Behavioural Finance – Risk attitudes in the aftermath of the Economic Crisis

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Declaration:

I declare that all the work in this dissertation is entirely my own unless the words have been placed in inverted commas and referenced with the original source. Furthermore, texts cited are referenced as such, and placed in the reference section. A full reference section is included within this thesis.

No part of this work has been previously submitted for assessment, in any form, either at Dublin Business School or any other institution.

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Over the course of this research process, especially during the last 8 weeks I have taken solace from the day dream of a well-earned holiday once the thesis is complete. I am grateful to now be on the cusp of that rest.

Abstract

Problem:

The aim is to look at the factors impacting the risk market in the aftermath of the financial crisis. Inevitably this will focus on changes after the collapse of Lehman Brothers which sent financial markets into turmoil. The model incorporated for this was focusing on core areas of attitudes to risk management within institutions, regulatory compliance and finally change management and culture. The intention was to focus on the resurrection of this market to understand where the bulk of reform came from. Discovery was initiated to understand if markets were shutting down or were they adapting to the new horizon.

Methodology:

The research was conducted via a qualitative interview process with a sample size of six. The sample comprised four separate global institutions and one global multi-national company. The represented a cross sectional qualitative data collection.

Conclusions and recommendations:

The conclusions that came out of the research were borne out of a consistently distinct response from the qualitative sample. The data collected demonstrates that institutions have become significantly overburdened with regulatory reform. As the group are agreed that enhanced regulation was needed in the aftermath of very loose regulation policy between 2006-2008 the challenge focused on how stringent governance controls could be maintained while taking some of the excessive reporting requirements out to allow it to be sustainable into the future. The concern was that without some unburdening the controls may result in policy loosening of an ad-hoc nature. This is not in the interest of competition. Recommendations have been drawn that will require the engagement of all parties to address the post-recession market and ensure an efficient work place.

Chapter 1: Introduction

General Overview:

As a researcher one was interested to understand how the response to the financial crisis of 2008-2009 was viewed in the market. One was interested to understand if the actions that were taken in response has a positive or negative impact on the financial services industry. While this thesis proves that the impact was positive it was not without a significant shift in the compliance effort that has changed the face of the industry forever. Reform was required, justified and effective. In 2005, Alan Greenspan, while Chairman of the US Federal Reserve suggested that complex financial transactions had contributed to the development of a more flexible efficient and resilient financial system. At the time this was viewed as a very reasonable perspective on the market. What few knew then was how comprehensively false it would be proven to be a few years later. US Economist Paul Krugman has since gone on to summarise that Regulatory Reform coupled with new technologies has stimulated the development of financial products such as Asset Backed Securities that when executed correctly should offer the dispersion of risk. This commentary confirms the view of this author that Regulatory Reform on a global scale was both necessary and effective in light of recent systemic failure. Other researchers has been carried out around the subject of system failure including by Achorya in 2009. It was intended for this research to approach an alternative area.

Of particular interest was the possibility to assess both the operational risk side of the market with the regulatory reform initiatives. This has been proven but as it turned out less focus was needed for the product side. The focus was now very much on the implementation of reform and how it was interpreted by institutions. In fact what was clear from the qualitative research conducted in this thesis was that focus should remain on reform and that it should be a fundamental pillar of the industry going forward. In future, continued oversight and policing via regulators is essential to ensure that a repeat of the failure of 2008-2009 is not repeated. Wallace et al (1988) discussed the liquidity problem within banks. This is not a new problem where banks borrow short and lend long. They are effectively illiquid hence the liquidity problem created because banks do not match the maturities of assets and liabilities. As far back as 1960 Friedman commented that banks executing demand deposits should be subject to one hundred percent reserve requirements. That view seems excessive but it is relevant in the current market as capital adequacy ratios become an everyday component of banking. The need to ensure capital adequacy ratios is all jurisdictions of operation is now a requirement under that guidelines of the Basel

Committee of Banking supervision (BCBS) framework called Basel III. It is ones hope that within this thesis the dominant notion of regulatory reform being a joint effort is apparent. It is required that the onus of compliance be placed banks but with required participation from the Financial Regulator and counterparty partners.

Methodology Overview

When building a questionnaire for this research effort one was driven via the literature review to weight it heavily with discussion topics around the regulatory response and the implementation of it. This questionnaire will be attached to this document as an appendix. Significantly, the introduction of new reforms as well as how the regulator can collect and interpret the data was a core theme. Another question address the changes in the market today with the emergence of role of Corporate Treasury who have taken on more significance as they have very stable balance sheets and high capital reserves. Another focus of the questions asked was around the ability to police regulatory reform when faced with jurisdictional issues. The author asked if capital adequacy levels be correctly maintained by an institutions who conducts business on many markets around the world. The author worked to understand if a central capital reserve was required of if the capital should be in the jurisdiction of trading. As it turns out, The Dodd-Frank reform act, which is prominent in this research, addresses the need for capital levels to be maintained where the risk occurs. A final element of this questionnaire is specifically with regard to how institutions have reacted to the reform. It is very clear that in the wake of this crisis the instituions have taken on this new reform in an aggressive manner despite the very significant cost it has added to the business. However, it is still unclear how big an impact the reform and capital requirements will have on consumers as they will likely bear the cost of reform compliance in the long run. Additionally, they will incur the cost of the banks having to maintain shareholder return with a smaller notional cash pool to execute upon.

The basic types of risk underpin the research. Exchange risk, Interest rate risk, Commodity risk and Equity risk are the accepted risk types and were researched via the use of secondary data sources which will be clearly referenced within this literature review. When referencing the generally accepted risk types the author’s opinion was that certain risk areas would be most relevant. In particular, Equity risk and Commodity risk. Equity risk is the financial risk of holding equity in a particular investment such as real estate or stocks. One should focus on

systematic and non-systematic risk. Being unable to control the internal risks of a stock is a given however, market risk can be diversified. The suggested action here is to manage this risk through diversification depending on risk appetite. An investor can diversify a portfolio using Beta. Mathematically Beta could be defined as *"….the covariance between the stock returns and the market returns and the variance of the returns on the market." (Brealey,Allen,Myers, Principles of Corporate Finance (Chapter 34)*. In theory, Beta is defined as a measure of the volatility or systematic risk of a security or a portfolio in comparison to the overall market

In this research I will focus on some core elements which make up the areas discussed in this research which will be based on

- Risk Management
- Regulatory Compliance / Governance
- Change Management / Culture

It is the hope of this author that it is clear to the reader that these fundamental themes that make up the research problem are proved to be the central points changing the banking framework today.

Chapter 2: Literature Review

The global financial crisis of 2008–2009 brought the world banking system to the brink of collapse. Extensive and costly national rescues of some very big banks were required to ensure the continued operation of financial markets. Glitches in global regulation were seen as contributory to the extent of the crisis (Avgouleas 2009). In the aftermath, the Basel Committee of Banking supervision (BCBS) embarked on a program of substantially revising its existing capital and liquidity guidelines. The resultant capital adequacy framework, termed 'Basel III,' received G20 endorsement in November 2010 (KPMG, 2011). The guidelines represent the biggest regulatory change that the banking industry has seen in decades (PWC 2011). While the national authorities are adopting the core framework, there are strong indications that the high level of complexity and interdependency within the global regulatory landscape poses a significant challenge to actual implementation, resulting in a divergence across various jurisdictions (KPMG). There are other complex financial regulations (with cross-border implications) such as Dodd-Frank and EMIR that also have to be considered. Sheng, in his Working Paper of 2013 suggests that the combined effect of all these regulations, complex, undefined and wide-ranging in coverage, is seen to have held down the banking system.

Behavioural finance is the study of the influence of psychology on the behaviour of financial practitioners and the subsequent effect on markets (Sewell 2007, revised 2010). Ben Steverman, in a 2014 Bloomberg report, noted that it is hard today to find a place where concepts of behavioural finance aren't being applied to real-world situations. Avgouleas, in 2009, argued that the some of the measures endorsed in Basel III, such as increased disclosure and a stronger capital base, and others targeting the enhancement of market discipline would prove less effective than anticipated because they largely ignore the behavioural elements of the crisis.

This researcher was interested in examining the attitude to risk in financial institutions post the global economic crisis. It was anticipated that attitude to risk within financial institutions might have changed over time since the crisis and the introduction of new global regulation. Of interest was whether these changes were specifically related to the crisis and the aftermath and the behaviour and attitudes of those responsible for risk within certain institutions.

Risk products, while evolving, have had the same fundamental characteristics over time. In the aftermath of the global crisis, the focus seemed not to be on rebuilding these products but rather on the governance structures of the institutions. A literature review was undertaken in order to identify the current trends in the risk market. Themes emerging from this review include a particular emphasis within institutions on attitude to financial risk, governance and change management. These have been further refined to provide topic strands include risk management and attitudes, regulatory compliance/governance and change management/culture. The findings from the literature review are presented here.

In order to prepare for the literature review the author was conscious that doing a qualitative research piece would require input from sources to understand the meaning they had construed from topics (Merriam, 2009). This allowed one to understand where the focus of literature to be reviewed should lie. In this case, all regulatory compliance elements took on most significance. During the process of the review, the author, to highlight the criteria to be considered by financial institutions post crisis, developed a visual structure of the interrelation of the many factors under the risk umbrella. This structure is presented below.

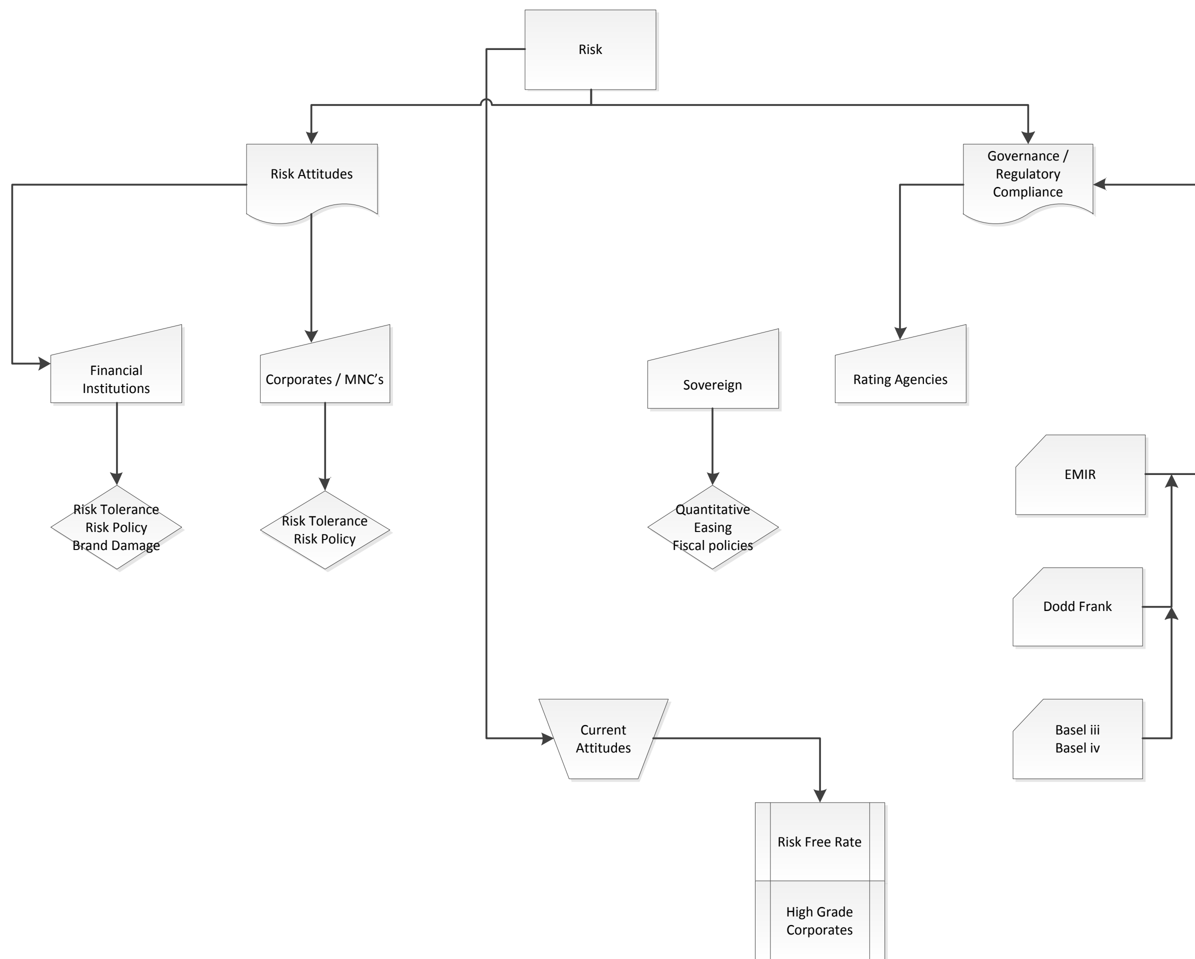


Fig 2.1 Structure Overview (Researcher)

In order to discuss the internal workings of a financial institution regarding risk, it is essential to understand the pressures on these institutions from not only the regulatory bodies relevant to their geographical area but public /client perception and therefore business. Brand damage is a key factor in this debate. According to the Brands Finance annual report 2012, brands are the most valuable intangible assets in business today. Over recent years the public reputation of banks has soured immensely. Banks were viewed as sales-driven with focus on profit margin alone. Capitalism clearly calls for a focus on the net profits of any organisation however consumers today are looking to partner with banks that have proven adjustment in this regard. In their recent document, entitled "*Remaking Financial Services: Risk management five years after the financial crisis",* Ernst and Young polled 70 global financial institutions and purport some

insightful views with regard to brand. Forty three percent of those polled indicated that their organisation had a strong risk culture. Ernst and Young interpreted this as suggestive of a new focus on risk. They recognised that changes are at early stages but appreciate the positive indications. The document also makes reference to the fact that organisational boards are beginning to comprise more members with specific risk management backgrounds. Additionally, roles such as Chief Risk Officer are now in a more prominent position and in many cases are reporting directly to the Chief Executive Officer.

Ernst and Young explain that the top down approach of organisations with boards of directors supporting developments under the new regulatory requirements and understanding of the need for change will drive significant positive change in risk policy. Those involved in the financial market now understand that the naivety demonstrated previously will not be an excuse in times of future difficulties. They suggest that banks are forced to demonstrate that they are still 'open for business' within the risk market. New and likely improved policies around risk, which are more diverse than previously, are seen as helpful. Coupled with this top-down thinking, strongly supportive risk culture is needed in order for individuals to have the ability to execute on the policy provided with utmost transparency. This concept provides a basis for a line of questioning related to the effect of change in risk protocols since 2008 on attitude to risk within an institution as perceived by the interviewees.

Relevant literature is contained around the notion of bank stress tests and more importantly the methodologies adopted to complete them. The research findings of this topic should provide some interesting data around changing methodologies. The difficulty is extracting the data from the system and then analysing it for validity. Analysis of the Ernst and Young paper has given rise to some focused ideas for questioning during the qualitative research to follow from this literature review.

The concept of stress testing has taken on additional emphasis post the financial crisis. Stress tests were given a new role as crisis management tools. The economic criterion around stress testing differs on a regional basis. In the US the Federal Reserve, via its Board of Governors, published guidance on stress testing for banking organisations with large consolidated assets

(http://www.federalreserve.gov/bankinforeg/srletters/sr1207a1.pdf May 14th, 2012). The document refers to five core principles. The first states that a banking organisation's stress testing framework should include activities and exercises that are tailored to and sufficiently capture the banking organisation's exposures, activities, and risks. It is clear that the overall risk profile of the institution needs to be evaluated as a whole and not sub-divided into separate risk groups as previously. At any one time the overall risk profile must be up to date and available for review by the financial regulator. Additional principles focus on measurement to ensure results can be ranked and benchmarked against other financial institutions within the US. Of significance is principle 5, which relates to governance and internal policy. Over the years, financial issues have often been preceded by a weakness in governance and the absence or bypass of internal policy (Lumpkin 2009 OECD report). Governance will be covered later in this review, however, for now it is possible to conclude that top-down governance is required, as previously discussed and supported by effective internal control policy documents. These developments within institutions may have resulted in changes to daily business within banks and it is this aspect that is to be explored during the research interview process.

The Federal Reserve has assigned specific economic criteria to stress testing by financial institutions in the US. As part of the interview process an understanding is sought regarding the suitability of banks to maintain internal models of stress testing or should the relevant regulator undertake testing.

The economic criteria include:

- Unemployment increases above 11.3%
- House prices fall by 25% or more
- The Dow Jones Industrial Average falls by 50% or more.

The equivalent in Europe, of the US Federal Reserve, is the International Monetary Fund (IMF). Similarly to the Federal Reserve, the IMF has published documentation on stress testing. Recent commentary in the Financial Times has noted the widely accepted credibility issues within bank stress testing in the Eurozone; whereas the US process is seen as a model for market reassurance, the European equivalent has been criticised for being overly easy to pass (Fleming et al. 2014).

Indeed in 2010, Ireland's two biggest banks needed a bailout within months of passing testing processes. The whole concept of stress testing is to examine the worst-case scenario. For banks this should predominantly include economic indicators as laid out above. Sensitivity analysis is critical. Taleb in his 2012 Black Swan Report for the IMF notes that stress tests must be conducted in times of economic recession or downturn in order to capture effectively the tail events and assist in detecting potential indicators of difficulties.

Stress testing should also help garner an understanding of whether all risk has been managed effectively on the balance sheet. As mentioned previously, some limitations to European stress testing models have been noted in comparison with the US. Ahead of US Stress tests, capital was set aside to complete a full balance sheet cleanup. Unfortunately, in Europe, capital was not available for a full balance sheet clean up and so testing was less complete. This led some commentators to suggest that European stress tests were too lenient and were not far ranging enough to gauge the real position of the bank and its balance sheets. Current testing practices are not based on a systematic and comprehensive set of principles but '*have emerged from trial and error and often reflect constraints in human, technical and data capabilities. (Macrofinancial Stress Testing – principles and practices, IMF Monetary and Capital Markets Dept, 22 August 2012).*

Audit reform is very much a requirement in the post financial crisis world. Among the consequences of this financial crisis are the creation of the European Financial Stability Fund (EFSF) and the European Stability Mechanism (ESM). Initially it was the EFSF that was replaced by the ESM as the funding mechanism for distressed banks in Europe. In November 2010 the EFSF published the Charter for Audit and Control. The mission of the charter backs up the concept of risk analysis via stress testing. The 'Mission and Scope' chapter of this document provides some core components on which to base aspects of the planned qualitative research. Firstly, that risks are appropriately identified. (EFSF Charter for Audit and Control, available at http://www.efsf.europa.eu/attachments/efsf_internal_audit_charter_en.pdf November 2010) Of key importance is that the actions of employees are in compliance with policy, standards, procedures and also the law. It will fall to the head of Audit and Control to be responsible for implementation and execution. This function head will need to ensure that a plan is implemented

that is compliant and achievable and measurable. An escalation path and associated scale for non-conformance and fraud must be structured. Of additional relevance is independence. Within the coming research it will be critical to understand whether the relevant audit body has the independence to execute completely. In the case of Ireland for example, the Central Bank Reform Act, 2010, created a new single unitary body – the Central Bank of Ireland - responsible for both central banking and financial regulation; ultimately, as the Act states, to prevent potential serious damage to the financial system in the state, support the stability of that system and to protect users of financial services.

A further move, in the USA, towards the transparency demanded by all regulatory bodies post crisis, is the requirement for publication of stress testing results and derivatives reporting under the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010). The Act allows for changes that affect the oversight and supervision of financial institutions. Under the guidance of the US Secretary of the Treasury a new agency to strictly enforce participation and compliance will introduce requirements of more stringent regulatory capital requirements (Morrison and Forester 2013). Dodd-Frank has seen some regulation success as both banks and corporates now have a greater responsibility to deliver derivatives reporting. However, this piece of legislation presents the most ambitious change in the regulation of financial institutions since the Great Depression, and its implementation will affect not only every financial institution that does business in the United States, but many non-financial institutions as well (Financial Services Committee, Washington 2010. Dodd-Frank is a huge piece of legislation, numbering over 2,300 pages in length and requiring federal regulators to embark on more than 400 rule-makings. The level of complexity in this legislation is clearly complicated for institutions to interpret and ensure their compliance. Again, this issue gives rise to a line of questioning for interview purposes, in exploring the impact of this legislation on attitude to risk.

