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**TO EVALUATE COMMERCIAL BANKS PERFORMANCE IN MALAYSIA BY
USING CAMEL FRAMEWORK: AN ANALYSIS WITH ROA, ROE AND EVA**



**BY
CHOONG KEAT MOON**

UUM
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**Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
In Partial Fulfillment of the Requirement for the Master of Sciences (Banking)**



**Pusat Pengajian Ekonomi,
Kewangan dan Perbankan**

SCHOOL OF ECONOMICS, FINANCE, AND BANKING

Universiti Utara Malaysia

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**TO EVALUATE COMMERCIAL BANKS PERFORMANCE IN MALAYSIA BY
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ABSTRACT

This paper intends to evaluate the commercial banks performance in Malaysia by using CAMEL framework with assessment through conventional accounting measures of Return on Asset (ROA) and Return on Equity (ROE) and Economic Value Added (EVA) as measurements for banking industry performance. It able to provide overview and better understanding on bank's financial performance as well as to identify factors which affect bank performance and hence to improve in risk management to reduce losses to the bank.

This study has been conducted by using 16 commercial banks comprises of local and foreign banks for the 5 years period from 2013 to 2017. The findings of this study suggested that CAMEL variables are significant in ROA, ROE and EVA models except for liquidity which is insignificant to ROE. The study concluded that EVA model has better explanation in bank financial performance as compared to ROA and ROE.

Keywords: commercial banks, camel framework, bank performance, roa, roe, eva, malaysia

PENILAIAN PENCAPAIAN BANK PERDAGANGAN DI MALAYSIA DENGAN MENGUNAKAN RANGKA CAMEL: ROA, ROE DAN EVA ANALISIS

ABSTRAK

Kertas ini menganalisis pencapaian bank perdagangan di Malaysia dengan menggunakan rangka kerja CAMEL dan membuat taksiran melalui konvensional perakaunan pulangan ke atas asset (ROA), pulangan ke atas ekuiti (ROE) dan nilai tambah ekonomi (EVA) sebagai pengukuran pencapaian kepada industri perbankan. Kajian ini dapat memberi gambaran keseluruhan dan pemahaman yang lebih baik terhadap pencapaian kewangan bank. Selain itu, kajian ini juga dapat mengenal pasti faktor-faktor yang mempengaruhi prestasi bank dan seterusnya meningkatkan pengurusan risiko untuk mengurangkan kerugian kepada bank. Kajian ini telah dijalankan dengan menggunakan 16 bank perdagangan terdiri daripada bank tempatan dan asing untuk tempoh 5 tahun dari tahun 2013 hingga 2017. Penemuan kajian ini mencadangkan bahawa pemboleh ubah CAMEL adalah penting dalam model ROA, ROE dan EVA kecuali kecairan yang tidak penting kepada ROE. Kajian ini menyimpulkan bahawa model EVA mempunyai penjelasan yang lebih baik dalam prestasi kewangan bank berbanding dengan ROA dan ROE.

Kata kunci: bank perdagangan, rangka kerja camel, pencapaian bank, roa, roe, eva, malaysia

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LIST OF ABBREVIATIONS

ROA	Return on Asset
ROE	Return on Equity
EVA	Economic Value Added
CA	Capital Adequacy
AQ	Asset Quality
MGMT	Management
EA	Earning
LI	Liquidity
BNM	Bank Negara Malaysia
NOPAT	Net Operating After Tax
WACC	Weighted Average Cost of Capital
OLS	Ordinary Least Square
SRR	Statutory Require Reserve
FRS	Financial Reporting Standards
GMM	Generalized Method of Moments

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The objective of this study is to evaluate the determinants of financial performance of commercial banks in Malaysia by using CAMEL framework with Return on Asset (ROA), Return on Equity (ROE) and Economic Value Added (EVA) are used as measurements for the financial performance.

A sound financial structure of commercial banks can lead to financial stability which in turn create a conducive environment for businesses to undertake their activities and for savers and investors to enter into short-term or long-term contracts. Financial stability refers to an environment where institutions in a financial system are strong and can continue to meet their contractual obligations without interruption or without any external assistance. Market participants can also confidently enter into transactions at prices that do not change substantially over short time period and there is no significant change in market fundamentals (Mishkin, 2007)

However, in a study by Sufian (2009) which examined bank efficiency during Asian financial crisis 1997, poor financial structure of a bank can lead to financial failure which can result in unfavorable ramifications for the economy. This could result in disturbance in money related intermediation, credit crunch or absence of financing for new ventures and utilization exercises, settlement chance in installment frameworks, monetary market separations, far reaching joblessness, social repercussions and in addition debilitated nearby and remote speculator trust in budgetary area.

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Appendix 1

Affin Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	508,599	476,479	261,290	351,316	282,852
Total Assets	45,390,601	48,333,687	48,745,249	48,075,735	48,972,650
Total Equity	3,995,107	4,730,122	4,978,755	5,177,972	7,504,447
Net operating profit after tax	616,461	605,507	500,667	487,451	418,679
Total capital	4,391,221	4,789,698	5,231,908	5,686,075	5,188,642
Non-performing Loans	363,583	452,130	763,856	515,330	989,469
Total Loans	30,178,910	32,292,551	32,902,688	30,753,354	29,143,900
Interest Expense	1,308,113	1,451,595	1,495,791	1,495,688	1,473,986
Net interest income	842,732	848,191	829,653	829,529	826,113
Short-term assets	4,987,696	3,777,042	2,203,022	3,337,831	2,209,948
WACC	9.82%	11.44%	8.91%	11.57%	12.43%
Capital Invested	538,557	556,973	701,441	810,720	993,998
Financial Ratios					
ROA	1.12%	0.99%	0.54%	0.73%	0.58%
ROE	12.73%	10.07%	5.25%	6.78%	3.77%
EVA	5.75	5.73	5.64	5.60	5.47
Capital adequacy	9.67%	9.91%	10.73%	11.83%	10.59%
Asset quality	1.20%	1.40%	2.32%	1.68%	3.40%
Management	4.33%	4.50%	4.55%	4.86%	5.06%
Earning	1.86%	1.75%	1.70%	1.73%	1.69%
Liquidity	10.99%	7.81%	4.52%	6.94%	4.51%

