Emergence and Growth of Structured Finance in Malaysia

Dr. RAVINDRAN RAMASAMY[1], GANISEN SINNASAMY[2] and MOHD HANIF MOHD HELMI[3]

[1] University Tun Abdul Razak Malaysia

Received: 15 December 2010 Accepted: 10 January 2011 Published: 20 January 2011

Abstract

Global financial crisis threatens the genuine investors and institutional investors who have parked their funds in financial assets. The developing countries follow the models and financial products especially the structured products the developed countries introduce and trade in their countries? capital markets. Malaysia also has introduced these financial products in Bursa Malaysia and allowed trading. In this article we try to trace the growth of these products both in Islamic and conventional segments of capital market. Our aim is to give an over view of the different kinds of structured products, their features and differences among them. We point out the inherent risks in these products and how it is difficult to quantify when they are not based on cash flows and reference portfolio of assets. We caution the regulatory bodies to be vigilant about exotic structured products such as synthetic CDOs and CDO2 which are highly unreliable and not based on any underlying and cash flows.

Index terms— CDOs; Tranches; Obligors; Sukuk; Portfolio; Default; SPVs; SMEs; Entrepreneur

1 INTRODUCTION

anks lend funds for promoting business activities and governments by budget allocations supplement it for inducing and motivating entrepreneurial activities. The sole objective is to encourage tiny, small and medium enterprises (SMEs) as they provide employment for common people. As they are diversified they do not strain the existing infrastructure and also does not require high skills to run them. In addition the SMEs are easy to establish without much capital, providing employment to local people as these SMEs are normally established in sparsely populated rural areas. It reduces urban congestion, pollution, overcrowding and not straining on the infrastructure like roads etc. The entrepreneurs who start these ventures are not so well educated, not able to plan all activities of businesses like marketing and finance. Marketing is done informally through friends and government agencies which find market for their products. The main problem is managing finance. These entrepreneurs miserably fail due to lack of knowledge of finance and also they want to maintain privacy in financial matters. Many loans provided to the SMEs go waste due to mismanagement of funds and increases default and credit risk for banks. A large number of loans provided to the SMEs are not repaid and in the long run the banks find it difficult to finance these SMEs as these loans are risky and do not produce any return for them.

The default risk (credit risk) is the main concern of several banks and it dampens the spirit of investment in bonds and lending (Vasicek, 2002). The structured finance is the panacea for this problem. Many banks presently go in for structured finance. The banks promote special purpose vehicles (SPVs) and sell all loans to the SPVs for securitisation. This action solves two major problems. Firstly they get quick liquidity **??**Abel, 2006). Secondly they could reduce the tier one capital requirements imposed by BASEL II (Donald, 2008). The SPVs issue either credit linked notes or credit default swaps in capital markets based on reference portfolio of loans acquired from the banks (Laurent, 2003). Thus the banks through their own SPVs transfer all credit risk to the investors who are willing to assume higher risks for a higher return. The structured finance relieves the banks from fear of credit risk and they are strong now to pump in more funds to new SMEs.

2 II.

3 STRUCTURED FINANCE AND CASH

4 FLOWS

Understanding the cash flows of structured products is challenging (Merino, 2002). A pictorial representation of design of products and cash flows will be in order. Figure 1 below shows the design and creation of structured products. The first column gives the number of underlying assets in the form of bonds and loans. The average yield rate is around 5%. The second column gives the different types of structured products in the form of Tranches. The products will be arranged from senior to junior tranches. Senior tranches will bear the ultimate loss while the junior tranches will face the first losses to the agreed nominal value. The equity tranches are the most vulnerable and hence they get huge premium. Protection seeker (selling banks) will pay premium while the investors will receive it for a guarantee of compensating the protection seeker in case of default losses. In the event of loss the investors has to pay the default amount from his side.

5 STRUCTURED PRODUCTS -GLOBAL CDOS AND MALAYSIAN CDOS

The CDO concept started in USA in 1987 by Drexe Burnham Lambert Inc, which issued CDOs on the loans of Imperial Savings association both of them have become defunct due to bankruptcy. On understanding the concept and the merits, ignoring demerits of CDOs, this market grew in size in western countries to the tune of one trillion dollars in 2007 and 2008. But in the last two years 2007 and 2008 the CDO market has shown unprecedented decline in growth due to subprime lending crisis. The world capital markets are in the doldrums and economies face unexpected downturn and reputed banks all over the world have lost billions of dollars, all due the reckless lending of real estate and automobile loans. The borrowers failed to repay these loans in large numbers due to the job loss, as the loans were given mostly to unorganised sector employees. In structured financing when reference portfolio fails the CDOs will also fail as the CDOs are guaranteed by the cash flows from reference portfolio. The highly vulnerable equity tranches are normally retained by the parent banks on moral grounds. This action ultimately leads to unprecedented losses for banks. Even the AAA rated mezzanine and senior tranches lose value as they are vulnerable after equity tranches bear first losses. The Malaysian lending pattern is not so reckless. The conservative method of lending saved the public and private banks from global economic crisis. In Malaysia the securitisation is done on the good portfolio of reference assets, thus the CDOs in Malaysia are safe and sound. Moreover the private and public banks loans are yet to be converted into structured products in Malaysia. Only the home loans given to government employees were collateralised and sold to Cagamas MBS Berhad, a SPV set up by parent Cagamas Berhad which has issued two types of structured products, one is based on Islamic principles and the other is based on conventional principles. These housing loans given to Government employees are strong in collateral as it is backed by regular salary and solid house property. In the event of default the government will recover the full amount as it is given to its employees. As such the chances of subprime loans crisis in Malaysia are remote.Several public sector companies have issued CDOs in Malaysia by acquiring loans and bonds of other companies to a size of RM one billion. Kerisma Berhad and Capone Berhad are examples (refer appendix). Their reference portfolio consists of 25 items of loans and bonds and they usually issue three tranches for a period of five years. These private CDOs face a higher credit risk. In Kerisma Berhad's reference portfolio two loans have defaulted in the fourth year affecting equity tranche totally as it has to bear the first loss.