Risk Attitudes (Operational):

Damodaran (2008) engages in a discussion of risk free rates. Historically, an investor could always be certain of a risk free rate. These rates are generally applied to government debt that would be viewed as without risk due to the low likelihood of sovereign default. In fact, pricing within risk markets always uses the risk free rate in its assumptions and calculation. An

example of this would be the Capital Asset Pricing Mode for pricing an individual security or portfolio. The market has always used models, which were built on assumptions, including the availability of the risk free rate. The difference in today's market is that the risk free rate is less available due to sovereign credit issues (Jaramillo & Tejada, 2011). In their Working Paper for the IMF, Jaramillo and Tejada (2011) explore the current trends in risk free rate offerings. Interest rates are currently at historical lows and with it bond yields are both low and stable. The USA, UK, Germany and Japan, for example, still maintain the capability to offer a risk free rate. However, this is less straightforward nowadays when viewed from the perspective of the Eurozone or other less capitalised sovereign nations that have been badly impacted by the financial crisis. In the Eurozone the impact stems from strong economies facing off with weaker economies. Interconnectivity brought about by initiatives such as Fiscal Compact now mean that it is a very central view (Lane 2012, Trinity publication).

Impacting attitudes to risk and the element of risk culture post the economic crisis is the possibility of failure in the Eurozone leading to a break-up. Indeed, the school of Oxford Economics stated 'the economic and financial strains now being felt in parts of the Eurozone mean that the possibility that EMU will not survive in its current form can no longer be ruled out (Oxford Economics 2010). During this time Banks and Corporates were considering contingency plans if the break up of the Eurozone, as feared, had become a reality. The analysis of Mattern et al. (2012) for McKinsey of Eurozone economics expresses concern that continuation of economic events eroding the trust of investors cannot be ruled out, making debt rollover impossible. If not counteracted by adequate liquidity support, this could lead to the break-up of the European Monetary Union.

In the event of renewed financial crisis the difficulty would sit firmly with periphery nations. This is confirmed by Oxford Economics (2010), Mattern et al (2012) and others. Capleton (2013) sets out an Irish example. An investor buys Irish bonds in the market, deeming the risk acceptable as the bond is within a European zone and has a functioning currency. However, in the event of a Eurozone break up the holder of this bond would face a grave issue. In the event the Euro ceased to exist all participating economies would be stand-alone again and would require a fall back to type. It is very likely that the currency would de-value and the holder of

the bond would incur significant loss. However, in the event the bondholder held a German bond then the likelihood is not on default or devaluation. It does demonstrate a clear disadvantage for the periphery nations and significant concerns remain in place for periphery default (Oxford Economics 2010). Again, possible unwillingness on behalf of financial institutions to investing in certain sovereign bonds will be further explored with the individuals selected for questioning.

A further example presented by Blinder (2010) for Princeton University is based around Quantitative Easing but this is only a workable solution for economies with full sovereign control over monetary policy. Economies in this situation have the ability to print money and capitalise the market. In the Eurozone, however, the flexibility of member nations to quickly add capital is considerably less due to the fact that the EU does not have full control of the monetary system. The Long Term Reset Options (LTRO) was the compromise to this with the goal of capital injection in to the European market to promote economic growth.

Bate et al. (2014), in their analysis of FX derivatives markets post crash, posed the question whether high-grade corporates (Pfizer, Apple, IBM, Microsoft) were really a better risk option than sovereigns bonds? A key element of the financial crisis with regard to risk is the very considerable shift away from Sovereign debt onto corporate debt. In their discussion, they excluded the US, UK, and Japan as having the ability to offer the risk free rate as they also had control of their monetary system. However, when other countries were considered, they wondered at the possibility that Corporates such as Apple, Microsoft or Pfizer, to name a few, could be a more realistic risk target. It would take a considerable shift for cash managers to revert to Corporate Commercial Paper for a liquidity return in the range of a standard hard currency risk free rate. In Europe, the crisis demonstrated that Sovereigns at risk of default and running significant deficits would see bond yields climb considerably but the control system has limited scope for rescue. The contagion in this case is heightened. Within the Eurozone, Quantitative Easing is not possible such as it is in the US or the UK. From a corporate perspective a fundamental shift occurred in the aftermath of the financial crisis. This shift was the adjusted risk attitudes of those large corporates globally. Traditionally, Corporates would generally operate a risk-averse policy. However this was offset somewhat by the availability of banks earning AAA and AA ratings based on the rating agency models of Standard and Poors,

Fitch and Moody's and the demand from Corporates for enhanced yield risk products. Enhanced yield products would have been a riskier blend of equities than previously demanded. These ratings did provide a significant overlap between the risk products being offered by banks and the risk policy being adopted by Corporates. In the opinion of this author it is clear that the Rating Agencies failed in the same way banks and regulators failed. It must be born in mind that rating agencies are not wholly independent. A rating agency will not provide said rating for free however, an institution is only likely to pay for a rating if it is investment grade and higher. The domino effect after 2008 following the downgrade of a lot of sovereign debt as well as bank debt was a renewed shift to capital protection. Corporates could not put a padlock on cash reserves quickly enough and yield became of little consequence. Even today, six years on, focus is still very much concerned with ensuring no loss on capital. Gains in the form of yield based on risk appetite remain of little significance. In the historically low interest rate environment Corporates continue to use vanilla products such as Time Deposits. The proposed qualitative research will seek to expose the level of fear in the current economic climate within corporates and the banking sector towards sovereign bonds.

As set out in the previous section, in the market post 2009 we have seen investors who are concerned with sovereign debt risk moved towards the bonds of high-grade corporates such as Microsoft and Pfizer. The bank lending market retracted considerably at the time of the financial crisis and was very slow to recommence. This was a significant limitation to the recovery cycle of the enduring financial crisis and is seen as a result of increased regulatory reform in the market. This reform was very much necessary and is discussed in depth as part of this literature review.

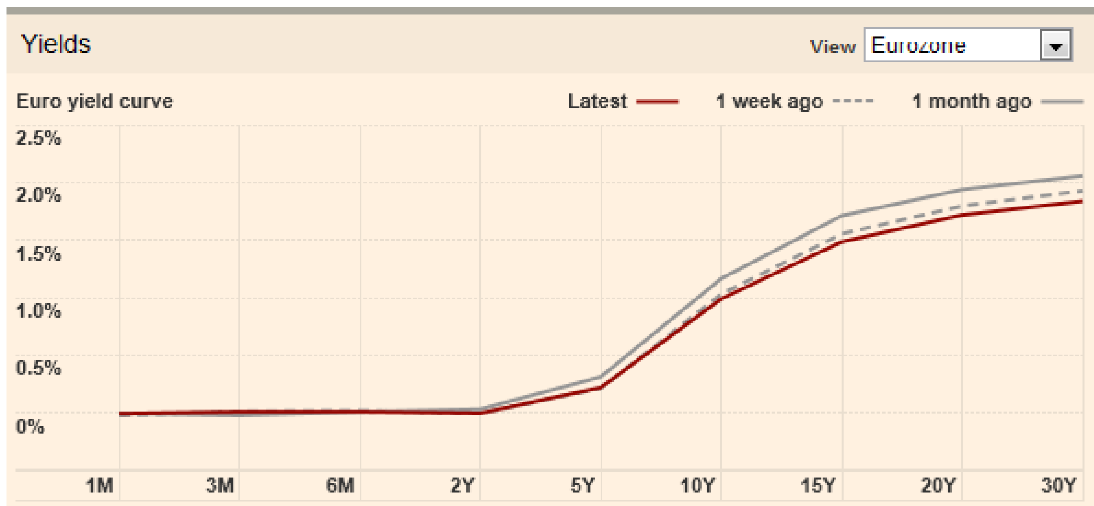


Figure 2.2 – Bond Yield Curve

Source: Financial Times, 20 June 2014

As sourced in the Financial Times bonds yields are offering historically low yields in this sustained period of low interest rates. Figure 2.2 indicates a flat line of zero percent out as far as two years on the curve with rates going no higher than two percent for maturities out as far as 30 years. As such, Investors are now looking for a short to medium term enhanced yield on cash piles. As such, high-grade corporate bonds have turned into an attractive alternative for investors. What makes this interesting is the volumes are significantly different when viewed regionally by economy. Bowman et al (2012) review how the introduction of new risk products such as a range deposit which pays an enhanced yield return provided the foreign exchange pair is trading within a certain range at maturity. The yield can be increased by taking a narrower range in the FX price. This increases the risk of the product which can be priced by market norms. The trend between core euro-area economies is significantly different to periphery euro area economies. The opinion of this author would agree with other commentators Van Trigt et al (2014) that this change in risk attitude could in itself pose significant future concerns. Van Trigt and his research team reference how periphery nations such as Ireland, Portugal and Spain are back in vogue. This is very much a demand-driven investor alternative, which would suffer a significant shock should demand fall sharply. In essence, they say, a continuation of this will require continued growth and fiscal discipline as well as increase in inflationary levels. In the event of continued or renewed recession and a sharp increase in bond yields the high grade corporations would find it difficult to access funding. The risk of default would be heightened significantly. It would

suggest that a short to medium term tenor market may remain buoyant but as a longer term option the merit would be reduced due to increased volatility.

Regulatory Reform

Having reviewed the concepts of regulatory reform, two aspects of regulatory reform have emerged as fundamental:

- *Aspect 1:* Reform to reduce the probability of an institution failing due to a lack of capital in the form of reserves, liquidity, governance and risk management.

- *Aspect 2:* Reducing the impact of failure

Pre September 2008 the potential options seemed to revolve around a bail out /rescue package or failure. Post financial crisis a third option of dividing the balance sheet into a good/bad bank and splitting out the loan portfolio accordingly became apparent. The possibility of a pre-insolvency recapitalisation via a bail-in by creditors emerged also. This alternative is very interesting as the only way it will work is if warning signs are detected. This makes the concept of regulatory reform even more critical. This concept will be dealt with in chapter four.

The response with regard to governance has been significant in Ireland and the Eurozone as a whole. The literature review has included a comprehensive review of the various published governance reports. These were referenced previously within this document. The Governance reports assess the failures that in some part led to the financial crisis and some of the key factors required for future success. Of importance is whether the regulatory response to this crisis has been sufficient. The concern is that the response is too narrow when looking at banks on a national level. This has been somewhat offset by the policies of the EFSF and ESM.

In the Irish Times, 3rd December 2013, the then-Governor of the Central Bank, Patrick Honohan commented that ‘bank asset review has been elaborate and expensive’ and that it was a ‘ground clearing exercise’. In the article he discusses a very interesting concept that would have a significant impact on Market risk and Value at Risk (VAR). He suggests that in Ireland, Irish banking may move to a three-way division. Multi-National Companies and high net worth

individuals would be serviced by a set of international banks. Middle market companies and Small and Medium Enterprises would be serviced by a group of Irish-owned banks and finally, a community-banking sector servicing all the rest. This would have a significant impact on the physical measurement of risk. Capital reserves among community sector banks and the Irish-owned banks would be restricted and as such lending would be impacted. It could be assumed then that this would restrict the local economy during times of recession or reduced credit. It would ensure that a local bank does not have the ability to create financial instability.

The Central Bank of Ireland developed the Probability Risk and Impact System (PRISM) and launched it in November 2011. PRISM deals with how risk based supervision is being implemented. The objective is to monitor the financial industry to the point that an individual or material fail is less likely to undermine overall financial stability.

> '*Under Prism, the most significant firms – those with the ability to have the greatest impact on financial stability and the consumer – will receive a high level of supervision under structured engagement plans, leading to early interventions to mitigate potential risks. Conversely, those firms which have the lowest potential adverse impact will be supervised reactively or through thematic assessments, with the central bank taking targeted enforcement action against firms across all impact categories whose behaviuor risks jeopardising our statutory objectives including financial stability and consumer protection'.* (Central bank of Ireland, 2014)

BASEL III:

As described earlier, The Basel Committee of Banking Supervision launched their new set of guidelines, Basel III, as a framework with specific focus on capital reform, liquidity standards and systemic risk. These guidelines were then adapted and interpreted by national bodies and used to build the Dodd-Frank Act in the US and CRD4 in Europe. The new guidelines were considerably more dynamic than previous attempts and far more complex. Additionally they were interdependent with other areas, which immediately caused concern around implementation. To date, regulators have generally disagreed on the interpretation and implementation around Basel III and indeed there is much speculation around the emergence of a

Basel IV (KPMG 2013). In the US the focus under Basel III interpretations has been very much on capital adequacy and liquidity buffers. In Europe, in addition, significant focus is being placed on risk management, stress testing and alignment. In essence, a greater focus on risk culture within organisations. The absence of an agreed strategy will undoubtedly increase barriers to implementation. In fact, it is possibly more accurate to anticipate that the varying interpretations will create a barrier to success. It is predicted that the increased capital adequacy ratios coupled with enhanced policy around risk culture will result in a reduction in the number of bank failures. In addition, there should also be a resultant reduction in bank-to-bank interconnectivity.

As seen, the Basel guidelines are not without their detractors. The guidelines may take out some capacity for lending within the system. If not this, then the lending will become significantly more expensive. This can be added to the likelihood of reduced investor appetite. Cosimano et al (2011) argue that the primary driver for this item will be the likely reduction in dividend for the short to medium terms while firms evaluate and build up the cash reserves within the required timeframe. This is somewhat of an unknown still however the argument has merit. The assumed costs could be as an increase of sixteen basis points.

From a reform perspective the variation in regulation practices across jurisdictions leaves a large question mark over interpretation and with it the credibility of the regulatory system in peripheral areas. Institutions in other regions may well gain a competitive advantage in regions where regulatory compliance is measured more leniently. Again, this will come down to interpretation. Another aspect when looking at a situation from a bank perspective is the reality that smaller banks may get forced out of the market. With such scrutiny they may find it hard to access capital. As referenced previously smaller banks will suffer in profitability due to the cost of funding, which is baked into the borrowings due to capital adequacy. In the current risk market banks need to encourage more investment. The reality is they will need to do a lot of additional business to get profitably back to the required level.

2014 has seen the heightened speculation surrounding the rollout of Basel IV before Basel III has achieved full implementation Anderson et al (2013). This significantly demonstrates the different

speeds and interpretations that are being derived from the new regulatory regime. It is of concern that the process is disorganised and uncertain. In a recent White Paper issued by KPMG (Anderson, 2013) this researcher was able to review some of the core changes that may come out of an amended version of Basel, namely Basel IV. Among the more noteworthy will be the requirement by banks to meet a higher minimum leverage ratio. Clearly this will ensure that banks are more heavily invested in risk products. They will have more bank capital, using balance sheet, tied up and as such will have a greater overall percentage at risk. A topic of considerable debate recently is the ability of banks to use internal calculation models for capital requirements. As part of the Stress Test programmes banks are required to use stringent scenarios to test capital adequacy. The drawback to banks using internal models as a vehicle is difficulty in areas of audit and regulation from the outside. In order to avoid any conflict of interest it would seem most reasonable to introduce a shared independent calculation tool ensure consistency around stress testing. Basel developments are also likely to focus on greater disclosure requirements. However, it is recognised that Basel III remains the available guideline for the present. At this point in time current disclosure requirements seem excessive and it is this author's intention to cover this as part of the interview research process.

However, as the Basel programs develop it is the hope of this researcher that they will remain effective and point to potential upside. Initial improvements must be around capital levels at all financial institutions. Currently the percent capital adequacy requirement is growing against previous versions. This, in the opinion of this author, is a prudent and correct strategy. This will result in greater capital management by banks. The structure is the only way that financial institutions will be able to empower people in their organisations to embrace a risk culture in understanding the restraints of risk management. Only then will consumers and the market see a pickup in business standards. At this point people will understand what it means to be accountable to the bank by whom they are employed but also to their consumer partners and federal regulators. Only then will it be clear that is not profit at all costs. What the research is expected to support is the hypothesis that banks are analysing risk business, low to high, and that they are beginning to do more business in the middle of the two extremes.

DODD-FRANK

In 2014 loan losses were at their lowest level in 8 years down to 0.6 percent of total loans versus 3.2 percent of total loans in 2008 (Hall 2014). Is this a function of the Dodd-Frank legislation or simply a factor of a recovering economy? This is a very pertinent question and one that this researcher will put to all candidates forming the qualitative research. Dodd-Frank began as a two thousand page document of rules designed to end a 'too big to fail' banking system. The two thousand pages at inception have, on its fourth anniversary, morphed into fourteen thousand pages of regulations (Stelzer, 2014). One would be afforded the opportunity to realize that the real winner here may be the legal profession who have been drafting this for the initial four years and what you would expect will be years to come. Initially this author has looked at some of the issues or limitations related to Dodd-Frank. For one, the cost is extensive. Financial institutions need to regulate for fifty billion dollars of transactions. In the considered opinion of commentators such as Irwin Stellzer, Director of Economic Policy studies at the Hudson Institute, would argue that banks that are approaching this level of transactions would simply avail of the incentive to slow down lending. Such a move would of course see the credit market shrink and the small to medium sized enterprise may see capital dry up. These are the very companies required for growth and job creation. As part of the research process this researcher will investigate the possibility that legislation such as Dodd-Frank is killing business. Research will also be conducted around the concept that the information requirement is simply too high. The question raised will focus on whether some form of scale should exist to ensure that the transactions with higher levels of complexity should be the ones incurring most scrutiny. This author would consider this to be a most sensible approach to a very bulky problem. Of course, Dodd-Frank does have a lot to offer on the upside. In consideration of the following could be noted:

- Stress Tests: In the main, stress tests will encourage sensible management of risk (Ackerman et al, 2014). Stress Tests have been covered more comprehensively earlier in this review.

- Dodd-Frank has created the concept of 'Living Wills' (Irwin Stellzer, Director of Economic Policy studies at the Hudson Institute) which outline comprehensive liquidation procedures which will force shareholders of the institutions as well as bond holders to bear the full extent of losses should the financial institution fail. The benefit

here, one would hope, is that in future the requirement of taxpayers funding the bailout will be eliminated.

- Dodd-Frank has required banks to shore up their capital bases even though it will likely impact profits (Gruenberg, 2012).
- The legislation requires financial institutions to fund riskier investments with higher amounts of their own capital. This has resulted in banks shying away from business investments that put customers' funds at greatest risk (ref). There is no greater comfort than knowing that the institution is also on the hook in a position they cannot fully sell out of.
- An extension of the item above sees the increased restrictions on institutions selling asset-backed securities as bundles containing mortgages that were so prevalent before the economic crisis (KPMG). Under Dodd-Frank legislation the selling institution must retain an interest in them. They cannot sell out of them completely and watch as another group take the loss. If they have something at risk they will be focused to ensure due diligence is comprehensive and that the bundle is effectively managed during its life cycle.

Returning to the question raised in the initial review of Dodd-Frank, this researcher is of the opinion that the requirements of Dodd-Frank should be critically reviewed to ensure they are most effective. In order to maintain a healthy blend of regulation going forward this will be essential. The author's view would concur with market commentators such as that the implementation of Dodd-Frank has added success to reducing the risk that the banking system puts on the economy. However, it does not mean that the job is done and the legislators, regulators and institutions can sit back and relax. The next periods of excessive over spending following the current economic recovery will very much test this. It is the opinion of this author that the power of big banks in the form of financial strength and political connections will ensure that we cannot leave the 'too big to fail' institutions in 2008. They will be coming along for the next phase. To take a final reference from Irwin Stellzer (2014), 'it is not clear that the current thrust of regulatory policy, extensive as it is, is aimed at the right problem, the size of the banks'.