Appendix 2

Ambank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	1,663,488	1,871,055	2,044,553	1,399,479	1,408,776
Total Assets	127,572,261	132,353,257	133,803,824	133,764,000	134,767,615
Total Equity	12,941,330	14,094,389	15,507,424	16,119,388	17,152,884
Net operating profit after tax	2,282,308	2,580,447	2,566,766	1,521,503	1,605,085
Total capital	14,112,086	15,292,910	15,524,225	15,572,852	16,203,257
Non-performing Loans	292,479	308,206	337,426	75,246	132,066
Total Loans	82,586,332	87,170,577	86,173,795	86,513,254	89,865,085
Interest Expense	2,304,981	2,405,106	2,346,099	2,459,459	2,432,014
Net interest income	2,218,448	2,271,927	1,981,135	1,637,756	1,564,598
Short-term assets	11,780,148	10,287,346	10,758,600	11,988,321	8,337,200
WACC	11.30%	11.70%	10.10%	11.10%	11.40%
Capital Invested	415,945	488,218	483,093	487,381	684,784
Financial Ratios					
ROA	1.30%	1.41%	1.53%	1.05%	1.05%
ROE	12.85%	13.28%	13.18%	8.68%	8.21%
EVA	6.35	6.40	6.40	6.17	6.18
Capital adequacy	11.06%	11.55%	11.60%	11.64%	12.02%
Asset quality	0.35%	0.35%	0.39%	0.09%	0.15%
Management	2.79%	2.76%	2.72%	2.84%	2.71%
Earning	1.74%	1.72%	1.48%	1.22%	1.16%
Liquidity	9.23%	7.77%	8.04%	8.96%	6.19%

Appendix 3

Alliance Bank Malaysia Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	538,123	563,548	530,780	522,038	512,123
Total Assets	43,692,029	48,074,694	53,141,521	55,627,043	54,089,064
Total Equity	4,035,169	4,166,016	4,495,105	4,842,008	5,114,198
Net operating profit after tax	693,761	720,803	736,010	735,188	777,516
Total capital	4,241,197	4,311,829	4,593,992	6,042,963	4,522,368
Non-performing Loans	524,030	555,392	688,569	688,435	600,685
Total Loans	27,771,741	31,818,991	36,566,032	38,410,724	38,991,689
Interest Expense	698,866	822,711	951,818	1,072,622	1,032,668
Net interest income	730,459	778,635	820,589	847,792	847,545
Short-term assets	1,296,681	2,129,782	2,696,183	4,943,700	1,381,779
WACC	10.11%	8.90%	7.54%	8.66%	7.96%
Capital Invested	436,900	393,609	419,524	441,021	1,194,828
Financial Ratios					
ROA	1.23%	1.17%	1.00%	0.94%	0.95%
ROE	13.34%	13.53%	11.81%	10.78%	10.01%
EVA	5.81	5.84	5.85	5.84	5.83
Capital adequacy	9.71%	8.97%	8.64%	10.86%	8.36%
Asset quality	1.89%	1.75%	1.88%	1.79%	1.54%
Management	2.52%	2.59%	2.60%	2.79%	2.65%
Earning	1.67%	1.62%	1.54%	1.52%	1.57%
Liquidity	2.97%	4.43%	5.07%	8.89%	2.55%

Appendix 4

CIMB Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	2,141,950	2,477,636	2,747,485	2,551,306	3,640,865
Total Assets	234,603,951	264,948,946	291,399,406	300,789,042	308,454,399
Total Equity	20,021,480	24,090,741	26,923,723	28,680,657	31,704,640
Net operating profit after tax	2,968,948	3,494,680	3,616,832	3,690,579	4,964,229
Total capital	17,170,583	22,306,424	25,377,309	26,513,455	27,708,590
Non-performing Loans	1,818,887	1,875,539	2,133,068	2,612,188	3,175,844
Total Loans	132,833,310	150,874,563	170,669,912	182,585,775	176,897,036
Interest Expense	3,804,657	3,987,855	4,837,334	5,530,537	5,977,959
Net interest income	4,583,300	5,082,718	5,253,392	5,165,060	5,512,001
Short-term assets	18,467,152	21,435,099	14,159,386	10,358,003	19,642,521
WACC	6.55%	7.04%	6.62%	7.12%	6.92%
Capital Invested	10,836,864	9,490,641	10,160,339	11,472,321	12,381,377
Financial Ratios					
ROA	0.91%	0.94%	0.94%	0.85%	1.18%
ROE	10.70%	10.28%	10.20%	8.90%	11.48%
EVA	6.35	6.45	6.47	6.46	6.61
Capital adequacy	7.32%	8.42%	8.71%	8.81%	8.98%
Asset quality	1.37%	1.24%	1.25%	1.43%	1.80%
Management	2.86%	2.64%	2.83%	3.03%	3.38%
Earning	1.95%	1.92%	1.80%	1.72%	1.79%
Liquidity	7.87%	8.09%	4.86%	3.44%	6.37%

