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DJIA 10912.51 ▼ 504.48 -4.6% NASDAQ 2179.91 ▼ 3.6% NYSE Composite 12214.76 DJ STOXX 50 2744.81 ▼ 4.0% 30-YR TREAS 4.2 3/32, yield 3.42% OIL \$95.71 ▼ \$5.47 GOLD \$793.20 ▲ \$2.80 EURO \$1.4320 YEN 104.81

AIG, Lehman Shock Hits World Markets

Focus Moves to Fate of Giant Insurer After U.S. Allows Investment Bank to Fail; Barclays in Talks to Buy Core Lehman Unit

The convulsions in the U.S. financial system sent markets across the globe tumbling, as two of Wall Street's biggest firms looked set to exit the scene and insurance titan American In-

By Susanne Craig,
Jeffrey McCracken,
Jon Blumrath and
Deborah Solomon

ternational Group Inc. turned to the Federal Reserve and the state of New York for assistance. The U.S. stock market suffered its worst daily point plunge since the Great Depression.

ing. For much of the day, the major U.S. market indexes were down 2%, which, while a good-sized decline, was smaller than many had thought would be the case. But in the final hour of trading, a wave of selling hit, driven by concerns about the fate of AIG. The Dow Jones Industrial Average ended down 504.48 points on Monday, off 4.4%, at its daily low of 10912.51, down 38% on the year. Of the Dow Industrials' 30 components, all but one—Coca-Cola Co.—fell, led by a 60.8% plunge in AIG.

In Europe, London's FTSE 100 index dropped 3.5%.



AIG Faces Cash Crisis As Stock Dives 61%

By MATTHEW KARNTSCHING,
LIAM FLEVEN
AND SERENA NG

American International Group Inc. was facing a severe cash crunch last night as ratings agencies cut the firm's credit ratings, forcing the giant insurer to raise \$14.5 billion to cover its obligations.

With AIG now tottering, a crisis that began with falling home prices and went on to engulf Wall Street has reached one of the world's largest insurance companies, threatening to intensify the financial storm and greatly complicate the government's efforts

INSIDE PERSPECTIVE ON THE 2008 FINANCIAL CRISIS AND THE LESSONS LEARNED

BY MIKE SILVA, PARTNER, CHAIR, U.S. FINANCIAL SERVICES REGULATORY PRACTICE, DLA PIPER

Mike Silva was one of a handful of NY Fed officials tasked with tackling the 2008 financial crisis. In a truncated and updated version of his keynote speech at the 2018 LBMA/LPPM conference in Boston. Mike offers a unique and fascinating insight into the events leading up to the crisis, explaining how it was tackled and the lessons learned.

INTRODUCTION

During the financial crisis, I served as Tim Geithner's chief of staff at the New York Fed and, then when Tim became Secretary of the Treasury, I served as chief of staff for the next president, Bill Dudley. My role allowed me to directly observe an impossibly small number of Americans at the New York Fed, the Board of Governors of the Federal Reserve and the Treasury Department fight desperately to save the financial future of all Americans. Thank you for this opportunity to tell their story.

BEAR STEARNS

On the night of Thursday, 13 March 2008, I was one of a small group of NY Fed officials huddled in Tim Geithner's office, listening as several senior SEC officials reported that the investment bank Bear

Stearns would not be able to open in the morning. Like a number of investment banks, Bear had become dependent on short-term financing that was largely secured by sub-prime collateral. The providers of short-term financing (money market funds, pension funds, hedge funds, etc.) had grown sceptical of that collateral and Bear had just become the first investment bank whose collateral overnight lenders had lost confidence in. Consequently, Bear had not been able to borrow enough money to make the payments it owed in the morning.

As an investment bank, Bear was part of the 'shadow banking system' that was completely outside of the Fed's jurisdiction and not subject to any kind of 'prudential supervision' (i.e. supervision to ensure that it was being run in a safe and sound manner). We had no direct insight into Bear. In fact, some of us did not even know where it was located.

We quickly determined where Bear was located and inserted a team to assess the situation. Their assessment was grim. Bear owed \$80 billion to the financial system, had open trading positions with 5,000 counterparties, was a participant in a number of payment systems and, perhaps most worrying, had 750,000 open credit default swap (CDS) contracts.

At this point, Tim and Chairman Bernanke started discussing the possibility of invoking the Fed's emergency lending authority under Section 13(3) of the Federal Reserve Act to lend to a non-bank. Under Section 13(3), the Fed could lend to a non-bank if it determined that "unusual and exigent circumstances" existed and it was "secured to its satisfaction".

Fortunately, our examiners determined that Bear had sufficient collateral for us to be "secured to our satisfaction". Now, the question became whether "unusual and exigent circumstances" existed.



