

Session 8: *Navigating the Increasingly Treacherous Global Market*

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1. Introduction

The seeming inevitability of globalization with rising prosperity and growing connectivity came to a screeching halt in the summer of 2008, initially triggered by the collapse of the U.S. subprime mortgage market.

Leading economists, generals and seismologists share at least one professional characteristic in common – they are all excellent at analyzing and forecasting the last recession, war and earthquake – but not very good at the next. The result is the endless process of establishing new experts or stars while many of the former stars - Gen. MacArthur, Marshal Petain, Alan Greenspan and Bob Rubin –all too often exit central stage slightly “tarnished.”

2. The Collapse

Matthew Jaffe of ABC News presented an excellent overview of the recent crisis in his Sept. 14, 2009 article, *Lessons to Be Learned One Year After Lehman Brothers Collapse Roiled the World-Then and Now: A Year After the Financial Crisis Began...*

Lehman’s collapse in Jaffe’s and many other analysts’ view was a major trigger of the global financial crisis.

According to Jaffe, “After Lehman Brothers collapsed, the financial system fell into a state of fear and panic. Over the course of 20 years, the financial system had become bigger and much more risk-loving in a way,” said Simon Johnson, a professor at MIT and senior fellow at the Peterson Institute. With the system in shambles, the economy started its descent into the deepest recession since the Great Depression. It was an intense environment,” Fratto recalled. “We were dealing with a whole series of crises ... investment banks collapsing, the takeover of [mortgage giants] Fannie Mae and Freddie Mac, money markets freezing up, auto companies collapsing, the AIG problem.”

Clearly, a sobering report.

These latest global recessions' roots lie in an oversupply of capital and most important, low cost credit. The low cost credit was, in part, a result of the fact that many central banks with the notable exception of the German Bundesbank encouraged easy credit supported by increasingly creative "financial engineering," especially securitization of debt.

A number of BRICS with large trading surpluses, especially China, adopted the earlier Japanese and Korean models of buying dollar investments to keep their currencies low (competitive) vs. the dollar and euro. In many cases, they invested in low interest euro and dollar government securities.

Thus, the flow of investments and low interest loans, encouraged and guided by globalization and growing innovative financial engineering, impacted a surprising number of capital and credit markets. But, as we discussed before, capital is quite efficient and creative in its movements, if not all its decisions.

Not only the U.S., but a surprising and varied number of participants, including Iceland, Ireland, Spain and the UK, countries who, with the exception of perhaps the UK, were traditionally cautious managers of their monetary operations, found themselves seduced by the sudden availability of easy credit, driven by the increasingly powerful British and American global banking and investment houses.

Thus, by 2008, commercial banks and other traditional lenders accounted for only an estimated 40% of all loans, while new, often innovative, non-banking credit instruments accounted for the majority of debt.

This widespread availability of credit impacted a spectacular number of fields under the guidance of the new financial innovators. As noted, it was especially felt in the housing market where home ownership in a number of countries, led by the U.S., reached record levels, many based on the anticipation (subprime mortgages) that the housing prices would always go up and therefore, almost any housing loan was a good one.

But, it surprisingly also affected traditional and, in theory, professionally managed commercial markets where companies like Merrill Lynch, Wachovia

Bank, Washington Mutual, CIT, hedge funds, private investment and venture capital funds, were able to greatly increase their leverage. Thus, you find, as “The Tip of the Iceberg: JP Morgan Chase and Bear Stearns” paper describes, firms like Goldman Sachs, Bear Stearns, Lehman Brothers, Merrill Lynch and Morgan Stanley who traditionally borrowed 6-8 times their equity increased their leverage to 30-32 times their equity funded by ready access to short-term credit.

Furthermore, like any boom, managers other than Jamie Dimon and a few fellow investors and managers, soon forgot the first lesson of Banking 101, “beware of borrowing short and lending long.” Rare concerns at the Board level over rising leverage were assuaged by the mention of various credit default swaps and other financial engineering tools and derivatives “ensuring” against losses. Here, increasing managers, Boards of Directors and leading financial organizations failed to realize that classic insurance is ideally used to protect against potential losses but, outside of the insurance company, the client base in total rarely wins buying insurance.

Yet, these new innovative risk management strategies and derivatives, to say nothing of even life insurance policies for the elderly, actually became speculative investment opportunities. The new strategies, despite the lessons of the recent earlier failure of Long Term Capital Management, were supported by the rise of the Washington Consensus, a decline in the primacy of the public sector and, most important, a decline in regulatory procedures. In many countries, especially the U.S. and the UK, one after another of the regulatory controls so painfully and carefully developed following the Great Depression, were eliminated as representing outmoded policies, in particular, The Glass-Steagall Act, that successfully separated investment banking from commercial banking.