Appendix 5

Hong Leong Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	1,450,454	1,590,939	1,775,963	1,604,594	1,744,051
Total Assets	145,500,383	148,821,876	160,680,587	162,238,461	164,816,685
Total Equity	11,340,417	12,330,498	13,428,164	17,430,733	18,442,381
Net operating profit after tax	2,061,467	2,110,313	2,202,024	2,053,088	2,455,294
Total capital	12,194,141	13,880,778	14,353,199	15,718,221	16,584,405
Non-performing Loans	1,585,079	1,439,645	1,275,080	1,322,139	1,466,120
Total Loans	81,835,734	87,873,449	95,563,493	100,059,119	102,538,550
Interest Expense	3,139,893	3,053,529	3,381,630	3,673,773	3,271,875
Net interest income	2,469,350	2,613,646	2,688,409	2,596,343	2,801,014
Short-term assets	16,719,258	13,629,775	4,972,372	5,657,847	10,199,194
WACC	11.45%	11.63%	9.89%	11.37%	10.79%
Capital Invested	6,014,340	5,127,820	5,104,616	5,306,367	5,386,023
Financial Ratios					
ROA	1.00%	1.07%	1.11%	0.99%	1.06%
ROE	12.79%	12.90%	13.23%	9.21%	9.46%
EVA	6.14	6.18	6.23	6.16	6.27
Capital adequacy	8.38%	9.33%	8.93%	9.69%	10.06%
Asset quality	1.94%	1.64%	1.33%	1.32%	1.43%
Management	3.84%	3.47%	3.54%	3.67%	3.19%
Earning	1.70%	1.76%	1.67%	1.60%	1.70%
Liquidity	11.49%	9.16%	3.09%	3.49%	6.19%

Appendix 6

Malayan Banking Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	6,771,333	6,911,043	5,834,287	6,422,644	6,122,875
Total Assets	397,605,477	452,559,458	492,390,953	496,062,610	509,666,821
Total Equity	40,499,772	46,172,805	51,618,383	57,004,632	62,252,548
Net operating profit after tax	8,730,327	8,948,458	6,984,535	7,347,267	7,352,614
Total capital	42,675,937	50,492,224	57,982,530	63,406,680	62,753,300
Non-performing Loans	2,741,528	2,650,307	4,381,996	5,597,011	3,875,729
Total Loans	237,971,279	264,524,441	287,056,974	295,020,136	290,997,969
Interest Expense	6,721,191	8,147,985	6,423,163	6,923,742	7,306,999
Net interest income	9,585,280	9,703,703	8,328,372	8,152,611	8,792,946
Short-term assets	29,320,984	34,778,324	41,278,089	38,350,931	30,714,527
WACC	9.90%	8.50%	9.30%	9.35%	9.25%
Capital Invested	28,112,964	28,790,420	35,604,357	41,309,877	51,064,815
Financial Ratios					
ROA	1.70%	1.53%	1.18%	1.29%	1.20%
ROE	16.72%	14.97%	11.30%	11.27%	9.84%
EVA	6.77	6.81	6.57	6.54	6.42
Capital adequacy	10.73%	11.16%	11.78%	12.78%	12.31%
Asset quality	1.15%	1.00%	1.53%	1.90%	1.33%
Management	2.82%	3.08%	2.24%	2.35%	2.51%
Earning	2.41%	2.14%	1.69%	1.64%	1.73%
Liquidity	7.37%	7.68%	8.38%	7.73%	6.03%

Appendix 7

Public Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	3,705,115	4,029,602	3,988,629	4,023,905	5,060,539
Total Assets	252,839,439	286,667,566	292,272,391	303,809,743	313,664,765
Total Equity	18,822,055	25,943,161	27,945,187	29,773,502	32,641,180
Net operating profit after tax	4,747,072	5,118,353	4,986,445	5,105,268	6,365,582
Total capital	23,586,399	29,767,524	30,949,599	31,004,076	32,444,901
Non-performing Loans	2,125,565	1,965,840	1,968,543	2,026,986	2,125,721
Total Loans	182,404,573	201,928,027	219,872,074	232,794,693	240,576,248
Interest Expense	5,568,826	6,450,314	7,571,270	7,903,957	7,569,308
Net interest income	4,799,594	5,152,158	5,393,720	5,633,609	5,997,105
Short-term assets	12,750,086	11,008,446	9,098,632	5,059,890	6,387,571
WACC	9.80%	9.50%	9.30%	9.30%	9.30%
Capital Invested	5,391,124	5,310,503	5,499,668	6,401,522	6,702,646
Financial Ratios					
ROA	1.47%	1.41%	1.36%	1.32%	1.61%
ROE	19.68%	15.53%	14.27%	13.52%	15.50%
EVA	6.63	6.66	6.65	6.65	6.76
Capital adequacy	9.33%	10.38%	10.59%	10.21%	10.34%
Asset quality	1.17%	0.97%	0.90%	0.87%	0.88%
Management	3.05%	3.19%	3.44%	3.40%	3.15%
Earning	1.90%	1.80%	1.85%	1.85%	1.91%
Liquidity	5.04%	3.84%	3.11%	1.67%	2.04%

Appendix 8

RHB Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	1,843,538	2,063,464	1,668,552	1,687,588	1,956,040
Total Assets	191,089,907	219,354,436	227,938,347	236,678,829	230,209,926
Total Equity	16,942,727	18,894,086	17,692,487	21,773,867	23,184,428
Net operating profit after tax	2,898,602	2,823,711	2,544,987	3,094,506	3,200,194
Total capital	13,881,061	15,915,021	19,366,809	22,550,247	21,835,377
Non-performing Loans	4,122,777	3,704,991	4,070,140	4,661,442	4,121,726
Total Loans	119,542,545	140,693,003	149,579,973	152,350,304	158,301,463
Interest Expense	3,626,432	4,178,367	4,602,007	4,378,846	4,184,023
Net interest income	3,274,486	3,291,332	3,407,596	3,453,469	3,521,807
Short-term assets	9,998,667	16,236,908	12,881,395	14,682,943	9,951,878
WACC	7.80%	8.10%	9.50%	10.90%	8.50%
Capital Invested	2,952,433	3,193,806	3,414,447	3,715,645	3,463,171
Financial Ratios					
ROA	0.96%	0.94%	0.73%	0.71%	0.85%
ROE	10.88%	10.92%	9.43%	7.75%	8.44%
EVA	6.43	6.41	6.35	6.43	6.46
Capital adequacy	7.26%	7.26%	8.50%	9.53%	9.48%
Asset quality	3.45%	2.63%	2.72%	3.06%	2.60%
Management	3.03%	2.97%	3.08%	2.87%	2.64%
Earning	1.71%	1.50%	1.49%	1.46%	1.53%
Liquidity	5.23%	7.40%	5.65%	6.20%	4.32%

