

**Discussion Papers in
Accounting and Finance**

Equity Toxic Waste in Asset-Backed Securitisation

Simon Wolfe

October 2004

**Number AF04-22
ISSN 1356-3548**

EQUITY TOXIC WASTE IN ASSET-BACKED SECURITISATION

by

SIMON WOLFE

School of Management

UNIVERSITY OF SOUTHAMPTON

SO17 1BJ, UK

TEL: (+44) 023-80593118 Fax No. (+44) 023-80593844

e-mail: sstjw@socsci.soton.ac.uk

ABSTRACT

With the ongoing change in focus from regulatory capital to economic capital comes a need to reassess banks current practice in disposing of the equity toxic waste produced as a by-product in the asset-backed securitisation process. Financial innovation coupled with the speed of change in financial markets and the sheer complexity of some financial transactions poses real difficulties for supervisors and regulators in this context. The development of risk-based regulation will undoubtedly result in compliance with the form of the new Basle II regulatory requirements. However, risk-based regulation in itself will not ensure that banks treat equity toxic waste in a way that is wholly compliant with the substance of the new Basle regulations. In the UK life assurance sector the Financial Services Authority (FSA) has been moving in the direction of embedding the concept of "a compliant competent organization" into the industry. This paper argues for a similar approach for financial entities engaged in asset-backed securitisation.

This paper was presented at an ISF seminar at Essex University in February 2003.
Any errors are the responsibility of the author alone.

1. INTRODUCTION

Asset-Backed Securitisation may be broadly defined as ‘the process whereby like types of financial assets are pooled together, with their cash flows or economic values redirected to support payments on related securities. These securities, generally referred to as ‘asset-backed securities’ are issued and sold to investors – principally institutions – in the public and private markets by or on behalf of issuers, who utilise securitisation to finance their business activities’¹

The market for securitisation has been growing dramatically over the last decade or so, with new issuance of European securitised debt totalling €162 billion in 2002 up from €153.6 billion in 2001.² Whereas, the Eurobond market for corporate debt (including securitised debt) exceeded €2 trillion in 2002. The picture is more dramatic in the US where securitised debt (including mortgage backed debt) outstanding made up 30% of the total public and private bond market. Outstanding US corporate debt made up just 20% of the total (\$18.6 trillion) market in 2001.³ Propelling the growth in securitisation is a continuous evolution of the types of issuers and the specific asset classes supporting the transactions.

Toxic waste is by definition a highly risky substance that should be treated with due care and attention. Equally, this is the case with Equity Toxic Waste (ETW). When banks engage in the asset-backed securitisation process they sell (transfer) a pool of assets and their associated risk to a special purpose vehicle (SPV). The SPV issues securities that are backed by this pool of assets in the capital market. Almost always the SPV will employ tranching by issuing a mix of high and low credit rated securities.⁴ The senior tranche will be investment grade and these securities will be supported by mezzanine tranches, which in turn are supported by unrated subordinated equity tranches. All of the securities bar the equity tranche are sold. The equity tranche is typically retained by the originating bank and held on balance sheet. This equity tranche is what is referred to as

¹ European Securitisation Forum, *A Resource Guide* (1999).

² Source European Securitisation Forum 2003.

³ The Bond Market Association 2003.

⁴ Tranching describes the process used in portfolio instruments and transactions to re-engineer the risk/return profile of a pool of assets or credit risk exposures into multiple risk classes with different degrees of seniority in bankruptcy and timing of default (Committee on the Global Financial System, 2003).

Equity Toxic Waste throughout this paper. What the originating bank decides to do with an equity tranche is of importance to bank managers and regulators.⁵

This paper is organized as follows. The first section provides a definition of equity toxic waste and analyses current practice by banks in its disposal. Section 2 reviews the regulatory framework for securitisation and current proposals for its treatment under Basel II. Section 3 analyses the potential for a qualitative approach to capital requirements for toxic waste disposal that draws from recent developments in insurance regulation. The final section offers concluding remarks.

2. EQUITY TOXIC WASTE

“Asset Backed Securitisation (ABS) is one of the most important and abiding innovations to emerge in financial markets since the 1930’s” (Kendall and Fishman, 1996). ABS is defined as a financing technique in which “a company or financial institution dedicates the cash flows from selected assets to securing certain liabilities and then creates securities from those liabilities” (Giddy, 1994). ABS can also be described as the process of transforming illiquid assets into marketable securities, hence raising liquidity. It is a financing technique widely employed by international financial institutions and increasingly by the corporate sector, and governments.

