THE IMPACT OF EGYPT'S ECONOMIC REFORM PROGRAMME ON THE STOCK MARKET PERFORMANCE

by

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Appendix A
Charts for the Time Series Data for both Economic Reform Programme Variables and the Stock Market Performance Variables from 80/81-97/98

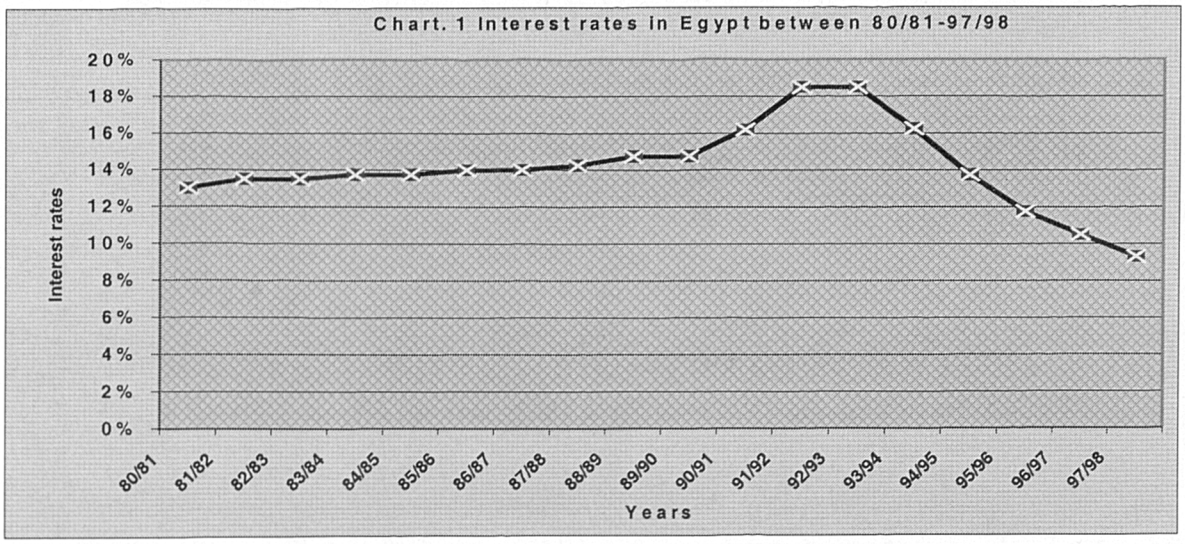
Chart. 1 Interest rates in Egypt between 80/81-97/98
Interest rates
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

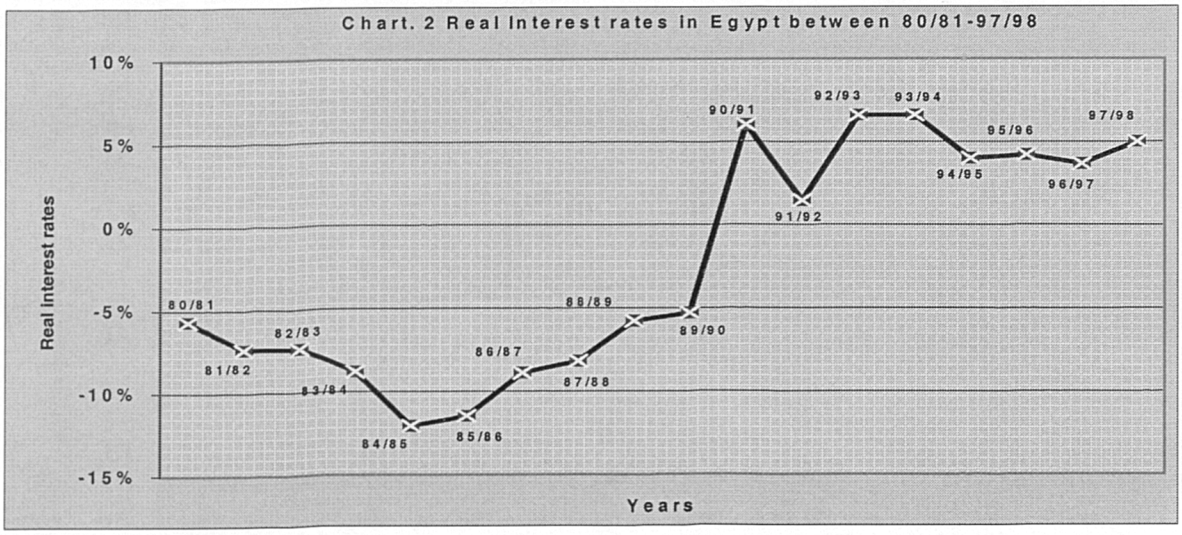
Chart. 2 Real Interest rates in Egypt between 80/81-97/98
Real interest rates
10%
5%
0%
-5%
-10%
-15%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

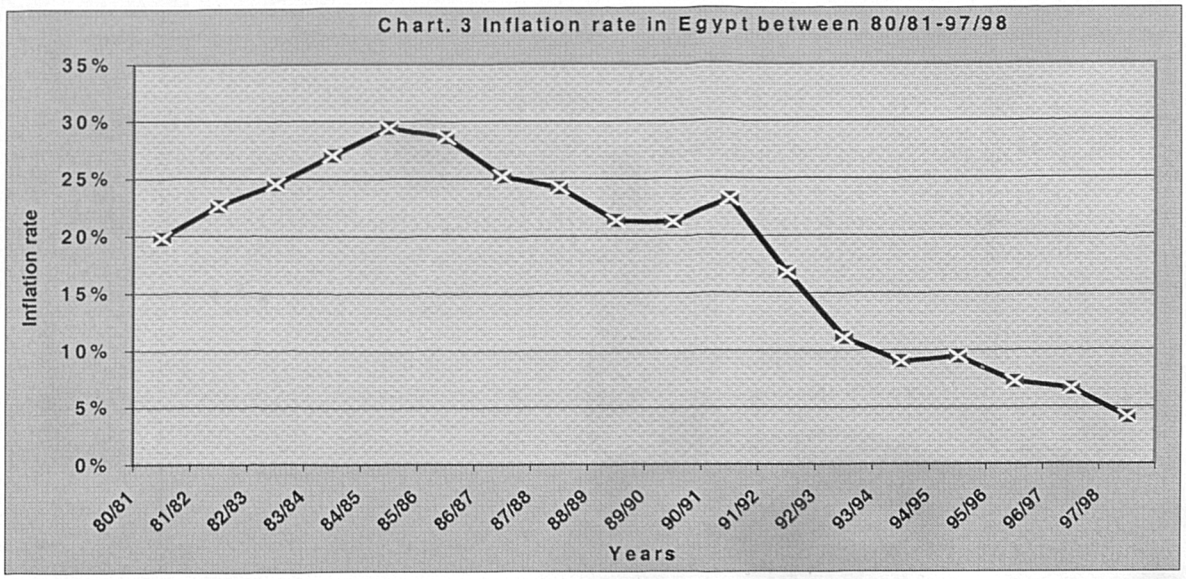
Chart. 3 Inflation rate in Egypt between 80/81-97/98
Inflation rate
35%
30%
25%
20%
15%
10%
5%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

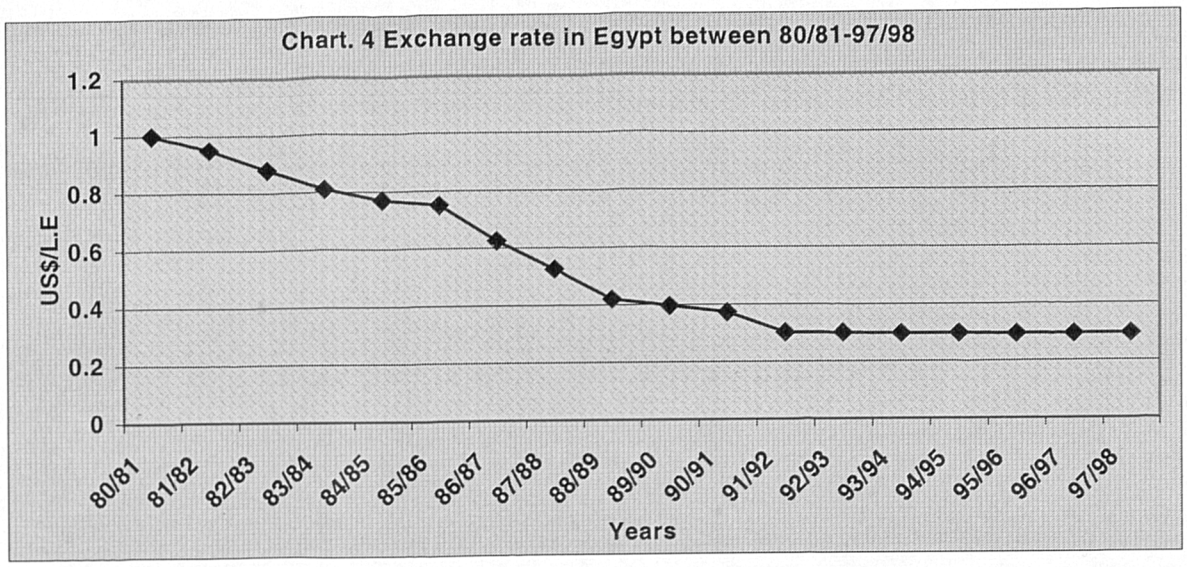
Chart. 4 Exchange rate in Egypt between 80/81-97/98
US$/L.E
1.2
1
0.8
0.6
0.4
0.2
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

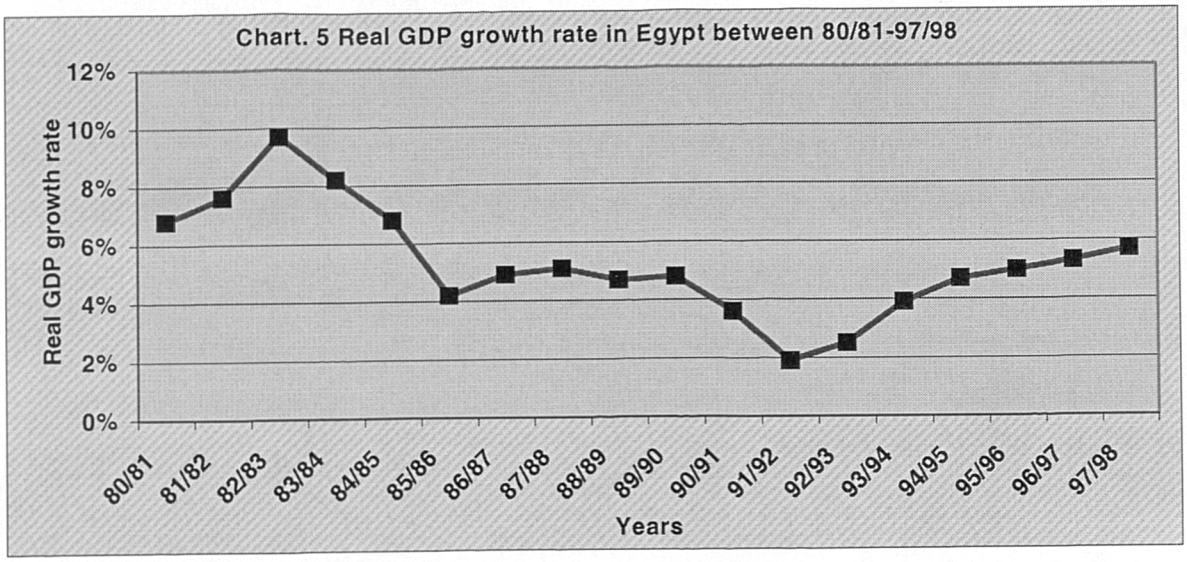
Chart. 5 Real GDP growth rate in Egypt between 80/81-97/98
Real GDP growth rate
12%
10%
8%
6%
4%
2%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

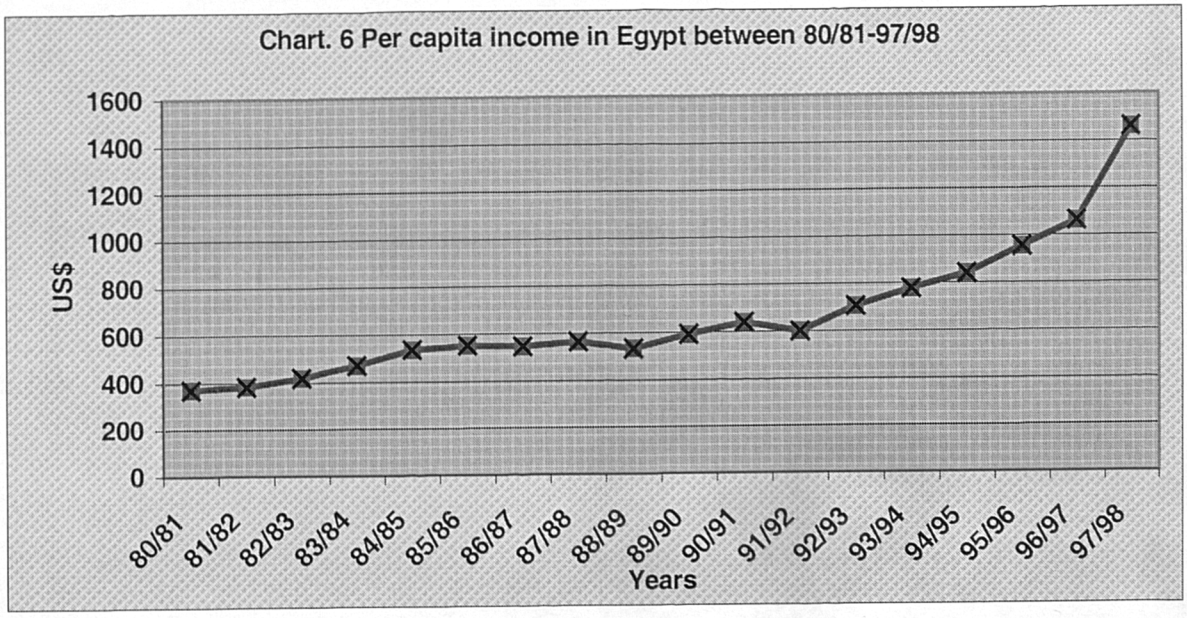
Chart. 6 Per capita income in Egypt between 80/81-97/98
US$
1600
1400
1200
1000
800
600
400
200
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

