of derivatives and short-term financings, and historic balance sheet growth, these institutions are the epitome of market distortions and bubble economics. Their egregious lending excess has led directly to housing inflation, a national real estate bubble, and a massive misallocation of resources – not to mention precarious financial imbalances. The GSEs are one big accident waiting to happen with profound ramifications for financial system liquidity, the dollar and the U.S. economy.

Also – and I don't think this point is well recognized – the GSEs have for some time provided a key liquidity backdrop for the leveraged speculating community. During 1994 and, particularly, during the 1998 crisis, they became the "buyers of first and last resort" for the speculators that found themselves in trouble. During 1998 they basically reliquified the entire financial system with their aggressive purchases of mortgage paper and other debt instruments. I certainly believe that the leveraged speculating community has been emboldened with the comfort that Fannie Mae and Freddie Mac are aggressive buyers even in the most difficult financial environment.

Some weeks back, I titled a commentary "The Tale of Two Bubbles" where I made the point

that as the junk bond and corporate debt markets come under increasing stress from the collapse of the technology bubble, this ironically only incites greater speculative flows specifically where it is not needed - into the massive real estate finance sector where a historic bubble runs unabated. I also use the phrase – "Liquidity Loves Inflation," to make the point that the current structure and speculative nature of the entire financial system – what I refer to as "Monetary Processes" - virtually assures that any liquidity injected by the Fed or the GSEs, for that matter, will avoid deflating sectors – such as junk debt and the telecommunications companies that desperately need financing – and instead it would gravitate toward sectors where an inflationary bias is maintained, such as real estate. This bubble in real estate finance is one big shoe to drop at some point. My view is that the current system is hopelessly dysfunctional, and that this will be a major dilemma for the Fed as they work to manage a very complex unfolding crisis with traditional liquidity injections and interest rate cuts. I don't see traditional medicine or any medicine beating the cancer that has spread throughout the financial system and economy. As stated by the brilliant economist Dr. Kurt Richebacher: "The only cure for a bubble is to not let it develop."

Last week it was reported that the over-the counter derivatives market grew by almost 10% during this year's first half to \$104 trillion. Interest-rate swaps jumped 11% to almost \$59 trillion. Only time will tell as to the role this explosion in derivative has played in fostering ballooning U.S. financial sector balance sheets and the explosion in foreign holdings of U.S. securities. We will also wait to see how this ominous parallel to the Russian derivative boom plays out. I think it goes almost without saying that I view the dollar as incredibly vulnerable. As goes the U.S. financial sector, so goes the dollar, and vice versa.

Currently, money market fund assets have ballooned to \$1.8 trillion. There is more than \$1.6 trillion of commercial paper outstanding currently, of which \$1.3 trillion has been borrowed by the financial sector. There is \$600 billion of asset-backed commercial paper – Wall Street Financial Alchemy at its finest - that I view as another accident waiting to happen. There are \$1.7 trillion of asset-backed securities currently outstanding. Agency securities total more than \$4 trillion. As of June 30th, there was almost \$8 trillion of credit market debt borrowed by the financial sector. These borrowings have more than doubled since 1995. Right here is the epicenter - The Fountainhead - for financing the great U.S. financial and economic bubble. This is a potential disaster.

The Wall Street Brokerages have accumulated total liabilities surpassing \$1.0 trillion, having almost doubled since the beginning of 1996. Of these liabilities, only \$36 billion are corporate bonds. Meanwhile, \$273 billion are repos and \$504 billion "security credit." The liability item that I ponder the most is the \$392 billion "Due to Affiliates." If this "Due to Affiliates" is overseas borrowing – a type of "carry trade," this will undoubtedly prove a most critical issue for both the dollar and U.S. financial system.

In conclusion, right here I see the fundamental predicament that will haunt the U.S. financial system and economy for years to come: the U.S. financial sector has borrowed incredibly to finance ballooning speculative positions in financial assets, and much of this has been borrowed from foreign sources. Moreover, I worry that these foreign sources are not long-term investors, but predominantly the leveraged speculating community borrowing at cheap overseas interest

rates. With the assumption that the dollar will hold firm, the speculators are playing history's greatest "carry trade." I strongly suspect that the U.S. financial sector and our Nation's massive trade deficits have been financed by unstable "Hot Money" flows. To make matters much worse, the truth of the matter is that these foreign sources have been financing a bubble of endemic over-consumption, reckless business spending and enormous squandered resources. Much has simply financed higher asset prices, and enormous resources have gone into enterprises that will have little true economic value when this bubble meets its fate.

Sure, as long as this historic financial sector expansion continues, this game can play on. But make no mistake, letting this continue only increases already catastrophic excesses and distortions. Looking at this complex situation in its entirety, I see little possibility that confidence can be maintained in the dollar, the U.S. financial system, or the general U.S. economy. Unfortunately, confidence – like liquidity – can be incredibly tenuous and fleeting. And if there is any flight out of U.S. financial sector debt instruments – the entire U.S. credit system is in danger of an abrupt collapse in liquidity. Unfortunately, I see exactly such a scenario as a very high risk going forward.

Thank you very much for your attention and patience through this long and often difficult presentation." (If you thought it long to read, imagine having to sit through the entire presentation!)