Discussion with Mike Perry Regarding the Financial Crisis

March 28, 2012

University of Redlands
“Asset prices, particularly house prices, accordingly moved dramatically higher in the 20 developed nations. Geopolitical events led to the fall in rates and in turn, with lag, in an unsustainable boom in house prices globally.”

Greenspan, “The Crisis”, March 9, 2009
“The classic explanation of financial crises, going back hundreds of years, is that they are caused by excesses...frequently monetary excesses...that lead to boom and an inevitable bust. In the recent crisis we had a housing boom and bust, which in turn led to financial turmoil in the U.S. and other countries. I begin by showing that monetary (Fed Policy) excesses were the main cause of that boom and the resulting bust.”

This chart tracks the amount of home equity held by seniors (62 and older) and juniors (those younger than 62), quarterly since the year 2000. For all households, home equity dropped from the peak of $13T at the end of 2005 to $6.2T today, a 54% decline. But for seniors the decline was only 33%, while for juniors it was a whopping 65%. The reason for the different outcomes is easy to identify – differences in leveraging during the bubble. Source: Portales Partners
This chart shows the close correlation between mortgage equity withdrawals and junior citizen home equity appreciation (juniors also borrowed to buy newly-constructed homes.). So, when the housing bust arrived, the juniors were much more vulnerable to a loss of home equity.
“Given history, we (the Fed) believed that any decline in home prices would be gradual. Destabilizing debt problems were not perceived to arise under these conditions.”

Greenspan, “The Crisis”, March 9, 2009
As of February, 2012

• 1 in 5 American mortgage holders are underwater.
• 10.7 million underwater homeowners....22% of all mortgages.
• Negative equity is $700 billion....
• Average amount underwater is $50,000 per homeowner.....
“Happy Hunger Games! And may the odds be ever in your favor!”

Effie Trinket
“Because financial intermediation requires significant leverage to be profitable, risks, sometimes large risks, are inherent to this indispensable process. And on very rare occasions, it will bring down and may require the temporary substitution of the sovereign credit for private capital.”

Greenspan, “The Crisis”, March 9, 2010
## Basic Banking Leverage: Pre-Crisis

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities and Equity</th>
<th>Debt to Equity Ratio</th>
<th>Total Risk-Based Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans/Securities</td>
<td>$80</td>
<td>Secured Debt</td>
<td>9:1</td>
</tr>
<tr>
<td>Other Assets</td>
<td>$20</td>
<td>Deposits</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$100</td>
<td>Total Debt</td>
<td>$90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bank Equity</td>
<td>$10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>$100</td>
</tr>
</tbody>
</table>
## Impact on Bank Capital of Asset Price Declines

<table>
<thead>
<tr>
<th>Loans and Securities</th>
<th>Total Bank Equity</th>
<th>Loss to Secured Debt</th>
<th>Loss to FDIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>$10</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>-10%</td>
<td>$2</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>-25%</td>
<td>-$10</td>
<td>$0</td>
<td>-$10/-17%</td>
</tr>
<tr>
<td>-50%</td>
<td>-$30</td>
<td>$0</td>
<td>-$30/-50%</td>
</tr>
</tbody>
</table>

In other words, banks would need 2 times current regulatory capital requirements to protect against a 25% decline in its loans/securities and 4 times that amount to protect against a 50% decline.
“There is always some risk that cannot be covered by bank capital. Central banks have chosen to set bank capital and reserve standards that exclude once or twice in a century crises.”

Greenspan, “The Crisis”, March 9, 2010
Bank leverage is key to BOTH bank returns and reasonable loan rates.