Malaysia endeavours to be the leader in Islamic Finance. The Sukuk (Islamic bonds) play the role of conventional bonds. The issuance of Sukuk alone will not develop Islamic Finance. The Islamic capital market needs more Islamic Financial products and participants. To enhance level of participation, more Islamic financial products are needed in different risk levels to satisfy the different level risk seekers. The only way is to issue structured Islamic products by buying the eligible Islamic financing. Keeping in mind this necessity the Islamic scholars allow the issue of structured products (legal500.com) under Islamic principles. The finances granted for halal projects and assets like property, automobile etc could be transformed in to Sukuk which will satisfy the above stated objectives. The liquidity and the activity of Islamic capital market will be enhanced in the short run. These Sukuks enjoy high credit rating because they are created for genuine cash flows of underlying assets unlike conventional structured products as they are created on the basis of imaginary portfolio of financial assets.

IV.

6 HOME LOANS SECURITISATION

Housing is one of the basic needs. The governments all over the globe promote housing for which finance is needed. Through budgetary allocations the government of Malaysia finances its staff housing needs and collects the repayments slowly from the employees' salaries. This lacks liquidity and prevents further financing. Moreover the government cannot use the taxpayers' money for one section of the public. V.

7 SME LOANS SECURITISATION

The figure below gives the typical structured financing mechanism of the SME loans, otherwise known as structured finance designed by the Maybank. The main intention of the Maybank is to reduce its credit risk and the regulatory capital imposed by BASEL II. In addition Maybank will have more liquid funds for further lending.

To collect the SME loans the bank need not wait for long duration. Indirectly the SME loans are financed by the capital market. This widens the scope of the capital market by providing different products at different risk levels to the investors. The table below gives the details of the transaction size, nominal value, rating etc. The mechanism works like this. The first losses to the tune of RM 30m will be borne by Maybank itself, and if there is any excess loss above this threshold level it will be distributed from the bottom in bottom-up approach. The Credit Guarantee Corporation (CGC) of Malaysia is willing to bear an amount of RM 60m in case of defaults. Both are credit default swaps (CDS). The next RM150m is given to SME SPV of Cagamas Berhad to issue notes based on the reference assets of loans disbursed to SMEs. In this portion also RM45m is financed by the CGC though it is highly risky and rated as BBB3 which is equivalent to junk bonds. The other RM105m is sold in capital markets and financed by the investors. This portion is rated as AA3 and AAA and this indicates that they are very safe investments and there will be no hesitation for investors to invest. The final portion of SME loans to the tune of RM360m is not financed but the Cagamas berhad is ready to bear default losses finally. This is also another CDS.The net result of this structure is that the default risk prevalent in the SME loans are effectively transferred to CGC and others for a fee which is in the form of premium. If this transfer not carried out by Maybank, it has to bear the entire loss emanating from these SME loans and has to wait for several years to collect the funds. In addition it has to keep regulatory capital in the form of tier one capital to satisfy BASEL II which is in reserve and it is not available for lending. The enormity of the default loss will definitely make the banks weary of SME loans. The liquidity created by securitisation can be used immediately for further lending. Thus the bank based lending has been shifted to capital market financing and it is really a boon to SMEs.

VI.

8 PWOR MECHANISM

The Cagamas Berhad has expanded the scope of structured product mechanism for company loans and debts. Cagamas Berhad directly buys loans and debts at premium from the originator lending banks and finance companies and makes the originator as service providers by paying a service fee. The following figure explains how the PWOR mechanism works in structured finance. The ultimate objective is to link the capital market and loans to provide much needed liquidity. These mechanisms will work trouble free as long as the parties concerned execute their obligations diligently. To ensure proper functioning of these systems there should be a separate legal framework which should give power of regulation and severe punishment for the wrong doers.The Cagamas Berhad is ready to buy the loans and bonds of lenders whether it is a bank or any financial institution or leasing companies (financial lease only) either for cash or for Cagama's bonds. The operating mechanism is given in the following figure. The bonds given by the Cagamas Berhad is highly rated and they get higher return. The loans are priced either on cost plus profit basis or at standardised rates published by Cagamas Berhad whichever is favourable to the originator of the loan. The hire purchase and financial lease loans are priced at fixed rates. Sellers' related companies appear due to the single customer credit limit. If the credit limit is exceeded then the bonds will be issued to the related companies.