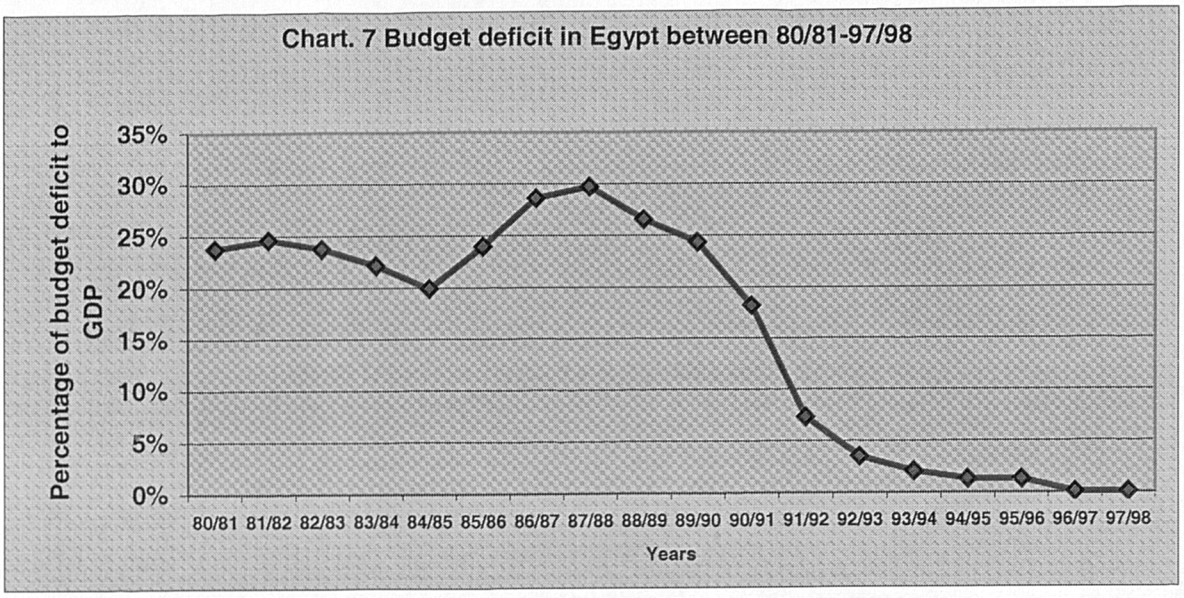
Chart. 7 Budget deficit in Egypt between 80/81-97/98
Percentage of budget deficit to GDP
35%
30%
25%
20%
15%
10%
5%
0%
80/81 81/82 82/83 83/84 84/85 85/86 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97 97/98
Years


Chart. 8 Value of trade in Egypt's stock market between 80/81-97/98
Millions of L.E.
30000
25000
20000
15000
10000
5000
0
80/81 81/82 82/83 83/84 84/85 85/86 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97 97/98
Years

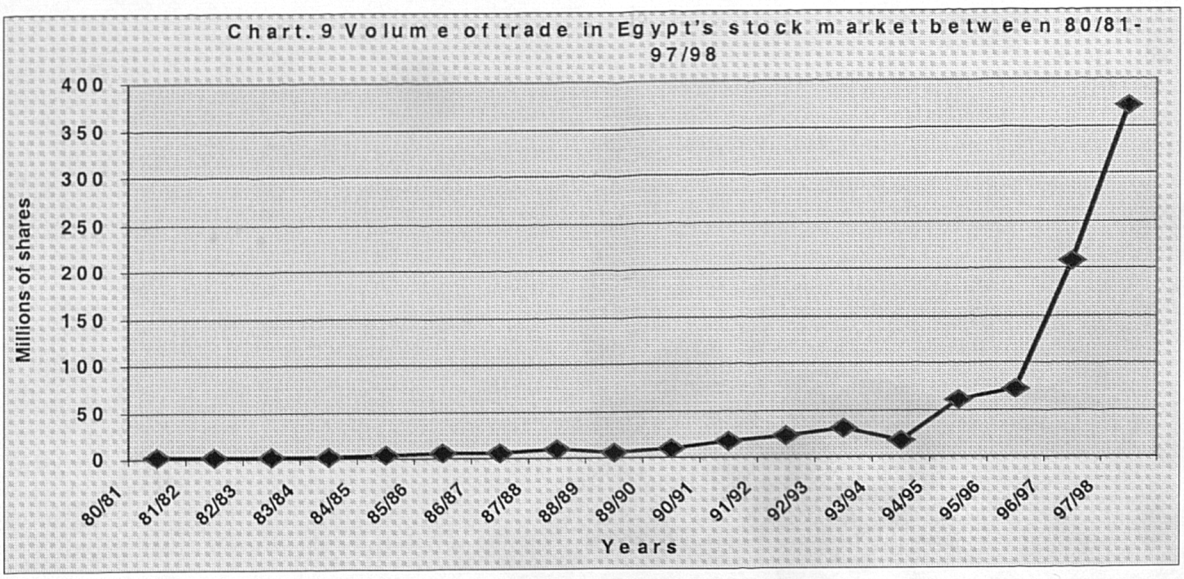
Chart. 9 Volume of trade in Egypt's stock market between 80/81-97/98
Millions of shares
400
350
300
250
200
150
100
50
0
80/81 81/82 82/83 83/84 84/85 85/86 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97 97/98
Years

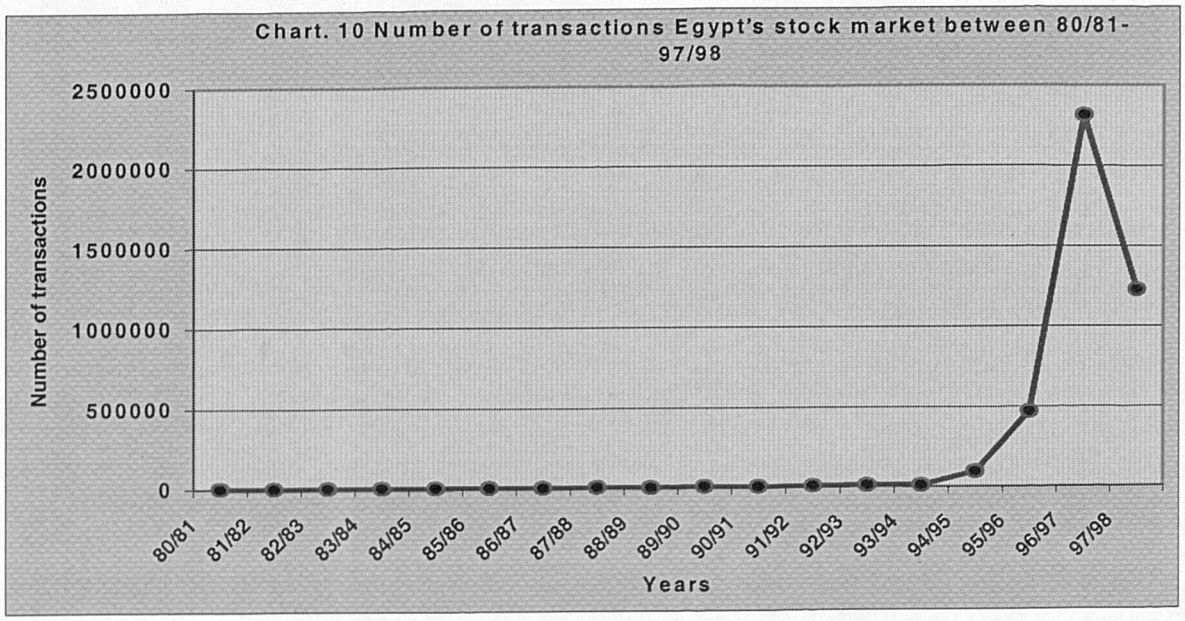
Chart. 10 Number of transactions Egypt's stock market between 80/81-97/98
Number of transactions
2500000
2000000
1500000
1000000
500000
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years


Chart. 11 Number of traded companies in Egypt's stock market between 80/81-97/98
Number of traded companies
450
400
350
300
250
200
150
100
50
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

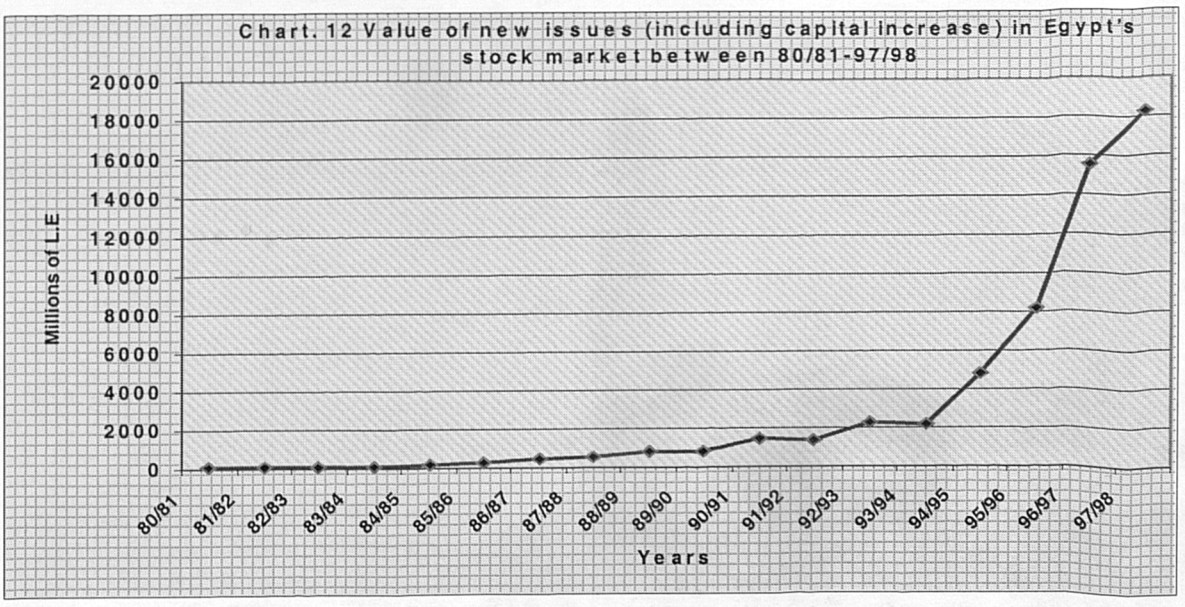
Chart. 12 Value of new issues (including capital increase) in Egypt's stock market between 80/81-97/98
Millions of L.E
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

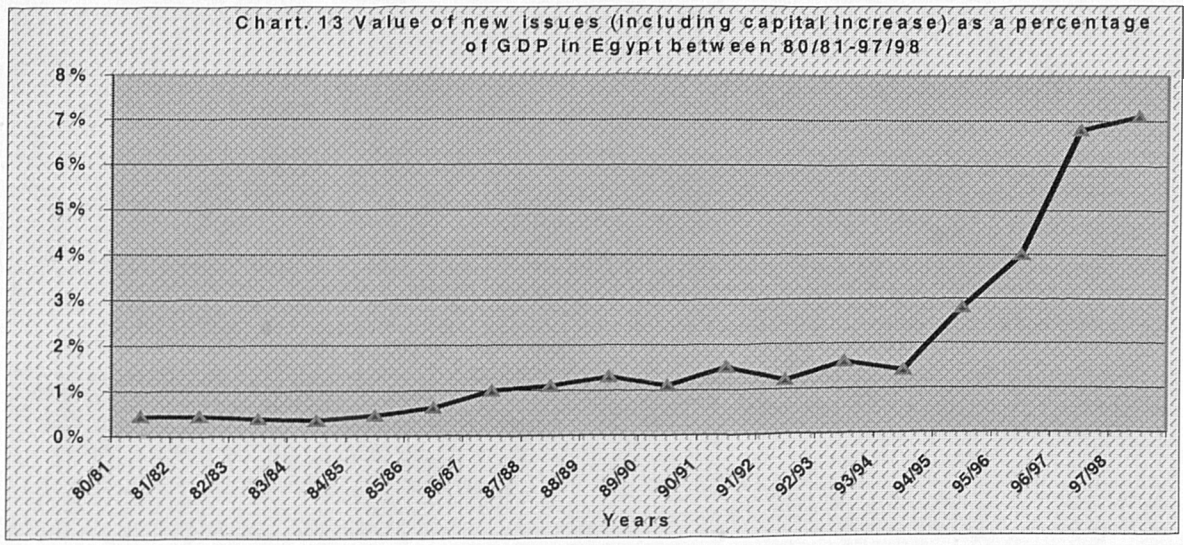
Chart. 13 Value of new issues (including capital increase) as a percentage of GDP in Egypt between 80/81-97/98
8%
7%
6%
5%
4%
3%
2%
1%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

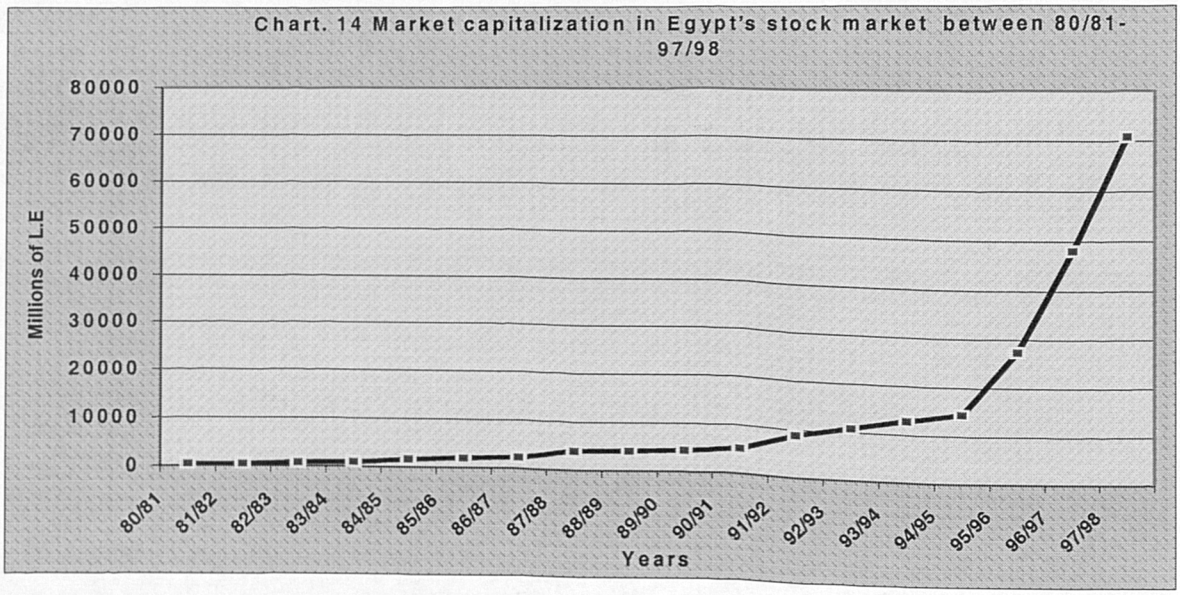
Chart. 14 Market capitalization in Egypt's stock market between 80/81-97/98
Millions of L.E
80000
70000
60000
50000
40000
30000
20000
10000
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

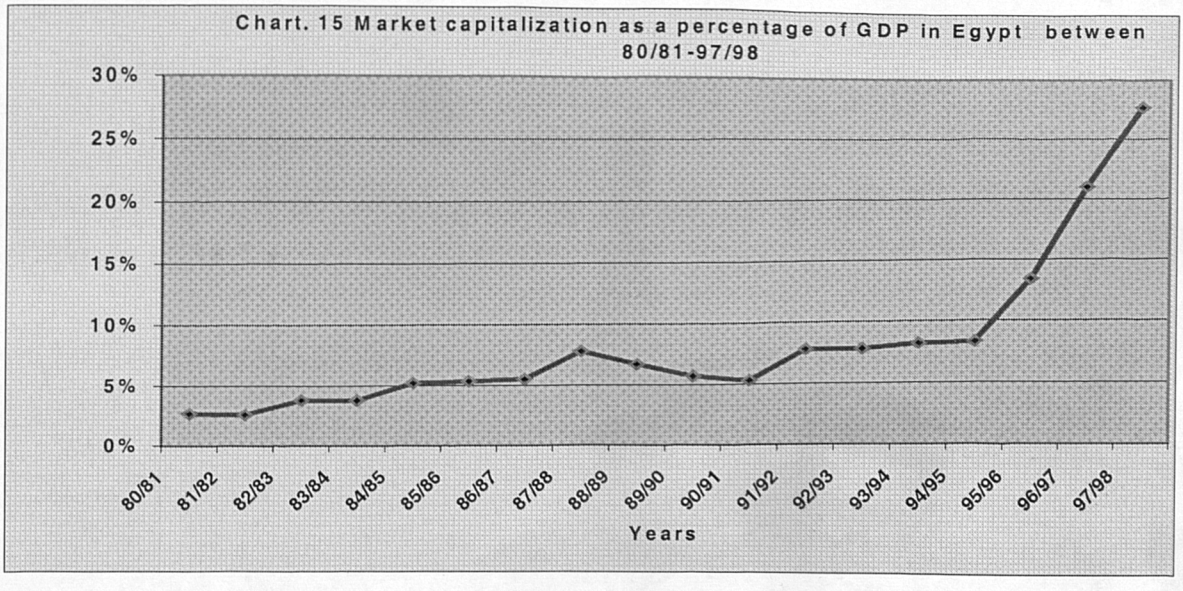
Chart. 15 Market capitalization as a percentage of GDP in Egypt between 80/81-97/98
30%
25%
20%
15%
10%
5%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years


