



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH
Volume 11 Issue 3 Version 1.0 March 2011
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
ISSN: 0975-5853

Emergence and Growth of Structured Finance in Malaysia

By Ravindran Ramasamy, Ganisen Sinnasamy, Mohd Hanif Mohd Helmi

University Tun Abdul Razak Malaysia

Abstracts - 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.

Keywords : CDOs; Tranches; Obligors; Sukuk; Portfolio; Default; SPVs; SMEs; Entrepreneur

Classification: GJMBR-B JEL Classification: L26, G32



Strictly as per the compliance and regulations of:



Emergence and Growth of Structured Finance in Malaysia

Ravindran Ramasamy¹, Ganisen Sinnasamy², Mohd Hanif Mohd Helmi³

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.

Keywords: CDOs; Tranches Obligors; Sukuk; Portfolio; Default; SPVs; SMEs; Entrepreneur

I. INTRODUCTION

Banks 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.

II. STRUCTURED FINANCE AND CASH 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

About ¹: Graduate School of Business University Tun Abdul Razak Malaysia, Email: ravindran@pintar.unirazak.edu.my

About ²: Faculty of Accountanc, University Technology Mara, Email: ganis999@salam.uitm.edu.my

About ³: Faculty of Business Administratio, University Tun Abdul Razak, Email: hanifhelmi@pintar.unirazak.edu.my

case of default losses. In the event of loss the investors has to pay the default amount from his side.

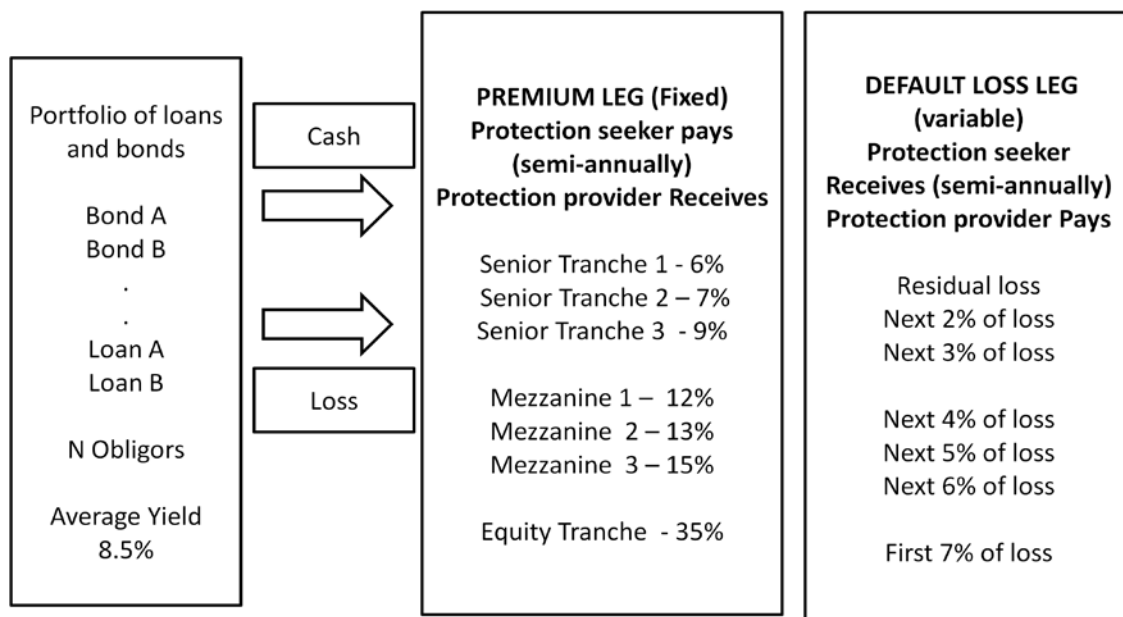


Figure 1: Overview of structured products

Figure two shows the relationship between the originator bank, special purpose vehicle (SPV) and investors. Bank sells the reference portfolio of assets to reduce its risk to SPV. SPV chops the portfolio into tranches and assigns

premium depending on the risk and sells them to investors in the capital market (St.Pierre, 2004). SPV receives cash from investors and pays the same after subtracting service charges to the parent bank.

