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**CORPORATE CASH HOLDING: AN EMPIRICAL
INVESTIGATION OF PUBLIC LISTED COMPANIES FOR
TRADING/SERVICE SECTOR IN MALAYSIA**

RUBADHARISHINI A/P CHELLIAH



MASTER OF SCIENCE

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TRADING/SERVICE SECTOR IN MALAYSIA**

PREPARED BY:

RUBADHARISHINI A/P CHELLIAH



UUM
Universiti Utara Malaysia

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(Management)



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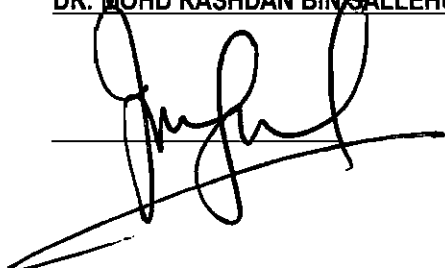
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ABSTRACT

This study investigates the empirical investigation between corporate cash holdings as the dependent variable and firm size, cash flow volatility, leverage and capital expenditure as independent variable by taking Malaysia trading/service sector of public listed companies as the sample over the period from 2014 to 2016. This study applied tradeoff and pecking order theory in order to show briefly on corporate cash holdings level. Descriptive analysis and hypothesis analysis are employed to analyze the relationship between those variables. The findings of this study reveal that firm size and leverage are negatively correlated to corporate cash holdings while cash flow volatility and capital expenditure highlights positive relationship to corporate cash holdings as for both tradeoff and pecking order theory. The excess cash holdings are a sign that the firm tends to retain the cash rather than pay it via dividends and there is a possibility that the cash is employed for non-pecuniary benefits which is not analogous to the shareholders' interest. The negative relationship shown by firm size might suggest that larger the firm size enables a firm to gather retain earnings where precisely debt is not important. For leverage, the negative relationship might indicate that corporations having ability to issue new debts holds less cash and used to fund new investments. The positive relationship is exhibited by cash flow volatility and capital expenditure. Companies fail to finance all profitable projects and faces larger cost of external financing where company can be short of liquid asset as suggested by both theories. Companies with high capital expenditure will face high amount of cash due to high cost in capital market reflects financial distress.

Keywords: corporate cash holdings, firm size, cash flow volatility, leverage, capital expenditure, tradeoff theory, pecking order theory

ABSTRAK

Kajian ini menyiasat empirikal antara pegangan tunai korporat sebagai pembolehubah bergantung dan saiz firma, turun-naik aliran tunai, leverage dan perbelanjaan modal sebagai pemboleh ubah bebas untuk syarikat-syarikat dari sektor Perdagangan/Perkhidmatan di Malaysia dari tahun 2014 hingga 2016. Kajian ini menggunakan teori perintah dan teori perdagangan untuk menunjukkan secara ringkas tahap pegangan tunai korporat. Analisis deskriptif dan analisis hipotesis digunakan untuk menganalisis hubungan antara pembolehubah yang digunakan dalam kajian ini. Hasil dari dapatan kajian ini mendedahkan bahawa saiz firma dan leverage menunjukkan gambaran korelasi antara pembolehubah. Pegangan tunai lebih adalah tanda-tanda bahawa firma cenderung untuk mengekalkan tunai dan bukannya membayar melalui dividen dan terdapat kemungkinan bahawa tunai digunakan untuk faedah-faedah bayaran yang tidak serupa kepada kepentingan pemegang-pemegang saham. Hubungan negatif yang ditunjukkan oleh saiz firma mencadangkan bahawa saiz syarikat yang lebih besar membolehkan saiz firma untuk mengekalkan pendapatan di mana hutang adalah tidak penting. Manakala, bagi leverage, hubungan negatif menunjukkan bahawa syarikat-syarikat yang mempunyai keupayaan untuk mengeluarkan hutang baru memegang tunai yang rendah dan digunakan untuk membiayai pelaburan baru. Hubungan positif ditunjukkan oleh turun-naik aliran tunai dan perbelanjaan modal. Syarikat gagal untuk membiayai semua keuntungan projek dan menghadapi kos luaran pembiayaan yang besar di mana syarikat boleh kekurangan aset sebagaimana yang dicadangkan oleh kedua-dua teori ini. Syarikat dengan perbelanjaan modal yang tinggi akan menghadapi jumlah tunai disebabkan oleh kos yang tinggi dalam pasaran modal dan mencerminkan dalam kesulitan kewangan.

