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To Walker Report
Andrew Donald

24 April 2009

Dear Andrew
Following our telephone conversation , hear is abrief outline of our submission .
As mentioned I have not seen any ideas regarding the collecting of data .
The following note was submitted to both the FSA (banking risk management section) and to the risk management section of the Bank of England . After a similar telephone conversation there was no follow up.

1 Background
A number of prominent economists, including Martin Wolf, Chief Economics Commentator of the Financial Times and, more recently, the chairman of Lloyd's Market, Lord Levene, have drawn attention to the similarities between the current problems in the banking system arising out of the use of CDOs (Collateralised Debt Obligations) and other credit derivatives and the LMX (London Market Excess of Loss) problems that hit Lloyd's in the late 1980s. The main similarity relates to the passing on of risks from the originator to others, with often an imperfect understanding on the part of the recipient of what has been passed on, and great difficulty in quantifying liabilities once losses start to bite. There are, however, differences too, and these notes look at to what extent the lessons learned from the LMX experience and, indeed, insurance practice generally, could be used in relation to the present banking crisis.
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2 The Problem at Lloyd's
Before describing the LMX issue, it would probably be helpful to say something about the practice of reinsurance itself. While reinsurance is complex in execution, the most usual practice may be put into three categories:

- class of business specific (e.g. all motor insurance underwritten within the UK);
- event specific (e.g. windstorm occurring for example in specified parts of the USA within a specified timescale, earthquake and flood), in general this class of business is referred to in the market as catastrophe business (Cat);
- risk specific (e.g. reinsurance of losses arising from a single risk location such as an oil refinery or the Twin Towers);

While in all the above cases the reinsurer(s) will be reliant on loss details provided by the original insurer, they will at least be aware of major events and whether or not any of their cedants were

involved in them. Even when the development time is long they will at least know from where the losses are coming. This demonstrates that controlled risk transfer between financial institutions is not of itself a bad thing.

With LMX, in contrast, one underwriter typically would reinsure the business of another by taking a share of the cedant's entire book. Such cover would normally come in at a high level, e.g. not until the cedant's losses had exceeded 90% of premiums. An underwriter accepting such inwards LMX business would often reinsure his own book in similar manner and may well have picked up some other LMX exposure as part of his original acceptances. Such business, being apparently remote from any underlying loss, was considered to be fairly low risk (somewhat similar to the view taken by financial institutions of 'super senior debt') – a massive event was needed to trigger a loss to the reinsurer's book.

The 1987 UK storms, the explosion and fire on the Piper Alpha drilling rig in 1988, Hurricane Hugo and the oil spillage from the Exxon Valdez in 1989, were events that tested this theory to destruction. Such was the obfuscation created by the complexity of LMX placings that it would often be a very long time before an underwriter would even be aware that he had any exposure at all to a particular loss. Finally came the effect on the general liability market of Asbestos, Pollution and Health (APH) claims with a 40 year + time horizon. All of these losses would only become clear as they developed and wound their way around the market and upwards to the higher-level carriers, leading to the coining of the term 'The LMX Spiral'. Putting a reserve on these 'unknown' losses became, of course, a major problem for the market.

The counterparty risk here was present in the same way that it is for CDOs: a reinsurer might fail, pushing the loss back to the cedant who believed that it had been taken off its balance sheet. For LMX business written outside Lloyd's (it was not confined to that market, as some believe) this was indeed the case, but at Lloyd's there was a crucial difference. Although individual syndicates were independent contractors, they all participated in the so-called 'chain of security': the central fund that would pay for losses when individual names were unable to meet calls. Thus the counterparty risk was carried in the end by the institution itself and it was this very market that was threatened with destruction. The response, the creation of Equitas, a vehicle into which all liabilities had to be reinsured is thus unique to Lloyd's and it is doubtful that such a body could be created outside it (although the concept of creating a 'bad bank' for badly performing loans is not unknown).

This point notwithstanding, however, it is most important to appreciate that it is the actuarial techniques honed during the establishment of Equitas – introducing refined data definitions and how to value the ultimate liabilities – that we consider will be most valuable in quantifying the ultimate liabilities of banks now exposed to the effects of questionable lending, CDOs or other credit derivative instruments, whether as originators, buyers or both.

