

Failure and Reconstruction

A personal view of the Financial Crisis for
EFFAS-EBC

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Agenda

- Prologue
 - The state of play
- Part I: The Failure
 - Multiple and complete
 - Distinguishing between causes and consequences
- Part II: The Reconstruction
 - Response to earlier crises
 - The likely response to the current crisis, and the future of supervision and crisis prevention

Prologue: The State of Play

The State of Play

The turning point in this crisis was the collapse of Lehman

- 25 Bank Street – a building formerly known as Lehman
 - Historians will debate for many years whether the US authorities were right to let Lehman fail
 - Should they have prevented it?
 - Could they have prevented it?
 - But without doubt this was the tipping point
 - Before 15 September the financial system was facing difficulties
 - After 15 September the financial system stared into the abyss
- Outright and complete collapse was no longer unthinkable**

To whom should we turn for the solutions?

There is only one way a crisis of this magnitude can be resolved

- A **small-scale** financial crisis should be left to the financial system itself
 - The financial system can handle isolated failures, and should be left to do so
 - It is more efficient, and avoids moral hazard
- A **medium-scale** financial crisis requires central bank action
 - Liquidity shortages across multiple institutions require the “lender of last resort” (LOLR) facility – loans of liquidity against good assets
 - This is a monetary activity and so the realm of central banks
- A **large-scale** or **systemic** crisis requires government action
 - Widespread solvency issues require action beyond the LOLR facility
 - Instead the authorities need to **buy** assets outright, either taking dubious assets off banks’ balance sheets or adding capital to those balance sheets
 - This is a fiscal activity – using taxpayers’ money – and so must be the responsibility of finance ministries. **Governments are indeed now in play**

Part I: The Failure

Failure of Banks

Banks have always been at risk of failure and always will be

- The banking system is inherently prone to crises
- This is due to its role as a transformer
 - Of maturities – banks borrow short and lend long
 - Of credit – banks use their balance sheet to give depositors a better credit than the lenders their money is lent to
 - And in many cases of currency – a mismatch between the currency of assets and the currency of liabilities
- Because of these, there have always been financial crises
 - Individual bank failures are a fact of life
 - Not even the most optimistic of regulators believes that it is possible to eliminate all risk of financial crisis in the future
- The bank failures in the present crisis have their origin in failures in the (unregulated) “shadow banking system” (off balance sheet vehicles etc)
 - These caused **knock-on stresses** in the more formal banking system

Failure of the Banking Model

This is more complex and has more far-reaching consequences

- The “Originate and Distribute” model has failed
 - It has been widely blamed for the worst excesses of the crisis
 - It is not inherently unworkable, but when coupled with “self-regulation” (a.k.a. no regulation) it has failed its customers, its stakeholders and ultimately society
- The Investment Banking business model has failed
 - Not one of the 5 US investment banks that started 2008 still follows it
 - Even Goldman Sachs has had to admit that the market no longer believes in the concept of the investment bank as a viable business model
- Existing models of Deposit Insurance have failed
 - The concept of leaving depositors with even residual risk has evaporated
 - There is no belief any more that the banking industry can self-insure

Failure of Markets, particularly fixed income markets

Markets have failed in their basic role of price discovery

- The opacity of “over the counter” markets has become extreme
- There are huge discrepancies between “fair valuations” and prices at which one can actually trade
- Some debt securities cannot be traded at any price at all

- An analysis:

In normal markets a company's debt trades reliably and with predictable value, while its equity carries the volatility of the excess risk

In current markets, more of the risk, and so more of the volatility, has migrated to the debt portion of a company's obligations

Equity traders, and exchange-based markets, are used to this risk

Debt traders are not, & OTC markets have shown they cannot handle it

Failure of “Mark to Market” valuation techniques

A fundamental underpinning of risk management

- There are probably three separate “valuations” for a security
 - The “Intrinsic Value”, for a holder who does not need or wish to sell
 - The “Market Value”, at which a willing buyer and a willing seller will trade
 - The “Fire-Sale Value”, at which a forced seller will trade
- In normal markets all three are pretty close
 - Since we cannot observe the IV, we assume the MV is a fair estimate of it
- In stressed markets, there may be no willing buyers or sellers
 - The MV ceases to exist
 - Moreover, since there are no willing sellers, all sellers are assumed to be forced sellers, and the FSV therefore crashes
 - The discrepancy between the IV and the only observed traded prices (all FSVs) can become extreme