Kata kunci: pegangan tunai korporat, saiz firma, turun-naik aliran tunai, leverage, perbelanjaan modal, teori perintah, teori perdagangan

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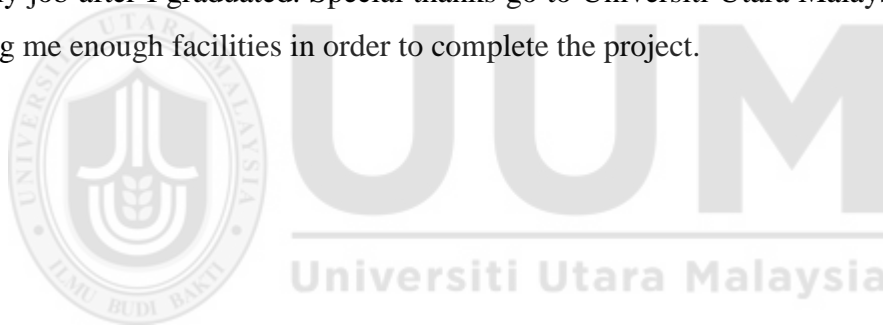


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LIST OF ABREBRIATIONS

TOT	Trade-off theory
POT	Pecking order theory
H1	Hypothesis 1
H2	Hypothesis 2
H3	Hypothesis 3
H4	Hypothesis 4
CASH	Corporate cash holding
FSIZE	Firm Size
CFV	Cash flow volatility
LEV	Leverage
CAPEX	Capital expenditure



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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter will assist as a preliminary segment of the research. The outline of the determinants of cash holdings for trading/service sector in Malaysia public listed companies are reviewed and observed. Moreover, the objectives of the research are presented in order to framework the enthusiasm of this study.

In addition, elements that will be explained in this chapter are the overview of the importance and determinants of corporate cash holdings, the problem statements, analyzing the research questions, discussion on the objectives of the research to be achieved upon the completion of research paper and explanation on the rationalization of the significance of the study. Finally, review on the structure of research paper is developed.

1.2 Background of the Study

In financial environment without asymmetric information, taxes and agency and transaction costs, firms would not have need to hold cash since there are no benefits or costs of allocating cash. The best clarification for determinants of holding cash was proposed by (Keynes, 1936). Keynesian monetary hypothesis expressed that both the state government and private divisions assumes an imperative part in the soundness of economy. Cash is the liquid of economy where government needs legitimate financial and monetary arrangement and firms need satisfactory cash to support its liquidity. In his distribution, Keynes (1936) illustrated three reasons or thought processes in holding cash.

- Transaction motive – cash is held to pay for goods or services. It is helpful for directing ordinary transactions or purchases.

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LIST OF APPENDICES

Appendix A: Public Listed Companies (Trading/Service Sector)

Companies on Bursa Malaysia listed under the Main Markets.

Company	Category	Market Cap	Last Price	PE	DY	ROE
AAX (5238) AIRASIA X BERHAD	Trading-Services	1.452b	0.35	27.13	0.00	5.38
AEGB (5166) ASIAMET EDUCATION GROUP BERHAD	Trading-Services	65.58m	0.16	-	62.50	-34.74
AEON (6599) AEON CO. (M) BHD	Trading-Services	2.541b	1.81	30.32	1.66	4.42
AHB (7315) AHB HOLDINGS BERHAD	Trading-Services	51.93m	0.30	61.46	0.00	0.53
AIM (0122) ADVANCE INFORMATION MARKETING BERHAD	Trading-Services	66.51m	0.25	-	0.00	-3.07
AIRASIA (5099) AIRASIA BERHAD	Trading-Services	10.594b	3.17	6.11	3.79	27.88
AIRPORT (5014) MALAYSIA AIRPORTS HOLDINGS BERHAD	Trading-Services	13.522b	8.15	55.90	1.23	2.75
ALAM (5115) ALAM MARITIM RESOURCES BERHAD	Trading-Services	157.16m	0.17	-	0.00	-19.05
AMEDIA (0159) ASIA MEDIA GROUP BERHAD	Trading-Services	20.35m	0.09	-	0.00	-17.78
AMWAY (6351) AMWAY (MALAYSIA) HOLDINGS BERHAD	Trading-Services	1.159b	7.05	22.87	4.26	24.28
ANALABS (7083) ANALABS RESOURCES BERHAD	Trading-Services	135.65m	2.26	12.50	1.44	4.19
ANCOMLB (0048) ANCOM LOGISTICS BERHAD	Trading-Services	54.43m	0.12	-	0.00	-15.60