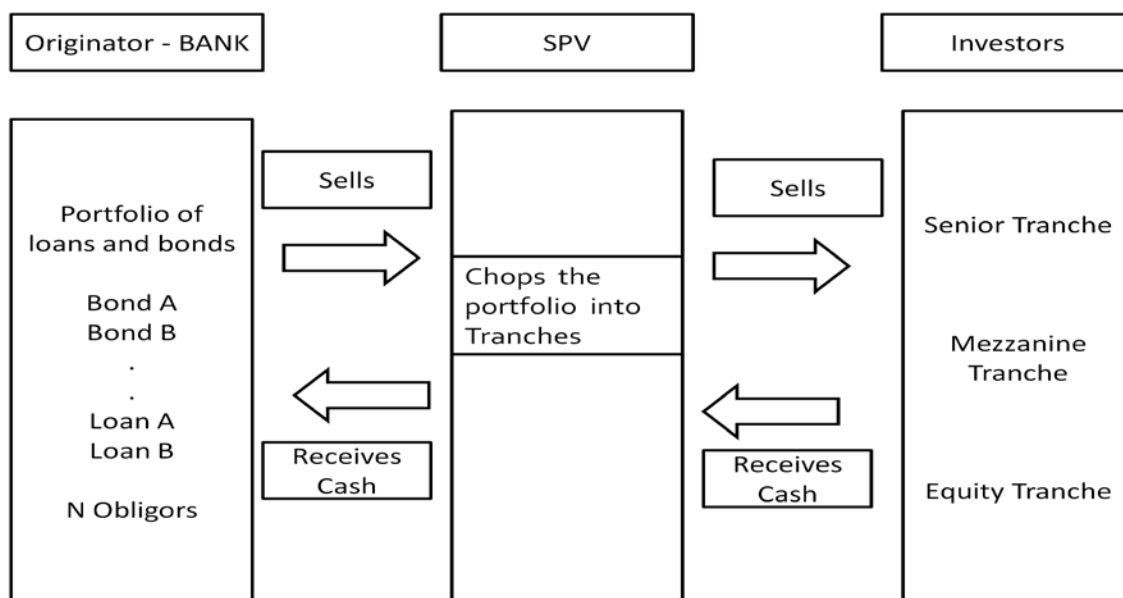


Figure 2: Cash flows of structured products

Figure three exemplify the premium and loss distribution among various tranches. The premium is paid in top

down approach while the losses distributed from bottom. When the notional is wiped by earlier losses, the

junior tranches will not receive premium as it is not protecting any notional.

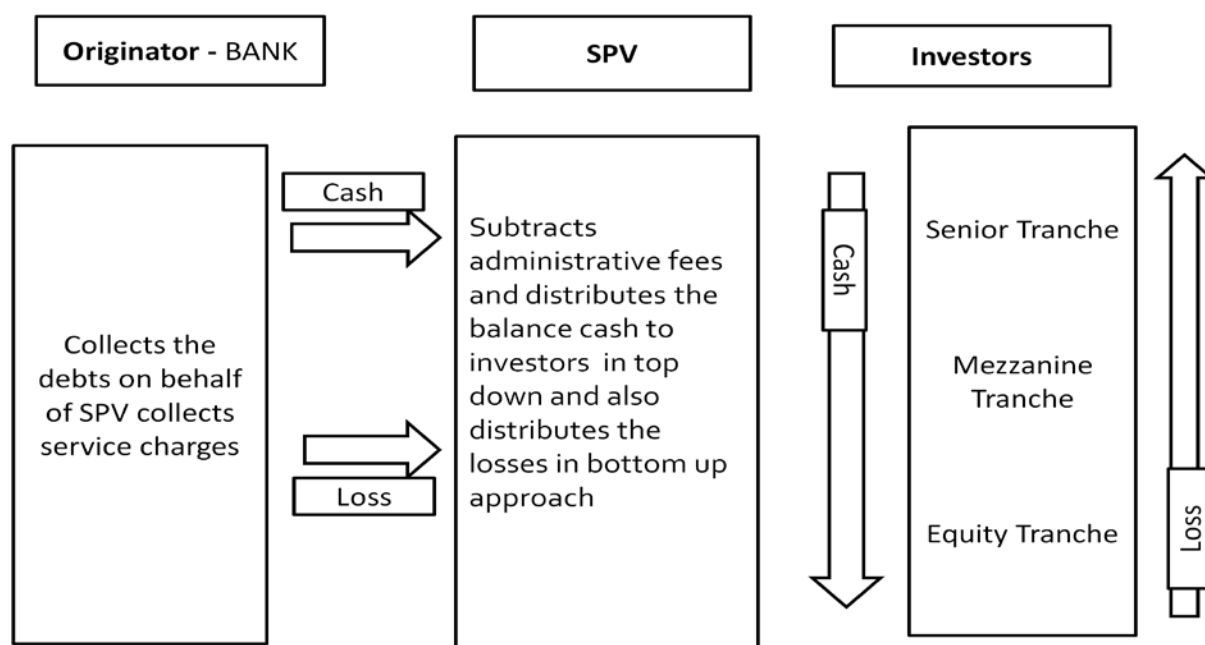


Figure 3: Loss distributions of structured products

III. STRUCTURED PRODUCTS – GLOBAL CDOs AND MALAYSIAN CDOs

The CDO concept started in USA in 1987 by Drexel 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. 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. These housing loans are to be linked to the capital market through structured finance. The Cagamas berhad has set up exclusively another SPV in the name of Cagamas MBS (mortgage-backed securities) Berhad to issue structured notes to investors in different tranches. The figure below shows the structure of Government of Malaysia staff housing facilities.