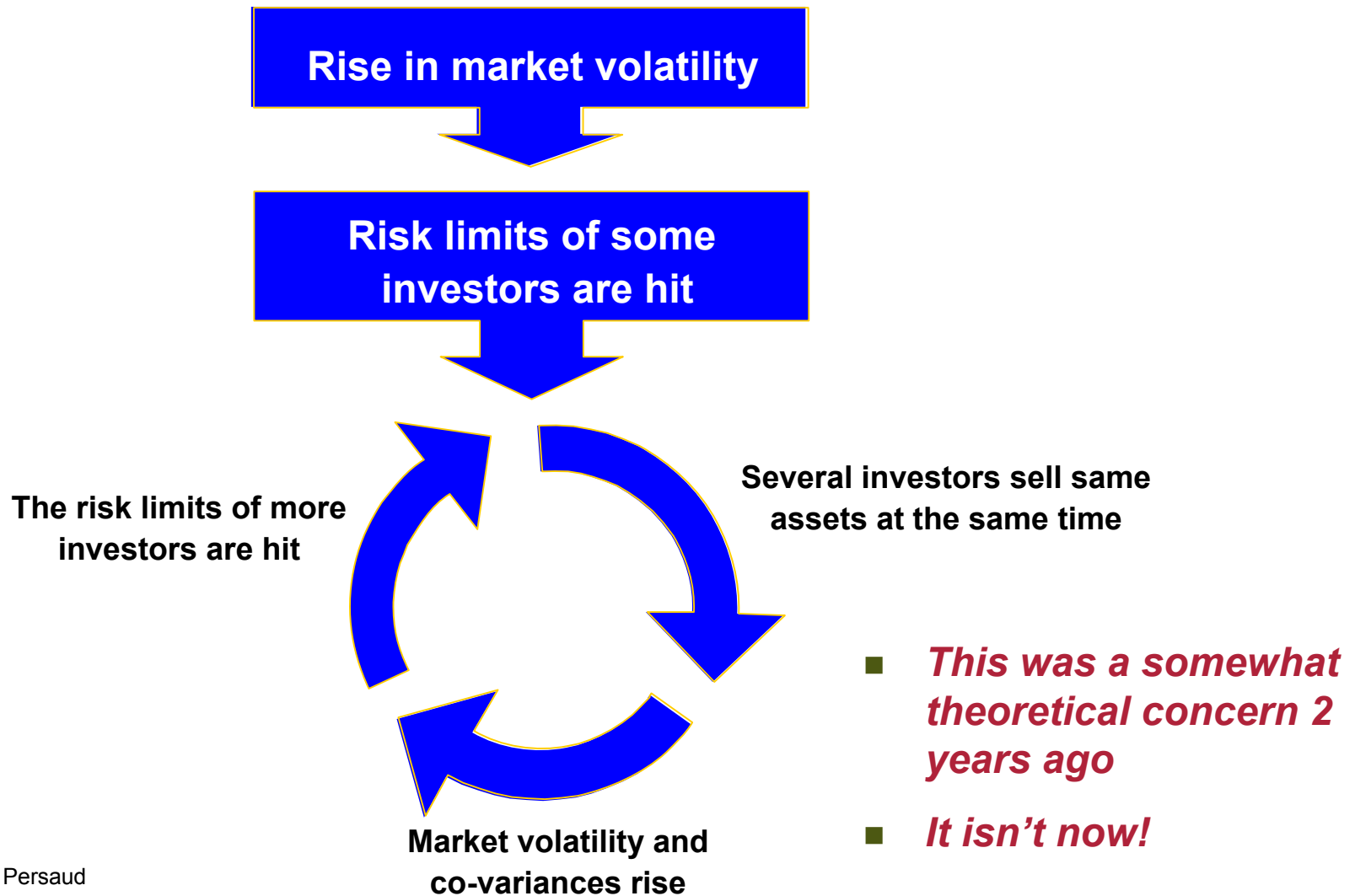
Failure of Risk Management overall

“Complete, Abject, and Humiliating” – *The Economist*, August 2008

- Value-at-Risk was always known to be flawed
 - VaR has an over-reliance on using the past to predict the future
 - VaR has an over-reliance on a statistical distribution (the Normal distribution or Bell Curve) which was known not to fit real life experience very well
 - VaR has a tendency to fail when needed most (ie in times of stress)
- ... and was always known to be incomplete
 - VaR does not handle credit risk very well
 - VaR does not handle liquidity risk (ie the risk that one cannot trade) at all
- Even so, the scale of the failure was simply stunning
 - In Q4 2007 Merrill Lynch's VaR, with 99% confidence, was \$69 million
 - That quarter they announced a write-down of **\$10 billion**
 - The amount the financial sector has written off so far – some \$1.1 trillion* – is **over 100 times** its collective August 2007 VaR assessment

* Source: Bloomberg page WDCI

VaR = Vicious Augmented Reversals



Source: Avinash Persaud

Failure of the Credit Rating Agencies

CRAs lost their independence from the market and so their credibility

- The reputation of the CRAs is one of the biggest casualties of the crisis
 - Several collapsed hedge funds held 98% or more AAA rated paper
 - If a security can go from AAA to unsaleable in a week, there is something very wrong
 - Nobody knows what an AAA rating means any more
- The root cause of the problem is that CRAs became compromised
 - From being independent observers and commentators, the CRAs became closely entwined in the creation of the very securities they were rating
 - Issuers worked with the CRAs to design securities to meet a desired rating, rather than offering securities to a CRA to be rated independently
 - At heart, the CRAs' business model contained an unresolvable conflict
 - Their service was used by investors, but paid for by issuers

Failure of the Regulators

The basic concept underpinning modern regulation has failed

- Most modern regulation is fairly “light touch” by design
 - The complexity of financial securities and the almost unlimited variety of structured products has encouraged regulators to follow 2 principles:
 - “Whole firm” regulation and assessment not security-by-security supervision
