

APPENDICES

Appendix 1: List of Non-financial Firms Included in the Study with the Industry and Standard Industrial Classification (SIC) Code

	Name	Datastream Industry	SIC Code
1	Advance Synergy Bhd	Travel and Leisure	7011
2	Advanced Packaging Tech (M)	General Industrials	2673
3	Ajinomoto Malaysia Bhd	Food Producers	2869
4	Aluminium Co Of Malaysia Bhd	Construction and Materials	3273
5	Amalgamated Indl Steel Bhd	Industrial Metals and Mining	3317
6	Ancom Bhd	Chemicals	2879
7	Anzo Holdings Bhd	Forestry and Paper	2499
8	Batu Kawan Bhd	Chemicals	2869
9	Berjaya Corp Bhd	General Retailer	5047
10	Berjaya Land Bhd	Travel and Leisure	7999
11	Berjaya Sports Toto Bhd	Travel and Leisure	7999
12	Bina Puri Holdings Bhd	Construction and Materials	1611
13	Bonia Corp Bhd	Personal Goods	5699
14	Boustead Heavy Industries Co	Industrial Engineering	3731
15	Boustead Holdings Bhd	General Retailer	5171
16	Brahim's Holdings Berhad	Support Services	5812
17	Brem Holding Bhd	Construction and Materials	1542
18	British American Tobacco Bhd	Tobacco	2111
19	C.I. Holdings Berhad	Oil Equipment and Services	4000
20	Cahaya Mata Sarawak Bhd	Construction and Materials	3241
21	Carlsberg Brewery Malaysia B	Beverages	2082
22	Central Industrial Corp Bhd	Construction and Materials	3271
23	Cepatwawasan Group Bhd	Food Producers	2074
24	Chemical Co Of Malaysia Bhd	Chemicals	2873
25	Chin Teck Plantations Bhd	Food Producers	119
26	Choo Bee Metal Indus Bhd	Industrial Engineering	3317
27	Comfort Glove Bhd	Health Care Equipment and Services	3069
28	Compugates Holdings Bhd	Support Services	5731
29	Computer Forms (Malaysia) Bh	Support Services	2761
30	Concrete Engineering Prods	Construction and Materials	3272
31	Crest Builder Holdings Bhd	Construction and Materials	8711
32	Cwg Holdings Bhd	Household Goods and Home Construction	2678

Appendix 1: List of Non-financial Firms Included in the Study with the Sector and Standard Industrial Classification (SIC) Code (cont.)

33	Cycle & Carriage Bintang Bhd	General Retailer	5511
34	Dagang Nexchange Bhd	Software and Computer Services	7371
35	Daibochi Plastic & Packaging	General Industrials	2671
36	Daiman Development Bhd	Oil and Gas Producers	1531
37	Dataprep Holdings Bhd	Software and Computer Services	7379
38	Denko Industrial Corp Bhd	Electronic and Electrical Equipment	3669
39	Dksh Holdings Malaysia Bhd	Support Services	8742
40	Dolomite Corp Bhd	Construction and Materials	3273
41	Drb-Hicom Bhd	Automobile and Parts	3711
42	Dutaland Bhd	Real Estate Investment and Services	119
43	Dutch Lady Milk Inds Bhd	Food Producers	2026
44	Eg Industries Bhd	Leisure Goods	3678
45	Ekovest Bhd	Construction and Materials	1611
46	Eksons Corp Bhd	Forestry and Paper	2435
47	Emico Holdings Bhd	Household Goods and Home Construction	3499
48	Enra Group Bhd	Real Estate Investment and Services	6512
49	Facb Industries Inc Bhd	Household Goods and Home Construction	2515
50	Far East Holdings Bhd	Food Producers	119
51	Few Holdings Bhd	Personal Goods	5122
52	Federal Furniture Hldgs (M)	Household Goods and Home Construction	2512
53	Fima Corp Bhd	Support Services	2759
54	Fitters Diversified Bhd	Electronic and Electrical Equipment	3669
55	Formosa Prosonic Inds Bhd	Leisure Goods	3651
56	Fraser & Neave Holdings Bhd	Beverages	2086
57	Fsbm Holdings Bhd	Support Services	5734
58	Gadang Holdings Bhd	Construction and Materials	1611
59	Gamuda Bhd	Construction and Materials	1611
60	Genting Bhd	Travel and Leisure	7011
61	Genting Malaysia Bhd	Travel and Leisure	7011
62	Genting Plantations Bhd	Food Producers	119
63	George Kent (Malaysia) Bhd	Industrial Engineering	1623
64	Goh Ban Huat Bhd	Construction and Materials	3272

Appendix 1: List of Non-financial Firms Included in the Study with the Sector and Standard Industrial Classification (SIC) Code (cont.)

65	Golden Pharos Berhad	Construction and Materials	2421
66	Grand Central Enterprises	Travel and Leisure	7011
67	Guh Holdings Bhd	Electronic and Electrical Equipment	3672
68	Hap Seng Consolidated	General Industrials	5191
69	Heineken Malaysia Bhd	Beverages	2082
70	Hengyuan Refining Co Bhd	Oil and Gas Producers	2911
71	Hexza Corp Bhd	Chemicals	2891
72	Hil Industries Berhad	Industrial Engineering	3089
73	Ho Hup Construction Co Bhd	Construction and Materials	3273
74	Ho Wah Genting Bhd	Electronic and Electrical Equipment	3357
75	Hong Leong Industries Bhd	Automobile and Parts	3674
76	Hwa Tai Industries Berhad	Food Producers	2051
77	Ijm Corp Bhd	Construction and Materials	1531
78	Ijm Plantations Bhd	Food Producers	119
79	Inch Kenneth Kajang Rubber	Chemicals	5148
80	Industronics Bhd	Electronic and Electrical Equipment	3679
81	Insas Bhd	Financial Services	6211
82	Integrated Logistics Bhd	Industrial Transportation	4225
83	Ioi Corp Bhd	Food Producers	119
84	Ipmuda Berhad	Support Services	5039
85	Ireka Corp Bhd	Construction and Materials	1542
86	Iskandar Waterfront City Bhd	Construction and Materials	1531
87	Jasa Kita Bhd	Electronic and Electrical Equipment	3546
88	Java Bhd	Construction and Materials	2411
89	Jaya Tiasa Holdings Bhd	Forestry and Paper	811
90	Jerasia Capital Bhd	Personal Goods	5621
91	Johan Holdings Bhd	Financial Services	6153
92	Keck Seng (Malaysia) Bhd	Food Producers	2074
93	Kesm Industries Bhd	Technology Hardware and Equipment	3674
94	Kim Hin Industry Berhad	Construction and Materials	3253
95	Kkb Engineering Bhd	Industrial Engineering	8711
96	Kluang Rubber Co (M) Bhd	Food Producers	179
97	Kpj Healthcare Berhad	Health Care Equipment and Services	8062

Appendix 1: List of Non-financial Firms Included in the Study with the Sector and Standard Industrial Classification (SIC) Code (cont.)

98	Kps Consortium Bhd	Construction and Materials	5039
99	Kretam Holdings Bhd	Food Producers	2079
100	Kuala Lumpur Kepong Bhd	Food Producers	119
101	Kuantan Flour Mills Bhd	Food Producers	2041
102	Kumpulan Jetson Bhd	Support Services	2822
103	Kym Holdings Berhad	General Industrials	6531
104	Lafarge Malaysia Bhd	Construction and Materials	3241
105	Landmarks Berhad	Travel and Leisure	7011
106	Lay Hong Bhd	Food Producers	252
107	Lb Aluminium Bhd	Industrial Metals and Mining	3334
108	Lion Diversified Holdings	Industrial Metals and Mining	3312
109	Lion Forest Industries Bhd	Support Services	3251
110	Lion Industries Corp Bhd	Industrial Metals and Mining	3312
111	Lysaght Galvanized Steel Bhd	Industrial Metals and Mining	3312
112	Magnum Bhd	Travel and Leisure	7999
113	Majuperak Holdings Bhd	Real Estate Investment and Services	1531
114	Malayan Flour Mills Bhd	Food Producers	2041
115	Malayan United Industries Bh	General Retailer	5311
116	Malaysia Smelting Corp Bhd	Industrial Metals and Mining	3339
117	Malaysian Pacific Industries	Technology Hardware and Equipment	3674
118	Malaysian Resources Corp Bhd	Real Estate Investment and Services	1531
119	Malpac Holdings Berhad	Food Producers	119
120	Marco Holdings Bhd	Leisure Goods	5044
121	Media Prima Bhd	Media	4833
122	Mega First Corp Bhd	Electricity	4911
123	Melewar Industrial Group Bhd	Industrial Metals and Mining	3312
124	Mentiga Corp Bhd	Forestry and Paper	2421
125	Mercury Industries Bhd	Chemicals	2851
126	Minho M Bhd	Forestry and Paper	811
127	Mintye Bhd	Automobile and Parts	3714
128	Misc Bhd	Industrial Transportation	4412
129	Mitrajaya Holdings Bhd	Construction and Materials	1542
130	Mmc Corp Bhd	Gas, Water and Multiutilities	4491

Appendix 1: List of Non-financial Firms Included in the Study with the Sector and Standard Industrial Classification (SIC) Code (cont.)

131	Mtd Acpi Engineering Bhd	Construction and Materials	1791
132	Muda Holdings Berhad	General Industrials	2653
133	Muhibbah Engineering (M) Bhd	Construction and Materials	1611
134	Mulpha International Bhd	Travel and Leisure	7011
135	Multi-Usage Holdings Bhd	Construction and Materials	6513
136	Mwe Holdings Berhad	Electronic and Electrical Equipment	2261
137	Negri Sembilan Oil Palms Bhd	Food Producers	119
138	Nestle (Malaysia) Berhad	Food Producers	2026
139	Nylex Malaysia Bhd	Chemicals	2869
140	Ocb Bhd	Food Producers	2098
141	Olympia Industries Bhd	Travel and Leisure	7999
142	Omesti Bhd	Software and Computer Services	7372
143	Oriental Holdings Berhad	General Retailer	3714
144	Oriental Interest Bhd	Real Estate Investment and Services	1531
145	Pan Malaysia Corporation Bhd	Food Producers	2066
146	Pan Malaysia Holdings Bhd	Travel and Leisure	7011
147	Panasonic Manufacturing Mala	Household Goods and Home Construction	3469
148	Pansar Bhd	Construction and Materials	2952
149	Paragon Union Bhd	Household Goods and Home Construction	2273
150	Parkson Holdings Bhd	General Retailer	5311
151	Pelikan International Corp	Household Goods and Home Construction	3951
152	Perusahaan Sadur Timah Malay	Industrial Metals and Mining	3411
153	Petronas Dagangan Bhd	Oil and Gas Producers	1531
154	Pinehill Pacific Bhd	Food Producers	2074
155	Pintaras Jaya Bhd	Construction and Materials	8711
156	Poly Glass Fibre (Malaysia)	Chemicals	3296
157	Pos Malaysia Berhad	Industrial Transportation	4311
158	Ppb Group Berhad	Food Producers	2041
159	Premier Nalfin Bhd	Food Producers	2079
160	Press Metal Aluminium Holdin	Industrial Metals and Mining	3334
161	Prolexus Bhd	Personal Goods	2389

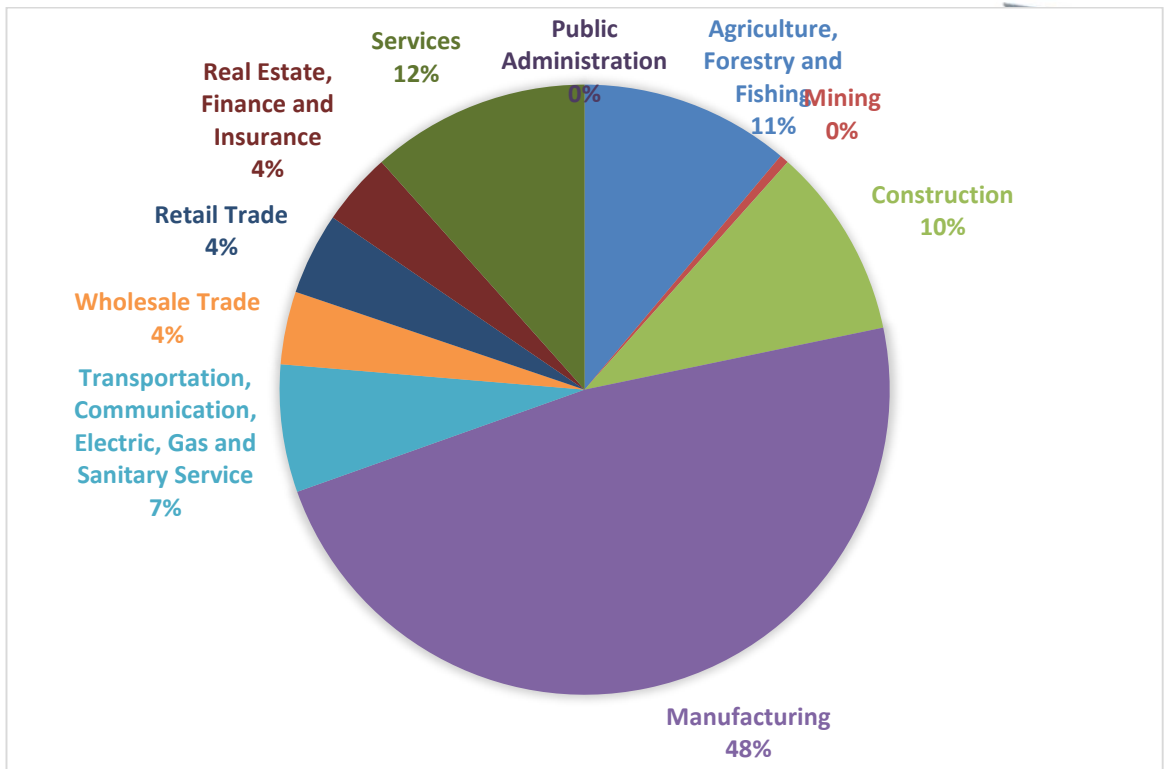
Appendix 1: List of Non-financial Firms Included in the Study with the Sector and Standard Industrial Classification (SIC) Code (cont.)

162	Public Packages Holdings Bhd	General Industrials	2653
163	Reliance Pacific Bhd	Travel and Leisure	7011
164	Riverview Rubber Estates Bhd	Food Producers	119
165	Salcon Bhd	Gas, Water and Multiutilities	1629
166	Sanbumi Holdings Bhd	Travel and Leisure	4724
167	Sapura Resources Bhd	Real Estate Investment and Services	6513
168	Sarawak Consolidated Industr	Construction and Materials	3271
169	Sarawak Oil Palms Berhad	Food Producers	119
170	Sbc Corporation Bhd	Real Estate Investment and Services	1542
171	Scientex Bhd	General Industrials	2821
172	Selangor Properties Berhad	Real Estate Investment and Services	6512
173	Seni Jaya Corporation Bhd	Media	7312
174	Shangri-La Hotels (Mal) Bhd	Travel and Leisure	7011
175	Sin Heng Chan (Malaya) Bhd	Food Producers	139
176	Sino Hua-An International	Mining	3312
177	Sinotop Holding Bhd	Personal Goods	2281
178	Southern Acids Malaysia Bhd	Chemicals	2869
179	Southern Steel Berhad	Industrial Metals and Mining	3312
180	Sumatec Resources Bhd	Oil Equipment and Services	4412
181	Sungei Bagan Rubber (M)	Food Producers	179
182	Sunsuria Bhd	Real Estate Investment and Services	1531
183	Ta Enterprise Berhad	Travel and Leisure	7011
184	Tadmax Resources Bhd	Real Estate Investment and Services	811
185	Taliworks Corp Bhd	Gas, Water and Multiutilities	4941
186	Tan Chong Motor Holdings Bhd	Automobile and Parts	3711
187	Tanco Holdings Bhd	Real Estate Investment and Services	6552
188	Tasek Corp Bhd	Construction and Materials	3241
189	Tdm Bhd	Food Producers	119
190	Telekom Malaysia Bhd	Fixed Line Telecommunication	4812
191	Tenaga Nasional Bhd	Electricity	4911
192	Teo Guan Lee Corp Bhd	Personal Goods	2331
193	Texchem Resources Berhad	General Industrials	2821
194	Theta Edge Bhd	Technology Hardware and Equipment	7371

Appendix 1: List of Non-financial Firms Included in the Study with the Sector and Standard Industrial Classification (SIC) Code (cont.)