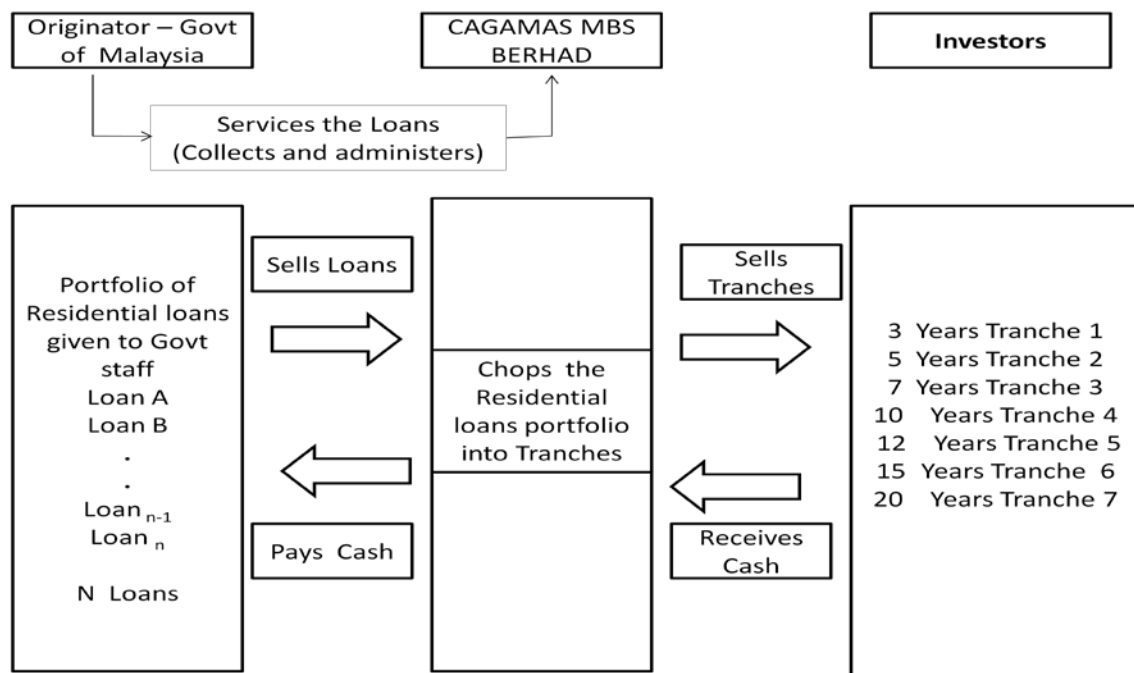


Figure 4 : Home Loan securitisation and cash flows

Table 1: Different Issues of Cagama MBS Berhad - Residential loans structured products

RM 1550m Fixed Rate Serial Bonds (Issued on 20-10-2004)				
Issues	Size - RM in m	Maturity Date	Coupon %	Rating
Tranche 1	580	19-Oct-07	3.70	AAA
Tranche 2	340	20-Oct-09	4.30	AAA
Tranche 3	290	20-Oct-11	4.95	AAA
Tranche 4	345	20-Oct-14	5.50	AAA
RM 2060m Fixed Rate Serial Bonds (Issued on 12-12-2005)				
Tranche 1	225	12-Dec-08	4.10	AAA
Tranche 2	250	10-Dec-10	4.44	AAA
Tranche 3	270	12-Dec-12	4.71	AAA
Tranche 4	320	11-Dec-15	5.10	AAA
Tranche 5	345	12-Dec-17	5.34	AAA
Tranche 6	385	11-Dec-20	5.65	AAA
Tranche 7	265	12-Dec-25	5.92	AAA
RM 2410m Asset Backed Fixed Rate Bonds (Issued on 22-08-2007)				
Tranche 1	515	21-Aug-10	4.00	AAA
Tranche 2	375	22-Aug-12	4.10	AAA
Tranche 3	380	22-Aug-14	4.28	AAA
Tranche 4	525	22-Aug-17	4.52	AAA
Tranche 5	260	22-Aug-19	4.70	AAA
Tranche 6	250	20-Aug-22	4.90	AAA
Tranche 7	105	21-Aug-27	5.08	AAA

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 of 3.7%, 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 tranches are AAA rated. They not only get higher rate of return but also they are safe investments.

V. 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.

Description of Transaction

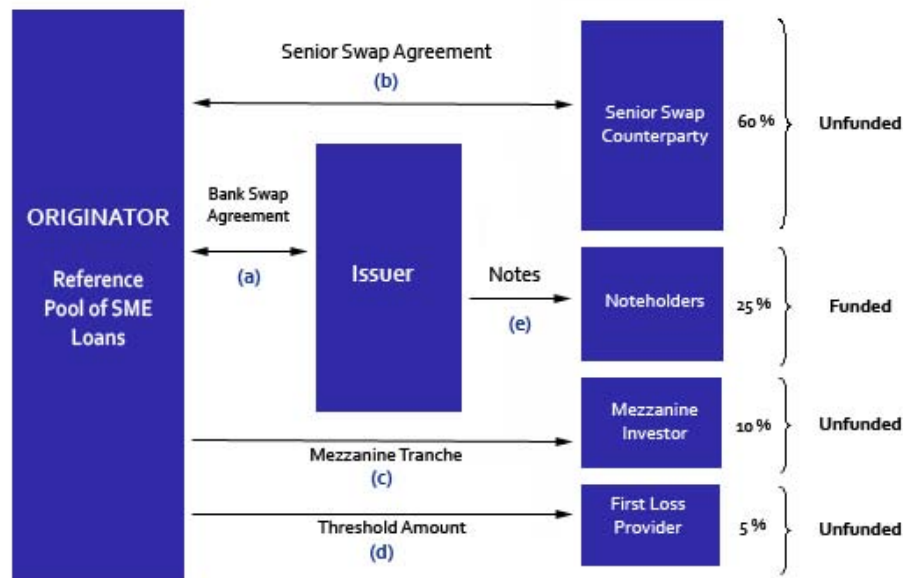


Figure 5: SME loan securitisation and credit default swap

Source: Cagamas Berhad website

A closer observation reveals that there are two structures in the above figure. The top portion senior swap agreement (credit default swap) between Cagamas and Maybank is unfunded meaning that it is a swap agreement for a premium. Similarly the bottom portion gives another swap agreement between the Credit Guarantee Corporation of Malaysia and the Maybank. The bottom most item is the threshold amount and this is not transferred to investors but it is kept by Maybank itself. The middle portion is given to Cagamas SME Berhad a SPV set up by Cagamas berhad specifically for this purpose. This SPV will issue Collateralised debt obligations (CDOs) which will be financed by different risk seeking 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).

