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DETECTING DISTRESSED BANKS

LESSONS FROM THE FINANCIAL CRISIS

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ABSTRACT

The purpose of this paper is to identify the symptoms or common indicators that prevailed before banking institutions became distressed during the recent financial crisis. A total of 5 banking institutions that went through the 1997-1998 financial crisis were used as sample. From the 5 banking institutions reviewed, 3 of them were distressed banking institutions which subsequently were absorbed by stronger banks. Performances of the 3 distressed banks were compared with 2 banking institutions which are stronger. Ratio analyses for the period of 5 years were used in identifying the common indicators that prevailed prior to the banks became distressed.

The results showed that banking institutions that were distressed during the financial crisis shared common indicators in respect of asset growth vis-à-vis capital adequacy, provisioning policy, movements in profitability ratios and liquidity management. From the study, the identified indicators could assist the stakeholders, particularly the regulators of banking institutions in identifying potentially distress banks.

CHAPTER 1

INTRODUCTION

Prior to the financial crisis in July 1997, Malaysia recorded a dynamic growth for more than a decade. Since 1987, GDP growth was hovering around 8 per cent per annum and the Government was enjoying fiscal surplus. As at June 1997, unemployment rate was below 3 per cent and inflation rate was at the lowest at only 2.1 per cent. The Kuala Lumpur Stock Exchange (KLSE), was the largest bourse in South East Asia then. As at 5 January 1997, the KLSE's Composite Index reached a record high of 1,332.04 points.

At the financial front, banking sector was indeed benefiting from the economic prosperity. Banking sector was regarded as sound and stable. However, the good times were short lived as the financial crisis struck the country in July 1997. Malaysian banks, which were seen to be viable and solid before, now became financially distressed. Many banks started showing losses and in need of capitalization and financial assistance to continue with their operation. As at end December 1999, a total of RM7.6 billion was injected into 10 banking institutions[1]. The irony was that, these banks were showing good financial results before the crisis started. As at end June 1997, the average risk-weighted capital ratio (RWCR)[2] of the banking system was 12.0 per cent, compared to the minimum requirement and

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[1] The 10 banking institutions comprised of 5 Commercial banks, 2 Merchant banks and 3 Finance companies. The number of banking institutions at pre-crisis was 33

[2] Risk-Weighted Capital Ratio (RWCR) was formulated by the Basle Committee and was adopted by Bank Negara Malaysia and effective from 1 September 1989.

international standard of 8.0 per cent[3]. Meanwhile, asset was deemed to be of good quality, as reflected by low net non-performing loans (NPL) of 3.6 per cent[4]. Furthermore, the banking system was already subject to strict international prudential standards, which were enforced by Bank Negara Malaysia. Almost all the 25 Core Principles for Effective Banking Supervision recommended by the Bank for International Settlements (BIS) had been adopted[5]. What actually went wrong?

This paper will try to identify the common indicators that prevailed among the distressed banks. The approach taken will be of comparison between three distressed commercial banks, which received capital injections from Danamodal[6] and their shareholders, and two strong commercial banks which were able to withstand the financial crisis. The three distressed banks were subsequently acquired by competitors whilst the two stronger commercial banks showed continuous good financial performance and became anchor banks subsequent to the financial crisis. The three distressed banks chosen are BSN Commercial Bank Berhad (BSNC), Oriental Bank Berhad (OBB) and Bank Bumiputra Malaysia Berhad (BBMB). The two relatively stronger banks which were used as comparisons, are Public Bank Berhad (PBB) and Malayan Banking Berhad (MBB). Under the recapitalisation exercise within the ambit of Danamodal, BSNC and OBB had received capital

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[3] The Basle Committee set the minimum ratio. The committee is currently reviewing the methodology to compute capital requirement of banking institutions, incorporating all the inherent risks in the banking activities.
[4] The highest net non-performing loans (NPL) was 33.0 per cent, recorded in 1988. The reduction in NPL indicates that asset quality has improved tremendously.
[5] The summary of the 25 Core Principles is given in Appendix 1
[6] Danamodal was formed as a corporation in August 1998 by the Government of Malaysia, to address the recapitalisation issue of banking institutions.

support amounting to RM420 million and RM700 million respectively. Meanwhile, BBMB received capital injection from its shareholders amounting to RM1,700 million.

The following sections will try to unfold the financial positions of all the banking institutions under study to identify the common signals of distress. Financial statements and comparative analysis of BSNC, OBB, BBMB, PBB and MBB are shown in Appendix 3,4,5,6 and 7 respectively.