APFT (5194) APFT BERHAD	Trading-Services	30.98m	0.03	-	0.00	-
ARMADA (5210) BUMI ARMADA BERHAD	Trading-Services	4.341b	0.74	-	1.11	-17.89
ASB (1481) ADVANCE SYNERGY BERHAD	Trading-Services	91.50m	0.14	38.57	1.85	0.54
ASIABIO (0150) ASIA BIOENERGY TECHNOLOGIES BERHAD	Trading-Services	81.06m	0.18	1.19	0.00	62.27
ASTRO (6399) ASTRO MALAYSIA HOLDINGS BERHAD	Trading-Services	14.807b	2.84	20.06	4.40	108.09
ATLAN (7048) ATLAN HOLDINGS BHD.	Trading-Services	1.106b	4.36	21.96	2.52	10.08
AVI (8885) AVILLION BERHAD	Trading-Services	287.61m	0.34	-	0.00	-1.90
AWC (7579) AWC BERHAD	Trading-Services	262.27m	0.98	12.36	2.04	14.31
AXIATA (6888) AXIATA GROUP BERHAD	Trading-Services	48.134b	5.32	83.65	1.50	2.28
AYS (5021) AYS VENTURES BERHAD	Trading-Services	171.19m	0.45	7.00	5.56	9.89
BARAKAH (7251) BARAKAH OFFSHORE PETROLEUM BERHAD	Trading-Services	330.56m	0.40	-	0.00	-49.82
BAUTO (5248) BERMAZ AUTO BERHAD	Trading-Services	2.402b	2.08	24.47	5.60	22.97
BCMALL (0187) BCM ALLIANCE BERHAD	Trading-Services	73.72m	0.18	22.73	2.29	8.56
BHS (7241) BHS INDUSTRIES BERHAD	Trading-Services	169.60m	0.37	-	0.00	-9.12
BINTAI (6998) BINTAI KINDEN CORPORATION BERHAD	Trading-Services	50.68m	0.18	-	0.00	-10.39
BIPORT (5032)	Trading-Services	2.783b	6.05	18.27	3.97	12.77

BINTULU PORT HOLDINGS BERHAD						
BISON (5275) BISON CONSOLIDATED BERHAD	Trading-Services	903.85m	2.65	39.20	0.75	12.29
BJCORP (3395) BERJAYA CORPORATION BERHAD	Trading-Services	1.896b	0.39	11.92	2.60	2.32
BJFOOD (5196) BERJAYA FOOD BERHAD	Trading-Services	659.72m	1.73	56.54	2.02	2.89
BJLAND (4219) BERJAYA LAND BERHAD	Trading-Services	2.050b	0.41	6.52	0.00	6.99
BJMEDIA (6025) BERJAYA MEDIA BERHAD	Trading-Services	89.33m	0.38	-	0.00	-67.08
BJTOTO (1562) BERJAYA SPORTS TOTO BERHAD	Trading-Services	3.053b	2.26	11.89	6.19	32.78
BORNOIL (7036) BORNEO OIL BERHAD	Trading-Services	443.07m	0.09	10.59	0.00	6.07
BRAHIMS (9474) BRAHIM'S HOLDINGS BERHAD	Trading-Services	118.14m	0.50	-	0.00	-27.94
BSTEAD (2771) BOUSTEAD HOLDINGS BERHAD	Trading-Services	6.081b	3.00	26.64	5.83	4.04
BTECH (0011) BRITE-TECH BERHAD	Trading-Services	75.60m	0.30	19.35	5.10	7.05
CARIMIN (5257) CARIMIN PETROLEUM BERHAD	Trading-Services	80.69m	0.35	-	0.00	-3.97
CARING (5245) CARING PHARMACY GROUP BERHAD	Trading-Services	413.64m	1.90	26.43	1.58	11.60
CCB (2925) CYCLE & CARRIAGE BINTANG BERHAD	Trading-Services	205.52m	2.04	26.84	2.45	2.59
CENTURY (7117) CENTURY LOGISTICS HOLDINGS BERHAD	Trading-Services	400.65m	1.02	22.27	3.43	5.72
CHEETAH (7209) CHEETAH HOLDINGS BERHAD	Trading-Services	58.71m	0.46	33.09	1.30	1.26

CHINHIN (5273) CHIN HIN GROUP BERHAD	Trading-Services	656.54m	1.18	14.92	2.97	10.14
CHUAN (7016) CHUAN HUAT RESOURCES BHD	Trading-Services	84.33m	0.50	12.38	3.60	2.52
CNI (5104) CNI HOLDINGS BERHAD	Trading-Services	50.40m	0.07	-	4.29	-2.18
COMPLET (5136) COMPLETE LOGISTIC SERVICES BERHAD	Trading-Services	87.87m	0.71	12.48	0.00	5.27
COMPUGT (5037) COMPUGATES HOLDINGS BERHAD	Trading-Services	70.43m	0.03	-	0.00	-6.80
CYPARK (5184) CYPARK RESOURCES BERHAD	Trading-Services	673.92m	2.58	13.12	2.02	10.51
DANCO (5276) DANCOMECH HOLDINGS BERHAD	Trading-Services	137.08m	0.46	12.50	6.52	10.51
DAYA (0091) DAYA MATERIALS BERHAD	Trading-Services	153.22m	0.08	-	0.00	- 247.74
DAYANG (5141) DAYANG ENTERPRISE HOLDINGS BERHAD	Trading-Services	598.18m	0.62	-	0.00	-5.50
DELEUM (5132) DELEUM BERHAD	Trading-Services	384.19m	0.96	13.39	3.65	9.31
DESTINI (7212) DESTINI BERHAD	Trading-Services	496.75m	0.43	13.44	0.00	7.32
DIALOG (7277) DIALOG GROUP BERHAD	Trading-Services	13.709b	2.43	30.45	1.09	13.41
DKSH (5908) DKSH HOLDINGS (MALAYSIA) BERHAD	Trading-Services	630.63m	4.00	12.67	2.38	9.01
DNEX (4456) DAGANG NEXCHANGE BERHAD	Trading-Services	719.70m	0.41	9.93	3.66	16.52
DSOINIC (5216) DATASONIC GROUP BERHAD	Trading-Services	1.566b	1.16	25.61	3.45	23.35
EASTLND (2097)	Trading-Services	36.85m	0.15	-	0.00	-3.88