Table 2: Finance structure of SME Loans of Maybank

	% 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

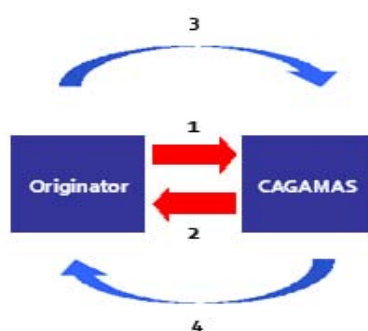
The next RM150m is given to SME SPV of Cagamas Berhad to issue notes based on the reference assets of loans disbursed to SMEs. In this portion also RM45m is financed by the CGC though it is highly risky and rated as BBB3 which is equivalent to junk bonds. The other RM105m is sold in capital markets and 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. 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.

PWOR Mechanism



- 1 Originator sells loans/debts to Cagamas on a non recourse basis
- 2 Cagamas pays cash or bonds as consideration for loans/debts
- 3 Post sale, Originator continues to service customers and remits repayments to Cagamas
- 4 Cagamas pays servicer fee to Originator upon receipt of loan/debt collection

Pricing Example :-

- 1 Originator sells RM100m loans/debts to Cagamas on a non recourse basis
- 2 Cagamas pays upfront 104% of loan value (RM104m)
- 3 Originator collects and remits repayments to Cagamas
- 4 Cagamas pays servicer fee of 1.2% p.a. upon receipt of collection, based on outstanding loan balance until maturity

Figure 6: SME loan securitisation and credit default swap

Source: Cagamas Berhad website

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 Cagamas'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.

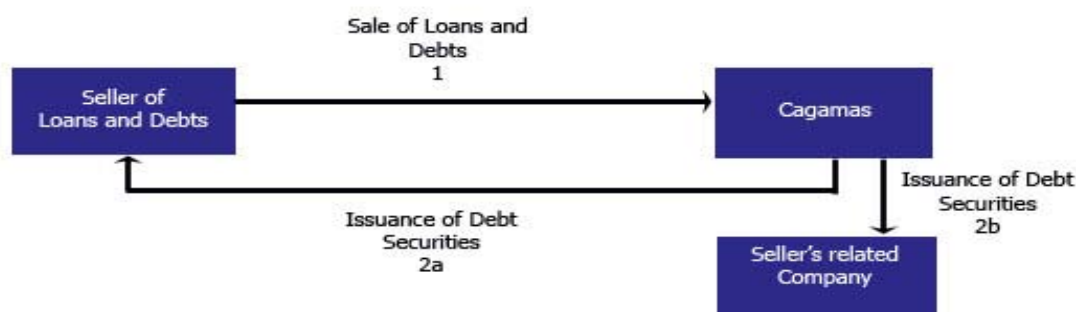


Figure 7 : SME loan securitisation and credit default swap

Source: Cagamas Berhad website

VII. 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.

Parameters

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).

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 tobacco-related 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. 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 assets 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 long-term investments.

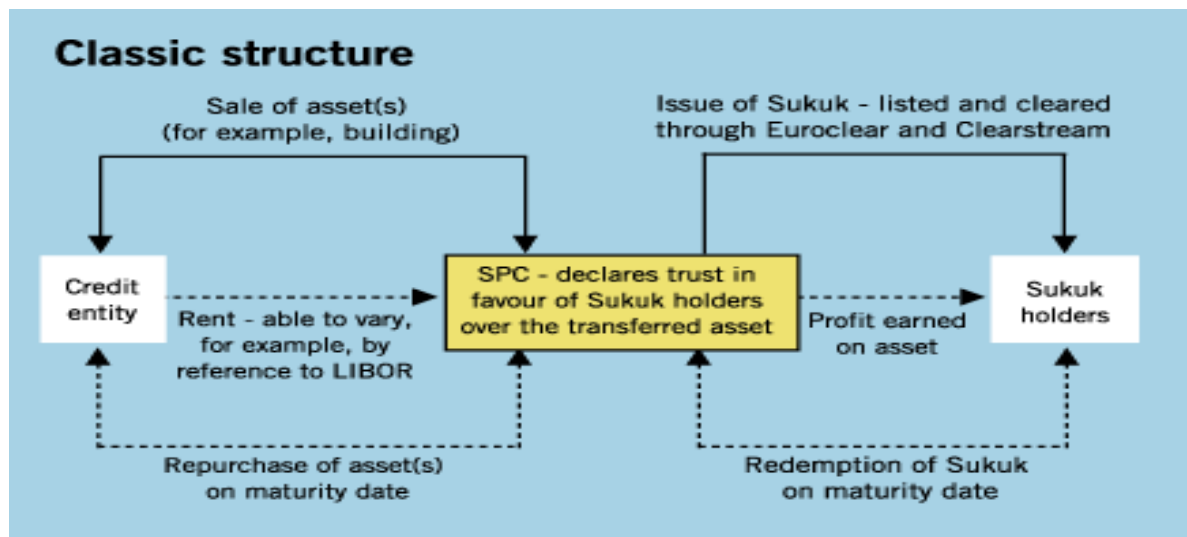


Figure 8: Halal assets' Finance and Sukuk securitization

Source: http://www.sukuk.net/news/articles/3/Model_of_a_classic_Sukuk_structure.html

Table 3 : Different Issues of Cagama MBS Berhad – Property finance - Islamic structured Products

RM 2050m Asset Backed Sukuk Musyrakah (Issued on 08-08-2005)				
Tranche 1	250	8-Aug-08	3.41	AAA
Tranche 2	215	6-Aug-10	3.84	AAA
Tranche 3	260	8-Aug-12	4.24	AAA
Tranche 4	515	7-Aug-15	4.71	AAA
Tranche 5	410	8-Aug-17	5.01	AAA
Tranche 6	400	7-Aug-20	5.27	AAA
RM 2110m Asset Backed Sukuk Musyrakah (Issued on 29-05-2007)				
Tranche 1	330	28-May-10	3.63	AAA
Tranche 2	255	29-May-12	3.70	AAA
Tranche 3	270	29-May-14	3.78	AAA
Tranche 4	400	29-May-17	3.90	AAA
Tranche 5	245	29-May-19	4.02	AAA
Tranche 6	320	27-May-22	4.17	AAA
Tranche 7	290	28/5/2027	4.34	AAA

The Cagamas MBS Berhad started issuing credit linked notes since 2005 under Islamic Musyrakah principles. The recent issues have seven tranches of various maturities. Closer observation reveals that Musyrakah notes priced at lower rates. It demonstrates the Malaysian investors' confidence in Islamic products. 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 CDO² 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.