The Volcker Rule:

Issued by the US Department of the Treasury, the Volcker rule is section 13 of the Bank Holding Company act that was added by section 519 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The Volcker Rule prohibits a banking entity from engaging in proprietary trading and from acquiring or retaining an ownership interest in or sponsorship of a hedge fund or private equity fund. Permitted fund activity consists of underwriting activity, market making activity and risk mitigation activity. As with other elements of regulatory reform brought about under Dodd-Frank the rule in its initial form was far too broad (Baris et al, 2014). It was considered far too technical and open to interpretation. Interpretation has been the one main criticism of all regulation that has come about since the financial crisis. However, the modifications made subsequently by the agencies with regard to the rule have moved to define the boundaries (Baris et al, 2014). However, it is the view of this researcher that presently it will prove very difficult to adhere to the rule and be compliant. The primary focus is now on large banks and financial institutions. The size of the bank or financial institution is naturally based on total assets. These banks are compelled to abide by the Volcker rule if engaged in proprietary trading activities. Upon review of an academic research paper by Morrison and Foerster, 'A User's Guide to the Volcker Rule' (Feb 2014), it is clear that the institutions with high levels of trading assets and liabilities who are engaged in proprietary trading will have to report based on a set of highly technical quantitative measures in order to demonstrate compliance. Banks and financial institutions that have more modest activity will not be subject to the same overly stringent tests. In researching Volcker further this author was encouraged to see that the legislators have moved to apply considerable jurisdiction (Stellzer, 2014). It legislates to require compliance from any foreign bank or institution that has a US based bank operation, subsidiary, branch or commercial lending arm. This is in addition, of course, to all US domestic banks and institutions. Further research referencing a White Paper from Morgan, Lewis and Bodcius titled 'A review of, and insights into, the Volcker rule Regulations (January 2011) let the author to take some comfort from the fact that the rule regulations set out a six point compliance platform. This will provide implementers with a framework for change management in the risk market and should, in an ideal world, greatly assist with the compliance burden. It is the opinion of this author that that a management framework that delineates responsibility and accountability for

compliance with the rule is very progressive. The same argument can be extended to the Management Review process, which should facilitate quality assurance with regard to any policy or framework. Similarly, the implementation of training, independent review by audit partners and good documentation practice will signal an inclusive approach and successful compliance.
The Volcker rule fits very comprehensively into the risk management space. As such it places emphasis on risk sensitivities. As part of the research it was clear that measurement could potentially track the profits and losses of trading activities in the event of change in underlying parameters. It is very much measurable in the context of value-at-risk (VAR) and also in the context of Stressed VAR. It could be anticipated that in the near future students of risk management and theory will be incorporating this aspect of Dodd-Frank regulation into their study framework. It is interesting to note, as laid out in the rule published by the Department of the Treasury for the US Federal Reserve that the risk market is policy and protocol. Policy makers within the bank or institution can stipulate permitted limits and benchmark the usage levels of current trades against those limits (Frierson, 2013).

What the author is detecting here is that Volcker has merit. It is a credible tool however, concurring with market commentators; compliance has been made overly complicated. Additionally, the complexity of transactions should be considered. In this context, a regulator may be unable to fully execute his or her position based on volume alone. In the banking industry the financial products most likely to deviate from vanilla are devised by very bright minds that have significant financial and labour resources at their disposal. In this case is it fair to expect regulators to be as well equipped? With this in mind should Volcker, like Dodd-Frank, be restricted to solely the very complex financial transaction? This would take a lot of the everyday bulk out of a heated market. The interviewees will be asked to consider this uncertainty in light of their own experiences within their financial institution.

Regulatory Compliance:

In a recent journal article for FX-MM, Micah Willibrand, the Global Head of Development for Acuity, suggested that there would be an increase in the number of compliance-related headcount positions being created. In fact as many as seventy thousand positions may be created. Of course

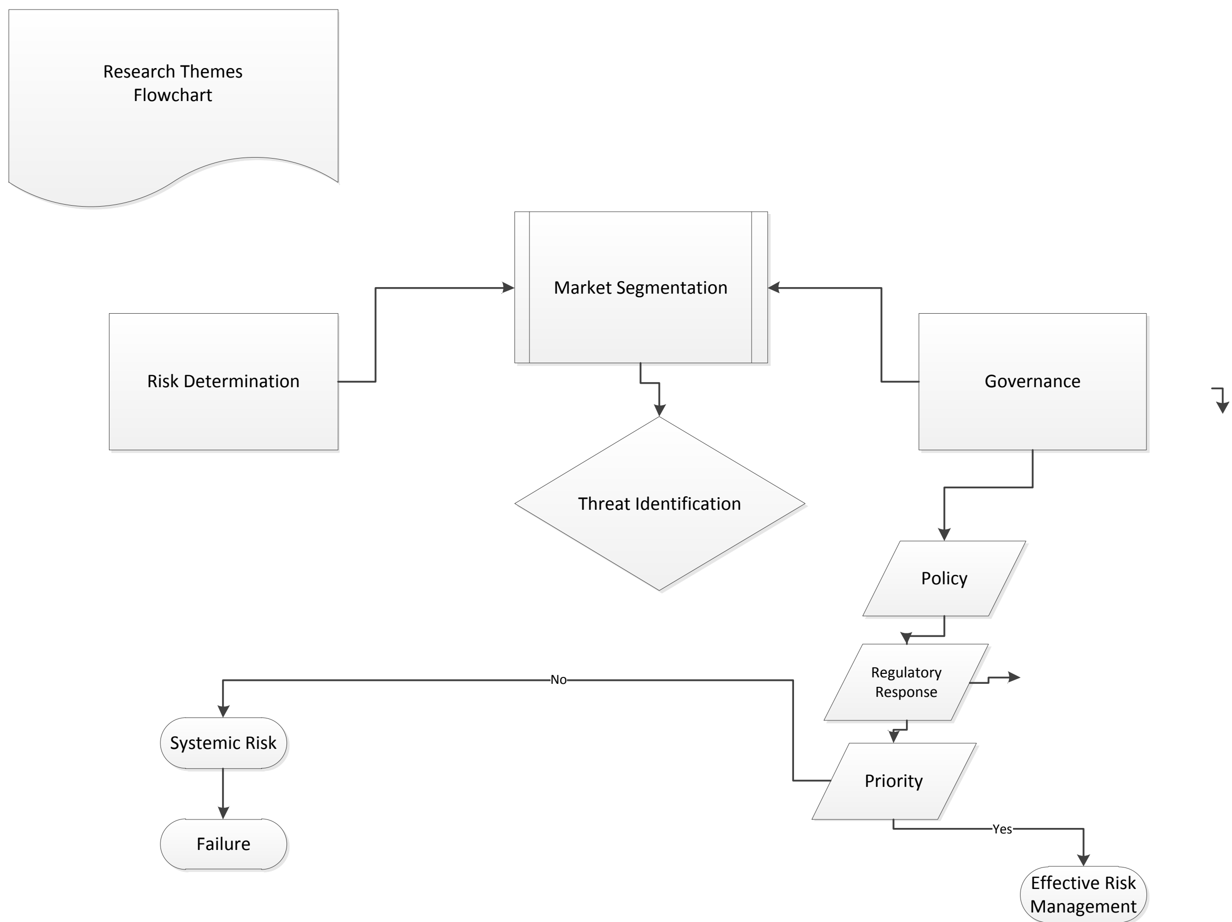
Governments will interpret this as a win for the economy. However, on the behalf of institutions responsible for the added costs of hiring these individuals, there are concerns regarding the ongoing capacity of business to incur such cost and, more relevantly, how will that cost be billed out to consumers. Any cost to the business is then an operational expense on the balance sheet. From a shareholder value perspective this cost must be recouped through the business (Willibrand, 2014). In the Willibrand article, a poll conducted by Thomson Reuters (2014) is cited as revealing that 66% of all respondents expected the cost of compliance staff in the next 12 months to be greater than it is today. Of those, 45% expect the figure to be significantly higher. In the same poll 64 percent of respondents agreed that the budget for compliance will increase in the next twelve months. Again, 44 percent of those believe it will be a significant increase. These are genuine issues for the financial institutions and corporations to consider. However, this researcher strongly believes that the continued investment in compliance resources is required (Deloitte, 2014) The Know Your Customer (KYC) principle is ultimately a brand in the market today as such continued investment is merited. In fact, one could argue that this will pave the way for a more efficient business model. Understanding the constraints of compliance up from provides significant clarity for the day-to-day business team in planning and integrating business. Regulation is a necessary requirement and it will require integration. If the regulatory compliance process is front-loaded then it would be assumed that the continued burden will be less significant. In the view of this author the opportunity now exists for the regulators to assume their role in an advisory capacity rather than as a wholly audit capacity. Effective integration with regard to regulatory compliance will ensure best practice with regard to risk management and of course a reduction is systemic risk.

In conclusion to this literature review one is aware that the path has focussed considerably more significantly on regulatory compliance and reform into the future and the impact this area will have. Currently, The operational perspective, with respect to is of lesser significance although this does not include the operational element of regulatory compliance.

Chapter 3: Research Methodology

Research approach to the examination of the risk market:

This research was predominantly qualitative. The researcher based his research around data analysis of interviews' with industry professionals. Below is a proposed flow chart of the research problem.



In line with the focus of the Literature Review the proposed research themes focus around the areas of Governance, Attitude and Change Management. The flowchart is intended to map the core themes. It would suggest that the overall framework can lead to effective risk management on an individual basis that should reduce the risk of overall financial instability. Risk cannot be eliminated completely. The absence of effective controls and regulatory governance will lead to systemic institutional failure which will impact the overall market. What became clear as part of the literature review was that a focus on a very recent event was

going to be challenging. The determination of acceptable empirical sources was necessary. What transpired was that a lot of the data related to reform enhancements had to be taken from web based resources including those of the US Federal Reserve and Central banks. When focusing on risk determination the flow chart clearly demonstrates that the key area of market segmentation and threat identification is coming from governance adjustments put in place in the years following 2008. What one hopes will be shown in this paper is that those elements contained under Governance and Regulatory reform are the key factors that could influence systemic failure in financial markets in future.

3.1.1: Research Philosophy

I conducted my research based on Grounded Theory (Saunders et all, 2009) and systematically discovering theory through a process of interviews and then analysis of raw data. It involved an emergent and involving design as opposed to a tightly managed template (Hatch, 2002). The interview data analysis allowed the researcher the opportunity to highlight key points followed by the application of a coding structure. The coding allowed for the formation of concepts with which to build findings and base conclusions and recommendations. This allowed the researcher to build a platform of categories which correlated with the research preparation done in advance of the interview process.

- *Codes – Concepts - Categories – Theory (David R. Thomas, a general inductive approach for qualitative data analysis, August 2003)*

The interviews followed an interpretive process (*Marshall and Rossman, 2010).The interviews were also inductive in nature (LeCompte and Schensul, 1999).* As a researcher I had some background in the topic. During the interviews I strived to not encourage preconceived theories so as to ensure that the interview is not lead in a direction which may suit my argument and as such ensured The Grounded Theory approach was consistent. Upon completion of the interview stage I condensed the extensive and varied raw data into summary format. During the coding phase I established links between the research objectives

and the findings of the raw data. This allowed the development of a model structure which can be demonstrated through the raw data.

3.1.2 Research Strategy

The research strategy was interpretive in nature. The researcher was required to take a view on aspects of the interview. The inductive process allows some generalisation. This was on the basis that the interview was relevant to a real work environment. The interview schedule involved multi regional participants. One was conscious that one needed to be aware of potential cross cultural and cross political personalities when applying the inductive process. The research strategy is cross sectional in design. The interviews occurred on a particular date in time that allowed the researcher which was sufficient in allowing one the opportunity to analyse the data and present it within the time constraints outlined. An adverse event following the interview would have a bearing on the research outcomes but fortunately this was not the case. The author considered the characteristics necessary for effective research . The interview will be conducted in a natural and relevant setting *(LeCompte and Schensul, 1999)*. For this it was important to interview candidates in the place where they would execute on the topics being discussed. This allowed them comfort of a familiar territory and an ability to associate with the material. In the case of domestic interviews the candidates participated in an office based setting which was free from interruption. For the overseas candidates interviews were conducted via telephone. These interviews were also conducted in an office setting.

As part of the strategy the author was challenged with regard to the identification of themes. The difficulty was the ability to streamline the literature into a manageable research process. The risk management industry is well established so it was essential that the research did not contain a historical simulation of events over time. As such, the focus of the research shifted to the relevant and current events that are driving the market in the aftermath of the financial crisis. Predictably, the shift went towards regulatory compliance and risk culture which developed into the primary research findings. The reality is that the derivatives market, from

an operational perspective is not drastically changed on an operational basis. What had changed was participation, regulation and ultimately compliance.

The renewed clarity around direction allowed the author specific areas of focus. This focus enabled one to build the questionnaire for review with interview candidates. Due to time constraints the questionnaire was limited to twelve questions and reference to 3 key discussion points which were:

- Basel III
- The Dodd-Frank Reform Act
- European Market Infrastructure Regulation

This facilitated the approach one would take to data gathering. It became a focus of the research to make an effort to deliver findings related to these key areas of change. The researcher recognized that this approach would be the most likely to deliver a successful paper and his intention was to subsequently focus the conclusions and recommendations around this focus area.

3.2 Ethical Issues and Procedure

The proposed research was carried out via a cross sectional qualitative (interview) design. The selection of interview candidates had the authority to decide if they were entitled to participate in the interview process. The interview candidates were chosen based on perceived ability to participate as a result of career positions they hold. In advance of the interview the researcher has gathered consent from the candidates in the form of a consent form of which a hard copy has been retained with a copy held by the interviewee. Please refer to the appendix 2 of this document to review the template consent form. On the form it was noted that the candidate can remove consent at any time after the interview takes place. Additionally, they had the opportunity to participate anonymously or be named. Any known risks or benefits were stipulated in the consent form. Before the interview commenced a brief introduction took place to provide comfort to the interviewee. They were informed that they could elect not to speak to a particular topic or question if it was outside the zone of their comfort. Additionally, they were encouraged not to offer opinions on topics where they don't

have sufficient knowledge. The interview process was be structured around the core themes. As referenced, the interview candidates were provided advance notification of the topics and the order with which they were addressed. This notification came in the forwarding of the adopted final risk questionnaire which is included in the appendices of this document. The interviewees understood that I had prepared for the interview by reading available educational materials and reports from the public domain. As it turned out the bulk of research comprising the literature review came from current financial journals and informed market commentary. Due to the very recent nature of the subject area it was found that reference published texts did not have the benefit of current thinking. The candidate had the option to opt out during the interview.

3.3 Population and Sample

The qualitative research will involve key sampling. To this end I won't define the population. Fpr the purpose of the research I gathered raw data from six interview candidates. Of these candidates, two from the same organisation elected to be interviewed together in a group form. This was determined for the benefit of the research whereby the interviewees could leverage the experience of the other while commenting. Additionally, it was done in the interest of time management for the candidates and the interviewer. The complete interview schedule including the completion dates is contained as an appendix in this document. The sample was six which comprised five multinational organisations across a global spectrum. The interview sample was proposed to be less than 10. I did conduct a non-probability sampling technique. *'Non-probability approaches to sampling do not operate on the principle of random selection to the sample and are used when researchers find it difficult or undesirable to choose their sample on the basis of pure chance',(* ***McGraw, Hill, c. 2008). The*** sample was chosen at the researcher's discretion using his own opinion on what the most suitable sample would be. It was important to choose a sample that was based at a level where they have oversight over operations and implementation as well as a strategic perspective and governance control. The absence of this would clarify what one views as exclusion criteria. The use of purposeful sampling was used to gather cases for criterion sampling (*Patton, 1990)* . Criterion sampling refers to candidate selection based on pre-

specified criteria. This suited ones research method. As previously referenced the researcher will use a system of coding to define the key concepts for my research. The software analysis tool used for this was NVIVO. The researcher conducted this primary research while taking the findings from secondary research into the interviews. The thematic analysis followed the inductive process on Grounded Theory. One will primarily follow a process of axial coding where by breaking out individual themes across the research. In essence, the use of NVIVO as a software analysis tool proved to be difficult and it is valid to say that this caused a weakness that would need to be addressed when doing addiontal research into this topic. The reality of the interviews was that the candidates similar roles in the global market however the differentiation of the roles within their organisations was somewhat different. To that end one had to make use of axial coding via a manual technique as the dominant analysis tool.

3.4 Data Collection, Editing, Coding and Analysis

The author conducted the primary research while taking the findings from secondary research into the interviews. Upon completion of the interview process one had to transcribe all consented audio data to written electronic format where it was compiled and stored securely. Upon request, the audio files were deleted with the typed record retained as a backed. The full content of the interview material was then available for analysis as a unit of research rather than individual pages of data.

As previously referenced one used a system of coding to define the key concepts for my research. I would regard coding of qualitative data as central to my conclusions (*Miles and Huberman,1994, Creswell P63).* The thematic analysis followed the inductive process on Grounded Theory. The author did primarily follow a process of axial coding where by breaking out individual themes across the research. I did anticipate some initial open coding where I can bucket some of the generic data for further analysis and the completion of the axial coding. This turned out to be more prevalent than initially expected.

The software analysis tool planned for this was NVIVO. NVIVO is a qualitative data analysis package produced by QSR International (http://www.qsrinternational.com/products_nvivo.aspx) and it is designed to provide researchers with a platform to analyse large volumes of rich text based data. It would provide the researcher with the ability to organize and analyse non-numerical and unstructured data. One hoped be able to classify, sort and analyse information, evaluate relationships in the data and also model it. In actuality the use of this tool was problematic to the format the author adopted for the interviews. While following a defined set of questions inconsistencies in the interpretations of some of the questions diluted the analysis phase. All opinions expressed were valid, correct and relevant however it proved difficult to programme these via the software tool. In the end, a more labored manual analysis was required. However, one does not believe that this impacted the output in any way. The interviews demonstrated that the market has a clear and centralized view of where the major issues are. As such, the data sources, while scattered, were also limited.

Chapter 4: Research Findings

In this chapter one will discuss the major findings that were captured as part of the qualitative research process. The qualitative research was conducted with the assistance of a prepared questionnaire which had been submitted to the interviewees in advance of the interview. It followed the core themes:

- Risk Management
- Regulatory Compliance / Governance
- Change Management / Culture

The research data that has been collected was analysed in the same order as questionnaire in order to provide a structure analytical process. As such, the findings will follow a similar order.

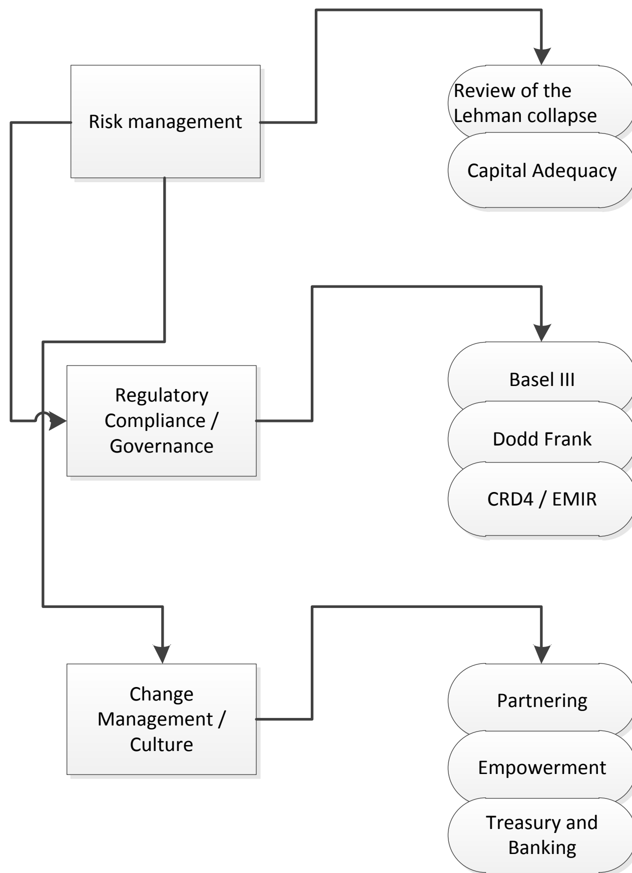


Figure 4.1 – Overview of finding criteria for core concepts

An initial question that was posed to the selected interviewees was around the actions taken at the time of the risk crisis. It was relevant to understand the feelings and sentiment towards decisions taken at the time. It was important to clarify the position of all candidates and as such it is noted that eighty percent agreed that the decision by the US government to allow Lehman to fail was the correct one. Significantly, with the passing of time the opinion remains the same.