EASTLAND EQUITY BHD						
EATECH (5259) E.A.TECHNIQUE (M) BERHAD	Trading-Services	221.76m	0.44	-	5.11	-47.11
EDARAN (5036) EDARAN BERHAD	Trading-Services	30.00m	0.50	-	0.00	-2.80
EDEN (7471) EDEN INC. BERHAD	Trading-Services	57.60m	0.19	-	0.00	-12.95
EDGENTA (1368) UEM EDGENTA BERHAD	Trading-Services	2.204b	2.65	20.06	3.02	8.15
EFFICEN (0064) EFFICIENT E-SOLUTIONS BERHAD	Trading-Services	223.38m	0.32	-	5.40	-5.95
EIG (5081) ESTHETICS INTERNATIONAL GROUP BERHAD	Trading-Services	170.78m	0.72	20.81	4.17	4.49
EITA (5208) EITA RESOURCES BERHAD	Trading-Services	218.40m	1.68	10.97	2.38	12.66
ENGTEX (5056) ENGTEX GROUP BERHAD	Trading-Services	509.82m	1.15	9.10	0.87	7.57
FIAMMA (6939) FIAMMA HOLDINGS BERHAD	Trading-Services	265.01m	0.50	11.76	3.00	4.83
FITTERS (9318) FITTERS DIVERSIFIED BERHAD	Trading-Services	192.20m	0.40	-	1.50	-2.33
FOCUSP (0157) FOCUS POINT HOLDINGS BERHAD	Trading-Services	33.00m	0.20	-	0.00	-0.64
FREIGHT (7210) FREIGHT MANAGEMENT HOLDINGS BERHAD	Trading-Services	232.69m	1.25	10.73	4.00	8.57
FRONTKN (0128) FRONTKEN CORPORATION BERHAD	Trading-Services	410.84m	0.39	13.31	1.28	11.27
FSBM (9377) FSBM HOLDINGS BERHAD	Trading-Services	25.44m	0.18	-	0.00	-40.20
GASMSIA (5209) GAS MALAYSIA BERHAD	Trading-Services	3.454b	2.69	20.41	4.78	17.41

GDEX (0078) GD EXPRESS CARRIER BERHAD	Trading-Services	3.402b	0.61	92.42	1.64	8.25
GENM (4715) GENTING MALAYSIA BERHAD	Trading-Services	30.462b	5.13	12.71	3.22	11.87
GENTING (3182) GENTING BERHAD	Trading-Services	34.396b	8.93	14.37	1.40	6.83
GETS (5079) GETS GLOBAL BERHAD	Trading-Services	27.72m	0.22	-	0.00	-1.09
GKENT (3204) GEORGE KENT (MALAYSIA) BERHAD	Trading-Services	1.955b	3.47	17.80	2.88	25.88
GUNUNG (7676) GUNUNG CAPITAL BERHAD	Trading-Services	88.57m	0.38	-	0.00	-5.68
HAIO (7668) HAI-O ENTERPRISE BERHAD	Trading-Services	1.560b	5.20	23.15	2.88	21.19
HANDAL (7253) HANDAL RESOURCES BERHAD	Trading-Services	35.20m	0.22	-	0.00	-6.93
HAPSENG (3034) HAP SENG CONSOLIDATED BERHAD	Trading-Services	23.602b	9.48	22.14	3.69	17.41
HARBOUR (2062) HARBOUR-LINK GROUP BERHAD	Trading-Services	276.28m	0.69	10.03	2.17	7.73
HARISON (5008) HARRISONS HOLDINGS (MALAYSIA) BERHAD	Trading-Services	274.64m	4.01	12.43	6.23	7.35
HSSEB (0185) HSS ENGINEERS BERHAD	Trading-Services	430.76m	1.35	26.73	0.47	18.70
HUBLINE (7013) HUBLINE BERHAD	Trading-Services	247.02m	0.12	-	0.00	-9.33
ICON (5255) ICON OFFSHORE BERHAD	Trading-Services	282.52m	0.24	-	0.00	-29.62
IHH (5225) IHH HEALTHCARE BERHAD	Trading-Services	46.469b	5.64	56.23	0.53	3.70
ILB (5614)	Trading-Services	134.57m	0.69	-	3.62	-3.83