Appendix 9

United Overseas Bank (Malaysia) Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	991,986	1,294,284	1,067,546	1,102,331	1,153,777
Total Assets	89,798,386	94,026,228	95,292,063	100,415,676	101,849,923
Total Equity	6,064,164	7,074,757	7,687,380	8,409,801	9,221,716
Net operating profit after tax	1,543,690	1,919,576	1,639,477	1,717,687	1,818,031
Total capital	6,895,493	8,094,744	9,285,974	10,085,866	10,717,390
Non-performing Loans	775,570	707,098	854,466	872,015	907,062
Total Loans	61,479,326	67,115,580	71,058,275	76,630,127	77,675,030
Interest Expense	2,068,812	2,238,640	2,423,958	2,617,582	2,703,878
Net interest income	1,570,928	1,811,788	1,907,216	1,928,296	2,029,422
Short-term assets	15,104,134	10,833,347	7,735,351	11,805,740	8,438,916
WACC	7.41%	7.37%	7.33%	10.50%	7.33%
Capital Invested	351,615	156,558	99,030	123,663	303,204
Financial Ratios					
ROA	1.10%	1.38%	1.12%	1.10%	1.13%
ROE	16.36%	18.29%	13.89%	13.11%	12.51%
EVA	6.18	6.28	6.21	6.23	6.25
Capital adequacy	7.68%	8.61%	9.74%	10.04%	10.52%
Asset quality	1.26%	1.05%	1.20%	1.14%	1.17%
Management	3.37%	3.34%	3.41%	3.42%	3.48%
Earning	1.75%	1.93%	2.00%	1.92%	1.99%
Liquidity	16.82%	11.52%	8.12%	11.76%	8.29%

Appendix 10**OCBC Bank (Malaysia) Berhad**

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	838,277	763,307	745,308	655,272	757,233
Total Assets	74,392,728	80,469,171	82,047,448	81,981,799	79,469,599
Total Equity	5,431,766	5,710,211	5,627,657	5,834,068	6,084,020
Net operating profit after tax	1,117,333	1,120,413	1,162,081	1,014,513	1,118,135
Total capital	6,084,908	6,223,164	7,085,163	6,906,721	6,918,975
Non-performing Loans	987,346	769,186	840,253	891,489	736,614
Total Loans	48,935,917	53,470,126	58,580,383	57,799,889	57,742,824
Interest Expense	1,604,653	1,929,332	2,218,906	2,201,908	2,153,682
Net interest income	1,313,774	1,412,193	1,390,582	1,335,672	1,426,296
Short-term assets	9,102,977	7,780,124	4,862,227	7,449,587	6,437,013
WACC	10.10%	10.40%	11.30%	10.80%	8.30%
Capital Invested	847,377	907,544	993,301	1,216,057	1,242,452
Financial Ratios					
ROA	1.13%	0.95%	0.91%	0.80%	0.95%
ROE	15.43%	13.37%	13.24%	11.23%	12.45%
EVA	6.01	6.01	6.02	5.95	6.01
Capital adequacy	8.18%	7.73%	8.64%	8.42%	8.71%
Asset quality	2.02%	1.44%	1.43%	1.54%	1.28%
Management	3.28%	3.61%	3.79%	3.81%	3.73%
Earning	1.77%	1.75%	1.69%	1.63%	1.79%
Liquidity	12.24%	9.67%	5.93%	9.09%	8.10%

Appendix 11

Standard Chartered Bank (Malaysia) Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	491,576	377,220	8,673	296,507	336,450
Total Assets	50,682,105	51,152,615	47,132,166	44,243,896	41,588,968
Total Equity	3,778,829	4,048,705	4,039,939	4,328,605	4,551,177
Net operating profit after tax	912,537	810,574	686,778	709,924	575,936
Total capital	3,975,069	4,253,390	4,322,222	4,577,245	4,735,571
Non-performing Loans	1,250,426	701,082	984,838	807,245	774,318
Total Loans	29,163,612	26,706,380	22,886,385	22,427,136	22,102,389
Interest Expense	780,454	760,427	745,811	642,318	632,308
Net interest income	1,112,219	1,093,996	1,052,966	955,737	974,344
Short-term assets	6,794,448	6,013,052	5,907,593	5,345,827	4,843,476
WACC	11.20%	11.70%	11.90%	10.10%	11.80%
Capital Invested	564,050	569,441	553,857	561,363	587,354
Financial Ratios					
ROA	0.97%	0.74%	0.02%	0.67%	0.81%
ROE	13.01%	9.32%	0.21%	6.85%	7.39%
EVA	5.93	5.87	5.79	5.82	5.70
Capital adequacy	7.84%	8.32%	9.17%	10.35%	11.39%
Asset quality	4.29%	2.63%	4.30%	3.60%	3.50%
Management	2.68%	2.85%	3.26%	2.86%	2.86%
Earning	2.19%	2.14%	2.23%	2.16%	2.34%
Liquidity	13.41%	11.76%	12.53%	12.08%	11.65%

Appendix 12

Bangkok Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	15,642	6,582	13,938	31,196	20,556
Total Assets	3,552,393	4,961,142	4,303,371	4,238,235	4,677,061
Total Equity	572,314	765,877	782,940	812,002	1,235,642
Net operating profit after tax	36,076	43,836	59,463	36,713	25,464
Total capital	597,898	799,442	820,989	853,710	1,227,836
Non-performing Loans	2,112	102,751	46,709	37,782	2,586
Total Loans	2,493,493	2,781,245	2,693,380	2,725,493	2,793,570
Interest Expense	81,573	96,861	117,249	104,467	83,384
Net interest income	57,131	68,206	86,899	75,173	61,182
Short-term assets	295,502	697,994	135,893	283,434	672,547
WACC	12.80%	8.00%	8.70%	8.10%	6.85%
Capital Invested	16,515	14,500	6,019	3,733	2,062
Financial Ratios					
ROA	0.44%	0.13%	0.32%	0.74%	0.44%
ROE	2.73%	0.86%	1.78%	3.84%	1.66%
EVA	4.53	4.63	4.77	4.56	4.40
Capital adequacy	16.83%	16.11%	19.08%	20.14%	26.25%
Asset quality	0.08%	3.69%	1.73%	1.39%	0.09%
Management	3.27%	3.48%	4.35%	3.83%	2.98%
Earning	1.61%	1.37%	2.02%	1.77%	1.31%
Liquidity	8.32%	14.07%	3.16%	6.69%	14.38%