The terminology here is interesting because by saying the US Government allowed it to fail would indicate that it had more of a part to play in its downfall. In essence, Lehman, as a bank was very much responsible for its own demise. This is very clear in hindsight, as is evident in the financial statements, where we can see that the balance sheet was almost disguised with borrowings. The leverage ratio was simply unsustainable. Reference is drawn to the possible but ultimately failed attempts by Barclays to take over Lehman. Significantly, UK rules around shareholder approval prohibited Barclays from completing the takeover of Lehman within the timeframe. The difficulty is that if they had not had to adhere to rules around shareholder value then Barclays would likely have made a different decision. However, they would not have had

time to do sufficient due diligence to allow it make an informed decision which could have proved equally catastrophic for that institution and ultimately the British government.

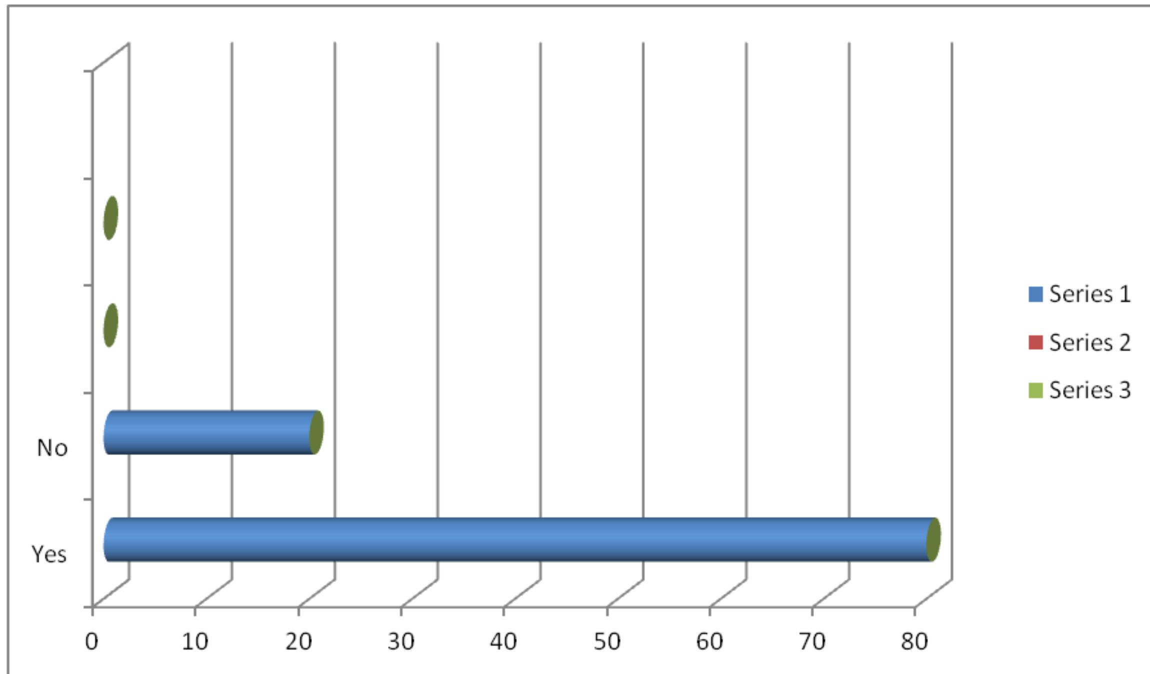


Figure 4.2: Was it right to allow Lehman to Fail?

Reponses from the primary interviewees do vary however which is particularly interesting. The spectrum of opinion swings all the while. On one side of the argument, all from senior bankers in this case, the view was that as a bank Lehman understood the risk. In this case it was the banks culture around risk and strategy that caused the problem. The failure of bank structure resulted in the failure of the bank. On the opposite side of the spectrum interviewees would suggest that at the time a solution was almost expected. However, in the interim period, it would seem that what the market needed then was the failure of a systemic bank. In 2008, the state of regulation was at a point of no return and a cathartic event was merited. In essence one of the difficulties around it was the rescue of Bear Sterns and why Bear Sterns was selected for rescue and Lehman was not. This was referenced by forty percent of interviewees. In reality, Lehman may have been a better option in terms of bail out as it had more recovery potential versus Bear Sterns. However, it is also worth understanding that the failure of Lehman, an investment bank, would have the least impact on day to day consumers or taxpayers. A point that was determined in the interview process and which one considers relevant in this debate is whether they had an opportunity to let Lehman fail in a more orderly fashion which may not have triggered the Credit Default Swaps.

Nobody anticipated the ramifications that came from the failure but if they were foreseen would the same decision have been made. The answer is perhaps not.

The research focused on a few other examples of potential rescues of institutions, in particular, the nationalization of AIG, Fanny Mae and Freddie Mac. These are well documented at this point and it is not the intention to add any new theories here. The simple fact that now knowing what was behind these institutions would lead to the requirement of a rescue. In the US, too many families, where interweaved with these institutions to risk allowing another failure. The wall of cash that was injected globally to bail out failing banks and institutions is estimated at $13 Trillion and this was the primary driver of an initial success story in the US and in the UK as they maintain sovereign control over the monetary system which was something that could not be utilized in the EU. This wall of cash in global markets excluding the EU is what allowed those countries to recover as fast as they have. This was referenced as part of the research interviews into this subject.

The same can be said of the nationalisation of Royal Bank of Scotland (RBS) by the British Government. Considering the executive leadership team of this bank had brought it to the brink of collapse due to an overly aggressive risk policy it must have been a very difficult call to make. Again, a wall of cash from the British government allowed them an alternative to finding out too late how big the problem is. RBS has been badly run for some years and its risk, compliance and diligence process were greatly exposed for their weaknesses. This is referenced visa the acquisition of ABN AMRO I a deal which did not include full balance sheet transparency.

The 'Too big to Fail' label is a real thing. In the aftermath of the Lehman failure commentators suggested that the era of this type of investment bank must be at an end. However, as referenced as part of the research interviews, it is not possible to regulate 'Too big to fail' out of the market and nor should it be. The problem with the investment banks in this category is that they operated without a suitable balance sheet. As long as full balance sheet transparency exists and regulators maintain oversight then the issue is managed. What the regulation has done, which will be addressed further in findings of this chapter, was to force global banks to look at capital levels and ensure solvency through an extraordinary stress test scenario. This has ensured that the likelihood of failure is greatly reduced.

Capital Adequacy Findings

A key finding from one hundred percent of interviews conducted related to the capital adequacy ratios which are coming in the wake of the Basel III guidelines on which Dodd-Frank and CRD 4 are built. Capital ratios seem to be set at reasonable levels however the capital adequacy ratio will likely rise as part of Basel IV. The focus will be on the prices determined by market makers. Consumers will incur the highest negative impact especially customers who are using products requiring bank balance sheet. Of key importance will be this impact to business and consumers owing to the difficulty in managing the capital reserve and whether that impact can be sustained by the market. More realistically is how it will be sustained . Banks, as businesses, have shareholders who will always be the primary concern. The emergence of the capital adequacy ratio began under Basel at five percent and has climbed steadily through the following iterations of Basel to nine percent with the possibility in future of that reaching twelve percent. Despite this capital requirement, investment returns on the capital will be expected at the same level. This will mean that the same return will be expected from the notional pool of capital. In this case the notional pool would be the capital total less the capital adequacy requirement which is ring fenced. This means that less money will have to be worked harder to achieve shareholder return resulting in:

- A requirement of higher trade volumes
- An increase portfolio of asset lending
- An increase of pricing on all lending and derivative products

This will potentially drive banks into a renewed aggressive approach which will ensure that the regulatory controls are very much tested again.

The author reviewed the concept of pre-insolvency capitalization via a bail in by creditors with all research participants. This concept is receiving a positive response in the market and the entire research sample was in favour of the measure which is being lined up for roll out in 2015. It is evident that formalised rules will be required for financial institutions who are not meeting capital requirements. Clearly, an alternative to failure is warranted. The difference here must be that capital will be available for viable entities only. The capital that will be available will be for entities to continue as a going concern. Entities that are insolvent must be eliminated from the consideration process. Significantly, a going concern will be an asset to the risk market and consumers. This should facilitate the reduction in the number of banks so that competitiveness

can be retained. In the aftermath of the financial crisis decisions with regard to institutions were being made in an ad hoc nature. The federal bodies did not have a structured protocol to follow. This initiative is an effort to create a rule book which will eliminate confusion and interpretation. What is important for this legislation to be effective is that it must allow for effective risk pricing by market makers. To facilitate this, an essential need will arise for a multi-tiered capital structure. Without this the ability of effective risk pricing will be eliminated. The tiered capital structure will allow investors to grade the risk they are acquiring. This will give risk markets the template to rationalize risk premium and to demonstrate that where risk is higher that it is being priced accordingly. It is anticipated that this is where the 'Recovery Plan' and 'Living Will' of all financial institutions will be measurable. With effective stress testing following prescribed timelines will allow for asset valuation in banks and key strategic intervals. While the prospect of recapitalisation via bail has received a positive response some tentative concerns were raised. This whole concept will be based on timely execution of the valuations within a bank. In the event that these survival or bail in tools are not backed up by timely valuations the reality will be that failure will be a function of time. An inadequate recovery plan or living will result in a failing institution not having the requisite time to convert bondholders debt into equity or shares in the institution. A failure of regulation will again, notably result in systemic failure.

Regulatory Compliance / Governance

Regulatory reform is one of the core focus areas of this research paper. The cyclical nature of regulatory reform has been evident in history. As referenced in the literature review of this paper all economic downturn events have always been preceded by loose regulatory reform and followed by much more stringent controls which, over time, begin to loosen again most likely en route to the next financial crisis. Bear in mind that all downturns may not be as significant as 2008 but they can be gauged accordingly. The interview research returned acknowledgement from all participants on this point. In the case of sixty percent of research interviews the term 'risk Pendulum' was used. This clearly identified the belief that we came from a position of loose policy around risk management and control in the lead up to 2008 and this was immediately followed by a period of stringent and over bearing regulation. What is most concerning but also a key point is that already, only a few short years post this event, we are already beginning to see controls loosening again. This signals the need for a review the process to ensure that the engagement from the regulators takes on board concerns being held by

financial institutions and corporates. On the back of Basel III guidelines, regulatory reform in the form of The Dodd-Frank reform act and CRD 4/EMIR were built. What is important is that the market ensures that in three to five years that the very prescriptive and onerous legislation has not been eased too greatly to a point where it begins to lose its effectiveness. The erosion of regulation in the coming years could be problematic. The capital adequacy ratios alone will not be enough to avoid additional market crises.

In order for risk markets to operate it is broadly agreed that risk protocols will be required. All interviews suggest a key message concluded the reform based upon the guidelines of Basel III is credible. However, it is suggested that the very credible nature of the reform is being overshadowed by the inconsistent execution. *'Good Intention, failure on execution'* is the view of a Treasury practitioner for a Fortune 100 company who was a research participant. What was highlighted to this author is the fact that the regulators already have complete information. At least they can access it as the banks have invested heavily in Information Systems allowing them to extract this data easily. However, both EMIR and Dodd-Frank have gone too far with regard to data requirements. This is causing issues for both financial institutions and corporations. To date, practitioners are not receiving any clarity on what is being done with the information once it has been reported. Equally, the increased data requirements do not address the fundamental problem that the data being received by regulators is fully comprehended. What the banks hope to see demonstrated is that the financial regulators are able to interpret and process the data they receive. In order for this reform to remain effective going forward this will be one of the minimum benchmarks. Financial Institutions are fully in control of risk and derivative portfolios. As suggested by an interviewee this is because they have invested heavily in Information Systems. However, this investment, which can be absorbed by the banks, is creating an industry within the market. The emergence of compliance in the work place and the Know Your Customer (KYC) rules suggest this.

In conjunction with this topic the researcher gathered views as to whether governments are putting sufficient emphasis on the Regulators to fully understand the markets they control. For the most part the practitioners are comfortable to agree that this is the case. However, as referenced earlier, there is an imbalance with regard to resources. To reiterate the point, on the whole, banks are well resourced. This can lead to greater investment in resources such as people. The simple fact is that the complex risk products being developed and sold by banks, such as

asset backed bundles, cannot be fully and correctly interpreted by regulators. A message that is clear in several of the research interviews is the belief that banks have a greater resource of people who are consistently building new risk products to bring to the market. It is highly unlikely that the regulator can boast the same standard of resources to control the whole market.

Under Basel III guidelines Dodd-Frank and EMIR were to put borders and controls around financial transactions. What the literature review highlighted was that the guidelines have been approved by the G20 governments. However, the guidelines approved are very broad. What has not been carried through was terms of interpretation for the guidelines. In simple terms this would be a rule book to underpin the guidelines This is not a regional problem; in fact it is global as the guidelines are being interpreted differently across the board. Under the EMIR legislation interpretations are varying between European countries. An example of this can be derived from comparing regulation brought about by EMIR and that of the FCA in the UK. EMIR requires all foreign exchange forward trades to be reported. However, in the UK, forwards are exempt. Another significant variance is that under Dodd-Frank a trade can be reported by one of the parties involved. This allows for the potential of fraudulent trades being reported. This was of grave concern to corporates. Additionally, the Dodd-Frank act requires all Financial Institutions to reconcile all booked trades. However, the same obligation has not been put upon the corporates. The weakness here is that the banking institution that does not receive confirmation from a Corporate will assume it as agreement. This is a core inefficiency which will need to be rectified. Contrastingly, under EMIR both side of the trade must be reported. This is a more robust method of reconciling trades and ensuring validity. However, under EMIR, legislation was loosened somewhat with the provision that a Corporate can delegate trade reporting on its behalf to the counterparty bank. This would appear to be a weakness and signals a potential loosening of reform policy already. The suggestion from the interviewee is that this particular market function needs to be regulated consistently. This will ensure the possibility of fake or dummy trades being booked is eliminated. Additional weakness with EMIR comes around reporting timelines. EMIR calls for reconciliation to be done annually. As a result trades that have been executed and subsequently matured inside the calendar year are never reported. If this is acceptable that these trades would go unreported then it would give the sense of being a box ticking exercise. I have referenced previously that the requirements under Dodd-Frank are too stringent in certain areas. The difference is that Dodd-Frank puts significantly more onus on the

financial institutions only whereas EMIR places the onus almost equally on both. Of course, Corporates want to operate best practice in line with risk culture but regulators have made it overly complicated. In some cases, smaller organisations have elected to discontinue some trades required to hedge exposures as the risk of leaving them exposed is less costly than regulatory compliance. This is counterproductive for both parties. Foreign exchange products are very profitable for banks and they can ill afford a reduced market considering all the costs it ultimately needs to cover for the renewed compliance effort. What is unclear as part of the process is the level of review that banks are undertaking on the Corporates in line with reform and capital requirements.

A consensus opinion coming out of the research into Dodd-Frank and EMIR is focusing on too wide a spectrum of trades. All parties agreed with the researcher that focus of regulation should be more comprehensively placed on complex derivatives. Complex derivatives would not include basic foreign exchange products. The less complex products add a lot of bulk to the markets and as such a significant compliance reporting requirement. Essentially, the onus of responsibility to ensure banks run well should not fall to the regulator. That comes down to governance within the institution. The regulator should only have to ensure that compliance under the rules is adhered to. It is important to segregate duties to ensure all parties understand the responsibility they have to the process. In recent years, evidence emerged of a conflict of interest among parties in the bank and regulatory system. The introduction of external factors will see a reduction here. An example of one such external factor was the appointment of Mark Carney (Canada) as the Governor of the Bank of England. Introducing a leader who does not have a vested interest in the domestic market should ensure full transparency within markets.

As part of the interview research a couple of failures with regard to regulatory compliance have been identified. The failures relate to:

- Reporting Agencies
- Penalties for non-compliance
- Engagement

With the rollout of the regulatory reform requirements a key element was missing in the form of reporting agencies. Financial Institutions and Corporates understood and accepted the requirements to report however they were unaware of whom they should report to. As it turned out, the reporting agencies were announced with only a 90 day window to complete reporting.

This was a hugely ambitious plan. The consequence of this was that before any party could report, the agency needed to build the system for which to receive the reporting, train staff and then onboard clients. One of the most significant oversights here was not alone the number of companies that had to be set up. It was the fact that a large percentage of these companies had multiples of affiliates under the parent that had to be set up individually via a group registration. In the case of large corporates there could be more than one hundred affiliates to register. As part of the interview research phase, one learned that all entities including affiliates within an entity required a unique Legal Entity Identifier (LEI). This is very effective for financial industry readiness however it goes someway to understand the unrealistic timelines. What is interesting is that the LEI codes need to be renewed annually. Failure to do so will see them eliminated and the registration process is required again.

Another failure that was discovered as part of the interview process was the fact that guidelines around penalties for non-compliance were not disclosed. To date, corporates and institutions are unaware of what sanctions they may face when regulatory audits commence. In the era of very significant financial penalties following the Libor Scandal, for example, or indeed money laundering, it is a grave concern for institutions to understand the potential fall out of non-compliance. This will have a major impact on risk culture within banks. Clearly, banks are going to operate on the side of caution if any doubt exists around non-compliance. Risk policy will dictate a very strict business culture to ensure compliance. This will create a situation where human resources in the banks are not being empowered or enabled to develop and grow business. Until such time as the potential penalties are clarified the market may potentially remain subdued. It is unrealistic to think that a penalty can be derived after the fact as it will be difficult to benchmark the gain that arose from non-compliance.

A research participant raised a concern around the issues with regional changes in the charging structure. Banks in Japan will retain a competitive advantage over US institutions. It is unrealistic to think that regulatory transparency rules can be dropped over the market in terms of a blanket. The interviewee was clear in the understanding that different fields within a financial institution have different nuances. It is unrealistical to think that they can be controlled similarly. Execution around Regulatory Reform is difficult. However, with any new product you would assume that while compliance would be mandatory that the legislators would have a provision for consideration of feedback. The interviewee did not want to label this as compromise for that

may be construed as some form of negotiation tool. However, the opinion of the interviewee clearly stated that the Regulator and Government agencies responsible for Dodd-Frank are not prepared to engage. The realised fact on the street is that the Act requires some clarity and without it the consumers and institutions cannot offer or receive the full benefit.

A significant research point was to critically evaluate laws for banks around jurisdiction. As a researcher it was important to understand if laws are in place around this topic and if they are measurable. What is clear from the interviews is that this is being addressed in the US under Dodd-Frank. In recent years banks operating in country have been proved to be holding a negative capital ratio in that country even though sufficient capital reserve may have been available at the institutions' parent level in its domestic market. Under Dodd-Frank, if an institution wishes to operate in the US then that institution is expected to bring the required capital levels with it and hold that capital in the US. The weakness here is that this standard of legislation is not being consistently adopted in other regions. The UK under the Financial Conduct Authority (FCA) rules are in place that would require a branch of a foreign institution to ensure capital is in place to cover the UK operation. In the Eurozone, similar rules are in place for fully licensed institutions where they are governed under the local regulator. However, what is not clear is that in the event of a failure of regulation and subsequent insolvency of the licensed branch would the regulator have recourse to the country of origin. The weakness that will need to be addressed is also around what recourse the in country regulator has in the event that the parent entity becomes insolvent. The protocols around Stress Testing will be required here in that banks will have to fully execute on in-country stress tests to ensure capital levels are adhered to. Capital held offshore will no longer be an acceptable alternative. In this case legal jurisdiction over capital should be mapped out.

Change Management / Culture

A key aspect of the questionnaire was created around the concept of change management within the banks and risk culture. The questionnaire had a final discussion question about whether Financial Institutions have:

A. Revisited risk protocols in the aftermath of the crisis in line with Regulatory requirements?

Or

B. Closed up shop pending increased credit and capital levels?

Input from research participants focused very much on the aforementioned ‘Pendulum Effect’. Risk culture in the banks today is purely built on disaster aversion. Change management within the organisation has been limited to this and with it adapting to increased governance. What this has caused in the industry is significantly more approvals and significantly more cost. The concepts of empowerment and enablement have been abandoned. The very tight governance is having a significant impact on business. With most markets now out of recession it is going to be important for regulators to adapt to the changing environment without compromising the strides made within the regulatory framework in order to facilitate economic growth or certainly not hider it. The responsibility can then be placed in institutional leaders to develop risk policies into the future which empower staff by offering them a ranged approach to risk.

I have constructed figure 4.3 to demonstrate the restrictions on risk traders in the current market based on information from a research participant. What it shows is the complexity which now comes with taking a trade in light of regulatory governance.