INTEGRATED LOGISTICS BHD						
INNITY (0147) INNITY CORPORATION BERHAD	Trading-Services	89.96m	0.65	-	0.00	-12.03
IPMUDA (5673) IPMUDA BERHAD	Trading-Services	56.89m	0.79	-	3.82	-6.61
JCBNEXT (0058) JCBNEXT BERHAD	Trading-Services	233.80m	1.67	28.84	1.20	2.41
KAB (0193) KEJURUTERAAN ASASTERA BERHAD	Trading-Services	83.20m	0.26	-	0.00	-
KAMDAR (8672) KAMDAR GROUP (M) BERHAD	Trading-Services	70.29m	0.36	40.80	0.00	0.77
KFIMA (6491) KUMPULAN FIMA BERHAD	Trading-Services	468.50m	1.66	11.87	5.42	5.24
KGB (0151) KELINGTON GROUP BERHAD	Trading-Services	170.08m	0.74	13.91	1.35	16.12
KNUSFOR (5035) KNUSFORD BERHAD	Trading-Services	92.17m	0.93	-	2.16	-5.93
KPJ (5878) KPJ HEALTHCARE BERHAD	Trading-Services	4.260b	1.00	27.79	5.93	9.18
KPS (5843) KUMPULAN PERANGSANG SELANGOR BERHAD	Trading-Services	673.66m	1.35	17.18	3.15	2.86
KPSCB (9121) KPS CONSORTIUM BERHAD	Trading-Services	79.09m	0.54	8.93	0.00	3.54
KTB (4847) KONSORTIUM TRANSNASIONAL BERHAD	Trading-Services	56.39m	0.14	-	0.00	-27.24
KTC (0180) KIM TECK CHEONG CONSOLIDATED BERHAD	Trading-Services	91.85m	0.18	90.00	0.00	1.11
KUB (6874) KUB MALAYSIA BERHAD	Trading-Services	236.50m	0.43	8.55	2.35	8.88
LFECORP (7170) LFE CORPORATION BERHAD	Trading-Services	45.53m	0.25	-	0.00	-3.64

LIONFIB (8486) LION FOREST INDUSTRIES BERHAD	Trading-Services	167.89m	0.73	6.19	0.00	4.84
LUXCHEM (5143) LUXCHEM CORPORATION BERHAD	Trading-Services	637.86m	0.76	14.25	9.27	17.67
M&G (5078) MARINE & GENERAL BERHAD	Trading-Services	155.63m	0.22	0.57	69.77	86.09
MAGNUM (3859) MAGNUM BERHAD	Trading-Services	2.459b	1.71	12.36	7.60	7.90
MALAKOF (5264) MALAKOFF CORPORATION BERHAD	Trading-Services	4.650b	0.93	13.04	7.53	5.94
MARCO (3514) MARCO HOLDINGS BERHAD	Trading-Services	147.60m	0.14	9.15	3.57	9.00
MAXIS (6012) MAXIS BERHAD	Trading-Services	46.082b	5.90	21.56	3.39	31.09
MAYBULK (5077) MALAYSIAN BULK CARRIERS BERHAD	Trading-Services	810.00m	0.81	-	0.00	-75.44
MBMR (5983) MBM RESOURCES BHD	Trading-Services	828.68m	2.12	17.85	2.83	2.85
MCLEAN (0167) MCLEAN TECHNOLOGIES BERHAD	Trading-Services	32.18m	0.18	-	0.00	-2.50
MEDIA (4502) MEDIA PRIMA BERHAD	Trading-Services	770.89m	0.70	-	11.51	-23.36
MEDIAC (5090) MEDIA CHINESE INTERNATIONAL LIMITED	Trading-Services	700.20m	0.42	14.98	7.35	5.52
MEGASUN (0081) MEGA SUN CITY HOLDINGS BERHAD	Trading-Services	52.65m	0.24	13.26	0.00	6.24
MESB (7234) MESB BERHAD	Trading-Services	55.69m	1.02	-	0.00	-4.52
MFCB (3069) MEGA FIRST CORPORATION BERHAD	Trading-Services	1.475b	3.59	9.74	1.39	11.27
MHB (5186)	Trading-Services	1.352b	0.85	-	0.00	-5.28