Tim felt that they did. Bear was not a particularly large institution, but it was a highly interconnected one. Its failure could easily result in enough cover selling and collateral calls to trigger a negative asset spiral. Even if it did not trigger a negative asset spiral, Bear's failure would likely result in a run on at least some of the other investment banks. At about 7am, Chairman Bernanke and the other Fed Governors came to the same view and authorised the NY Fed to make a loan that allowed Bear to operate on the Friday, be acquired by JP Morgan over the weekend and open its doors for business on the Monday.

There were many complications during the Bear weekend, the biggest of which was that the Fed ended up bearing the risk for \$30 billion in sub-prime assets that JP Morgan was not willing to acquire but that we were confident would perform in the long run (and did). In the end, an outright failure of Bear was avoided and we felt we had dodged a bullet.

It would turn out that Bear was just batting practice for the fall.

LEHMAN BROTHERS

Spring became summer, and credit conditions continued to tighten for the investment banks. Fortunately, most of them were able to raise more capital and extend the term of their funding. There was one important exception though.

Founded in 1850, Lehman Brothers was the oldest of the investment banks. It had a long and proud history of independence and resilience that was personified by its CEO, Dick Fuld. Fuld worked hard to raise capital and find a strategic partner on terms that he thought were fair. He was fighting an uphill battle though and that battle got tougher on 16 June when Lehman declared a nearly \$3 billion second-quarter loss.

And then time ran out.

On 7 September, Fannie Mae and Freddie Mac were put into receivership, which caused a broad shock to investor confidence. Just three days later, Lehman declared a nearly \$4 billion third-quarter loss – and that was the end of confidence in Lehman. Lenders backed away and Lehman faced a full-blown liquidity crisis. The next day, Tim informed Fuld that Lehman's only options were to either be acquired or file for bankruptcy.

An important reason why Tim was able to make this judgement was that, concurrent with the failure of Bear, the Fed had utilised

its emergency authority to establish a lending facility for the remaining investments banks. As a result, we had first-hand knowledge of their collateral. That in turn meant we already knew that Lehman did not possess adequate

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ON THE MORNING OF MONDAY 15 SEPTEMBER LEHMAN DECLARED BANKRUPTCY

collateral to satisfy the "secured to its satisfaction" requirement of the Fed's emergency lending authority and that it would not be possible for the Fed, acting alone, to save Lehman.

On Friday, 12 September, we convened leaders from the largest financial institutions. Treasury Secretary Paulson made it clear to the group that they had to find a way to avoid a Lehman failure, most likely by financing any risk that the two potential buyers of Lehman, Barclays and Bank of America, might not be willing to assume.

Plan A fell apart when Bank of America decided to acquire Merrill Lynch rather than Lehman and the UK regulators prevented Barclays from acquiring Lehman. There was no plan B. The consortium had already concluded that

Lehman's capital hole was too large for the consortium to have a realistic chance of funding an LTCM-(Long-Term Capital Management) style orderly wind down of Lehman.

The dye was cast. The Fed did not have the legal authority to lend money it knew would not be repaid, there was no buyer for the consortium to support and the consortium knew that Lehman would never be revived regardless of how much rescue breathing the consortium alone applied. Consequently, on the morning of Monday, 15 September, Lehman declared bankruptcy.

FALLOUT

The markets that Monday were ugly. At one point, the NYSE was down 1,000 points, which was a lot back then. However, stocks rebounded and ultimately closed down 500 points. That was bad, but not a meltdown. Importantly, much of the decline was attributable to rumours that AIG was also in trouble. But we already knew about AIG and it was a much easier case for two reasons.

First, as a trillion dollar company operating in 140 countries with 30 million customers, a major insurer of 401k plans and a major issuer of CDSs, its potential failure would clearly traumatise the financial system and thereby clearly constituted "unusual and exigent circumstances".

Second, AIG had plenty of collateral for us to lend against.

That made AIG a very different case from Lehman and a classic opportunity for a central bank to avoid an unnecessary trauma to the financial system by providing temporary liquidity that was certain to be repaid. For those reasons, on Tuesday, the Fed announced that it was providing an \$80 billion credit facility to AIG in return for a 79.9% equity stake in the company.

At that moment, we were cautiously optimistic that a broader panic had been averted. The markets had digested the Lehman bankruptcy and we were on top of the AIG situation.

Then the bottom fell out.



The conference room where the consortium tackling the financial crisis met



Crisis fighters meeting to discuss the next steps

On Tuesday, 16 September, word came that a \$65 billion money market fund called the Primary Reserve Fund had bought \$785 million of Lehman commercial paper, betting that the Fed would bail out Lehman. It bet wrong and that paper became worthless. As a result, the fund was not able to repay \$1 for every \$1 invested and it “broke the buck”. Investors in the fund did not react well to that. Within 24 hours, they had withdrawn almost two-thirds of their money.