<table>
<thead>
<tr>
<th>Bank Capital Ratio</th>
<th>Yield on Loans for Various Bank Cost of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.25%</td>
</tr>
<tr>
<td>10%</td>
<td>4.6%</td>
</tr>
<tr>
<td>20%</td>
<td>7.7%</td>
</tr>
<tr>
<td>30%</td>
<td>10.8%</td>
</tr>
</tbody>
</table>

Note: The above assumes an average after-tax return on bank capital requirement of 15% and a 42% tax rate.
“We do know how the crisis ended. Government removed the fear that banks wouldn’t be able to meet their own obligations by providing them with liquidity. Government also removed the fear of what government itself might do by refraining from using its regulatory authority to declare banks insolvent on a mark to market basis.”

Holman W. Jenkins, Jr. WSJ OpEd 4/14/10

“...in particular, the infusion of capital into the banking system through historically low fed-funds target rates pulled many Banks from the precipice of collapse...Banks have enjoyed virtually free access to money, while retirees have been deprived of any meaningful yield...”

Charles R. Schwab, 2010 WSJ OpEd
Who is to Blame for the Financial Crisis?

- Greenspan’s “geopolitical events”?
- The Federal Reserve and John Taylor’s “monetary excesses”?
- Fannie Mae, Freddie Mac, and Government Housing Policies?
- The National Statistical Rating Agencies and the SEC?
- Home mortgage lenders, banks and Wall Street?
- Investors?
- Short sellers?
- Bank Regulators?
- Irresponsible home buyers, Realtors, and Builders?
What is to blame for the Crisis?

- Rational markets theory; asset bubble and bust?
- Consumerism and credit-driven economy?
- Flawed US mortgage product (free option to prepay and nearly free option to default)?
- Excessive government involvement (lack of free and fair markets) in housing finance, banking, and monetary policy?
- Statistics-based financial models, VAR, “Fat Tails” or “Black Swans”?
- Mark to market accounting?
- Inadequate bank capital standards?
- Unregulated credit default swaps and other derivatives?
- Risk taking, without “ownership”, the agency problem?
What most Americans don’t understand about the financial crisis?

- No bank or FI that was a major lender to consumers and businesses has survived without government assistance...even FHA is in trouble
- Banks cannot survive rapid declines in asset prices, given their leverage and yet their leverage allows for cheaper financing terms to consumers and business
- The government, via the FDIC and deposit insurance, “owns” every US bank in a crisis...so they did not need to analyze banks before investing TARP funds (senior to any private unsecured debt or capital)
- Government officials and short sellers have been the only ones allowed to tell their side of the story.....the private sector has largely been silenced due to litigation and investigations
- Delinquency and loss data must be analyzed by origination year, excluding prepayments.
- Transparency and disclosure was not the problem. The real problem was uncertainty, about prices and credit losses, and complexity
Longer-term Implications of Global Financial Crisis

• Reduced competition and higher capital ratios in financial services will be long-term drag/tax on the rest of the economy...

• Job creation and economic growth will continue to be challenging without “easy” credit of recent decades and/or continued government stimulus

• The US dollar could lose significant value and its status as the global reserve currency, due to huge federal deficits and Fed’s QE/debt monetization

• The private sector and free markets will give significant ground to government...stifling creativity, growth, and fairness...the government is the only secondary market/guarantor for mortgages.
Uncle Sam's Teaser Rate
Low interest rates disguise the federal debt bomb.
Friedman on Economic Self-Interest/Greed

• There was a short Milton Friedman video on this page. It had to be taken off when this presentation was converted to a PDF.
• You can find this video at Statement #52, entitled “It’s Not Politically Correct To Say, but Individuals Pursuing Their Self-Interest is Essential for Free Markets; Greed Did Not Cause the Financial Crisis”, published on September 19, 2013
• The direct link to this statement is http://nottoobigtofail.org/2013/09/19/its-not-politically-correct-to-say-but-individuals-pursuing-their-self-interest-is-essential-for-free-markets-and-greed-did-not-cause-the-financial-crisis/
Isn’t She Greedy?