Chart. 16 Number of listed companies in Egypt's stock market between 80/81-97/98
Number of listed companies
800
700
600
500
400
300
200
100
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

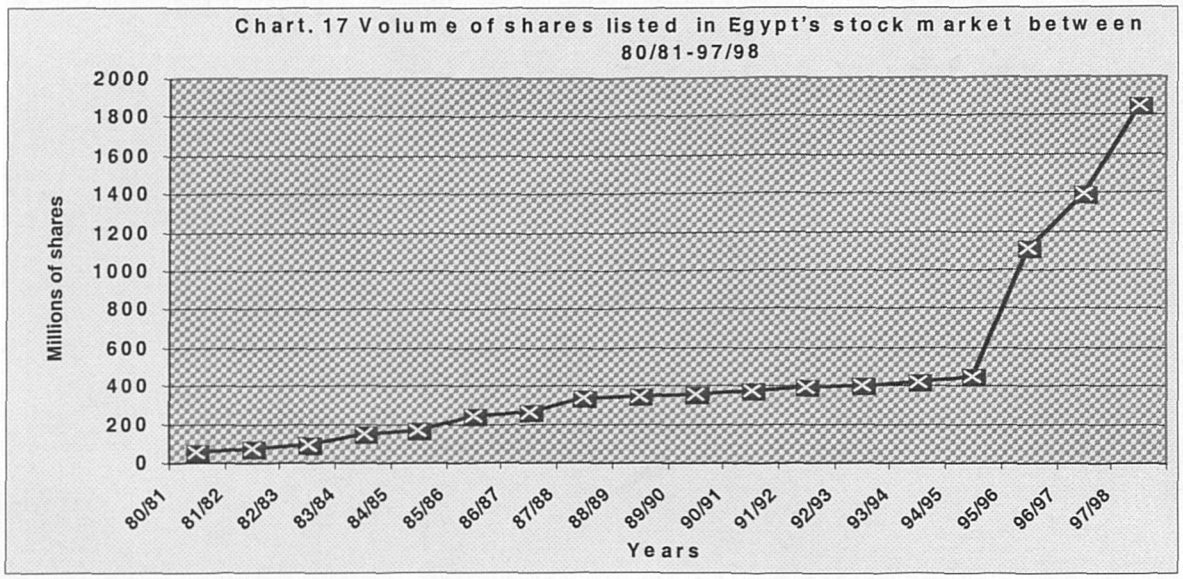
Chart. 17 Volume of shares listed in Egypt's stock market between 80/81-97/98
Millions of shares
2000
1800
1600
1400
1200
1000
800
600
400
200
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

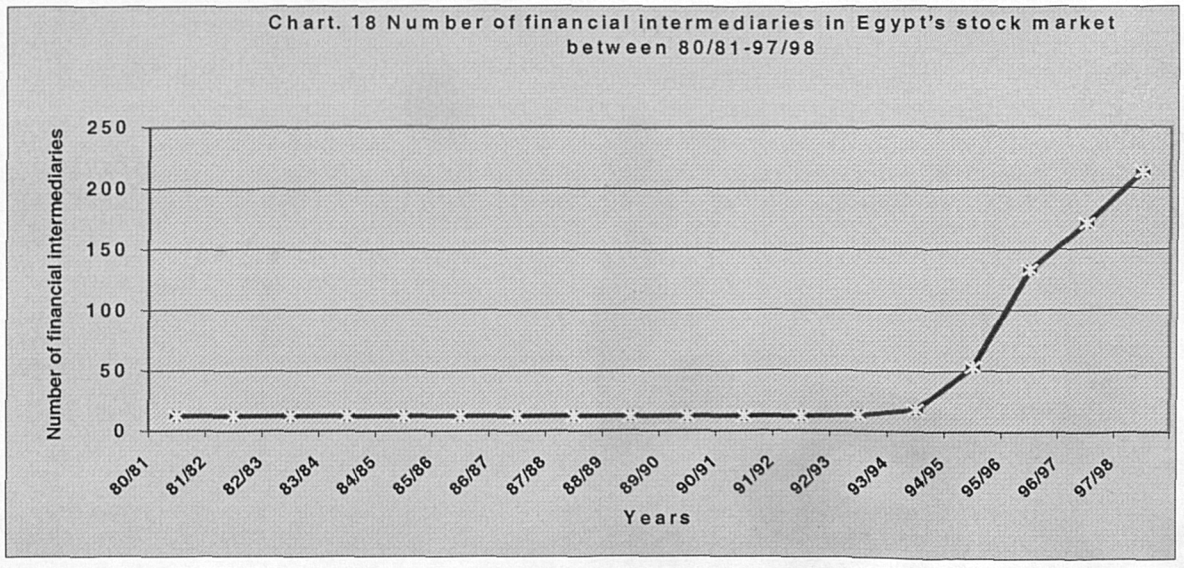
Chart. 18 Number of financial intermediaries in Egypt's stock market between 80/81-97/98
Number of financial intermediaries
250
200
150
100
50
0
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

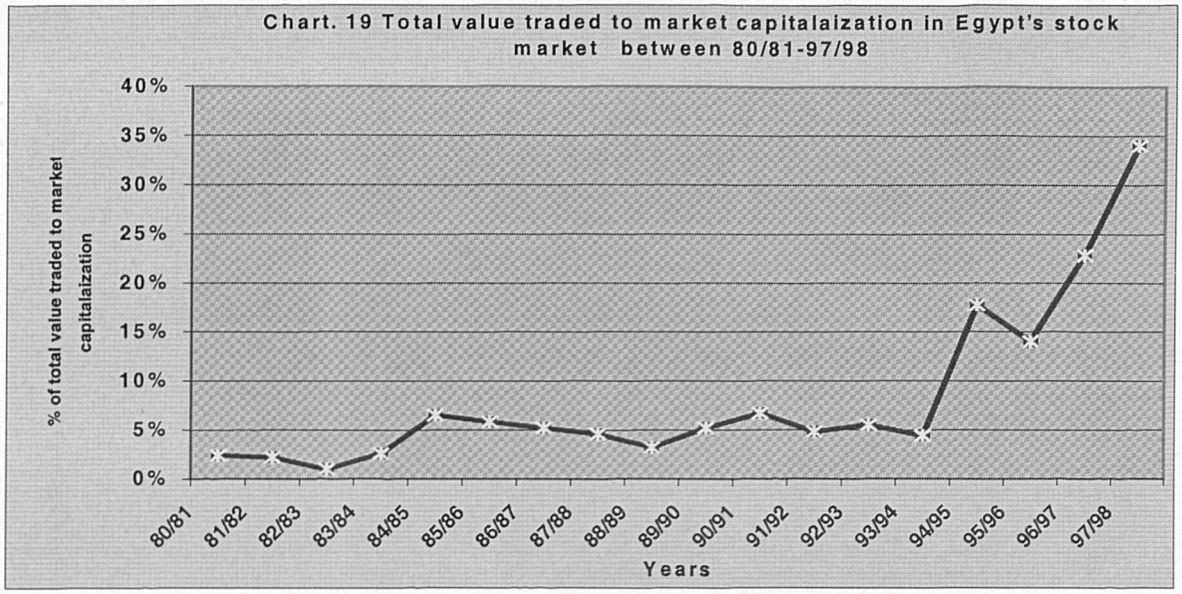
Chart. 19 Total value traded to market capitalaization in Egypt's stock market between 80/81-97/98
% of total value traded to market capitalaization
40%
35%
30%
25%
20%
15%
10%
5%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

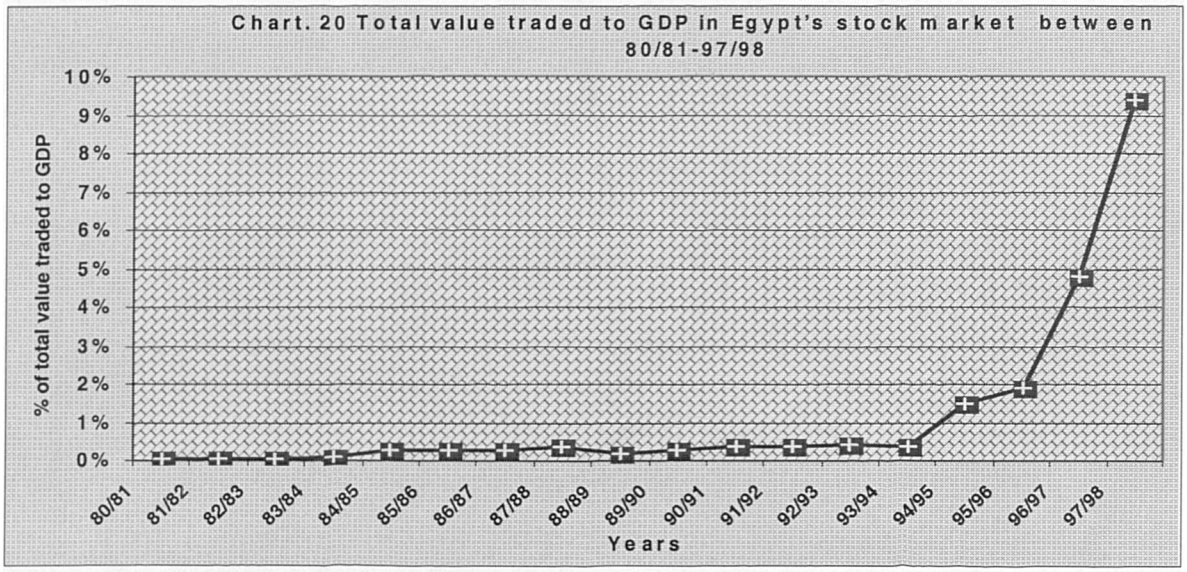
Chart. 20 Total value traded to GDP in Egypt's stock market between 80/81-97/98
% of total value traded to GDP
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

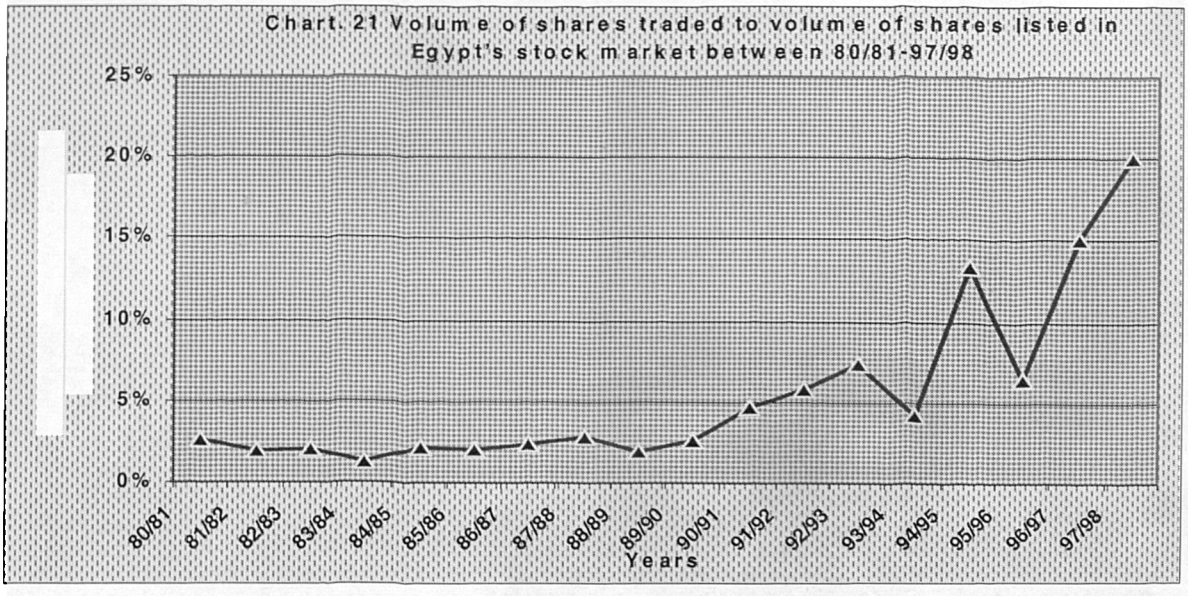
Chart. 21 Volume of shares traded to volume of shares listed in Egypt's stock market between 80/81-97/98
25%
20%
15%
10%
5%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

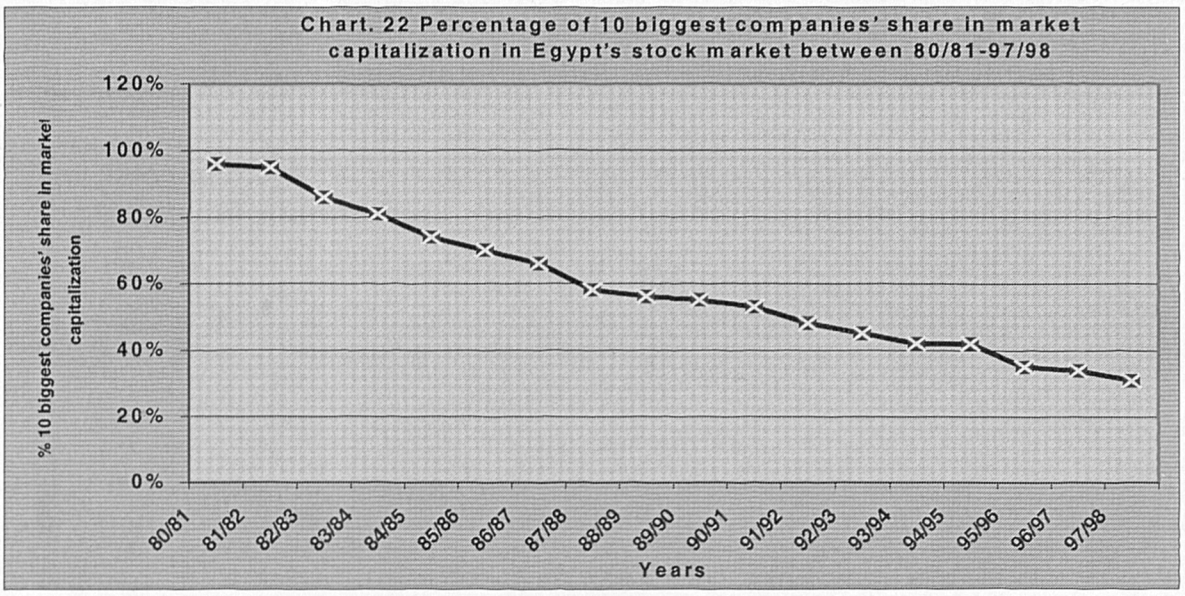
Chart. 22 Percentage of 10 biggest companies' share in market capitalization in Egypt's stock market between 80/81-97/98
% 10 biggest companies' share in market capitalization
120%
100%
80%
60%
40%
20%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