Motives for securitisation:

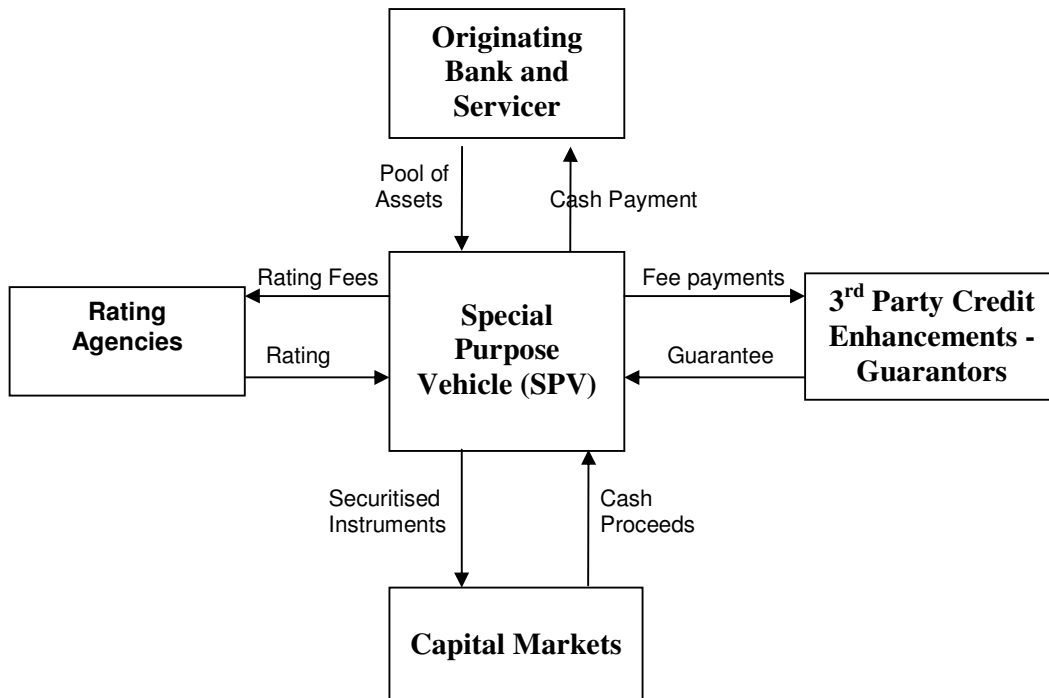
There are a number of perceived reasons for securitising assets, but these can be segregated into two broad categories, (i) as a means of enhancing performance and (ii) a form of risk management and balance sheet structuring. In respect to the early evolutionary stages of ABS development, the drive by banks to securitise was led by the desire to remove assets off their balance sheet, in an attempt to gain a more efficient use of capital, while in the process of transferring risks to investors. Pavel and Phillis (1987), as well as Greenbaum and Thakor (1987) suggested that securitising provide banks with an alternative method of reducing risk, diversifying portfolios, and funding both their

⁵ Note that the term ‘equity tranche’ is not equity but unrated debt. The term is used because this unrated debt acts as a buffer stock supporting the senior debt in an asset-backed securitisation (i.e. it plays a similar role to that of the equity of a bank).

operations and new assets. Furthermore, Lockwood, et al (1996) highlight instances where such innovations lead to wealth effects for the shareholders of the issuing firm.

Securitisation provides an alternative and additional scope for traditional intermediation, and this can be observed by briefly examining the securitisation process. Typically, the originating institution forms a separate special purpose, bankruptcy-remote securitisation conduit, the SPV, by providing the initial set of capital. The SPV then purchase part of the originating bank’s loan portfolio, or in some cases may even originate loans itself. To finance its portfolio, the conduit issues a varied set of asset backed market instruments – usually floating rate notes (FRNs)⁶ – collateralised by the underlying loan pool (See Chart 1). A major portion of the SPV’s debt is issued to investors, who for a variety of reasons e.g. institutional investors, generally require the senior securities to be highly rated investment grade (triple or double A).

Chart 1 The Asset Backed Securitisation Process



⁶ These are usually linked to some reference rate (i.e. Libor) offering this rate plus a premium spread.

In order to produce highly rated tranches, the SPV must receive credit enhancements that insulate the senior securities from the risk of default on the underlying portfolio. Typically, the originating bank provide the bulk of the enhancements which can take many forms, ranging from issuing standby letters of credit to the SPV, to repurchasing the most junior securities issued by the SPV.

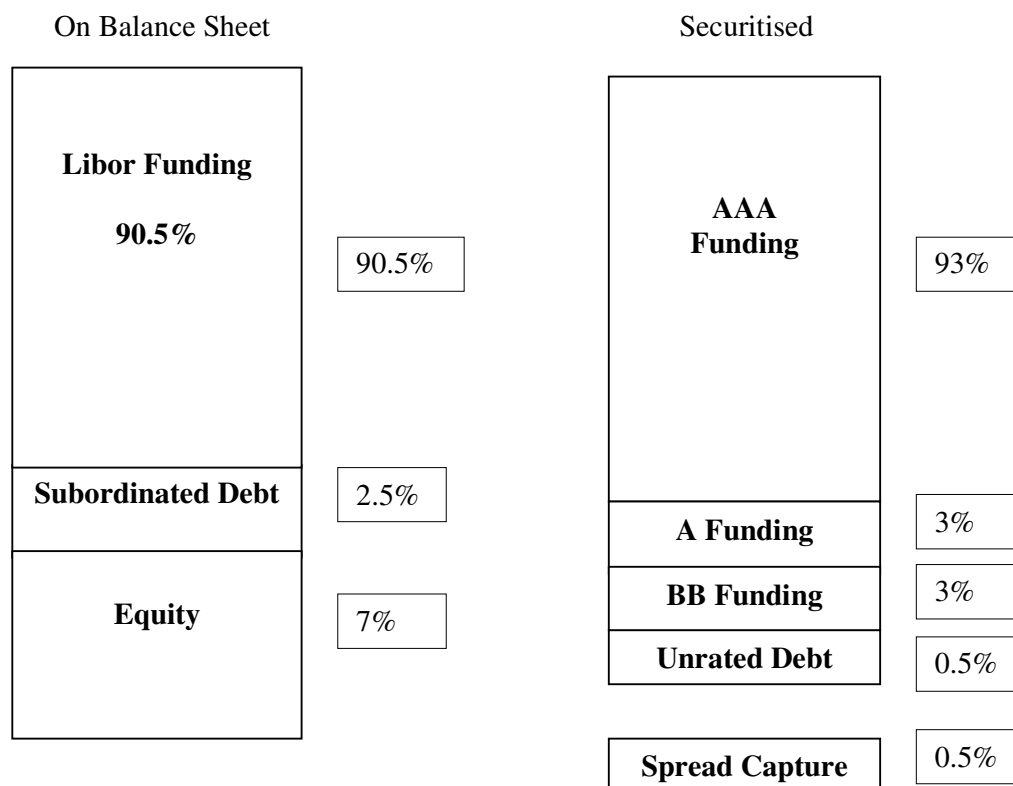
Many investors are drawn to these high yielding securities as opposed to those of similar credit quality, e.g. corporate and emerging market bonds. They offer higher yields because of a possible prepayment risk, and a liquidity premium due to an underdeveloped European secondary market (see Ward and Wolfe (2003)). The originating bank not only benefits from capital relief, but they also secure origination, servicing and monitoring fees. In addition, they receive the residual spread between the yields on the loan portfolio, and the adjusted interest costs of the conduit, which are all secured by various methods of profit extraction.