According to Tom Robbins (September 23, 2008), President Bill Clinton’s senior economic advisors, including Bob Rubin the former Goldman Sachs Chief, and Alan Greenspan the Ayn Rand disciple and “crusty Federal Reserve chief and Reagan-Bush holdover,” insisted that new global markets required more freedom and flexibility.

“Greenspan had previously been a director of the mighty J.P. Morgan firm, which had been broken up by the 1933 reform known as the Glass-Steagall Act. He began nibbling at the law's margins as soon as he became head of the Fed in 1987. Greenspan quickly used his clout to approve new rules allowing the biggest banks—Morgan, Chase Manhattan, Bankers Trust, and Citicorp—to utilize loopholes in the law allowing them to deal in debt instruments previously out of bounds. A few years later, he opened the loophole even wider. In 1999, he gave the all-important head nod to a merger between the old Travelers insurance company and banking colossus Citicorp—a marriage quickly consummated with the approval of Clinton and Congress.”

“It was a bipartisan achievement. Senator Phil Gramm — (once) John McCain's top economic adviser... led the Republican charge for the regulatory rollback. Chuck Schumer, who quickly became the Senator from Wall Street after his 1998 election, pushed hard from the Democratic side of the aisle. Clinton... approved. Making the circle complete, Rubin resigned as Treasury Secretary and became the third member of a ruling troika in the newly formed Citigroup, America's first genuine financial supermarket. The new entity promptly jumped into the subprime-mortgage market...”

“Things might still have worked out, notes Parrott, who is chief economist for the union-backed Fiscal Policy Institute, had Greenspan or regulators kept an eye on the powerful new forces they'd unleashed. But the Bush administration—delighted with the surging markets—turned a blind eye. Much of the blame falls in Greenspan's lap. Greenspan was the cop on the beat,” says Parrott.” He chose to just look the other way and join the party.” Every would-be watchdog, from the Fed on down, was lulled by the enormous profits being taken from a seemingly ever-rising housing market. “Greenspan went through all kinds of intellectual gymnastics to rationalize the run-up in housing prices, when it was clear it was historically way beyond anything that had ever happened before,” ...

“One new financial market in something called credit-default swaps—basically a gamble on someone else's ability to meet their debts—managed to balloon in five short years to a breathtaking \$16 trillion. All of it was unregulated.”

And the “Built Environment” was more than a willing participant as private infrastructure funds, publicly owned concessionaires and lenders became increasingly important players. Prime examples were Las Vegas, Dubai, Ireland and Iceland which seemed to be beneficiaries of almost unlimited funding, a fair amount of it, unfortunately from Lehman Brothers and Lehman’s peers, to finance speculative real estate investments throughout the world.¹

The almost zealous and all too seductive message of the new “innovative” financial engineering reached almost every corner of the U.S. economy. Funding, in addition to home mortgages including many of your student loans and credit cards, as well as other sources of consumer credit via innovative securitization programs where large amounts of loans were sliced and diced into newly minted securities financially engineered to receive AAA credit ratings from the all too willing credit agencies (Moody’s, Standard & Poor and Fitch).

¹ Alas, Dubai was not awash in Petrodollars. It was awash in recycled Lehman and similar loans.

In the U.S. for example, an estimated 12% of all new office leases signed in Orange County, CA, between 2002-2006 were by mortgage banking companies.

The failure of Long-Term Capital Management (LTCM) and the concern over systemic risk should have served as a cautionary note of the excesses of credit and alerted us to the fact that stronger controls were required. But, in fact, in the years following the LTCM's collapse, leverage levels among many of the hedge, private investment and venture capital funds, and investment and commercial banks grew as regulatory barriers were reduced or eliminated. The seduction of innovative lending and leveraging even enticed the highest halls of academia with the endowment fund managers at Yale and Harvard, becoming media stars if, unfortunately, for only a brief time. With the benefit of 20/20 hindsight, the results were easily apparent, as you will learn from the JPMorgan case, one of the readings for this session.