 - Use of a firm’s own risk models to analyse their positions
- The latter – a key innovation of the new “Basel II” regulations – is largely a necessity dressed up as a positive development
 - Regulators simply do not have the capacity to analyse firms in detail
 - The assumption is that a firm will always have its own survival as its primary objective, and can therefore be trusted to ensure it is not at undue risk
- The degree to which competitive pressures and management’s personal short-term objectives have been able to override this assumption is one of the main causes of the failure of regulators to prevent the crisis

Failure of Shareholder and Corporate Governance

It has proved very difficult to restrain managements

- The model of limited liability companies has been challenged
 - The concept of limited liability companies – an invention of the 19th century – contains at its heart the division between Ownership and Management
 - Shareholders are the owners, and appoint management as their agents
 - Shareholders have a crucial obligation to hold management to account
- The classic issues of principal-agent conflict have reached a head in the recent crisis
 - Management appears increasingly to have run companies for themselves not for their owners
 - Shareholders have proved unwilling, and arguably unable, to control management (and non-exec directors have proved no better ...)
- The shareholders of Lehman did nothing as Dick Fuld destroyed their company
 - Should they have done more? Could they have done more?

Failure of whole countries

The crisis can overwhelm even developed countries

- Iceland is the first developed nation to call upon the IMF since 1976
 - At least it means that the UK is no longer the last developed nation to do so!
- Iceland is of course an extreme outlier – the banking system was over 10 times GDP – but other countries rather too close to home are at risk
 - Hungary, Romania, Estonia, Latvia
- And others still may not be entirely safe
 - The combination of a small open economy and a large banking system is not unique to Iceland
 - Denmark? Sweden? Switzerland?? (could they support UBS?)
- Note that Ireland is – so far – absent from this list. Membership of the euro does seem to offer major protection in this crisis

