Masters of Science (Banking)

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WBB 6013: SEMINAR IN BANKING

"Eeny, Meeny, Miny, Mo..." A Study of Loan Repayment Patterns in Relation to Selected Economic Indicators: Q2 2006 to Q3 2008

By

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Abstract

This paper aims to explore whether there are significant relationships between repayments for various types of loans to the economic cycle. Faced with a diminishing ability to pay, which loans would a borrower choose to continue to repay? In theory, several possible factors are discussed, including the cost of default, ability to pay and cost of living. Quarterly repayment data from Bank Negara Malaysia (BNM) for eight major types of loans were tested for correlation against the Gross Domestic Product (GDP), Consumer Price Index (CPI), and Broad Money Supply (M3). Results show significant positive correlations exist between total loan repayments, repayments for personal consumption, credit cards and working capital against the GDP, CPI and M3. On the other hand, repayment of loans for other purposes shows significant negative correlation against the three indicators. Interestingly, repayment for the purchase of transport vehicles shows significant positive correlations with the CPI and M3, but not the GDP. In conclusion, it is hoped that patterns revealed by the results of this study would serve as a useful guide to both the financiers and the borrowers alike in planning and allocating their resources more efficiently and effectively in relation to the economic cycle.

JEL classifications: D1, E2, E3, E5, G2
Keywords: economic cycles; loan repayment pattern; ability to pay; cost of default

Table of contents

1. INTRODUCTION

"Eeny, meeny, miny, mo
Catch a tiger by his toe
If he hollers let him go
Eeny, meeny, miny, mo..."

1.1 Purpose

The traditional counting rhyme above has been used by English speaking children throughout the ages to choose a person as "it" for games. Culturally, it has also been used as a simple tool whenever a "random" choice has to be made, especially when the chooser is at a loss as to which item is to be selected.

By the same token, this paper aims to explore whether there are discernable patterns in the choices that borrowers make to repay the various types of loans they may have outstanding, in relation to the economic cycle.

It is a basic economic axiom that the underlying premise in making choices is the scarcity of resources. Thus, it is hoped that the knowledge gained from this study would assist the parties on both sides of the credit fence:-

- The borrowers, in managing resources for repayments, and
- The lenders, in managing resources to collect those repayments.

By gaining an insight on the general repayment trends in relation to the economic cycle, both parties may be able to allocate their resources more effectively and efficiently in order to obtain optimal results.

1.2 The Cyclic Nature of the Economy

The economist Joseph A. Schumpeter, in his treatise *The Theory of Economic Development* (OUP, New York, 1961)[1], suggested that there are four major business (or economic) cycles which may be mapped into a composite model. The component cycles are:-

- The Kondratieff (or Kondratiev) wave – 45 to 60 years
- The Kuznets infrastructural investment cycle – 15 to 25 years
- The Juglar fixed investment cycle – 7 to 11 years
- The Kitchin inventory cycle – 3 to 5 years

The generic term 'economic cycle' that is in common use in the industry is the one that Schumpeter proposed be named after the French economist that first published it in 1860: Clement Juglar. The cycle is characterised by four major phases, namely:-

i. Expansion – increase in production and prices; low interest rates

ii. Crisis – stock exchange crash; corporate insolvencies

iii. Recession – decrease in prices and output; high interest rates

iv. Recovery – stock exchange recovery, contributed by the fall in prices and income.

Periods of growth usually ends with failure of speculative investments built on 'bubbles' of confidence. Periods of contraction and stagnation are essentially the 'purging' of unsuccessful business enterprises. Resources are then transferred to more productive uses, which in turn bring about recovery.

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[1] Business Cycle. *Wikipedia, the free encyclopedia.* Retrieved December 1, 2008.

1.3 A Definition of Recession

In their guidebook *Managing a Consumer Lending Business*, Lawrence and Solomon quoted the simplest definition of recession as "two consecutive quarters of decline in the GDP (gross domestic product) [2]." This definition is the one that is most commonly used in the industry.

At the time of this writing, Malaysia's real GDP still managed to grow by 8.0% from Q1 to Q2 2008. This was followed by a slower growth of 4.9% in Q3, 2008[3]. Thus, by this technical definition, Malaysia is not yet experiencing a recession. Nevertheless, the latest market analysis has already revised the initial Q1 2009 'base-case' and 'best-case' projection of 1.8% and 3.0% respectively to a 'best-case' at 1.8%. The local economy has yet to touch bottom.