195	Tiong Nam Logistics Holdings	Industrial Transportation	4212
196	Tsh Resources Bhd	Food Producers	119
197	Turiya Bhd	Technology Hardware and Equipment	3674
198	Umw Holdings Bhd	Automobile and Parts	3711
199	United Malacca Bhd	Food Producers	119
200	United Plantations Bhd	Food Producers	119
201	Utusan Melayu (Malaysia) Bhd	Media	2711
202	Wah Seong Corp Bhd	Oil Equipment and Services	1389
203	Wing Tai Malaysia Bhd	Real Estate Investment and Services	5699
204	Wtk Holdings Berhad	Construction and Materials	811
205	Yee Lee Corporation	Food Producers	2079
206	Ytl Corp Bhd	Gas, Water and Multiutilities	4911
207	Zelan Bhd	Construction and Materials	1541

Appendix 2: Distribution of Firms According to Industry



UNIVERSITI SAINS ISLAMIC SCIENCE UNIVERSITY

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016

	Firms	Amount Receivable (RM million)	Amount Payable (RM million)	Trading Position
1	Advance Synergy Bhd	47436.00	16106.00	Exporter
2	Advanced Packaging Tech (M)	6101300.00	2398037.00	Exporter
3	Ajinomoto Malaysia Bhd	24733280.00	8216540.00	Exporter
4	Aluminium Co Of Malaysia Bhd	36895.00	23504.00	Exporter
5	Amalgamated Indl Steel Bhd	18418544.00	6235547.00	Exporter
6	Ancom Bhd	148379.00	260361.00	Importer
7	Anzo Holdings Bhd	1096200.00	3712867.00	Importer
8	Batu Kawan Bhd	668325.00	1559847.00	Importer
9	Berjaya Corp Bhd	971971.00	622632.00	Exporter
10	Berjaya Land Bhd	632223.00	135746.00	Exporter
11	Berjaya Sports Toto Bhd	471141.00	327596.00	Exporter
12	Bina Puri Holdings Bhd	425740.00	53005.00	Exporter
13	Bonia Corp Bhd	31351.00	93828.00	Importer
14	Boustead Heavy Industries Co	45026.00	12354.00	Exporter
15	Boustead Holdings Bhd	1208.00	1022.60	Exporter
16	Brahim's Holdings Berhad	29133.00	46982.00	Importer
17	Brem Holding Bhd	21749770.00	3394105.00	Exporter
18	British American Tobacco Bhd	2863.00	0.00	Exporter
19	C.I. Holdings Berhad	55361.00	175651.00	Importer
20	Cahaya Mata Sarawak Bhd	395057.00	289145.00	Exporter
21	Carlsberg Brewery Malaysia B	167410.00	186056.00	Importer
22	Central Industrial Corp Bhd	4352868.00	10338978.00	Importer
23	Cepatwawasan Group Bhd	12120.00	11829.00	Exporter
24	Chemical Co Of Malaysia Bhd	75151.00	157799.00	Importer
25	Chin Teck Plantations Bhd	3287535.00	7813053.00	Importer
26	Choo Bee Metal Indus Bhd	4812.00	98000.00	Importer
27	Comfort Glove Bhd	11014308.00	32174790.00	Importer
28	Compugates Holdings Bhd	14216.00	1237.00	Exporter
29	Computer Forms (Malaysia) Bh	3271072.00	14334777.00	Importer
30	Concrete Engineering Prods	53864110.00	793641.00	Exporter
31	Crest Builder Holdings Bhd	6374297.00	11467293.00	Importer
32	Cwg Holdings Bhd	5767166.00	11998568.00	Importer
33	Cycle & Carriage Bintang Bhd	74086.00	62775.00	Exporter

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016 (cont.)

34	Dagang Nexchange Bhd	9380.00	53493.00	Importer
35	Daibochi Plastic & Packaging	40286.00	52536.00	Importer
36	Daiman Development Bhd	16528.00	17896.00	Importer
37	Dataprep Holdings Bhd	3041.00	14565.00	Importer
38	Denko Industrial Corp Bhd	11460134.00	22310323.00	Importer
39	Dksh Holdings Malaysia Bhd	1141627.00	1093660.00	Exporter
40	Dolomite Corp Bhd	35697.00	18850.00	Exporter
41	Drb-Hicom Bhd	6407242.00	4274409.00	Exporter
42	Dutaland Bhd	11282.00	6695.00	Exporter
43	Dutch Lady Milk Inds Bhd	335360.00	90581.00	Exporter
44	Eg Industries Bhd	161839.00	223058.00	Importer
45	Ekovest Bhd	174852.00	77920.00	Exporter
46	Eksons Corp Bhd	10349223.00	18757292.00	Importer
47	Emico Holdings Bhd	6467450.00	14430793.00	Importer
48	Enra Group Bhd	10091.00	38764.00	Importer
49	Facb Industries Inc Bhd	4703734.00	13163296.00	Importer
50	Far East Holdings Bhd	21273828.00	26203068.00	Importer
51	Few Holdings Bhd	4069.00	6634.00	Importer
52	Federal Furniture Hldgs (M)	9768650.00	16108890.00	Importer
53	Fima Corp Bhd	33960.00	149911.00	Importer
54	Fitters Diversified Bhd	29832.00	54492.00	Importer
55	Formosa Prosonic Inds Bhd	58045.00	65908.00	Importer
56	Fraser & Neave Holdings Bhd	271165.00	404988.00	Importer
57	Fsbm Holdings Bhd	695.00	36113.00	Importer
58	Gadang Holdings Bhd	48458414.00	51046499.00	Importer
59	Gamuda Bhd	62973.00	1568357.00	Importer
60	Genting Bhd	5194.00	2344.90	Exporter
61	Genting Malaysia Bhd	2738.50	566.90	Exporter
62	Genting Plantations Bhd	412350.00	504758.00	Importer
63	George Kent (Malaysia) Bhd	325523.00	240870.00	Exporter
64	Goh Ban Huat Bhd	1732909.00	7485299.00	Importer
65	Golden Pharos Berhad	2054.00	22259.00	Importer
66	Grand Central Enterprises	1290933.00	2379272.00	Importer

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016 (cont.)

67	Guh Holdings Bhd	66911.00	81524.00	Importer
68	Hap Seng Consolidated	869854.00	2030093.00	Importer
69	Heineken Malaysia Bhd	292279.00	392003.00	Importer
70	Hengyuan Refining Co Bhd	278935.00	950686.00	Importer
71	Hexza Corp Bhd	3412798.00	28459619.00	Importer
72	Hil Industries Berhad	9573914.00	15754324.00	Importer
73	Ho Hup Construction Co Bhd	61462.00	54883.00	Exporter
74	Ho Wah Genting Bhd	20747.00	13266.00	Exporter
75	Hong Leong Industries Bhd	295273.00	411657.00	Importer
76	Hwa Tai Industries Berhad	11653641.00	375907.00	Exporter
77	Ijm Corp Bhd	764643.00	2256370.00	Importer
78	Ijm Plantations Bhd	42782.00	12289.00	Exporter
79	Inch Kenneth Kajang Rubber	168.00	372.00	Importer
80	Industronics Bhd	2237945.00	10185574.00	Importer
81	Insas Bhd	34226.00	290833.00	Importer
82	Integrated Logistics Bhd	39700.00	57782.00	Importer
83	Ioi Corp Bhd	1129.50	1191.20	Importer
84	Ipmuda Berhad	81952.00	183319.00	Importer
85	Ireka Corp Bhd	150575271.00	116697027.00	Exporter
86	Iskandar Waterfront City Bhd	86387.00	138133.00	Importer
87	Jasa Kita Bhd	1162339.00	13534466.00	Importer
88	Java Bhd	4216.00	4728.00	Importer
89	Jaya Tiasa Holdings Bhd	137462.00	53056.00	Exporter
90	Jerasia Capital Bhd	14311007.00	62918560.00	Importer
91	Johan Holdings Bhd	183555.00	555963.00	Importer
92	Keck Seng (Malaysia) Bhd	84975.00	80896.00	Exporter
93	Kesm Industries Bhd	4587.00	67104.00	Importer
94	Kim Hin Industry Berhad	54686.00	84292.00	Importer
95	Kkb Engineering Bhd	4091357.00	9386148.00	Importer
96	Kluang Rubber Co (M) Bhd	1297948.00	1074192.00	Exporter
97	Kpj Healthcare Berhad	490922.00	555518.00	Importer
98	Kps Consortium Bhd	54428415.00	167320570.00	Importer
99	Kretam Holdings Bhd	19191.00	31038.00	Importer
100	Kuala Lumpur Kepong Bhd	657159.00	1470271.00	Importer

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016 (cont.)

101	Kuantan Flour Mills Bhd	13006801.00	354007.00	Exporter
102	Kumpulan Jetson Bhd	43091956.00	59594455.00	Importer
103	Kym Holdings Berhad	9610.00	22795.00	Importer
104	Lafarge Malaysia Bhd	476338.00	373967.00	Exporter
105	Landmarks Berhad	7483.00	5700.00	Exporter
106	Lay Hong Bhd	69003441.00	74767230.00	Importer
107	Lb Aluminium Bhd	31110.00	106521.00	Importer
108	Lion Diversified Holdings	711726.00	73405.00	Exporter
109	Lion Forest Industries Bhd	410.00	384839.00	Importer
110	Lion Industries Corp Bhd	490691.00	700479.00	Importer
111	Lysaght Galvanized Steel Bhd	2955060.00	114617.00	Exporter
112	Magnum Bhd	118172.00	11731.00	Exporter
113	Majuperak Holdings Bhd	16240920.00	21669094.00	Importer
114	Malayan Flour Mills Bhd	65877.00	334216.00	Importer
115	Malayan United Industries Bh	1520.00	30571.00	Importer
116	Malaysia Smelting Corp Bhd	91206.00	30733.00	Exporter
117	Malaysian Pacific Industries	51414.00	178246.00	Importer
118	Malaysian Resources Corp Bhd	876765.00	5486.00	Exporter
119	Malpac Holdings Berhad	4448266.00	2291047.00	Exporter
120	Marco Holdings Bhd	151735.00	18247842.00	Importer
121	Media Prima Bhd	50009.00	258317.00	Importer
122	Mega First Corp Bhd	25389.00	83068.00	Importer
123	Melewar Industrial Group Bhd	99474756.00	103329620.00	Importer
124	Mentiga Corp Bhd	3259911.00	3008416.00	Exporter
125	Mercury Industries Bhd	10369411.00	36957449.00	Importer
126	Minho M Bhd	28642.00	48074.00	Importer
127	Mintye Bhd	2705683.00	10263156.00	Importer
128	Misc Bhd	2734.04	5040.36	Importer
129	Mitrajaya Holdings Bhd	253664139.00	330348034.00	Importer
130	Mmc Corp Bhd	308792.00	2329908.00	Importer
131	Mtd Acpi Engineering Bhd	13177.00	20516.00	Importer
132	Muda Holdings Berhad	62837.00	234122.00	Importer
133	Muhibbah Engineering (M) Bhd	877189.00	284376.00	Exporter

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016 (cont.)

134	Mulpha International Bhd	34433.00	96136.00	Importer
135	Multi-Usage Holdings Bhd	2322416.00	2795438.00	Importer
136	Mwe Holdings Berhad	14063448.00	23994761.00	Importer
137	Negri Sembilan Oil Palms Bhd	3100409.00	3250213.00	Importer
138	Nestle (Malaysia) Berhad	1392780.00	24745.00	Exporter
139	Nylex Malaysia Bhd	97416.00	178887.00	Importer
140	Ocb Bhd	37745.00	74349.00	Importer
141	Olympia Industries Bhd	84571.00	38786.00	Exporter
142	Omesti Bhd	38754627.00	6076934.00	Exporter
143	Oriental Holdings Berhad	469611.00	586896.00	Importer
144	Oriental Interest Bhd	43038.00	44149.00	Importer
145	Pan Malaysia Corporation Bhd	3095.00	12346.00	Importer
146	Pan Malaysia Holdings Bhd	2950.00	980.00	Exporter
147	Panasonic Manufacturing Mala	134815.00	664.00	Exporter
148	Pansar Bhd	1334387.00	125547237.00	Importer
149	Paragon Union Bhd	44396002.00	14890076.00	Exporter
150	Parkson Holdings Bhd	1204873.00	73335.00	Exporter
151	Pelikan International Corp	130397.00	232091.00	Importer
152	Perusahaan Sadur Timah Malay	20285.00	78272.00	Importer
153	Petronas Dagangan Bhd	1571.08	17980.00	Importer
154	Pinehill Pacific Bhd	11676725.00	415253.00	Exporter
155	Pintaras Jaya Bhd	36727106.00	64970169.00	Importer
156	Poly Glass Fibre (Malaysia)	629989.00	177982.00	Exporter
157	Pos Malaysia Berhad	617713.00	415946.00	Exporter
158	Ppb Group Berhad	381083.00	593547.00	Importer
159	Premier Nalfin Bhd	411.00	20.00	Exporter
160	Press Metal Aluminium Holdin	1325688.00	885283.00	Exporter
161	Prolexus Bhd	27138.00	67450.00	Importer
162	Public Packages Holdings Bhd	11578.00	2504.00	Exporter
163	Reliance Pacific Bhd	16691.00	18240.00	Importer
164	Riverview Rubber Estates Bhd	6402050.00	4374749.00	Exporter
165	Salcon Bhd	70689.00	54384.00	Exporter
166	Sanbumi Holdings Bhd	1157.00	8523.00	Importer
167	Sapura Resources Bhd	2583.00	6953.00	Importer

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016 (cont.)

168	Sarawak Consolidated Industr	12908392.00	17175525.00	Importer
169	Sarawak Oil Palms Berhad	228377.00	176130.00	Exporter
170	Sbc Corporation Bhd	8908.00	25364.00	Importer
171	Scientex Bhd	315746.00	315889.00	Importer
172	Selangor Properties Berhad	4758.00	1473.00	Exporter
173	Seni Jaya Corporation Bhd	960700.00	8969008.00	Importer
174	Shangri-La Hotels (Mal) Bhd	20515.00	22026.00	Importer
175	Sin Heng Chan (Malaya) Bhd	799.00	1810743.00	Importer
176	Sino Hua-An International	35842.00	6085.00	Exporter
177	Sinotop Holding Bhd	5697.00	76944.00	Importer
178	Southern Acids Malaysia Bhd	21698.00	27704.00	Importer
179	Southern Steel Berhad	128387.00	161370.00	Importer
180	Sumatec Resources Bhd	176489.00	285981832.00	Importer
181	Sungei Bagan Rubber (M)	2628558.00	573784.00	Exporter
182	Sunsuria Bhd	26862.00	40688.00	Importer
183	Ta Enterprise Berhad	162157.00	365932.00	Importer
184	Tadmax Resources Bhd	18079.00	8019.00	Exporter
185	Taliworks Corp Bhd	88003.00	401586.00	Importer
186	Tan Chong Motor Holdings Bhd	246733.00	524583.00	Importer
187	Tanco Holdings Bhd	10891.00	23784.00	Importer
188	Tasek Corp Bhd	48146.00	104822.00	Importer
189	Tdm Bhd	115175.00	66841.00	Exporter
190	Telekom Malaysia Bhd	4367.00	2941.10	Exporter
191	Tenaga Nasional Bhd	8889.20	8062.70	Exporter
192	Teo Guan Lee Corp Bhd	18241043.00	35377030.00	Importer
193	Texchem Resources Berhad	77364.00	139749.00	Importer
194	Theta Edge Bhd	12801.00	11138.00	Exporter
195	Tiong Nam Logistics Holdings	59335.00	1911.00	Exporter
196	Tsh Resources Bhd	39738.00	54687.00	Importer
197	Turiya Bhd	1044278.00	2457464.00	Importer
198	Umw Holdings Bhd	27145.00	11180.00	Exporter
199	United Malacca Bhd	7444.00	14159.00	Importer
200	United Plantations Bhd	71881.00	206910.00	Importer

Appendix 3: List of Firms with the Amount of Account Payable and Receivable for
2016 (cont.)