Summary

Failure has been multiple and widespread

Failure of the Banks

Failure of the Banking Model

Failure of Markets

Failure of Mark to Market and accounting valuation conventions

Failure of Risk Management

Failure of the Credit Rating Agencies

Failure of the Regulators

Failure of Shareholder and Corporate Governance

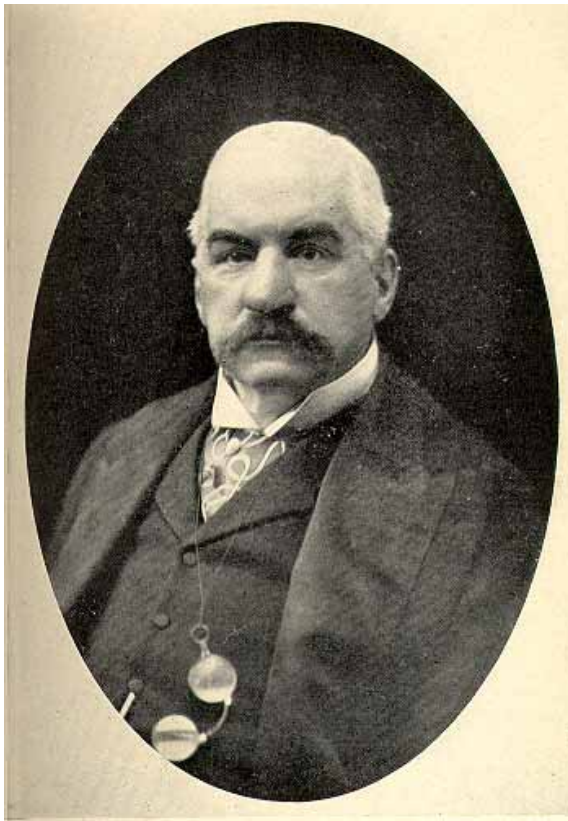
Failure of Countries

Part II: Reconstruction

(a) Response to previous crises

How have the authorities responded to crises in the past?

Before the Federal Reserve, there was John Pierpont Morgan



1877:

Personally averted a crisis by meeting the Federal Government's army payroll

1893:

Called in by President Cleveland to stem the gold outflow from the United States

1907:

Resolved the Great Banking Crisis by deciding which banks to support and which should fail

1913:

Federal Reserve created, "an attempt to replace a single man with an institution"

The (re)start of US central banking

How have the authorities responded to crises in the past?

The Federal Reserve's first big test was the aftermath of 1929

- Contrary to what some people believe, the Great Depression was not a direct consequence of the 1929 Wall Street Crash
 - The economy had begun to stabilise by 1930, when the US started to experience an outflow of gold
 - This was largely due to European devaluations (ie countries, led by Austria, leaving the gold standard), making the US uncompetitive
- The Fed responded by raising interest rates, and continued to do so even as the economy sank into recession and deflation
- Modern economic historians place the blame for the Depression fairly and squarely on the Fed's actions in 1931-33
 - Bernanke – a student of between-the-wars monetary policy – has publicly stated “Yes, it was the Fed's fault. We're sorry”
- **Note that Bernanke is now in charge of the 2008 Fed**

How have the authorities responded to crises in the past?

FDR's financial programme

- Roosevelt's first administration (1933-37) enacted a veritable blizzard of measures, mostly under the New Deal but some as separate initiatives
 - 16 major bills passed by Congress in FDR's first 100 days
 - Glass-Steagall Act and creation of FDIC (deposit insurance)
 - Creation of the Federal Housing Administration, and redesign of residential mortgages to give greater security of tenure
 - Creation of the Home Owners' Loan Corporation
 - Redesign of regulation and supervision, and creation of the SEC
 - Creation of Federal Home Loan Banks System
 - Creation of Federal National Mortgage Agency (FNMA – "Fannie Mae") – agreed in 1937, created in 1938
- Roosevelt intended the New Deal not just to solve America's then crisis, but to **make the system more robust against future crises**

How have the authorities responded to crises in the past?

The UK secondary banking crisis of the early 1970s

- Legislation to free the banking system created many “secondary banks”
 - Before 1972 the UK banking system was very tightly controlled
 - Under such a system the “Governor’s eyebrows” were all that was needed to maintain order in the City
 - The new Secondary Banks – many small, many owned by foreign institutions – did not understand the “unwritten rules” of the City
- In the early 1970s the UK’s informal style of self-regulation failed
 - The Bank had to “launch the Lifeboat” – a corralling of weaker banks with stronger ones to protect them all
- After the crisis, the UK overhauled banking supervisory practice and put it on a more formal basis
- **The start of modern banking supervision**

How have the authorities responded to crises in the past?