9 SUKUK AND SECURITISATION

Islamic capital market is strict on the nature of companies to be listed and also the products to be created and traded. In the case of companies the interest component in the profit and loss account either as receipt or payment is inevitable. The holy Quran is against receiving interest and haram nature of trade dealings. Hence defining the companies whether they are eligible to be listed under the Islamic capital market is a challenging task. To overcome these problems the Sariyah council has given the following definition.

10 Parameters

11 Qualitative Parameters

The general criteria in evaluating the status of Shariah-approved securities are that the companies are not involved in the following core activities:

? Financial services based on riba (interest) ? Gambling ? Manufacture or sale of non-halal products or related products ? Conventional insurance ? Entertainment activities that are non-permissible according to Shariah ? Manufacture or sale of tobacco-based products or related products ? Stock broking or share trading in non-Shariah approved securities ? Other activities deemed non-permissible according to Shariah.

The SAC also takes into account the level of contribution of interest income received by the company from conventional fixed deposits or other interest-bearing financial instruments. In addition, dividends received from investments in non-Shariah approved securities are also considered in the analysis carried out by the SAC.

For companies with activities comprising both permissible and non-permissible elements, the SAC considers Additional criteria:

? The public perception or image of the company, which must be exemplary

? The core activities of the company must be considered maslahah (in the public interest) to the Muslim ummah and the country, and the non-permissible elements present must be minimal and involves matters such as ‘umum balwa (common plight and difficult to avoid) and ‘uruf (custom).

12 Quantitative Parameters

To determine the tolerable level of mixed contributions from permissible and non-permissible activities towards revenue and profit before tax of a company, the SAC has established several benchmarks based on ijtihad (reasoning from the source of Shariah by qualified Shariah scholars). If the contributions from non-permissible activities exceed the benchmark, the securities of the company will not be classified as Shariah approved.

The benchmarks are:

? The 5% benchmark This benchmark is used to assess the level of mixed contributions from the activities that are clearly prohibited such as riba (interest-based companies like conventional banks), gambling, and activities derived from liquor and pork which are deemed haram (prohibited)

? The 10% benchmark This benchmark is used to assess the level of mixed contributions from the activities that involve the element of umum balwa (a prohibited element affecting most people and difficult to avoid). An example of such a contribution is the interest income from fixed deposits placed in conventional banks. This benchmark is also used for tobaccorelated activities

? The 25% benchmark This benchmark is used to assess the level of mixed contributions from the activities that are generally permissible according to Shariah and have an element of maslahah (public interest), although there may be other elements that could affect the Shariah status of these activities. Among the activities that belong to this benchmark are hotel and resort operations, share trading, stock broking, as these activities may also involve other related activities that are deemed on-permissible according to Shariah rules. In a bid to promote understanding of Shariah approved securities, more details and criteria on the Shariah review of securities are provided in the bi-annual SAC List booklet which is also available on line at www.sc.com.my Source:http://www.klse.com.my/website/bm/products_and_services/information_services/downloads/bm2ICM.pdf VIII.

13 ISLAMIC CDOS

Musyarakah principle is applied by the Cagamas Berhad to securitise the government staff housing loans. The government sells the houses by cost plus profit basis (marking up) to its employees and collects the loan on instalment basis. These loans are ideal reference assts for issuing Islamic structured products as they do not violate the principles of Islamic lending. The tranches issued under Islamic principles result in refinancing and government can grant more loans as it has received liquid funds from the capital market. The CDOs not only brings liquid cash but also they provide more Islamic instruments in the capital market for investing public at different levels of risk. Those who want to avoid the risk can go in for the senior tranches, the risk neutral investors can go in for Mezzanine tranches. Those who seek risk for a better return can go in for equity tranches. Moreover these Islamic CDOs are issued in different maturities of three, five, seven, ten, twelve, fifteen and twenty years providing ideal instruments for both short term and longterm investments. The second issue of Islamic notes offered a premium of 3.63% for the three year tranche and progressively increased to 4.34% for the final 20 years tranche. Even at these low rates the issue was oversubscribed by four times not only from Malaysia but also from overseas investors.

The main attraction of Islamic CDOs is not from Malaysian investors but from petro dollar rich Arabian institutional investors. The structured product market in Islamic finance is sound as it prevents issuing CDOs which are not supported by real economic activities and real cash flows. The synthetic and CDO 2 have no place in Islamic finance as they not based on real cash flows and not supported by any economic activity. As such the Islamic CDOs are sound and healthy than the conventional CDOs which may be created on any items of loan and bond portfolios.

14 IX.

15 CONCLUSION

The global organisations like World Bank and regional development banks encourage the governments to take care of needs of down trodden. The Malaysian government is not an exception and it is a welfare government. Financing is the blood which supplies nutrients to the different sectors of the economy. Financing everything with tax payers money is neither desirable and nor possible. The way out is refinancing. Refinancing is to be done by the investing public; this could be achieved by linking the loans already granted to capital market through structured finance. The main advantage of the structured products is the interest shown by the foreign institutional and common investors which will not only exemplify financial strength of Malaysia but also brings foreign funds to finance vital sectors of the economy.