Appendix 13

Bank of China Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	51,746	104,087	103,252	113,110	114,762
Total Assets	9,769,855	8,967,954	8,447,335	9,208,091	12,518,520
Total Equity	506,036	1,066,641	1,169,893	1,283,003	1,398,928
Net operating profit after tax	78,081	145,423	149,634	158,016	180,894
Total capital	526,599	1,088,976	1,200,517	1,313,107	2,687,185
Non-performing Loans	14,072	12,341	38,104	75,016	62,247
Total Loans	2,796,973	5,052,027	4,722,114	5,183,247	5,881,389
Interest Expense	157,323	261,324	219,729	193,422	227,926
Net interest income	98,965	167,581	153,351	170,137	203,822
Short-term assets	4,461,023	3,605,813	1,948,595	3,133,474	3,077,307
WACC	8.08%	8.14%	7.97%	7.22%	7.34%
Capital Invested	4,503	4,627	26,454	32,501	37,515
Financial Ratios					
ROA	0.53%	1.16%	1.22%	1.23%	0.92%
ROE	10.23%	9.76%	8.83%	8.82%	8.20%
EVA	4.89	5.16	5.17	5.19	5.25
Capital adequacy	5.39%	12.14%	14.21%	14.26%	21.47%
Asset quality	0.50%	0.24%	0.81%	1.45%	1.06%
Management	5.62%	5.17%	4.65%	3.73%	3.88%
Earning	1.01%	1.87%	1.82%	1.85%	1.63%
Liquidity	45.66%	40.21%	23.07%	34.03%	24.58%

Appendix 14

Deutsche Bank Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	117,067	141,374	112,349	147,039	152,426
Total Assets	12,471,027	10,375,410	13,609,402	11,888,390	11,158,185
Total Equity	1,571,734	1,713,108	1,708,390	1,755,429	1,760,816
Net operating profit after tax	155,988	187,756	153,353	200,997	199,569
Total capital	1,557,069	1,580,125	1,689,307	1,731,019	1,581,896
Non-performing Loans	2,082	372	517	638	442
Total Loans	2,004,478	1,331,664	1,332,466	1,890,528	1,938,440
Interest Expense	90,949	85,748	74,461	71,784	57,896
Net interest income	146,864	122,096	114,582	132,567	127,732
Short-term assets	2,496,327	5,145,807	5,856,232	4,608,452	4,909,683
WACC	9.10%	9.30%	9.30%	9.15%	9.60%
Capital Invested	22,644	22,330	26,543	35,761	35,761
Financial Ratios					
ROA	0.94%	1.36%	0.83%	1.24%	1.37%
ROE	7.45%	8.25%	6.58%	8.38%	8.66%
EVA	5.19	5.27	5.18	5.30	5.29
Capital adequacy	12.49%	15.23%	12.41%	14.56%	14.18%
Asset quality	0.10%	0.03%	0.04%	0.03%	0.02%
Management	4.54%	6.44%	5.59%	3.80%	2.99%
Earning	1.18%	1.18%	0.84%	1.12%	1.14%
Liquidity	20.02%	49.60%	43.03%	38.76%	44.00%

Appendix 15

Citibank (Malaysia) Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	532,887	524,025	569,425	612,461	579,750
Total Assets	38,372,211	37,634,078	38,963,200	43,529,161	40,794,939
Total Equity	4,327,584	4,342,022	4,527,675	4,619,548	4,682,897
Net operating profit after tax	850,154	536,444	857,405	1,005,874	790,265
Total capital	4,542,195	4,620,357	4,743,600	4,909,581	4,342,361
Non-performing Loans	657,235	601,225	671,027	703,944	550,627
Total Loans	20,498,282	21,641,546	23,932,917	24,285,097	23,769,927
Interest Expense	448,500	427,722	426,212	414,763	339,574
Net interest income	1,092,262	1,165,879	1,096,432	1,148,341	941,485
Short-term assets	10,847,328	7,194,861	9,883,167	11,425,761	8,738,464
WACC	8.80%	8.90%	9.20%	8.70%	8.60%
Capital Invested	29,333	23,480	47,767	53,870	76,778
Financial Ratios					
ROA	1.39%	1.39%	1.46%	1.41%	1.42%
ROE	12.31%	12.07%	12.58%	13.26%	12.38%
EVA	5.93	5.73	5.93	6.00	5.89
Capital adequacy	11.84%	12.28%	12.17%	11.28%	10.64%
Asset quality	3.21%	2.78%	2.80%	2.90%	2.32%
Management	2.19%	1.98%	1.78%	1.71%	1.43%
Earning	2.85%	3.10%	2.81%	2.64%	2.31%
Liquidity	28.27%	19.12%	25.37%	26.25%	21.42%