CHAPTER 2

LITERATURE REVIEW ON DETECTING DISTRESSED BANKS

2.1   DEFINITION

"The unsuccessful business enterprise has been defined in numerous ways in attempts to depict the formal process confronting the firm and/or to categorize the economic problems involved. Four generic terms that are commonly found in the literature are *failure, insolvency, default and bankruptcy*."[7]

In the context of this paper, distressed banks refers to banking institutions which require financial assistance in terms of capitalization either from the Government or its shareholders, to enable the continuity of its operations. During the financial crisis in 1997-1998, several Malaysian banks were not able to meet the minimum capital adequacy ratio of 8.0% due to huge losses made. These banking institutions were not yet insolvent but identified by Bank Negara Malaysia as very weak and likely to become insolvent in view of uncertain economic conditions and absence of financial assistance.

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[7] Edward I.Altman, Corporate Financial Distress and Bankruptcy, 2nd Edition, John Wiley & Sons, Inc, 1993, p. 3.

2.2 ASSESSMENT METHODOLOGIES

Detecting company's operating and financial difficulties has been acquiescent to the analysis of financial ratios. The stakeholders would be interested in looking at the trends of various financial ratios such as profitability, productivity and liquidity ratios. In addition to the analysis of financial ratios, statistical method such as Z-score model was also being used to detect corporate distress.

Nevertheless, the assessment methodologies for banking institutions differ in certain ways. For example, analysis on the statement of cash flow is less important in bank analysis than in the analysis of non-banking institutions. The reason that the statement of cash flow is less imperative in bank analysis is due to the typical bank's funding strategy, where reliability on borrowings is higher as compared to non-financial institutions. Furthermore, loan loss provisions on non-performing loans are not reflected in the cash flow statement, since provisions are non-cash item. Therefore, adverse quality in banks' financial condition is not reflected in the cash flow statement.

2.2.1 Bank Analysis

Ideally, to determine the strength of banking institutions in withstanding the financial crisis, both financial and operating conditions of the banks need to be assessed. Therefore, bank analysis is both a quantitative and a qualitative exercise. Some core elements, such as profitability, which are reflected in numerical are easily used to

compare one bank to another. However, other key elements such as the quality of management or internal control systems are not so open to quantitative analysis and must be viewed qualitatively.

Generally, most regulators of banking institutions world wide, employ the CAMEL approach or similar[8], in assessing the strength of banking institutions. The CAMEL assessment approach is also being used by Bank Negara Malaysia.

2.2.1.1 CAMEL Approach

CAMEL is an acronym, which stands for five most important components of bank analysis. The CAMEL model categorizes the key elements of bank's financial condition that affect its strengths and soundeness. The five components are:

C for Capital

A for Asset Quality

M for Management

E for Earnings

L for Liquidity

Capital refers to capital adequacy. The definitions of capital are defined by applicable prudential regulations, which may include more than shareholders' equity,

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[8] CAMEL framework was adopted by BNM based on the framework established by the examiner of the Federal Reserves Bank of United States. The framework is used in assessing the performance and overall condition of individual banking institutions. There are few other framework used by various central banks to assess their banking institutions, such as CAMELS (Capital, Assets, Management, Earnings, Liquidity and Sensitivity to market risk) and CAMELOT(Capital, Asset, Management, Earnings, Liquidity, Operational risk and Technology risk).

retained earnings and equity reserves. In the Malaysian banking industry, Bank Negara Malaysia, after employing the Basle capital accord[9] has defined a two-tier system of capital. Summary of the two-tier systems of capital and their definitions are given in Appendix 2. Capital adequacy refers to the sufficiency of the cushion of capital to absorb any losses or diminution in its assets' value. The main key indicator that are used to monitor banks' capital adequacy are the Risk-weighted Capital Adequacy Ratio (RWCR). RWCR is the proportion of capital (as defined by Bank Negara) over risk-weighted assets[10]. Every banking institution are required by Bank Negara Malaysia to maintain a minimum RWCR ratio of 8.0 per cent[11]. A bank is deemed to be insolvent if the RWCR fall below 8.0 per cent.