201	Utusan Melayu (Malaysia) Bhd	10948794.00	82973984.00	Importer
202	Wah Seong Corp Bhd	118059.00	316117.00	Importer
203	Wing Tai Malaysia Bhd	5457529.00	1963250.00	Exporter
204	Wtk Holdings Berhad	106233.00	45343.00	Exporter
205	Yee Lee Corporation	95309.00	170831.00	Importer
206	Ytl Corp Bhd	2959590.00	251374.00	Exporter
207	Zelan Bhd	239028.00	596215.00	Importer

UNIVERSITI SAINS ISLAM MALAYSIA
 جامعة العلوم الإسلامية الماليزية
 ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

	Company	1995	1996	1997	1998	1999	2000	2001	2002
1	Tenaga Nasional Bhd	1	1	1	1	1	1	1	1
2	Genting Bhd	0	0	0	0	0	1	1	0
3	Misc Bhd	0	0	0	0	0	0	0	0
4	Genting Malaysia Bhd	0	0	0	0	0	0	1	1
5	Ioi Corp Bhd	0	0	0	0	0	0	0	0
6	Kuala Lumpur Kepong Bhd	0	0	0	0	0	0	0	0
7	Telekom Malaysia Bhd	1	1	1	1	1	1	1	1
8	Petronas Dagangan Bhd	0	0	0	0	0	0	0	0
9	Hap Seng Consolidated	0	0	0	0	0	0	0	0
10	Ppb Group Berhad	1	1	1	1	1	1	0	1
11	Nestle (Malaysia) Berhad	0	0	0	0	0	0	1	1
12	Ytl Corp Bhd	0	0	0	0	0	0	0	0
13	Gamuda Bhd	0	0	0	0	0	0	0	0
14	Ijm Corp Bhd	0	0	0	0	0	0	0	1
15	British American Tobacco Bhd	0	0	0	0	0	1	1	1
16	Press Metal Aluminium Holdin	0	0	0	0	0	0	0	0
17	Fraser & Neave Holdings Bhd	0	0	0	0	0	0	0	0
18	Genting Plantations Bhd	0	0	0	0	0	0	0	0
19	Batu Kawan Bhd	0	0	0	0	0	0	0	0
20	Mmc Corp Bhd	0	0	0	0	0	0	0	0
21	Umw Holdings Bhd	0	0	0	0	0	0	1	1
22	United Plantations Bhd	1	1	1	1	1	1	1	1
23	Boustead Holdings Bhd	0	0	0	0	0	0	0	0
24	Heineken Malaysia Bhd	0	0	0	0	0	0	0	0
25	Lafarge Malaysia Bhd	0	0	0	0	0	0	0	0
26	Carlsberg Brewery Malaysia B	0	0	0	0	0	0	0	0
27	Kpj Healthcare Berhad	0	0	0	0	0	0	0	0
28	Cahaya Mata Sarawak Bhd	0	0	0	0	0	0	0	0
29	Scientex Bhd	0	0	0	0	0	0	0	0
30	Oriental Holdings Berhad	0	0	0	0	0	0	1	0
31	Pos Malaysia Berhad	0	0	0	0	0	0	0	0
32	Dutch Lady Milk Inds Bhd	0	0	0	0	0	0	0	0
33	Hong Leong Industries Bhd	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

	Company	2003	2004	2005	2006	2007	2008	2009	2010
1	Tenaga Nasional Bhd	1	1	1	1	1	1	0	0
2	Genting Bhd	1	1	1	1	1	1	1	1
3	Misc Bhd	0	0	0	0	0	0	0	0
4	Genting Malaysia Bhd	1	1	1	1	1	1	1	1
5	Ioi Corp Bhd	0	0	0	0	1	1	1	1
6	Kuala Lumpur Kepong Bhd	0	1	1	1	1	1	1	1
7	Telekom Malaysia Bhd	1	1	1	1	1	1	1	1
8	Petronas Dagangan Bhd	0	0	0	0	0	0	0	0
9	Hap Seng Consolidated	1	1	1	1	1	0	1	1
10	Ppb Group Berhad	1	0	1	1	1	1	1	1
11	Nestle (Malaysia) Berhad	1	1	1	1	1	0	1	1
12	Ytl Corp Bhd	1	1	1	1	1	1	1	1
13	Gamuda Bhd	0	0	0	0	0	0	0	0
14	Ijm Corp Bhd	1	1	1	1	1	1	1	1
15	British American Tobacco Bhd	1	1	1	1	1	1	1	1
16	Press Metal Aluminium Holdin	0	1	1	1	1	1	1	1
17	Fraser & Neave Holdings Bhd	1	1	1	1	1	1	1	1
18	Genting Plantations Bhd	0	0	0	1	1	1	1	1
19	Batu Kawan Bhd	0	1	1	1	1	1	1	1
20	Mmc Corp Bhd	1	1	1	1	1	1	1	1
21	Umw Holdings Bhd	1	1	1	1	1	1	1	1
22	United Plantations Bhd	1	1	1	1	1	1	1	1
23	Boustead Holdings Bhd	0	0	0	0	0	0	0	1
24	Heineken Malaysia Bhd	1	1	1	1	1	1	1	1
25	Lafarge Malaysia Bhd	1	1	1	1	1	1	1	1
26	Carlsberg Brewery Malaysia B	0	0	0	1	1	1	1	0
27	Kpj Healthcare Berhad	0	0	0	0	0	0	0	0
28	Cahaya Mata Sarawak Bhd	0	0	0	0	0	0	0	0
29	Scientex Bhd	0	0	0	0	0	0	0	0
30	Oriental Holdings Berhad	0	0	0	0	0	0	0	0
31	Pos Malaysia Berhad	0	0	0	0	0	0	0	0
32	Dutch Lady Milk Inds Bhd	0	0	0	0	0	0	0	0
33	Hong Leong Industries Bhd	0	1	1	1	1	1	1	1

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
1	Tenaga Nasional Bhd	1	1	1	0	0	0
2	Genting Bhd	1	1	1	1	1	1
3	Misc Bhd	0	0	0	0	0	0
4	Genting Malaysia Bhd	1	1	1	1	1	1
5	Ioi Corp Bhd	1	1	1	1	1	1
6	Kuala Lumpur Kepong Bhd	1	1	1	1	1	1
7	Telekom Malaysia Bhd	1	1	1	1	1	0
8	Petronas Dagangan Bhd	1	1	1	1	1	1
9	Hap Seng Consolidated	1	1	1	1	1	1
10	Ppb Group Berhad	0	0	1	1	1	0
11	Nestle (Malaysia) Berhad	1	1	1	1	1	1
12	Ytl Corp Bhd	1	1	1	1	1	1
13	Gamuda Bhd	0	0	0	0	0	0
14	Ijm Corp Bhd	1	1	1	1	1	1
15	British American Tobacco Bhd	1	1	1	1	1	1
16	Press Metal Aluminium Holdin	1	1	1	1	1	1
17	Fraser & Neave Holdings Bhd	1	1	1	1	1	1
18	Genting Plantations Bhd	1	1	1	1	1	1
19	Batu Kawan Bhd	1	1	1	0	1	1
20	Mmc Corp Bhd	0	0	0	0	0	0
21	Umw Holdings Bhd	1	1	1	1	1	1
22	United Plantations Bhd	1	1	1	1	1	1
23	Boustead Holdings Bhd	1	1	1	1	1	1
24	Heineken Malaysia Bhd	1	1	1	1	1	1
25	Lafarge Malaysia Bhd	1	1	1	1	1	1
26	Carlsberg Brewery Malaysia B	0	0	0	0	0	0
27	Kpj Healthcare Berhad	0	0	0	0	0	0
28	Cahaya Mata Sarawak Bhd	0	0	0	0	0	0
29	Scientex Bhd	0	0	1	1	1	1
30	Oriental Holdings Berhad	0	0	0	0	0	0
31	Pos Malaysia Berhad	0	0	0	0	0	0
32	Dutch Lady Milk Inds Bhd	1	0	0	1	1	1
33	Hong Leong Industries Bhd	1	1	1	1	1	1

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	1995	1996	1997	1998	1999	2000	2001	2002
34	Drb-Hicom Bhd	0	0	0	0	0	0	1	1
35	Berjaya Sports Toto	0	0	0	0	0	0	0	0
36	Malaysian Resources Corp Bhd	0	0	0	0	0	0	0	0
37	Malaysian Pacific Ind	0	0	0	0	0	0	0	1
38	Ijm Plantations Bhd	0	0	0	0	0	0	0	0
39	Ekovest Bhd	0	0	0	0	0	0	0	0
40	Magnum Bhd	1	1	0	1	1	1	1	0
41	Tsh Resources Bhd	1	1	0	1	1	1	1	0
42	Panasonic Manufacturing	0	0	0	0	0	0	0	0
43	Shangri-La Hotels	0	0	0	0	0	0	0	0
44	Berjaya Land Bhd	0	0	0	0	0	0	0	0
45	Sarawak Oil Palms	0	0	0	0	0	0	0	0
46	Taliworks Corp Bhd	0	0	0	0	0	0	0	0
47	Keck Seng (Malaysia)	0	0	0	0	0	0	0	0
48	Hengyuan Refining	0	0	0	0	0	0	0	1
49	Selangor Properties	0	0	0	0	0	0	0	1
50	Berjaya Corp Bhd	0	0	0	0	0	0	0	0
51	Tasek Corp Bhd	0	0	0	0	0	0	0	0
52	George Kent (Mal)	0	0	0	0	0	0	0	0
53	Ajinomoto Malaysia	0	0	0	0	0	0	0	1
54	Mega First Corp Bhd	0	0	0	0	0	0	0	0
55	United Malacca Bhd	0	0	0	0	0	0	0	0
56	Malayan Flour Mills	0	0	0	0	0	0	0	0
57	Iskandar Waterfront	0	0	0	0	0	0	0	0
58	Kretam Holdings Bhd	0	0	0	0	0	0	0	0
59	Far East Holdings Bhd	0	0	0	0	0	0	0	0
60	Sunsuria Bhd	0	0	0	0	0	0	0	0
61	Muhibbah Engineering	0	0	0	0	0	0	0	0
62	Tan Chong Motor Holdings Bhd	0	0	0	0	0	0	0	1
63	Jaya Tiasa Holdings	0	0	0	0	0	0	0	0
64	Dagang Nexchange	0	0	0	0	0	0	0	0
65	Ta Enterprise Berhad	0	0	0	0	0	0	0	0
66	Media Prima Bhd	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2003	2004	2005	2006	2007	2008	2009	2010
34	Drb-Hicom Bhd	1	1	1	1	1	1	1	1
35	Berjaya Sports Toto	0	0	0	0	0	0	0	0
36	Malaysian Resources Corp Bhd	0	0	0	0	0	0	0	0
37	Malaysian Pacific Ind	1	1	1	1	1	1	1	1
38	Ijm Plantations Bhd	0	0	0	0	0	0	0	0
39	Ekovest Bhd	0	0	0	0	0	0	0	0
40	Magnum Bhd	0	0	0	0	0	0	0	0
41	Tsh Resources Bhd	1	1	1	1	1	1	1	1
42	Panasonic Manufacturing	1	1	1	1	1	1	1	1
43	Shangri-La Hotels	0	0	0	0	0	0	0	0
44	Berjaya Land Bhd	0	0	0	0	0	0	0	0
45	Sarawak Oil Palms	0	0	0	0	0	0	0	1
46	Taliworks Corp Bhd	0	0	0	0	0	0	0	0
47	Keck Seng (Malaysia)	0	0	0	0	0	0	0	1
48	Hengyuan Refining	1	1	1	1	1	1	1	1
49	Selangor Properties	0	0	0	0	0	0	0	1
50	Berjaya Corp Bhd	0	0	0	0	0	0	0	0
51	Tasek Corp Bhd	0	0	1	1	1	1	1	1
52	George Kent (Mal)	0	0	0	0	0	0	0	0
53	Ajinomoto Malaysia	1	1	1	1	0	0	0	0
54	Mega First Corp Bhd	0	0	0	0	0	0	0	0
55	United Malacca Bhd	0	0	0	0	0	0	0	0
56	Malayan Flour Mills	0	0	0	0	1	1	1	1
57	Iskandar Waterfront	0	0	0	0	0	0	0	0
58	Kretam Holdings Bhd	0	0	0	0	0	0	0	0
59	Far East Holdings Bhd	0	0	0	0	0	0	0	0
60	Sunsuria Bhd	0	0	0	0	0	0	0	0
61	Muhibbah Engineering	0	0	0	0	1	1	1	1
62	Tan Chong Motor Holdings Bhd	1	1	1	1	1	1	1	1
63	Jaya Tiasa Holdings	0	0	0	0	1	1	1	1
64	Dagang Nexchange	0	0	0	0	0	0	0	0
65	Ta Enterprise Berhad	0	0	0	0	0	0	0	0
66	Media Prima Bhd	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
34	Drb-Hicom Bhd	1	1	1	1	1	1
35	Berjaya Sports Toto	0	0	0	0	0	0
36	Malaysian Resources Corp Bhd	0	0	0	0	0	0
37	Malaysian Pacific Ind	1	1	1	1	1	1
38	Ijm Plantations Bhd	0	0	1	0	0	0
39	Ekovest Bhd	0	0	0	0	0	0
40	Magnum Bhd	0	0	0	0	0	0
41	Tsh Resources Bhd	1	1	1	1	1	1
42	Panasonic Manufacturing	1	1	1	1	1	1
43	Shangri-La Hotels	0	0	0	0	0	0
44	Berjaya Land Bhd	0	0	0	0	0	0
45	Sarawak Oil Palms	1	1	1	1	1	1
46	Taliworks Corp Bhd	0	0	0	0	0	0
47	Keck Seng (Malaysia)	1	1	1	1	1	1
48	Hengyuan Refining	1	1	1	1	1	1
49	Selangor Properties	1	1	1	1	1	1
50	Berjaya Corp Bhd	0	0	0	0	0	0
51	Tasek Corp Bhd	1	1	1	1	1	1
52	George Kent (Mal)	0	0	0	0	0	0
53	Ajinomoto Malaysia	0	0	1	1	1	1
54	Mega First Corp Bhd	0	0	0	0	0	0
55	United Malacca Bhd	0	0	0	0	0	0
56	Malayan Flour Mills	1	1	1	1	1	1
57	Iskandar Waterfront	0	0	0	0	0	0
58	Kretam Holdings Bhd	0	0	1	1	1	1
59	Far East Holdings Bhd	0	0	0	0	0	0
60	Sunsuria Bhd	0	0	0	0	0	0
61	Muhibbah Engineering	1	1	1	1	1	1
62	Tan Chong Motor Holdings Bhd	1	1	1	1	1	1
63	Jaya Tiasa Holdings	1	1	1	1	1	1
64	Dagang Nexchange	0	0	0	0	0	0
65	Ta Enterprise Berhad	0	0	0	0	0	0
66	Media Prima Bhd	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	1995	1996	1997	1998	1999	2000	2001	2002
67	Tdm Bhd	0	0	0	0	0	0	0	0
68	Mitrajaya Holdings Bhd	0	0	0	0	0	0	0	0
69	Wing Tai Malaysia Bhd	0	0	0	0	0	0	0	0
70	Gadang Holdings Bhd	0	0	0	0	0	0	0	0
71	Dksh Holdings Malaysia	0	0	0	0	0	0	0	1
72	Lion Industries Corp Bhd	0	0	0	0	0	0	0	0
73	Perusahaan Sadur Timah	0	0	0	0	0	0	0	0
74	Tiong Nam Logistics	0	0	0	0	0	0	0	0
75	Daiboichi Plastic & Packaging	0	0	0	0	0	0	0	0
76	Chin Teck Plantations	0	0	0	0	0	0	0	0
77	Kesm Industries Bhd	0	0	0	0	0	0	0	0
78	Insas Bhd	0	0	0	0	0	0	0	0
79	Chemical Co Of Malaysia	0	0	0	0	0	0	0	0
80	Wah Seong Corp Bhd	0	0	0	0	0	0	0	1
81	Southern Steel Berhad	0	0	0	0	0	1	1	1
82	Mulpha International	0	0	0	0	0	0	0	0
83	Pintaras Jaya Bhd	0	0	0	0	0	0	0	0
84	Southern Acids Malaysia	0	0	0	0	0	0	0	0
85	Parkson Holdings Bhd	0	0	0	0	0	0	1	1
86	Fima Corp Bhd	0	0	0	0	0	0	0	0
87	Lay Hong Bhd	0	0	0	0	0	0	0	0
88	Malayan United Ind	0	0	0	0	0	0	0	0
89	Boustead Heavy Ind	0	0	0	0	0	0	0	0
90	Comfort Glove Bhd	0	0	0	0	0	0	0	0
91	Daiman Development	0	0	0	0	0	0	0	0
92	Bonia Corp Bhd	0	0	0	0	0	0	0	0
93	Pelikan International	0	0	0	0	0	0	0	0
94	Landmarks Berhad	0	0	0	0	0	0	0	0
95	Muda Holdings Berhad	0	0	0	0	0	0	0	0
96	Yee Lee Corporation	0	0	0	0	0	0	0	1
97	Enra Group Bhd	0	0	0	0	0	0	0	0
98	Wtk Holdings Berhad	0	0	0	0	0	0	0	0
99	Malaysia Smelting Corp	0	0	0	0	0	0	0	1