The great stagflation of the 1970s

- Many causes
 - US expansionary policy to finance the Vietnam war undermined the \$
 - Oil exporters protected their income by raising (nominal) prices
 - Western governments pursued aggressive Keynesian demand management to try to maintain full employment
- One result
 - A dreadful decade:** high inflation, high unemployment, lost growth
- Inflation was recognised as the main evil
 - Rise of Monetarism
 - Collective resolve to squeeze inflation from the system
- **Rise of independent CBs and the primacy of monetary stability**

How have the authorities responded to crises in the past?

The Greenspan Era, Aug 1987 – Jan 2006

- Greenspan's first test was extremely early in his long Chairmanship
 - 1987: 2 months into his Chairmanship, the Dow falls 22% in one day
 - Lesson 1: Lower rates aggressively to protect the financial system**
- 1990-91: The Savings and Loans crisis
 - Greenspan again responds by cutting interest rates sharply, to 3%, and thereby recapitalises the banks through a steep yield curve
 - In 1994 he starts raising interest rates again, but too fast
 - Lesson 2: Return rates to normal levels very carefully**
- 1998: Collapse of Long Term Capital Management
 - The Fed arranges a rescue to avoid a hedge fund-led collapse
 - Lesson 3: Early, decisive action is better than waiting for disaster**

How have the authorities responded to crises in the past?

The Greenspan Era, Aug 1987 – Jan 2006, continued

- 2000-01: Stock market bubble bursts, 9/11 rocks confidence
Greenspan responds by cutting rates to extremely low levels
- 2003-04: Economy gradually returning to full employment and growth
In 2004 he starts raising interest rates again, but this time slowly
- Greenspan consistently applied the lessons of his Chairmanship
 - Lesson 1: Lower rates aggressively to protect the financial system
 - Lesson 2: Return rates to normal levels very carefully
 - Lesson 3: Early, decisive action is better than waiting for disaster
- **Origin of the doctrine of the pro-active central bank, “ahead of the curve” and (many say) the prime begetter of asset price bubbles**

Part II: Reconstruction

(b) Response to the current crisis

We draw two lessons from this study of history

- Major crises have in the past been the springboard for major overhauls of the financial system
 - Once a crisis has reached the magnitude that requires governmental response, and once fiscal resources have been expended, governments are keen to ensure that the events that led to the fiscal expense cannot reoccur
- These overhauls do not tend to be limited to the incremental and are often fundamental
- **There is no reason to suppose that the response to the current crisis will be any different**
 - Major elements of the current approach to regulation have been shown to be flawed
 - Governments will wish to rebuild the regulatory landscape to rectify this
 - Note that most of the major western governments, including the United States, are currently headed by interventionist leaders, so the redesign may be substantial

Rebuilding Regulation – 1: Principles-based regulation

- Most modern regulation is fairly “light touch” or “Principles-based” by design
 - The complexity of financial securities and the almost unlimited variety of structured products has encouraged regulators to follow 2 principles:
 - “Whole firm” regulation and assessment not security-by-security supervision
 - Use of a firm’s own risk models to analyse their positions
 - These are key innovations of the “Basel II” regulations, but they are largely necessities
 - Regulators have not had the capacity up to now to analyse firms in greater detail
- **This is likely to change.** Supervisors will seek new resources and use them to undertake more detailed supervision
 - The danger is that supervision will just be intensified rather than improved
 - This is the “Sarbanes-Oxley” approach to solving a problem
 - Over-regulation will risk stifling the financial sector, but is not guaranteed to prevent future crises
 - Care will be needed to balance the need for greater oversight with the need to preserve the innovative nature of the financial industry