The banking system shares with electric utilities, system-wide linkages. A failure by one or more major institutions can have significant systemic impact, thus, the widespread concern that some banks were "too large to fail." This may have encouraged such institutions to be more reckless and take greater risks because they knew they would always be bailed out by fearful finance ministries, treasuries and central banks that could easily be frightened and stampede into "bailouts" to save the system. This confidence of a bailout encouraged increased risk taking, high salaries and bonuses with the end game, all too often, a spectacular bubble that burst.

Secretary Robert Rubin and many others agonized over this "moral hazard," but did little about it, fearful of limiting the markets dynamics. But, with growing deregulation the "too large to fail" title formerly limited to commercial banks and one or two investment banks, quickly expanded to include an increasing number of investment banks and even insurance companies (AIG, ING, etc.) as an increasingly integrated financial sector continued to expand driven by growing securitization, derivatives and non-commercial bank lending (disintermediation).

Even more surprising, many well known university pension funds, to maximize returns, committed to long-term, relatively illiquid investments, e.g. forests, multi-year privately-funded investment funds, etc., to raise their returns without properly forecasting and planning annual funding needs. Worse yet, while these institutions benefited from annual fund raising inflows, a number of them actually borrowed (leveraged) against such inflows further increasing their risk.

Thus, in FY08, several major universities who had all too quickly grown use to lush endowment earnings, had to suddenly cut back on bold expansion plans, annual budgets and, in several cases, turn to the debt markets to cover commitment short falls and illiquid investments. But, greater caution would

have led to increased investments in low yield commercial paper, treasury notes and other secure, but low instrument yields.

According to Mohamed A. El-Erian, the chief executive of Pimco, a leading U.S bond firm:

“On the eve of the crisis, the U.S. economy had reached a point of leverage, credit, and entitlement exhaustion—most obviously in the housing sector.”...

“Using exotic mortgages and packaging them into even more exotic structured financial products, banks lent billions to Americans buying homes they previously could not afford. The old ideas of restraint and affordability yielded to the notion that house prices could only go up. That led to homeowners using their houses as ATMs, withdrawing any equity buildup to finance even more consumption.”

“When this super-debt cycle reached its limit, the U.S. economy found itself at a dead end. Overstretched, it was extremely vulnerable to what Pimco's co-chief investor, Bill Gross, labels DDR dynamics, the combined forces of deleveraging, deglobalization, and re-regulation. When gravity pulled down home prices, consumption plummeted, banks stopped lending, and cross-border activities slowed markedly as U.S. institutions scrambled to get their own houses in order first. What's more, to prevent a highly disruptive domino effect, policymakers were forced into action with limited information and inadequate tools. They resorted to bold “unconventional” policies. Experimentation became the rule. And as with a trial for a new drug, this inevitably brought some unpredictable results and potentially nasty side effects. We will be telling our kids and grandkids about this exceptional period, when economic behavior changed and the delicate balance shifted between the market's invisible hand and the government's fist. In adulthood, they may wonder why they ended up carrying so much of the burden of adjustment.”

“And adjustment will be necessary. Tomorrow's U.S. economy will have a lower speed limit. Forget about the 3% annual trend growth rate of the past 15 years. Start thinking 2% and under. Unemployment? It will stay stubbornly high in the next three to five years, with 6% becoming a floor rather than what many recently regarded as an unpleasant high point. The financial system will look more like a utility, shackled by politically driven overregulation that limits volatility at the cost of fewer productive activities. Indeed, look for politics to dominate economics. Political feasibility, rather than technical desirability, will define too many policies. In the process, some basic anchors of the market system will come under pressure. It has already happened in Chrysler's bankruptcy filing, where contractual principles of debt seniority have been disregarded.”

“Internationally, the postindustrial Anglo-Saxon model, which gives finance a preeminent role in a deregulated landscape, will be discredited as too crisis-prone. The model will no longer be a global magnet. And with no alternative to take its place, the shift of wealth and economic dynamism from the U.S. to such countries as Brazil, China, and India will accelerate, albeit in the context of lower worldwide growth. Finally, if the U.S. is not careful with its already precarious public finances, other nations may be less willing to maintain their deep faith in the dollar as the global reserve currency and in the U.S. financial system as the best vehicle to intermediate savings and investments. Since the U.S. will emerge from this crisis with larger debt and deficits, any material erosion of trust will make it harder to attract the required funds from abroad, complicating an already challenging policy picture. In short, the world's economies are in an era whose troubles will go well beyond “just a flesh wound,” to quote from another movie—Monty Python and the Holy Grail. And like the film's Black Knight, who insists on that diagnosis after getting his arms lopped off in a sword fight, some may want to deny the new reality. That's a mistake. Companies and government agencies should be testing the robustness of their strategic and structural underpinnings against the challenges they'll meet on the road to the new normal. Retooling is difficult. But being caught in a regime shift with backward-looking beliefs and operating models, is much worse.”