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2003	2004	2005	2006	2007	2008	2009	2010
67	Tdm Bhd	0	0	0	0	0	0	0	0
68	Mitrajaya Holdings Bhd	0	0	0	0	0	0	0	0
69	Wing Tai Malaysia Bhd	0	0	0	0	0	0	0	0
70	Gadang Holdings Bhd	0	0	0	0	0	0	0	0
71	Dksh Holdings Malaysia	1	1	1	1	1	1	1	1
72	Lion Industries Corp Bhd	0	0	0	0	0	0	0	0
73	Perusahaan Sadur Timah	0	0	0	0	0	0	0	0
74	Tiong Nam Logistics	0	0	0	0	0	0	0	0
75	Daiboichi Plastic & Packaging	0	0	0	0	1	1	0	1
76	Chin Teck Plantations	0	0	0	0	0	0	0	0
77	Kesm Industries Bhd	0	0	0	0	0	0	0	0
78	Insas Bhd	0	0	0	0	0	0	0	0
79	Chemical Co Of Malaysia	0	0	0	0	0	1	1	1
80	Wah Seong Corp Bhd	0	0	1	1	1	1	1	1
81	Southern Steel Berhad	1	1	1	1	1	1	1	1
82	Mulpha International	0	0	0	0	0	0	0	0
83	Pintaras Jaya Bhd	1	1	1	1	1	1	1	1
84	Southern Acids Malaysia	1	1	1	1	1	1	1	1
85	Parkson Holdings Bhd	1	1	1	0	0	1	1	1
86	Fima Corp Bhd	0	0	0	0	0	0	0	0
87	Lay Hong Bhd	0	0	0	0	0	0	0	0
88	Malayan United Ind	0	0	0	0	0	0	0	0
89	Boustead Heavy Ind	0	0	0	0	0	0	0	0
90	Comfort Glove Bhd	0	0	1	1	1	1	1	1
91	Daiman Development	0	0	0	0	0	0	0	0
92	Bonia Corp Bhd	1	1	1	1	1	1	1	0
93	Pelikan International	0	0	1	1	1	1	1	0
94	Landmarks Berhad	0	0	0	0	0	0	0	0
95	Muda Holdings Berhad	0	0	0	0	0	0	0	1
96	Yee Lee Corporation	1	1	1	0	0	1	1	1
97	Enra Group Bhd	0	0	0	0	0	0	0	1
98	Wik Holdings Berhad	0	0	0	0	0	0	0	0
99	Malaysia Smelting Corp	1	1	1	1	1	1	1	1

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
67	Tdm Bhd	0	0	0	0	0	0
68	Mitrajaya Holdings Bhd	0	0	0	0	0	0
69	Wing Tai Malaysia Bhd	0	0	0	0	0	0
70	Gadang Holdings Bhd	0	0	0	0	0	0
71	Dksh Holdings Malaysia	1	1	1	1	1	1
72	Lion Industries Corp Bhd	0	0	0	0	0	0
73	Perusahaan Sadur Timah	0	0	0	0	0	0
74	Tiong Nam Logistics	0	0	0	0	0	0
75	Daiboichi Plastic & Packaging	1	1	1	1	1	1
76	Chin Teck Plantations	0	0	0	0	0	0
77	Kesm Industries Bhd	0	0	0	0	0	0
78	Insas Bhd	0	0	0	0	0	0
79	Chemical Co Of Malaysia	0	0	0	0	0	0
80	Wah Seong Corp Bhd	1	1	1	1	1	1
81	Southern Steel Berhad	1	1	1	1	1	1
82	Mulpha International	0	0	0	0	0	0
83	Pintaras Jaya Bhd	0	0	0	0	0	0
84	Southern Acids Malaysia	1	1	1	1	1	1
85	Parkson Holdings Bhd	1	1	1	1	1	1
86	Fima Corp Bhd	0	0	0	0	0	0
87	Lay Hong Bhd	0	0	0	0	0	0
88	Malayan United Ind	0	0	0	0	0	0
89	Boustead Heavy Ind	0	0	0	0	0	0
90	Comfort Glove Bhd	1	1	1	0	0	0
91	Daiman Development	0	0	0	0	0	0
92	Bonia Corp Bhd	0	0	0	0	0	0
93	Pelikan International	0	0	0	0	0	0
94	Landmarks Berhad	0	0	0	0	0	0
95	Muda Holdings Berhad	1	1	1	1	1	1
96	Yee Lee Corporation	1	1	1	1	1	1
97	Enra Group Bhd	1	1	0	0	0	0
98	Wtk Holdings Berhad	0	0	0	0	0	0
99	Malaysia Smelting Corp	1	1	0	1	1	1

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	1995	1996	1997	1998	1999	2000	2001	2002
100	C.I. Holdings Berhad	0	0	0	0	0	0	0	0
101	Dutaland Bhd	0	0	0	0	0	0	0	0
102	Oriental Interest Bhd	0	0	0	0	0	0	0	0
103	Brem Holding Bhd	0	0	0	0	0	0	0	0
104	Salcon Bhd	0	0	0	0	0	0	0	0
105	Mwe Holdings Berhad	0	0	0	0	0	0	0	1
106	Kkb Engineering Bhd	0	0	0	0	0	0	0	1
107	Hil Industries Berhad	0	0	0	0	0	0	0	0
108	Ho Hup Construction Co	0	0	0	0	0	0	0	0
109	Negri Sembilan Oil Palms	0	0	0	0	0	0	0	0
110	Sinotop Holding Bhd	0	0	0	0	0	0	0	0
111	Kim Hin Industry Berhad	0	0	0	0	0	0	0	1
112	Inch Kenneth Kajang Rubber	0	0	0	0	0	0	0	0
113	Reliance Pacific Bhd	0	0	0	0	0	0	0	0
114	Formosa Prosonic Inds	0	0	0	0	0	0	0	0
115	Cepatwawasan Group	0	0	0	0	0	0	0	0
116	Goh Ban Huat Bhd	0	0	0	0	0	0	0	0
117	Guh Holdings Bhd	0	0	0	0	0	0	0	1
118	Riverview Rubber Estates	0	0	0	0	0	0	0	0
119	Choo Bee Metal Indus	0	0	0	0	0	0	0	0
120	Cycle & Carriage Bintang	1	1	0	1	1	1	1	1
121	Aluminium Co Of Mal	0	0	0	0	0	1	1	1
122	Prolexus Bhd	0	0	0	0	0	0	0	0
123	Fcw Holdings Bhd	0	0	0	0	0	0	0	0
124	Sumatec Resources Bhd	0	0	0	0	0	0	0	0
125	Tadmax Resources Bhd	0	0	0	0	0	0	0	0
126	Omesti Bhd	0	0	0	0	0	0	0	0
127	Kluang Rubber Co (M)	0	0	0	0	0	0	0	0
128	Nylex Malaysia Bhd	1	1	0	1	1	1	1	1
129	Sungei Bagan Rubber	0	0	0	0	0	0	0	0
130	Hexza Corp Bhd	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2003	2004	2005	2006	2007	2008	2009	2010
100	C.I. Holdings Berhad	0	1	1	1	1	1	1	1
101	Dutaland Bhd	0	0	0	0	0	0	0	0
102	Oriental Interest Bhd	0	0	0	0	0	0	0	0
103	Brem Holding Bhd	0	0	0	0	0	0	0	0
104	Salcon Bhd	0	0	0	0	0	0	0	1
105	Mwe Holdings Berhad	1	1	1	1	1	1	1	1
106	Kkb Engineering Bhd	1	1	1	1	1	1	1	0
107	Hil Industries Berhad	0	0	0	0	0	0	0	0
108	Ho Hup Construction Co	0	0	0	0	0	0	0	0
109	Negri Sembilan Oil Palms	0	0	0	0	0	0	0	0
110	Sinotop Holding Bhd	0	0	0	0	0	0	0	0
111	Kim Hin Industry Berhad	1	1	1	1	1	1	1	1
112	Inch Kenneth Kajang Rubber	0	0	0	0	0	0	0	0
113	Reliance Pacific Bhd	0	0	0	0	0	0	0	0
114	Formosa Prosonic Inds	1	1	1	1	1	1	1	1
115	Cepatwawasan Group	0	0	0	0	0	0	0	0
116	Goh Ban Huat Bhd	0	0	0	0	0	0	0	0
117	Guh Holdings Bhd	1	1	1	1	1	1	1	1
118	Riverview Rubber Estates	0	0	0	0	0	0	0	0
119	Choo Bee Metal Indus	1	1	1	1	1	1	1	1
120	Cycle & Carriage Bintang	1	1	1	1	1	1	1	1
121	Aluminium Co Of Mal	1	1	1	1	1	1	1	1
122	Prolexus Bhd	1	1	1	1	1	1	1	1
123	Fcw Holdings Bhd	0	0	0	0	0	0	0	0
124	Sumatec Resources Bhd	0	0	0	0	0	0	0	0
125	Tadmax Resources Bhd	0	0	0	0	0	0	0	0
126	Omesti Bhd	0	0	0	0	0	0	0	0
127	Kluang Rubber Co (M)	0	0	0	0	0	0	0	0
128	Nylex Malaysia Bhd	1	1	1	1	1	1	1	1
129	Sungei Bagan Rubber	0	0	0	0	0	0	0	0
130	Hexza Corp Bhd	1	1	1	1	1	1	1	1