IX. 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 CDO² 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.

REFERENCES RÉFÉRENCES REFERENCIAS

- 1) Abel Elizalde, 2006, "Credit Risk Models IV: Understanding and Pricing CDOs," CEMFI Working Paper
- 2) Donald L Kohn, 2008, "Ratings in structured finance: what went wrong and what can be done to address shortcomings?" Committee on the Global Financial System, BIS
- 3) Laurent, J.-P., & J. Gregory, 2003, Basket Default Swaps, CDOs and Factor Copulas.
- 4) Merino, S., and M. A. Nyfeler, 2002, "Calculating Portfolio Loss," RISK, August, pp. 82-86
- 5) St. Pierre, M., and Rousseau, E., 2004, "Valuing and Hedging Synthetic CDO Tranches using Base Correlations," Bearn Stearns Credit derivatives
- 6) Vasicek, O., 2002, "Loan Portfolio Value," Risk, 15, pp. 160-162
- 7) http://www.sukuk.net/news/articles/3/Model_of_a_classic_Sukuk_structure.html
- 8) http://www.klse.com.my/website/bm/products_and_services/information_services/downloads/bm2ICM.pdf
- 9) <http://bondinfo.bnm.gov.my/portal/server.pt>
- 10) <http://www.ram.com.my/>
- 11) <http://www.marc.com.my/home/index.php>
- 12) <http://www.bnm.gov.my/>
- 13) http://www.legal500.com/assets/images/stories/firmdevs/cmse557/islamic20transactions_e.pdf



KERISMA BERHAD

A. Transaction Summary

Issuer	Kerisma Berhad
Issue Size (RM mil)	1,000
Sector	Primary Loan Obligations
Issue Date	June 2004
Tenure	5 Years
Legal Maturity Date	June 2009
Expected Maturity Date	June 2009
Originator	Alliance Merchant Bank Berhad
Administrator	Securities Services (Holdings) Sdn Bhd
Portfolio Manager	Public Bank Berhad
Facility Agent	n.a
Technical Advisor	Nomura Advisory Services (M) Sdn. Bhd.
Trustee	Malaysian Trustees Bhd
Insurer	n.a

B. Portfolio Characteristics

	June 2004	Dec 2004	June 2005	Dec 2005	June 2006	Dec 2006	June 2007
Portfolio Exposure (RM million)	1,000	1,000	1,000	1,000	1,000	955	915
a. Senior (RM million)	870	870	870	870	870	870	870
b. Mezzanine (RM million)	30	30	30	30	30	30	30
c. Subordinated (RM million)	100	100	100	100	100	100	100
No. of Performing Loans In Portfolio	25	25	25	25	25	24	23
No. of Defaulted Loans	0	0	0	0	0	1	2
Facility Tenure (years)	5	5	5	5	5	5	5
Composition on Unsecured (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Composition with Single Bullet Payment (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Composition on Semi-annual Interest (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Composition on Fixed Rate (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00

C. Portfolio Summary/ Performance

Portfolio As At	Portfolio Exposure (RM mil)	WARF*	WAR**	Liquidity Reserve (RM mil)	OC Test*** (%) (Senior)	IC Test**** (%) (Senior)	OC Test*** (%) (Mezzanine)	IC Test**** (%) (Mezzanine)	No. of Industries	Top 3 Industries Exposure	No. of Obligors Rated A and Above	No. of Obligors Rated BBB+ and Below	No. of Upgrades	No. of Downgrades
Portfolio Limit	1,000	n.a	n.a	n.a	105.00	120.00	104.00	120.00	n.a	n.a	n.a	n.a	n.a	n.a
3-Jun-04	1,000	7.60 [#]	A-	-	-	-	-	-	16	40.50%	16	9	-	-
3-Dec-04	1,000	7.70	A-	9.36	114.94	161.71	111.11	161.71	16	40.50%	16	9	0	0
3-Jun-05	1,000	7.90	A-	13.00	114.94	168.49	111.11	168.49	16	40.50%	16	9	0	1
3-Dec-05	1,000	7.80	A-	13.00	114.94	175.57	111.11	175.57	16	40.50%	16	9	1	1
3-Jun-06	1,000	9.40	A-/BBB+	26.10	114.94	194.50	111.11	187.50	16	38.20%	13	12	3	10
3-Dec-06	955	7.30	A-/BBB+	27.84	109.77	207.13	106.11	199.59	16	38.20%	13	12	0	1
3-Jun-07	915	7.60	A-/BBB+	31.52	100.00	223.34	96.67	215.75	16	38.80%	13	12	3	3