In a securitisation transaction structure, the securities issued by the SPV are usually rated with ratings ranging from AAA rated debt to unrated debt. The senior rated debt comprises the bulk of the issue with a minimal amount constituting the speculative/unrated debt. The unrated debt component is often termed the 'equity' tranche. This is not actually equity, but since it is the most risky tranche of the deal it is often referred to as the 'equity' tranche, or less formally as the toxic tranche, since all the default risk from the whole issue effectively leaches down into this bottom tranche. Thus, most systemic risks in a securitisation are absorbed by the excess spread of the securitisation and the originator's equity/first-loss loan (see Chart 2).

In a securitisation transaction the equity tranche is the unrated debt component as depicted in chart 2. Equity investors (originating bank) hope to achieve a geared return between after default yield on assets and the financing cost of the mezzanine and senior tranches. The size of the equity tranche in a typical securitisation has fallen over the past number of years. In the mid-1990s the equity tranche retained by the originating bank averaged approximately 7% of the capital structure. However, as the market deepened and investor appetite grew, more and more of the junior debt was sold. Today approximately

1% of the capital structure is retained as the equity tranche by originating banks.⁷ However, other sources estimate this level to be higher in the range 2% to 15% (Committee on the Global Financial System, 2003).

CHART 2: Portfolio Funding

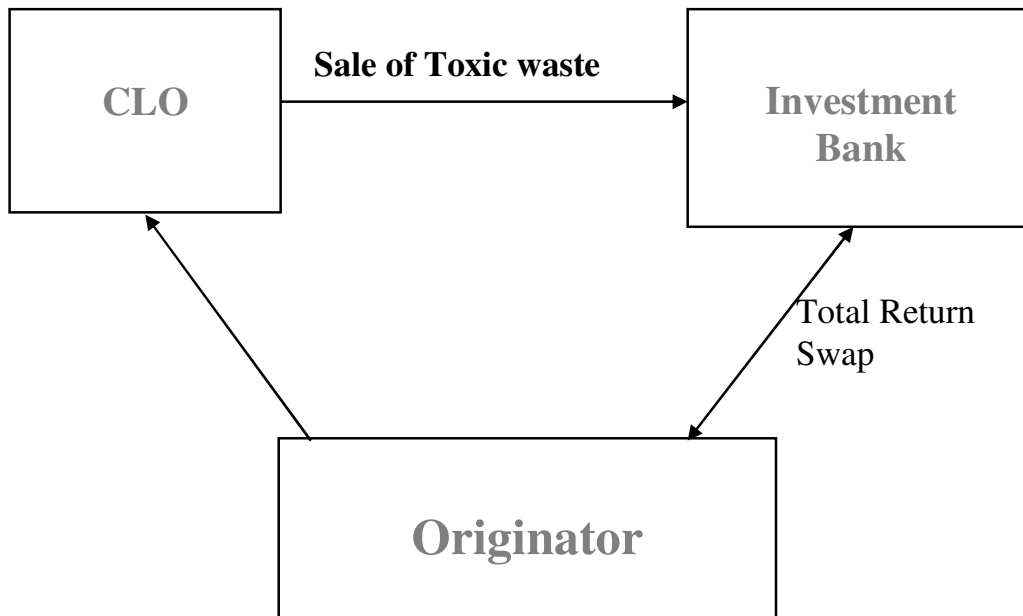


Under the present regulatory capital requirements the equity tranche retained by the originating bank and held on-balance sheet will attract a dollar-for-dollar capital requirement (i.e. deducted from capital). This gives rise to a desire by banks to dispose of this tranche in some other way. There are a number of complex financial transactions that a bank can conduct to achieve disposal. However, in some cases these transactions are constructed not to reduce risk but to transform the equity tranche into an instrument that

⁷ 1% was cited by a number of speakers (market practitioners) at the Asset Backed Summit, Geneva, 2002.

attracts a lower capital requirement. The first example of two such masking transaction is depicted in Chart 3.