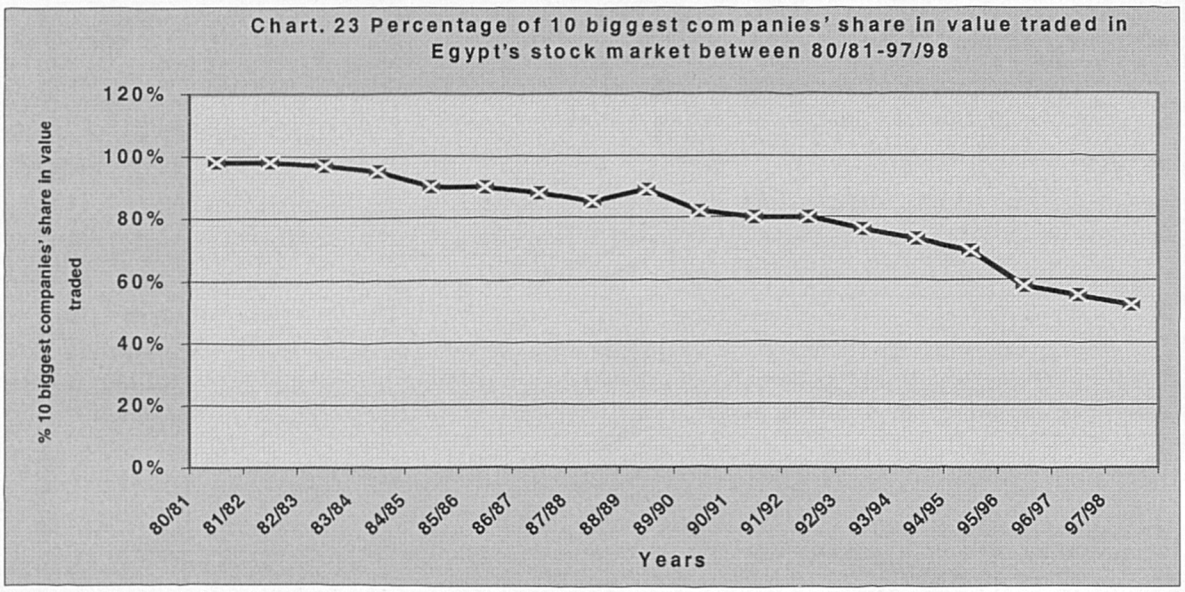
Chart. 23 Percentage of 10 biggest companies' share in value traded in Egypt's stock market between 80/81-97/98
% 10 biggest companies' share in value traded
120%
100%
80%
60%
40%
20%
0%
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
Years

Appendix B

Testing for the Structural Change in Environmental Conditions in both Economic Reform Programme and Stock Market Performance Variables using Logistic Regression

Genstat 5 Second Edition (for Windows)
Genstat 5 Procedure Library Release 3[3] (PL9)

Identifier	Minimum	Mean	Maximum	Values	Missing
Years				17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Binomial	0.0000	0.4118	1.0000	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y1	-0.2807	0.8438	3.4974	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y2	-0.4020	0.5147	2.3785	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y3	-0.471	1.021	6.939	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y4	0.0057	0.1963	1.1071	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y5	-0.0677	0.4341	1.2041	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y6	-0.2000	0.2193	1.0000	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y7	0.0147	0.3871	0.9181	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y8	-0.1493	0.1742	0.6145	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y9	-0.3857	0.3200	4.3968	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y10	0.0294	0.2561	1.4761	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y11	0.0000	0.2620	1.9444	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y12	-0.4444	0.5618	3.1667	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y13	-0.5455	0.3735	3.0227	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y14	-0.5113	0.2711	2.1667	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y15	-0.16667	-0.06340	0.00000	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
Y16	-0.15942	-0.03563	0.04706	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X1	-0.11429	-0.03751	0.02381	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X2	-1.73333	-0.06864	1.09091	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X3	-0.37879	-0.08517	0.14286	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X4	-1.2500	-0.2381	0.4268	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X5	-0.47222	0.01793	0.56000	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X6	-0.06250	0.08828	0.37830	17	0

Identifier	Minimum	Mean	Maximum	Values	Missing
X7	-0.9308	-0.2028	0.3280	17	0

1-Testing for the structural change in environmental conditions in economic reform programme variables using logistic regression (deflated data): -

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X1 **(Interest rates)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	24.0567961	2.406E+01	24.06
Residual	16	0.0001491	0.932E-05	
Total	17	24.0569452	1.415E+00	
Change	-1	-24.0567961	2.406E+01	24.06

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	705.	4897.	0.14
X1	-4123.	28576.	-0.14

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.00
2	1	0	0.00	0.00	0.00
3	1	0	0.00	-0.01	0.37
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.00
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.00
11	1	0	0.00	0.00	0.00
12	1	1	1.00	0.01	0.37
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.00
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.04

CUCHISQU((24.06; 1))
0.000000935

409.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X2 **(Real interest rates)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	24.0560325	24.05603249	24.06
Residual	16	0.0009127	0.00005704	
Total	17	24.0569452	1.41511442	
Change	-1	-24.0560325	24.05603249	24.06

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	68.	235.	0.29
X2	619.	2064.	0.30

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	-0.02	0.18
2	1	0	0.00	0.00	0.00
3	1	0	0.00	0.00	0.00
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.00
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.00
11	1	0	0.00	-0.02	0.18
12	1	1	1.00	0.02	0.37
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.00
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.04

CUCHISQU((24.06; 1))
0.000000936

418.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X3 **(Inflation rate)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	13.56	13.5604	13.56
Residual	16	10.50	0.6560	
Total	17	24.06	1.4151	
Change	-1	-13.56	13.5604	13.56

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	9.21	4.66	1.98
X3	-40.1	19.4	-2.06

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.46	-1.20	0.15
2	1	0	0.43	-1.15	0.15
3	1	0	0.17	-0.67	0.14
4	1	0	0.04	-0.29	0.10
5	1	0	0.01	-0.12	0.04
6	1	0	0.01	-0.10	0.03
7	1	0	0.02	-0.18	0.06
8	1	0	0.01	-0.18	0.06
9	1	0	0.04	-0.30	0.10
10	1	0	0.02	-0.23	0.08
11	1	0	0.46	-1.20	0.15
12	1	1	0.12	2.23	0.14
13	1	1	0.51	1.27	0.16
14	1	1	0.88	0.57	0.19
15	1	1	0.89	0.52	0.19
16	1	1	0.97	0.27	0.12
17	1	1	0.97	0.24	0.10
18	1	1	1.00	0.09	0.03
Mean				-0.02	0.11

CUCHISQU((13.56; 1))
0.0002311

424.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X4 **(Exchange rate stability)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	24.05687311	2.406E+01	24.06
Residual	16	0.00007209	0.451E-05	
Total	17	24.05694520	1.415E+00	
Change	-1	-24.05687311	2.406E+01	24.06

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	82.	780.	0.11
X4	1142.	10621.	0.11

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.00
2	1	0	0.00	0.00	0.00
3	1	0	0.00	0.00	0.00
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.00
6	1	0	0.00	0.00	0.00
7	1	0	0.00	-0.01	0.37
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.00
11	1	0	0.00	0.00	0.00
12	1	1	1.00	0.01	0.37
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.00
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.04

CUCHISQU((24.06; 1))
0.000000935

430.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X5 **(Real GDP growth rate)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	1.60	1.597	1.60
Residual	16	22.46	1.404	
Total	17	24.06	1.415	
Change	-1	-1.60	1.597	1.60

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-3.69	1.86	-1.98
X5	37.5	21.2	1.77

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.24	-0.78	0.08
2	1	0	0.24	-0.77	0.08
3	1	0	0.30	-0.88	0.07
4	1	0	0.40	-1.04	0.07
5	1	0	0.23	-0.75	0.08
6	1	0	0.18	-0.66	0.09
7	1	0	0.27	-0.82	0.07
8	1	0	0.33	-0.93	0.07
9	1	0	0.32	-0.91	0.07
10	1	0	0.38	-1.01	0.07
11	1	0	0.24	-0.78	0.08
12	1	1	0.10	2.30	0.11
13	1	1	0.16	2.02	0.10
14	1	1	0.41	1.38	0.08
15	1	1	0.65	1.02	0.17
16	1	1	0.77	0.83	0.22
17	1	1	0.86	0.63	0.25
18	1	1	0.93	0.43	0.22
Mean				-0.04	0.11

CUCHISQU((1.6; 1))
0.2059

457.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X6 **(Per capita income)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	4.59	4.594	4.59
Residual	16	19.46	1.216	
Total	17	24.06	1.415	
Change	-1	-4.59	4.594	4.59

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-5.56	4.63	-1.20
X6	0.0129	0.0117	1.10

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.31	-0.90	0.07
2	1	0	0.30	-0.87	0.08
3	1	0	0.33	-0.93	0.06
4	1	0	0.40	-1.05	0.06
5	1	0	0.50	-1.25	0.11
6	1	0	0.47	-1.17	0.09
7	1	0	0.38	-1.01	0.06
8	1	0	0.36	-0.97	0.06
9	1	0	0.24	-0.79	0.11
10	1	0	0.29	-0.87	0.08
11	1	0	0.31	-0.90	0.07
12	1	1	0.21	1.90	0.14
13	1	1	0.30	1.62	0.08
14	1	1	0.35	1.50	0.06
15	1	1	0.37	1.45	0.06
16	1	1	0.47	1.29	0.09
17	1	1	0.53	1.21	0.14
18	1	1	0.87	0.80	0.56
Mean				-0.05	0.11

CUCHISQU((4.59; 1))
0.03216

463.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X7 **(Budget deficit)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	24.05692066	2.406E+01	24.06
Residual	16	0.00002454	0.153E-05	
Total	17	24.05694520	1.415E+00	
Change	-1	-24.05692066	2.406E+01	24.06

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	51.	724.	0.07
X7	-272.	3770.	-0.07

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.15
2	1	0	0.00	0.00	0.02
3	1	0	0.00	0.00	0.05
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.00
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.00
11	1	0	0.00	0.00	0.15
12	1	1	1.00	0.00	0.37
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.00
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.04

CUCHISQU((24.06; 1))
0.000000935

470.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X1, X2, X3, X4, X5, X6, X7 **(Economic reform programme as a whole)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	7	2.406E+01	3.437E+00	3.44
Residual	10	0.586E-05	0.586E-06	
Total	17	2.406E+01	1.415E+00	
Change	-7	-2.406E+01	3.437E+00	3.44

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	119.	53058.	0.00
X1	-462.	267672.	0.00
X2	22.	10005.	0.00
X3	46.	32009.	0.00
X4	102.	16356.	0.01
X5	-276.	40218.	-0.01
X6	0.0	28.2	0.00
X7	-43.	32917.	0.00

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.10
2	1	0	0.00	0.00	0.14
3	1	0	0.00	0.00	0.34
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.18
6	1	0	0.00	0.00	0.19
7	1	0	0.00	0.00	0.28
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.01
10	1	0	0.00	0.00	0.00
11	1	0	0.00	0.00	0.10
12	1	1	1.00	0.00	0.35
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.30
15	1	1	1.00	0.00	0.28
16	1	1	1.00	0.00	0.22
17	1	1	1.00	0.00	0.07
18	1	1	1.00	0.00	0.36
Mean				0.00	0.16

CUCHISQU((24.06; 7))
0.001112

2-Testing for the structural change in environmental conditions in stock market performance variables using logistic regression (deflated data): -

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1 **(Value of Trade)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.74	3.742	3.74
Residual	16	20.31	1.269	
Total	17	24.06	1.415	
Change	-1	-3.74	2.742	3.74

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-1.585	0.929	-1.71
Y1	0.0723	0.0526	1.37

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.29	-0.86	0.07
2	1	0	0.25	-0.78	0.09
3	1	0	0.22	-0.74	0.10
4	1	0	0.28	-0.84	0.07
5	1	0	0.57	-1.42	0.15
6	1	0	0.45	-1.15	0.08
7	1	0	0.37	-0.99	0.06
8	1	0	0.39	-1.02	0.06
9	1	0	0.27	-0.82	0.08
10	1	0	0.29	-0.85	0.07
11	1	0	0.29	-0.86	0.07
12	1	1	0.28	1.67	0.07
13	1	1	0.27	1.67	0.08
14	1	1	0.24	1.78	0.09
15	1	1	0.42	1.36	0.07
16	1	1	0.44	1.33	0.08
17	1	1	0.75	0.91	0.32
18	1	1	0.93	0.47	0.35
Mean				-0.06	0.11

CUCHISQU((3.74; 1))
0.05312

493.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y2 **(Volume of trade)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	7.23	7.230	7.23
Residual	16	16.83	1.052	
Total	17	24.06	1.415	
Change	-1	-7.23	7.230	7.23

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-4.93	2.84	-1.74
Y2	2.71	1.75	1.55

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.36	-0.98	0.08
2	1	0	0.13	-0.55	0.12
3	1	0	0.15	-0.61	0.11
4	1	0	0.08	-0.45	0.13
5	1	0	0.28	-0.85	0.08
6	1	0	0.30	-0.88	0.08
7	1	0	0.30	-0.88	0.08
8	1	0	0.50	-1.26	0.13
9	1	0	0.10	-0.48	0.12
10	1	0	0.12	-0.55	0.12
11	1	0	0.36	-0.98	0.08
12	1	1	0.41	1.40	0.09
13	1	1	0.45	1.35	0.11
14	1	1	0.06	2.52	0.13
15	1	1	0.73	0.94	0.29
16	1	1	0.67	1.03	0.25
17	1	1	1.00	0.03	0.01
18	1	1	1.00	0.00	0.00
Mean				-0.07	0.11

CUCHISQU((7.23; 1))
0.001770

498.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y3 **(Number of transactions)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	9.51	9.5089	9.51
Residual	16	14.55	0.9093	
Total	17	24.06	1.4151	
Change	-1	-9.51	9.5089	9.51

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-2.64	2.13	-1.24
Y3	0.00124	0.00182	0.68

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.22	-0.73	0.07
2	1	0	0.16	-0.63	0.10
3	1	0	0.17	-0.65	0.09
4	1	0	0.18	-0.66	0.08
5	1	0	0.22	-0.72	0.07
6	1	0	0.22	-0.73	0.07
7	1	0	0.24	-0.77	0.08
8	1	0	0.31	-0.96	0.19
9	1	0	0.18	-0.65	0.09
10	1	0	0.25	-0.79	0.09
11	1	0	0.22	-0.73	0.07
12	1	1	0.24	1.77	0.08
13	1	1	0.23	1.77	0.08
14	1	1	0.18	1.92	0.08
15	1	1	0.99	0.22	0.66
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				-0.13	0.11

CUCHISQU((9.51; 1))
0.002044

503.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y4 **(Number of traded companies)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	20.544	20.5440	20.54
Residual	16	3.513	0.2196	
Total	17	24.057	1.4151	
Change	-1	-20.544	20.5440	20.54