Notes

* Weighted average rating factor as per portfolio performance report

** Weighted average rating

*** Overcollateralization test per portfolio report

[#] As per MARC's initial rating report

**** Interest coverage test per portfolio report

n.a Not applicable



CAGAMAS MBS 2007-1-i : DEAL SUMMARY

A. Transaction Summary

Issuer	Cagamas MBS Berhad
Issue	RM2,110.0 million Asset Backed Sukuk Musyarakah
Sector	Securitisation of Government Staff Housing Loans
Issue Date	29-May-07
Purchase Date	31 January 2007 (retrospective purchase of 4 months)
Tenure	3 to 20 years
Originator & Servicer	Federal Government of Malaysia
Transaction	Cagamas Berhad
Administrator	Cagamas Berhad
Insurer	Etika Takaful Berhad
Trustee	Malaysian Trustee Berhad
Facility Agent	CIMB Investment Bank

* Formerly known as Takaful Nasional Sdn Berhad and Malaysia Nasional Insurance Berhad

B. Securities Summary

Issues	Size (RM)	Maturity Date	Coupon (%)	Frequency	Rating	Outstanding Amount (RM)
Tranche 1	330,000,000	28-May-2010	3.63%	Quarterly	AAA	330,000,000
Tranche 2	255,000,000	29-May-2012	3.70%	Quarterly	AAA	255,000,000
Tranche 3	270,000,000	29-May-2014	3.78%	Quarterly	AAA	270,000,000
Tranche 4	400,000,000	29-May-2017	3.90%	Quarterly	AAA	400,000,000
Tranche 5	245,000,000	29-May-2019	4.02%	Quarterly	AAA	245,000,000
Tranche 6	320,000,000	27-May-2022	4.17%	Quarterly	AAA	320,000,000
Tranche 7	290,000,000	28-May-2027	4.34%	Quarterly	AAA	290,000,000

C. Portfolio Description

	Cut-Off Date	Outstanding principal balance (RM)	No of Accounts	Avg Mortgage Size (RM)	WA term to maturity (years)	WA Seasoning (years)	WA Age (years)
At closing	n.a	2,538,180,448	26,061	97,394	20.96	2.89	40.10
Quarter 1	30-Apr-2007	2,516,023,650	26,055	96,566	20.72	3.14	40.34
Quarter 2	31-Jul-2007	2,491,358,987	26,032	95,704	20.49	3.38	40.59
Quarter 3	31-Oct-2007	2,464,953,350	25,979	94,883	20.25	3.63	40.83
Quarter 4	31-Jan-2008	2,444,251,677	25,952	94,184	20.01	3.88	41.07

D. Portfolio Performance

	Voluntary	Involuntary	Partial Prepayment	Total	Prepayment Rate ¹ (%)	Cumulative
Quarter 1	865,837	0	336,537	1,202,374	0.05%	0.05%
Quarter 2	1,916,563	470,463	410,254	2,797,280	0.11%	0.16%
Quarter 3	1,829,435	868,010	332,338	3,029,783	0.12%	0.28%
Quarter 4	1,920,426	165,902	480,893	2,567,222	0.10%	0.38%
Total	6,532,261	1,504,375	1,560,023	9,596,659		

Note-

1. Prepayment rate is computed based on cumulative prepayment to-date divided by original principal balance on closing

	Delinquency (%)			Default (%)		Recovery (%)	
	<= 3 Months	> 3 to 6 Months	> 6 to 9 Months	Movement	Cumulative	Movement	Cumulative
Quarter 1	3.07%	0.00%	0.00%	0.00%	0.00%	n.a	n.a
Quarter 2	16.55%	0.15%	0.00%	0.00%	0.00%	n.a	n.a
Quarter 3	3.71%	0.12%	0.09%	0.00%	0.00%	n.a	n.a
Quarter 4	7.23%	0.21%	0.06%	0.06%	0.06%	n.a	n.a

E. Collection Summary (RM)

Opening Cash Balance @ Issue date (RM)	0.00						
	Closing cash balances	Investment in Permitted Investments	Closing cash and cash equivalent balances	Collections from BPP	Income from Permitted Investments	Others	Principal and/or Interest payments
Quarter 1	76,538	34,749,963	34,826,501	47,636,943	171,329	11,850,000	(20,920,296)
Quarter 2	78,872	59,533,937	59,612,809	50,896,686	291,965	0	(20,920,296)
Quarter 3	71,974	90,517,550	90,589,524	55,109,680	509,144	0	(20,692,901)
Quarter 4	73,330	112,150,959	112,224,289	42,487,227	750,679	0	(20,692,901)
Total				196,130,536	1,723,117	11,850,000	(83,226,395)
							(14,252,969)



CAGAMAS MBS 2005-1 : DEAL SUMMARY

A. Transaction Summary

Issuer	Cagamas MBS Berhad
Issue	RM2,050.0 million Asset Backed Sukuk Musyarakah
Sector	Securitisation of Government Staff Housing Loans
Issue Date	8-Aug-05
Purchase Date	1 April 2005 (retrospective purchase of 6 months)
Tenure	3 to 15 years
Originator & Servicer	Federal Government of Malaysia
Transaction Administrator	Cagamas Berhad
Administrator	Cagamas Berhad
Insurer	Etika Takaful Berhad and Etiqa Insurance Berhad
Trustee	Malaysian Trustee Berhad
Facility Agent	CIMB Investment Bank

* Formerly known as Takaful Nasional Sdn Berhad and Malaysia Nasional Insurance Berhad