The structured financial products not only provide financial products to widen the capital market but also provide much needed liquidity for further lending. The structured products of course speed up the process of economic development by providing capital market instruments to get additional finance but at the same time one should not ignore the hidden risks of these structured products which the western countries face at present. The present global financial crisis is the result of unregulated unhealthy practices of banks while lending loans, for which the banks are solely responsible. The structured products designed by these banks go beyond the comprehension of even the efficient accountants and auditors. The academics and financial engineers struggle to model and quantify the risks prevalent in these products like synthetic CDOs and CDO 2 because they are purely imaginary and not supported by any underlying or cash flows. The governments and regulatory bodies like securities commission around the globe should be proactive and vigilant and enact laws to prevent another global financial crisis. [1] [2] [3]

1

Figure 1: Figure 1 :

[1]Global Journal of Management and Business Research Volume XI Issue III Version I March 2011 ©2011 Global Journals Inc. (US)

[2]March 2011©2011 Global Journals Inc. (US)

[3]Global Journal of Management and Business Research Volume XI Issue III Version I March 2011 ©2011 Global Journals Inc. (US) ©2011 Global Journals Inc. (US) This page is intentionally left blank

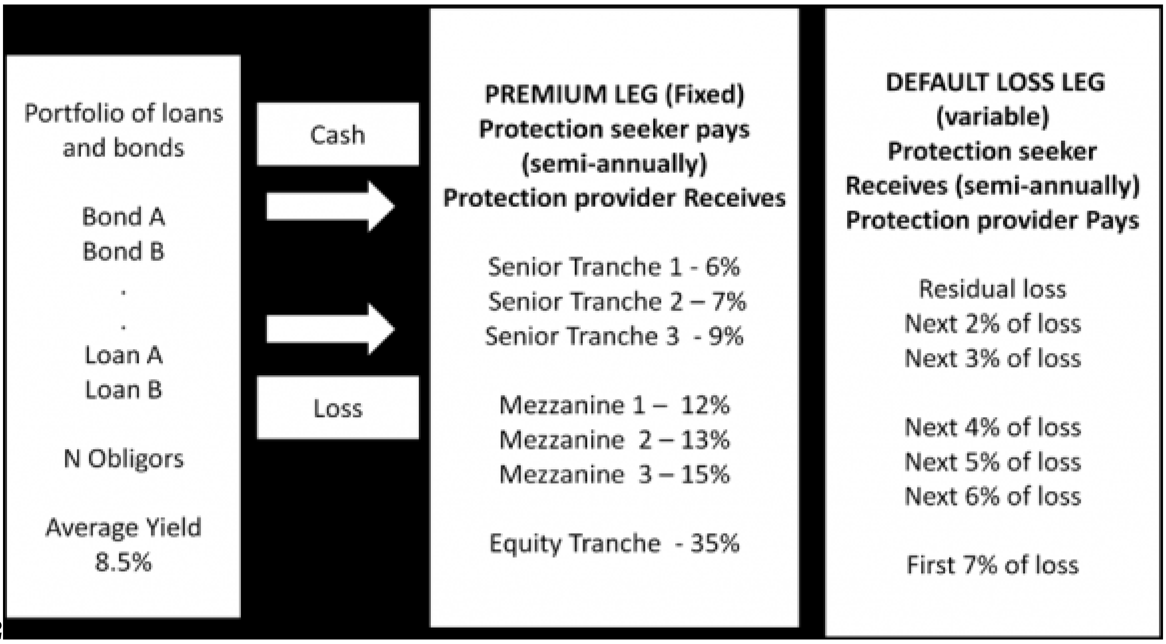
2


Figure 2: Figure 2 :

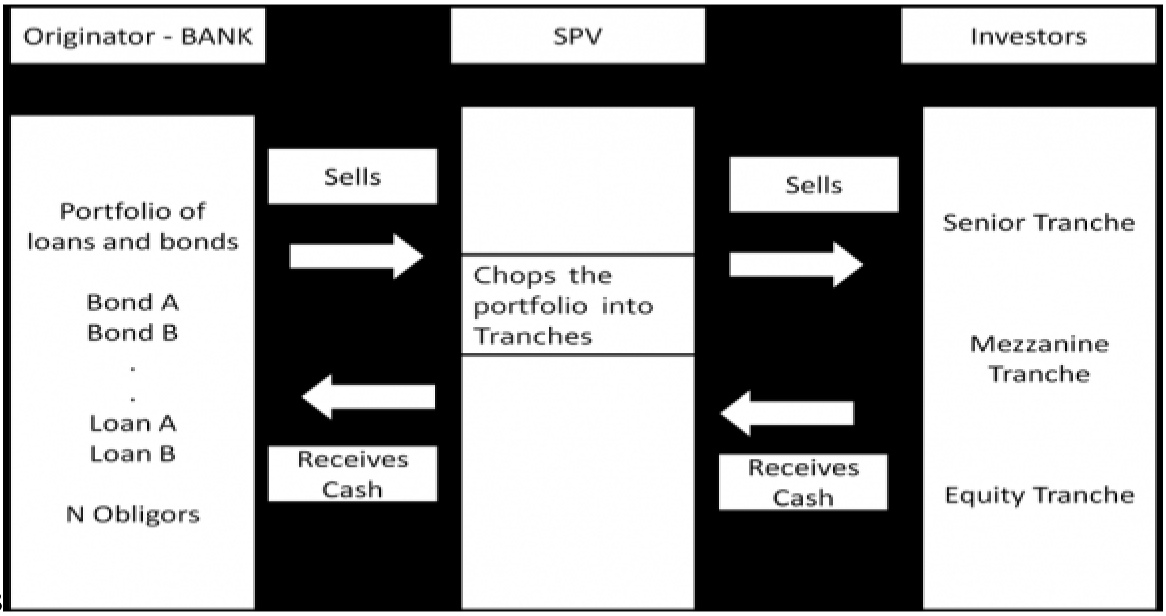
3


Figure 3: Figure 3 :