Much worse, investors not only began withdrawing funds from money market funds with exposure to the financial system, they began withdrawing money from ALL money market funds.

Money market funds are among the largest purchasers of commercial paper (CP) and CP is how corporate America funds itself. CP is how Boeing, Caterpillar, Microsoft and General Electric meet payroll and pay suppliers. Suddenly, a crisis that had been limited to the financial system had jumped the tracks into the real economy. Over the next 10 days, lending of all types ground to a halt. Complete panic had set in.

FED RESPONSE

This was a terrifying moment. Central banks know how to support individual institutions, but no central bank had ever tried to support entire markets. And that was what we had to find a way to do. It was going to be up to a very small number of Americans sitting in

conference rooms at the New York Fed, Board of Governors and Treasury Department to either figure this out, or not. As I looked out from the NY Fed at all the people walking around Wall Street not knowing how close we were to financial collapse, I silently prayed that my colleagues would find a way to avoid a second Great Depression. Then I got sick to my stomach.

Fortunately, my colleagues came through in a big way, starting with an alphabet soup of creative market back-stop facilities with names like the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), the Commercial Paper Funding Facility (CPFF), the Term Asset-

Backed Securities Loan Facility (TALF), and others. The mechanics of these facilities varied, but the basic premise was that the Fed, directly or indirectly, would assume enough risk associated with

different types of lending that, over time, the confidence of the traditional liquidity providers (money market funds, pension funds, hedge funds, etc.) would be restored and liquidity, the life blood of the financial system, would begin to flow again.

One of the great untold stories of the financial crisis is how much work went into creating and operating these facilities. A remarkably small number of economists, bank supervisors, lawyers and operations personnel spread across several Reserve

Banks, the Board of Governors and the Treasury Department worked 24/7 for months to make these facilities successful. As I watched them exhaust themselves day in and day out, I often recalled Churchill’s assertion that “never have so many owed so much to so few”. Fortunately, this was not the Battle of Britain where the liberty of a nation was at stake. But it was a battle where defeat would likely result in a national, if not global, depression. Those were very serious stakes.

The crisis continued well into 2009 with many dangerous twists and turns. But the tiny army of crisis fighters never gave up. The support for AIG was restructured several times.

After a rocky start, the Troubled Asset Relief Program (TARP) successfully injected capital into the banks. The FDIC used its systemic risk authority to backstop new unsecured bank debt. The Fed instituted the first-ever stress test to instill confidence in the banks. All of these actions involved tough decisions and a tremendous amount of work.

And they worked. By the fall of 2009, the crisis was over.

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WHAT LESSONS WERE LEARNED?

Many people who are immensely smarter, more thoughtful and better informed than I am have done outstanding work on this question. I would refer you to that work for the best answers to the question of what lessons were learned.

For me, some of the most important lessons learned include:

- **THE FEDERAL RESERVE DOES NOT GIVE AWAY MONEY.**

I have never understood the confusion over why the Fed supported Bear and AIG, but not Lehman. To avoid future confusion, it is only necessary to remember one rule: the Fed does not give away money. It never has and never will. Not a dime.

If the failure of a firm would traumatise the financial system and that firm has adequate collateral for the Fed to lend against, then the Fed will support that firm in order to avoid an unnecessary trauma to the financial system. But if a firm does not have adequate collateral, then the Fed is not allowed to lend to it no matter the trauma that might result. Bear and AIG had adequate collateral to lend against, so the Fed supported them to avoid unnecessary trauma to the financial system. Lehman did not have adequate collateral, so we could not lend to it even though we knew Lehman's failure would be traumatic for the financial system.

It is as simple as that.

- **RATIONAL BEHAVIOUR IS OVERRATED.**

A lot of economic, market and bank supervisory theory is based on the premise that financial actors are largely rational. The crisis convinced me that they are not. It was not rational for very experienced financial leaders to make their companies hostage to short-term financing that was, in the final analysis, secured by the irrational assumption that house prices will always go up. It was not rational for Dick Fuld to reject offers because their terms offended his pride. It was not rational for money market fund investors to flee all money market funds just because one fund made a bad bet. It was not rational for some lenders, at the height of the crisis, to stop accepting even Treasuries as collateral. The crisis convinced me that greed, ego, fear, short-sightedness, group-think and other human foibles have at least as much, if not more, to do with financial behaviour as rational thinking does.

This presents a tremendous challenge that policy makers, economists and bank supervisors are going to have to come to grips with.