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
100	C.I. Holdings	1	1	1	1	1	1
101	Dutaland Bhd	0	0	0	0	0	0
102	Oriental Interest	0	0	0	0	0	0
103	Brem Holding	0	0	0	0	0	0
104	Salcon Bhd	1	1	1	1	1	1
105	Mwe Holdings	1	1	1	1	1	1
106	Kkb Engineering	0	0	0	0	0	0
107	Hil Industries	0	0	0	0	0	0
108	Ho Hup Construction	0	0	0	0	0	0
109	Negri Sembilan Oil Palms	0	0	0	0	0	0
110	Sinotop Holding	0	0	0	0	0	0
111	Kim Hin Industry	1	1	1	1	1	1
112	Inch Kenneth Kajang Rubber	0	0	0	0	0	0
113	Reliance Pacific	0	0	0	0	0	0
114	Formosa Prosonic	1	1	1	1	1	1
115	Cepatwawasan Group	0	0	0	0	0	0
116	Goh Ban Huat	0	0	0	0	0	0
117	Guh Holdings	1	1	1	1	1	1
118	Riverview Rubber Estates	0	0	0	0	0	0
119	Choo Bee Metal	1	1	1	1	1	1
120	Cycle & Carriage Bintang	1	1	1	1	1	1
121	Aluminium Co Of Mal	1	1	1	1	1	1
122	Prolexus Bhd	1	1	1	1	1	1
123	Fcw Holdings	0	0	0	0	0	0
124	Sumatec Resources	0	0	0	0	0	0
125	Tadmax Resources	0	0	0	0	0	0
126	Omesti Bhd	0	0	0	0	0	0
127	Kluang Rubber	0	0	0	0	0	0
128	Nylex Malaysia	1	1	1	1	1	1
129	Sungei Bagan Rubber	0	0	0	0	0	0
130	Hexza Corp Bhd	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	1995	1996	1997	1998	1999	2000	2001	2002
131	Lb Aluminium Bhd	0	0	0	0	0	0	0	0
132	Johan Holdings Bhd	0	0	0	0	0	0	0	0
133	Crest Builder Holdings	0	0	0	0	0	0	0	0
134	Dataprep Holdings Bhd	0	0	0	0	0	0	0	0
135	Fitters Diversified Bhd	0	0	0	0	0	0	0	0
136	Public Packages Hldngs	0	0	0	0	0	0	0	0
137	Ancom Bhd	0	0	0	0	0	0	0	0
138	Eg Industries Bhd	0	0	0	0	0	0	0	0
139	Marco Holdings Bhd	0	0	0	0	0	0	0	0
140	Sbc Corporation Bhd	0	0	0	0	0	0	0	0
141	Texchem Resources	0	0	0	0	0	0	0	1
142	Lysaght Galvanized Steel	0	0	0	0	0	0	0	0
143	Eksons Corp Bhd	0	0	0	0	0	0	0	0
144	Sapura Resources Bhd	0	0	0	0	0	0	0	0
145	Pan Malaysia Holdings	0	0	0	0	0	0	0	0
146	Integrated Logistics Bhd	0	0	0	0	0	0	0	0
147	Pan Malaysia Corp.	0	0	0	0	0	0	0	0
148	Olympia Industries Bhd	0	0	0	0	0	0	0	0
149	Denko Industrial Corp	0	0	0	0	0	0	0	0
150	Lion Forest Industries	0	0	0	0	0	0	0	0
151	Advance Synergy Bhd	0	0	0	0	0	0	0	0
152	Brahim's Holdings Bhd	0	0	0	0	0	0	0	0
153	Zelan Bhd	0	0	0	0	0	0	0	0
154	Minho M Bhd	0	0	0	0	0	0	0	1
155	Pansar Bhd	0	0	0	0	0	0	0	0
156	Facb Industries Inc Bhd	0	0	0	0	0	0	0	1
157	Grand Central Ent.	0	0	0	0	0	0	0	0
158	Ireka Corp Bhd	0	0	0	0	0	0	0	0
159	Kym Holdings Berhad	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2003	2004	2005	2006	2007	2008	2009	2010
131	Lb Aluminium Bhd	0	0	0	0	0	0	0	0
132	Johan Holdings Bhd	0	0	0	0	0	0	0	0
133	Crest Builder Holdings	0	0	0	0	0	0	0	0
134	Dataprep Holdings Bhd	0	0	0	0	0	0	0	0
135	Fitters Diversified Bhd	0	0	0	0	0	0	0	0
136	Public Packages Hldngs	0	0	0	0	0	0	0	0
137	Ancom Bhd	0	0	0	0	0	0	0	0
138	Eg Industries Bhd	0	0	0	0	0	0	0	1
139	Marco Holdings Bhd	0	0	0	0	0	0	0	0
140	Sbc Corporation Bhd	0	0	0	0	0	0	0	0
141	Texchem Resources	1	1	1	1	1	1	1	1
142	Lysaght Galvanized Steel	0	0	0	0	0	0	0	0
143	Eksons Corp Bhd	0	0	0	0	0	0	0	0
144	Sapura Resources Bhd	0	0	0	0	0	0	0	0
145	Pan Malaysia Holdings	0	0	0	0	0	0	0	0
146	Integrated Logistics Bhd	0	0	0	0	0	0	0	0
147	Pan Malaysia Corp.	0	0	0	0	0	0	0	0
148	Olympia Industries Bhd	0	0	0	0	0	0	0	0
149	Denko Industrial Corp	0	0	0	0	0	0	0	0
150	Lion Forest Industries	0	0	0	0	0	0	0	0
151	Advance Synergy Bhd	0	0	0	0	0	0	0	0
152	Brahim's Holdings Bhd	0	0	0	0	0	0	0	0
153	Zelan Bhd	0	0	0	0	0	0	0	0
154	Minho M Bhd	1	1	1	1	1	1	1	1
155	Pansar Bhd	0	0	0	0	0	0	0	0
156	Facb Industries Inc Bhd	1	1	1	1	1	1	1	1
157	Grand Central Ent.	0	0	0	0	0	0	0	0
158	Ireka Corp Bhd	0	0	0	0	0	0	0	0
159	Kym Holdings Berhad	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
131	Lb Aluminium	1	1	1	1	1	1
132	Johan Holdings Bhd	0	0	0	0	0	0
133	Crest Builder Holdings	0	0	0	0	0	0
134	Dataprep Holdings Bhd	0	0	0	0	0	0
135	Fitters Diversified	0	0	0	0	0	0
136	Public Packages	0	0	0	0	0	0
137	Ancom Bhd	0	0	0	0	0	0
138	Eg Industries	1	0	0	0	0	0
139	Marco Holdings Bhd	0	0	0	0	0	0
140	Sbc Corp.	0	0	0	0	0	0
141	Texchem Resources	1	1	1	1	1	1
142	Lysaght Galvanized Steel	0	0	0	0	0	0
143	Eksons Corp	0	0	0	0	0	0
144	Sapura Resources	0	0	0	0	0	0
145	Pan Malaysia Holdings	0	0	0	0	0	0
146	Integrated Logistics	0	0	0	0	0	0
147	Pan Malaysia Corporation	0	0	0	0	0	0
148	Olympia Ind	0	0	0	0	0	0
149	Denko Ind.	0	0	0	0	0	0
150	Lion Forest Industries	0	0	0	0	0	0
151	Advance Synergy Bhd	0	0	0	0	0	0
152	Brahim's	0	0	0	0	0	0
153	Zelan Bhd	0	0	0	0	0	0
154	Minho M Bhd	1	1	1	1	1	1
155	Pansar Bhd	1	1	1	1	1	1
156	Facb Industries Inc	1	1	1	1	1	1
157	Grand Central	0	0	0	0	0	0
158	Ireka Corp	0	0	0	0	0	0
159	Kym Holdings	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	1995	1996	1997	1998	1999	2000	2001	2002
160	Bina Puri Holdings Bhd	0	0	0	0	0	0	0	0
161	Malpac Holdings Bhd	0	0	0	0	0	0	0	0
162	Majuperak Holdings	0	0	0	0	0	0	0	0
163	Mtd Acpi Engineering	0	0	0	0	0	0	0	0
164	Poly Glass Fibre (Mal)	0	0	0	0	0	0	0	0
165	Kps Consortium Bhd	0	0	0	0	0	0	0	0
166	Dolomite Corp Bhd	0	0	0	0	0	0	0	0
167	Federal Furniture Hldgs	0	0	0	0	0	0	0	0
168	Ocb Bhd	1	1	0	1	1	1	1	1
169	Sin Heng Chan (Malaya)	0	0	0	0	0	0	0	0
170	Lion Diversified Holdings	0	0	0	0	0	0	0	0
171	Tanco Holdings Bhd	0	0	0	0	0	0	0	0
172	Melewar Industrial Group	0	0	0	0	0	0	0	0
173	Mintye Bhd	0	0	0	0	0	0	0	0
174	Jasa Kita Bhd	0	0	0	0	0	0	0	0
175	Concrete Engineering	0	0	0	0	0	0	0	0
176	Compugates Holdings	0	0	0	0	0	0	0	0
177	Amalgamated Indl Steel	0	0	0	0	0	0	0	0
178	Sanbumi Holdings Bhd	0	0	0	0	0	0	0	0
179	Cwg Holdings Bhd	0	0	0	0	0	0	0	0
180	Kumpulan Jetson Bhd	0	0	0	0	0	0	0	0
181	Teo Guan Lee Corp Bhd	0	0	0	0	0	0	1	1
182	Ipmuda Berhad	0	0	0	0	0	0	0	0
183	Central Industrial Corp	0	0	0	0	0	0	0	0
184	Ho Wah Genting Bhd	0	0	0	0	0	0	0	0
185	Mercury Industries Bhd	0	0	0	0	0	0	0	1
186	Sarawak Consolidated	0	0	0	0	0	0	0	0
187	Mentiga Corp Bhd	0	0	0	0	0	0	0	0
188	Utusan Melayu (Mal)	0	0	0	0	0	0	0	0
189	Jerasia Capital Bhd	0	0	0	0	0	0	0	1
190	Computer Forms (Mal)	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2003	2004	2005	2006	2007	2008	2009	2010
160	Bina Puri Holdings Bhd	0	0	0	0	0	0	0	0
161	Malpac Holdings Bhd	0	0	0	0	0	0	0	0
162	Majuperak Holdings	0	0	0	0	0	0	0	0
163	Mtd Acpi Engineering	0	0	0	0	0	0	0	0
164	Poly Glass Fibre (Mal)	0	0	0	0	0	0	0	0
165	Kps Consortium Bhd	0	0	0	0	0	0	0	0
166	Dolomite Corp Bhd	0	0	0	0	0	0	0	0
167	Federal Furniture Hldgs	0	0	0	0	0	0	0	0
168	Ocb Bhd	0	0	0	0	0	0	0	0
169	Sin Heng Chan (Malaya)	0	0	0	0	0	0	0	0
170	Lion Diversified Holdings	0	0	0	0	0	0	0	0
171	Tanco Holdings Bhd	0	0	0	0	0	0	0	0
172	Melewar Industrial Group	0	0	0	0	1	1	1	1
173	Mintye Bhd	0	0	0	0	0	0	0	0
174	Jasa Kita Bhd	0	0	0	0	0	0	0	0
175	Concrete Engineering	0	0	0	0	0	0	0	0
176	Compugates Holdings	0	0	0	0	0	0	0	0
177	Amalgamated Indl Steel	0	0	0	0	0	0	0	0
178	Sanbumi Holdings Bhd	0	0	0	0	0	0	0	0
179	Cwg Holdings Bhd	0	0	1	1	1	1	1	1
180	Kumpulan Jetson Bhd	0	0	0	0	0	0	0	0
181	Teo Guan Lee Corp Bhd	1	1	1	1	1	0	0	0
182	Ipmuda Berhad	0	0	0	0	0	0	0	0
183	Central Industrial Corp	0	0	1	1	1	0	0	1
184	Ho Wah Genting Bhd	0	0	0	1	0	0	0	0
185	Mercury Industries Bhd	1	1	1	1	1	1	1	0
186	Sarawak Consolidated	0	0	1	0	0	0	0	0
187	Mentiga Corp Bhd	0	0	0	0	0	0	0	0
188	Utusan Melayu (Mal)	0	0	0	0	0	0	0	0
189	Jerasia Capital Bhd	1	1	1	1	1	1	1	1
190	Computer Forms (Mal)	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
160	Bina Puri Hldngs	0	0	0	0	0	0
161	Malpac Holdings	0	0	0	0	0	0
162	Majuperak Holdings Bhd	0	0	0	0	0	0
163	Mtd Acpi Eng.	0	0	0	0	0	0
164	Poly Glass Fibre	0	0	0	1	1	1
165	Kps Consortium	0	0	0	0	0	0
166	Dolomite Corp	0	0	0	0	0	0
167	Federal Furniture Hldgs	0	0	0	0	0	0
168	Ocb Bhd	0	0	0	0	0	0
169	Sin Heng Chan (Malaya)	0	0	0	0	0	0
170	Lion Diversified	0	0	0	0	0	0
171	Tanco Holdings	0	0	0	0	0	0
172	Melewar Industrial Group	1	1	1	1	1	1
173	Mintye Bhd	0	0	0	0	0	0
174	Jasa Kita Bhd	0	0	0	0	0	0
175	Concrete Eng.	0	0	0	0	0	0
176	Compugates Holdings	0	0	0	0	0	0
177	Amalgamated Indl Steel	0	0	0	0	0	0
178	Sanbumi Holding	0	0	0	0	0	0
179	Cwg Holdings	1	1	1	1	1	1
180	Kump. Jetson	1	1	1	0	0	0
181	Teo Guan Lee	0	0	0	0	0	1
182	Ipmuda Berhad	0	0	0	1	1	1
183	Central Industrial Corp	1	1	1	1	1	0
184	Ho Wah Genting	0	0	0	0	0	0
185	Mercury Industries Bhd	0	0	0	0	0	0
186	Sarawak Consolidated	0	0	0	0	0	0
187	Mentiga Corp	0	0	0	0	0	0
188	Utusan Melayu	0	0	0	0	0	
189	Jerasia Capital	1	1	1	1	1	1
190	Computer Forms (Mal)	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	1995	1996	1997	1998	1999	2000	2001	2002
191	Turiya Bhd	0	0	0	0	0	0	0	0
192	Golden Pharos Bhd	1	1	0	1	1	1	1	1
193	Advanced Packaging Tech	0	0	0	0	0	0	0	0
194	Theta Edge Bhd	0	0	0	0	0	0	0	0
195	Sino Hua-An Int.	0	0	0	0	0	0	0	0
196	Hwa Tai Industries Bhd	0	0	0	0	0	0	0	0
197	Multi-Usage Holdings	0	0	0	0	0	0	0	0
198	Pinehill Pacific Bhd	0	0	0	0	0	0	0	0
199	Paragon Union Bhd	0	0	0	0	0	0	0	0
200	Seni Jaya Corporation	0	0	0	0	0	0	0	0
201	Fsbm Holdings Bhd	0	0	0	0	0	0	0	1
202	Emico Holdings Bhd	0	0	0	0	0	0	0	0
203	Industronics Bhd	0	0	0	0	0	0	0	0
204	Kuantan Flour Mills	0	0	0	0	0	0	0	0
205	Java Bhd	1	1	0	1	1	1	1	1
206	Anzo Holdings Bhd	0	0	0	0	0	0	0	0
207	Premier Nalfin Bhd	0	0	0	0	0	0	0	0

Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2003	2004	2005	2006	2007	2008	2009	2010
191	Turiya Bhd	0	0	0	0	0	0	0	0
192	Golden Pharos Bhd	1	1	0	0	0	0	0	0
193	Advanced Packaging Tech	0	0	0	0	0	0	0	0
194	Theta Edge Bhd	0	0	0	0	0	0	0	0
195	Sino Hua-An Int.	0	0	1	1	0	0	0	0
196	Hwa Tai Industries Bhd	0	0	0	0	0	0	0	0
197	Multi-Usage Holdings	0	0	0	0	0	0	0	0
198	Pinehill Pacific Bhd	0	0	0	1	1	1	1	1
199	Paragon Union Bhd	0	0	0	0	0	0	0	0
200	Seni Jaya Corporation	0	0	0	0	0	0	0	0
201	Fsbm Holdings Bhd	1	1	1	1	1	1	1	0
202	Emico Holdings Bhd	0	0	0	0	0	0	0	0
203	Industronics Bhd	0	0	0	0	0	0	0	0
204	Kuantan Flour Mills	0	0	0	0	0	0	0	0
205	Java Bhd	1	1	1	1	1	1	1	1
206	Anzo Holdings Bhd	0	0	0	0	0	0	0	0
207	Premier Nalfin Bhd	0	0	1	1	1	1	1	1

UNIVERSITI SAINS ISLAMIC
 UNIVERSITY OF MALAYSIA
 ISLAMIC SCIENCE UNIVERSITY

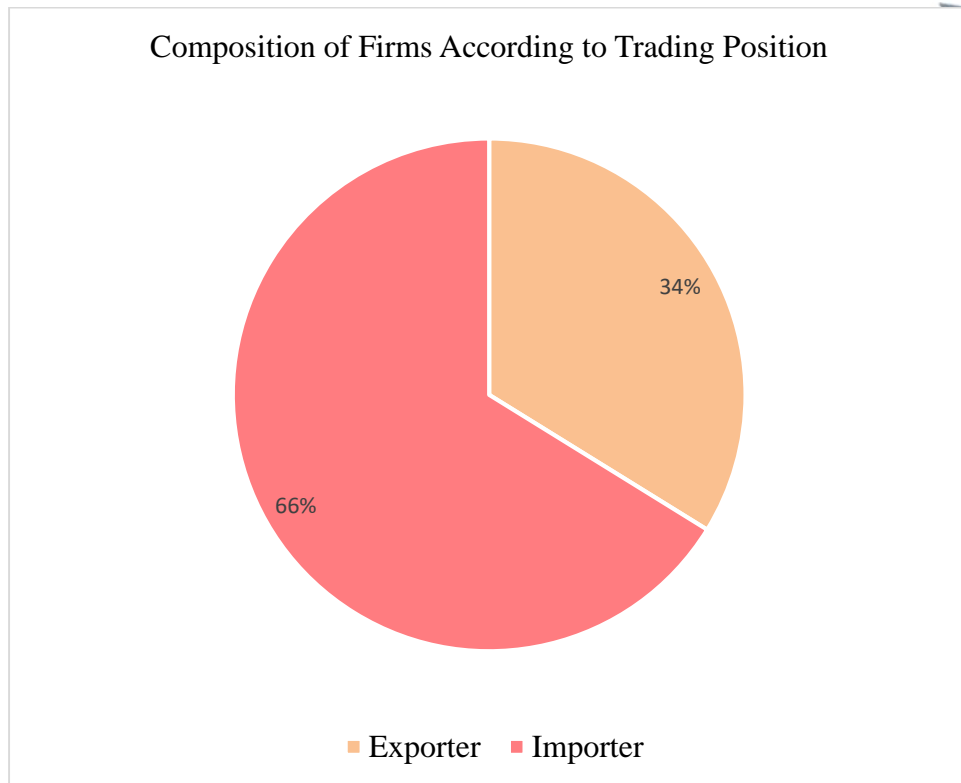
Appendix 4: List of Firms' Financial Derivative Hedging Practice, 1995 – 2016

(cont.)

	Company	2011	2012	2013	2014	2015	2016
191	Turiya Bhd	0	0	0	0	0	0
192	Golden Pharos	0	0	0	0	0	0
193	Advanced Packaging Tech	0	0	0	0	0	0
194	Theta Edge	0	0	0	0	0	0
195	Sino Hua-An Int.	0	0	0	0	0	0
196	Hwa Tai Industries	0	0	0	0	0	0
197	Multi-Usage Holdings	0	0	0	0	0	0
198	Pinehill Pacific	1	1	1	1	1	1
199	Paragon Union	0	0	0	0	0	0
200	Seni Jaya Corporation	0	0	0	0	0	0
201	Fsbm Holdings	0	0	0	0	0	0
202	Emico Holdings	0	0	0	0	0	0
203	Industronics	0	0	0	0	0	0
204	Kuantan Flour Mills	0	0	0	0	0	0
205	Java Bhd	1	1	1	1	1	1
206	Anzo Holdings	0	0	0	0	0	0
207	Premier Nalfin	1	0	0	0	0	0

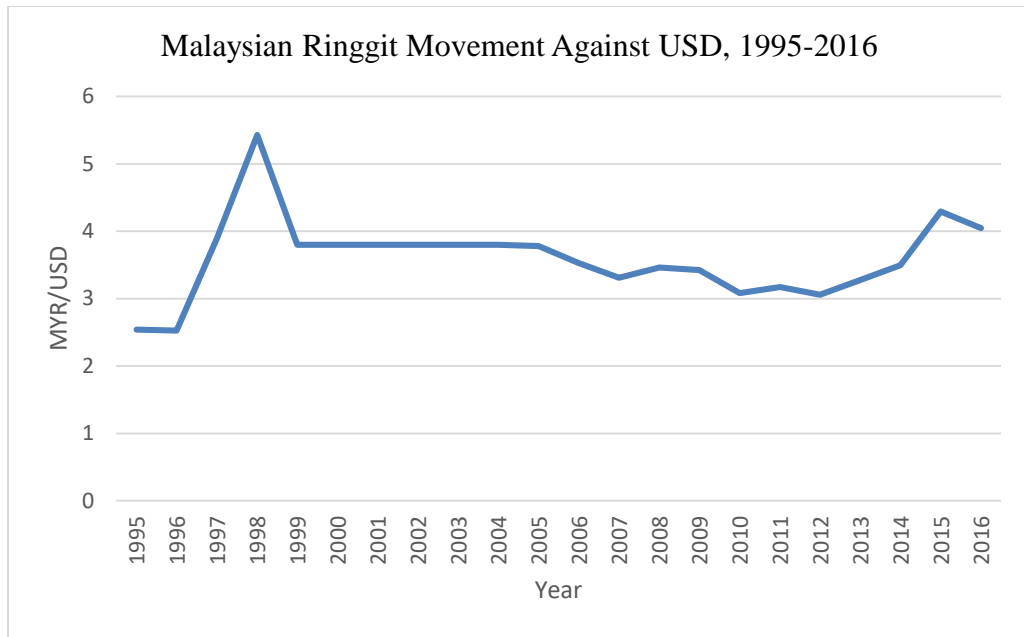
UNIVERSITI SAINS ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