CHART 3: The TRS method



Source: Keighley (2002).⁸

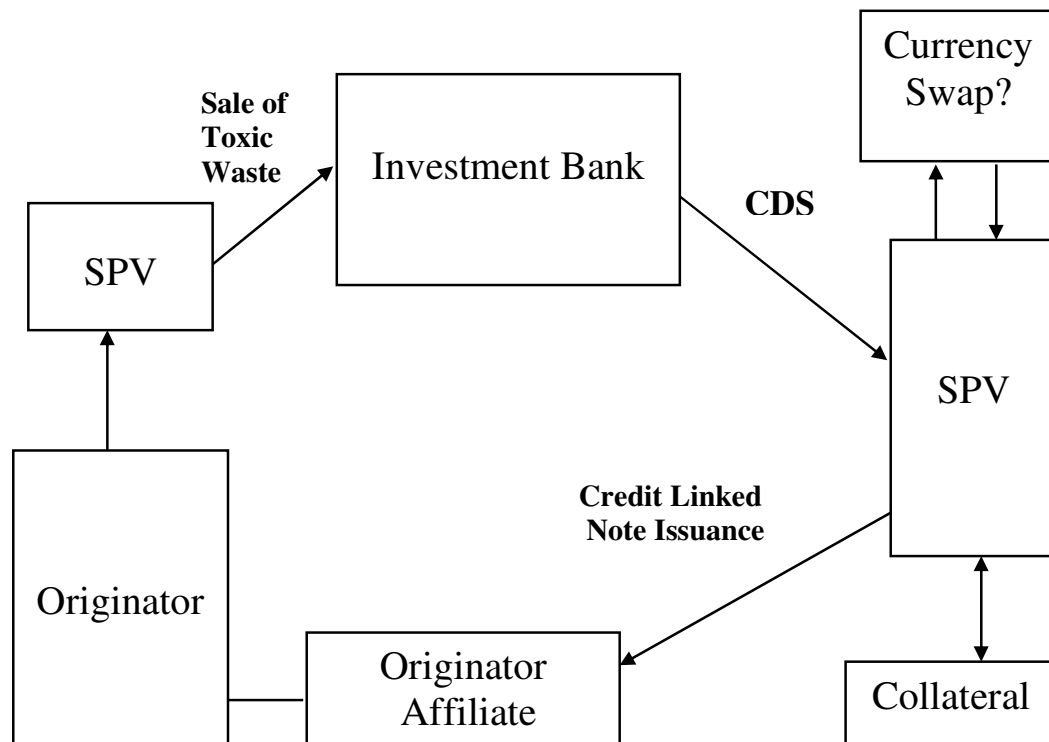
This method of selling the equity tranche, but which creates concerns about the real risk transfer, consists of a total return swap. Grossly oversimplified, the originating bank sells the toxic waste to a third party, usually an investment bank, who in turn effects a total return swap with the originating bank. Typically, a pre-arranged understanding exists between the two banks. This understanding is that the investment bank buys the toxic waste from the originating bank on condition that it can send the risk back to the originator via a total return swap. The end result in such a complex transaction is that the equity tranche through the swap returns to the originating bank. What the originator has effectively managed to do is exchange the high capital charge associated with the equity tranche for a lower capital charge associated with the swap (which is held on-balance sheet by the bank). The swap would mask the true nature of the equity toxic waste from

⁸ Charts 3, 4, and 5 were presented by Jonathan Keighley (Structured Finance Management Ltd.) at the ABSummit 2002 in Geneva, April.

regulatory supervisors. Regulators do not approve of such transactions as the concept of real risk transfer does not apply.

A second method of disposing of the toxic waste is depicted in Chart 4. However, in this example as in the previous one - no risk is removed. A transformation takes place through an elaborate set of complex financial transactions. The originating bank undertakes a securitisation and instead of retaining the toxic waste it arranges for another investment bank to buy it. The investment bank through a credit default swap passes the toxic waste to a special purpose firm. The special purpose firm may utilize a currency swap (perhaps to throw supervisors off the trail) and then issues a credit linked note in the new currency to an affiliate of the originating bank. The risk of the equity toxic waste has just gone around in a large circle and re-entered the bank through the back door as an instrument attracting a lower capital charge (100% as opposed to 125%).⁹

CHART 4: METAMORPHOSIS



Source: Keighley (2002).