- **ONCE PANIC SETS IN, ONLY MASSIVE FINANCIAL FIREPOWER WILL QUELL IT.**

This lesson is straight out of Tim Geithner's book, *Stress Test*, and is much better articulated there. Not being burdened with Tim's tremendous intellect, I am at liberty to articulate a simplistic version of this lesson, which is: "Once a financial mob panics, the only thing that will end that panic is for a central bank with a large billy club to show up and announce: 'Break it up everyone. Go home. This crisis is over.'" Unfortunately, the Dodd Frank Act (DFA) has crippled the Fed's ability to play this role.

I guarantee that curbing the Fed's emergency authority will come back to haunt us.

ARE WE SAFER?

Absolutely, up to a point. As a result of hard work by bankers and regulators, the banking system is much better capitalised, more liquid and better risk managed. That hard work has definitely paid off in terms of significantly increasing the degree of financial stress that would be required to put a systemically important financial institution (SIFI) at risk of insolvency.

However, I worry that if market participants ever perceive that a SIFI is even remotely close to triggering the Orderly Liquidation Authority (OLA) established by the DFA, counterparties are going to run from that SIFI sooner than they would have absent the OLA. I say this because many market participants are uncertain that the OLA will work. More importantly, all market participants are certain that even if the OLA works exactly as designed, that just means counterparties will get cents on the dollar and it will take time to get even that. Nobody wants to be the last one out of that pool.

IT IS ONLY NECESSARY TO REMEMBER ONE RULE: THE FED DOES NOT GIVE AWAY MONEY

Also importantly, if market conditions ever deteriorate to the point where a SIFI is in danger of insolvency, it is very unlikely that only one SIFI will be at such risk. The only pool that market participants will want out of faster than a pool where one SIFI is clinging to an OLA life ring is a pool where multiple SIFIs are clinging to the same life ring.

WILL THERE BE ANOTHER FINANCIAL CRISIS?

Absolutely. As long as we have a financial system, we will have financial crises. The only question is how often and how severe.

Personally, I think a crisis is likely to happen sooner rather than later because of the large number of possible crisis triggers that are currently being squeezed. A much longer than average economic expansion that must inevitably end. Trade uncertainties. Brexit uncertainties. A slowing global economy. A nearly inverted yield curve. Increasing cyber threats. Record leveraged lending. A shadow banking system that is larger than ever. Financial markets dominated by high frequency and/or algorithmic trading and passive exchange traded funds. Exploding federal debt. A chaotic administration that is increasingly consumed by self-preservation. What could go wrong?

Tim Geithner says that the failure to anticipate the 2008 financial crisis was a "failure of imagination". Given all the crisis triggers that are currently being squeezed, very little imagination is required to anticipate the next crisis.

Fortunately, because of improved capital, liquidity and risk management, the next financial crisis is unlikely to result in a banking crisis. But it could still easily result in sufficiently deep losses across a sufficiently broad range of assets to trigger an extraordinarily painful recession, or worse. The likelihood that the US has seen its last depression is about as high as the likelihood that it has seen its last war.

Just saying.

AS LONG AS WE HAVE A FINANCIAL SYSTEM, WE WILL HAVE FINANCIAL CRISES. THE ONLY QUESTION IS HOW OFTEN AND HOW SEVERE.



Mike Silva is a leading regulatory and compliance professional in the financial services sector.

He joined DLA Piper from GE Capital Corporation, where he led a global staff of 700 in overseeing compliance and regulatory activities across nine countries. Notably, he oversaw all of GECC's interactions with its regulators and advised on all aspects of compliance with the Dodd-Frank Act. Mike also advised on GECC's first-ever successful de-designation as a systemically important financial institution.

Prior to joining GECC in 2013, Mike spent 21 years with the Federal Reserve Bank of New York. There, he served for 10 years as the NY Fed's lead international lawyer and negotiated high-profile government transactions involving Iran, China, Russia and other sensitive counterparties. Mike was a core member of the NY Fed's 9/11 Crisis Management team and, during the second Gulf War, Mike served in Baghdad as the Federal Reserve's advisor to the Central Bank of Iraq. Mike later became Chief of Staff to then-President Timothy Geithner. In this position, Mike played a key role in coordinating the New York Fed's response to the 2008 financial crisis. He subsequently was designated as the NY Fed's senior supervisory officer for the Goldman Sachs Group. Mike's other contributions at the NY Fed include leading the process to set the New York Fed's annual strategic objectives, fostering a leadership development program and serving as an executive sponsor of several diversity resource networks.

Prior to attending law school, Mike spent seven years on active duty as an officer in the Navy, first as a naval flight officer flying F-14 Tomcats and then as an arms control inspector in the former Soviet Union. Mike is a 1986 graduate of the Navy's Advanced Fighter Weapons School (a.k.a, TOPGUN).