2. LITERATURE REVIEW: POSSIBLE FACTORS AFFECTING REPAYMENT CHOICES.

In general, each banking institution would have had in place a Risk Management department which would periodically assess loan repayment trends and evaluate the risks involved. However, the assessment reports produced are proprietary in nature, and are for internal circulation only. They are never published.

That notwithstanding, there are quite a number of academic studies which contribute to the knowledge pool. Based on these, and on the author's own experience, the factors which may possibly affect a borrower's repayment choice may be grouped as per the following categories:-

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[2] Lawrence, D. and Solomon, A. (2002). *Managing a Consumer Lending Business*. New York, U.S.A.: Solomon Lawrence Partners. p 257.

[3] Bank Negara Malaysia (2008). *Monthly Statistical Bulletin, October, 2008*. Kuala Lumpur. Table 5.3.2.

2.1 The Cost Factor: Cost of Default

A defaulted loan account will incur additional cost to both the lender and borrower alike. Capper (2006)[4] examined the quest of a creditor to convert a legal entitlement to be paid by way of debt or damages into the actual receipt of payment. Legal remedies for the creditor available in Northern Ireland were explored, and the costs attendant to the process. Gonzalez (2008) explored aspects of Microfinance in Bolivia, where the avoidance of costly alternatives to regular repayment is found to be an incentive contributing to the system's success.

Locally, the recovery of a defaulted loan account would entail civil or foreclosure proceedings (in certain cases, both), which would incur legal fees. The cost may range from the minimum of RM35-00 for a legal notice of demand, to RM2,000-00 High Court deposit for bankruptcy (civil) or auction (foreclosure). For a winding-up petition, the amount is RM2,500-00. It should be noted that the fees would accumulate as long as the arrears remain unpaid, as the legal action would escalate.

In addition to this, the defaulted account would incur additional penalty interest on the amount in arrears over and above the contracted rate, which would continue to be debited to the account. The penalty rate is usually 1% above the contracted rate for loans on periodic rests, or 8% on hire-purchase loans.

Thus, under this category, a borrower would probably choose to minimise his expenses by paying the account with the most expensive *potential* first, to avoid incurring a ballooning cost of default.

2.2 The Liquidity Factor: Ability to Pay

One of the consequences of an economic downturn is the diminishing of discretionary income in a household due to rising cost of living or curtailment of earnings, or both. In the extreme, loss of earnings may also occur due to 'down-sizing' by employers.

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[4] Capper, D.J.S. (2006). Debt enforcement: The struggle to secure payment. Belfast, U.K.: Queen's University (Doctoral dissertation).

Zhao (2003)[5] proposed another determining contributory factor affecting household liquidity: credit constraints. Credit-constrained families were more likely to be found in a higher debt-burden tier. In addition, due to their risk profile, these families may also be saddled with higher interest rates, which add on to their repayment burden.

On the other hand, Stephens, Jr. (2008)[6] found that a 10% increase in discretionary income after full settlement of a repayment obligation contributed to a 2% to 3% increase in non-durable consumption.

In essence, a household would adjust its repayment choices according to its ability to pay. Thus, under this category, the borrower would probably select to repay the loan with the least cash outflow, in order to optimise his liquidity position.

2.3 The Stigma Factor: Social and Financial 'Blacklist'

The defaulter would face two aspects of stigmatisation, namely: social and financial 'blacklisting'.

Socially, a defaulter would have to endure the ignominy of being identified as one. In certain cases, denial or aggression would follow. Some desperate cases have been known to transfer the blame to the lenders instead. In general, however, borrowers are more keen to protect their social standing by avoiding default. Wang (2006)[7] found that, in the event of an acute repayment problem, consumer behaviour shifted from normal choices made based on lifestyle and possessions to that of maintaining consumer credibility and being a good credit citizen. Further, in the process of extricating themselves from their burden, defaulters engage in a stigma management process to cope with the symbolic consequences of the problem.

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[5] Zhao, J. (2003). Household debt service burden outlook: An exploration on the effect of credit constraints. Ohio, U.S.A.: Ohio State University (Doctoral dissertation).