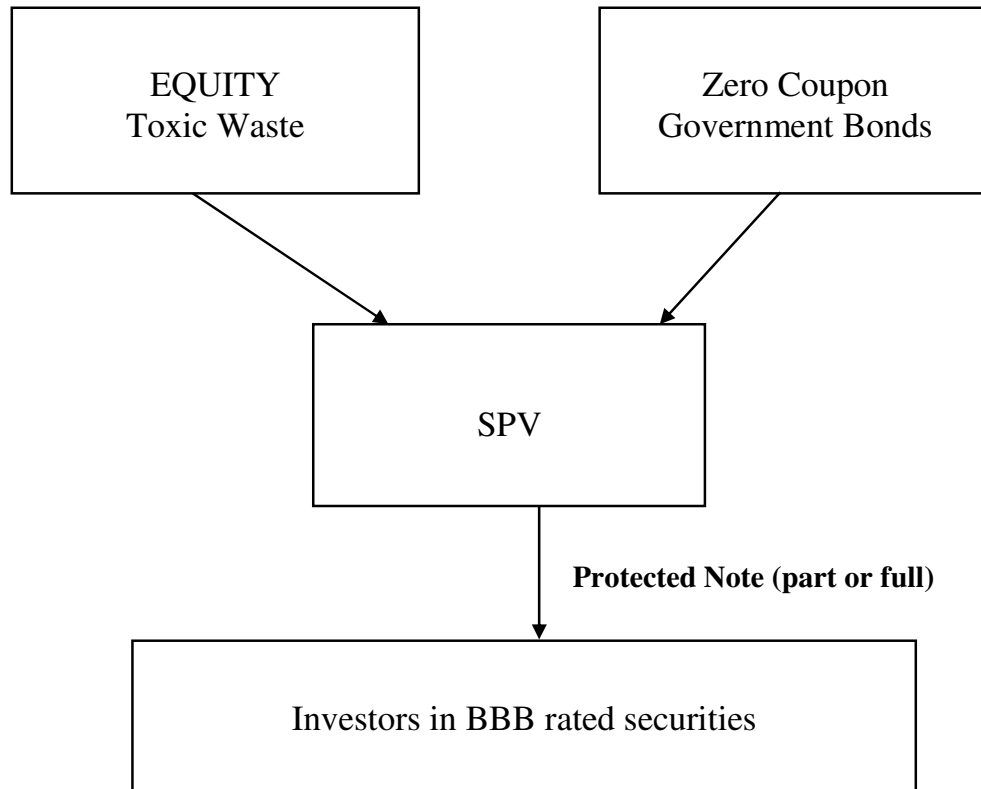
Regulators, have to be alert for such type of transactions that create serious implications for the banking community and the financial markets. Banks on their part although inevitably always aiming at achieving higher returns, carry an obligation towards shareholders, depositors and society at large. The risk-return trade off analysis performed by banks will show that any defaults occurring from such transactions bring about negative repercussions. The concept of real risk transfer brings about a fairer distribution of capital allocation representing realistically the risks involved in securitisation.

The real risk-transfer objective depends upon further development of the unrated /speculative debt market. As in all transactions, for every originating bank trying to sell an equity tranche a counterparty must be willing to purchase the tranche. In the market, one finds funds specialising in speculative debt and who are prepared to purchase such debt. The equity tranche can also be sold to some Commercial Paper Conduits who are permitted to invest in unrated assets. However, direct sale of the equity tranche is difficult due to information asymmetries on the underlying portfolio performance. At present no information is available beyond the offering circular provided to potential investors prior to issuance. Post issuance performance is neither provided by originators nor by SPVs in the European ABS market.¹⁰

There is an approved method of sanitising the toxic waste and removing it from the bank's balance sheet (see Chart 5). Sale of the equity tranche can be effected through a securitisation process involving the originating bank. If, as an example, the bank has a 1% equity tranche retained on its balance sheet after a securitisation transaction, the bank can create a new SPV separate from the original one used in the securitisation structure. The 1% equity tranche is filtered through the new SPV together with another 99% of zero coupon government bonds rated at investment grade. Being filtered through the SPV the equity tranche plus the bonds will result in new securities (AA through to BBB rated) that are sold in the capital market to third party investors. Although such a sanitisation structure may be expensive to set up initially, through repeated transactions of the same kind the process may become economically viable creating benefits for the originating banks.

⁹ If an asset is deducted from capital this means that for every pound in value one pound must be held as capital. A 100% capital requirement means that 8% of the asset value must be held as capital. On this basis a 1250% capital requirement means that 100% of the value of the asset must be held as capital.

CHART 5: AN APPROVED METHOD



Source: Keighley (2002).

¹⁰ This is an ongoing issue. See the European Securitisation Forum (1999).

3. CAPITAL REGULATIONS

There is a dynamic connection between market innovation and regulation. Financial innovation often occurs in response to regulation, especially when regulation makes little economic sense (Meyer, 1998). Economic efficiencies that are potentially associated with financial innovation can be negated by inefficient banking regulation. As regulation is perceived to hinder this process, new variants of financial products would come to the fore. Conversely, advances in the market spur the evolution of regulation. Investment opportunities may originate in the private sector, where the rate of return on the investment is paramount, as opposed to the public sector where social returns is promoted. Therefore regulation must somehow produce a fine balance between these two positions.

The usefulness of the 1988 capital adequacy accord lies with its ability to be used as a benchmark for financial scrutiny by both regulators and counterparties alike. However, increasing levels of financial innovations undermine the effectiveness of the capital adequacy requirements. With the proliferation of capital arbitrage¹¹ techniques, securitisation included, banks can effectively achieve risk based capital ratios, which are below the Accord's nominal 8%. Capital arbitrage is fundamentally driven by large divergences between economic risks and that of the risk weighted measure set by the BIS.¹² This in addition to its efficiencies can also give rise to distorted risk management techniques, and from a safety and soundness perspective, risk management distortions could be as, or even more problematic than capital arbitrage.