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	31.3	28.9	1.08
Y4	1.36	1.25	1.09

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.02	-0.22	0.27
2	1	0	0.57	-1.74	0.44
3	1	0	0.00	0.00	0.00
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.00
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	-0.03	0.03
11	1	0	0.02	-0.22	0.27
12	1	1	0.44	1.72	0.45
13	1	1	0.96	0.39	0.40
14	1	1	1.00	0.08	0.09
15	1	1	1.00	0.03	0.02
16	1	1	1.00	0.02	0.01
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.11

CUCHISQU((20.54; 1))
0.000005828

508.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y5 **(Values of new issues "including capital increase")**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.13	3.126	3.13
Residual	16	20.93	1.308	
Total	17	24.06	1.415	
Change	-1	-3.13	3.126	3.13

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-3.42	1.98	-1.73
Y5	0.0462	0.0300	1.54

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.43	-1.10	0.07
2	1	0	0.30	-0.87	0.07
3	1	0	0.20	-0.70	0.10
4	1	0	0.15	-0.61	0.12
5	1	0	0.19	-0.69	0.10
6	1	0	0.26	-0.81	0.08
7	1	0	0.42	-1.09	0.07
8	1	0	0.42	-1.08	0.07
9	1	0	0.47	-1.17	0.08
10	1	0	0.29	-0.86	0.07
11	1	0	0.43	-1.10	0.07
12	1	1	0.22	1.83	0.09
13	1	1	0.32	1.56	0.07
14	1	1	0.18	1.95	0.11
15	1	1	0.43	1.35	0.07
16	1	1	0.62	1.07	0.16
17	1	1	0.89	0.59	0.30
18	1	1	0.79	0.81	0.27
Mean				-0.05	0.11

CUCHISQU((3.13; 1))
0.07686

513.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y6 **(Values of new issues "including capital increase" as a percentage of GDP)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.99	3.991	3.99
Residual	16	20.07	1.254	
Total	17	24.06	1.415	
Change	-1	-3.99	3.991	3.99

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-3.20	1.75	-1.83
Y6	606.	381.	1.59

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.37	-1.00	0.07
2	1	0	0.30	-0.88	0.07
3	1	0	0.21	-0.71	0.09
4	1	0	0.15	-0.61	0.11
5	1	0	0.18	-0.67	0.10
6	1	0	0.24	-0.78	0.08
7	1	0	0.43	-1.10	0.08
8	1	0	0.41	-1.07	0.07
9	1	0	0.44	-1.12	0.08
10	1	0	0.27	-0.83	0.07
11	1	0	0.37	-1.00	0.07
12	1	1	0.21	1.84	0.09
13	1	1	0.27	1.67	0.07
14	1	1	0.19	1.93	0.10
15	1	1	0.46	1.30	0.09
16	1	1	0.66	1.02	0.20
17	1	1	0.93	0.44	0.27
18	1	1	0.90	0.56	0.30
Mean				-0.06	0.11

CUCHISQU((3.99; 1))
0.04577

519.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1, Y2, Y3, Y4, Y5, Y6 **(Market activity variables as a whole)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	6	24.05692242	4.009487069	4.01
Residual	11	0.00002278	0.000002071	
Total	17	24.05694520	1.415114423	
Change	-6	-24.05692242	4.009487069	4.01

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	143.	14744.	0.01
Y1	3.	431.	0.01
Y2	-4.	4043.	0.00
Y3	0.0013	0.0960	0.01
Y4	-4.	434.	-0.01
Y5	2.	430.	0.01
Y6	-53687.	6865829.	-0.01

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.18
2	1	0	0.00	0.00	0.36
3	1	0	0.00	0.00	0.00
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.33
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.35
11	1	0	0.00	0.00	0.18
12	1	1	1.00	0.00	0.37
13	1	1	1.00	0.00	0.08
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.36
16	1	1	1.00	0.00	0.37
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.14

CUCHISQU((24.06; 6))
0.0005098

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y7 **(Market capitalization)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.28	3.282	3.28
Residual	16	20.78	1.298	
Total	17	24.06	1.415	
Change	-1	-3.28	3.282	3.28

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-4.10	2.39	-1.71
Y7	0.00670	0.00434	1.54

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.20	-0.71	0.10
2	1	0	0.13	-0.55	0.13
3	1	0	0.29	-0.86	0.07
4	1	0	0.27	-0.82	0.08
5	1	0	0.47	-1.18	0.09
6	1	0	0.41	-1.07	0.07
7	1	0	0.33	-0.93	0.07
8	1	0	0.61	-1.50	0.16
9	1	0	0.39	-1.03	0.07
10	1	0	0.25	-0.79	0.08
11	1	0	0.20	-0.71	0.10
12	1	1	0.39	1.43	0.07
13	1	1	0.35	1.51	0.07
14	1	1	0.28	1.65	0.07
15	1	1	0.21	1.85	0.09
16	1	1	0.50	1.24	0.10
17	1	1	0.81	0.77	0.29
18	1	1	0.91	0.53	0.30
Mean				-0.07	0.11

CUCHISQU((3.28; 1))
0.07013

529.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y8 **(Market capitalization as a percentage of GDP)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	4.42	4.425	4.42
Residual	16	19.63	1.227	
Total	17	24.06	1.415	
Change	-1	-4.42	4.425	4.42

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-3.99	2.31	-1.73
Y8	91.8	60.9	1.51

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.17	-0.65	0.10
2	1	0	0.15	-0.60	0.11
3	1	0	0.28	-0.84	0.07
4	1	0	0.24	-0.77	0.08
5	1	0	0.41	-1.07	0.08
6	1	0	0.37	-1.00	0.07
7	1	0	0.34	-0.94	0.07
8	1	0	0.60	-1.50	0.18
9	1	0	0.39	-1.03	0.07
10	1	0	0.23	-0.76	0.08
11	1	0	0.17	-0.65	0.10
12	1	1	0.34	1.52	0.07
13	1	1	0.29	1.62	0.07
14	1	1	0.28	1.65	0.07
15	1	1	0.25	1.74	0.08
16	1	1	0.59	1.13	0.17
17	1	1	0.91	0.52	0.33
18	1	1	0.98	0.23	0.19
Mean				-0.08	0.11

CUCHISQU((4.42; 1))
0.03552

534.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y9 **(Number of listed companies)**

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	1.51	1.511	1.51
Residual	16	22.55	1.409	
Total	17	24.06	1.415	
Change	-1	-1.51	1.511	1.51

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	75.	644.	0.12
Y9	1.7	14.7	0.12

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.36	-0.97	0.06
2	1	0	0.31	-0.90	0.07
3	1	0	0.21	-0.74	0.14
4	1	0	0.31	-0.89	0.08
5	1	0	0.57	-1.42	0.16
6	1	0	0.48	-1.19	0.08
7	1	0	0.40	-1.04	0.06
8	1	0	0.34	-0.94	0.07
9	1	0	0.26	-0.81	0.10
10	1	0	0.32	-0.91	0.07
11	1	0	0.36	-0.97	0.06
12	1	1	0.27	1.70	0.09
13	1	1	0.28	1.68	0.09
14	1	1	0.24	1.81	0.12
15	1	1	0.56	1.16	0.15
16	1	1	0.42	1.36	0.06
17	1	1	0.59	1.14	0.17
18	1	1	0.74	0.96	0.36
Mean				-0.05	0.11

CUCHISQU((1.51; 1))
0.2191

539.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y10 **(volume of shares listed)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	5.45	5.448	5.45
Residual	16	18.61	1.163	
Total	17	24.06	1.415	
Change	-1	-5.45	5.448	5.45

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	4.67	2.64	1.77
Y10	0.0755	0.0384	1.97

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.53	-1.29	0.10
2	1	0	0.47	-1.18	0.09
3	1	0	0.42	-1.09	0.08
4	1	0	0.15	-0.61	0.10
5	1	0	0.17	-0.64	0.10
6	1	0	0.06	-0.38	0.10
7	1	0	0.13	-0.55	0.10
8	1	0	0.08	-0.44	0.10
9	1	0	0.19	-0.69	0.09
10	1	0	0.36	-0.99	0.08
11	1	0	0.53	-1.29	0.10
12	1	1	0.66	0.98	0.14
13	1	1	0.77	0.79	0.18
14	1	1	0.84	0.65	0.19
15	1	1	0.88	0.56	0.19
16	1	1	0.31	1.60	0.08
17	1	1	0.27	1.70	0.08
18	1	1	0.16	2.02	0.10
Mean				-0.05	0.11

CUCHISQU((5.45; 1))
0.01957

544.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y11 **(Number of financial intermediaries)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	17.171	17.1706	17.17
Residual	16	6.886	0.4304	
Total	17	24.057	1.4151	
Change	-1	-17.171	17.1706	17.17

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-112.	216.	-0.52
Y11	9.2	18.0	0.51

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.08	-0.44	0.08
2	1	0	0.08	-0.44	0.08
3	1	0	0.08	-0.44	0.08
4	1	0	0.08	-0.44	0.08
5	1	0	0.08	-0.44	0.08
6	1	0	0.08	-0.44	0.08
7	1	0	0.08	-0.44	0.08
8	1	0	0.08	-0.44	0.08
9	1	0	0.08	-0.44	0.08
10	1	0	0.08	-0.44	0.08
11	1	0	0.08	-0.44	0.08
12	1	1	0.08	2.33	0.08
13	1	1	1.00	0.06	0.37
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.00
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				-0.13	0.08

CUCHISQU((17.17; 1))
0.00003416

550.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y7, Y8, Y9, Y10, Y11 **(Market size variables as a whole)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	5	2.406E+01	4.811E+00	4.81
Residual	12	0.992E-05	0.826E-06	
Total	17	2.406E+01	1.415E+00	
Change	-5	-2.406E+01	4.811E+00	4.81

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-12.	1995.	-0.01
Y7	0.5	21.5	0.02
Y8	-4674.	251969.	-0.02
Y9	0.0	18.2	0.00
Y10	-1.3	48.0	-0.03
Y11	0.4	20.7	0.02

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.17
2	1	0	0.00	0.00	0.00
3	1	0	0.00	0.00	0.32
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.21
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.00
11	1	0	0.00	0.00	0.17
12	1	1	1.00	0.00	0.29
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.11
15	1	1	1.00	0.00	0.22
16	1	1	1.00	0.00	0.36
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.36
Mean				0.00	0.12

CUCHISQU((24.06; 1))
0.0005092

555.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y12 **(Total value traded to market Capitalization)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.34	3.337	3.34
Residual	16	20.72	1.295	
Total	17	24.06	1.415	
Change	-1	-3.34	3.337	3.34

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-1.642	0.953	-1.72
Y12	1166.	866.	1.35

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.28	-0.84	0.07
2	1	0	0.24	-0.77	0.08
3	1	0	0.21	-0.73	0.10
4	1	0	0.28	-0.84	0.07
5	1	0	0.52	-1.29	0.13
6	1	0	0.45	-1.14	0.09
7	1	0	0.37	-1.00	0.07
8	1	0	0.39	-1.03	0.07
9	1	0	0.25	-0.80	0.08
10	1	0	0.28	-0.84	0.07
11	1	0	0.28	-0.84	0.07
12	1	1	0.26	1.70	0.08
13	1	1	0.26	1.72	0.08
14	1	1	0.23	1.81	0.09
15	1	1	0.45	1.33	0.09
16	1	1	0.47	1.30	0.10
17	1	1	0.82	0.81	0.40
18	1	1	0.97	0.27	0.26
Mean				-0.07	0.11

CUCHISQU((3.34; 1))
0.06761

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y13 **(Total value traded to GDP)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	24.05685498	2.406E+01	24.06
Residual	16	0.00009022	0.564E-05	
Total	17	24.05694520	1.415E+00	
Change	-1	-24.05685498	2.406E+01	24.06

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-1.71	1.19	-1.44
Y13	46.6	39.5	1.18

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.00
2	1	0	0.00	-0.01	0.37
3	1	0	0.00	0.00	0.00
4	1	0	0.00	0.00	0.00
5	1	0	0.00	0.00	0.00
6	1	0	0.00	0.00	0.00
7	1	0	0.00	0.00	0.00
8	1	0	0.00	0.00	0.00
9	1	0	0.00	0.00	0.00
10	1	0	0.00	0.00	0.00
11	1	0	0.00	0.00	0.00
12	1	1	1.00	0.01	0.37
13	1	1	1.00	0.00	0.00
14	1	1	1.00	0.00	0.00
15	1	1	1.00	0.00	0.00
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				0.00	0.04

CUCHISQU((24.06; 1))
0.000000935

565.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y14 **(Volume of shares traded to volume of shares listed)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	14.925	14.9247	14.92
Residual	16	9.132	0.5708	
Total	17	24.057	1.4151	
Change	-1	-14.925	14.9247	14.92

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-8.52	4.06	-2.10
Y14	329.	165.	1.99

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.51	-1.34	0.21
2	1	0	0.07	-0.40	0.11
3	1	0	0.07	-0.39	0.11
4	1	0	0.01	-0.12	0.04
5	1	0	0.06	-0.37	0.11
6	1	0	0.03	-0.24	0.08
7	1	0	0.05	-0.34	0.10
8	1	0	0.09	-0.46	0.12
9	1	0	0.01	-0.15	0.05
10	1	0	0.03	-0.27	0.08
11	1	0	0.51	-1.34	0.21
12	1	1	0.84	0.69	0.27
13	1	1	0.97	0.25	0.14
14	1	1	0.13	2.18	0.13
15	1	1	1.00	0.01	0.00
16	1	1	0.64	1.09	0.25
17	1	1	1.00	0.01	0.00
18	1	1	1.00	0.00	0.00
Mean				-0.07	0.11

CUCHISQU((14.93; 1))
0.0001119

571.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y12, Y13, Y14 **(Market liquidity variables as a whole)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	3	17.433	5.8111	5.81
Residual	14	6.624	0.4731	
Total	17	24.057	1.4151	
Change	-3	-17.433	5.8111	5.81

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-2.15	8.93	-0.24
Y12	-0.112	0.154	-0.72
Y13	-30.	309.	-0.10
Y14	372.	370.	1.00

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.52	-1.43	0.28
2	1	0	0.04	-0.33	0.24
3	1	0	0.04	-0.60	0.76
4	1	0	0.00	-0.03	0.01
5	1	0	0.00	-0.07	0.09
6	1	0	0.00	-0.02	0.01
7	1	0	0.00	-0.06	0.03
8	1	0	0.00	-0.06	0.05
9	1	0	0.00	-0.04	0.03
10	1	0	0.01	-0.14	0.10
11	1	0	0.52	-1.43	0.28
12	1	1	0.95	0.49	0.58
13	1	1	1.00	0.07	0.07
14	1	1	0.62	2.66	0.87
15	1	1	1.00	0.00	0.00
16	1	1	0.29	2.27	0.52
17	1	1	1.00	0.01	0.00
18	1	1	1.00	0.00	0.00
Mean				0.07	0.22

CUCHISQU((17.43; 3))
0.0005756

581.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y15 **(Percentage of 10 biggest companies' share in market capitalization)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	5.90	5.899	5.90
Residual	16	18.16	1.135	
Total	17	24.06	1.415	
Change	-1	-5.90	5.899	5.90

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	31.1	15.7	1.98
Y15	-34.2	17.0	-2.01