Many of the excesses were exacerbated by the tendency to reward managers annually for their returns or gains without penalizing them, via rolling multi-year bonuses and/or clawbacks for losses. In fact, all too often managers simply switched jobs in the face of losses.

Fortunately, most large university and NPO endowment funds did have clawbacks or income averaging restrictions.

3. The Impact on the AEC Community

The impact of the recent global financial meltdown was uneven. The first sector to feel the impact in a number of super-heated, overbuilt countries was housing. In the U.S. architectural fees declined 40% in '08, one of the early signals. This was followed by a meltdown in commercial real estate, especially some of the mega commercial projects and large resorts which had been fostered and funded by the overabundance of credit. The fall of Lehman and several major British banks brought much of the commercial real estate market to a gradual stop.

As inventory reductions triggered cut backs and staff layoffs in many parts of the world, demand for housing and commercial facilities further declined. Even in the previously robust Chinese and Indian markets, commercial offices, factories and distribution centers came to a screeching halt. Among the BRICS, Russia was initially exceptionally hurt by declining oil prices and high

debt levels, although Brazil, China and India also surprisingly were not immune to the decline.

Furthermore, a number of major commercial property developments, especially in China, were funded by Western investors in a virtual circle. China sent dollars out of the country to avoid overpricing the RMB, and some of these dollars came back in the form of speculative investment in one of the few sectors the Chinese government had opened to Westerners real estate and the Hong Kong stock market. But the meltdown was much less serious in Asia and China and to a lesser extent India who was able to avoid the worst impacts of the crisis. China, in particular, responded with a very effective public works stimulus effort.

With the meltdown, architects, engineers and construction firms specializing in private sector work felt the squeeze, not only in the decline in new work but, in rising client defaults.

The impact on public sector AEC work was a little more difficult to discern. On the one hand, the U.S. state, county and municipal tax collections fell at the same time their pension funds which were, not surprisingly, invested in a number of speculative instruments under the “new finance” declined rapidly leading to serious belt tightening, budget reductions, furloughs and staff cutbacks. This impact was, to some extent, compensated by public works stimulus efforts in most of the countries that had sufficient reserves to cushion the recession.

From the onset of the financial crisis major impact outside of the housing markets was in the financial sector. High flying mortgage, commercial and private investment banks, as well as Fanny Mae and Freddie Mac, most “too large to fail” and thus, protected by implicit government guarantees were soon in need of support. To varying degrees, these banks, as well as several huge US insurance companies, were either taken over by the government or given emergency loans and later low interest loans, to allow them to earn their way out of the recession.

However, two serious concerns remain. First, the fact that many of the investment techniques introduced by the central banks and Treasury focused on the large commercial and private investment banks in the form of loans and low cost refunding windows rather than the more traditional purchasing of the so-called toxic assets. So, many of these toxic assets remain on the balance of the larger commercial and investment banks that survived and must be worked off through future earnings. But, as we see, the recent bank earnings reported are quite robust given the availability of low cost funds.

Second, with worldwide consumers burnt by declines in investments and savings (401k, pension plans, housing values etc.), rising unemployment, home

foreclosures and credit card defaults, many nations have entered a period of cautious spending and increased savings which is likely put a break on any turnaround.

For example, during the first financial stimulus the US government launched, a negative income tax, 80% of the stimulus was saved or used to reduce debt rather than spent. This sent an early warning that a consumption-based stimulus program might not work in this recession. So, we may be in for a long period of slow growth in many countries. Furthermore, smaller banks that were not “too large to fail,” may find their loans and investments deteriorating while the surviving large banks are on the mend.

4. “The Tip of the Iceberg: JP Morgan Chase and Bear Stearns”

This recent Harvard case (1/22/09) offers an excellent window and interesting insight into the very difficult recent times.

As we discussed earlier, Jamie Dimon’s golden commandment of “do not borrow short to invest long,” which is taught in every financial course, seems to have been at the root of some of the problems.