MALAYSIA MARINE AND HEAVY ENGINEERING HOLDINGS BERHAD						
MISC (3816) MISC BERHAD	Trading-Services	31.291b	7.01	12.81	4.28	6.71
MMCCORP (2194) MMC CORPORATION BERHAD	Trading-Services	5.877b	1.93	14.41	2.07	4.29
MMODE (0059) M-MODE BERHAD	Trading-Services	58.58m	0.36	-	1.67	-
MTRONIC (0043) METRONIC GLOBAL BERHAD	Trading-Services	42.72m	0.05	-	0.00	-11.75
MUIIND (3891) MALAYAN UNITED INDUSTRIES BERHAD	Trading-Services	630.50m	0.22	-	0.00	-22.23
MULPHA (3905) MULPHA INTERNATIONAL BERHAD	Trading-Services	818.22m	2.56	3.70	0.00	6.89
MYEG (0138) MY E.G. SERVICES BERHAD	Trading-Services	7.285b	2.02	34.06	0.84	35.30
NATWIDE (9806) NATIONWIDE EXPRESS HOLDINGS BERHAD	Trading-Services	79.95m	0.67	-	0.00	-17.94
NICORP (4464) NAIM INDAH CORPORATION BERHAD	Trading-Services	48.21m	0.06	-	0.00	-4.24
OCB (5533) OCB BERHAD	Trading-Services	66.85m	0.65	23.72	1.54	1.18
OCK (0172) OCK GROUP BERHAD	Trading-Services	758.18m	0.87	26.36	0.69	6.60
OLDTOWN (5201) OLDTOWN BERHAD	Trading-Services	1.126b	2.43	16.99	4.12	15.89
OLYMPIA (3018) OLYMPIA INDUSTRIES BERHAD	Trading-Services	127.93m	0.13	4.70	0.00	6.82
OVERSEA (0153) OVERSEA ENTERPRISE BERHAD	Trading-Services	50.52m	0.21	-	1.46	-1.19
OWG (5260) ONLY WORLD GROUP HOLDINGS BERHAD	Trading-Services	301.28m	1.17	45.00	2.39	2.89

PANSAR (8419) PANSAR BERHAD	Trading-Services	113.40m	0.41	17.84	2.47	3.78
PANTECH (5125) PANTECH GROUP HOLDINGS BERHAD	Trading-Services	476.28m	0.64	10.98	2.81	7.99
PARKSON (5657) PARKSON HOLDINGS BERHAD	Trading-Services	601.65m	0.55	-	0.00	-4.12
PASUKGB (0177) PASUKHAS GROUP BERHAD	Trading-Services	109.56m	0.14	-	0.00	-3.93
PBA (5041) PBA HOLDINGS BHD	Trading-Services	400.84m	1.21	7.05	3.31	6.84
PDZ (6254) PDZ HOLDINGS BHD	Trading-Services	34.77m	0.16	-	0.00	-
PENERGY (5133) PETRA ENERGY BERHAD	Trading-Services	254.18m	0.79	-	6.33	-19.40
PERDANA (7108) PERDANA PETROLEUM BERHAD	Trading-Services	1.199b	1.54	-	0.00	-24.96
PERISAI (0047) PERISAI PETROLEUM TEKNOLOGI BHD	Trading-Services	44.13m	0.04	-	0.00	-
PERMAJU (7080) PERMAJU INDUSTRIES BERHAD	Trading-Services	51.92m	0.27	-	0.00	-8.92
PESTECH (5219) PESTECH INTERNATIONAL BERHAD	Trading-Services	1.269b	1.66	14.08	1.81	18.83
PETDAG (5681) PETRONAS DAGANGAN BHD	Trading-Services	23.724b	23.88	15.58	2.93	25.71
PETONE (7027) PETROL ONE RESOURCES BERHAD	Trading-Services	2.79m	0.06	4.04	0.00	-
PHARMA (7081) PHARMANIAGA BERHAD	Trading-Services	963.94m	3.71	30.92	4.31	5.85
PICORP (7201) PROGRESSIVE IMPACT CORPORATION BERHAD	Trading-Services	85.54m	0.13	-	4.69	-9.15
PINEAPP (0006)	Trading-Services	20.37m	0.42	75.00	0.00	1.04

PINEAPPLE RESOURCES BERHAD						
PJBUMI (7163) PJBUMI BERHAD	Trading-Services	23.78m	0.29	-	0.00	-13.74
PLABS (0171) PETERLABS HOLDINGS BERHAD	Trading-Services	62.27m	0.29	17.79	2.41	7.84
POS (4634) POS MALAYSIA BERHAD	Trading-Services	4.180b	5.34	40.89	2.00	5.37
PRESBHD (5204) PRESTARIANG BERHAD	Trading-Services	643.72m	1.33	42.90	2.26	9.06
PRKCORP (8346) PERAK CORPORATION BERHAD	Trading-Services	139.00m	1.39	-	21.58	-1.03
PTRANS (0186) PERAK TRANSIT BERHAD	Trading-Services	358.36m	0.29	12.67	2.46	13.31
PUC (0007) PUC BERHAD	Trading-Services	280.10m	0.21	170.83	0.00	0.73
RA (0110) R&A TELECOMMUNICATION GROUP BERHAD	Trading-Services	4.83m	0.01	-	0.00	-
RANHILL (5272) RANHILL HOLDINGS BERHAD	Trading-Services	652.91m	0.74	9.02	10.61	12.16
REDTONE (0032) REDTONE INTERNATIONAL BERHAD	Trading-Services	291.89m	0.39	-	0.52	-1.96
REV (0173) REV ASIA BERHAD	Trading-Services	55.20m	0.41	1.04	107.32	786.60
RGB (0037) RGB INTERNATIONAL BHD	Trading-Services	395.46m	0.30	14.75	2.03	12.50
RHONEMA (5278) RHONE MA HOLDINGS BERHAD	Trading-Services	146.08m	0.88	17.19	4.55	8.53
SALCON (8567) SALCON BERHAD	Trading-Services	291.41m	0.43	-	4.65	-1.91
SAMCHEM (5147) SAMCHEM HOLDINGS BERHAD	Trading-Services	272.00m	1.00	14.97	5.50	13.92