Appendix 16

HSBC Bank Malaysia Berhad

Financial Items	2013 (RM'000)	2014 (RM'000)	2015 (RM'000)	2016 (RM'000)	2017 (RM'000)
Net profit	975,227	964,091	981,453	916,856	995,641
Total Assets	67,820,715	70,324,553	75,307,681	72,934,712	66,927,824
Total Equity	5,921,751	6,348,345	7,056,615	7,868,213	8,149,167
Net operating profit after tax	2,603,590	2,566,777	2,806,415	2,643,651	2,567,558
Total capital	6,142,261	6,455,274	7,039,580	7,671,898	7,609,592
Non-performing Loans	793,055	776,210	861,773	754,657	740,432
Total Loans	35,484,730	34,753,154	39,253,976	35,151,571	36,428,907
Interest Expense	882,635	905,086	987,008	860,168	817,744
Net interest income	1,439,647	1,561,196	1,582,977	1,529,470	1,573,984
Short-term assets	12,558,786	8,077,960	14,318,083	14,999,888	14,482,071
WACC	12.75%	12.80%	13.00%	13.00%	11.85%
Capital Invested	930,184	1,381,010	1,864,906	1,952,004	1,955,821
Financial Ratios					
ROA	1.44%	1.37%	1.30%	1.26%	1.49%
ROE	16.47%	15.19%	13.91%	11.65%	12.22%
EVA	6.40	6.38	6.41	6.38	6.37
Capital adequacy	9.06%	9.18%	9.35%	10.52%	11.37%
Asset quality	2.23%	2.23%	2.20%	2.15%	2.03%
Management	2.49%	2.60%	2.51%	2.45%	2.24%
Earning	2.12%	2.22%	2.10%	2.10%	2.35%
Liquidity	18.52%	11.49%	19.01%	20.57%	21.64%

Appendix 17

Eview Descriptive Analysis Output

Date: 07/08/18 Time: 18:01

Sample: 2013 2017

Mean	1.068500	10.82475	5.964750	10.93987	1.627875	3.276250	1.797375	12.80900
Median	1.085000	11.25000	6.080000	10.34500	1.430000	3.080000	1.750000	8.350000
Maximum	1.700000	19.68000	6.810000	26.25000	4.300000	6.440000	3.100000	45.66000
Minimum	0.130000	0.860000	4.400000	5.390000	0.020000	1.430000	0.840000	1.670000
Std. Dev.	0.310594	3.701581	0.573093	3.307208	1.014101	0.908774	0.398233	10.93275
Skewness	-0.517479	-0.483332	-0.916398	2.113080	0.601946	1.018087	0.577321	1.668744
Kurtosis	3.173982	3.457018	3.205602	8.999079	2.980632	4.441366	4.365934	5.053888
Jarque-Bera	3.671358	3.811013	11.33804	179.4979	4.832440	20.74514	10.66326	51.19096
Probability	0.159505	0.148747	0.003451	0.000000	0.089258	0.000031	0.004836	0.000000
Sum	85.48000	865.9800	477.1800	875.1900	130.2300	262.1000	143.7900	1024.720
Sum Sq. Dev.	7.621020	1082.434	25.94640	864.0725	81.24374	65.24368	12.52855	9442.469
Observations	80	80	80	80	80	80	80	80

Appendix 18

Eview Correlation Analysis Output for Model 1: ROA

	ROA	CA	AQ	MGMT	EA	LI
ROA	1.000000	-0.207501	-0.221503	-0.369076	0.390014	0.136154
CA	-0.207501	1.000000	-0.255194	0.137734	-0.127819	0.244301
AQ	-0.221503	-0.255194	1.000000	-0.368010	0.521322	-0.214663
MGMT	-0.369076	0.137734	-0.368010	1.000000	-0.503785	0.318291
EA	0.390014	-0.127819	0.521322	-0.503785	1.000000	-0.093990
LI	0.136154	0.244301	-0.214663	0.318291	-0.093990	1.000000



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Appendix 19

View Correlation Analysis Output for Model 2: ROE

	ROE	CA	AQ	MGMT	EA	LI
ROE	1.000000	-0.589230	-0.080481	-0.342016	0.360784	-0.119474
CA	-0.589230	1.000000	-0.255194	0.137734	-0.127819	0.244301
AQ	-0.080481	-0.255194	1.000000	-0.368010	0.521322	-0.214663
MGMT	-0.342016	0.137734	-0.368010	1.000000	-0.503785	0.318291
EA	0.360784	-0.127819	0.521322	-0.503785	1.000000	-0.093990
LI	0.119474	0.244301	-0.214663	0.318291	-0.093990	1.000000