[6] Stephens, Jr., M. (2008). The consumption response to predictable changes in discretionary income: Evidence from the repayment of vehicle loans. *The Review of Economics and Statistics, Vol. 90 No. 2.* May, 2008. pp 241-245. Mass. U.S.A.: Mass. Institute of Technology.

[7] Wang, J. (2006). Consumption of debt: An interpersonal relationship approach. Arizona, U.S.A: University of Arizona (Doctoral dissertation).

On the financial aspect of blacklisting, Schnabl (2008) discovered that a newly introduced regulation in Peru requiring the sharing of information on defaulters among lenders had the impact of mitigating adverse selection and moral hazard. Borrowers with poor credit history have poorer chances of getting a new credit. As a result, lenders are using reputation to screen borrowers, and borrowers adjust their loan repayments to maintain their reputation.

In Malaysia, the advent of Bank Negara Malaysia's highly comprehensive Central Credit Reference Information System (CCRIS) resulted in:-

- All financial institutions making referencing the system a compulsory step in their credit processing,
- Borrowers with poor credit history being denied access to banking facilities (including deposit or checking accounts),
- Old 'dead-wood' accounts coming back to life, as the previously untraceable defaulter suddenly reappears to clear his name, to enable a new facility to be granted or activated.

As such, under this category, a borrower would choose to continue repayment to avoid being 'blacklisted'.

2.4 The Necessity Factor: Prioritisation of Needs

Despite newer changes in the component categories, the basic percept under Maslow's treatise on the hierarchy of needs remain true: people are motivated to make choices based on the prioritisation to satisfy their needs. To apply the concept to repayment trends: borrowers will make choices to repay their outstanding loans based on their prioritisation to keep the assets or facilities they feel are necessary for their daily survival. For example, a sales representative who has to use his car to generate income would definitely favour paying his hire-purchase loan over his personal loan. A family man with school going children may choose to favour the house to the credit card repayment.

In essence, the type of loan that will be favoured for repayment will be the one in which the borrower *cannot do without* the credit facility or item financed.

2.5 The 'Hassle' Factor: Persistent Follow-up

In their book, Lawrence and Solomon[8] emphasised that debt collection is a very competitive business, especially in times of economic hardship. This arises due to the fact that most borrowers are indebted to multiple lenders for various facilities. When liquidity becomes scarce, the lender who is the borrower's 'payment of choice' will be the one to benefit. The authors thus urge collection managers to make it their goal to be the one to achieve the 'first call' to the borrower. This is premised on the concept that persistent follow-up will yield consistent results, as the borrower would feel motivated to remove the 'hassle' as quickly as possible.

An opposing viewpoint would be those borrowers who deliberately 'under-prioritise' the persistent caller out of a personal sense of injury (to their pride).

The key determining factor is the collector's skill in differentiating the former form the latter, and using the best method to suit the situation. An experienced and highly skilled collector would be effective in developing the rapport necessary to deliver consistent results.

Thus, borrowers would be moved to resolve the issue in order to avoid the unpleasantness, or the 'hassle' factor.

[8] Op cit. pp 139 and 148.

3. RESEARCH METHODOLOGY

3.1 Problem Definition: Research Questions

This study seeks to ascertain the following:-

- Are there any significant relationships between repayments to specific types of loans to the economic cycle?
- Is there a significant relationships between total loan repayment to the economic cycle?

3.2 Conceptual Framework

The following variables will be used:-

VARIABLE	NAME USED	TYPE
Gross Domestic Product	**GDP**	**Independent**
Consumer Price Index	**CPI**	**Independent**
Broad Money Supply	**M3**	**Independent**
Loan repayment for purchase of securities	**SCTY**	**Dependent**
Loan repayment for purchase of transport vehicles	**POTV**	**Dependent**
Loan repayment for purchase of immovable assets	**ASST**	**Dependent**
Repayment for personal consumption loans	**PERS**	**Dependent**
Loan repayment for credit cards	**CCRD**	**Dependent**
Repayment of loans for construction	**CONT**	**Dependent**
Repayment for working capital loans	**WCAP**	**Dependent**
Repayment for other purposes	**OTRS**	**Dependent**
Total Loan repayments	**TOTL**	**Dependent**