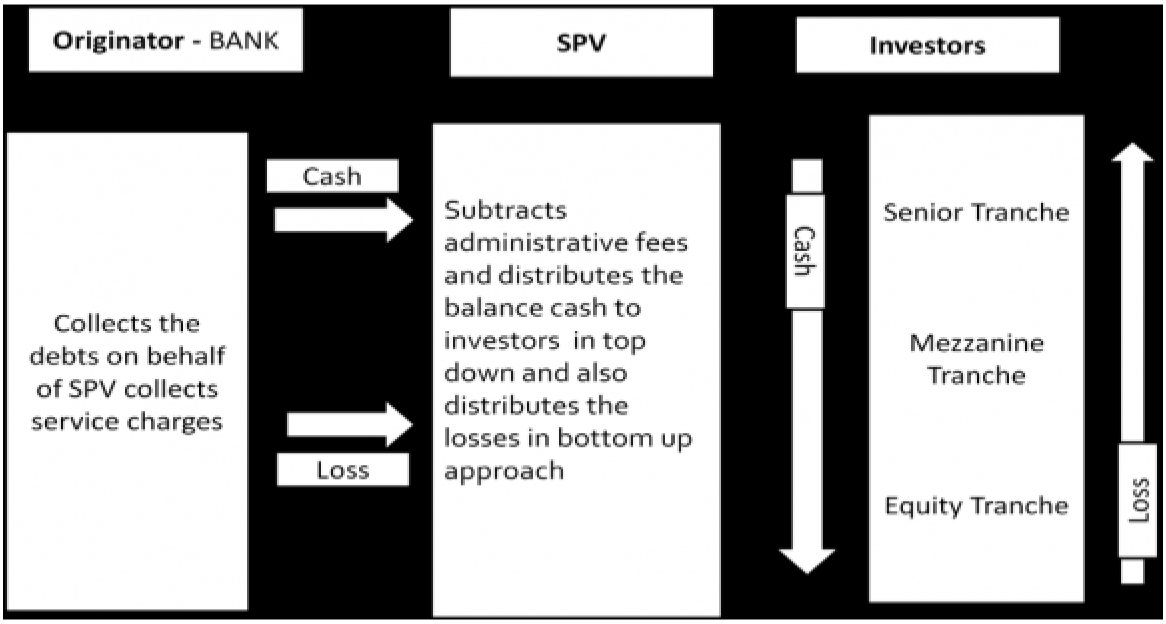
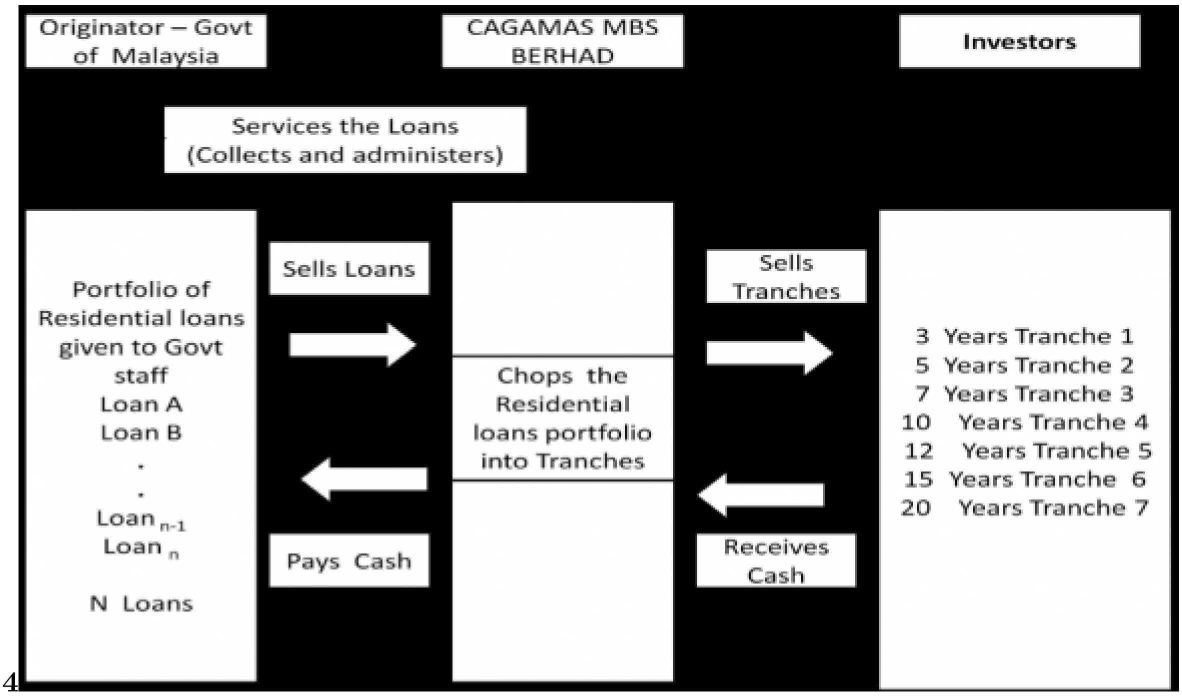