Asset quality refers primarily to the quality of the bank's earnings assets, the bulk of which comprises its loan portfolio. In addition to the loans, it also include investment portfolio as well as off-balance sheet items. Quality of assets in this context refers to the conduct of the loans, whether it is performing (ability of borrower to pay the banks in accordance with the agreed terms), continue to be performing or otherwise. A bank with good asset quality would be able to generate sufficient earnings and would be able to maintain adequate capital. Among the ratios that are analysed to assess the asset quality are: -

a.   Asset growth;

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[9] The Group of Ten Committee on Banking Regulations and Supervisory Practices (Basle Committee) had, on July 15, 1998, released the agreed framework on international convergence of capital measurement and capital standards.

[10] Banking institutions' asset (inclusive of off-balance sheet items) were given various weight, ranging from 0 per cent to 100 per cent, depending on the perceived risk associated with the assets

[11] Under the RWCR method,. For every RM1.00 of risk weighted asset, banking institutions are required to maintain at least RM0.08 of capital.

b.   Loan growth;

c.   Level of non-performing loans (NPL)[12] over total loans;

d.   Loan loss reserve[13] over total NPL; and

e.   Level of general provision[14] over total loans.

Management refers to the competency of the bank's management. In this context, management comprised of board of directors as well as officers who manage the daily affairs of the bank's operations. Assessment of management involved mostly qualitative factors or judgment. Nevertheless, the popular quantitative factors that are used for management assessment are the ratios on productivity. Among the areas that the regulators observe when analyzing banking institutions are: -

Qualitative

a.   Strategic focus of the banks;

b.   Risk appetite;

c.   Adequacy of risk management systems;

d.   Adequacy of internal control systems;

e.   Experience of the management; and

f.   Credit culture.

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[12]Under the Bank Negara Guidelines of loans classifications, loans will be classified as NPL once it is in arrears for 6 months. NPL loans are classified as substandard (6 to 9 months in arrears), doubtful (9 to 12 months in arrears) or bad (in arrears for more than 12 months). For each category, loan loss provision are required to be made for all NPL. The percentage for loan loss provision are 20 per cent for substandard, 50 per cent for doubtful and 100 per cent for bad loans. Provisions are to be made on the net NPL (Gross NPL- interest in suspense and security value). When the loan are classified as NPL, the bank should suspend all the interest income due from that particular loans.

[13] Loan loss reserve comprised of Interest in suspense, general provisions and specific provisions.

[14] BNM requires all banking institutions to make 1.0% provision on the amount of total loans, regardless of loan classification status.

Quantitative

a.   Personnel cost per employee;

b.   Profit before tax per employee; and

c.   Total asset per employee.

Earnings refers to the profitability of the banks. A bank with strong earnings capacity and high profitability will be able to build up its capital base and serve as a cushion in the event of shocks as well as serve as platform for further loan expansion. The key ratios that are used to assess the earnings performance of banking institutions among others are: -

a.   Profits before and after tax;

b.   Interest income[15];

c.   Return on assets ratio;

d.   Return on equity ratio;

e.   Net interest income over average total assets ratio (Net Interest Margin);

f.   Non interest income over average total assets; and

g.   Bad debt expense average total assets.

Liquidity refers to the ability of a bank to access liquid funds particularly during liquidity crisis. Nonetheless, it also extends to the ability of the banks to access liquid funds to meet current and future needs. An acute need can arise if depositors

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[15] Of late, with the growing popularity of Islamic Banking facilities offered by banking institutions, the income from Islamic banking activities has been on an upward trend. It is therefore, income from Islamic banking activities has become one of the key earnings indicators. In the context of this paper, income from Islamic Banking is aggregated with non-interest income.

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panic and seek to withdraw their funds. Lack of sufficient liquidity is the proximate cause of most bank failures. Among the key liquidity indicators being used are as follows: -

a.   Loans to deposits ratio;

b.   Stability of deposits from customers;

c.   Concentrations of deposits; and

d.   Asset and liability maturity gaps[16].

Due to lacks of transparency and disclosure by banking institutions, many will find that it is difficult to obtain the information highlighted under each CAMEL elements (for example: information on concentration of deposits under the element of *liquidity*).   However, regulators would have the upper hand in accessing most of the information for the purpose of monitoring the performance of banking institutions.

2.3   FORMAT OF PROJECT PAPER

In order to identify the signal or the common indicators that prevailed before banking institutions became distressed during the financial crisis in 1997-1998, the paper will adopt the CAMEL framework, with exception of assessment on *management*. This

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[16] With effect from January 2000, Banking institutions are required by Bank Negara Malaysia to maintain minimum positive gaps (surplus) for the one week and one month maturity buckets. The minimum positive gaps are decided by Bank Negara Malaysia and it differs from one institutions to another. However, this information is not publicly available.

paper would not attempt to assess the management quality of the five institutions under study due to inadequate disclosure by these institutions.