Table 1: List of Variables

3.3 Methodology

- Secondary statistical data from BNM's monthly Statistical Bulletins were used (Tables 1.4, 1.10.1, 5.2, 5.12)
- Raw repayment data by loan purpose was regroup into like products to facilitate analysis:-
    - SCTY: Loan for purchase of securities
    - POTV: Purchase of transport vehicles
    - ASST: Purchase of property: residential+ non-residential+ other fixed assets
    - PERS: Personal consumption: Personal uses+ consumer durables
    - CCRD: Credit cards
    - CONT: Construction
    - WCAP: Working capital
    - OTRS: Other purpose
    - TOTL: Total loan repayment
- Monthly repayment amounts were aggregated into quarterly subtotals to facilitate comparison with GDP[9]
- Data keyed into SPSSv15 for Windows.
- 2-tailed Spearman test for correlation carried out, in repetition, against each GDP, CPI and M3.

3.4 Limitations:

- BNM's Data on loan repayment by purpose became available from April 2006 onwards, with the implementation of the new Financial Reporting and Statistics System (FRSS).
- Recession is not yet evident in Malaysia.
- Limited number of data entailed non-parametric Spearman's test.
- Repayment data is derived from banking institutions only.
- Other, non quantifiable factors excluded.

[9] Refer Appendix 1

4. FINDINGS

4.1 Correlation of repayment of specific types of loans against GDP

There are significant positive correlations between the GDP and PERS, CCRD, WCAP and TOTL, whereas OTRS shows significant negative correlation.

	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Correlation Coefficient	**0.588**	**0.527**	**0.600**	**0.794***	**0.794***	**- 0.115**	**0.867***	**- 0.806***	**0.867***
p-value	**0.074**	**0.117**	**0.067**	**0.006**	**0.006**	**0.751**	**0.001**	**0.005**	**0.001**

**Correlation is significant at p-value of 0.05*

Table 2: Correlation of repayment of specific types of loans against GDP

4.2 Correlation of repayment of specific types of loans against CPI

There are significant positive correlations between the CPI and POTV, ASST, PERS, CCRD, WCAP and TOTL, whereas OTRS shows significant negative correlation.

	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Correlation Coefficient	**0.612**	**0.648***	**0.636***	**0.939***	**0.927***	**- 0.018**	**0.867***	**- 0.927***	**0.842***
p-value	**0.060**	**0.043**	**0.048**	**0.000**	**0.000**	**0.960**	**0.001**	**0.000**	**0.002**

**Correlation is significant at p-value of 0.05*

Table 3: Correlation of repayment of specific types of loans against CPI

4.3 Correlation of repayment of specific types of loans against M3

There are significant positive correlations between the M3 and POTV, PERS, CCRD, WCAP and TOTL, whereas OTRS shows significant negative correlation.

	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Correlation Coefficient	**0.600**	**0.685***	**0.612**	**0.952***	**0.952***	**- 0.006**	**0.806***	**- 0.891***	**0.806***
p-value	**0.067**	**0.029**	**0.060**	**0.000**	**0.000**	**0.987**	**0.005**	**0.001**	**0.005**

**Correlation is significant at p-value of 0.05*

Table 3: Correlation of repayment of specific types of loans against M3

5. DISCUSSION

Based on the above results, it is found that there are significantly strong correlations between the GDP and the repayment of loans for personal consumption, credit cards, working capital, other purposes, and total loan repayments, with other purposes exhibiting a negative correlation.

For the CPI, all the above loan types exhibit the same pattern, with the addition of repayment of loans for the purchase of transport vehicles, and fixed assets. These variables exhibit relatively strong correlations with the CPI.

Against Broad Money, repayments of loans for the purchase of fixed assets do not show a significant correlation. Otherwise, the same variables as for the CPI apply.

It is felt that the results are generally consistent with the economic indicators, implying that repayment trends are correlated with the economic cycle.

The exceptions, namely repayments for the purchase of securities, loans for construction and the negatively correlated loans for other purposes need to be explored further in order to identify the likely contributing factors. Likely explanations may be linked to the demand for the type loans concerned (e.g. purchase of securities), the performance of the sector, non-bank alternative sources of funds, and, last but not least, accuracy of data (possibility of misclassification of loan purpose as 'others' by banking institutions, which gets rectified as the years go by).

It would also be interesting to repeat the study at a later date (in 2010, say), when the Malaysian economy would have endured the anticipated downturn, to see whether the correlations still hold true.