“People generalize that women are the more empathetic sex. Ever felt bad after stealing the ball?”
Andrew Goldman, Journalist

“Never. I’m not very good at mercy.”
Sklyer Diggins, Notre Dame women’s basketball star

NYT Magazine 2/12/12
“Why I Am Leaving Goldman Sachs “

By Greg Smith
NYT, March 14, 2012

• “The environment now is as toxic and destructive as I have ever seen it.”
• “The interests of the client continue to be sidelined in the way the firm operates and thinks about making money.”
• “It wasn’t just about making money; this alone will not sustain a firm for so long.”
• “I knew it was time to leave when I realized I could no longer look students in the eye and tell them what a great place this was to work.”

The Market’s Have Said (so far) They Don’t Care!

<table>
<thead>
<tr>
<th>Date</th>
<th>Goldman Stock Price</th>
<th>XLF Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/11</td>
<td>$90.43</td>
<td>$13.00</td>
</tr>
<tr>
<td>3/13/12</td>
<td>$124.54</td>
<td>$15.42</td>
</tr>
<tr>
<td>3/14/12</td>
<td>$120.37</td>
<td>$15.44</td>
</tr>
<tr>
<td>3/26/12</td>
<td>$128.07</td>
<td>$15.98</td>
</tr>
<tr>
<td>Returns Since 3/13/12</td>
<td>+2.8%</td>
<td>+3.6%</td>
</tr>
<tr>
<td>Returns YTD</td>
<td>+41.6%</td>
<td>+22.9%</td>
</tr>
</tbody>
</table>
Despite the market’s view, truly serving a customer base with honesty, integrity and without conflict, I believe is important.

Our Mission:
• RaubHIL, a deposit services provider, aims to help its Members maximize both the safety of and returns on their savings/liquid investments. In fulfilling this mission, RaubHIL will do its utmost to adhere to the following principles:

Our Principles:
• At RaubHIL, safety and security of Member assets and information will always take precedence over everything, including maximizing Member returns.
• RaubHIL is independent of any Bank. Banks cannot be Members. We will not provide Banks with any services, and we will not receive any revenues or fees from them.
• RaubHIL's only source of revenue is Member fees. We believe that revenue earned from others or other related activities, especially “hidden fees or profits”, could create an inappropriate conflict of interest.
• RaubHIL will be transparent and straightforward in all of its communications; all key terms and conditions will be clearly and concisely disclosed to you.
• RaubHIL will treat all Members the same. Every Member will receive identical services of their choosing, and have the same opportunity to receive our Best Rates. All Members pay the same fees, no exceptions.
• RaubHIL will endeavor to hire, reward, and retain trustworthy employees who care deeply about providing quality service with impressive speed.
• RaubHIL will be obsessed with constant improvement and seek to attain (though it may never quite achieve) perfection in everything it does.
• RaubHIL's success depends on building long-term, mutually-beneficial Member, employee, and vendor relationships.
• RaubHIL, like any human organization, may "err" in seeking to attain and maintain the above principles, but as soon as we are aware of any shortcomings, we will acknowledge them, apologize, and do our best to "make it right".
Is there any advice I could give you as a Business/Accounting Student?

- If you want success be obsessed with perfection and always exceed the boss’s expectations.
- You have to decide:
  - Am I going to make a product?
  - Am I going to provide a service?
  - Am I going to speculate?
- If you decide to speculate (and that now includes banking, in my view), be prepared for “fat tails” and “black swans”.
- My experience has biased me, but I would never be a public SOX-certifying officer or director again. Public short-term shareholders mean short-term strategies. And lawyers run the show and litigation risk is a “fat tail”
- I would focus on new technologies, private entrepreneurial activities, consulting or not-for-profit work.
- Don’t follow the crowd….listen, but decide for yourself and be prepared to be strong enough to be “wrong” for a long time due to the power of crowds.
“Tight regulations on mortgage lending, for example down payment requirements of 30% or more.....would severely dampen enthusiasm for homeownership. But that would delimit homeownership to the affluent, unless low and moderate ownership were fully subsidized by the government.”