B. Securities Summary

Issues	Size (RM)	Maturity Date	Coupon (%)	Frequency	Rating	Outstanding Amount (RM)
Tranche 1	250,000,000	8-Aug-2008	3.41%	Quarterly	AAA	Fully Redeemed
Tranche 2	215,000,000	6-Aug-2010	3.84%	Quarterly	AAA	215,000,000
Tranche 3	260,000,000	8-Aug-2012	4.24%	Quarterly	AAA	260,000,000
Tranche 4	515,000,000	7-Aug-2015	4.71%	Quarterly	AAA	515,000,000
Tranche 5	410,000,000	8-Aug-2017	5.01%	Quarterly	AAA	410,000,000
Tranche 6	400,000,000	7-Aug-2020	5.27%	Quarterly	AAA	400,000,000

C. Portfolio Description

	Cut-Off Date	Outstanding principal balance (RM)	No of Accounts	Avg Mortgage Size (RM)	WA term to maturity (years)	WA Seasoning (years)	WA Age (years)
At closing	n.a	2,844,494,008	37,264	76,334	23.70	3.47	40.94
Quarter 1	30-Jun-2005	2,817,100,704	37,219	75,690	20.06	3.63	40.95
Quarter 2	30-Sep-2005	2,786,116,945	37,127	75,043	19.84	3.88	41.24
Quarter 3	31-Dec-2005	2,758,231,928	37,060	74,426	19.58	4.13	41.49
Quarter 4	31-Mar-2006	2,729,961,491	36,990	73,803	19.33	4.38	41.73
Quarter 5	30-Jun-2006	2,701,437,542	36,908	73,194	19.09	4.63	41.98
Quarter 6	30-Sep-2006	2,669,801,539	36,809	72,531	18.83	4.87	42.22
Quarter 7	31-Dec-2006	2,642,966,745	36,751	71,943	18.60	5.12	42.47
Quarter 8	31-Mar-2007	2,615,584,628	36,703	71,264	18.35	5.37	42.71
Quarter 9	30-Jun-2007	2,584,087,445	36,606	70,592	18.10	5.62	42.96
Quarter 10	30-Sep-2007	2,547,861,515	36,466	69,870	17.83	5.87	43.20
Quarter 11	31-Dec-2007	2,520,801,132	36,371	69,308	17.68	6.41	43.45
Quarter 12	31-Mar-2008	2,488,592,574	36,270	68,613	17.44	6.66	43.69

D. Portfolio Performance

Quarter	Prepayment (RM)			Prepayment Rate ¹ (%)		Default (%)		Recovery (%)		
	Voluntary	Involuntary	Partial Prepayment	Total	Movement	Cumulative	Movement	Cumulative	Movement	Cumulative
Quarter 1	2,956,078	204,850	139,715	3,300,643	0.12%	0.12%	0.00%	0.00%	n.a	n.a
Quarter 2	5,358,443	851,522	366,325	6,576,291	0.23%	0.35%	0.00%	0.00%	n.a	n.a
Quarter 3	3,794,897	673,867	810,445	5,279,209	0.19%	0.53%	0.00%	0.00%	n.a	n.a
Quarter 4	4,380,445	632,006	786,067	5,798,518	0.20%	0.74%	0.07%	0.07%	n.a	n.a
Quarter 5	4,641,223	604,263	298,986	5,544,472	0.19%	0.93%	0.02%	0.10%	n.a	n.a
Quarter 6	4,914,522	1,801,640	78,557	6,794,719	0.24%	1.17%	0.04%	0.13%	n.a	n.a
Quarter 7	2,866,276	679,516	1,145,733	4,691,525	0.16%	1.34%	0.07%	0.20%	n.a	n.a
Quarter 8	2,583,577	651,422	2,752,478	5,987,476	0.21%	1.55%	-0.06%	0.14%	n.a	n.a
Quarter 9	3,540,268	79,191	3,677,374	7,296,833	0.26%	1.80%	0.11%	0.25%	n.a	n.a
Quarter 10	3,662,145	1,506,097	6,123,055	11,291,298	0.40%	2.20%	0.02%	0.28%	n.a	n.a
Quarter 11	3,478,798	476,121	462,895	4,417,814	0.16%	2.35%	0.03%	0.30%	n.a	n.a
Quarter 12	5,260,352	1,289,788	551,989	7,102,129	0.25%	2.60%	0.08%	0.39%	n.a	n.a
Total	47,437,025	9,450,283	17,193,619	74,080,927						

Note-

1. Prepayment rate is computed based on cumulative prepayment to-date divided by original principal balance on closing

E. Collection Summary (RM)

Opening Cash Balance @ Issue date (RM)

0.00

	Closing cash balances	Investment in Permitted Investments	Closing cash and cash equivalent balances	Collections from BPP	Income from Permitted Investments	Others	Principal and/or Interest payments	Fees and Expenses
Quarter 1	453,318	40,230,000	40,683,318	55,753,323	128,215	11,667,567	(23,613,123)	(3,252,663)
Quarter 2	4,411	67,520,000	67,524,411	59,268,048	409,598	0	(23,613,123)	(9,223,430)
Quarter 3	90,503	103,564,764	103,655,267	58,711,200	582,208	0	(22,843,130)	(319,421)
Quarter 4	92,953	137,260,000	137,352,953	57,173,413	1,029,516	0	(23,613,123)	(892,119)
Quarter 5	80,229	171,902,195	171,982,424	58,699,733	1,148,872	0	(23,613,123)	(1,606,011)
Quarter 6	400,225	208,666,506	209,066,731	62,657,446	1,747,883	0	(23,613,123)	(3,707,898)
Quarter 7	77,528	240,754,069	240,831,597	53,589,349	1,712,857	0	(22,843,130)	(694,209)
Quarter 8	77,976	276,283,046	276,361,022	57,591,941	2,253,279	0	(23,613,123)	(702,672)
Quarter 9	85,661	312,438,295	312,523,956	60,396,170	2,228,020	0	(23,869,788)	(2,591,469)
Quarter 10	79,926	353,846,840	353,926,766	66,406,018	1,714,270	0	(24,126,452)	(2,591,025)
Quarter 11	80,654	383,560,493	383,641,147	49,967,661	2,428,574	0	(22,329,801)	(352,051)
Quarter 12	79,140	173,777,994	173,857,134	57,298,658	6,799,891	90,000	(273,613,123)	(359,439)
Total				697,512,958	22,183,183	11,757,567	(531,304,164)	(26,292,410)