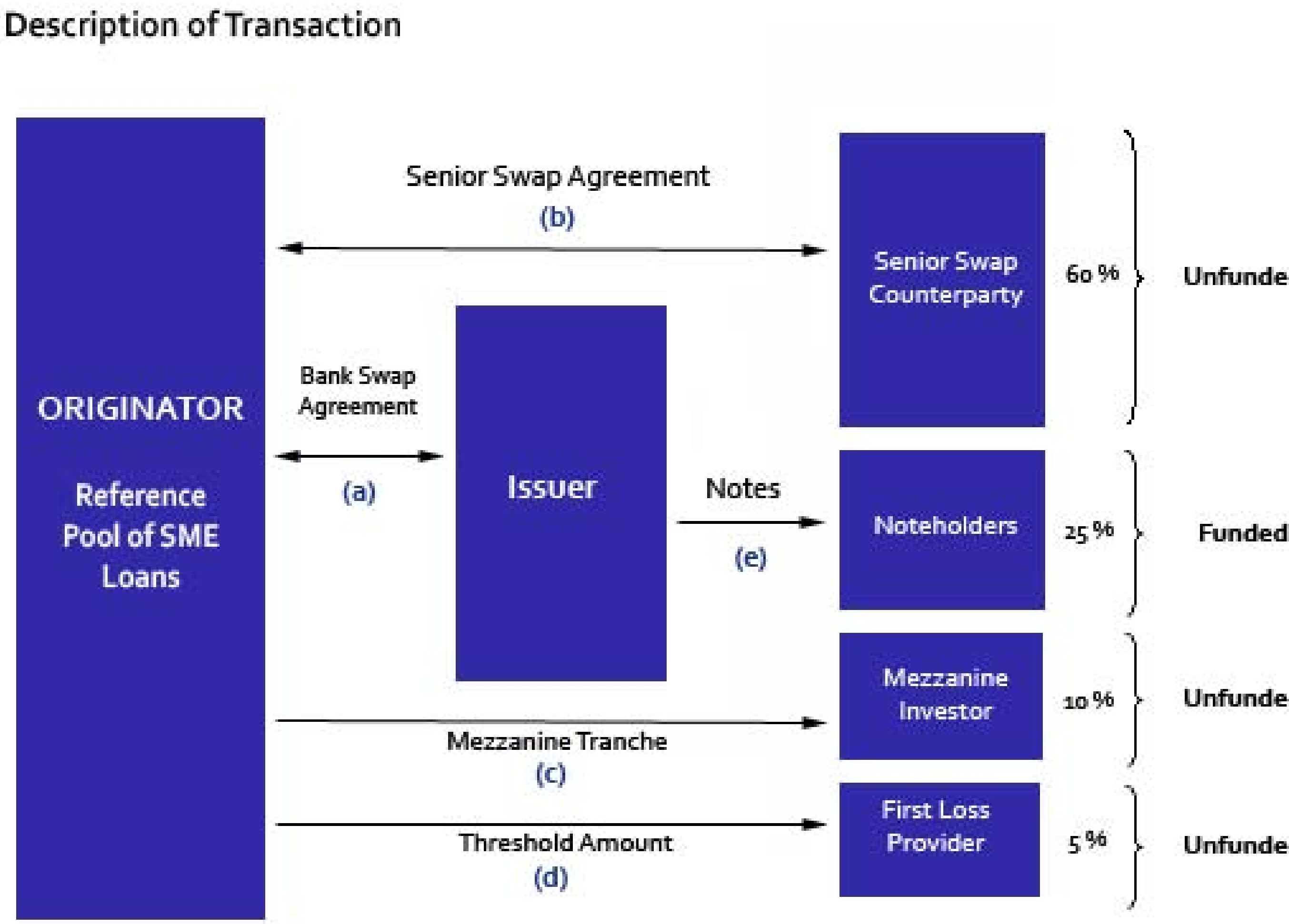