Greenspan, “The Crisis”, March 9, 2009
Appendix A

“What Should Be Done But Probably Won’t”
What should be done, but probably won’t?

- Mortgage loans need to be restructured to eliminate or reduce free option to prepay and default
- National statistical rating agencies need to be disbanded in favor of market (yield)-based capital requirements for bonds; with a regulatory ceiling in times of stress
- Fannie Mae and Freddie Mac need to be abolished over time as the markets recover and FHA needs to be limited strictly to first-time homebuyers… sale warranties need to be limited in scope and term
- The “too-big-too-fail” banks and other TBTF FI’s should be charged FDIC insurance fees equal to their capital and cost of funds advantage (derived from their status at TBTF) over smaller banks and consumers need protection, more than ever, from these oligopolies
What should be done, but probably won’t, cont.?

- The FDIC should be responsible for failed bank’s cost (they insured their business models) and they need to have a more economic resolution process. In times of industry crisis, private creditors in BK often work to restructure and maximize value over time.
- Short selling of financial institutions and derivatives tied to key bond markets (like the ABX index and credit default swaps on FI’s) should be prohibited, as financial institutions generally cannot survive an attack of confidence.
- If only the FED could save us from GD2, then it should follow that the FED could have brought us to the brink of GD2. We don’t believe in central planning cement manufacture, why do we believe in central-planned monetary policy? Consider abolishing the FED or strictly regulating and holding them accountable for their actions.
- Why have most of the private sector financial leaders been fired and none of those in the government sector? Shouldn’t our government officials be held to a higher standard than the private sector? The government established the system and rules and clearly the system broke down.
What should be done, but probably won’t, cont.?

• Teach economists and business leaders that markets are not always rationale (and can be reflexive) and that statistical financial and economic models are hugely flawed and do not take into account “fat tails” or “Black Swans”

• Create two classes of common stock in public companies...one for short-term investors/traders that does not provide the right to vote, the other for long-term holders with the right to vote. A big part of the “agency problem” is short-term shareholders who don’t care about the company or its responsibilities to society

• Simplify public disclosures (“we could fail, diversify your investments”). Start holding the corporate lawyers who reviewed and advised on public disclosures accountable; make it so they have to defend executives and boards for free as a “warranty cost” of their work or eliminate the role in favor of personal counsel
What has happened is superficial and will not prevent the next crisis

• Blame the bankers and Wall Street and go after some of them to make an example for the rest
• Cap the pay and regulate the heck out of the survivors, driving out anyone with talent
• Consolidate bank regulators and give a greater regulatory role to the FED...who likely was a major contributor to the crisis...(Dodd Frank...)
• Regulate consumer credit and derivatives (The Consumer Financial Protection Bureau)
• Raise capital standards for banks, but still not high enough to take into account a “fat tail” or “Black Swan”
• Transparency, Disclosure, Transparency, and Disclosure to the point that no one has the time to read or understand it, but the lawyers will still be able to sue, sue, sue!!!
Appendix B

Books I recommend you read at some point in your lives:

• Fooled by Randomness: The Hidden Role of Chance in the Markets and in Life, by Nassim Nicholas Taleb
• The Black Swan, by Nassim Nicholas Taleb
• End the Fed, by Ron Paul

Books or Papers on the Crisis

• The Crisis, by Alan Greenspan
• Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis, by John B. Taylor
• Ending Government Bailouts as We Know Them, by Kenneth E. Scott, George P. Shultz, John B. Taylor
• The Big Short: Inside the Doomsday Machine, by Michael Lewis
• Boomerang: Travels in the New Third World, by Michael Lewis
• House of Cards: A Tale of Hubris and Wretched Excess on Wall Street, by William D. Cohan
• This Time Is Different: Eight Centuries of Financial Folly, by Carmen Reinhart and Kenneth Rogoff
• Ben Bernanke’s Testimony to The Financial Crisis Inquiry Commission, November 17, 2009