Appendix 5: Composition of Firms According to Trading Position



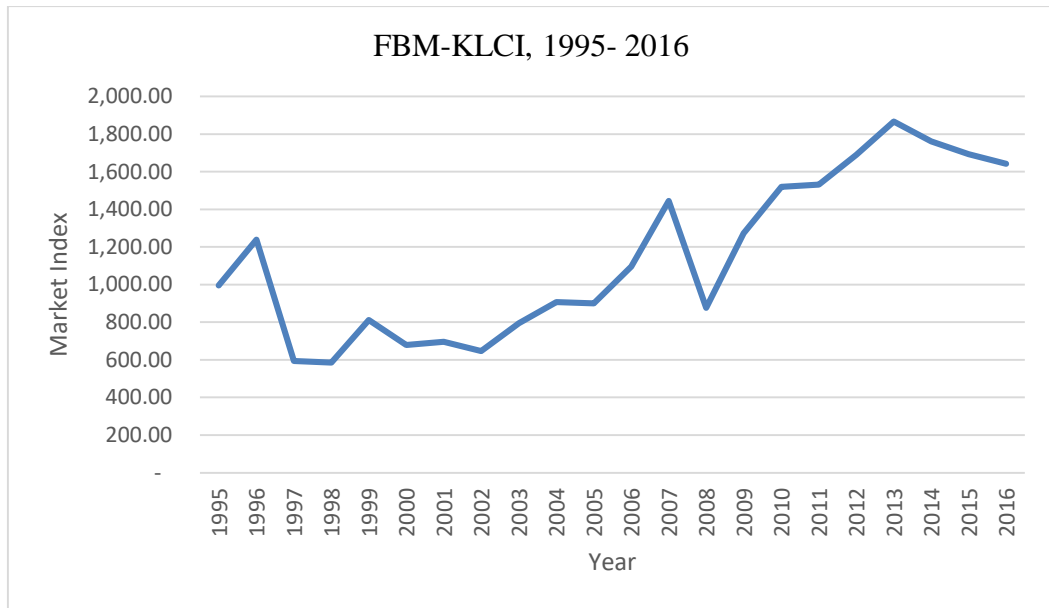
UNIVERSITI SAINS
الجامعة الإسلامية
ISLAMIC SCIENCE UNIVERSITY

Appendix 6: Movement of Malaysian Ringgit against the USD, 1995 - 2016



UNIVERSITI SAINS ISLAM
جامعة العلوم الإسلامية
ISLAMIC SCIENCE UNIVERSITY OF MALA

Appendix 7: FBM-KLCI, 1995 – 2016



UNIVERSITI SAINS ISLAM
جامعة العلوم الإسلامية
ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (a)

	Argentina	Australia	Austria	Bangladesh	Belgium	Brazil	British
Argentina	1.0000	-0.4626	0.4986	0.2100	0.4986	-0.5782	0.8093
Australia	-0.4626	1.0000	0.3193	-0.6353	0.3193	0.8118	-0.4713
Austria	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Bangladesh	0.2100	-0.6353	-0.5653	1.0000	-0.5653	-0.4411	0.0640
Belgium	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Brazil	-0.5782	0.8118	0.0218	-0.4411	0.0218	1.0000	-0.7342
British	0.8093	-0.4713	0.5681	0.0640	0.5681	-0.7342	1.0000
Brunei	0.1640	0.6670	0.8472	-0.7877	0.8472	0.4582	0.1931
Bulgaria	0.5042	0.3150	0.9999	-0.5645	0.9999	0.0166	0.5694
Cambodia	0.6822	-0.5600	0.3277	0.0520	0.3277	-0.7646	0.8781
Canada	-0.1636	0.7717	0.5572	-0.5429	0.5572	0.6936	-0.0695
Cayman	0.8093	-0.4713	0.5681	0.0640	0.5681	-0.7342	1.0000
China	0.7604	-0.1570	0.7946	-0.2250	0.7946	-0.5477	0.9027
Colombo	-0.3025	0.7880	0.2550	-0.4104	0.2550	0.8995	-0.4394
Czech	0.4964	0.3221	0.9998	-0.5648	0.9998	0.0263	0.5616
Finland	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
France	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Germany	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Ghana	0.6848	-0.5414	0.3668	0.1392	0.3668	-0.8951	0.8922
Greece	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Hong Kong	-0.3850	0.8565	0.1425	-0.3955	0.1425	0.8639	-0.4675
Hungary	0.2620	0.4759	0.9326	-0.6496	0.9326	0.1522	0.3305
India	0.2331	0.6303	0.5952	-0.3811	0.5952	0.3820	0.0879
Indonesia	-0.5323	0.9279	0.3649	-0.7360	0.3649	0.7655	-0.4336
Italy	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Japan	-0.3170	0.1934	-0.2983	-0.2707	-0.2983	0.0661	-0.3478
Korea	-0.2783	0.8391	0.3375	-0.6257	0.3375	0.8429	-0.4976
Laos	0.1938	-0.1730	-0.0417	0.0917	-0.0417	-0.3757	0.3352
Luxemburg	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Malaysia	-0.0278	0.6741	0.3682	-0.4540	0.3682	0.6377	-0.3371
Mauritius	0.1731	0.6045	0.8536	-0.6109	0.8536	0.4175	0.2412
Mexico	0.7176	-0.0629	0.7375	-0.2755	0.7375	-0.4774	0.8044
Mongolia	0.4054	-0.6718	-0.0694	0.2623	-0.0694	-0.9157	0.5751
Myanmar	0.0885	0.5398	0.4813	-0.1211	0.4813	0.4645	0.1169

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (a) (cont.)

Netherland	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Nigeria	0.6988	-0.7161	0.2217	0.2834	0.2217	-0.9564	0.8400
Norway	-0.1673	0.7820	0.5926	-0.4515	0.5926	0.7031	-0.2101
Pakistan	-0.2167	0.3849	0.4484	-0.5146	0.4484	0.4242	-0.1406
Peru	0.3728	-0.8164	-0.2894	0.4342	-0.2894	-0.9081	0.4492
Philippine	0.6597	0.1380	0.8867	-0.5262	0.8867	-0.1775	0.7346
Poland	0.3325	0.4971	0.9405	-0.6880	0.9405	0.1142	0.4056
Qatar	0.4312	-0.0874	0.4140	0.0349	0.4140	0.1168	0.3198
Romania	0.3604	0.4182	0.9802	-0.6832	0.9802	0.0993	0.4736
Seychelles	0.6079	-0.7404	0.1089	0.2335	0.1089	-0.9239	0.7483
Singapore	0.1640	0.6670	0.8472	-0.7877	0.8472	0.4582	0.1931
Slovakia	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Spain	0.4986	0.3193	1.0000	-0.5653	1.0000	0.0218	0.5681
Sri Lanka	0.6870	-0.3752	0.5414	-0.2596	0.5414	-0.6358	0.7200
Sweden	0.7180	0.0117	0.9032	-0.3598	0.9032	-0.3141	0.8374
Switzerland	0.3150	0.5844	0.9376	-0.6824	0.9376	0.2859	0.3373
Taiwan	-0.6415	0.8338	-0.0254	-0.4308	-0.0254	0.9669	-0.7894
Thailand	-0.2970	0.8805	0.5779	-0.8621	0.5779	0.7284	-0.2815
Turkey	0.6592	0.0920	0.9124	-0.5009	0.9124	-0.2698	0.7205
UAE	-0.0023	-0.4936	-0.5490	0.5905	-0.5490	-0.5050	0.1581
Vietnam	0.4691	-0.3566	0.1656	0.1980	0.1656	-0.7409	0.6315

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (b)

	Brunei	Bulgaria	Cambodia	Canada	Cayman	China	Colombo
Argentina	0.1640	0.5042	0.6822	-0.1636	0.8093	0.7604	-0.3025
Australia	0.6670	0.3150	-0.5600	0.7717	-0.4713	-0.1570	0.7880
Austria	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Bangladesh	-0.7877	-0.5645	0.0520	-0.5429	0.0640	-0.2250	-0.4104
Belgium	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Brazil	0.4582	0.0166	-0.7646	0.6936	-0.7342	-0.5477	0.8995
British	0.1931	0.5694	0.8781	-0.0695	1.0000	0.9027	-0.4394
Brunei	1.0000	0.8445	0.0678	0.8204	0.1931	0.4610	0.6186
Bulgaria	0.8445	1.0000	0.3307	0.5486	0.5694	0.7975	0.2486
Cambodia	0.0678	0.3307	1.0000	-0.2250	0.8781	0.7527	-0.5746
Canada	0.8204	0.5486	-0.2250	1.0000	-0.0695	0.0956	0.8377
Cayman	0.1931	0.5694	0.8781	-0.0695	1.0000	0.9027	-0.4394
China	0.4610	0.7975	0.7527	0.0956	0.9027	1.0000	-0.2517
Colombo	0.6186	0.2486	-0.5746	0.8377	-0.4394	-0.2517	1.0000
Czech	0.8457	0.9997	0.3175	0.5556	0.5616	0.7908	0.2586
Finland	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
France	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Germany	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Ghana	-0.0472	0.3711	0.8722	-0.3701	0.8922	0.8403	-0.6878
Greece	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Hong Kong	0.5578	0.1365	-0.5485	0.8164	-0.4675	-0.3153	0.8845
Hungary	0.7994	0.9333	0.0628	0.5248	0.3305	0.6368	0.2850
India	0.6773	0.5953	-0.1440	0.5924	0.0879	0.3829	0.6644
Indonesia	0.6872	0.3609	-0.4604	0.7500	-0.4336	-0.1020	0.7341
Italy	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Japan	-0.0954	-0.2956	-0.1931	-0.2393	-0.3478	-0.2671	-0.1190
Korea	0.6553	0.3358	-0.6359	0.6305	-0.4976	-0.1882	0.8415
Laos	-0.1263	-0.0431	0.4046	-0.0840	0.3352	0.2430	-0.3668
Luxemburg	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Malaysia	0.6121	0.3723	-0.3187	0.4793	-0.3371	-0.0419	0.5809
Mauritius	0.9028	0.8481	-0.0132	0.8465	0.2412	0.4642	0.6238
Mexico	0.4794	0.7413	0.7210	0.1001	0.8044	0.9602	-0.1812
Mongolia	-0.4324	-0.0618	0.6757	-0.7396	0.5751	0.4896	-0.8607
Myanmar	0.6033	0.4731	-0.1115	0.8739	0.1169	0.1684	0.6867

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (b) (cont.)

Netherland	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Nigeria	-0.2319	0.2277	0.8449	-0.5463	0.8400	0.7391	-0.7910
Norway	0.7097	0.5878	-0.4883	0.8303	-0.2101	0.0614	0.7909
Pakistan	0.4549	0.4465	-0.3923	0.4129	-0.1406	0.0226	0.4126
Peru	-0.6405	-0.2829	0.5453	-0.8800	0.4492	0.2806	-0.8948
Philippine	0.7681	0.8877	0.6075	0.4185	0.7346	0.8834	0.1069
Poland	0.8437	0.9414	0.1668	0.5454	0.4056	0.7227	0.3129
Qatar	0.3181	0.4120	0.1192	0.3838	0.3198	0.2099	0.2226
Romania	0.8792	0.9797	0.2515	0.5845	0.4736	0.7360	0.2997
Seychelles	-0.2708	0.1148	0.8716	-0.5909	0.7483	0.6369	-0.8242
Singapore	1.0000	0.8445	0.0678	0.8204	0.1931	0.4610	0.6186
Slovakia	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Spain	0.8472	0.9999	0.3277	0.5572	0.5681	0.7946	0.2550
Sri Lanka	0.2262	0.5485	0.6909	-0.3165	0.7200	0.8008	-0.4881
Sweden	0.6656	0.9035	0.6431	0.3514	0.8374	0.9507	0.0109
Switzerland	0.9475	0.9363	0.1206	0.7243	0.3373	0.6052	0.4615
Taiwan	0.3727	-0.0297	-0.8688	0.5958	-0.7894	-0.5820	0.8298
Thailand	0.8405	0.5754	-0.3968	0.7479	-0.2815	0.0553	0.7152
Turkey	0.7013	0.9160	0.5843	0.2626	0.7205	0.9248	-0.0237
UAE	-0.6425	-0.5479	0.2746	-0.4955	0.1581	-0.0681	-0.4070
Vietnam	-0.1526	0.1699	0.6191	-0.3731	0.6315	0.5470	-0.7166

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (c)

	Czech	Finland	France	Germany	Ghana	Greece	Hongkong
Argentina	0.4964	0.4986	0.4986	0.4986	0.6848	0.4986	-0.3850
Australia	0.3221	0.3193	0.3193	0.3193	-0.5414	0.3193	0.8565
Austria	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Bangladesh	-0.5648	-0.5653	-0.5653	-0.5653	0.1392	-0.5653	-0.3955
Belgium	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Brazil	0.0263	0.0218	0.0218	0.0218	-0.8951	0.0218	0.8639
British	0.5616	0.5681	0.5681	0.5681	0.8922	0.5681	-0.4675
Brunei	0.8457	0.8472	0.8472	0.8472	-0.0472	0.8472	0.5578
Bulgaria	0.9997	0.9999	0.9999	0.9999	0.3711	0.9999	0.1365
Cambodia	0.3175	0.3277	0.3277	0.3277	0.8722	0.3277	-0.5485
Canada	0.5556	0.5572	0.5572	0.5572	-0.3701	0.5572	0.8164
Cayman	0.5616	0.5681	0.5681	0.5681	0.8922	0.5681	-0.4675
China	0.7908	0.7946	0.7946	0.7946	0.8403	0.7946	-0.3153
Colombo	0.2586	0.2550	0.2550	0.2550	-0.6878	0.2550	0.8845
Czech	1.0000	0.9998	0.9998	0.9998	0.3620	0.9998	0.1410
Finland	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
France	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Germany	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Ghana	0.3620	0.3668	0.3668	0.3668	1.0000	0.3668	-0.6915
Greece	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Hong Kong	0.1410	0.1425	0.1425	0.1425	-0.6915	0.1425	1.0000
Hungary	0.9353	0.9326	0.9326	0.9326	0.2063	0.9326	0.1974
India	0.5996	0.5952	0.5952	0.5952	-0.0355	0.5952	0.5469
Indonesia	0.3660	0.3649	0.3649	0.3649	-0.4751	0.3649	0.7324
Italy	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Japan	-0.3029	-0.2983	-0.2983	-0.2983	-0.1633	-0.2983	0.0935
Korea	0.3459	0.3375	0.3375	0.3375	-0.6215	0.3375	0.7283
Laos	-0.0445	-0.0417	-0.0417	-0.0417	0.3813	-0.0417	-0.1816
Luxemburg	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Malaysia	0.3700	0.3682	0.3682	0.3682	-0.4153	0.3682	0.6181
Mauritius	0.8570	0.8536	0.8536	0.8536	-0.0251	0.8536	0.4844
Mexico	0.7346	0.7375	0.7375	0.7375	0.7994	0.7375	-0.2559
Mongolia	-0.0744	-0.0694	-0.0694	-0.0694	0.8325	-0.0694	-0.8093
Myanmar	0.4781	0.4813	0.4813	0.4813	-0.2141	0.4813	0.7189

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (c) (cont.)