- In your opinion, was Bear Stearns a true rival to Merrill Lynch, Goldman Sachs, Morgan Stanley and Lehman Brothers? Was there a “big five,” or only a “big four?”
- How could a company like Bear Stearns, that had the reputation of being street smart and risk averse collapse so quickly?
- What do you think Bear Stearns, and to a lesser extent, Lehman and Merrill Lynch were really specialized in?
- What was the best strategy for an investment banking house to follow in the mortgage market?
- How did leverage affect JP Morgan, Bear Stearns and others?
- In your view, was Bear Stearns “too large to fail?”
- How would you compare the quality of Bear Stearns and JP Morgan’s management?
- What was the difference in Morgan’s and Bear Stearns strategies?
- Did Lehman and Bear Stearns’ failure to support the earlier LTCM bailout affect Secretary Paulson or the Treasury’s bailout decisions or strategies?
- Why did JP Morgan have to raise their purchase price for Bear Stearns while Lehman Brothers collapsed with no purchaser?
- With the benefit of 20/20 hindsight, was the collapse of Lehman Brothers inevitable, or could it have been stopped?
- What did you think of the significance of the leverage ratios? (Pg. 29 of the case)
- Was JP Morgan’s success due to luck or good planning?

- Are there any lessons to be learned about the need for additional regulations from the JP Morgan case or any outside readings you've done on the recent meltdown?
- How is the financial crisis likely to affect the AEC community?

For those of you interested in learning more about the initial collapse of the financial sector in the U.S., I recommend "House of Cards" by William D. Cohan-Doubleday.

5. Mexican Tollroads

The Mexican Tollroads is an excellent case and is just the type of issue many of you will face as you join the Operating or Executive Committees of major construction or consulting firms.

ICA was in a booming but changing market (NAFTA). An important client was encouraging ICA and their competitors to enter an innovative and challenging new field. Similar investment strategies were being followed by most of the leading Mexican construction companies, guided by a traditionally strong and dominant central government. As a recent addition to the ICA Operating Committee, you will be asked to assess the opportunity and if attractive, develop one or more strategies to implement highway concession programs.

We will need a volunteer to discuss:

- ICA's early business model
- What led it to changes?
- What are the risks in Mexican BOTs?
- Why (p. 7) do you suppose most "Concessionaires were typically affiliates with a Mexican construction firm?"
- What strategy would you adopt in preparing a bid?
- What were the benefits of Toll Roads? To Whom? How would you measure it?
- What are the implications and risks of foreign financing for BOTs?
- If you were ICA's Vice President for Planning, what would be your plans and recommendations?

In case studies, plagiarism is a virtue, so you are all encouraged to discuss the case with each other and students taking other courses before the session. And, if any of you want to make a joint presentation, please do so.

6. ENRON

Everything ENRON did was bigger than life. It rose from a small pipeline company to the 7th largest company in America through innovative and creative

bookkeeping, not the least of which was to treat “trades” as sales to bulk up to their sales volume. This is not unlike your travel agent counting the full value of each ticket as one of their own sales.

ENRON was led by managers who were called “the best and the brightest.” In fact, Harvard Business School issued five cases praising Enron, led by Jeffrey Skilling, a former Baker Scholar at HBS, contributing much to the buzz around Enron.

ENRON claimed to be a “virtual” or new company and yet it was buying Pacific Gas and Electric, construction and water supply companies throughout the world. That should have been a signal that its vision and mission statement was not always consistent with its investment strategies, but few analysts picked it up. Under Andrew Fastow, the CFO, Enron was also one of the most innovative companies in creating special investment vehicles and offsheet balance sheet borrowing, all of which contributed to the eventual debacle.

From the article “*ENRON’s Eight-Year Power Struggle in India,*” and the HBS cases “*Enron Development corporation: The Dabhol Power Project in Maharashtra, India (B),*” can you describe:

- India’s concerns in the power field?
- What actions did the government take?
- What were the problems?
- Why was the off-take price from ENRON so high?
- What was the World Bank’s view of DPC?

7. Friedman - “The Lexus and the Olive Tree²”

- What does Friedman mean by “*Winner takes all*”-Is it fair and equitable?
- Have the growing income inequities encouraged a counter-reaction?
- Will the world homogenize?
- What can turtles do?
- What will the turtles do?
- Is Grameen Bank part of the solution?
- Did increased financial transparency help or hurt Mexico?
- What does Friedman mean by “Cultural and Environmental Filters?”
- Is globalization a threat to the environment?
- Do you feel that globalism will be the dominant international force in the period 2010-2020?

In “The Lexus and the Olive Tree”, read:

Chapters 13-16, pps. 265-348

² Not the least of the losers in the recent meltdown were the in-laws of Thomas Friedman, so often mentioned in his works, who owned the second largest shopping center group in America that went bankrupt.

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