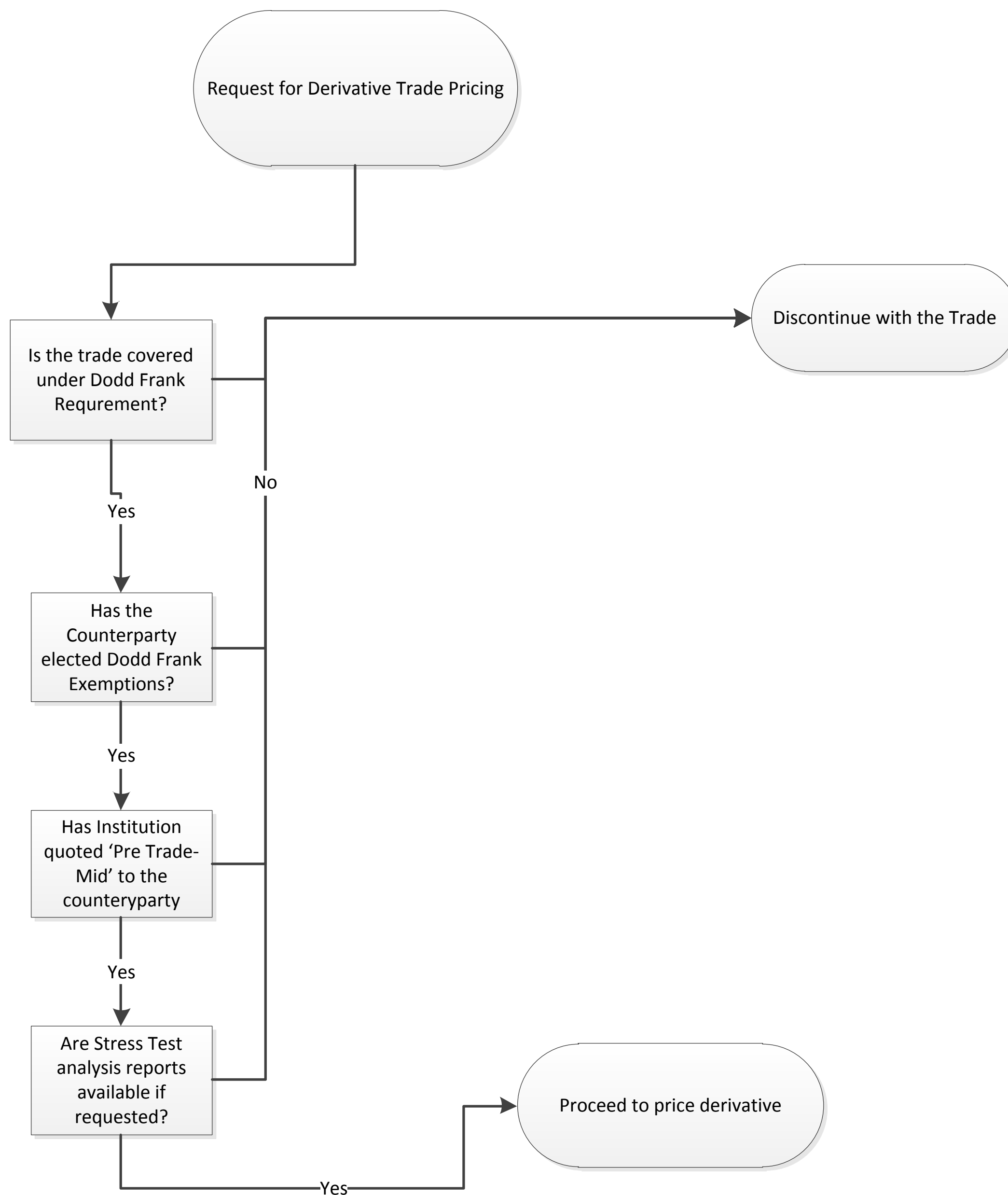


Figure 4.3 – Process for trade completion (Dodd-Frank example)

The candid response to this question was that banks have short memories. The challenge being faced here is competition between banks. Banks will always have to compete to survive and this will not change based on regulatory reform. The reality is that the competition will push banks out along the risk spectrum. Unfortunately, on the risk spectrum is an invisible line indicating the area of reckless lending. The challenge to the banks and regulators is to ensure that this is not breached. As mentioned before capital adequacy ratios without consistent interpretation of reforms will not protect the consumers from this. The overriding challenge in the next three to

five years is more than likely going to be the management of this competitiveness among banks. Of course Stress Testing will force out the weaker banks but this will not ease the problem of competition. Additionally, in that interim time period we can expect higher levels of credit to be reintroduced to the market. In interview A, the interviewee confirmed that in the Nordic region the leverage banking market is already back to pre-crisis levels. The pricing behavior and covenants exactly mirror pre-crisis styles.

A concept and aim of this research was to draw a link between financial institutions and corporate treasury where possible. The questionnaire had some questions on this area and one was very interested to get the views of the banks with regard to this. The author initially posed the question of whether or not the operation of Corporate Treasury globally is operating in a space that is too conservative and risk averse. Without exception all of those polled agreed that the vast majority of Corporate Treasury's operate somewhere in the range of conservative / too conservative domain. Of the responses received none of them suggested corporate policy to be aggressive and as an operator within this space this researcher can relate to that. It is valid to say that Corporate Treasury teams should not seek to take on excessive risk. However, in making efforts to reduce risk it is fair to say that the possibilities are limited. One believes that this is very much down to risk policy within the organisation and of course the management culture that goes with it. One of the key areas to demonstrate here is the concept of banks partnering more with customers so that both can avail of opportunity which will provide a more engaged market. In the current market the attitude of Corporate Treasury could be construed as lacking vision. Foreign Exchange Spots, Swaps and Forwards are viewed as less risky than options. It is true that these products do provide the necessary level of protection for all firms. However, it is also true to say that this is an entry level requirement. As the company grows and develops it should be looking at other products which in essence also reduce risk. The reason for this is that Corporate Treasury policy is ultimately ruling out upside. In the event that corporates were to partner with counterparty banks they could provide a holistic view on what they need to achieve. By doing this the bank partner can understand the long term goal. A research participant clarified hat in backward testing over a ten year period options have been proved to be less risky than other foreign exchange products. He explained that the reason for this is that the buyers are participating in upside and based on standard volatility you would anticipate a favourable return at least fifty percent of the time. Optionality is cheap in the risk market post the crisis and

additionally volatility it quite low. Of course, there is a caveat to this. In this situation the caveat stated would be that investors remain on the buy side of an Option trade. If you remain on the buy side you are participating in the market safe in the knowledge that the worst case scenario is known. The worst case scenario is the premium paid out at the time of purchase which is not redeemable. At expiry, an option out of the money is not exercised and the loss to the organisation is the premium. However, if the option is in the money it can be exercised realizing an immediate gain to the business. The offset here, using a standard hedging tool such as a foreign exchange forward is that the forward, if perfectly hedged, can achieve an exact offset of the exposure, no gain and no loss and no outlay of premium but also, no participation in Upside. Financial institutions and corporates are currently not operating as partners. The reality is that the by having a partnership between companies and their counterparty banks could result in a bigger market which could potentially benefit both sides. This author sees merit in this possibility by allowing some leverage between the two. This could be achieved by a broader understanding of the pricing model. In the event that regulation does the job it is designed for then transparency across the market will exist and corporates may begin to trust banking partners with goal plans.

These are the facts found from the data collection phase and in the following chapter the author will discuss the conclusions that have been drawn.

Chapter 5: Conclusions

The formula for this chapter is to put emphasis on drawing out conclusions using the common structure adopted in this paper so far. As with chapter 4 the conclusions will be viewed along the following themes:

- Risk Management
- Regulatory Compliance / Governance
- Change Management / Culture

As a researcher one has tried to differentiate these between what might be construed as bank centric constraints and what might be construed as corporate centric constraints. Naturally, one would expect a significant amount of overlap.

One takes the view that the biggest step needed in the short to medium term is to focus on the regulation. The risk market still exists but it is predominantly driven, in today's climate, by regulatory reform. This is evident from the very significant focus it has received within this research.

The findings of this research have borne out some core conclusions with regard to risk the management market today. The key message that can be concluded is that both financial institutions and corporates regard the regulatory reform as credible. They wish to be compliant and are prepared to absorb the cost to this new way of doing business. However, the execution to date has been flawed and engagement on the part of financial regulators is now required. Without it, the initiative could potentially fail but otherwise we will see the emergence of a fragile model into the future.

A significant conclusion drawn in this research is around the interpretation of regulatory guidelines. It is clear from interview candidates that the differing requirements on a regional level are problematic. The absence of more central controls, hopefully driven at the very least by G20 countries that approved the use of the Basel framework will ensure enduring competition issues in the risk product market. It will be counter-productive to the overall aim of this reform if bank centres of excellence develop around the globe. The research findings revealed some stark differences between regulators including the type of derivative product that falls under the scope of reporting reform. Industry practitioners who were interviewed are unanimous in the view that the reporting requirement is far too stringent and focuses on too broad a range of products. The

primary fact here is that the regulations in current form are too aggressive. In essence, the failure of this will likely be on the side of the financial regulators as they are unlikely to have the resources to sustain this volume into the future. The regulation cannot be an overlay model that can be dropped as a blanket over all derivative transactions. That is required now is engagement between the financial regulators and the counter party institutions to develop a strategy that will ensure economic growth and an effective oversight tool. It is necessary that a dialogue is built between these parties that will map out the derivative transactions that pose the most significant credit risk. Reference was made to the 'Pendulum Effect' where regulation is loose before a crisis and tightest afterwards. The viewed loosening of regulation so soon after this significant financial crisis would indicate that already the regulators are stepping back. We have heard that banks are fearful of stepping back as they are yet to understand the consequence of reduced compliance. If we do not see the engagement take place then it is feasible that this will result in some regulatory loosening. The reaction of almost passing responsibility of the risk markets to the regulator in the aftermath of the crisis was a mistake. The onus of responsibility here should always fall to the risk taker, in the broad sense the banks and institutional investors. The same can be applied to Corporates. This process will then allow the banks to comply with requirements that they fully understand. This fact is why it is essential for a working rule book to be applied. This will force top down governance into all institutions.

What the researcher found to be of great significance was that the idea of Bail Outs should be addressed. Research suggests that Bail Outs are very much a Government/Regulator initiative. However, sweeping bail outs, like we saw as part of this most recent crisis had inconsistent results. It is fair to say that the 'wall of cash' policy adopted by the US and UK governments did net a positive result in the form a quicker than expected exit from recession. This validity can be measured when viewed against the EU which could not utilize the 'wall of cash' philosophy on a blanket basis. The result was that it took the EU a longer time to exit recession despite the moves by some member states to nationalize banks. The downside to this was always the cost to the tax payer and the fact that it was a move to capitalize the banks to pay investors rather than to maintain an institution. It is essential that the upcoming plans to recapitalize institutions by way of a creditor bail in are delivered. Banks and investors understand the risks; to bail them out in future is unsustainable. This will put a renewed focus on change to the macro environment. The interviewed candidates have agreed that it will be important to follow through on the concept of

recapitalization via bail in. This will form somewhat of a two pronged approach. The introduction of formalised rules around bail in's for institutions who are not meeting capital requirements. Instead of going directly to failure cash will be available for institutions who can continue to run as a going concern. The difference is that capital will not be available for institutions that are insolvent. The possibility of a bail in will be available for an institution that is viable and whose presence is beneficial to the market and consumers. The rule must be wholly transparent so all parties understand the criteria in advances. The second prong to the concept of recapitalization will utilize the proposed 'Recovery Plan' and 'Living Will' which are necessary to ensure that tax payers are not called upon again in the future. Natural attrition of institutions via stress test scenarios is a function of the regulation and it is a prudent move. It is very progressive to develop an asset valuation calculation method where counterparties will be able to value the assets on the balance sheet. Having a diagnosis tool developed and rolled out will be of benefit and should allow for structured bank failures in the event of insolvency. Going forward, bondholders understand that insolvency will not be rectified by a bail out and with it the risk is real and tangible. This will allow the risk markets to take a consistent approach to risk pricing. The process for converting bond holdings into equity will be very time consuming. The introduction of a traffic light system, as referenced in an interview, will ensure time is available for a bank to implement its recovery plan or ultimately to enact its living will. Using the platform of increased capital adequacy ratios which will likely go as high as 12% will ensure that fewer institutions will fail. By ensuring a template policy will ensure that banks have a recovery plan in place and with it, ultimately their 'Living Will'. The distinction here is that the stress testing as part of the Recovery Plan has to be timely. Into the future, it will be required that insolvent entities are allowed to fail.. Certainly the scope of the market will diminish.

Reference was made to the timelines for reporting. It is notable that the practitioners were uncomfortable with the engagement coming from financial regulators. What is very evident from the finding were the various weaknesses with reform and also the specific failures within it. A conclusion can be drawn that the financial regulators need to enable institutions which will allow those same institutions to empower its people and allow them the framework to be compliant.

If the approach shifts back to giving the banks control in a more tightly regulated market then it will be necessary to understand what will be done to assist financial regulators in the audit and oversight role. It is unreasonable to assume that the regulators can continue to have such a

specific involvement with banks. They must revert to an oversight methodology and to do this they will require tools. Those tools will be in the form of a defined set of rules which are agreed. Within that, the focus will have to be made more specific. Having a broad approach to capture all derivative products is not feasible and not necessary. However, some investment will be needed. Currently the ratio of regulatory personnel to bank personnel is conservatively guessed at 1:10. In Ireland we have approximately seven thousand regulators overseeing a bank staff of more than one hundred thousand. Competition among banks will become the next issue to put financial markets under strain once the weaker banks have been forced out via the stress test procedures. However, banks will now be competing in a more tightly regulated market. The competition will surround shareholder value being driven by capital requirements. Shareholders are unlikely to accept a reduction on capital return based on regulatory requirements alone. Banks will have to compete aggressively to drive sales up and ensure that the percentage return of the current notional capital amount meets the previous level.

Regulatory Arbitrage is going to pose a significant challenge to the institutional framework as we move forward. It can be concluded in three words:

- Interpretation – The ongoing interpretations of the BASEL 3 guidelines pose an alarming weakness.
- Concession – Concessions are being made to banks in certain countries based on the above interpretation issues.
- Consistency – Globally, we are not seeing consistency among banks. This is due to interpretation of rules and concessions being made of an ad-hoc nature. As such, more stringent regulation is creating an uneven playing field and putting banks at a disadvantage. Dodd-Frank is more stringent than EMIR and as such US banks are already at a disadvantage.

As referenced previously, Regulatory Arbitrage will see banks in certain countries become product specialists.

In regard to the final theme of change management and risk culture the conclusion to be drawn is simply to put the onus of responsibility back on to the institutions. This should be done using a tight but fair regulatory model. It is necessary for action to be taken at Board level. What was referenced in interview findings was that the market has seen an increase in Board members who

have experience in the risk market. As the market moves forward to 2015 it is necessary for the relevant Boards of Directors to provide clarity around risk protocols in institutions and then enable the people in the organisation to execute accordingly.

As part of the interview process some conclusions have been drawn that were not relevant to this particular phase of research. With that in mind one is offering two additional conclusions that should be considered for possible future research.

The first conclusion relates to the emergence of high grade corporates who have more than adequate capital levels. The market could consider using corporates bonds as an option for investors looking for a risk free rate in markets outside of tier one nations such as US, UK, Japan, and the Nordics to name a few. This would provide capital investment which has a stress tested foundation. A researcher should investigate the possibility of a proxy for Treasuries on the bond market side. Corporates are so diverse and have such strong balance sheets that the probability of a default scenario seems low. Assigning them this status on shorter end of the yield curve would be prudent, for example 5-10 years.

A further conclusion that could be considered for future research would be to focus on the overhaul of the Rating Agency programme. The intention in this case is to facility greater engagement between the agencies and the institutions. In the recent financial crisis one key failure could have been considered against the rating agencies as they were slow to amend ratings. Ratings are paid for by the institutions which are counterproductive as institutions will be less likely to pay for a poor rating. The agency as such then has a vested interest and a potential conflict of interest.

Chapter 6: Recommendations

The research findings of the author have given rise to six potential recommendations for consideration.

Rule book to underpin Basel III Guidelines

A primary recommendation that one would offer based on facts found would be for the introduction of a rule book to underpin the guidelines laid out in Basel III. What is clear is that interpretation of the guidelines by the regional financial regulators is posing a considerable challenge to reform and creating an unstable global risk market. If it was possible for the G20 nations to agree and approve the Basel III guidelines then it also seems likely that it could be followed up with ancillary documentation to support reform. What the rule book would achieve is to give a stipulation on how derivatives transactions are managed. It will also likely add a global standard to the regulatory compliance effort which may in turn clarify if foreign banks would have to offer recourse to domestic economies in the event the capital levels were not maintained in line with adequacy ratios. The successful development of this rule book would provide a platform to reduce interpretation by institutions with regard to domestic regulatory requirements.

The Reporting Burden

The second recommendation will focus on the reporting burden. It is clear from the data collection exercise that regulators today have all required information at their disposal. What is not clear is what they are doing with it and also if they are capable of fully analyzing it to provide a justification. To date it is not clear of regulators have prepared a justification of their own around products developed by banks and reported. The objective was for greater transparency and the implementation of improved information systems to extract and report the data have been developed by the banks to facilitate this. The drawback here is the cost effort involved. What is happening is that financial regulators are requesting data on all derivatives trades. From the qualitative research it is clear that this is not sustainable. In order to rectify the situation this author is suggesting that financial regulators maintain the standards of regulation reporting but for less transaction types. It is suggested that that vanilla derivatives such as Foreign Exchange Forwards and Swaps as well as Interest Rate Swaps, for example, be eliminated from the reporting regulation. In addition it is proposed that reporting frequency is

increased so that complex derivative transactions cannot be booked and matured inside reporting timelines. In summary, report less trade types but report them more regularly.

Reporting Agencies

The data gathered in the research interviews would indicate that the financial regulators overlooked some factors with regard to the rollout of the reform. Both of these factors were listed in the findings as failures of implementation. At the time of the legislation provision was not made for who the reporting agencies would be. Additionally, the agencies that existed in the market were not consulted on the constraints they would face to become capable of receiving all reporting data. In the end the agencies were disclosed with a ninety day window before the reporting deadline for the first year. An example of such an agency would be the Depository Trust and Clearing Corporation (DTCC). With the introduction of Legal Entity Identifiers (LEI) it would seem that the burden on the reporting agencies may restrict timely reporting. The suggested recommendation is to introduce additional agencies to the current pool. This will facilitate the quicker set up of entities including all affiliates under the parent company. To reiterate the finding, all affiliates under a parent entity require a separate LEI and this LEI has to be renewed annually. The benefit of adopting this recommendation is that faster reporting of transactions will provide for a more transparent view of counterparty risk. If a vast number of transactions are queued for reporting then it is feasible that a counterparty may already be in breach of its limits.

Penalties for non-compliance

A subsequent recommendation which came out of the second failure detailed in the findings of this dissertation is around the penalty for non-compliance. At the moment banks remain under a microscope and banks themselves are still operating on lock down. As oversight audits are yet to commence no guidance has been released to institutions to detail what the potential sanctions for non-compliance are. It is anticipated that some difficulty exists around the determination of sanctions owing to the very recent shift in reform. However, while institutions are unclear as to what the potential penalty may be they are likely to err on the side of caution and elect to not book a trade. While some commentators may see this as a positive step one can view it as a rational approach to a complicated scenario. It is not in the interest of economic recovery to have

a banking system that is not operating to its full potential. The likelihood is that non-compliance will probably require a case by case sanction however the benefit of this recommendation would be for an overlay template to be put in place on how non-compliance is calculated and viewed.

Engagement between Financial Regulators and Institutions / Corporations

The fifth recommendation one would make is around engagement. All of the interviewees have emphatically suggested that the regulators should engage with Institutions in order to ensure consistency around reporting needs. Referring to the finding that suggested reform was 'good on intention, bad on execution' it seems that clarity is required around what and how reporting is completed. In the event that the first recommendation was not upheld one believes that it is entirely necessary to have consistent standards of reporting globally. Given multinational companies execute derivative transactions on a global scale it is not sustainable for them to have varying rules on what types of trade need to be reported in what countries. As referenced earlier, in the UK Foreign Exchange Forwards are exempt however they are not exempt in other European countries. As a result it is impossible for multinational companies to have a consistent platform of operations.