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Appendix 20

Eview Correlation Analysis Output for Model 3: EVA

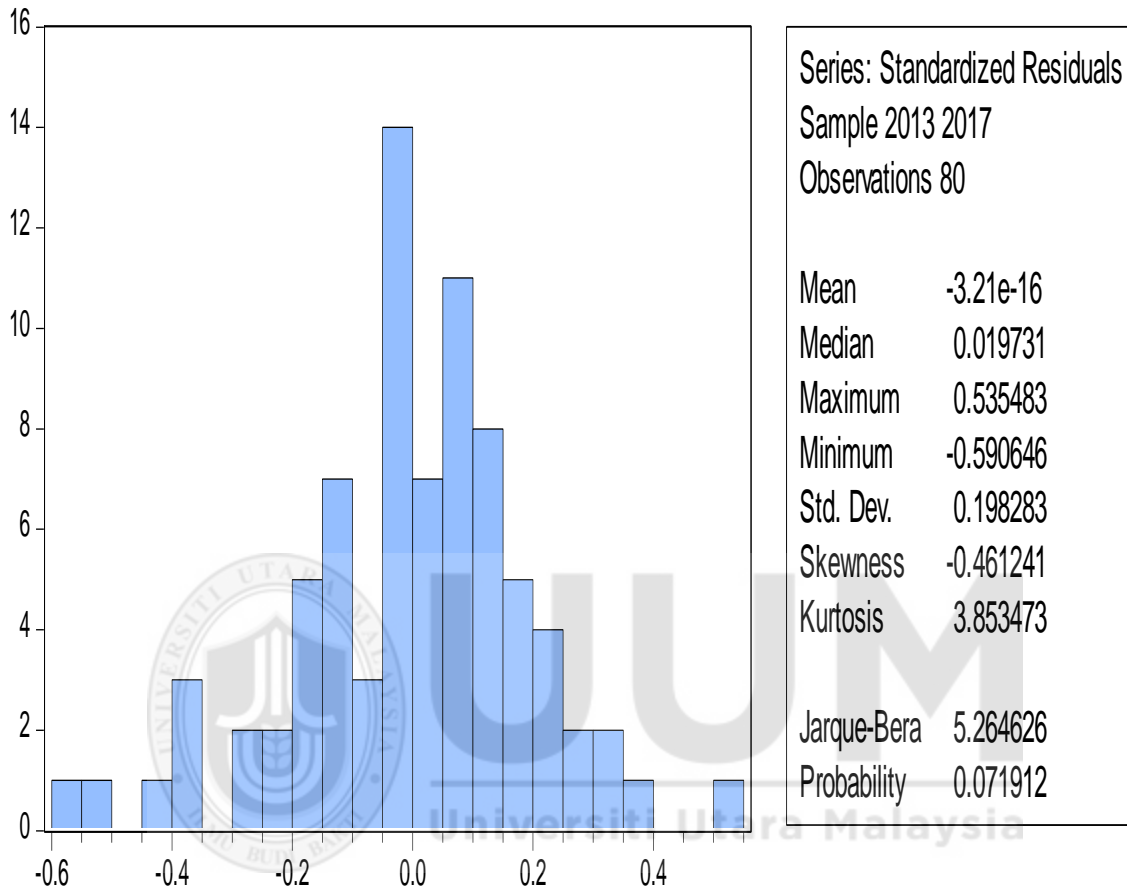
	EVA	CA	AQ	MGMT	EA	LI
EVA	1.000000	-0.639095	0.098844	-0.486412	0.278668	-0.476592
CA	-0.639095	1.000000	-0.255194	0.137734	-0.127819	0.244301
AQ	-0.098844	-0.255194	1.000000	-0.368010	0.521322	-0.214663
MGMT	-0.486412	0.137734	-0.368010	1.000000	-0.503785	0.318291
EA	0.278668	-0.127819	0.521322	-0.503785	1.000000	-0.093990
LI	-0.476592	0.244301	-0.214663	0.318291	-0.093990	1.000000



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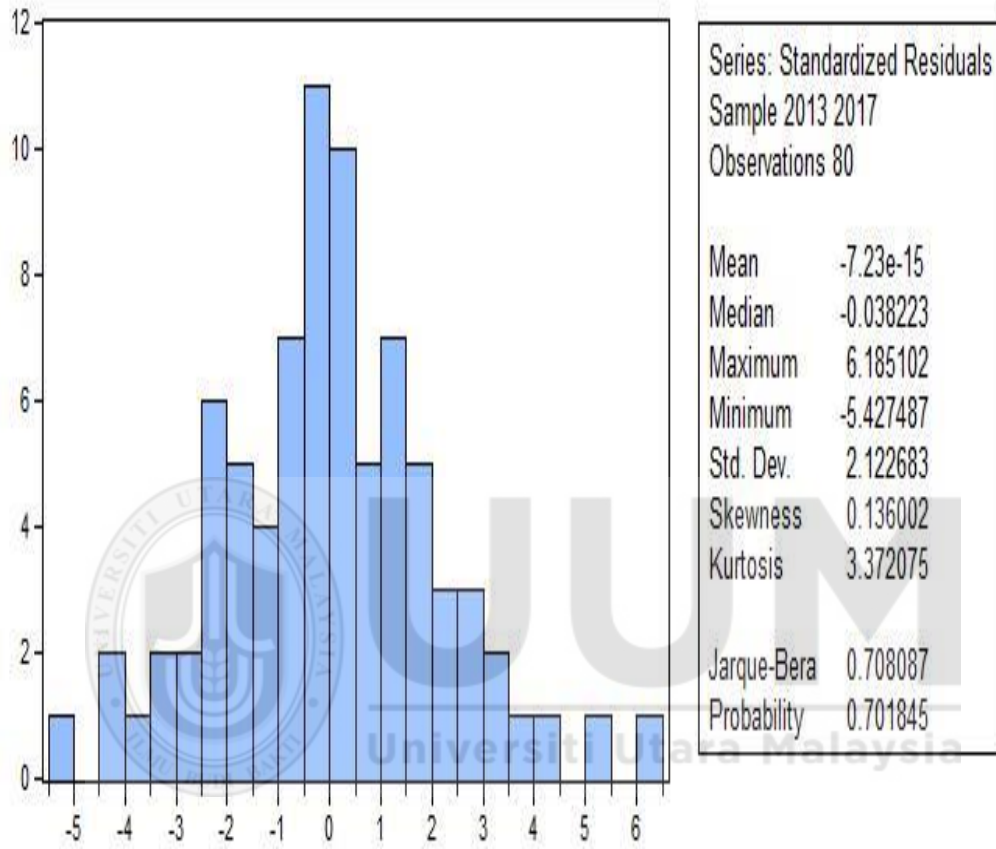
Appendix 21