SANBUMI (9113) SANBUMI HOLDINGS BERHAD	Trading-Services	45.27m	0.20	-	0.00	-6.89
SAPNRG (5218) SAPURA ENERGY BERHAD	Trading-Services	7.430b	1.24	177.14	0.81	0.33
SCC (0158) SCC HOLDINGS BERHAD	Trading-Services	74.11m	0.53	12.30	19.05	15.25
SCH (0161) SCH GROUP BERHAD	Trading-Services	82.45m	0.20	45.45	7.50	2.82
SCICOM (0099) SCICOM (MSC) BERHAD	Trading-Services	590.05m	1.66	13.30	5.42	41.60
SCOMI (7158) SCOMI GROUP BERHAD	Trading-Services	278.04m	0.15	-	0.00	-21.56
SCOMIES (7045) SCOMI ENERGY SERVICES BHD	Trading-Services	316.14m	0.14	-	0.00	-17.87
SEEHUP (7053) SEE HUP CONSOLIDATED BERHAD	Trading-Services	52.84m	1.01	-	2.67	-1.06
SEG (9792) SEG INTERNATIONAL BHD	Trading-Services	815.44m	0.65	22.09	32.56	28.91
SEM (5250) 7-ELEVEN MALAYSIA HOLDINGS BERHAD	Trading-Services	1.862b	1.51	42.54	3.11	73.96
SERBADK (5279) SERBA DINAMIK HOLDINGS BERHAD	Trading-Services	4.165b	3.12	12.63	1.67	24.22
SIME (4197) SIME DARBY BERHAD	Trading-Services	60.800b	8.94	18.83	2.57	8.38
SJC (9431) SENI JAYA CORPORATION BERHAD	Trading-Services	24.32m	0.60	-	1.67	-1.17
SMRT (0117) SMRT HOLDINGS BERHAD	Trading-Services	56.06m	0.16	-	0.00	- 103.74
SOLID (5242) SOLID AUTOMOTIVE BERHAD	Trading-Services	144.59m	0.37	33.04	4.32	1.35
STAR (6084)	Trading-Services	974.90m	1.32	3.42	27.27	27.75

STAR MEDIA GROUP BERHAD						
STERPRO (0140) STERLING PROGRESS BERHAD	Trading-Services	50.27m	0.18	-	0.00	- 149.50
STRAITS (0080) STRAITS INTER LOGISTICS BERHAD	Trading-Services	97.49m	0.27	51.96	0.00	5.26
SUIWAH (9865) SUIWAH CORPORATION BERHAD	Trading-Services	161.65m	2.65	14.86	0.38	5.64
SUMATEC (1201) SUMATEC RESOURCES BERHAD	Trading-Services	212.64m	0.05	17.24	0.00	1.77
SUNWAY (5211) SUNWAY BERHAD	Trading-Services	8.115b	1.65	12.65	5.45	3.46
SURIA (6521) SURIA CAPITAL HOLDINGS BERHAD	Trading-Services	550.43m	1.91	9.45	3.66	5.64
SYSCORP (5173) SHIN YANG SHIPPING CORPORATION BERHAD	Trading-Services	288.00m	0.24	50.00	0.00	0.48
T7GLOBAL (7228) T7 GLOBAL BERHAD	Trading-Services	167.78m	0.40	15.56	0.00	7.79
TALIWRK (8524) TALIWORKS CORPORATION BERHAD	Trading-Services	1.282b	1.06	23.45	7.55	5.10
TASCO (5140) TASCO BERHAD	Trading-Services	450.00m	2.25	13.75	2.00	9.30
TENAGA (5347) TENAGA NASIONAL BHD	Trading-Services	87.256b	15.40	12.64	3.96	12.07
TEXCHEM (8702) TEXCHEM RESOURCES BERHAD	Trading-Services	116.65m	0.94	35.61	10.64	1.17
TEXCYCL (0089) TEX CYCLE TECHNOLOGY (M) BERHAD	Trading-Services	211.36m	0.83	11.41	0.61	13.15
TFP (0145) TFP SOLUTIONS BERHAD	Trading-Services	29.73m	0.15	-	0.00	-27.83
THHEAVY (7206) TH HEAVY ENGINEERING BERHAD	Trading-Services	123.32m	0.11	-	0.00	- 216.13