Partnership to facilitate Risk Culture

The final recommendation is the one that is of greatest personal interest to this researcher. During one's career it has been evident that the partnership between banks and corporates is an area of weakness. It is clear that corporates have designated relationship banks however it is likely that the banks have not had clear visibility of the companies intentions in the market. The benefit of this recommendation would be potential engagement between the two parties which may see Corporate Treasury participate in market upside. This could facilitate upside not just for the company but also for the institution and ultimately the overall market. One would foresee te possibility that organisations should consider a rationalization of the number of banks they interact with. In doing so, they can open the way for a greater communication channel to allow for information sharing with respect to new products. Additionally, the possibility of broader risk policies within organisations increases.

Further development of this recommendation would suggest that it is now time for senior leaders within the bank framework to empower their people to go back to work. The cost of the

compliance effort is so stringent that a greater volume of sales will be required in order to offset it as well and ensuring shareholder return on the rig fenced capital levels.

Future Intentions

As a researcher one intends to remain focused on the subject matter of this thesis. One has an interest in understanding the continuing developments of this market. Of particular interest will be an effort to effect changes in one's own organisation and possibly see the development of a wider risk policy for derivative transactions. The potential to free up some available capital to set down as premium will be a challenge but it will not be without merit. The intention of the author is to leverage strong relationships within the partner bank sphere to try and bring about this change.

It is also my intention to follow up on the suggestions for further research as laid out in chapter six. This research will be undertaken if circumstance and resources permit.

Chapter 7: Self Reflection

For the purpose of this reflection I have adopted Experiential Learning by David Kolb (1984). This is an experience based learning system which has been much used and adapted in the years since its evolution. In addition I also researched the Reflective Cycle by Graham Gibbs (1988) and the Grasha-Reichmann learning style which was formulated by Anthony Grasha and Sheryl Reichmann in 1974. While I compared Kolb and Gibbs and elected to eliminate the use of one, Gibbs, I found that aspects of the Grasha-Reichmann theory were relevant to my process throughout this dissertation. What attracted me towards Kolb versus Gibbs was that Kolb's view, in my opinion, was less process orientated. It was experience based with reflection. The model provided by Gibbs was very much a process driven approach.

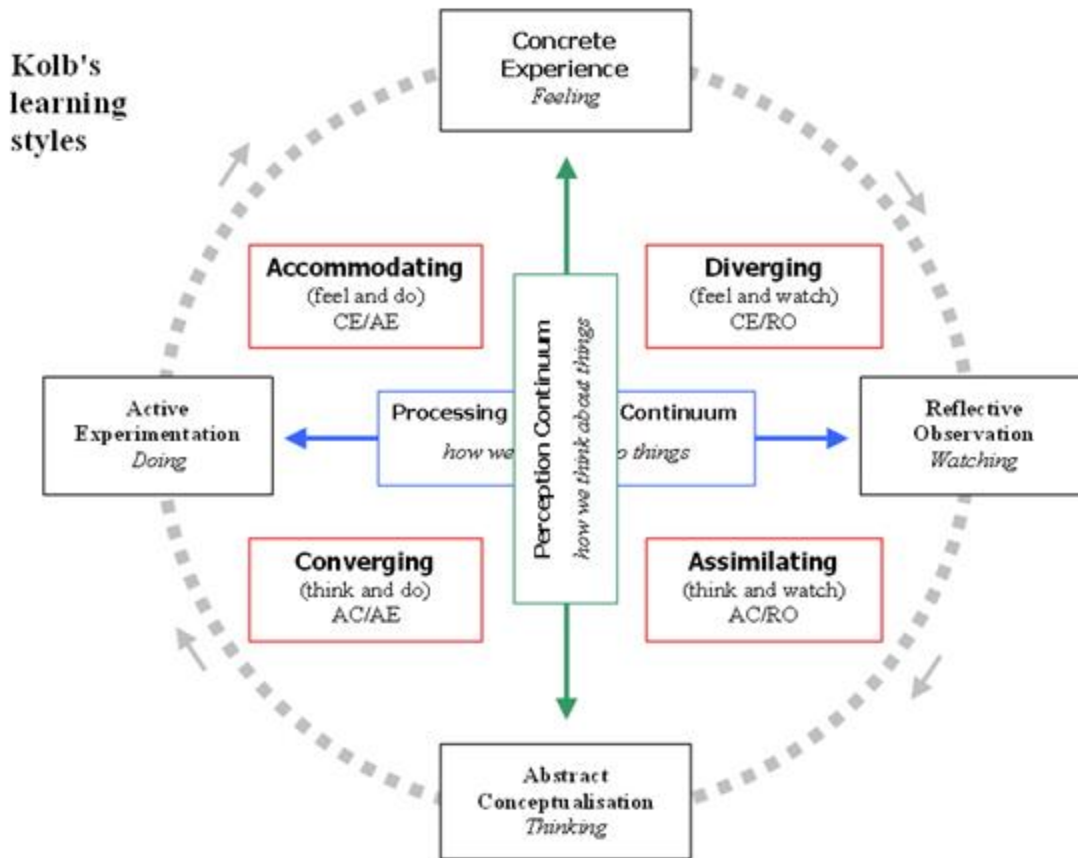


Figure 7.1 – Experiential Learning, David Kolb (1984)

According to Davis (2001) It is not all about choosing a hot topic but a topic that interests the researcher. This is of particular relevance to me as the topic I chose has been a factor in my career in the recent past however it has not been a primary driver. As a member of the Corporate Finance Industry the subject area is both relevant and changing. It is rare to get to research an item that is still developing to the point that it is changing daily. To this end it was hard to 'steep myself in history via empirics (Davis, 2001).

As part of my review I was able to plot my position on the graph formulated by Kolb. I determined that I was a *Diverger* which is a blend of concrete experience and reflective observation. The characteristics within this are:

- Real life experience and discussion
- Imaginative
- More than one possible solution
- Observe rather than do
- Alternatives
- Background

While it seems impossible to touch upon all of the parameters contained I was comfortable to be touching on four out of the six. As I proceed through the reflection I will refer to these in particular.

Qualitative researchers are interested in understanding the meaning that people have construed …. The experiences they have in the world (Merriam, 2009)

During the lifespan of this postgraduate Masters course I have relied heavily upon experience. As I have had a number of years in a related field it has given me a broad understanding around all the course concepts which are culminating in this research thesis. I weight heavily the benefit of tangible work experiences which contribute to a learning experience. These work experiences can be used for ones own learning but also to assist with classroom interaction and provide options for in class discussion. These would then be classed as relevant and current.

The first element of Kolbs cycle is Concrete Experience. My interpretation of that is the notion of entering a phase with some previous knowledge and understanding of elements of the focus point. In reference to the parameters of a 'Diverger' I immediately refer to the first one, Real Life Experience and Discussion. As I prepared my research topic and proposal I quickly earmarked the area of Behavioual Finance. Within my role this is very much a trending concept. I then focussed on the area of Risk Management. The reason being that it interests me, it is relevant to my study and I have some experience around the broader framework. A significant event such as the Financial Crisis of 2008 and beyond is not one that will come up with any degree of frequency. Given the protracted length of this particular crisis it is easy to understand that we have lived it both in work and in our personal lives and it is still a very current debate. The change management process that came in the aftermath of this crisis, as discussed in my thesis, is still incomplete. That provides us with a very relevant platform with which to research.

My selection of overall research aim, to assess the attitudes to risk in the aftermath of the Financial Crisis lent itself very much to a qualitative research process. I was able to acknowledge that the best course for research would be via interviews. This method offered a discussion forum where one, as the interviewer, could be adaptable to the strengths and interests of the interviewee. In an area as broad as this it is unrealistic to think an interviewee may be able to fully cover all aspects. It was interesting for me as a researcher to demonstrate my ability in getting the best out of the interviewees. Candidate selection was also a rewarding process as I was able to focus on people who had a solid background in the business. This would make the data analysis phase all the more achievable. My experience allowed me to understand the more important aspects of my chosen area and these where very much complimented by the taught modules of the cours, in particular Risk Management, Option Pricing and Theory of Finance.

All of the preceding information provided the platform for me to continue to the action or doing phase of this dissertation. Under the Kolb model I was now in the assymilation phase which was ultimately the thinking stage and preparation to do. Having selected a topic that is very much current one was challenged with the literature review process. Selecting empirical data references over web based references was essential. From the outset one was very committed to following a qualitative approach to this reserarch. Having initially considered a two pronged

approach of qualitative and quantitative research one determined that this could potentially cause difficulties with data analysis. Given that the subject matter, while broad, is also very specific one was confident that a full review via interviews would derive the most beneficial results. The interview process was suited to my personality. Gratefully, the interviewee's were able to recognise that I was operating outside my comfort zone. In this instance they were able to assist with refocussing to ensure that we got the best out of the time. I would regard my self as a effective collaborator and one was able to use that with some advantages. Given my career positions one had access to resources in the form of mentors who were relevant sounding boards for the action phase. Additionally, in the same manner, one had access to counterparties who made for very competent interviewees. In the aftermath of the interview stage I felt fortunate that the candidates were so engaging and giving of their time to assist in my research piece. I was very confident that the candidates selected were a good fit with regard to positioning within the industry and that they would have had sufficient opportunity to be in amongst the detail. As a result conclusions were being drawn almost in the collective. The data analysis phase was more of a case of ordering them. As a researcher one is satisfied that the research prompted tangible conclusions and recommendations. It is my belief that the research contains relevant information to the current market and that it could act as the basis for further research in future.

The future practice phase of this research experience, in its initial form and before any additional research, will offer one an enhanced platform with regard to my career. Firstly, I feel equipped to operate within my work environment confident that I have greater fundamental knowledge with which to work. I am confident that my core educational learnings will facilitate a broader level of comprhension in the financial industry. Additionally, I would hope that by completing further education in a specific field that I will be able to act as a mentor to graduates who come up behind me. Having a broad knowledge of analysis tools will be relevant here. As mentioned previously, the findings of this research and conclusions drawn indicate that further assessment of the market will be required in time. I believe that an opportunity exists here.

As I continued through to the active experimentaion phase of Kolb's model I was prompted to consider some of the other factors that enabled me to complete my research. As previously mentioned, networking and the ability to utilise one's network is key. Additionally, analysis

around key areas of time management and planning were essential. It is inevitable that a project plan can be impacted due to unforeseen events. This was certainly the case and having an ability to adapt to changes in time cycles was a distinct advantage. It is my intention to continue to provide favourable attitudes going forward.

In closing with the aid of a relevant quote, “One’s destination is never a new place but rather a new way of looking at things” (Henry Miller).

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Appendix 1: Research Questionnaire

1. At the time did you agree with:
   A. The US Government allowing Lehman Brothers to fail?
   B. The US Government nationalizing AIG, Fanny Mae and Freddy Mac?
   C. The British Government nationalizing RBS?

2. Is your answer to Question 1 the same today?

3. Would you agree that some high grade corporates offer better value as a risk option for investors since September 2008?
   A. Yes
   B. Yes but only with a short to medium term tenor
   C. No
   D. Other answer

4. Do you think that regulatory reform post the collapse of Lehman is sufficient to ensure the failure of another systemic institution could be managed today without the fallout seen in 2008?

5. Do you accept a pre-insolvency concept of recapitalisation via bail-in by creditors as a viable alternative to a bailout or failure?

6. What happens if you have an institution that is failing outside of its own jurisdiction? Are laws in place to facilitate this?

7. Do regulators now have full balance sheet transparency over financial institutions? Is this a minimum requirement going forward?

8. Are governments doing enough to ensure confidence in the regulators?

9. Is sufficient emphasis being put on the regulator to fully understand the institutions and activities they regulate?

10. Do you think the attitude to risk by corporate treasury is
    A. Too conservative?
    B. Too aggressive?
    C. About right?

11. Do you think corporate treasury should
    A. Take more risk through the use of derivatives where upfront payment of premium may be required?
    B. Continue to focus on hedging products (FX forwards/FX swaps) which provide a zero value offset if done correctly?
    C. Somewhere in the middle?

12. Do you think
    A. Banks have revisited risk protocols since the collapse of Lehman based on governance reports?
    B. Banks have simply closed up shop and are ready to recommence reckless lending once capital levels increase?
    C. Somewhere in the middle?

<u>Discussion Topics</u>

a. Dodd-Frank
b. EMIR
c. Basel 3 & 4

Appendix 2: Interview Transcripts

Interview A: European Bank (IFSC)

Interviewer: Did you agree with the US Govt. allowing Lehman Brothers to fail?

Interviewee: This is the most difficult one to answer. I think on balance I'd probably say yes but with slightly less conviction

Interviewer: Did you agree with the US Govt. nationalising AIG, FM and FM?

Interviewee: definite yes

Interviewer: Did you agree with the British Government nationalising RBS?

Interviewee: definite yes I don't think at that time there was any real alternative.

Interviewer: Is your answer to 1a, b and c the same today as it was at the time of the decisions?

Interviewee: Yeah, when Lehman's failed or was about to fail, I think at that time I would have said Oh why doesn't someone step in and, you know, it very nearly happened that Barclay's stepped in and due to UK rules regarding shareholder approval which the chancellor wasn't willing to waive, essentially there wasn't any time for Barclays to get the full approval required to take over Lehman's at the very last minute. But I think that the state of the financial regulation, markets and institutions had come to a point of no return whereby it required a major cathartic impact even such as Lehman's and also where should the cost, who should bear the cost of anything failing and this is obviously very pertinent in the Irish context but I think you know Lehman's was an investment bank and it wasn't really affecting main st US it was mainly Wall st so if any of these institutions like L, FM, Fm even Bear Sterns in fact, Lehman's deserved it more in some ways in terms of the long term recovery/ sustainability of financial markets I think when we look back in 5 or 10 years now we will probably say that actually it probably required a major bank failure and of the possible banks to bail, Lehman was probably the best if you want to be pragmatic about it, you know, Lehman's was probably the least worst.

Interviewer: Would you agree that some high grade corporates such as Pfizer or Microsoft for example are a better risk option for investors looking for a risk free rate or higher since 2008. Optional answers yes, yes but with a shorter outlook or no

Interviewee: when you say a better risk option; a better risk event than what?

Interviewer: does it come down towards sovereign bonds and things like that, I suppose areas where they would have had a guaranteed risk free rate with the exception of the concern of defaults of certain sovereign markets

Interviewee: if you look at the hg corporates and I guess we're talking about aa, aaa; if you compare them with aa sovereign or aaa sovereign I don't know whether there would be much of a difference so be a bit neutral on that

Interviewer: ok so when you say that you're talking about US, Japan

Interviewee: I'm talking about US, Japan, Nordics, Germany, and Benelux. The slight benefit would be the higher, better liquidity in sovereign markets, that would be another important argument for investors is the liquidity in the market to get in and get out as quickly, as effectively and as cheaply as possible

Interviewer: do you think the regulatory reform post Lehman is sufficient to ensure the failure of another systemic institution could be managed without the fallout seen in 2008?

Interviewee: I think there's been improvements. I don't know whether id say a categorical yes to hat at the moment. What we're seeing in the 2 major spheres of financial institutions that's the US and the EU... in the US there's the Dodd Frank, in the EU there's the CRD4? I guess the balance free standard being the genesis of much of this new regulation. I think what we're seeing is its been extremely slow also certainly in the case of the EU in the last 12-18 months there's been to some degree a bit of a claw back so that some of the initial ?x3 standards when they are being transposed into regulation by EU either EU directives or regulation which then becomes national regulation there's been some claw back and they're not being adhered to as strictly as planned when these rules were first published in |December 2010 and I suspect this is essentially a pendulum, in 2006/7/8 it was the light touch regulation and so on and everything crashed. After a bit of crisis management the regulator started to get quite heavy and the whole emphasis of regulation became very much more prescriptive and quite heavy-handed and I think that sort of high point was sort of reached about 2 years ago and I think then as in the last 2 years, 18 month, nothing major but a noticeable shift backwards.

That may be no bad thing but I think that if that continues we may find ourselves in 3,4,5 years time we may find that we have regulation that may not be quite as light touched as it may have been in the mid-2000s but still somewhat less onerous than what was contemplated immediately post-crash so it's a longish answer to say that improvements are being made but there's a risk that there will be an erosion of regulation over the next number of years as there's a belief that oh well we survived that crash, we got more stable, we've got stronger capital in the banks, we've carved out some of the worst excesses of the financial institutions such as proprietary trading and so on so the banks are safer institutions and there's an element of truth in that but there's a slight degree of potential self-delusion in that too thinking that it will never happen again

Interviewer: do you accept that a preinsolvency concept of recapitalisation via bail-in by competitors as an alternative to a bailout or failure?

Interviewee: yes I do. This is what's being introduced in the EU, I think 2 separate directives. In 2015 there will be very formalised rules regarding how bail in's will take effect in the case of a financial institution that is failing to meet its capital requirements. The way it has been structured, I think it's a very good way, it's like traffic lights, to say rather than going straight to red you go through stages like right, things are getting worse and as they get worse essentially they will be capital bank capital they distinguish between capital for a going concern whereas this is capital which is there for a gone concern as in the bank's dead. so that capital is being put in as an additional buffer which is for banks which are struggling but can or could be saved. That is the point at which there is a bail in that essentially the creditors take part in the thing. I think its possibly one of the most important changes that are being introduced to share the burden and make it very clear how the rules and it's the transparency, and make sure that everybody is clear from the outset that these are the rules and this is what happens if a,b or c happens and this is obviously one of the problems in the case of Ireland. We were sort of making up the rules on the hoof and we were basically having to take orders from the ECB well can we do this, can we do that and the ECB were saying no you can't or primarily no you can't and it was all, there was just confusion, there still is confusion but I think

that here where there is a very clear rulebook and path as to what happens and who takes the hit when and where and therefore you can price risk if you're willing to invest in these tier 2 type capital structures or contingent cocos contingent sort of hybrids you know that you're obviously receiving a premium on your investment but you're also exposing yourself to a higher risk

Interviewer: this question relates to an institution that's failing outside of its jurisdiction for example a US institution in another country that's failing in that country and putting pressure on that country but not necessarily failing at home: Do you think that there is coverage for this?

Interviewee: I don't know the answer to this. I now that in the us that if you are Deutshe bank, it's not enough to have enough capital in Germany, you have to have sufficient capital in the us to do business there so the concern is that some clever bod worked out that DB actually had negative capital in their US business at one stage which is a bit scary and I don't know or understand the mechanics of that but obviously that's a huge anomaly whereby a business in the US which has gone negative into capital and what DOD Frank is very much saying if you want business in the US then you must bring the capital, you can't just have intercompany stuff going on, you've got to have real capital there. I don't think that's quite the same thing in the EU as regards capitalisation or capital requirements but I'm not an expert. The theory in the US is that's the way you operate; you either play by the rules or you get out of the country. It's a pretty robust approach and you can't really argue against it saying if you want to do business here you have to have your capital here as well. And that to some degree obviously there should be put on an even playing field with other local domestic, locally domiciled financial institutions which likewise have the same capital requirements and capital rules so there's less risk that you'll actually have that situation whereby you've got a foreign entity which is failing.

Interviewer: so using a broad term like stress testing you think that there would be a methodology to nearly stress test that institution in every country they may be in to make sure they have the capital per country rather than just a pretend bulk capital somewhere else?

Interviewee: exactly

Interviewer: getting into the regulators now; do you think that regulators have full transparency and the regulator approach that we have in Ireland failed whether or not they would have that full control now?

Interviewee: in terms of transparency do you mean that they have complete information as to exactly what's on the balance sheet?

Interviewer: yes ultimately

Interviewee: I think that certainly in the case of Ireland I don't think there was necessarily an issue in terms of lack of information. They possibly could have had more information but I think that there were other issues that were at fault in the case of Ireland. One of the things that I think happened, and maybe my colleague knows a bit more about this as well, was certainly in the case of the EU with EMIR. Some of the regulations have gone completely over board asking for vast amount of information and data on transactions, on everything you know. It's causing a huge amount of grief among institutions, a huge amount of grief among corporates as well depending on the size of the corporate it has of course different thresholds

Interviewee: it's the same right down to SME level in the case of FX forwards and so on

Interviewee: it's not very specific or clear whether this information once it's received is ever going to be, can be used properly but I think that there's a concern, and this is where I'd say it's sort of like a pendulum, its swung, almost like the regulator says if in doubt ask for everything and I think there's an excess of the amount of information that could possibly be required by regulators. I'm unconvinced that this actually improves their ability to understand the health of financial institutions. I think it might actually be a bit detrimental because you possibly can't see the woods for the trees when you've got so much information in front of you, to actually work out what exactly's going on might sometimes be more challenging.