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.16	-0.62	0.10
2	1	0	0.03	-0.28	0.08
3	1	0	0.12	-0.54	0.10
4	1	0	0.12	-0.54	0.10
5	1	0	0.28	-0.85	0.08
6	1	0	0.26	-0.80	0.08
7	1	0	0.25	-0.80	0.08
8	1	0	0.75	-1.82	0.17
9	1	0	0.59	-1.41	0.12
10	1	0	0.28	-0.84	0.08
11	1	0	0.16	-0.62	0.10
12	1	1	0.40	1.41	0.08
13	1	1	0.44	1.34	0.08
14	1	1	0.51	1.21	0.10
15	1	1	0.14	2.10	0.10
16	1	1	0.88	0.57	0.19
17	1	1	0.74	0.84	0.17
18	1	1	0.89	0.55	0.18
Mean				-0.06	0.11

CUCHISQU((5.9; 1))
0.01514

586.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y16 (**Percentage of 10 biggest companies' share in value traded)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	12.79	12.7884	12.79
Residual	16	11.27	0.7043	
Total	17	24.06	1.4151	
Change	-1	-12.79	12.7884	12.79

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	77.3	49.0	1.58
Y16	-79.9	50.1	-1.60

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.27	-0.84	0.11
2	1	0	0.07	-0.40	0.11
3	1	0	0.03	-0.27	0.09
4	1	0	0.03	-0.27	0.09
5	1	0	0.33	-0.97	0.13
6	1	0	0.09	-0.47	0.11
7	1	0	0.11	-0.51	0.11
8	1	0	0.27	-0.85	0.11
9	1	0	0.00	-0.06	0.02
10	1	0	0.21	-0.72	0.10
11	1	0	0.27	-0.84	0.11
12	1	1	0.07	2.45	0.11
13	1	1	0.46	1.39	0.20
14	1	1	0.80	0.89	0.43
15	1	1	0.98	0.20	0.17
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				-0.07	0.11

CUCHISQU((12.79; 1))
0.0003485

591.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y15, Y16 **(Market concentration variables as a whole)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	2	13.67	6.8375	6.84
Residual	15	10.38	0.6921	
Total	17	24.06	1.4151	
Change	-2	-13.67	6.8375	6.84

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	92.2	49.2	1.88
Y15	-26.2	28.8	-0.91
Y16	-70.2	43.1	-1.63

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.15	-0.63	0.18
2	1	0	0.01	-0.16	0.08
3	1	0	0.02	-0.19	0.06
4	1	0	0.02	-0.19	0.06
5	1	0	0.29	-0.89	0.14
6	1	0	0.08	-0.44	0.11
7	1	0	0.09	-0.47	0.11
8	1	0	0.60	-2.28	0.65
9	1	0	0.01	-0.13	0.08
10	1	0	0.18	-0.68	0.12
11	1	0	0.15	-0.63	0.18
12	1	1	0.10	2.32	0.15
13	1	1	0.52	1.27	0.20
14	1	1	0.84	0.70	0.29
15	1	1	0.93	0.58	0.56
16	1	1	1.00	0.00	0.00
17	1	1	1.00	0.00	0.00
18	1	1	1.00	0.00	0.00
Mean				-0.10	0.17

CUCHISQU((13.67; 2))
0.001075

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8,
Y9, Y10, Y11, Y12, Y13, Y14, Y15, Y16 **(Stock market performance variables as a whole)**

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	16	2.406E+01	1.503558774	1.50
Residual	1	0.482E-05	0.000004818	
Total	17	2.406E+01	1.415114423	
Change	-16	-2.406E+01	1.503558774	1.50

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-89.	335553.	0.00
Y1	30.	10724.	0.00
Y2	-170.	48255.	0.00
Y3	-0.002	0.673	0.00
Y4	-6.	2125.	0.00
Y5	-20.	6094.	0.00
Y6	321961.	99621515.	0.00
Y7	3.	857.	0.00
Y8	-46042.	13717850.	0.00
Y9	-0.1	80.5	0.00
Y10	3.	922.	0.00
Y11	0.	264.	0.00
Y12	67691.	52535090.	0.00
Y13	-18526.	5420732.	0.00
Y14	6495.	1573237.	0.00
Y15	692.	372420.	0.00
Y16	-379.	116671.	0.00

*** Fitted values and residuals ***

Unit	Binomial total	Response	Fitted value	Standardized residual	Leverage
1	1	0	0.00	0.00	0.18
2	1	0	0.00	0.00	0.37
3	1	0	0.00	0.00	0.37
4	1	0	0.00	0.00	0.37
5	1	0	0.00	0.00	0.37
6	1	0	0.00	0.00	0.37
7	1	0	0.00	0.00	0.37
8	1	0	0.00	0.00	0.37
9	1	0	0.00	0.00	0.37
10	1	0	0.00	0.00	0.37
11	1	0	0.00	0.00	0.18
12	1	1	1.00	0.00	0.37
13	1	1	1.00	0.00	0.37
14	1	1	1.00	0.00	0.37
15	1	1	1.00	0.00	0.37
16	1	1	1.00	0.00	0.37
17	1	1	1.00	0.00	0.37
18	1	1	1.00	0.00	0.37
Mean				0.00	0.35

CUCHISQU((24.06; 16))
0.08820

3-Testing for the structural change in environmental conditions in economic reform programme variables using logistic regression (data relative change: final results only): -

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X1


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1        16.586       16.5857     16.59
Residual        15         6.449        0.4299
Total           16        23.035        1.4397

Change          -1       -16.586       16.5857     16.59

*** Estimates of regression coefficients ***

                  estimate          s.e.      t(*)
Constant             -8.43          5.23     -1.61
X1                    -179.          103.     -1.74


 CUCHISQU((16.59; 1))
  0.00004649

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X2


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          3.18         3.179      3.18
Residual        15         19.86         1.324
Total           16         23.03         1.440

Change          -1         -3.18         3.179      3.18


*** Estimates of regression coefficients ***

                  estimate          s.e.      t(*)
Constant            -0.335         0.497     -0.67
X2                   0.387         0.930      0.42


 CUCHISQU((3.18; 1))
     0.07454
```

```
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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X3


*** Summary of analysis ***

                                              mean  deviance
              d.f.      deviance      deviance      ratio
Regression       1          3.73         3.728       3.73
Residual        15         19.31         1.287
Total           16         23.03         1.440

Change          -1         -3.73         3.728       3.73

*** Estimates of regression coefficients ***

                 estimate          s.e.       t(*)
Constant           -0.925         0.664      -1.39
X3                  -6.08          4.00      -1.52


 CUCHISQU((3.73; 1))
     0.05344


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X4


*** Summary of analysis ***

                                              mean  deviance
              d.f.       deviance      deviance      ratio
Regression       1    23.0341570   23.03415695      23.03
Residual        15     0.0006528    0.00004352
Total           16    23.0348098    1.43967561

Change          -1   -23.0341570   23.03415695      23.03

*** Estimates of regression coefficients ***

                 estimate          s.e.       t(*)
Constant              130.          490.       0.27
X4                    588.         2216.       0.27


CUCHISQU((23.03; 1))
0.000001595
```

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X5


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         1.26        1.264       1.26
Residual        15        21.77        1.450
Total           16        23.03        1.440

Change          -1        -1.26        1.264       1.26


*** Estimates of regression coefficients ***

                estimate         s.e.      t(*)
Constant          -0.471        0.537     -0.88
X5                  3.61         2.69      1.34


 CUCHISQU((1.26; 1))
      0.2617


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X6


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         3.58        3.585       3.58
Residual        15        19.45        1.296
Total           16        23.03        1.440

Change          -1        -3.58        3.585       3.58

*** Estimates of regression coefficients ***

                estimate         s.e.      t(*)
Constant          -1.236        0.844     -1.46
X6                  9.79         7.40      1.32



 CUCHISQU((3.58; 1))
     0.05848
```

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X7

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	7.38	7.381	7.38
Residual	15	15.65	1.044	
Total	16	23.03	1.440	

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-1.97	1.09	-1.81
X7	-7.16	3.64	-1.97

CUCHISQU((7.38; 1))
0.006595

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, X1, X2, X3, X4, X5, X6, X7

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	7	23.03479045	3.290684350	3.29
Residual	9	0.00001930	0.000002145	
Total	16	23.03480975	1.439675609	
Change	-7	-23.03479045	3.290684350	3.29

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-34.	680.	-0.05
X1	-123.	17724.	-0.01
X2	13.	696.	0.02
X3	-20.	7063.	0.00
X4	40.	4376.	0.01
X5	-12.	3923.	0.00
X6	85.	5078.	0.02
X7	-48.	3019.	-0.02

CUCHISQU((23.03; 7))
0.001681

4-Testing for the structural change in environmental conditions in stock market performance variables using logistic regression (data relative change: final results only): -

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.60	3.596	3.60
Residual	15	19.44	1.296	
Total	16	23.03	1.440	
Change	-1	-3.60	3.596	3.60

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-0.652	0.635	-1.03
Y1	0.342	0.449	0.76

CUCHISQU((3.6; 1))
0.05778

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y2

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.84	3.837	3.84
Residual	15	19.20	1.280	
Total	16	23.03	1.440	
Change	-1	-3.84	3.837	3.84

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-0.894	0.666	-1.34
Y2	1.029	0.831	1.24

CUCHISQU((3.84; 1))
0.05004

```
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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y3


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          4.50         4.499      4.50
Residual        15         18.54         1.236
Total           16         23.03         1.440

Change          -1         -4.50         4.499      4.50

*** Estimates of regression coefficients ***

                 estimate          s.e.      t(*)
Constant           -0.987         0.621     -1.59
Y3                  0.776         0.538      1.44


 CUCHISQU((4.5; 1))
     0.03389

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y4


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          3.03         2.030      3.03
Residual        15         20.01         1.334
Total           16         23.03         1.440

Change          -1         -3.03         3.030      3.03
3
*** Estimates of regression coefficients ***

                 estimate          s.e.      t(*)
Constant            0.496         0.938      0.53
Y4                   5.68          6.32      0.90


 CUCHISQU((3.03; 1))
     0.08174
```

```
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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y5


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         4.53        4.526       4.53
Residual        15        18.51        1.234
Total           16        23.03        1.440

Change          -1        -4.53        4.526       4.53

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.805        0.810     -0.99
Y5                   1.01         1.41      0.72


CUCHISQU((4.53; 1))
     0.03331


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y6


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         3.95        0.950       3.95
Residual        15        19.08        1.272
Total           16        23.03        1.440

Change          -1        -3.95        3.950       3.95
*
*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.699        0.627     -1.12
Y6                   1.50         1.57      0.95

CUCHISQU((3.95; 1))
     0.04687
```

```
262.....................................................................

***** Regression Analysis *****
 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y1, Y2, Y3, Y4, Y5, Y6


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       6         12.42          2.07      2.07
Residual        10         10.62         1.062
Total           16         23.03         1.440

Change          -6        -12.42          2.07      2.07

*** Estimates of regression coefficients ***

                 estimate          s.e.      t(*)
Constant             1.37          2.12      0.64
Y1                  -0.18          1.21     -0.15
Y2                   0.93          1.99      0.47
Y3                  0.886         0.671      1.32
Y4                  -3.94          5.92     -0.67
Y5                   -8.6          10.9     -0.79
Y6                    7.4          13.0      0.57


 CUCHISQU((12.42; 6))
     0.05323

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y7


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          3.11          3.11      3.11
Residual        15         19.92         1.328
Total           16         23.03         1.440

Change          -1         -3.11          3.11      3.11

*** Estimates of regression coefficients ***

                 estimate          s.e.      t(*)
Constant           -1.035         0.840     -1.23
Y7                   1.70          1.64      1.04


 CUCHISQU((3.11; 1))
     0.07781
```

```
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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y8


*** Summary of analysis ***

                                        mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         3.60        3.603       3.60
Residual        15        19.43        1.295
Total           16        23.03        1.440

Change          -1        -3.60        3.603       3.60

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant            -0.975        0.679     -1.44
Y8                    3.30         2.15      1.53


 CUCHISQU((3.6; 1))
     0.05778


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y9


*** Summary of analysis ***

                                        mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         1.98        1.982       1.98
Residual        15        21.05        1.404
Total           16        23.03        1.440

Change          -1        -1.98        1.982       1.98

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant            -0.108        0.539     -0.20
Y9                    2.37         2.62      0.91


 CUCHISQU((1.98; 1))
      0.1594
```

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y10

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.44	3.440	3.44
Residual	15	19.59	1.306	
Total	16	23.03	1.440	
Change	-1	-3.44	3.440	3.44

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-0.609	0.631	-0.97
Y10	0.98	1.53	0.64

CUCHISQU((3.44; 1))
0.06364

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y11

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	16.333	16.3325	16.33
Residual	15	6.702	0.4468	
Total	16	23.035	1.4397	
Change	-1	-16.333	16.3325	16.33

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-2.30	1.05	-2.20
Y11	133.	585.	0.23

CUCHISQU((16.33; 1))
0.00005313

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y7, Y8, Y9, Y10, Y11

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	5	23.0346759	4.60693518	4.61
Residual	11	0.0001338	0.00001217	
Total	16	23.0348098	1.43967561	
Change	-5	-23.0346759	4.60693518	4.61

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	7.	1409.	0.01
Y7	-38.	6660.	-0.01
Y8	85.	6207.	0.01
Y9	-9.	1989.	0.00
Y10	-155.	1761.	-0.09
Y11	196.	1428.	0.14

CUCHISQU((23.03; 5))
0.0003325

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y12

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	3.12	3.122	3.12
Residual	15	19.91	1.327	
Total	16	23.03	1.440	
Change	-1	-3.12	3.122	3.12

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-0.687	0.600	-1.14
Y12	0.572	0.564	1.01

CUCHISQU((3.12; 1))
0.07734

```
 310.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y13


*** Summary of analysis ***

                                              mean  deviance
              d.f.      deviance      deviance      ratio
Regression       1          3.30         0.296        3.30
Residual        15         19.74         1.316
Total           16         23.03         1.440

Change          -1         -3.30         3.296        3.30

*** Estimates of regression coefficients ***

                 estimate          s.e.       t(*)
Constant           -0.473         0.542      -0.87
Y13                 0.302         0.560       0.54


 CUCHISQU((3.3; 1))
     0.06928

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y14


*** Summary of analysis ***

                                              mean  deviance
              d.f.      deviance      deviance      ratio
Regression       1          4.26         4.259        4.26
Residual        15         18.78         1.252
Total           16         23.03         1.440

Change          -1         -4.26         4.259        4.26

*** Estimates of regression coefficients ***

                 estimate          s.e.       t(*)
Constant           -0.603         0.558      -1.08
Y14                 0.876         0.830       1.06


 CUCHISQU((4.26; 1))
     0.03902
```

```
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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y12, Y13, Y14


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       3          6.78         2.259      2.26
Residual        13         16.26         1.251
Total           16         23.03         1.440

Change          -3         -6.78         2.259      2.26

*** Estimates of regression coefficients ***

                 estimate          s.e.      t(*)
Constant           -1.164         0.741     -1.57
Y12                  3.29          2.28      1.45
Y13                  3.28          2.29      1.43
Y14                  0.54          1.36      0.40


 CUCHISQU((6.78; 3))
     0.07925


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y15


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          4.57         4.572      4.57
Residual        15         18.46         1.231
Total           16         23.03         1.440

Change          -1         -4.57         4.572      4.57

*** Estimates of regression coefficients ***

                 estimate          s.e.      t(*)
Constant           -0.946         0.945     -1.00
Y15                  -9.1          12.3     -0.74


CUCHISQU((4.57; 1))
     0.03254
```

```
335.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y16


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         4.16        4.163       4.16
Residual        15        18.87        1.258
Total           16        23.03        1.440

Change          -1        -4.16        4.163       4.16

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant            -1.554        0.956     -1.63
Y16                  -33.0         21.6     -1.53

CUCHISQU((4.16; 1))
     0.04139


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y15, Y16


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       2        10.20        5.100       5.10
Residual        14        12.83        0.916
Total           16        23.03        1.440

Change          -2       -10.20        5.100       5.10

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant             -1.75         1.42     -1.23
Y15                   -3.1         16.1     -0.19
Y16                  -33.3         22.2     -1.50


 CUCHISQU((10.2; 2))
    0.006097
```