Figure 4:



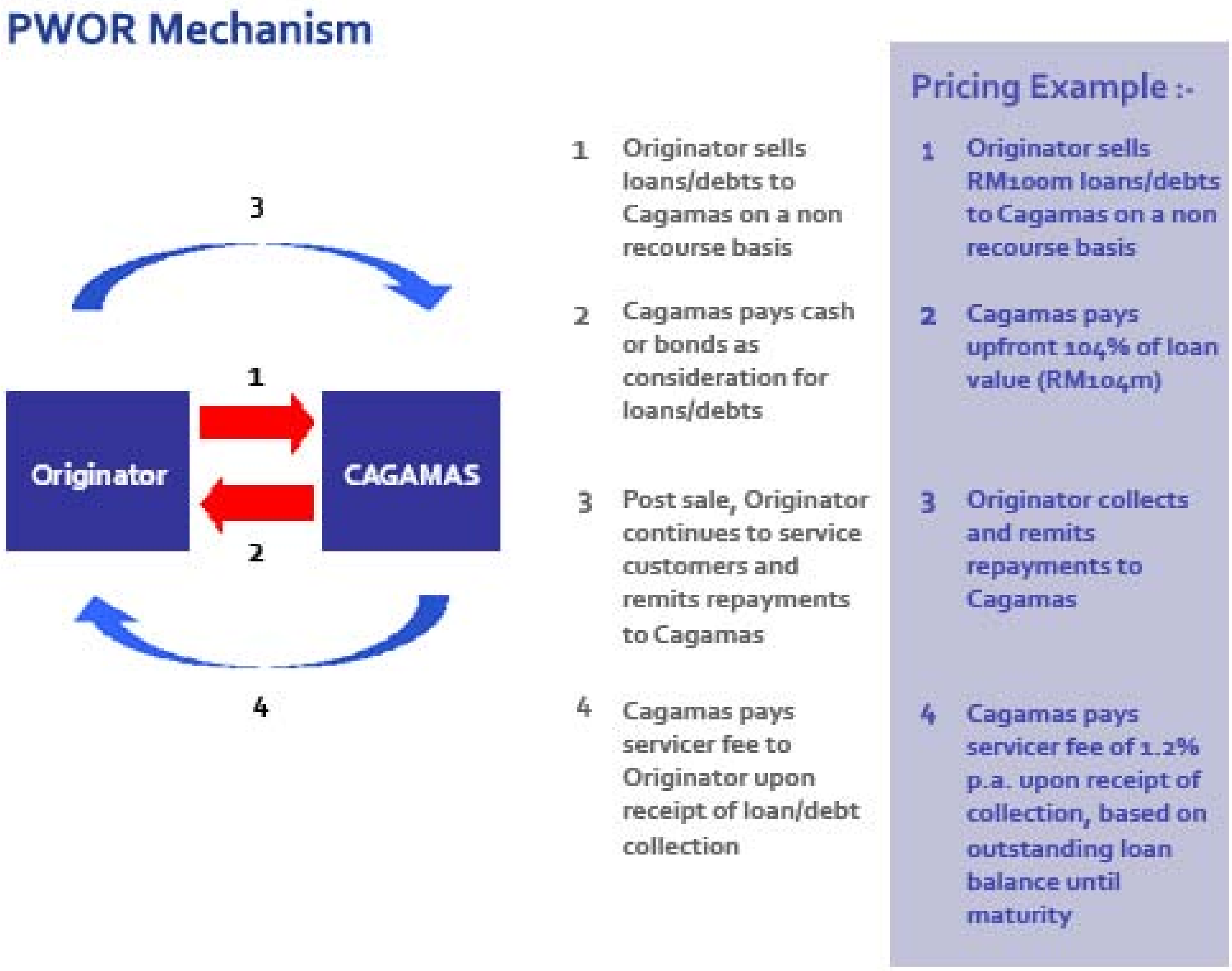
4

Figure 5: Figure 4 :



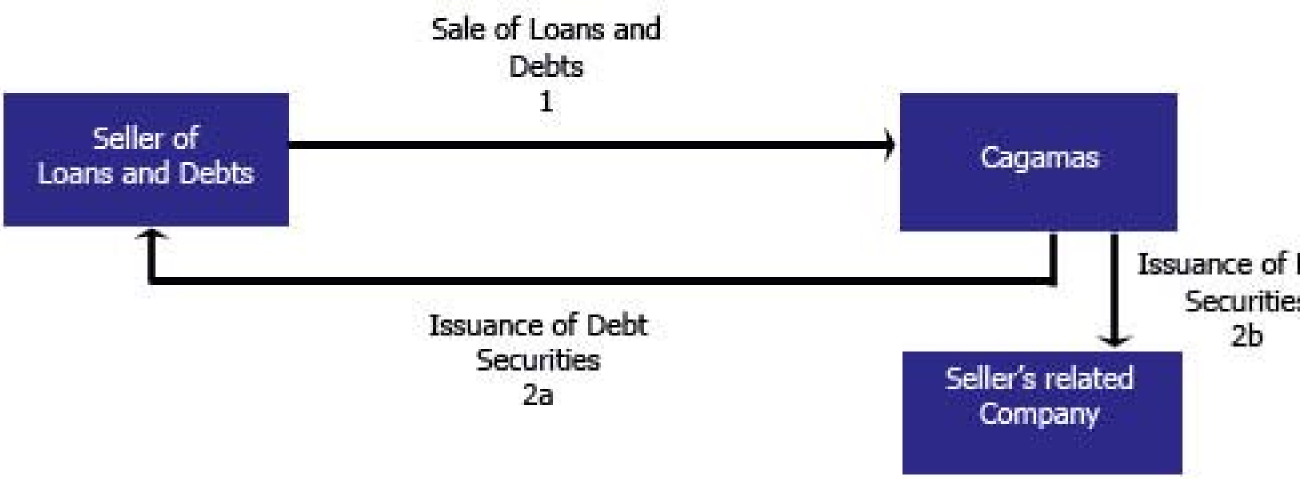
5

Figure 6: Figure 5 :



6

Figure 7: Figure 6 :



7

Figure 8: Figure 7 :