This paper will mainly identify the signal of distress in the sample banking institutions based on capital adequacy, asset quality, earnings performance and liquidity position. Observations were made for 5 years periods from financial year ended 1993 to financial year ended 1997. For the purpose of comparisons, financial positions of banking institutions with financial year ended 31 March will be compared with the financial positions of other banking institutions with financial year ended 31 December of the prior year. For example, BBMB's financial year ended 31 March 1998 will be compared with financial year ended 31 December 1997 of other banking institutions.

The format of the project paper would be approached using a standard format. Each banking institutions were dissected according to their capital adequacy, asset quality, earnings performance and liquidity positions. Under each of the four elements (capital, assets, earnings and liquidity), overall observations and comparisons were made between the distressed banks with the stronger banks to identify the common indicators that prevailed in the distressed banks.

Even though each of the five banking institutions were dissected in four parts, the final chapter on conclusions and recommendations would give the holistic picture of the whole analysis.

CHAPTER 3

CAPITAL ADEQUACY

As at end of December 1996, banking institutions in Malaysia were considered well capitalized by Basle standards as most of them had maintained RWCR well above the minimum requirement of 8.0 per cent. The average industry RWCR as at financial year ended 1996 was 10.8 per cent. In addition, commercial banks were required by BNM to maintain minimum capital funds of RM20 million.

Prior to the financial crisis, capital positions of BSNC, OBB and BBMB appeared to be adequate and it was hovering around the industry average of 11.0 per cent. The following sections will discuss on the peculiarity of the 5 banking institutions under study.

3.1 CAPITAL ADEQUACY – BSN COMMERCIAL BANK BERHAD (BSNC)

Since FYE 1993 until the onset of the 1997 financial crisis, the RWCR of BSNC was consistently above the industry average as shown in the following table:

Table 1: Risk weighted capital ratio of BSNC

Year	31.12.97	31.12.96	31.12.95	31.12.94	31.12.93
RWCR (%)	8.80	14.20	24.10	15.40	10.89
Industry Average	10.70	10.80	11.30	11.0	10.60

The ratio hit the highest at 24.1 per cent in the year 1995, an increase by 8.7 per cent from 15.4 per cent recorded in 1994. This was largely due to additional paid-up capital amounting to RM140 million injected into the bank in the year 1995 in the move to increase the loan base. During the same year, loan base had increased by 167 per cent from RM716 million recorded in 1994 to RM1.9 billion recorded as at FYE 1995. Off balance sheet's commitment and contingencies, which comprised mainly of loan commitments[17], had increased by 341 per cent. Both the growth in loan base and commitment and contingencies were translated into the growth of risk-weighted asset by 217 per cent from FYE 1994. The balance sheet of BSNC is depicted in Appendix 3.

The aggressiveness in loan expansion had pulled the RWCR down to 14.2 per cent in the year 1996 from 24 per cent recorded in FYE 1995. For the year 1997, the RWCR plunged further to 8.8 per cent, following the continuous loan expansion coupled with deterioration in shareholders funds. From FYE December 1996 to FYE December 1997, loan base increased by 45 per cent while commitment and contingencies increased by 150 per cent. On the other hand, during the same period, shareholders' funds decreased by 10.0 per cent arising from losses made in the year 1997.

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[17] Loan approved but not yet disbursed.

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From the observation, BSNC showed an aggressive attitude towards loan expansion since the year 1995. However, the loan asset was unable to provide adequate return to the bank for continuous growth in shareholders funds and sustainable capital adequacy.

3.2 CAPITAL ADEQUACY – ORIENTAL BANK BERHAD (OBB)

The RWCR of OBB had been volatile since FYE March 1994 to FYE March 1998 as depicted in Table 2.

Table 2: Risk weighted capital ratio of OBB

Year	31.3.98	31.3.97	31.3.96	31.3.95	31.3.94
RWCR (%)	8.80	11.73	10.99	9.80	11.02
Industry Average	10.70	10.80	11.30	11.0	10.60

As at 31 March 1994, the RWCR was 11.02 per cent. The ratio declined to 9.8 per cent in the FYE 1995, which was attributed mainly to the increase in loan base by 55 per cent. With the issuance of rights issue amounting to RM140 million in the year 1996, the share capital increased by 78 per cent while RWCR for FYE 1996 increased to 10.9 per cent. The marginal increase in RWCR despite the sharp increase in share capital was mainly due to the 41 per cent increase in risk-weighted asset.