View Normality Test Output for Model 1: ROA



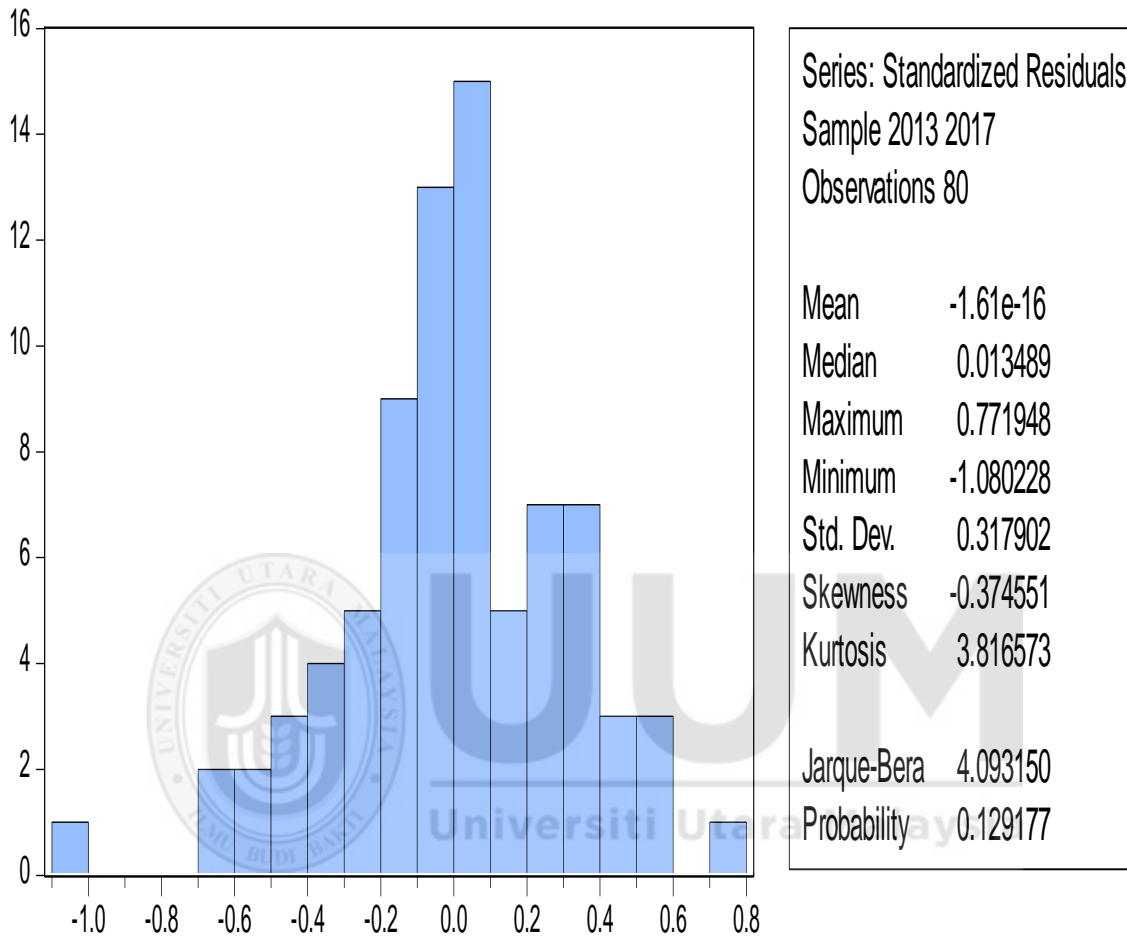
Appendix 22

View Normality Test Output for Model 2: ROE



Appendix 23

Eview Normality Test Output for Model 3: EVA



Appendix 24

View Panel Regression Analysis Output for Model 1: ROA

Dependent Variable: ROA
Method: Panel Least Squares
Date: 06/10/18 Time: 22:28
Sample: 2013 2017
Periods included: 5
Cross-sections included: 16
Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.326635	0.207616	6.389853	0.0000
CA	-0.029719	0.007358	-4.039016	0.0001
AQ	-0.203857	0.027741	-7.348534	0.0000
MGMT	-0.130535	0.031057	-4.203084	0.0001
EA	0.410914	0.074510	5.514852	0.0000
LI	0.006866	0.002304	2.980336	0.0039
R-squared	0.592447	Mean dependent var		1.068500
Adjusted R-squared	0.564910	S.D. dependent var		0.310594
S.E. of regression	0.204872	Akaike info criterion		-0.260823
Sum squared resid	3.105971	Schwarz criterion		-0.082171
Log likelihood	16.43293	Hannan-Quinn criter.		-0.189197
F-statistic	21.51428	Durbin-Watson stat		1.295544
Prob(F-statistic)	0.000000			

Appendix 25

Eview Panel Regression Analysis Output for Model 2: ROE

Dependent Variable: ROE
 Method: Panel Least Squares
 Date: 06/10/18 Time: 22:34
 Sample: 2013 2017
 Periods included: 5
 Cross-sections included: 16
 Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.69178	2.222596	7.959965	0.0000
CA	-0.728839	0.078770	-9.252728	0.0000
AQ	-2.058472	0.296979	-6.931381	0.0000
MGMT	-0.995943	0.332475	-2.995540	0.0037
EA	4.201526	0.797659	5.267323	0.0000
LI	0.013158	0.024661	0.533561	0.5952
R-squared	0.671152	Mean dependent var		10.82475
Adjusted R-squared	0.648932	S.D. dependent var		3.701581
S.E. of regression	2.193223	Akaike info criterion		4.480660
Sum squared resid	355.9567	Schwarz criterion		4.659312
Log likelihood	-173.2264	Hannan-Quinn criter.		4.552286
F-statistic	30.20554	Durbin-Watson stat		0.987892
Prob(F-statistic)	0.000000			

Appendix 26

Eview Panel Regression Analysis Output for Model 3: EVA

Dependent Variable: EVA
 Method: Panel Least Squares
 Date: 06/10/18 Time: 22:39
 Sample: 2013 2017
 Periods included: 5
 Cross-sections included: 16
 Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.845589	0.332865	23.56985	0.0000
CA	-0.101396	0.011797	-8.595071	0.0000
AQ	-0.185951	0.044477	-4.180865	0.0001
MGMT	-0.222283	0.049793	-4.464152	0.0000
EA	0.247388	0.119461	2.070868	0.0419
LI	-0.014464	0.003693	-3.916196	0.0002
R-squared	0.692293	Mean dependent var		5.964750
Adjusted R-squared	0.671502	S.D. dependent var		0.573093
S.E. of regression	0.328466	Akaike info criterion		0.683274
Sum squared resid	7.983875	Schwarz criterion		0.861926
Log likelihood	-21.33097	Hannan-Quinn criter.		0.754901
F-statistic	33.29778	Durbin-Watson stat		0.731348
Prob(F-statistic)	0.000000			