6. CONCLUSION

As discussed above, it can be concluded that there exist significant correlations in most type of loan repayments against the economic indicators.

With this finding, it is hoped that the lender can manage his resources better by fine tuning his efforts to optimise his collection rate in tandem with the economic cycle.

The borrower may also benefit from this, by managing his ability to repay in synchronisation with the economic cycle. A simple example would be to proactively seek means of restructuring, rescheduling or refinancing a potentially troublesome loan *before* a recession sets in.

It is hoped that the patterns revealed by the results would serve as useful tool for decision making, and perhaps be a platform for further research at a later date.

At the very least, a much better tool than a children's rhyme.

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APPENDIX 1

Table 4: Consolidation of raw data from BNM Monthly Statistical Bulletins

	GDP	CPI	M3	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Q2'06	117,194.00	103.80	700,537.80	2,819.30	8,671.60	14,316.00	3,005.80	11,289.90	3,215.50	67,801.90	11,824.40	122,944.10
Q3'06	121,846.00	104.10	716,265.60	2,542.30	8,085.00	11,053.10	3,103.10	12,425.10	4,056.80	66,791.90	8,115.50	116,172.70
Q4'06	122,225.00	104.60	760,301.60	2,657.60	8,020.10	11,989.60	3,099.80	13,111.60	3,776.20	69,129.60	10,009.40	121,793.80
Q1'07	120,225.00	105.00	789,222.50	4,020.40	8,156.70	11,209.70	3,538.60	14,187.40	4,626.40	65,415.30	6,864.90	118,019.30
Q2'07	123,896.00	105.30	788,610.80	4,281.20	7,983.10	12,089.70	3,105.00	13,043.60	4,374.40	71,771.10	6,366.50	123,014.40
Q3'07	130,070.00	106.00	804,248.70	5,009.00	8,482.40	12,717.20	3,874.80	14,294.50	4,194.70	68,828.10	6,468.00	123,868.70
Q4'07	131,162.00	107.10	832,737.80	22,666.30	8,650.40	13,696.90	4,080.50	15,557.50	4,147.70	78,278.00	6,751.30	153,828.60
Q1'08	129,177.00	107.90	884,372.90	4,567.80	9,045.60	13,782.90	4,689.30	16,500.40	4,117.80	80,392.40	5,822.40	138,918.20
Q2'08	132,155.00	113.40	899,120.00	4,917.40	9,011.00	15,018.10	4,496.80	15,682.60	3,232.60	81,437.20	5,880.90	139,676.70
Q3'08	136,235.00	114.70	912,779.90	3,328.60	9,595.30	15,015.20	4,564.70	15,948.90	3,526.50	89,307.00	4,361.20	145,647.60