TM (4863) TELEKOM MALAYSIA BERHAD	Trading-Services	22.472b	5.98	27.84	3.60	10.72
TMCLIFE (0101) TMC LIFE SCIENCES BERHAD	Trading-Services	1.563b	0.90	60.00	0.17	3.66
TNLOGIS (8397) TIONG NAM LOGISTICS HOLDINGS BERHAD	Trading-Services	602.88m	1.31	8.69	1.53	9.54
TOCEAN (7218) TRANSOCEAN HOLDINGS BHD	Trading-Services	26.24m	0.64	-	0.00	-0.71
TURBO (5167) TURBO-MECH BERHAD	Trading-Services	88.02m	0.82	21.01	6.13	4.13
UMS (7137) UMS HOLDINGS BERHAD	Trading-Services	111.08m	2.73	19.85	3.66	3.51
UMWOG (5243) UMW OIL & GAS CORPORATION BERHAD	Trading-Services	2.275b	0.33	-	0.00	-16.62
UNIMECH (7091) UNIMECH GROUP BERHAD	Trading-Services	135.13m	1.03	15.77	2.91	3.31
UTUSAN (5754) UTUSAN MELAYU (MALAYSIA) BERHAD	Trading-Services	43.74m	0.40	-	0.00	-86.25
UZMA (7250) UZMA BERHAD	Trading-Services	492.84m	1.54	14.54	0.00	7.41
VOIR (7240) VOIR HOLDINGS BERHAD	Trading-Services	159.72m	1.10	-	0.00	-1.35
WARISAN (5016) WARISAN TC HOLDINGS BERHAD	Trading-Services	134.40m	2.00	41.75	2.00	0.97
WIDETEC (7692) WIDETECH (MALAYSIA) BERHAD	Trading-Services	25.96m	0.58	23.87	0.00	3.20
WPRTS (5246) WESTPORTS HOLDINGS BERHAD	Trading-Services	11.765b	3.45	19.76	4.06	28.86
XINHWA (5267) XIN HWA HOLDINGS BERHAD	Trading-Services	270.00m	1.25	-	0.80	-
XOX (0165)	Trading-Services	98.39m	0.11	-	0.00	-

XOX BHD						
YFG (7122) YFG BERHAD	Trading-Services	18.27m	0.03	-	0.00	-
YINSON (7293) YINSON HOLDINGS BERHAD	Trading-Services	4.218b	3.86	16.34	4.30	13.04
YTL (4677) YTL CORPORATION BERHAD	Trading-Services	12.438b	1.14	15.77	8.33	5.06



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Appendix B: Results from Eviews 9

Multiple Regressions Analysis (OLS)

Dependent Variable: CASH
 Method: Least Squares
 Date: 11/22/17 Time: 23:08
 Sample: 1 300
 Included observations: 300

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FSIZE	-0.076985	0.045277	-1.700304	0.0901
CFV	0.017326	0.070698	0.245076	0.8066
LEV	-0.007662	0.009149	-0.837469	0.4030
CAPEX	0.002808	0.002456	1.143360	0.2538
C	0.858530	0.296315	2.897358	0.0040
R-squared	0.016277	Mean dependent var		0.352935
Adjusted R-squared	0.002939	S.D. dependent var		0.475220
S.E. of regression	0.474522	Akaike info criterion		1.363507
Sum squared resid	66.42540	Schwarz criterion		1.425237
Log likelihood	-199.5261	Hannan-Quinn criter.		1.388212
F-statistic	1.220303	Durbin-Watson stat		1.385624
Prob(F-statistic)	0.302220			

Descriptive Statistics

	CASH	FSIZE	CFV	LEV	CAPEX
Mean	0.352935	6.519483	0.098783	1.370732	1.816861
Median	0.115800	6.358600	0.000000	0.300200	0.349200
Maximum	5.853100	7.849100	5.853100	7.646100	38.43660
Minimum	0.006800	5.032900	0.000000	-15.77820	-89.30590
Std. Dev.	0.475220	0.607552	0.390714	3.002479	11.27129
Skewness	5.568766	0.327046	11.08573	-1.489376	-2.508127
Kurtosis	61.21156	2.938005	158.6183	13.19053	24.06637
Jarque-Bera	43907.88	5.395994	308857.8	1408.999	5861.933
Probability	0.000000	0.067340	0.000000	0.000000	0.000000
Sum	105.8804	1955.845	29.63493	411.2195	545.0582
Sum Sq. Dev.	67.52451	110.3667	45.64465	2695.449	37985.54
Observations	300	300	300	300	300

Correlation

	CASH	FSIZE	CFV	LEV	CAPEX
CASH	1.000000	-0.096350	0.023376	-0.049643	0.060936
FSIZE	-0.096350	1.000000	-0.014530	0.032996	0.058227
CFV	0.023376	-0.014530	1.000000	-0.005248	0.111821
LEV	-0.049643	0.032996	-0.005248	1.000000	0.031378
CAPEX	0.060936	0.058227	0.111821	0.031378	1.000000



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