CAGAMAS MBS 2007-2 : DEAL SUMMARY

A. Transaction Summary

Issuer	Cagamas MBS Berhad
Issue	RM2,410.0 million Asset Backed Fixed Rate Bonds
Sector	Securitisation of Government Staff Housing Loans
Issue Date	22-Aug-07
Purchase Date	28 February 2007 (retrospective purchase of Approx. 6 months)
Tenure	3 to 20 years
Originator & Servicer	Federal Government of Malaysia
Transaction Administrator	Cagamas Berhad
Administrator	Cagamas Berhad
Insurer	Etiga Insurance Bhd & Etiga Takaful Berhad
Trustee	Malaysian Trustee Berhad
Facility Agent	CIMB Investment Bank

* Formerly known as Takaful Nasional Sdn Berhad and Malaysia National Insurance Berhad

B. Securities Summary

Issues	Size (RM)	Maturity Date	Coupon (%)	Frequency	Rating	Outstanding Amount (RM)
Tranche 1	515,000,000	21-Aug-2010	4.00%	Quarterly	AAA	515,000,000
Tranche 2	375,000,000	22-Aug-2012	4.10%	Quarterly	AAA	375,000,000
Tranche 3	380,000,000	22-Aug-2014	4.28%	Quarterly	AAA	380,000,000
Tranche 4	525,000,000	22-Aug-2017	4.52%	Quarterly	AAA	525,000,000
Tranche 5	260,000,000	22-Aug-2019	4.75%	Quarterly	AAA	260,000,000
Tranche 6	250,000,000	20-Aug-2022	4.90%	Quarterly	AAA	250,000,000
Tranche 7	105,000,000	21-Aug-2027	5.08%	Quarterly	AAA	105,000,000

C. Portfolio Description

	Cut-Off Date	Outstanding principal balance (RM)	No of Accounts	Avg Mortgage Size (RM)	WA term to maturity (years)	WA Seasoning (years)	WA Age (years)
At closing	n.a	3,015,963,604	63,461	47,525	16.30	7.79	43.42
Quarter 1	31-May-2007	2,981,546,384	63,461	46,982	16.08	8.50	43.65
Quarter 2	31-Aug-2007	2,929,443,439	63,295	46,284	15.87	8.34	43.87
Quarter 3	30-Nov-2007	2,882,556,432	62,976	45,772	15.66	8.46	44.09
Quarter 4	29-Feb-2008	2,833,421,775	62,794	45,122	15.45	8.68	44.30

D. Portfolio Performance

	Voluntary	Prepayment (RM) Involuntary	Partial Prepayment	Total	Prepayment Rate ¹ (%) Movement	Cumulative
Quarter 1	0	0	963,394	963,394	0.01%	0.01%
Quarter 2	9,896,331	642,937	639,682	11,178,950	0.37%	0.38%
Quarter 3	8,200,231	905,094	347,687	9,453,011	0.31%	0.70%
Quarter 4	7,289,922	651,280	446,687	8,387,889	0.28%	0.97%
Total	25,386,483	2,199,311	1,797,450	29,383,244		

Note:

1. Prepayment rate is computed based on cumulative prepayment to-date divided by original principal balance on closing

	Delinquency (%)			Default (%)		Recovery (%)	
	<= 3 Months	> 3 to 6 Months	> 6 to 9 Months	Movement	Cumulative	Movement	Cumulative
Quarter 1	38.31%	0.00%	0.00%	0.00%	0.00%	n.a	n.a
Quarter 2	36.45%	0.07%	0.00%	0.00%	0.00%	n.a	n.a
Quarter 3	33.46%	0.18%	0.04%	0.00%	0.00%	n.a	n.a
Quarter 4	23.86%	0.15%	0.10%	0.03%	0.03%	n.a	n.a

E. Collection Summary (RM)

Opening Cash Balance @ Issue date (RM)		0.00						
	Closing cash balances	Investment in Permitted Investments	Closing cash and cash equivalent balances	Collections from BPP	Income from Permitted Investments	Others	Principal and/or Interest payments	Fees and Expenses
Quarter 1	88,062	44,920,000	45,008,062	61,320,473	188,834	19,900,000	(26,660,592)	(9,740,652)
Quarter 2	92,434	92,519,750	92,612,184	83,643,043	429,331	0	(26,660,592)	(9,807,650)
Quarter 3	90,857	142,320,000	142,410,857	75,769,019	937,060	0	(26,081,014)	(826,408)
Quarter 4	91,785	195,460,000	195,551,785	79,282,432	1,347,000	0	(26,660,592)	(827,913)
Total				300,014,967	2,902,224	19,900,000	(106,082,780)	(21,202,617)

Note:

Please note that the figures have been rounded to the nearest integer respectively and as such it may not tally.

Malaysian Rating Corporation Berhad
Level 5, Bangunan Malaysian Rn,
No. 17 Lorong Dungun,
Damansara Heights
50490 Kuala Lumpur
T: (603) 2093 5398
F: (603) 2094 9397



This page is intentionally left blank