Source: BNM

APPENDIX 2

Table 5: SPSS Spearman's Correlations against GDP

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

			GDP	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Spearman's rho	GDP	Correlation Coefficient	1.000	.588	.527	.600	.794(**)	.794(**)	-.115	.867(**)	-.806(**)	.867(**)
		Sig. (2-tailed)	.	.074	.117	.067	.006	.006	.751	.001	.005	.001
		N	10	10	10	10	10	10	10	10	10	10
	SCTY	Correlation Coefficient	.588	1.000	.285	.394	.612	.576	.358	.406	-.491	.721(*)
		Sig. (2-tailed)	.074	.	.425	.260	.060	.082	.310	.244	.150	.019
		N	10	10	10	10	10	10	10	10	10	10
	POTV	Correlation Coefficient	.527	.285	1.000	.830(**)	.697(*)	.697(*)	-.503	.612	-.552	.661(*)
		Sig. (2-tailed)	.117	.425	.	.003	.025	.025	.138	.060	.098	.038
		N	10	10	10	10	10	10	10	10	10	10
	ASST	Correlation Coefficient	.600	.394	.830(**)	1.000	.527	.539	-.612	.758(*)	-.527	.770(**)
		Sig. (2-tailed)	.067	.260	.003	.	.117	.108	.060	.011	.117	.009
		N	10	10	10	10	10	10	10	10	10	10
	PERS	Correlation Coefficient	.794(**)	.612	.697(*)	.527	1.000	.964(**)	.091	.733(*)	-.903(**)	.745(*)
		Sig. (2-tailed)	.006	.060	.025	.117	.	.000	.803	.016	.000	.013
		N	10	10	10	10	10	10	10	10	10	10
	CCRD	Correlation Coefficient	.794(**)	.576	.697(*)	.539	.964(**)	1.000	.018	.758(*)	-.830(**)	.745(*)
		Sig. (2-tailed)	.006	.082	.025	.108	.000	.	.960	.011	.003	.013
		N	10	10	10	10	10	10	10	10	10	10
	CONT	Correlation Coefficient	-.115	.358	-.503	-.612	.091	.018	1.000	-.345	-.091	-.164
		Sig. (2-tailed)	.751	.310	.138	.060	.803	.960	.	.328	.803	.651
		N	10	10	10	10	10	10	10	10	10	10
	WCAP	Correlation Coefficient	.867(**)	.406	.612	.758(*)	.733(*)	.758(*)	-.345	1.000	-.794(**)	.855(**)
		Sig. (2-tailed)	.001	.244	.060	.011	.016	.011	.328	.	.006	.002
		N	10	10	10	10	10	10	10	10	10	10
	OTRS	Correlation Coefficient	-.806(**)	-.491	-.552	-.527	-.903(**)	-.830(**)	-.091	-.794(**)	1.000	-.685(*)
		Sig. (2-tailed)	.005	.150	.098	.117	.000	.003	.803	.006	.	.029
		N	10	10	10	10	10	10	10	10	10	10
	TOTL	Correlation Coefficient	.867(**)	.721(*)	.661(*)	.770(**)	.745(*)	.745(*)	-.164	.855(**)	-.685(*)	1.000
		Sig. (2-tailed)	.001	.019	.038	.009	.013	.013	.651	.002	.029	.
		N	10	10	10	10	10	10	10	10	10	10

APPENDIX 3

Table 6: SPSS Spearman's Correlations against CPI

			CPI	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Spearman's rho	CPI	Correlation Coefficient	1.000	.612	.648(*)	.636(*)	.939(**)	.927(**)	-.018	.867(**)	-.927(**)	.842(**)
		Sig. (2-tailed)	.	.060	.043	.048	.000	.000	.960	.001	.000	.002
		N	10	10	10	10	10	10	10	10	10	10
	SCTY	Correlation Coefficient	.612	1.000	.285	.394	.612	.576	.358	.406	-.491	.721(*)
		Sig. (2-tailed)	.060	.	.425	.260	.060	.082	.310	.244	.150	.019
		N	10	10	10	10	10	10	10	10	10	10
	POTV	Correlation Coefficient	.648(*)	.285	1.000	.830(**)	.697(*)	.697(*)	-.503	.612	-.552	.661(*)
		Sig. (2-tailed)	.043	.425	.	.003	.025	.025	.138	.060	.098	.038
		N	10	10	10	10	10	10	10	10	10	10
	ASST	Correlation Coefficient	.636(*)	.394	.830(**)	1.000	.527	.539	-.612	.758(*)	-.527	.770(**)
		Sig. (2-tailed)	.048	.260	.003	.	.117	.108	.060	.011	.117	.009
		N	10	10	10	10	10	10	10	10	10	10
	PERS	Correlation Coefficient	.939(**)	.612	.697(*)	.527	1.000	.964(**)	.091	.733(*)	-.903(**)	.745(*)
		Sig. (2-tailed)	.000	.060	.025	.117	.	.000	.803	.016	.000	.013
		N	10	10	10	10	10	10	10	10	10	10
	CCRD	Correlation Coefficient	.927(**)	.576	.697(*)	.539	.964(**)	1.000	.018	.758(*)	-.830(**)	.745(*)
		Sig. (2-tailed)	.000	.082	.025	.108	.000	.	.960	.011	.003	.013
		N	10	10	10	10	10	10	10	10	10	10
	CONT	Correlation Coefficient	-.018	.358	-.503	-.612	.091	.018	1.000	-.345	-.091	-.164
		Sig. (2-tailed)	.960	.310	.138	.060	.803	.960	.	.328	.803	.651
		N	10	10	10	10	10	10	10	10	10	10
	WCAP	Correlation Coefficient	.867(**)	.406	.612	.758(*)	.733(*)	.758(*)	-.345	1.000	-.794(**)	.855(**)
		Sig. (2-tailed)	.001	.244	.060	.011	.016	.011	.328	.	.006	.002
		N	10	10	10	10	10	10	10	10	10	10
	OTRS	Correlation Coefficient	-.927(**)	-.491	-.552	-.527	-.903(**)	-.830(**)	-.091	-.794(**)	1.000	-.685(*)
		Sig. (2-tailed)	.000	.150	.098	.117	.000	.003	.803	.006	.	.029
		N	10	10	10	10	10	10	10	10	10	10
	TOTL	Correlation Coefficient	.842(**)	.721(*)	.661(*)	.770(**)	.745(*)	.745(*)	-.164	.855(**)	-.685(*)	1.000
		Sig. (2-tailed)	.002	.019	.038	.009	.013	.013	.651	.002	.029	.
		N	10	10	10	10	10	10	10	10	10	10