For FYE 1997, RWCR increased marginally by 0.7 per cent to 11.7 per cent from 10.9 per cent recorded in FYE 1996. Capital position at this level was deemed to be

adequate, however, at the onset of the financial crisis, the RWCR of OBB dropped to 8.8 per cent, the ratio was marginally above the minimum requirement of 8 per cent. The reduction in the ratio was mainly due to the significant reduction in the bank's profitability, with a recorded loss before tax of RM70 million, compared to the PBT of RM64 million booked in the year 1997. The loss had caused erosion to the capital base of OBB, resulting in significant decrease in the RWCR. When looked closely, the loss was largely due to loan loss provision made for non-performing loans.

From the analysis of OBB's capital adequacy, the deterioration in RWCR was mainly attributed to its poor asset quality, which required loan loss provisioning (which will be discussed under the chapter of Asset Quality). The growth in loan base had less effect on the capital position of OBB since the growth trend of risk-weighted asset was less significant as compared to the erosion in capital base. Appendix 4 shows the details of capital position of OBB.

3.3   CAPITAL ADEQUACY – BANK BUMIPUTRA MALAYSIA BERHAD (BBMB)

The RWCR of BBMB was on the declining trend from FYE March 1994 to FYE March 1998, with the exception of FYE March 1997. The trend of RWCR is shown in Table 3.

Table 3: Risk weighted capital ratio of BBMB

Year	31.3.98	31.3.97	31.3.96	31.3.95	31.3.94
RWCR (%)	6.50	11.80	9.20	10.70	12.00
Industry Average	10.70	10.80	11.30	11.0	10.60

The downward trend of RWCR for the period from FYE 1994 to FYE 1996 was mainly attributed to the growth of risk weighted asset, which were greater than the rate of growth in capital base, as shown in the following table.

Table 4: Growth in Risk weighted assets(RWA) VS growth in capital base(Capital) of BBMB

Year	97-98	96-97	95-96	94-95
Change in Capital (%)	(34.3)	41.1	20.1	17.9
Change in RWA (%)	98.1	10.5	47.6	27.0
Gap	(132.4)	30.6	(27.5)	(9.1)
Cumulative Gap	(138.4)	(6.0)	(36.6)	(9.1)

Since FYE March 1994, share capital of BBMB had never been increased. The growth in capital base was mainly due to the increase in reserves derived from BBMB's profits. However, the growth in reserves from 1994 to 1998 was at a decreasing trend and did not commensurate with the growth in loan base. The increase in capital base for the year 1997 was due to the issuance of subordinated loan stock amounting to RM600 million, which carried 8.5 per cent coupon per annum. As at FYE 1998, the RWCR fell to 6.5 per cent, below the minimum requirement of 8.0 per cent. The erosion of capital was due to the significant losses incurred by the bank amounting to RM1.2 billion, arising from additional specific

provision[18] made. In addition to the losses, the increase in risk weighted asset by nearly 100 per cent had also contributed to the depreciation in RWCR. Details of BBMB's capital position is shown in Appendix 5.

From Table 4, it was obvious that BBMB had not been managing the asset growth prudently to commensurate with the growth in capital base. Furthermore, the deterioration in BBMB's capital was attributed mainly by poor asset quality which unable to generate enough revenue to plough back into the bank's reserves. Poor asset quality had also caused the bank to provide huge specific provision, which had affected the bank's profitability and ultimately the capital adequacy.

3.4   CAPITAL ADEQUACY – PUBLIC BANK BERHAD (PBB)

During the crisis, PBB was one of the domestic banks which was able to withstand the test. Its capital position remained intact and consistently above the minimum capital requirement of 8.0 per cent. The trend of PBB's RWCR is shown below.

Table 5: Risk weighted capital ratio of PBB

Year	31.12.97	31.12.96	31.12.95	31.12.94	31.12.93
RWCR (%)	10.74	10.61	13.38	17.06	13.84
Industry Average	10.70	10.80	11.30	11.0	10.60

The RWCR surged upward in FYE 1994 to 17.06 per cent from 13.84 per cent recorded in FYE 1993. The increase in RWCR was mainly due to the increased in

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[18] Specific provision is made on loans classified as Non Performing.