Netherland	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Nigeria	0.2173	0.2217	0.2217	0.2217	0.9634	0.2217	-0.8135
Norway	0.5974	0.5926	0.5926	0.5926	-0.4236	0.5926	0.6982
Pakistan	0.4500	0.4484	0.4484	0.4484	-0.3238	0.4484	0.3118
Peru	-0.2912	-0.2894	-0.2894	-0.2894	0.7036	-0.2894	-0.8958
Philippine	0.8822	0.8867	0.8867	0.8867	0.5437	0.8867	0.0506
Poland	0.9420	0.9405	0.9405	0.9405	0.2873	0.9405	0.2346
Qatar	0.4122	0.4140	0.4140	0.4140	-0.0697	0.4140	0.1972
Romania	0.9813	0.9802	0.9802	0.9802	0.3063	0.9802	0.1814
Seychelles	0.1045	0.1089	0.1089	0.1089	0.9116	0.1089	-0.8515
Singapore	0.8457	0.8472	0.8472	0.8472	-0.0472	0.8472	0.5578
Slovakia	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Spain	0.9998	1.0000	1.0000	1.0000	0.3668	1.0000	0.1425
Sri Lanka	0.5406	0.5414	0.5414	0.5414	0.7846	0.5414	-0.6050
Sweden	0.8999	0.9032	0.9032	0.9032	0.6604	0.9032	-0.0952
Switzerland	0.9367	0.9376	0.9376	0.9376	0.1141	0.9376	0.4365
Taiwan	-0.0186	-0.0254	-0.0254	-0.0254	-0.8941	-0.0254	0.8242
Thailand	0.5816	0.5779	0.5779	0.5779	-0.4088	0.5779	0.6761
Turkey	0.9097	0.9124	0.9124	0.9124	0.6256	0.9124	-0.1101
UAE	-0.5562	-0.5490	-0.5490	-0.5490	0.3107	-0.5490	-0.3155
Vietnam	0.1615	0.1656	0.1656	0.1656	0.7601	0.1656	-0.4781

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (d)

	Hungary	India	Indonesia	Italy	Japan	Korea	Laos
Argentina	0.2620	0.2331	-0.5323	0.4986	-0.3170	-0.2783	0.1938
Australia	0.4759	0.6303	0.9279	0.3193	0.1934	0.8391	-0.1730
Austria	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Bangladesh	-0.6496	-0.3811	-0.7360	-0.5653	-0.2707	-0.6257	0.0917
Belgium	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Brazil	0.1522	0.3820	0.7655	0.0218	0.0661	0.8429	-0.3757
British	0.3305	0.0879	-0.4336	0.5681	-0.3478	-0.4976	0.3352
Brunei	0.7994	0.6773	0.6872	0.8472	-0.0954	0.6553	-0.1263
Bulgaria	0.9333	0.5953	0.3609	0.9999	-0.2956	0.3358	-0.0431
Cambodia	0.0628	-0.1440	-0.4604	0.3277	-0.1931	-0.6359	0.4046
Canada	0.5248	0.5924	0.7500	0.5572	-0.2393	0.6305	-0.0840
Cayman	0.3305	0.0879	-0.4336	0.5681	-0.3478	-0.4976	0.3352
China	0.6368	0.3829	-0.1020	0.7946	-0.2671	-0.1882	0.2430
Colombo	0.2850	0.6644	0.7341	0.2550	-0.1190	0.8415	-0.3668
Czech	0.9353	0.5996	0.3660	0.9998	-0.3029	0.3459	-0.0445
Finland	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
France	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Germany	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Ghana	0.2063	-0.0355	-0.4751	0.3668	-0.1633	-0.6215	0.3813
Greece	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Hong Kong	0.1974	0.5469	0.7324	0.1425	0.0935	0.7283	-0.1816
Hungary	1.0000	0.5847	0.5270	0.9326	-0.1467	0.4726	-0.1428
India	0.5847	1.0000	0.5437	0.5952	-0.1450	0.6787	-0.1899
Indonesia	0.5270	0.5437	1.0000	0.3649	0.1537	0.7606	-0.2994
Italy	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Japan	-0.1467	-0.1450	0.1537	-0.2983	1.0000	0.1472	-0.1038
Korea	0.4726	0.6787	0.7606	0.3375	0.1472	1.0000	-0.4131
Laos	-0.1428	-0.1899	-0.2994	-0.0417	-0.1038	-0.4131	1.0000
Luxemburg	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Malaysia	0.4429	0.5529	0.6200	0.3682	0.0210	0.7122	-0.3497
Mauritius	0.8067	0.6749	0.5872	0.8536	-0.3750	0.6023	-0.0129
Mexico	0.5823	0.4881	-0.0190	0.7375	-0.1995	-0.0968	0.2985
Mongolia	-0.1207	-0.2954	-0.5622	-0.0694	0.1578	-0.7186	0.2036
Myanmar	0.3819	0.5532	0.4349	0.4813	-0.4232	0.3558	0.0411

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (d) (cont.)

Netherland	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Nigeria	0.0709	-0.1851	-0.6316	0.2217	-0.1744	-0.7305	0.3455
Norway	0.7049	0.6542	0.7665	0.5926	-0.2592	0.7352	-0.3170
Pakistan	0.6212	0.2268	0.5122	0.4484	0.0775	0.4899	-0.5935
Peru	-0.3442	-0.4666	-0.7616	-0.2894	0.1972	-0.7465	0.2522
Philippine	0.7123	0.5458	0.1594	0.8867	-0.1827	0.1563	0.1905
Poland	0.9612	0.7122	0.5285	0.9405	-0.1125	0.4801	-0.0359
Qatar	0.2714	0.0703	-0.1505	0.4140	-0.6099	0.0217	0.1089
Romania	0.9505	0.6120	0.4785	0.9802	-0.2308	0.4295	-0.0738
Seychelles	-0.0560	-0.3110	-0.6340	0.1089	-0.1482	-0.7507	0.4440
Singapore	0.7994	0.6773	0.6872	0.8472	-0.0954	0.6553	-0.1263
Slovakia	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Spain	0.9326	0.5952	0.3649	1.0000	-0.2983	0.3375	-0.0417
Sri Lanka	0.4424	0.1000	-0.2864	0.5414	0.0767	-0.1942	0.0750
Sweden	0.7256	0.5004	0.0523	0.9032	-0.3160	0.0230	0.1580
Switzerland	0.9122	0.6691	0.5679	0.9376	-0.1161	0.5503	-0.0658
Taiwan	0.1738	0.3770	0.7555	-0.0254	0.1556	0.8624	-0.3735
Thailand	0.7139	0.6051	0.8978	0.5779	0.1124	0.8746	-0.3059
Turkey	0.8046	0.5162	0.1619	0.9124	-0.1341	0.1302	0.0219
UAE	-0.6298	-0.2256	-0.4474	-0.5490	0.0753	-0.6279	0.0136
Vietnam	0.0930	-0.1875	-0.4580	0.1656	-0.0298	-0.5638	0.5505

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (e)

	Luxemburg	Malaysia	Mauritius	Mexico	Mongolia	Myanmar	Netherland
Argentina	0.4986	-0.0278	0.1731	0.7176	0.4054	0.0885	0.4986
Australia	0.3193	0.6741	0.6045	-0.0629	-0.6718	0.5398	0.3193
Austria	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Bangladesh	-0.5653	-0.4540	-0.6109	-0.2755	0.2623	-0.1211	-0.5653
Belgium	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Brazil	0.0218	0.6377	0.4175	-0.4774	-0.9157	0.4645	0.0218
British	0.5681	-0.3371	0.2412	0.8044	0.5751	0.1169	0.5681
Brunei	0.8472	0.6121	0.9028	0.4794	-0.4324	0.6033	0.8472
Bulgaria	0.9999	0.3723	0.8481	0.7413	-0.0618	0.4731	0.9999
Cambodia	0.3277	-0.3187	-0.0132	0.7210	0.6757	-0.1115	0.3277
Canada	0.5572	0.4793	0.8465	0.1001	-0.7396	0.8739	0.5572
Cayman	0.5681	-0.3371	0.2412	0.8044	0.5751	0.1169	0.5681
China	0.7946	-0.0419	0.4642	0.9602	0.4896	0.1684	0.7946
Colombo	0.2550	0.5809	0.6238	-0.1812	-0.8607	0.6867	0.2550
Czech	0.9998	0.3700	0.8570	0.7346	-0.0744	0.4781	0.9998
Finland	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
France	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Germany	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Ghana	0.3668	-0.4153	-0.0251	0.7994	0.8325	-0.2141	0.3668
Greece	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Hong Kong	0.1425	0.6181	0.4844	-0.2559	-0.8093	0.7189	0.1425
Hungary	0.9326	0.4429	0.8067	0.5823	-0.1207	0.3819	0.9326
India	0.5952	0.5529	0.6749	0.4881	-0.2954	0.5532	0.5952
Indonesia	0.3649	0.6200	0.5872	-0.0190	-0.5622	0.4349	0.3649
Italy	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Japan	-0.2983	0.0210	-0.3750	-0.1995	0.1578	-0.4232	-0.2983
Korea	0.3375	0.7122	0.6023	-0.0968	-0.7186	0.3558	0.3375
Laos	-0.0417	-0.3497	-0.0129	0.2985	0.2036	0.0411	-0.0417
Luxemburg	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Malaysia	0.3682	1.0000	0.4211	0.0443	-0.5028	0.3448	0.3682
Mauritius	0.8536	0.4211	1.0000	0.4483	-0.5069	0.7108	0.8536
Mexico	0.7375	0.0443	0.4483	1.0000	0.4707	0.1314	0.7375
Mongolia	-0.0694	-0.5028	-0.5069	0.4707	1.0000	-0.6261	-0.0694
Myanmar	0.4813	0.3448	0.7108	0.1314	-0.6261	1.0000	0.4813

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (e) (cont.)

Netherland	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Nigeria	0.2217	-0.4840	-0.2093	0.6853	0.8903	-0.3520	0.2217
Norway	0.5926	0.5987	0.7945	0.0413	-0.6993	0.7338	0.5926
Pakistan	0.4484	0.2531	0.4288	-0.1109	-0.3226	0.2142	0.4484
Peru	-0.2894	-0.6839	-0.6441	0.2613	0.9156	-0.7427	-0.2894
Philippine	0.8867	0.2225	0.6945	0.8780	0.1327	0.3672	0.8867
Poland	0.9405	0.4312	0.8209	0.7194	-0.0587	0.4005	0.9405
Qatar	0.4140	0.1779	0.4307	0.0660	-0.3786	0.5560	0.4140
Romania	0.9802	0.3897	0.8766	0.6973	-0.1005	0.4267	0.9802
Seychelles	0.1089	-0.4864	-0.2756	0.6250	0.8657	-0.4658	0.1089
Singapore	0.8472	0.6121	0.9028	0.4794	-0.4324	0.6033	0.8472
Slovakia	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Spain	1.0000	0.3682	0.8536	0.7375	-0.0694	0.4813	1.0000
Sri Lanka	0.5414	-0.1270	0.1331	0.7801	0.6626	-0.3791	0.5414
Sweden	0.9032	0.0697	0.6784	0.9036	0.2219	0.3746	0.9032
Switzerland	0.9376	0.5576	0.8960	0.5787	-0.3003	0.6009	0.9376
Taiwan	-0.0254	0.6012	0.3577	-0.5195	-0.8551	0.3653	-0.0254
Thailand	0.5779	0.6952	0.7502	0.0970	-0.5836	0.4090	0.5779
Turkey	0.9124	0.2576	0.6144	0.9044	0.2843	0.1995	0.9124
UAE	-0.5490	-0.5370	-0.6723	-0.0563	0.5867	-0.2748	-0.5490
Vietnam	0.1656	-0.2367	-0.1271	0.4837	0.6402	-0.1680	0.1656

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (f)

	Nigeria	Norway	Pakistan	Peru	Philippine	Poland	Qatar
Argentina	0.6988	-0.1673	-0.2167	0.3728	0.6597	0.3325	0.4312
Australia	-0.7161	0.7820	0.3849	-0.8164	0.1380	0.4971	-0.0874
Austria	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Bangladesh	0.2834	-0.4515	-0.5146	0.4342	-0.5262	-0.6880	0.0349
Belgium	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Brazil	-0.9564	0.7031	0.4242	-0.9081	-0.1775	0.1142	0.1168
British	0.8400	-0.2101	-0.1406	0.4492	0.7346	0.4056	0.3198
Brunei	-0.2319	0.7097	0.4549	-0.6405	0.7681	0.8437	0.3181
Bulgaria	0.2277	0.5878	0.4465	-0.2829	0.8877	0.9414	0.4120
Cambodia	0.8449	-0.4883	-0.3923	0.5453	0.6075	0.1668	0.1192
Canada	-0.5463	0.8303	0.4129	-0.8800	0.4185	0.5454	0.3838
Cayman	0.8400	-0.2101	-0.1406	0.4492	0.7346	0.4056	0.3198
China	0.7391	0.0614	0.0226	0.2806	0.8834	0.7227	0.2099
Colombo	-0.7910	0.7909	0.4126	-0.8948	0.1069	0.3129	0.2226
Czech	0.2173	0.5974	0.4500	-0.2912	0.8822	0.9420	0.4122
Finland	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
France	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Germany	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Ghana	0.9634	-0.4236	-0.3238	0.7036	0.5437	0.2873	-0.0697
Greece	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Hong Kong	-0.8135	0.6982	0.3118	-0.8958	0.0506	0.2346	0.1972
Hungary	0.0709	0.7049	0.6212	-0.3442	0.7123	0.9612	0.2714
India	-0.1851	0.6542	0.2268	-0.4666	0.5458	0.7122	0.0703
Indonesia	-0.6316	0.7665	0.5122	-0.7616	0.1594	0.5285	-0.1505
Italy	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Japan	-0.1744	-0.2592	0.0775	0.1972	-0.1827	-0.1125	-0.6099
Korea	-0.7305	0.7352	0.4899	-0.7465	0.1563	0.4801	0.0217
Laos	0.3455	-0.3170	-0.5935	0.2522	0.1905	-0.0359	0.1089
Luxemburg	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Malaysia	-0.4840	0.5987	0.2531	-0.6839	0.2225	0.4312	0.1779
Mauritius	-0.2093	0.7945	0.4288	-0.6441	0.6945	0.8209	0.4307
Mexico	0.6853	0.0413	-0.1109	0.2613	0.8780	0.7194	0.0660
Mongolia	0.8903	-0.6993	-0.3226	0.9156	0.1327	-0.0587	-0.3786
Myanmar	-0.3520	0.7338	0.2142	-0.7427	0.3672	0.4005	0.5560

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (f) (cont.)