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

APPENDIX 4

Table 7: SPSS Spearman's Correlations against M3

			M3	SCTY	POTV	ASST	PERS	CCRD	CONT	WCAP	OTRS	TOTL
Spearman's rho	M3	Correlation Coefficient	1.000	.600	.685(*)	.612	.952(**)	.952(**)	-.006	.806(**)	-.891(**)	.806(**)
		Sig. (2-tailed)	.	.067	.029	.060	.000	.000	.987	.005	.001	.005
		N	10	10	10	10	10	10	10	10	10	10
	SCTY	Correlation Coefficient	.600	1.000	.285	.394	.612	.576	.358	.406	-.491	.721(*)
		Sig. (2-tailed)	.067	.	.425	.260	.060	.082	.310	.244	.150	.019
		N	10	10	10	10	10	10	10	10	10	10
	POTV	Correlation Coefficient	.685(*)	.285	1.000	.830(**)	.697(*)	.697(*)	-.503	.612	-.552	.661(*)
		Sig. (2-tailed)	.029	.425	.	.003	.025	.025	.138	.060	.098	.038
		N	10	10	10	10	10	10	10	10	10	10
	ASST	Correlation Coefficient	.612	.394	.830(**)	1.000	.527	.539	-.612	.758(*)	-.527	.770(**)
		Sig. (2-tailed)	.060	.260	.003	.	.117	.108	.060	.011	.117	.009
		N	10	10	10	10	10	10	10	10	10	10
	PERS	Correlation Coefficient	.952(**)	.612	.697(*)	.527	1.000	.964(**)	.091	.733(*)	-.903(**)	.745(*)
		Sig. (2-tailed)	.000	.060	.025	.117	.	.000	.803	.016	.000	.013
		N	10	10	10	10	10	10	10	10	10	10
	CCRD	Correlation Coefficient	.952(**)	.576	.697(*)	.539	.964(**)	1.000	.018	.758(*)	-.830(**)	.745(*)
		Sig. (2-tailed)	.000	.082	.025	.108	.000	.	.960	.011	.003	.013
		N	10	10	10	10	10	10	10	10	10	10
	CONT	Correlation Coefficient	-.006	.358	-.503	-.612	.091	.018	1.000	-.345	-.091	-.164
		Sig. (2-tailed)	.987	.310	.138	.060	.803	.960	.	.328	.803	.651
		N	10	10	10	10	10	10	10	10	10	10
	WCAP	Correlation Coefficient	.806(**)	.406	.612	.758(*)	.733(*)	.758(*)	-.345	1.000	-.794(**)	.855(**)
		Sig. (2-tailed)	.005	.244	.060	.011	.016	.011	.328	.	.006	.002
		N	10	10	10	10	10	10	10	10	10	10
	OTRS	Correlation Coefficient	-.891(**)	-.491	-.552	-.527	-.903(**)	-.830(**)	-.091	-.794(**)	1.000	-.685(*)
		Sig. (2-tailed)	.001	.150	.098	.117	.000	.003	.803	.006	.	.029
		N	10	10	10	10	10	10	10	10	10	10
	TOTL	Correlation Coefficient	.806(**)	.721(*)	.661(*)	.770(**)	.745(*)	.745(*)	-.164	.855(**)	-.685(*)	1.000
		Sig. (2-tailed)	.005	.019	.038	.009	.013	.013	.651	.002	.029	.
		N	10	10	10	10	10	10	10	10	10	10

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).