Prior to Equitas the knowledge of what was passed on was reduced as the risk moved up the spiral. For example in Cat business at the first layer of reinsurance the risk was well defined by showing the exposure figures, type of peril (storm, earthquake) and country(USA ,UK, Japan). As the risk passed higher into the spiral, the risk exposure knowledge reduced, detailed category information (country and peril) were omitted and, worse, the risk portfolio might include other

exposures that would not have been expected. For example a lot of non-marine general liability business was found to include Piper Alpha and Exxon Valdez; exposures which should have been only restricted to the marine market

The main reason for this lack of information was a view that the business written would attach at such a high level that the real risks were negligible, in similar form to much of the banking debt described below.

3 The Current Banking Crisis

The similarities between the idea of taking a defined batch of debt and selling it and its income stream into the market and LMX we feel should be quite clear. In both cases the risk and the relevant income that attaches to it (interest/premium) is transferred to a buyer, removing it from the vendor's balance sheet (except for the residual counterparty risk). In both cases the acquirer appears to have imagined the risk that they were taking on to be quite small. In some cases CDOs were allocated the highest level of credit rating because, for example, the tranche being sold would not be hit until there had been an underlying failure (however defined) of, say, 70%. It is worth, at this point, conjecturing on the pricing issue. We think it unlikely that the rate on line demanded by an excess of loss insurer for the layer excess of 70% of any insured value would have equated to a return period indicating triple A.

The means by which CDOs may be traded and the problems that are being encountered with risk definition (contract wordings) has resulted in many holders thereof being unsure about what constitutes the basis risk (in insurance parlance, what is insured and what has to happen to expose them to a claim) in consequence of which they are writing down their values severely. Uncertainty on the part of the loan originators about the robustness of their counterparties is causing them to increase their provisions significantly, whether the counterparties are likely to fail to perform or not. On the other hand, it is surely unrealistic to assume that every loan will fail and that every loan security will have zero value if the borrower does default or that all counterparties will become bankrupt.

The marking down of these assets on the one hand, plus the increasing of provisions for counterparty failure on the other, is causing capital problems for banks and the terms demanded for recapitalisation, at least by the UK Government, are being blamed for the banks' current unwillingness to lend. All of these problems have been well rehearsed in the media (see, for example: 'Bail-out discourages bank lending', FT 3rd December 2009).

We believe that the same thing happened with the demise of AIG. The banks have written down their assets in a fairly arbitrary way, pursuant to mark to market principles. These write downs were then passed to AIG, since it covered these assets against value reductions via an asset protection insurance stop loss cover. Since asset values may recover significantly, or the original write-downs prove to be overly pessimistic, the ultimate loss to AIG could well be much smaller than current provisions would indicate.

4 Post Equitas

The Lloyds market took on board many of the lessons learnt during the creation of Equitas. In particular data is now collected in a clearer manner, which allows the market to identify their exposure to Cat events such Katrina or single losses like the Twin Towers (ignoring cover

disputes) within days, since now the data bases identify the exposure as the risk moves through the layers. Because of this data availability best estimates of the ultimate liabilities can be made very quickly.

5 Proposed Way Forward

What is needed is a reliable mechanism for putting a realistic value on problematic debts (in their original and traded forms). It is here that we believe that the adoption of insurance concepts of refined data details should be introduced. This in turn can aid the valuation CDOs. Best estimate and ultimate net loss concepts may be applied to arrive at a valuation acceptable to regulators in valuing banks' current liabilities.

Actuarial tools already exist and we do not believe that it will be hard for someone with experience of Equitas to adapt them to the banking market. Where the problem may well lie could be with the availability of data. It will not be sufficient simply to have the current rate of loan failure (however defined) – which would equate to no more than loss ratios in insurance parlance – but to dig into the underlying book, exposure by type and assessed risk category, loss frequency by risk characteristic and likely average loss and then to make allowance for anticipated counterparty recoveries (by counterparty characteristic and contract wording). It is not presently clear to us how easily banks can access this information.

As a first step we recommend that we be appointed to examine the loan book of a bank that has been involved with the type of lending and credit derivative operations referred to above. This examination should be focussed on a pre-agreed area of the business, to examine the viability of applying an insurance-type valuation to the bank's exposures with an assessment of the consequent effects on capital.

As a final point , the importance of identifying these data is that any business planning can be followed up. In particular Basle 2 requires that the internal model is related to the business plan process. However we maintain that without measuring exposure of risk (a fundamental part of the a business) ,no effect monitoring can be achieved

Yours truly,

Stewart Coutts