Rebuilding Regulation – 2: International co-operation

- Current regulatory methods do not handle cross-border issues very well
- The challenge is that the financial industry is a global industry, but most supervisors (and the fiscal resources that back them) are national
 - To date this has been met by co-operation between national regulators
 - There are major issues here, known collectively as the “Home-Host” problem, and there is no clear agreement on what to do if a financial institution is systemic in one country but not in another
- **This is certain to change in Europe, and may change internationally**
 - “Colleges of Regulators” will assume more power and oversight
 - Europe seems to be working steadily towards regulation at the EU-wide level
 - To expand this internationally would require co-operation from Washington
 - The challenge is America’s long-standing aversion to compromising its sovereignty by agreeing to accept the jurisdiction of an international body
 - But the success of the Basel accords – which are accepted in the US – gives cause for hope

Rebuilding Regulation – 3: Activities not institutions

- The current theory in regulation is to attempt to make the system secure by making individual institutions secure
 - Regulation is “institution-based” not system-wide
- This gives rise to a typical Boundary Problem
 - Activity is always at risk of moving from regulated institutions to unregulated ones – for example from the banks to the shadow banking sector
- Any attempt to preserve a regulated core, and allow a less regulated periphery (as in Glass Steagall) will suffer from this
 - It risks failure when the unregulated periphery grows large enough to become systemic
- **The best solution is to regulate an activity whoever carries it out**
 - Thus banking should be a regulated activity whether carried out by a bank or by a non-bank (eg money market fund, hedge fund, etc)
 - There are positive signs that the US administration accepts this and will act on it
 - But introducing regulation based on activities, and extending regulation to eg hedge funds, will be very challenging

Rebuilding Regulation – 4: Pro-cyclicality

- Modern regulatory standards are recognised to be pro-cyclical
 - They encourage looser standards (eg higher leverage) in benign times, precisely when financial institutions should be reining back
 - This leads to positive feedback both on the upswing and in downturns
- The use of mark-to-market accounting has also exacerbated volatility in markets
 - When institutions seek to sell assets to shrink their leverage ...
 - ... it impacts markets and so the prices of the very assets they are selling...
 - ...leading to more pressure on balance sheets and more forced selling
- **This is now widely recognised by supervisors**
 - The US authorities, and others, will introduce more counter-cyclical measures, such as requiring financial institutions to hold more capital in benign markets
 - There remains the challenge of identifying (and agreeing internationally) when the extra capital requirements should be imposed, but this is a second-order issue

Rebuilding Regulation – 5: Other financial actors

- Modern markets are not just made up of financial institutions such as the banks
 - There are important roles played by other actors and intermediaries, such as the big 4 accountancy firms, the credit rating agencies, the settlement exchanges and so on
 - These have to date been either self-regulated or unregulated
- This is unlikely in future to be enough to maintain public confidence
 - Confidence in credit rating agencies was badly shaken by the sub-prime failures
 - Confidence in accounting standards is also under attack
- **Supervisors are likely to seek more oversight over such intermediaries**
 - The US and EU authorities have both announced reviews of the activities of the credit rating agencies
 - Other proposals, such as the establishment of exchanges for Credit Default Swaps, echo the drive to make the market infrastructure more formal and so more amenable to the authorities' supervision

Rebuilding Regulation – 6: Preparing for the next crisis

- It is striking that while every regulated institution has a number of contingency plans, none has a bankruptcy plan
 - Firms have Business Continuity plans, Disaster Recovery plans, Critical Staff plans, and so on
 - But when Lehman went into administration, the administrators found no preparations at all for handling the issues that arose
- **Supervisors are unlikely to tolerate a systemic threat like this in future**
 - Any institution large enough to cause markets systemic problems by its failure will either be required to post a Bankruptcy Plan with its regulators, or will be forced to slim until it is no longer systemic
 - The US administration is well aware of the dangers of a bank becoming “too big to fail”, and has acted in the past to break up oversized and dangerously dominant corporations (eg Standard Oil, ATT, the original Fannie Mae)
 - As George Schultz put it, “if a bank is too big to fail, it is simply too big”

In conclusion

- Central banks and supervisors cannot uninvent financial innovations
 - We cannot return to a world before leverage, before structured finance
 - The financial sector remains a powerful tool to help develop economies
 - Shackling the financial sector is not the way forward
 - It would condemn economies to sub-optimal growth and the great majority of the population to unfulfilled potential
- But neither can we tolerate another failure on the scale of the current crisis
- **Supervision looks certain to change significantly in the coming years as regulators respond to the multiple failures of the current regime**

Thank You