Interviewer: in summarising would it be safe to say that in your opinion of both a corporate and a bank perspective you'd be comfortable that all the information is there,

whether or not that information is being properly executed upon; would that be still debatable?

Interviewee: I think the information and I think certainly talking about financial institutions you know the amount of information that we as a bank and other banks would have in terms of absolutely anything and everything that goes on, in terms of every transaction, the health and quality of our loan book of our derivatives, all these sort of things. I think that banks at this stage have got highly sophisticated I guess IT systems to be able to slice and dice every piece of data that they need or want about their institution and I think that's very healthy. What I find excessive is the regulator requires so much information down to a level of detail which I think is just information overload so I mean I think it's created a bit of an industry within financial regulators around the world where obviously in the case of here you can see that it's been the greatest employer, growth option, in terms of new positions being created and that's sort of been replicated elsewhere, not quite as much but certainly it's happening.

Interviewer: Do the regulators fully understand the some of the markets they are in and they really didn't have the specific knowledge required

Interviewee: I generally agree with that comment. Often very smart bankers try to come up with new ways or new products and usually the regulators are playing catch up and possibly don't fully catch up. It's a big challenge, the regulator is whilst the number of people it's employing is increased; to be brutally frank you do have investment banks hiring at top dollar very very bright guys with brains the size of planets and it's difficult sometimes for the regulator to compete or keep up with what is happening in financial markets.

Interviewer: attitude to risk by corporate treasury – conservative or aggressive?

Interviewee: I would say it's probably somewhere between about right and a bit too conservative. I certainly don't think in my experience I have come across any corporate treasurer/treasury operation that I feel is a little bit too racy. And I have come across a number that I think are being too conservative.

Interviewer: corporate treasury: can you continue to use these very standard hedging products which they do in B or to take a bit more risk, maybe put some premium on the table and maybe do a few more options with the banks?

Interviewee: I would almost challenge that point in A in that I think that often the use of options are (in terms of buying options not selling options) is actually reducing risk not increasing the risk. I think alot of Corporate Treasuries that I have come across they have a very standard Treasury policy in terms of hedging cash flows that are probable or certain to ?curve and really just its almost like a hedging policy, not really thinking with any great imagination or vision to say we not trying to be a profit but we want to be smart in managing what are inevitably financial risks that we have in our business; FX, interest rates, inflation, commodities or whatever it might be and thinking a little bit beyond the say, oh once we see it we hedge it. I think that's the way the vast majority of Irish Corporates operate. I would say it's similar to what I see in the Nordics, UK and the US would be a little bit more, not adventurous, I would say sophisticated. They have a more holistic, intelligent view of what they actually want to achieve and if that requires them looking at using products other than swap/forward? And then straight swaps, currency swaps they will entertain those aswell.

Interviewee: I think we would see in Irish C that the focus is historic, what's always been done. Its Treasury, it will be the same as the previous Treasurer because it's what the mandate allows them to do and it's what the investment or financial committee might be comfortable with. To summarise they don't use all the tools in the tool box. UK and US we might see as a little more open to utilising more efficient tools such as FX options, in an environment where volatility is low and optionality is cheap and it might make more sense to remove your risk using options and yet maintain participation within the market environment that we're in at the moment. I do agree with challenging point A because you're removing risk when you use your derivatives, you have a known worst case scenario and your scenario can only improve from there because you are participating in the market. In the local domain I think Corporate Treasury is about right to too conservative. They need to review the entire tool kit after disposal. Paul Nagle

our options guru showed me a 3-slide presentation of backward slides, backward testing and options would come out on top, no risk.

Interviewer: banks have revisited risk protocols since the collapse of Lehman, on the back of governance reports have simply closed up shop and ready to recommence reckless lending once capital levels increase or somewhere in the middle; do you think this is more of an evolving process

Interviewee: I've had somewhat of a jaundiced view of banks. I think they often have quite short memories. I think they won't go back to doing all the reckless things they're been doing in the past but having worked through a number of recessions where banks have nearly gone bust and where banks have gone bust I think at the end of the day banks are competing with one another for business and they will always compete. They will need to come up with new ways of winning business and this will inevitably push them further out along the risk spectrum and whether they cross the point at which it becomes reckless, hopefully not, but I think that we will see bank competitiveness becoming a big issue amongst the corporate sector particularly so I would have concerns that it's not going to be today or tomorrow but if you go out 3,4,5 years we will have an environment whereby the regulators and the media will be saying oh we're back to those days of 2006, 2007 whereas in fact in Scandinavia where we have a particular knowledge the leveraged banking market is back to where it was pre-crisis in terms of the amount of leverage being offered by funders the covenance or the lack of covenance and the pricing. In the case of DB we are pulling back a bit but there are other banks out there doing the same behaviour that immediately preceded the financial crash so I think there is evidence, whether you call it reckless, of course in hindsight it was reckless, but they are behaving in the same manner as before the crisis so you can judge whether that is reckless or not but I think that is something we are going to see on a broader level in the next 4 or 5 years. The other thing that is happening is that obviously banks are required to have greater amounts of capital now under Basel 3 and CRD 4 and so on and shareholders will demand that they are returned their share capital, it's the shareholder money, and banks will have to try harder and harder, because rather than having the capital

base of core capital, maybe 5/6% they now have core capital of maybe 9, 10, 11, 12% and therefore to make the same return on capital, you can do the maths yourself. You've got to lend at a higher level, you've got to do more trading, you've got to do more asset lending and so on. That's going to be a real challenge and it is going to push banks into doing things they don't want to be doing but they need to because otherwise they won't gain the returns.

Interviewee: they're saying that Basil 4 will follow Basel 3 soon and that happened with Basel 2, Basel 1. And every time before the actual full implementation of them the next one started. I think Dodd-Frank, for a US bank, is causing huge amounts of grief and some US bankers are saying it's killing our business and something that is very important in the whole regulatory discussion is what the call regulatory arbitrage. There is this global set of standards, called Basel3, and they are just standards not law and then they're being interpreted this way and that way by Dodd-Frank in the US, by CRD4 in the EU and other ways and nations and so on. Every time they are interpreted they are changed a bit and there are certain special concessions made for French banks because they've got this particular structure, or German banks or whatever, or the US banks. So you have this complete uneven playing field. So things like derivatives, at the moment you have US banks mainly at a competitive disadvantage compared to non-US banks because of the way Dodd-Frank works compared to the way CRD4 works and there will be other areas as well. This uneven playing field is going to create a very inefficient stock whereby you're going to have, products are going to be done out of here, other products are going to be done out of there...

Interview B – Capital Markets, Global US Bank

Q Was the decision to allow LB to fail the right one?

Interviewee: my personal opinion is that it was wrong based on how Bear Sterns was treated. It wasn't properly thought through as to what the repercussions would be in terms of what was going to happen and because of that, it took a lot longer to clean up. Should they have let it fail? I think if they had seen the repercussions of what was about to happen such as triggering the credit default swaps. I think if they somehow planned for that and put that into their decision making I think maybe they could have let it fail in a more organised manner and provide more of a safety net manner in terms of helping with the fall out but the way that they did it, it just didn't make much sense.

Q in terms of regulatory reform and the concept of the too big to fail ideology, do you think that what they've done since then is potentially going to allow for the discontinuation of the too big to fail misnomer?

Interviewee: I think the idea of having institutions that are too big to fail is a real thing. It's something that really can't be regulated out of the market. The nature of how the modern banking industry basically works in terms of, the investment banks who had the biggest problems were the ones without the balance sheets, and the ones who were able to withstand it and were forced to take on the ones without balance sheets were the ones with balance sheets. So now you have the argument of a perverse arrangement coming from the banks saying you should have smaller banks or banks that aren't to big to fail but I think people forget about the idea that the whole idea of having a large stable balance sheet that allows the investment bank to survive, to withstand this crisis. I think that's lost in a lot of people's arguments but one of the things that people actually speak about but I would say that I think none of the regulation really stops too big to fail. Some of the regulation in terms of capital requirements, stress testing, along those lines

really made the US banking sector specifically take a look at its capital structure and understand that it's going to actually have to maintain a more efficient ratio of capital in order to be solvent during some sort of extraordinary stress test scenario. So while it may not fix the idea of too big to fail, in my opinion, it fixed the idea that these big institutions would actually fail in any of those scenarios.

Q Is recapitalisation via bail in by creditors credible? The scenario offered is that there would likely be a debt conversion. Bondholders might have their investment converted to shares in order to reduce the debt burden in order to sustain them into the future. Shareholders might have to take a longer-term view of their investment.

Interviewee: I don't have too firm an opinion on that. I think it's feasible in the context of it being properly organised and making sense for a given situation. You can't rule it out. It's something that's a possibility but at the same time I don't really know that you can make it so generic for it to be feasible all the time in every situation. I mean it needs to be very idiosyncratic depending on the actual crisis, so to speak.

Q So you think it should be taken on a case-by-case basis?

Interviewee: Yes. If you are talking about the idea of restructuring all the outstanding debt that a large bank would have, a lot of debt, a lot of different shareholders, a lot more than just institutional shareholders and I think its not the easiest thing in the world so I think it would depend on a; the institution, b; the situation that the institution is in and c; what are the alternatives? I mean if the only alternative is going insolvent and then if you're not preferred, then it makes a lot of sense for these people, the actual debt holders to think about some sort of bail-in type scenario. I don't think there can be a forced restructuring. I don't know how that would work, what some of the requirements would be. Some people might want to restructure, some won't. a whole lot of these complications would make it

difficult to do if there was a sudden crisis that came in overnight. It is a difficult process to get through quickly, especially for a larger institution.

Q With reference to Dodd-Frank, EMIR and BASEL 3: do you think that this regulation is good, too stringent, or costly? Is the regulatory reform doing its job in terms of full balance sheet transparency?

Interviewee: I think in terms of capital ratios etc that to an extent it makes sense because of the idea of having a capital buffer against bad times. The DF, EMIR regulation for regulating how market makers make prices, how we run risk etc, I think on the surface, all the ideas, it made sense. The execution has just been poor / terrible. I think people don't understand the rules, they implement it. These regulations encompass a lot more than people think. It makes things a lot more difficult, it makes doing business a lot more difficult. In the end it does go back to the consumer. Whether it's the consumer explicitly through increases in pricing, I don't know if that's necessarily going to be the case, maybe it will for people that are going to use bank balance sheet. I mean they are going to use bank balance sheet now in BASEL 3 capital requirements there's a certain return hurdle that every bank will need to make in order to justify holding that capital in the US which, in my eyes, until Europe, well now that EMIR is there, until European banks are at the same level, it puts US banks at a competitive disadvantage when it comes to having to charge for these bank balance sheets. If European banks or Scandinavian banks or Japanese banks aren't charging the same way as US banks are for the same client set. DF in terms of the Volker role, stuff like that, it has completely lost things and manipulated them to a point where it makes it more difficult for any given bank to actually hedge its own risk and to manage its own risk. From a trading side the rule behind trade execution under DF, it just makes things more onerous. Everyone is in favour of the idea of transparency, but the idea of transparency point blank across every market, whether it be an already transparent market or a very non-transparent market it doesn't take the nuances of banking into account in a lot of aspects of what it's doing. I do think that there

are negative repercussions of over-regulation. I think there are some good aspects to the ideology and the idea of regulation. I think the idea of doing it and not being able to admit when things may not be going the way that they were planned, because certain things don't make much sense, and revising it, I think that's what it seems like we're doing and I think that's a mistake. It's something that should be done in such a nuanced industry like the banking sector every different division within the bank has it's own idiosyncratic factors that are affecting everything that they do; when you put one large, blanket rule book in front of them for all these different products, it makes it hard to actually respect the nuances of the different products and how they work and in the end I think the only beneficiaries from DF and EMIR are the lawyers and compliance people. Compliance people probably aren't that good because their salaries aren't going up and they're just going to be continuously working harder and longer hours, but lawyers, at least they get to bill whatever they work so regulators and lawyers are the most beneficial people from any document that's long in DF, most people haven't even read, the only people who can take anything from that are going to be lawyers.

Q when it comes to DF, if you take a general view in terms of global banks, do you think DF has clipped your wings and made doing business more difficult, affected your ability to take risks you may have previously taken?

Interviewee: 100%. Now when doing business with a client, you have to make sure you are both DF compliant before you e4ven start doing things. When you think about the checklists you have to go through; you have a checklist to make sure you are DF compliant, one to make sure they are DF compliant, a checklist to make sure the product you're dealing or what you're doing is DF compliant, then you have to check to see if maybe they've elected any exceptions that are doable under DF, then you can maybe think about quoting that trade but then you have to think about whether that trade qualifies for pre--trade ?x in DF, and if that's the case you've got to make sure you give them pre-trade ?x before you quote them and

after you quote them you've got to send an email to x,y,z, with a recap and you've got to make sure they can pull their positions from the market department, you've got to make sure you can give them stress test analysis if they ask for it. It's a lot of things to do on a single trade that used to be someone calls for a price; you gave a price, trade over! That used to be the process. That is no longer the process. The process is more much drawn out, much more difficult, which makes it increasingly difficult. Unless you're assuming that you're both compliant under DF and the client didn't elect any exemptions, or didn't have any exemptions then it's very difficult to do business in any fast moving market with clients. So much 'check the box' attitude has to happen before you can consider doing any kind of deal and the consequences of not checking those boxes or getting those boxes wrong are largely uncertain. No one knows what they are. What happens if a bank wasn't following DF? Do they get fined? By the government? No one knows. The fear factor does keep the mentality of if I am uncertain whether I am compliant or non-compliant with DF, I am going to err 100% on the side of caution and no one can tell me that I didn't make that decision incorrectly. Sanctions and consequences don't exist. Everyone knows that at some point there are going to be audits done to check and then when that's done, that's when whoever did it wrong, you're going to find out for the first time what that means.

Q have they set the bar too low generally? They have put regulatory focus on the vanilla transactions. It might have been more sensible for them to focus on the high, complex derivatives transactions that banks do, give the regulators the power to regulate that market rather than focus on the low end

Interviewee: that's a key statement reflecting my personal opinion on the topic.

Q would you term information reporting requirements too stringent, about right or too lax?

Interviewee: I don't see this end of the business; I sign people up and then book the trade and the back end things just kind of get done. I know they're happening, that we report for clients under DF, EMIR and a lot of clients report on their own behalf but I don't know how cumbersome that is. I assume it's very cumbersome.

Q do you feel that the new capital requirements of 9% are going to be enough? For banks required to hold a certain amount of capital, there is going to be a requirement to get some sort of shareholder return on that capital; do you see issues or push back from banks if the capital requirements continue to grow to a point where they are nearly unsustainable in terms of making a return?

Interviewee: I definitely think, with higher capital requirements, having a higher reserve for capital requirements that's being allocated on the balance sheet and you kind of assume that if you keep the return percentage that you need constant with a higher base, it's obviously going to mean you need to make more money on the same amount of notional on a given balance sheet utilisation. The push back on capital requirements, maybe it will happen if it's too high, I don't know what the correct capital requirements are so I can't really give you a valid opinion on whether its too high now or whether it's good enough or where it could possibly go. I do think, in response to that, pricing of most bank products for clients will be reflective of those capital requirements being passed though. It just has to be that way if we need to make x amount return hurdle on a external percent of use balance sheet then that goes up because all of a sudden we are required to hold more reserves against that well then more obviously we are going to have to make that return. It's going to become part of pricing that's going to go to clients. They are going to be well aware that under our new capital regimes they're going to see this in your credit charges or anything that's long dated and requires for us to hold it on the balance sheet is going to be passed through whether that's a 90 day time deposit or a ten year cross-currency swap. You're going to see the effects of the capital that needs to be held against these trades.

Q Would you think that the attitude to risk in general by corporates is too conservative, too aggressive or just about right? Should corporate treasuries have a specific funtion; forecasting and protecting rather than taking risk. Some CT use options on the buy side; would CT be well served by taking on more of those?

Interviewee: Traditionally CT tends to be a little too conservative in terms of what product selection they use. Now, this varies across the board. Some treasuries do use different levels of products. I don't want you to get confused with the idea of taking risk. I don't think the function of any CT is to take risk. I think the function of CT is to reduce risk but that doesn't necessarily mean lock in a rate, that doesn't mean give away possible participation. If you are reducing risk by buying in options the same way you are reducing risk by buying a forward; the difference is you need to pay a premium for that option and in return you get possible participation in upside. Either way you're going to be capped and protected. Theoretically you're doing it at the same level, you can buy an at the money forward option or you can buy an invoice to a forward, both of which are going to give you protection through that level the same way. One is going to cost you money to do but if the same moves in your favour, you're going to be able to participate in that appreciation or depreciation, whichever one is in your favour at any given time. There's a very strong distinction to be drawn there, that it's not taking risk, it's just not blindly eliminating forward exchange or any kind of exposure that you have. I think that too many people using optioning on or trying to get more beneficial, taking advantage of positive market movement is taking risk, in reality that's not necessarily the case. It could be but I think that's not how the role of CT should be. They should be able to use any product available that fits within the roles of that treasury programme to be able to mitigate downside risk for anything that you're doing. There's a time and a place for any product that you're going to be using; be it in the FX space, be it beyond the FX space, but it all depends on what your goals are. If your goal is to beat a budget rate and that's the only thing that matters to you then you should use this; if your goal is to minimise year over year volatility you should use this; if your

goal is to eliminate downside but still retain some possible beneficial currency rates you should use this. It all comes down to what your goal is or your individual treasury management programme and how you can best eat into that goal. It's very difficult to answer that question in a general sense. Multitudes of clients will have a very varying objectives behind hedging programmes. Yes they're all due hedge risk but what degree of hedging. Are you looking to beat a certain rate because that's what you're going to be benchmarked against? That's very different than you telling me you just want year over year the effective rate of your hedging to be very similar and to minimise that year over year volatility.

Q Do you think banks have stood back and revisited risk protocols and some of the very complex derivative transactions and tried to change the business model to be a bit more conservative or risk averse?

Interviewee: Yes. Risk and the idea of how you deal with clients, how you trade, how you take risk; that's all been under a microscope with banks.

Interview C: Treasurer US Multinational

Dodd-Frank / EMIR

Interviewer: I want to hear about regulatory and governance I need to understand what you think of EMIR and Dodd-Frank and some of things you've encountered when you've been working on them and things like that

Interviewee: My view on that is good intent and failure on execution.

Interviewee: done very poorly

Interviewee: The whole idea behind this is a great idea but intentions are good to kind of put borders and controls around our financial transactions and to avoid behind the closed doors dealing, however, the way it was executed was very poor. You have multiple governments that have signed this agreement back in 2009 where they're going to put regulation in their own financial markets where they are going to control it however they have signed this broad document but they have not agreed on the terms they are going to regulate in heir own local market. What requirements they are going to put forward. You have the US doing one thing, Europe doing another thing, and in Europe even EMIR regulation is being interpreted in a different way, country to country. So there is no consensus among financial regulatory bodies within the same financial zone as well as outside their zone. You have US did one thing; Canada did another thing, the European Union under EMIR. For e.g. forward FX trades have to be reported, forward commodity hedges have to be reported while the UK financial regulatory body they say forwards are excluded in their interpretation of EMIR. Because EMIR is Old Testament. There is Old Testament law then there is oral law which is the interpretation of it. So EMIR issued documentation and then they interpreted it. Everybody has to catch up and get ready. The time they have allowed is insufficient especially when it comes to corporate – under Dodd-Frank it was more down to earth in the sense of regulatory requirements. It was more geared to controlling financial institutions like banks, brokerage houses and so forth and reduce the burden on corporate. Whereas under EMIR they are trying to control the financial sector not realising that by doing that, the requirements they created, they made a higher burden on corporate, affecting the corporate bottom line.