By contrast, efficient banking regulation not only provides a backdrop for financial advances, but also permits governments to achieve to some extent social objectives which otherwise may have been impossible or incurred at a higher cost. With the 1988 Accord, the phenomenon of capital arbitrage poses some significant policy tradeoffs, for the only means available to regulators in limiting such activity is through the imposition of broad

¹¹ Defined by Jones (1999) as activities that permit a bank to assume greater risk with no increase in its minimum regulatory capital requirement, while at the same time showing no change or possibly an increase in its capital ratios.

¹² Jones (2000) states: "...capital arbitrage has attracted scant academic attention. In part, the lack of published research no doubt reflects the scarcity of public data ..." and "...may also reflect the complexity of the underlying transactions."

restrictions on the use of financial engineering technologies. According to Jones (1999), this would however be counterproductive and possibly untenable since capital arbitrage often functions as a safety valve for mitigating the adverse effects of nominal capital requirements that, for some activities are unreasonably high. Capital arbitrage permits banks to compete in some activities that they would have been forced to abandon due to insufficient returns on regulatory capital needed. Moreover, securitisation and other risk unbundling techniques to some extent appear to provide significant economic benefits apart from capital arbitrage.

The debate in many instances focuses on whether inefficient or burdensome capital adequacy requirements can reduce the risks in banking. According to Blum (1999) “under binding capital requirements an additional unit of equity tomorrow is more valuable to a bank. If raising equity is excessively costly, the only possibility to increase equity tomorrow is to increase risk today.” Importantly, Gehrig (1995) highlighted that capital requirements greatly influence the nature of strategic competition among banks. Essentially, it must be noted that in a dynamic setting, with incentives for asset substitution, capital adequacy may actually lead to increases in bank risks. Furthermore, if the regulators are concerned with reducing the insolvency risk of banks, then one of the effects of such regulation is reduced bank profit. Theoretically, with lower profits, a bank has a smaller incentive to avoid default, along with the ‘leverage effect of capital rules’, raises the value of equity to the bank. For with every dollar of equity, more than one dollar can be invested in a profitable, but risky asset.

The 1988 Basle accord is extremely simplistic in terms of credit risk with banks having to contend with a rather arbitrary capital requirement of 8%. Though many of the internal capital allocation procedures have evolved as credit products have evolved. Regulatory requirements for capital have been oversimplified historically and tend to penalise those institutions that invest in sophisticated internal risk management systems. Regulatory concerns about capital adequacy therefore can best be addressed by allowing qualifying institutions to use their own risk models for determining capital adequacy for credit and market risks, subject to regulatory oversight. This policy can promote innovation, as well as financial market soundness and a more efficient allocation of capital. Currently, regulatory capital rules do not fully capture the economic substance of the risk exposures arising from asset-backed securitisations.

BIS 1999 Proposals

The BIS, though achieving competitive equality to some extent, has recognised the weaknesses in the existing Accord, and issued new proposals in June 1999 for initial consultation aimed at more 'definitive' proposals in 2001. The review of the Accord is designed to improve the way regulatory capital requirements reflect underlying risks. It is also designed to better address the financial innovation that has occurred in recent years (Basel Committee on Banking Supervision, 1999). Innovations such as structured securitisations have made the current Accord - a crude risk measure - less effective in calibrating an institution's true risk profile. The proposed capital framework consists of three 'pillars': minimum regulatory capital requirements, a supervisory review process and effective use of market discipline. However, the scope of this section is not to examine the entire set of proposals but those particularly pertaining to securitising activity.

According to the 2003 report on credit risk transfer, the Committee recognises that securitising serves as an effective and efficient method of redistributing risks and diversifying portfolios.¹³ The concern however occurs with the use of structured securitisations at avoiding the maintenance of capital consistent with their risk exposures. As such, the new proposals seek to re-align the risk weightings of corporate obligors commensurate with their respective credit risk. The capital allocated could therefore be considered appropriate for the credit risk of individual tranches. High-grade securitised paper will now carry a 20% risk weightage, severely reducing the capital requirement to one-fifth of the current standard. Securitised products with a rating A- and higher are those that have received the greatest level of capital relief. Likewise, those below BBB- carry a risk weighting of 150%, a 50% increase in capital adequacy requirements (See Table 1).

These proposals are expected to have profound effects on the ABS market. There is expected to be a boost in demand for high quality securitised products especially for banks seeking capital relief, such banks with a conservative risk profile could see their capital requirements reduced. There should also be a widening of the gap in prices and consequently yields due to newly proposed differences in ratings. For the market as a

¹³ Committee on the Global Financial System (2003).

whole, the new tiering in capital charges will lead to a more noticeable tiering in spreads amongst securities in different risk categories resulting in a steeper credit curve for the international ABS market, (Batchvarov et al., 1999). Essentially, there is expected to be greater comparability in prices among spread products, and ABS can benefit from greater transparency in assessing relative values.

TABLE 1: Treatment for Securitisation Structures

Securitisation tranches					
External Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
Tranches Risk-weights	20%	50%	100%	150%	Deduction from capital ¹⁴

The proposals also reward investors with instruments from higher tranches, and effectively penalising those with lower rated ones, thereby pressuring banks to achieve the highest level of ratings possible. The scope for structured securitisations should also increase, as asset-backed securities can be structured in such a way to achieve desired ratings and consequently risk weightings. With the use of internal ratings and greater correspondence with rating agencies, this would provide a means of producing cheaper, quicker, and easier packaging of assets and further boost the growth in the market. Instead of engaging in wide-scale capital arbitrage, banks now have further incentive to structure the debt in order to achieve higher-rated credit ratings.