8

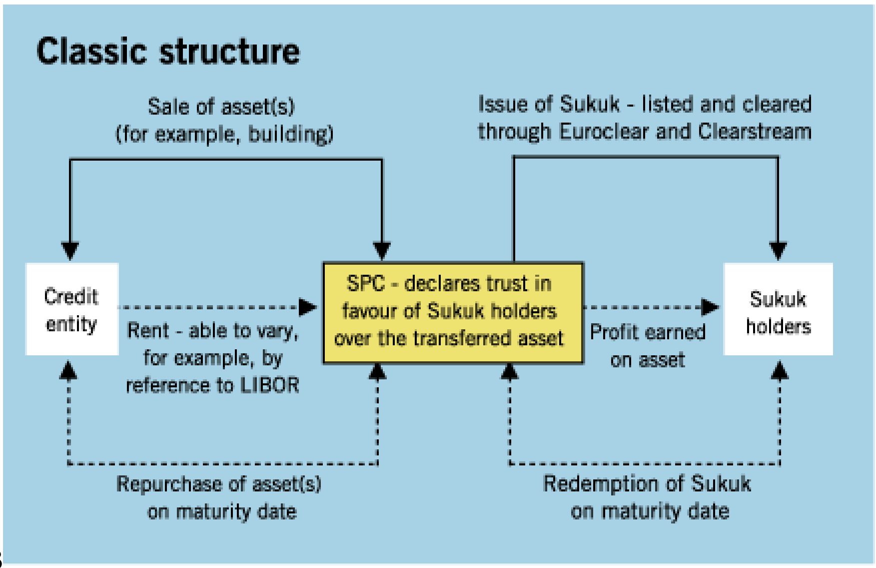


Figure 9: Figure 8 :

1

Issues	Size -RM in m	Maturity Date	Coupon %
Tranche	580	19-Oct-07	3.70
Tranche	340	20-Oct-09	4.30
Tranche	290	20-Oct-11	4.95
Tranche	345	20-Oct-14	5.50
	RM 2060m Fixed Rate Serial Bonds (Issued on 12-12-2005)		
Tranche	225	12-Dec-08	4.10
Tranche	250	10-Dec-10	4.44
Tranche	270	12-Dec-12	4.71
Tranche	320	11-Dec-15	5.10
Tranche	345	12-Dec-17	5.34
Tranche	385	11-Dec-20	5.65
Tranche	265	12-Dec-25	5.92
	RM 2410m Asset Backed Fixed Rate Bonds (Issued on 22-08-20		
Tranche	515	21-Aug-10	4.00
Tranche	375	22-Aug-12	4.10
Tranche	380	22-Aug-14	4.28
Tranche	525	22-Aug-17	4.52
Tranche	260	22-Aug-19	4.70
Tranche	250	20-Aug-22	4.90
Tranche	105	21-Aug-27	5.08

During 2004, 2005 and 2007 Cagamas Berhad issued conventional tranches to the tune of RM 1550m, RM 2060m and RM 2410m respectively. The premium started at a rate of3.7%, 4.10% and 4% respectively for short term tranches. The long term tranches received 5.5 %, in 2004, 5.92% in 2005 and in May 2007 they received 5.08%. All trances are AAA rated. They not only get higher rate of return but also they are safe investments.

Figure 10: Table 1 :

2

% of Transaction Size		Nominal Value (RM million)	Rating	Investor
Senior Swap	60.0	360	Not rated	Cagamas
Notes -Class A	12.5	75	AAA	Capital market investors
Notes -Class B	5.0	30	AA3	Capital market investors
Notes -Class C	7.5	45	BBB3	CGC
Mezzanine	10.0	60	Not rated	CGC
Threshold Amount	5.0	30	Not rated	Maybank
	100.0	600		
Source Cagamas Berhad website				

Figure 11: Table 2 :

The Cagamas MBS Berhad started issuing credit linked notes since 2005 under Islamic Musyrakah principles.				
Tranche 1	250	8-Aug-08	3.41	A
Tranche 2	215	6-Aug-10	3.84	A
Tranche 3	260	8-Aug-12	4.24	A
Tranche 4	515	7-Aug-15	4.71	A
Tranche 5	410	8-Aug-17	5.01	A
Tranche 6	400	7-Aug-20	5.27	A
	RM 2110m Asset Backed Sukuk Musyrakah (Issued on 29-05-2007)			
Tranche 1	330	28-May-10	3.63	A
Tranche 2	255	29-May-12	3.70	A
Tranche 3	270	29-May-14	3.78	A
Tranche 4	400	29-May-17	3.90	A
Tranche 5	245	29-May-19	4.02	A
Tranche 6	320	27-May-22	4.17	A
Tranche 7	290	28/5/2027	4.34	A

Figure 12:

[Merino and Nyfeler (2002)] 'Calculating Portfolio Loss'. S Merino , M A Nyfeler . *RISK* 2002. August. p. .

[Credit Risk Models IV: Understanding and Pricing CDOs ()] *Credit Risk Models IV: Understanding and Pricing CDOs*, 2006. Abel Elizalde (CEMFI Working Paper)

[Laurent and Gregory ()] J.-P Laurent , & J Gregory . *Basket Default Swaps, CDOs and Factor Copulas*, 2003.

[Vasicek ()] 'Loan Portfolio Value'. O Vasicek . *Risk* 2002. 15 p. .

[Donald L Kohn ()] 'Ratings in structured finance: what went wrong and what can be done to address shortcomings?'. Donald L Kohn . *Committee on the Global Financial System* 2008. BIS.

[St et al. ()] *Valuing and Hedging Synthetic CDO Tranches using Base Correlations*, St , M Pierre , E Rousseau . 2004. Bearn Stearns Credit derivatives.