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8,
Y9, Y10, Y11, Y12, Y13, Y14, Y15, Y16

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	16	23.03	1.440	1.44
Residual	0	0.00	*	
Total	16	23.03	1.440	
Change	-16	-23.03	1.440	1.44

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-64.	19412.	0.00
Y1	-272.	48534.	-0.01
Y2	696.	246547.	0.00
Y3	-1.	9258.	0.00
Y4	488.	149316.	0.00
Y5	92.	29111.	0.00
Y6	-62.	34553.	0.00
Y7	441.	81520.	0.01
Y8	70.	45287.	0.00
Y9	-158.	43683.	0.00
Y10	-489.	143826.	0.00
Y11	94.	8183.	0.01
Y12	-219.	124982.	0.00
Y13	495.	158592.	0.00
Y14	-796.	260197.	0.00
Y15	1390.	146703.	0.01
Y16	-594.	120383.	0.00

CUCHISQU((23.3; 16))
0.07797

5-Testing for the structural change in environmental conditions in economic reform programme variables using logistic regression (data first differenced: final results only): -

```
108.....................................................................


***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X1


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1         10.08       10.0771     10.08
Residual        15         12.96        0.8638
Total           16         23.03        1.4397

Change          -1        -10.08       10.0771     10.08

*** Estimates of regression coefficients ***

                  estimate          s.e.       t(*)
Constant             -3.95          1.98      -1.99
X1                    -612.          302.      -2.03

  CUCHISQU((10.08; 1))
    0.001499

113.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X2


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1         8.01         8.008      8.01
Residual        15        15.03         1.002
Total           16        23.03         1.440

Change          -1        -8.01         8.008      8.01

*** Estimates of regression coefficients ***

                  estimate          s.e.       t(*)
Constant           -0.389         0.614      -0.63
X2                    3.1          35.0       0.09


 CUCHISQU((8.01; 1))
    0.004652
```

```
118.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X3


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         7.30        7.299      7.30
Residual        15        15.74        1.050
Total           16        23.03        1.440

Change          -1        -7.30        7.299      7.30

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.492        0.560     -0.88
X3                  -11.3         20.9     -0.54



 CUCHISQU((7.3; 1))
    0.006895


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X4


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         3.62        3.625      3.62
Residual        15        19.41        1.266
Total           16        23.03        1.440

Change          -1        -3.62        3.625      3.62

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.669        0.581     -1.15
X4                   32.6         28.7      1.14


 CUCHISQU((3.62; 1))
     0.05709
```

```
129.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X5


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          2.09         2.093      2.09
Residual        15         20.94         1.396
Total           16         23.03         1.440

Change          -1         -2.09         2.093      2.09

*** Estimates of regression coefficients ***

                  estimate          s.e.      t(*)
Constant            -0.378         0.529     -0.71
X5                    89.4          68.9      1.30


 CUCHISQU((2.09; 1))
      0.1483


134.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X6


*** Summary of analysis ***

                                          mean  deviance
              d.f.      deviance      deviance     ratio
Regression       1          5.78         5.781      5.78
Residual        15         17.25         1.150
Total           16         23.03         1.440

Change          -1         -5.78         5.781      5.78
*
*** Estimates of regression coefficients ***

                  estimate          s.e.      t(*)
Constant             -1.88          1.07     -1.75
X6                  0.0275        0.0164      1.68


 CUCHISQU((5.78; 1))
     0.01621
```

```
139.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X7


*** Summary of analysis ***

                                        mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         6.01        6.005      6.01
Residual        15        17.03        0.069
Total           16        23.03        1.440

Change          -1        -6.01        6.005      6.01

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant            -0.342        0.533    -0.64
X7                    -1.1         14.8    -0.07

CUCHISQU((6.01; 1))
     0.01423
145.....................................................................


***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, X1, X2, X3, X4, X5, X6, X7


*** Summary of analysis ***

                                        mean  deviance
              d.f.     deviance     deviance     ratio
Regression       7  23.03474844  3.290678349      3.29
Residual         9   0.00006131  0.000006812
Total           16  23.03480975  1.439675609

Change          -7 -23.03474844  3.290678349      3.29

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant               -58.         556.    -0.11
X1                    -794.       39696.    -0.02
X2                     969.       20814.     0.05
X3                     147.       11103.     0.01
X4                    1550.       18013.     0.09
X5                    1832.       35725.     0.05
X6                     0.60         6.01     0.10
X7                      89.        7457.     0.01

 CUCHISQU((23.03; 7))
    0.001681
```

6-Testing for the structural change in environmental conditions in stock market performance variables using logistic regression (data first differenced: final results only): -

```
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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y1


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1        10.11       10.1077     10.11
Residual        15        12.93        0.8618
Total           16        23.03        1.4397

Change          -1       -10.11       10.1077     10.11

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant             -1.83         1.01     -1.82
Y1                  0.0116       0.0115      1.01


 CUCHISQU((10.11; 1))
    0.001475

155.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y2


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         6.41         6.408      6.41
Residual        15        16.63         1.108
Total           16        23.03         1.440

Change          -1        -6.41         6.408      6.41
                14         0.53

*** Estimates of regression coefficients ***

                  estimate         s.e.      t(*)
Constant           -1.145        0.676     -1.69
Y2                 0.0950       0.0824      1.15


 CUCHISQU((6.14; 1))
    0.01322
```

```
160.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y3


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         5.45         5.455       5.45
Residual        15        17.58         1.172
Total           16        23.03         1.440

Change          -1        -5.45         5.455       5.45

*** Estimates of regression coefficients ***

                 estimate         s.e.     t(*)
Constant           -0.408        0.505    -0.81
Y3           0.00000065   0.00000101     0.65

 CUCHISQU((5.45; 1))
     0.01957

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y4


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         3.25         3.251       3.25
Residual        15        19.78         1.319
Total           16        23.03         1.440

Change          -1        -3.25         3.251       3.25

*** Estimates of regression coefficients ***

                 estimate         s.e.     t(*)
Constant            -1.83         1.07    -1.71
Y4                 0.0634       0.0404     1.57


 CUCHISQU((3.25; 1))
     0.07142
```

```
170.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y5


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         9.22        9.2230      9.22
Residual        15        13.81        0.9208
Total           16        23.03        1.4397

Change          -1        -9.22        9.2230      9.22

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -1.582        0.776     -2.04
Y5                0.00202      0.00140      1.44


 CUCHISQU((9.22; 1))
    0.002394


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y6


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         4.27        4.266       4.27
Residual        15        18.77        1.251
Total           16        23.03        1.440

Change          -1        -4.27        4.266       4.27

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -1.009        0.646     -1.56
Y6                   198.          133.      1.49


 CUCHISQU((4.27; 1))
     0.03879


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```

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1, Y2, Y3, Y4, Y5, Y6

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	6	23.0346962	3.83911604	3.84
Residual	10	0.0001135	0.00001135	
Total	16	23.0348098	1.43967561	
Change	-6	-23.0346962	3.83911604	3.84

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-100.	753.	-0.13
Y1	-0.051	0.503	-0.10
Y2	-0.1	17.3	-0.01
Y3	-0.00014	0.00149	-0.10
Y4	2.3	19.6	0.12
Y5	0.22	1.64	0.13
Y6	-31106.	228814.	-0.14

CUCHISQU((23.03; 6))
0.0007849

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y7

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	19.987	19.9874	19.99
Residual	15	3.047	0.2032	
Total	16	23.035	1.4397	
Change	-1	-19.987	19.9874	19.99

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-23.9	34.8	-0.69
Y7	0.0142	0.0205	0.70

CUCHISQU((19.99; 1))
0.000007797

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***** Regression Analysis *****

```
 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y8
```

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	6.39	6.385	6.39
Residual	15	16.65	1.110	
Total	16	23.03	1.440	
Change	-1	-6.39	6.385	6.39

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-1.230	0.696	-1.77
Y8	68.6	39.0	1.76

```
 CUCHISQU((6.39; 1))
     0.01148
```

201.....

***** Regression Analysis *****

```
 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y9
```

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	1.40	1.396	1.40
Residual	15	21.64	1.443	
Total	16	23.03	1.440	
Change	-1	-1.40	1.396	1.40

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-0.196	0.527	-0.37
Y9	0.00555	0.00496	1.12

```
 CUCHISQU((1.4; 1))
      0.2367
```

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y10

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	5.04	5.043	5.04
Residual	15	17.99	1.199	
Total	16	23.03	1.440	
Change	-1	-5.04	5.043	5.04

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-1.164	0.684	-1.70
Y10	0.01071	0.00863	1.24

CUCHISQU((5.04; 1))
0.02477

211.....

***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y11

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	1	16.332	16.3323	16.33
Residual	15	6.703	0.4468	
Total	16	23.035	1.4397	
Change	-1	-16.332	16.3323	16.33

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-2.30	1.05	-2.20
Y11	10.5	36.9	0.28

CUCHISQU((16.33; 1))
0.00005316

```
217.....................................................................

 ***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y7,Y8,Y9,Y10,Y11

*** Summary of analysis ***

                                          mean  deviance
             d.f.     deviance     deviance     ratio
Regression      5  23.03474128  4.606948256      4.61
Residual       11   0.00006847  0.000006224
Total          16  23.03480975  1.439675609

Change         -5 -23.03474128  4.606948256      4.61


*** Estimates of regression coefficients ***

                estimate         s.e.      t(*)
Constant             -11.         327.     -0.03
Y7                  0.011        0.209      0.05
Y8                   -548.       34378.     -0.02
Y9                  -0.09         4.83     -0.02
Y10                  -0.6         15.6     -0.04
Y11                    4.         159.      0.02


 CUCHISQU((23.03; 5))
   0.0003324

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y12


*** Summary of analysis ***

                                          mean  deviance
             d.f.     deviance     deviance     ratio
Regression      1         7.09        7.086      7.09
Residual       15        15.95        1.063
Total          16        23.03        1.440

Change         -1        -7.09        7.086      7.09

*** Estimates of regression coefficients ***

                estimate         s.e.      t(*)
Constant           -1.197        0.684     -1.75
Y12                   464.         404.      1.15


 CUCHISQU((7.09; 1))
    0.007752
```

```
228.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y13


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         3.35         3.346      3.35
Residual        15        19.69         1.313
Total           16        23.03         1.440

Change          -1        -3.35         3.346      3.35

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.683        0.566     -1.21
Y13                  17.4         12.6      1.39



 CUCHISQU((3.35; 1))
     0.06720


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y14


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         3.26         3.258      3.26
Residual        15        19.78         1.319
Total           16        23.03         1.440

Change          -1        -3.26         3.258      3.26

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.539        0.541     -1.00
Y14                  15.9         15.0      1.06


 CUCHISQU((3.26; 1))
     0.07099
```

```
240.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y12, Y13, Y14


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       3        10.27        3.4232      3.42
Residual        13        12.77        0.9819
Total           16        23.03        1.4397

Change          -3       -10.27        3.4232      3.42

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -1.618        0.850     -1.90
Y12                 1795.         1301.     1.38
Y13                 -97.3         73.9     -1.32
Y14                 -34.3         70.6     -0.49


 CUCHISQU((10.27; 3))
     0.01641


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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y15


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance      deviance     ratio
Regression       1         2.85         2.845      2.85
Residual        15        20.19         1.346
Total           16        23.03         1.440

Change          -1        -2.85         2.845      2.85


*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant            0.317        0.887     0.36
Y15                  18.2         20.4     0.89


CUCHISQU((2.85; 1))
     0.09137
```

```
250.....................................................................

***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y16


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       1         4.18        2.175      2.18
Residual        15        18.86        1.257
Total           16        23.03        1.440

Change          -1        -4.18        4.175      4.18

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -1.099        0.777     -1.41
Y16                 -26.3         20.3     -1.30


 CUCHISQU((4.18; 1))
     0.04090

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***** Regression Analysis *****

 Response variate: Binomial
  Binomial totals: 1
     Distribution: Binomial
    Link function: Logit
     Fitted terms: Constant, Y15, Y16


*** Summary of analysis ***

                                          mean  deviance
              d.f.     deviance     deviance     ratio
Regression       2         4.64        2.320      2.320
Residual        14        18.40        1.314
Total           16        23.03        1.440

Change          -2        -4.64        2.320      2.320

*** Estimates of regression coefficients ***

                 estimate         s.e.      t(*)
Constant           -0.22         1.05     -0.21
Y15                 26.8         23.8      1.13
Y16                -29.8         20.0     -1.49