Clearly this would entail a greater level of dependence on external credit rating agencies for providing capital charges for securitisations, as they are even more dependent on provided credit ratings. Implementation of such a proposal could drastically narrow the gap between the current ‘crude’ capital charges and the economic capital banks allocate internally. Potentially, this could also provide investors with exposure to high quality

¹⁴ Credit enhancements will also be deducted from capital..Source: BIS (2001).

European corporate borrowers through CLO type securitisations,¹⁵ because they have no public rating, which would otherwise be barred to them. Rating agencies will effectively become part of the regulatory mechanism for the financial sector.

Clearly, the provision of 150% on lower rated securities represents a step in the right direction, but if in these securitisation transactions, these bonds bear the majority of the risk of the higher tranches, then the capital charge should therefore be substantially higher. Furthermore, a large portion of these investments are retained by the originator and as such the originator has still not relinquished some portion of risk associated with the securitisation transaction. Furthermore, the bands among the levels of ratings in the new proposals are also broad and wide-ranging and can possibly lead to capital arbitrage. Finally, banks must 'get up to speed' quickly with their systems which would enable them to investigate the possible benefits and drawbacks of the proposed framework on their operations. Likewise, the rating agencies must also determine how the increased demands of ratings will affect the efficiency and quality of their output, thus possibly fuelling the tensions among regulators, bankers and the rating agencies.

The adoption of portfolio management principles in the banking sector has led to banks originating transactions in which they have a distinct comparative advantage. Assets held by the bank are traded in a bid to achieve a balanced asset portfolio. By retaining such a balanced portfolio the bank is better equipped to diversify risk reducing the EC requirements due to correlations and concentrations. Through securitisation a reduction in EC may be attained by reducing exposures in areas where a bank is concentrated (for example, in a particular industry or specific lending sector). Portfolio selection is thus more targeted towards specific targets as set by management. Aiding in this quest for diversification is the ever- expanding growth of synthetic securitisations where the credit risk and not the assets are sold through, for example, credit derivatives. Capital requirements held against synthetics have to be set in an equitable manner as not to hinder the development of such a market.

The Portfolio Management objective leads towards a strategic securitisation strategy adopted by banking institutions that are trying to improve their return on EC. Strategic

¹⁵ CLO (Collateralized Loan Obligations) transactions are the securitisation of corporate loans by banks.

securitisation ensures that originators and investors balance their asset portfolio efficiently, with resources (principally capital) being consumed efficiently. Which assets the bank originates well, and which assets the bank wishes to hold, are questions that strategic securitisation may address in an effective manner.

The contrast between the prime securitisation objective under the Accord, i.e., regulatory capital arbitrage (RCA) and the risk transfer objective applicable under the New Accord is clearly marked. It is to be noted that the Advanced IRB approach, permitting sophisticated banks to utilise internal models for risk assessment, is the approach proposed by Basel that mostly mirrors EC assessments. This shift in objectives results in banks retaining high-quality assets on their balance sheet instead of securitising them, as was custom under the Accord to obtain capital relief. Through EC, such arbitrage to obtain capital relief is reduced as it is the high-quality assets that are retained and the poorer quality assets sold. The necessity to securitise a bank's riskier assets and to retain quality assets on the balance sheet has major implications for equity toxic waste. The implications are that securitised asset pools will in future be of poorer quality. This suggests that the equity tranche will need to be greater in order to provide support for the senior debt. As banks retain larger and larger equity tranches the need will grow to dispose of them and thereby potentially compounding the problem of masking.

ASSESSMENT

The new Basel capital proposals, to come into force in 2007, provide a framework within which securitisation is more comprehensively covered than under the old Accord. The new requirements take into account the perspectives of both originators and third parties as investors in asset-backed instruments. A clearer linkage has been made between the economic risks of both tranches and credit enhancements and capital weights. A clear identification of recourse risk (liquidity risk) to originators is highlighted and also is the danger of a future potential shift away from credit risk to operational risk (legal risk) in asset-backed securitisations. Even though the new rules are quantitative there will also be a role for qualitative regulation when setting capital requirements for asset backed activity.¹⁶ However, room still exists for capital arbitrage to take place between the new bands and potential exists for banks to mask equity toxic waste through innovative

¹⁶ This point is also made by the Committee on the Global Financial System (2003), p.28.

disposal techniques. Squaring this final circle will require a cultural shift by banks to one of facing up to economic risks and their danger for a financial institution.

4. CULTURAL SHIFT TO EMBRACE FULLY ECONOMIC RISKS

The Financial Services and Markets Act 2000 builds upon the existing compliance culture first introduced in the Financial Services Act 1986. “If compliance is a matter of getting by, keeping the regulator off the firm’s back, or keeping the regulator happy, then compliance is in a pretty fragile state” Jackman (2001). He argues for a partnership approach to compliance between the regulator and the regulated as opposed to a more prescriptive approach. The partnership approach would be based on a light touch approach from the regulator and an open and proactive approach to issues of compliance and competence (supported by appropriate corporate values and culture) from the regulated entity.