Interviewee: wrong or not, I'm not sure what you know about it but we've been working with it for a while and there's a lot of interpretation, a lot of confusion, unrealistic deadlines

Interviewee: to give you a pure example of an unrealistic deadline; EMIR requires trade reporting from all EU incorporated companies. That requirement was put in place whenever EMIR was published in 2012. However what they have missed is appointing designated reporting agencies. So without a reporting agency, knowing that you have to report is a moot point because you have no way to do it. What they have done is put in a caveat, after we designate reporting agencies you will have to use them. They've released a list of reporting agencies in November, if you want to report for a corporation, you know what happens in November, they go into freezes and they go out of freeze in the middle of Jan so you have 30 days to get something done. So like a run on the banks, there was a run on the

reporting agencies. One of the agencies, the best known, was working 24/7 trying to onboard clients. They were advised that they were going to be the selected agency, they had very poor documentation to requirements and how to onboard. They are still recovering and still trying to onboard their clients! They had hundreds of clients trying to onboard; those clients had hundreds of entities trying to onboard so it's kind of a huge magnitude of companies trying to report and onboard. They had to build their system to simplify the process for corporate. The financial institutions have been doing this day in and day out. What they do in essence is use some kind of DTCC tool to reconcile with each other similar to how we use? MISIS here in the US to do trade confirmation. They use the DTCC system to match the trades within themselves because they have a very very high volume of trades that they execute with each other. The DTCC has been providing this service to the banks; this is why the DTCC was chosen because they were well experienced. However, where the DTCC is not experienced is dealing with corporate; non-financial entities that don't have integrated systems with the DTCC. Banks already have interfaces built and armies of people that work on this day in and day out before so when the banks were getting ready yes there was an initial burden but it was a kind of add-on to an existing process where corporate did not have the same processes. Corporates we have been talking to are in the same boat as we are. Like AbVIe, they are close to being in the same place as we are though they have decided to limit the number of financial counterparts they deal with to one third of Abbott. There are ways you can structure your trading where you can simplify your compliance burden. We as Abbott decided to keep things as is because we have to compensate our financial counterparts in some way or form and FX business is one of the most lucrative that banks can look into. One of the best things to come up is the requirement for every entity to have its own unique identifier. In the past entities dealt with many different markets, which company are you referring to when dealing with banks? It's like a social security number for a company- this simplifies the communication part of it. But, you must pay an annual fee to maintain it.

All in all, for corporate, a lot of additional cost, I would say we've spent close to 100k as a whole job for this company...cash out of the company...purely for compliance, legal costs. There are very few legal companies out there who fully know DODD F and EMIR. They are having difficulty interpreting the standards.

Interviewer: Is Dodd-Frank effective?

Interviewee: Like the idea, not working well. Under DF, one party has to report the trade. If one party makes the report, you are compliant. EMIR requires two parties to report. So in theory, we deal with JPM. JPM can report a trade that we have not executed. Unless on a daily basis we can monitor what's being reported, JPM can pretty much report a fraudulent trade or their trader can enter a fraudulent trade in their system, they would report it, we would never know about it and then the trade can mature and so forth. Chances of that happening are slim because the banks have their own internal controls now but as we know things can fall through the cracks once in a while as we saw in the news. Under EMIR, both parties have to report but you can delegate the reporting to the bank. However, let's say we delegate to JPM, they can still report fraudulently but we are

responsible for monitoring. So how do you and where do you monitor that reporting? That becomes a task to do. If you want the bank to report, they send you at least a 12 page report that they release themselves of any and all obligation and some of it is legal discharge of obligation, like this is not a service we provide, we are doing this as a courtesy to you at no charge. We cannot be held responsible for not reporting, that you actually did trade with us. So it's pretty much that they divorce themselves from any and all liability. Then reconciliation processes there is documentation required by both EMIR and DF. Under DF corporate are not required to reconcile, financial institutions are. So if we deal with JMP, JPM says here are my trades I want you to reconcile them but we say no we are not required, then there is a disconnect because by default if we do not reconcile, JPM assumes that the reconciliation was complete. Under EMIR, reconciliation is required only once a year from a company such as ours so you do it once a year but you do trades all through the year that are executed throughout the period and matured, that have not been reviewed. So there are a lot of things that do not make sense, are more or less just check the box.

Interviewer: are there too many requirements s put on the corporate?

Interviewee: Yes. More by EMIR than DF but if you are talking globally if there is no central place where you can find out what your requirements are, we are finding bits and pieces from our financial counterparties. We often get this information right before the thing goes into effect. For example we just found out that Canada has a requirement so we have to read the Canadian regulations so we can figure out what impact it has on us. Singapore has a regulation, Russia has a regulation that's but you have to imagine we have to read through 6 volumes of regulations that were published.

Interviewee: bottom line, we are trying really hard to comply but it is extremely difficult

Interviewee: It's like a paintball game, you're running through a field and bullets are flying through every and all directions at you. We are trying to comply but because we are such a global company, some companies have chosen not to trade any more, the cost of hedging and the cost of the risk I'm mitigating is less than what we would spend to maintain a full compliance team. Sometimes we feel we're drowning.

Interviewer: do you think the legislation is damaging smaller businesses?

Interviewee: Yes. Middle markets are suffering more that we are. We have more resources, more money behind it whereas middle markets are pulling out of the hedging process from what I've heard so far. Banks have seen a lot of middle market companies not hedging anymore because the burden is unbearable. I'd be better non hedge than hedge and be non compliant and then face penalty fees I won't be able to cover.

Interviewer: do you think that the legislation should focus on more complex derivative transactions. They should give a wide berth to the simpler spots swap forwards?

Interviewee: yes absolutely. Those derivative transactions, the mortgage backed securities that did cause the whole chaos. The simple vanilla forward transactions should be fluid.

Interviewer:so any asset bundles such as mortgage, that's what you think they should focus on

Interviewee: more of a derivative because FX contracts are considered derivatives but if you think about it there is zero ?>? Derivatives behind it. I would say courtesy options maybe but when it comes to outright trades I don't believe they should be in scope

Interviewer: in order to be compliant did our counterparty banks have to open new FX lines, new diligence or stress testing of the company in order for the company to be authorised.

Interviewee: we don't; know. This could have happened without our knowledge. I'm assuming that when the banks went through the whole stress testing the counterparty risk analysis was completed to determine liquidity of each counterparty; but we have not been contacted by the banks for the information. There is more burden on the banks from the KYC perspective because we have the tool market where we provide banks access to articles of incorporation, tax forms and information about our compliance with inter protocols that relate to EMIR and DF. So I would have a suspicion that the banks have done that stress testing but without our knowledge because they have access to our financial information

Interviewer: So our FX credit lines remained just as they were before this information

Interviewee: I haven't seen any change where banks have pulled out or made changes

Interviewer: do you think that the DF and EMIR legislation gives corporate like us comfort that we are facing less counterparty risk from our financial partners?

Interviewee: I would say yes but there is a two part answer, it does reduce but not eliminate our fear. In 1920s we have a crash and regulation was put into place, same in 1980s, and same in 2008, 2009. It's a constant catch up, putting band aids on a huge bleeding problem. Nobody is looking at how to close the loopholes, the perspective is wrong.

END

Interview D: Risk Officer, European Bank

- Interviewee did not consent to audio recording so the following is a transcript based upon notes taken during the interview.

Question 1 & 2

Interviewee: Yes, The US government had no option but to let Lehman fail. However, they did not have a decision to make. Lehman was insolvent. The banking structure per se resulted in the bank failing. It was the process that failed and this was ultimately what the US government had to decide on. The balloon effect of the asset backed securities. Other large institutions, such as AIG, have to be bailed out as the US government did not know the extent of the problem within. In this case the failure was clearly on the Regulation side. Nobody knew what governments knew. We were commentating without all of the facts. As part of the risk programme the stark difference is the US and UK provided the 'wall of cash' to bail out institutions. They had their own sovereignty to do that. Unlike Europe who did not have a fully single monetary system. Europe had to go down the LTRO route. The US and the UK became the success stories as they came out the other side within two years. However, countries within the Euro zone are still struggling to recover six years later. The UK govt had to rescue RBS. With interbank lending high it was impossible to consider allowing RBS to fail considering the bank run and knock on effects that would be created.

Question 3:

Interviewee: Example – Wilbur Ross (BOI) – made a capital play looking for an investment return as part of a recovery. Shift to corporate investment if you want a return now in the form of a set of defined cash flows. Stress testing is something people are waiting on. It will be comprehensive and some banks will go to the wall. However, banks that successfully come through the wall will be recapitalized to try and stimulate the market. However, the shareholders will want to benefit from the large volume of cash sitting on accounts. The question is how the banks can get any value from the capital reserve. However, with rates so low

Question 4 :

Interviewee: Main focus on changes to the macro environment. The renewed availability of capital and the imbedded requirements mean the risk of failure is automatically reduced. The focus now has moved to the new concept of ‘Living Wills’. However, focus on specific areas may mean lesser focus on other areas which may leave those market aspects as certain risk. Distinction was made between the ‘Living Will’ and the ‘Recovery Plan’. The Recovery plan provides valuations of assets available for sale in the event of a capital or solvency crisis. It is a plan to survive. However, the Living Will is notably a plan when survival is impossible. What losses will be taken and by who. Additionally, what assets can be transferred to another institution. The viable portfolio within a failing institution will be saved.

Question 5:

Interviewee: Yes. The debate around this proposal to be introduced in 2015 is ongoing. A focus on this will likely be how to convert the debt. Likely, bond investors will be awarded shares in an organisation. This will mean that they are not protected yet further. The risk is maintained however it takes a different form. The focus for them now becomes the future of the over exposed institution. Bondholders can no longer expect to be bailed out. The only hope of investment recovery will become a more long term prospect. It is important to note that banks understand risk. They understand the risk potential. Bail outs are the brainchild of global governments and regulators. The concept of Bail In’s, while holding much merit, raises a concern around time. By the time institutional failure is realised will sufficient time exist to organize a bail in to complete the rescue and survival.

Question 6:

Interviewee: Fully licensed entities of financial institutions are governed under the regulation of the in-country regulator. This is non-negotiable. The In-country regulator will have fill regulatory oversight of that institution and adherence to those rules will be compulsory.

For example, US bank ‘A’ has an entity in Dublin, which is fully licensed and as such falls under the regulatory control of Ireland. Additionally, Irish Bank ‘B’ is

also fully licensed in Ireland however it operates a branch in the UK. The UK regulator can and has then stipulated that the branch must be fully capitalized at all times even in the event of insolvency of the Irish based parent.

Question 7 & 8

Interviewee: The regulator has too much information today. It is information overload and the question should focus on whether they have the capacity to interpret it. A lot of focus has been put on the Regulators globally. However, Regulators in any global economy are never likely to have the same resources available that global banks will. For example, in Ireland, the Irish Regulatory authority has a staff of 7,000 people while staff numbers across the banking spectrum in Ireland would run over 100,000. In essence, banks will always have a justification for risk taken on. Following the presentation of all required regulatory compliance information to the regulator could that same team then analyse the data to determine their own justification that may or may not agree with that of the banks.

Question 9;

Interviewee: No! The onus of responsibility should not be on the regulator to ensure banks run well. This all comes down to Governance within the institutions. However, the introduction of external factors will prove to be a successful move. Introducing leaders who do not have a history in the country will help.

Interviewee: Question 10 and 11

Corporate Treasury should not be mandated to take risk. Corporate Treasury have a duty to provide risk reduction and elimination only via protection of exposures. Hedging exposures via a vanilla hedge product. No gambling. Forecasting and costing.

Question 12:

Interviewee: Everything is now tightened up via the Pendulum effect. It is purely built on disaster aversion. As of today and post 2008 we have more governance, more approvals required and a lot more cost. The concept of empowerment and enablement was abandoned. The controls were very tight. Governance is too restrictive with a massive impact on businesses. However, banks are trying to do the right thing for the economy and for the people on the ground. They are trying

to build into the future via economic growth. Banks understand risk and are supposed to take risk. The recession is over so empower banks and institutions to grow and maintain stringent risk policies with a spectrum of control and a threshold of potential risk loss.

END

Interview E: Irish Bank

Q1 Do you agree with the US govt allowing LB to fail, nationalising FM, FM, AIG and British govt. nationalising RBS?

Interviewee: The concept of investors investing in something which includes a risk premium and the idea that if the risk materialises, you get nothing, I think that's, there's something wrong in that but if that's going to cause a systemic collapse in govt, economies etc then there probably has to be a more managed way. But the idea that when the risk materialises and you are bailed out, there is probably something wrong. But then the overall impact, I suppose that governments have to assess that and we would probably have the same view. Maybe in the case of LB, if they knew what was coming down the road they might change their minds and do that differently.

Q2 How does your mindset compare to how you felt in 2008?

Interviewee: with the benefit of hindsight maybe allowing LB to fail, the knock-on impact of that caused so much volatility in the system, maybe that could have been better managed. Maybe they would react differently today.

Q3 Would you agree that some high grade corporates, such as Pfizer or Microsoft would be better risk options for investors looking for a risk free rate; with the high bond yields and the risks in sovereign bonds at the time of the crisis, the idea of a risk-free rate seemed to diminish a little bit. Would corporates be a better bet now?

Interviewee: The one mantra we hear back in treasury is the return of the money, not the return on the money. When the currency itself was in doubt, euro for example, people were looking to move their money outside of Europe, the problem with treasuries is if you are buying them at 0 yield once the yield starts going higher, the value of the yield starts to fall so possibly corporate debt might start to make sense.

Would it be better not to take a long-term view of corporates, and predicting the long-term game there. Would you agree with the assessment that a short-term investment on a corporate would be better?

Interviewee: Generally people invest a certain amount over longer term and break it down over shorter, they might adjust the overall profile of the cash they have to invest

Would you agree that pre-insolvency concept of recapitalisation via bail-in by creditors as an alternative to bailout or failure might be a model for the future and that this is what is related to what they are trying to do with BASL?

Interviewee: That seems to be what Merkl and Europe, the various member states, for how to avoid the scenario we had the last time round, you know, the banking crisis, the sovereign crisis, that there would be a bail-in, which seems to make, like a lot of these concepts, like they are good in concept and then they actually, the scenario

that leads to people saying are we going to get our money back, then it actually starts to materialise, how will it actually play out. But that seems to be going back to the first question, that I think it's wrong when investors are actually bailed out in full when they've been paid a risk premium. But I guess that's a halfway house between allowing them to fail and actually bailing them out, to have some sort of a pre-agreed arrangement, as to what will happen in the scenario that you are not going to be paid in full, how that will pan out. I suppose it's some attempt to organise it in advance as opposed to trying to organise it in a crisis.

Do you think that regulatory reform post collapse of LB is sufficient to prevent another crisis?

Interviewee: it's definitely making an attempt though I'm not sure how productive all the trade reports and obligations under EMIR are. I wouldn't be entirely convinced that what they are doing is necessarily productive but they have to be seen to be doing something and this is the version of it. I don't know about the US side, their version of EMIR, and different things like that bail-in arrangement that they are talking about in Europe but as far as I know that's not agreed as of yet is it, the EU? There is talk about finalising some kind of bail in arrangement but that's not done yet.

This question relates to a multinational failing outside its jurisdiction; if a US bank is failing in the Netherlands for example, do you think there are enough laws in place to facilitate this based on in-country law. Is there a weakness there?

Interviewee: it's kind of like the RBS bailing out UB for €20m; if UB was an Irish bank in the midst of the crisis, all that would have had to come from the exchequer in the same way as all the other banks so I don't know what has been put in place around that. Is it the parent or the local jurisdiction that has responsibility, I assume it is the ultimate parent that is responsible for whatever losses occurred within that subsidiary. If you have an entire banking system in Ireland owned by

foreign players, I don't know how that would, the govt wouldn't have any real responsibility towards them but of course the Irish depositors would lose all their money.

Do regulators now have full balance transparency; do they have all the information they need to regulate the financial sector and are governments responsible in that area? The financial sector is complex, is it reasonable to think that the regulators fully understand the complexities of the financial sectors?

Interviewee: there's been an awful lot of emphasis in Ireland (and the UK when it was miss selling derivatives and that stuff) there's a lot more onerous identification now of who actually is transacting, how capable they are, how up to speed they are with complying with regulations. There are new regulations being introduced all the time, to prevent miss selling of derivatives. I'm sure they have full visibility of everything but they can't tell the future as to how prices are going to go in the future in terms around re capitalising now as to the various stress scenarios. They're all based on an outlook of the future that they're probable, I can't imagine that credit standards will be allowed to drop to where they were before, there will probably be closer attention to multiples of income we'll say for mortgages and stuff.

So you don't think we will see the situation again where the regulator felt that he knew the information for example with regard to Anglo that he knew the information but he didn't feel it was the appropriate time to bring it up, he felt he wasn't; best placed to comment, do you think we will see that again?

Interviewee: I think the regulator is in a stronger position now, to say you didn't listen to us before; you are going to listen to us now. At the time probably there were so many vested interests to keep the show on the road that one man on his own, to try and stop the big juggernaut of everybody trying to make money, like everybody was making money out of property prices when they were going

higher, it would have been a very difficult job to cool that whereas now the next person, the guy going in, will have a bit more ‘no I’m not happy with that’ there’s a bit better understanding that prices going higher isn’t necessarily a good thing.

Do you think that the attitude to risk by corporates is too conservative, too aggressive or about right?

Interviewee: people lost confidence in the banks and the credit rating agencies, but in my experience a lot of corporate treasury agencies are still set on the credit rating agencies are the ultimate arbitrator of who they can and cant’ do business with. Despite their own track record of missing things particularly badly but they seem to still have a huge amount of confidence in that.

So you think they are probably too conservative?

Interviewee: possibly, but again you can’t tell the future the rating agencies current assessments are the only thing you have to go on then you probably have to go along with it, they don’t tend to go outside, maybe they’re trying to outsource their decision making!

With your opinion on corporate treasury, should they take more risk through the use of derivatives where upfront payment or premium may be required, purely on the buy side not on the sell side of options there, continue to focus on the standard FX hedging products such as forwards and swaps, protective products or somewhere near the middle…do you believe that CT are too hands off in terms of paying a premium?

Interviewee: for corporates, hedging, we would try to put a greater emphasis on the volatility, locking in a rate is fine, it all depends on the particular business involved and the underlying business they are hedging, whether you are locking in tight margins, whether you have room to manoeuvre that if a currency typically moves 10-12%,

is that going to wipe you out or are you still ok, it depends on the kind of flexibility you have, you can afford to pay a premium, you can afford to leave exposures run to an extent, so really it depends on the underlying FX risk that you're heading and the impact of it. Some of the agri-beef companies would be locking in very tight margins, they wouldn't have scope to pay 2 or 3% of premium because that alone would probably wipe out a lot of their margins, so they're just locking in a price and then the price of the underlying product tends to move with the currency so it's like hedging one side of a seesaw. Once there's a full understanding of the risk and the value of paying a premium, then whatever decision you make, no one can argue.

Do you think banks have revisited risk protocol since the collapse of LB, based on the governance reports that have come out or that they've simply closed up shop and ready to recommence reckless lending once capital levels increase?

Interviewee: they have tried to change things like the very short-term nature of the bonus driven culture, they have trued to eliminate or change an awful lot of that. I think the reckless lending, in the case of Ireland, you get one bad apple setting the standard for the market, banks have to either react and compete or see all their business disappear so I think there will be a greater emphasis on standards, that nobody should be allowed to stretch things beyond pre-agreed levels, more of a focus on affordability of debt and just again thinking of Ireland's bank experience. Once you had one bad apple pushing the boundaries, everybody had to go along with it, at the end of the day they were only keeping up with demand from 'Joe Public'.

With regard to Dodd-Frank, EMIR and BASEL, do you think that the requirements being laid down for these is going to be a massive hindrance for the bank, nearly anticompetitive for the banks as the obligations are just going to be too significant.

Interviewee: IT HAS definitely added a cost to the business, which if the bank is incurring a cost, it will have to recover it in terms of the business it's doing. It will impact margins, it will impact prices to customers, anything that drives cost up, there's a lot more focus on them, there's a greater day to day workload which all drives up cost. Cost of capital under BASEL 3, is a lot more focused on making sure that the return of various models, that if we are committing ourselves to a deal over the next 5-10 years then the return is appropriate based on capital requirements.