Netherland	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Nigeria	1.0000	-0.5392	-0.3314	0.8123	0.4026	0.1257	-0.0269
Norway	-0.5392	1.0000	0.6479	-0.8342	0.2636	0.6357	0.3500
Pakistan	-0.3314	0.6479	1.0000	-0.4142	0.1514	0.4861	0.2534
Peru	0.8123	-0.8342	-0.4142	1.0000	-0.0697	-0.3018	-0.3749
Philippine	0.4026	0.2636	0.1514	-0.0697	1.0000	0.8256	0.3493
Poland	0.1257	0.6357	0.4861	-0.3018	0.8256	1.0000	0.2031
Qatar	-0.0269	0.3500	0.2534	-0.3749	0.3493	0.2031	1.0000
Romania	0.1390	0.6137	0.4842	-0.3284	0.8528	0.9627	0.2971
Seychelles	0.9566	-0.6580	-0.4726	0.8210	0.3402	0.0112	-0.0934
Singapore	-0.2319	0.7097	0.4549	-0.6405	0.7681	0.8437	0.3181
Slovakia	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Spain	0.2217	0.5926	0.4484	-0.2894	0.8867	0.9405	0.4140
Sri Lanka	0.7599	-0.2817	0.0137	0.5759	0.6784	0.5012	-0.0591
Sweden	0.5301	0.2630	0.1633	0.0314	0.9580	0.8057	0.3558
Switzerland	-0.0631	0.7181	0.4840	-0.5196	0.8151	0.9269	0.3763
Taiwan	-0.9538	0.6907	0.4638	-0.8381	-0.2586	0.1229	0.0199
Thailand	-0.5699	0.7897	0.6155	-0.7516	0.3743	0.7030	0.0643
Turkey	0.5030	0.2620	0.2404	0.0475	0.9403	0.8707	0.2089
UAE	0.3782	-0.6091	-0.4239	0.5620	-0.3260	-0.5268	-0.3919
Vietnam	0.7042	-0.4154	-0.4397	0.5288	0.2935	0.1245	-0.0183

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (g)

	Romania	Seychelles	Singapore	Slovakia	Spain	Sri Lanka	Sweden
Argentina	0.3604	0.6079	0.1640	0.4986	0.4986	0.6870	0.7180
Australia	0.4182	-0.7404	0.6670	0.3193	0.3193	-0.3752	0.0117
Austria	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Bangladesh	-0.6832	0.2335	-0.7877	-0.5653	-0.5653	-0.2596	-0.3598
Belgium	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Brazil	0.0993	-0.9239	0.4582	0.0218	0.0218	-0.6358	-0.3141
British	0.4736	0.7483	0.1931	0.5681	0.5681	0.7200	0.8374
Brunei	0.8792	-0.2708	1.0000	0.8472	0.8472	0.2262	0.6656
Bulgaria	0.9797	0.1148	0.8445	0.9999	0.9999	0.5485	0.9035
Cambodia	0.2515	0.8716	0.0678	0.3277	0.3277	0.6909	0.6431
Canada	0.5845	-0.5909	0.8204	0.5572	0.5572	-0.3165	0.3514
Cayman	0.4736	0.7483	0.1931	0.5681	0.5681	0.7200	0.8374
China	0.7360	0.6369	0.4610	0.7946	0.7946	0.8008	0.9507
Colombo	0.2997	-0.8242	0.6186	0.2550	0.2550	-0.4881	0.0109
Czech	0.9813	0.1045	0.8457	0.9998	0.9998	0.5406	0.8999
Finland	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
France	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Germany	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Ghana	0.3063	0.9116	-0.0472	0.3668	0.3668	0.7846	0.6604
Greece	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Hong Kong	0.1814	-0.8515	0.5578	0.1425	0.1425	-0.6050	-0.0952
Hungary	0.9505	-0.0560	0.7994	0.9326	0.9326	0.4424	0.7256
India	0.6120	-0.3110	0.6773	0.5952	0.5952	0.1000	0.5004
Indonesia	0.4785	-0.6340	0.6872	0.3649	0.3649	-0.2864	0.0523
Italy	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Japan	-0.2308	-0.1482	-0.0954	-0.2983	-0.2983	0.0767	-0.3160
Korea	0.4295	-0.7507	0.6553	0.3375	0.3375	-0.1942	0.0230
Laos	-0.0738	0.4440	-0.1263	-0.0417	-0.0417	0.0750	0.1580
Luxemburg	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Malaysia	0.3897	-0.4864	0.6121	0.3682	0.3682	-0.1270	0.0697
Mauritius	0.8766	-0.2756	0.9028	0.8536	0.8536	0.1331	0.6784
Mexico	0.6973	0.6250	0.4794	0.7375	0.7375	0.7801	0.9036
Mongolia	-0.1005	0.8657	-0.4324	-0.0694	-0.0694	0.6626	0.2219
Myanmar	0.4267	-0.4658	0.6033	0.4813	0.4813	-0.3791	0.3746

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (g) (cont.)

Netherland	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Nigeria	0.1390	0.9566	-0.2319	0.2217	0.2217	0.7599	0.5301
Norway	0.6137	-0.6580	0.7097	0.5926	0.5926	-0.2817	0.2630
Pakistan	0.4842	-0.4726	0.4549	0.4484	0.4484	0.0137	0.1633
Peru	-0.3284	0.8210	-0.6405	-0.2894	-0.2894	0.5759	0.0314
Philippine	0.8528	0.3402	0.7681	0.8867	0.8867	0.6784	0.9580
Poland	0.9627	0.0112	0.8437	0.9405	0.9405	0.5012	0.8057
Qatar	0.2971	-0.0934	0.3181	0.4140	0.4140	-0.0591	0.3558
Romania	1.0000	0.0469	0.8792	0.9802	0.9802	0.5228	0.8506
Seychelles	0.0469	1.0000	-0.2708	0.1089	0.1089	0.7321	0.4265
Singapore	0.8792	-0.2708	1.0000	0.8472	0.8472	0.2262	0.6656
Slovakia	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Spain	0.9802	0.1089	0.8472	1.0000	1.0000	0.5414	0.9032
Sri Lanka	0.5228	0.7321	0.2262	0.5414	0.5414	1.0000	0.7042
Sweden	0.8506	0.4265	0.6656	0.9032	0.9032	0.7042	1.0000
Switzerland	0.9398	-0.1639	0.9475	0.9376	0.9376	0.3365	0.7638
Taiwan	0.0711	-0.9472	0.3727	-0.0254	-0.0254	-0.6271	-0.3837
Thailand	0.6852	-0.5896	0.8405	0.5779	0.5779	-0.0456	0.2466
Turkey	0.8860	0.4135	0.7013	0.9124	0.9124	0.7962	0.9421
UAE	-0.5801	0.3371	-0.6425	-0.5490	-0.5490	-0.0818	-0.2464
Vietnam	0.1231	0.6651	-0.1526	0.1656	0.1656	0.4758	0.3532

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (h)

	Switzerland	Taiwan	Thailand	Turkey	UAE	Vietnam
Argentina	0.3150	-0.6415	-0.2970	0.6592	-0.0023	0.4691
Australia	0.5844	0.8338	0.8805	0.0920	-0.4936	-0.3566
Austria	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Bangladesh	-0.6824	-0.4308	-0.8621	-0.5009	0.5905	0.1980
Belgium	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Brazil	0.2859	0.9669	0.7284	-0.2698	-0.5050	-0.7409
British	0.3373	-0.7894	-0.2815	0.7205	0.1581	0.6315
Brunei	0.9475	0.3727	0.8405	0.7013	-0.6425	-0.1526
Bulgaria	0.9363	-0.0297	0.5754	0.9160	-0.5479	0.1699
Cambodia	0.1206	-0.8688	-0.3968	0.5843	0.2746	0.6191
Canada	0.7243	0.5958	0.7479	0.2626	-0.4955	-0.3731
Cayman	0.3373	-0.7894	-0.2815	0.7205	0.1581	0.6315
China	0.6052	-0.5820	0.0553	0.9248	-0.0681	0.5470
Colombo	0.4615	0.8298	0.7152	-0.0237	-0.4070	-0.7166
Czech	0.9367	-0.0186	0.5816	0.9097	-0.5562	0.1615
Finland	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
France	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Germany	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Ghana	0.1141	-0.8941	-0.4088	0.6256	0.3107	0.7601
Greece	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Hong Kong	0.4365	0.8242	0.6761	-0.1101	-0.3155	-0.4781
Hungary	0.9122	0.1738	0.7139	0.8046	-0.6298	0.0930
India	0.6691	0.3770	0.6051	0.5162	-0.2256	-0.1875
Indonesia	0.5679	0.7555	0.8978	0.1619	-0.4474	-0.4580
Italy	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Japan	-0.1161	0.1556	0.1124	-0.1341	0.0753	-0.0298
Korea	0.5503	0.8624	0.8746	0.1302	-0.6279	-0.5638
Laos	-0.0658	-0.3735	-0.3059	0.0219	0.0136	0.5505
Luxemburg	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Malaysia	0.5576	0.6012	0.6952	0.2576	-0.5370	-0.2367
Mauritius	0.8960	0.3577	0.7502	0.6144	-0.6723	-0.1271
Mexico	0.5787	-0.5195	0.0970	0.9044	-0.0563	0.4837
Mongolia	-0.3003	-0.8551	-0.5836	0.2843	0.5867	0.6402
Myanmar	0.6009	0.3653	0.4090	0.1995	-0.2748	-0.1680

Appendix 8: Correlation Matrix of the Selected Foreign Currencies (h) (cont.)

Netherland	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Nigeria	-0.0631	-0.9538	-0.5699	0.5030	0.3782	0.7042
Norway	0.7181	0.6907	0.7897	0.2620	-0.6091	-0.4154
Pakistan	0.4840	0.4638	0.6155	0.2404	-0.4239	-0.4397
Peru	-0.5196	-0.8381	-0.7516	0.0475	0.5620	0.5288
Philippine	0.8151	-0.2586	0.3743	0.9403	-0.3260	0.2935
Poland	0.9269	0.1229	0.7030	0.8707	-0.5268	0.1245
Qatar	0.3763	0.0199	0.0643	0.2089	-0.3919	-0.0183
Romania	0.9398	0.0711	0.6852	0.8860	-0.5801	0.1231
Seychelles	-0.1639	-0.9472	-0.5896	0.4135	0.3371	0.6651
Singapore	0.9475	0.3727	0.8405	0.7013	-0.6425	-0.1526
Slovakia	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Spain	0.9376	-0.0254	0.5779	0.9124	-0.5490	0.1656
Sri Lanka	0.3365	-0.6271	-0.0456	0.7962	-0.0818	0.4758
Sweden	0.7638	-0.3837	0.2466	0.9421	-0.2464	0.3532
Switzerland	1.0000	0.2439	0.7597	0.7982	-0.6497	0.0558
Taiwan	0.2439	1.0000	0.7361	-0.3126	-0.4894	-0.6613
Thailand	0.7597	0.7361	1.0000	0.3696	-0.6888	-0.3537
Turkey	0.7982	-0.3126	0.3696	1.0000	-0.3177	0.3488
UAE	-0.6497	-0.4894	-0.6888	-0.3177	1.0000	0.1878
Vietnam	0.0558	-0.6613	-0.3537	0.3488	0.1878	1.0000

Appendix 9: Wavelet RStudio Code

Discrete Wavelet Transformation Coding used in the RStudio software to obtain the decomposed data of currency exposure.

```
library(waveslim)

attach(Wavelet_data)
sr_1=sr_1
A=sr_1[!is.na(sr_1)]
J= 8 #Define the number of scales
wf= "la8" #Type of wavelet filter: la8 or d4
A.modwt = modwt(A, wf, J) # Calculate MODWT for variable A
A.modwt.bw = brick.wall(A.modwt, wf) # Find Brick Wall for variable A

df<-data.frame(matrix(A.modwt, nrow=length(A.modwt), byrow=TRUE))

#A.modwt = data.frame(d1, d2, d3, d4, d5, d6, d7, d8, d8)
#write.table(df, file="test.txt", quote=TRUE, sep=" ", eol="\n",
na="NA", dec=".", row.names=TRUE, col.names=TRUE,
qmethod=c("escape", "double"),fileEncoding = "")
#library(xlsx)
#write.xlsx(df, 'C:/Users/user/Desktop/Short term grant shariah
compliant exposure and wavelet/Wavelet Analysis/Datastream Ogos
2018/Wavelet_analysis_FB', sheetName="Sheet1",
col.names=TRUE, row.names=TRUE, append=FALSE,
showNA=TRUE, password=NULL)
#write.xlsx(df, "firm1.xlsx")
#write.table(A.modwt, "firm1.txt", sep="\t", row.names=FALSE)
#write.csv(df, 'C:/Users/user/Desktop/Short term grant shariah
compliant exposure and wavelet/Wavelet Analysis/Datastream Ogos
2018/Wavelet_analysis_FB', row.names = FALSE)
#df
#print(df)
#write.table(df, "example_firm1.csv", sep=".", row.names=FALSE)
#write.table(A.modwt, "export_example.csv", sep=".",
row.names=FALSE)
#write.table(df, file="", sep=" ", row.names=TRUE, col.names=TRUE)
capture.output(df, file="firm1.txt")
```

Appendix 10: Regression of Decomposed Data RStudio Code

RStudio codes that were used to regress the decomposed currency exposure data against the stock return and KLCI data as per equation 3.18 in Section 3.2.3.

```
attach(Decomposed_data_wavelet_for_50_firms)
sr1d1 = sr1d1
sr1d2 = sr1d2
sr1d3 = sr1d3
sr1d4 = sr1d4
sr1d5 = sr1d5
sr1d6 = sr1d6
sr1d7 = sr1d7
sr1s8 = sr1s8
sr2d1 = sr2d1
sr2d2 = sr2d2
sr2d3 = sr2d3
sr2d4 = sr2d4
sr2d5 = sr2d5
sr2d6 = sr2d6
sr2d7 = sr2d7
sr2s8 = sr2s8
...
Sr75s8 = sr75s8
sr_klcid1 = sr_klcid1
sr_klcid2 = sr_klcid2
sr_klcid3 = sr_klcid3
sr_klcid4 = sr_klcid4
sr_klcid5 = sr_klcid5
sr_klcis5 = sr_klcis5
sr_usdd1 = sr_usdd1
sr_usdd2 = sr_usdd2
sr_usdd3 = sr_usdd3

#attach(firm12)

#datafirm12c-
data.frame(sr12d1new, sr12d2new, sr12d3new, sr12d4new, sr12d5new, sr12s5new)
#sr12d1new = datafirm12[,1]
#sr12d2new = datafirm12[,2]
#sr12d3new = datafirm12[,3]
#sr12d4new = datafirm12[,4]
#sr12d5new = datafirm12[,5]
#sr12d6new = datafirm12[,6]
#sr12d7new = datafirm12[,7]
#sr12s8new = datafirm12[,8]
#sr12d1new
#regression for d1

sink("resultd1.txt")
```

```

mydatad1 = data.frame(sr1d1, sr2d1, sr3d1, sr4d1, sr5d1, sr6d1,
                      sr7d1, sr8d1, sr9d1, sr10d1, sr11d1,
                      sr12d1, sr13d1, sr14d1, sr15d1, sr16d1,
                      sr17d1, sr18d1, sr19d1, sr20d1, sr21d1,
                      sr22d1, sr23d1, sr24d1, sr25d1, sr26d1,
                      sr27d1, sr28d1, sr29d1, sr30d1, sr31d1,
                      sr32d1, sr33d1, sr34d1, sr35d1, sr36d1,
                      sr37d1, sr38d1, sr39d1, sr40d1, sr41d1,
                      sr42d1, sr43d1, sr44d1, sr45d1, sr46d1,
                      sr47d1, sr48d1, sr49d1, sr50d1, sr51d1, sr52d1,
                      sr53d1, sr54d1, sr55d1, sr56d1, sr57d1, sr58d1, sr59d1, sr60d1,
                      sr61d1, sr62d1, sr63d1, sr64d1, sr65d1, sr66d1, sr67d1, sr68d1,
                      sr69d1, sr70d1, sr71d1, sr72d1, sr73d1, sr74d1, sr75d1)
attach(mydatad1)

library(lmtest) #final model regression
for(i in 1:75){
  reg_d1 = lm(mydatad1[,i] ~ sr_klcid1 +sr_usdd1)
  print(coef(summary(reg_d1)))
  print(summary(reg_d1)$r.square)
  print(summary(reg_d1)$fstatistic) #without p-value of F-stat

print(pf(summary(reg_d1)$fstatistic[1],summary(reg_d1)$fstatistic[2]
,summary(reg_d1)$fstatistic[3],lower.tail=FALSE))
  print(bptest(reg_d1))
  print(dwtest(reg_d1))
}

sink()

for(i in 1:75){
  reg_d1 = lm(mydatad1[,i] ~ sr_klcid1 +sr_usdd1)
  print(coef(summary(reg_d1)))
  print(summary(reg_d1)$r.square)
  print(summary(reg_d1)$fstatistic) #without p-value of F-stat

print(pf(summary(reg_d1)$fstatistic[1],summary(reg_d1)$fstatistic[2]
,summary(reg_d1)$fstatistic[3],lower.tail=FALSE))
  print(bptest(reg_d1))
  print(dwtest(reg_d1))
  capture.output(print(coef(summary(reg_d1))), file="d1 regression
output.txt")
  capture.output(print(summary(reg_d1)$r.square), file="d1 regression
output.txt")
  capture.output(print(summary(reg_d1)$fstatistic), file="d1
regression output.txt")

capture.output(print(pf(summary(reg_d1)$fstatistic[1],summary(reg_d1)
)$fstatistic[2],summary(reg_d1)$fstatistic[3],lower.tail=FALSE)),
file="d1 regression output.txt")
  capture.output(print(bptest(reg_d1)), file="d1 regression
output.txt")
  capture.output(print(dwtest(reg_d1)), file="d1 regression
output.txt")
}

reg_d1_1 = lm(sr1d1 ~ sr_klcid1 +sr_usdd1)

```

```
summary(reg_d1_1)

reg_d1_11 = lm(sr11d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_11)

reg_d1_12 = lm(sr12d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_12)

reg_d1_22 = lm(sr22d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_22)

reg_d1_32 = lm(sr32d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_32)

reg_d1_42 = lm(sr42d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_42)

reg_d1_52 = lm(sr52d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_52)

reg_d1_75 = lm(sr75d1 ~ sr_klcid1 +sr_usdd1)
summary(reg_d1_75)
```