By fostering a partnership approach between the regulator and the regulated the Financial Services Authority (FSA) aims to establish Compliance Competent Organisations (CCOs). Edwards (2003) argues that “the new partnership approach to establishing sustainable CCOs, as outlined by Jackman (2001) is supported by academic theory, practitioner input, the regulator and the regulated”.

Mechanical compliance has done little to prevent problems in the past, often with serious repercussions for those affected. The FSA regulatory approach is based on ethical values and the Authority seeks to promote ethical behaviour for the financial services industry (FSA, 2002). What is envisaged is a major shift in the compliance culture of the financial services industry. In relation to equity toxic waste disposal – this new approach would result in banks facing up to the economic risks posed by any financial transaction and more fully complying with the spirit and not just the letter of regulatory rules.

5. CONCLUSIONS

As innovative financial transactions become ever more complex the task of tracking economic risks will become more and more difficult for supervisors. Supervisors have finite resources and therefore it seems logical that they enter into partnership arrangements with banks to ensure compliance with the spirit as well as the letter of financial regulations.¹⁷ In many cases a quantitative approach to capital requirements is sufficient, however, in other cases a qualitative approach will be necessary. Banks need to fully embrace economic risk and not be tempted to mask risks through complex transactions. This requires a cultural change to one of compliant competence throughout the whole banking entity.

¹⁷ Dale and Wolfe (2003) highlight the pressures that the FSA face in demonstrating benefits of a single regulator as reduced cost of regulation.

REFERENCES

- Basel Committee on Bank Supervision, (2001). Consultative Document: Asset Securitisation. Bank for International Settlements, January.
- Basel Committee on Bank Supervision, (2001). Working paper on the Treatment of Asset Securitizations. Bank for International Settlements, October.
- Basel Committee on Bank Supervision, (2002). Second working paper on securitisation. Technical Report, Bank for International Settlements, October.
- Batchvarov, A., G. Rajendra and M. Yan (1999) Regulatory Developments, International ABS Monitor, Merrill Lynch, Global Securities Research and Economics Group, June.
- Blum, J. (1999) Do capital adequacy requirements reduce risks in banking? *Journal of Banking and Finance*. Vol.23, pp. 755-771.
- Committee on the Global Financial System, (2003), Credit risk transfer. Working group report. Bank for International Settlements, January.
- Dale, R. and S. Wolfe (2003) The UK Financial Services Authority: Unified regulation in the new market environment. *Journal of International Banking Regulation*. Vol.4, No.3, pp. 200-226.
- Edwards, J. (2003) Compliance Competent Life Assurance Companies: A Partnership Approach. *Journal of Financial Regulation and Compliance*. Vol. 11, No 1. February.
- European Securitisation Forum (ESF), (1999) "Minimum Recommended Post-Issuance Reporting Standards for European Securitisation Transactions" June.
- Financial Services Authority (FSA), (2002) "An ethical framework for financial services" Discussion Paper. No. 18, October.
- Gehrig, T, (1999) "Capital Adequacy Rules: Implications for Banks' Risk Taking", *Swiss Journal of Economics and Statistics*, No. 131.
- Giddy, I. H. (1994), *Global Financial Markets*, D.C. Heath and Company.
- Gordy, M. and D. Jones (2002) Capital allocation for securitizations with uncertainty in loss prioritizations. Federal Reserve Board, December, pp.1-23.
- Greenbaum, S.I, and J. V. Thakor, (1987) "Bank Funding Modes: Securitisation versus Deposits", *Journal of Banking and Finance*, Number 11, pp. 379-392.
- Jackman, D. (2001) Why comply? *Journal of Financial regulation and Compliance*. Vol.9 No.3 pp.211-217.

- Jones, David, (1999) "Emerging Problems With The Accord: Regulatory Capital Arbitrage and Related Issues", *Bank of England Financial Stability Review*, June, pp. 103-104.
- Jones, David, (2000) "Emerging Problems With The Accord: Regulatory Capital Arbitrage and Related Issues", *Journal of Banking and Finance*, Vol. 24, pp. 35-58.
- Kendall, L.T and M.J. Fishman (1996), *A Primer on Securitisation*, The MIT Press.
- Lockwood, L. R. Rutherford and M. Herrera (1996) "Wealth Effects of Asset Securitisation", *Journal of Banking and Finance*, Number 20, pp. 151-164.
- Meyer, L. H. (1998) "Financial Globalization and Efficient Banking Regulation", Federal Reserve Board Speech, Annual Washington Conference of the Institute of International Bankers, Washington, D.C., March.
- Milne, A. (2002) Bank capital regulation as an incentive mechanism: Implications for portfolio choice. *Journal of Banking and Finance*. Vol. 26, pp. 1-23.
- Pavel, C.A., and D. Phillis, (1987) "Why Commercial Banks Sell Loans: An Empirical Analysis" *Economic Perspectives*, Federal Reserve Bank of Chicago.
- Ward, W. and S. Wolfe (2003), Asset backed securitisation, collateralized loan obligations and credit derivatives, in Victor Murinde and Andy Mullineaux, ed. *Handbook of International Banking*, Edward Elgar Publishing Ltd.
- Wolfe, S. (2000), Structural effects of asset backed securitisation, *The European Journal of Finance*, Vol. 6, No.4, pp 1-17.