 CUCHISQU((4.64; 2))
     0.09827
```

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***** Regression Analysis *****

Response variate: Binomial
Binomial totals: 1
Distribution: Binomial
Link function: Logit
Fitted terms: Constant, Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8, Y9, Y10, Y11, Y12, Y13, Y14, Y15, Y16

*** Summary of analysis ***

	d.f.	deviance	mean deviance	deviance ratio
Regression	16	23.03	1.440	1.44
Residual	0	0.00	*	
Total	16	23.03	1.440	
Change	-16	-23.03	1.440	1.44

*** Estimates of regression coefficients ***

	estimate	s.e.	t(*)
Constant	-19.	3127.	-0.01
Y1	-0.2	73.2	0.00
Y2	0.	1148.	0.00
Y3	-0.0001	0.0375	0.00
Y4	-1.	487.	0.00
Y5	0.0	15.3	0.00
Y6	1901.	1389461.	0.00
Y7	0.02	3.53	0.01
Y8	-2536.	623005.	0.00
Y9	0.0	15.1	0.00
Y10	-0.5	79.8	-0.01
Y11	2.	774.	0.00
Y12	43253.	19435844.	0.00
Y13	-1340.	596264.	0.00
Y14	-713.	494109.	0.00
Y15	-702.	200547.	0.00
Y16	193.	129807.	0.00

CUCHISQU((23.03; 16))
0.07797

Appendix C
ADF Unit Root Tests for both Economic Reform Programme Variables and the Stock Market Performance Variables

1 ADF unit root tests for the economic reform programme variables (data levels form "row data")

Critical values: 5%=-1.97 1%=-2.776

	t-adf	å	lag	t-lag	t-prob
X1	-0.42593	0.015105	2	0.27905	0.7854
X1	-0.41042	0.014513	1	-0.76637	0.4583
X1	-0.48103	0.014281	0		
X2	-1.3459	0.014463	2	1.9054	0.0810
X2	-1.2146	0.015858	1	2.1994	0.0465
X2	-1.3226	0.017901	0		
X3	-1.3199	0.025465	2	1.6272	0.1297
X3	-1.5777	0.027031	1	0.19158	0.8510
X3	-1.7173	0.026084	0		
X4	-1.9910*	0.023521	2	-0.81542	0.4307
X4	-1.8914	0.023216	1	0.038336	0.9700
X4	-2.0091*	0.022373	0		
X5	0.59153	0.012890	2	-1.7010	0.1147
X5	0.41323	0.013797	1	-2.7402	0.0168
X5	-0.12489	0.016699	0		
X6	0.72378	90.423	2	1.0945	0.2952
X6	1.7037	91.109	1	0.60549	0.5553
X6	3.7247	89.024	0		
X7	-1.1368	0.055813	2	-0.64305	0.5323
X7	-1.1906	0.054540	1	0.92931	0.3697
X7	-1.2097	0.054274	0		

2 ADF unit root tests for the stock market performance variables (data first differenced "row data")

Critical values: 5%=-1.97 1%=-2.776

	t-adf	å	lag	t-lag	t-prob
DX1	-2.1396*	0.015262	2	-0.089645	0.9303
DX1	-2.7811**	0.014558	1	-0.099595	0.9225
DX1	-4.7956**	0.013944	0		
DX2	-1.8033	0.029444	2	-0.42464	0.6811
DX2	-2.6948*	0.028212	1	0.52246	0.6127
DX2	-3.2849**	0.027263	0		
DX3	-0.81257	0.028237	2	-0.63890	0.5388
DX3	-1.1341	0.027389	1	-1.9038	0.0861
DX3	-3.0083**	0.030482	0		
DX5	-1.7508	0.0075616	2	-1.2742	0.2345
DX5	-3.1805**	0.0077937	1	1.5722	0.1470
DX5	-2.6024*	0.0082988	0		
DX6	1.0129	94.648	2	-1.3025	0.2251
DX6	1.5161	97.889	1	-1.8281	0.0975
DX6	0.57837	107.81	0		
DX7	-1.3558	0.063539	2	-0.88427	0.3996
DX7	-2.3638*	0.062842	1	0.55004	0.5944
DX7	-2.6317*	0.060817	0		

3 ADF unit root tests for per capita income (data second differenced "row data")

Critical values: 5%=-1.97 1%=-2.776

	t-adf	å	lag	t-lag	t-prob
DDX6	-2.7183*	0.066075	2	0.11386	0.9116
DDX6	-4.8560**	0.063041	1	2.1114	0.0584
DDX6	-4.6187**	0.071550	0		

4 ADF unit root tests for per capita income (relative change in data levels form "row data")

Critical values: 5%=-1.968 1%=-2.757

	t-adf	å	lag	t-lag	t-prob
%X6	-1.1365	0.055706	2	-0.65082	0.5274
%X6	-1.1902	0.054457	1	0.93263	0.3680
%X6	-1.2093	0.054203	0		

5 ADF unit root tests for per capita income (relative change in data levels form "row data")

Critical values: 5%=-1.972 1%=-2.799

	t-adf	å	lag	t-lag	t-prob
%DX6	-4.2543**	0.082466	2	1.4683	0.1761
%DX6	-5.9823**	0.087101	1	2.8231	0.0181
%DX6	-5.2874**	0.11133	0		

6 ADF unit root tests for the stock market performance variables (data levels form "natural logarithm")

Critical values: 5%=-1.966 1%=-2.741

	t-adf	å	lag	t-lag	t-prob
Y1	2.2087	0.61631	2	-0.39445	0.7002
Y1	2.4791	0.59596	1	-0.22369	0.8265
Y1	3.3555	0.57539	0		
Y2	2.3426	0.44524	2	0.096209	0.9249
Y2	3.5246	0.42794	1	-1.8208	0.0917
Y2	2.9115	0.46197	0		
Y3	1.2860	0.78632	2	-0.27320	0.7893
Y3	1.3256	0.75782	1	0.38420	0.7070
Y3	2.4619	0.73438	0		
Y4	1.8014	0.055294	2	5.4122	0.0002
Y4	3.2430	0.098546	1	0.83313	0.4198
Y4	4.9655	0.097463	0		
Y5	-0.64597	0.090280	2	2.9736	0.0116
Y5	0.63254	0.11431	1	3.8485	0.0020
Y5	2.5218	0.16111	0		
Y6	2.6628	0.21671	2	-0.41298	0.6869
Y6	3.3226	0.20968	1	-0.20861	0.8380
Y6	5.7783	0.20239	0		
Y7	1.6611	0.24924	2	1.5647	0.1436
Y7	3.9279	0.26275	1	-1.3333	0.2053
Y7	5.0793	0.26995	0		
Y8	-1.3725	0.24096	2	0.12608	0.9018
Y8	-1.5948	0.23166	1	0.46747	0.6479
Y8	-2.1170*	0.22510	0		
Y9	-1.6849	0.25809	2	1.9980	0.0689
Y9	-2.3223*	0.28625	1	-0.13723	0.8930
Y9	-2.6488*	0.27604	0		
Y10	1.3643	0.24749	2	-1.8669	0.0865
Y10	0.66716	0.27011	1	2.7809	0.0156
Y10	2.5881	0.32871	0		
Y11	3.3049	0.042041	2	-1.8075	0.0958
Y11	3.0740	0.045560	1	-1.0876	0.2965
Y11	3.6889	0.045856	0		
Y12	1.3355	0.056506	2	1.0340	0.3215
Y12	2.8931	0.056656	1	-0.20645	0.8396
Y12	4.3821	0.054685	0		
Y13	-2.2408*	0.52353	2	-0.72083	0.4848
Y13	-2.1968*	0.51377	1	-0.87006	0.4000
Y13	-2.1171*	0.50929	0		
Y14	-1.7168	0.45075	2	0.0010009	0.9992
Y14	-1.8785	0.43306	1	-2.6135	0.0214
Y14	-1.2561	0.51541	0		
Y15	1.4833	0.25220	2	0.60826	0.5544
Y15	2.2379	0.24601	1	0.094476	0.9262
Y15	3.1983	0.23715	0		
Y16	1.9020	0.15853	2	1.2159	0.2474
Y16	3.2270	0.16142	1	-1.0233	0.3248
Y16	3.2570	0.16169	0		

7 ADF unit root tests for the stock market performance variables (data first differenced "natural logarithm")

Critical values: 5%=-1.968 1%=-2.757

	t-adf	å	lag	t-lag	t-prob
DY1	-0.78360	0.66732	2	-0.63202	0.5403
DY1	-1.2288	0.65041	1	-0.99335	0.3401
DY1	-2.3056*	0.65007	0		
DY2	-0.31585	0.55350	2	-0.55931	0.5872
DY2	-0.67801	0.53742	1	-2.0272	0.0654
DY2	-2.8940**	0.59825	0		
DY3	-2.2391*	0.79634	2	1.5112	0.1589
DY3	-1.5861	0.83785	1	-0.23412	0.8188
DY3	-2.1199*	0.80682	0		
DY4	-2.8043**	0.063490	2	0.13406	0.8958
DY4	-3.7163**	0.060837	1	-6.4347	0.0000
DY4	-1.7542	0.12331	0		
DY5	-3.0977**	0.074895	2	1.7194	0.1135
DY5	-2.9671**	0.080770	1	-3.7690	0.0027
DY5	-1.9260	0.11468	0		
DY6	-0.38612	0.27710	2	-0.75269	0.4674
DY6	-0.83468	0.27205	1	-1.2762	0.2260
DY6	-1.4236	0.27855	0		
DY7	-0.84780	0.26699	2	1.3553	0.2025
DY7	-0.32311	0.27614	1	-3.6918	0.0031
DY7	-1.8870	0.38773	0		
DY10	-1.9364	0.24780	2	2.2233	0.0481
DY10	-0.88811	0.28562	1	-2.5292	0.0265
DY10	-2.8450**	0.33978	0		
DY11	0.23282	0.24196	2	-1.8713	0.0881
DY11	-1.7634	0.26599	1	1.3656	0.1971
DY11	-1.3061	0.27470	0		
DY12	-2.0393*	0.59233	2	0.15385	0.8805
DY12	-2.5816*	0.56772	1	0.19335	0.8499
DY12	-3.8798**	0.54630	0		
DY14	-0.99398	0.63851	2	-0.37630	0.7138
DY14	-1.4308	0.61525	1	-0.85635	0.4086
DY14	-2.8038**	0.60890	0		
DY15	-1.3321	0.49642	2	-0.88798	0.3936
DY15	-2.2214*	0.49203	1	-0.35671	0.7275
DY15	-6.3595**	0.47522	0		
DY16	0.31413	0.16923	2	-1.5062	0.1602
DY16	-0.34846	0.17795	1	-2.6620	0.0207
DY16	-1.1972	0.21562	0		

8 ADF unit root tests for the stock market performance variables (data second differenced "natural logarithm")

Critical values: 5%=-1.97 1%=-2.776

	t-adf	å	lag	t-lag	t-prob
DDY6	-4.5308**	0.23721	2	2.0422	0.0684
DDY6	-4.0403**	0.26924	1	1.3239	0.2124
DDY6	-5.2561**	0.27756	0		
DDY7	-4.1651**	0.24414	2	1.8533	0.0935
DDY7	-3.8434**	0.26981	1	1.1180	0.2874
DDY7	-5.3824**	0.27261	0		
DDY11	-3.6432**	0.036249	2	2.5368	0.0618
DDY11	-5.7829**	0.048156	1	2.7143	0.0201
DDY11	-6.5209**	0.059578	0		
DDY16	-2.7262*	0.28834	2	0.71071	0.4935
DDY16	-3.2945**	0.28178	1	0.89279	0.3911
DDY16	-6.6674**	0.27939	0		

9 ADF unit root tests for the stock market performance variables (relative change in data levels form "natural logarithm")

Critical values: 5%=-1.968 1%=-2.757

	t-adf	å	lag	t-lag	t-prob
%Y6	-0.86649	0.032519	2	-0.67929	0.5110
%Y6	-1.1667	0.031781	1	-1.6523	0.1244
%Y6	-1.6423	0.033830	0		
%Y7	-4.0838**	0.011621	2	1.9865	0.0725
%Y7	-4.2610**	0.012969	1	-4.6606	0.0006
%Y7	-2.0663*	0.020888	0		
%Y11	-0.81802	0.088383	2	-0.98151	0.3474
%Y11	-1.8751	0.088248	1	1.2801	0.2247
%Y11	-1.4595	0.090390	0		
%Y16	-2.8853**	0.10497	2	-0.43441	0.6724
%Y16	-3.3428**	0.10136	1	-2.3604	0.0360
%Y16	-2.1901*	0.11784	0		

10 ADF unit root tests for the stock market performance variables (relative change in data first differenced "natural logarithm")

Critical values: 5%=-1.97 1%=-2.776

	t-adf	å	lag	t-lag	t-prob
%DY6	-4.1693**	0.030109	2	1.7564	0.1095
%DY6	-3.9887**	0.032839	1	1.1936	0.2578
%DY6	-5.5606**	0.033415	0		
%DY11	-2.6450*	0.092334	2	0.83176	0.4250
%DY11	-3.6496**	0.091032	1	1.8925	0.0850
%DY11	-2.9768**	0.10035	0		

Appendix D
Modelling the Impact of the Economic Reform Programme on the Stock Market Performance through EC Models Including the Diagnostic Tests

1 Modelling the impact of interest rates on the stock market performance through EC models including the diagnostic tests: -

1.1 Modelling the impact of interest rates on the market activity variables through EC models: (Sample of how general to specified model has been run considering the value of trade): -

Data loaded from: Y1.xls

EQ(1) Modelling Y1 by OLS

The present sample is: 1 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	14.848	1.6335	9.089	0.0000	0.8378
X1	-58.544	10.081	-5.807	0.0000	0.6782

Rý = 0.678238 F(1, 16) = 33.726 [0.0000] å = 1.34855 DW = 0.638
RSS = 29.09741547 for 2 variables and 18 observations

Residual added to database

ECM = Residual values of equation 1

ADF unit root tests for the residual

Unit root tests 4 to 18
Critical values: 5%=-1.966 1%=-2.741

	t-adf	å	lag	t-lag	t-prob
ECM	-2.9364**	0.89561	2	-0.10413	0.9188
ECM	-3.1436**	0.86086	1	0.17055	0.8672
ECM	-3.4691**	0.83047	0		

EC model without lag

EQ(2) Modelling DY1 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.51469	0.14521	3.544	0.0036	0.4914
DX1	6.0637	9.7348	0.623	0.5441	0.0290
ECM_1	-0.13855	0.10225	-1.355	0.1985	0.1238

Rý = 0.159544 F(2, 13) = 1.2339 [0.3231] å = 0.538275 DW = 2.12
RSS = 3.766613374 for 3 variables and 16 observations

EC model with one lag

EQ(3) Modelling DY1 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.48947	0.20661	2.369	0.0372	0.3378
DY1_1	-0.067724	0.28664	-0.236	0.8176	0.0050
DX1	2.4171	12.285	0.197	0.8476	0.0035
DX1_1	-7.1877	13.405	-0.536	0.6025	0.0255
ECM_1	-0.18936	0.14172	-1.336	0.2085	0.1396

Rý = 0.183315 F(4, 11) = 0.61727 [0.6593] å = 0.576831 DW = 2.18
RSS = 3.660079477 for 5 variables and 16 observations

EQ(4) Modelling DY1 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.47673	0.18819	2.533	0.0263	0.3484
DY1_1	-0.083173	0.26441	-0.315	0.7585	0.0082
DX1_1	-8.4479	11.294	-0.748	0.4689	0.0446
ECM_1	-0.20092	0.12370	-1.624	0.1303	0.1802

Rý = 0.180441 F(3, 12) = 0.88067 [0.4785] å = 0.553245 DW = 2.19
RSS = 3.672960371 for 4 variables and 16 observations

EQ(5) Modelling DY1 by OLS

The present sample is: 2 to 17

Variable	**Coefficient**	**Std.Error**	**t-value**	**t-prob**	**PartRý**
Constant	**0.44041**	**0.14336**	**3.072**	**0.0089**	**0.4206**
DX1_1	**-8.5547**	**10.890**	**-0.786**	**0.4462**	**0.0453**
ECM_1	**-0.19314**	**0.11693**	**-1.652**	**0.1225**	**0.1735**

Rý = 0.173683 F(2, 13) = 1.3662 [0.2894] å = 0.533728 DW = 2.38
RSS = 3.703247286 for 3 variables and 16 observations

EC model with two lags

EQ(6) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.55828	0.19943	2.799	0.0232	0.4948
DY1_1	-0.36139	0.26242	-1.377	0.2058	0.1916
DY1_2	0.073087	0.23193	0.315	0.7607	0.0123
DX1	-4.4547	10.551	-0.422	0.6840	0.0218
DX1_1	-14.429	10.819	-1.334	0.2190	0.1819
DX1_2	-11.772	8.7933	-1.339	0.2175	0.1830
ECM_1	-0.38524	0.13845	-2.783	0.0238	0.4918

Rý = 0.611198 F(6, 8) = 2.096 [0.1641] å = 0.448096 DW = 2.35
RSS = 1.606323197 for 7 variables and 15 observations

EQ(7) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.58371	0.17301	3.374	0.0082	0.5584
DY1_1	-0.36229	0.24893	-1.455	0.1795	0.1905
DX1	-5.0517	9.8468	-0.513	0.6203	0.0284
DX1_1	-14.876	10.174	-1.462	0.1777	0.1919
DX1_2	-11.386	8.2605	-1.378	0.2014	0.1743
ECM_1	-0.38146	0.13084	-2.915	0.0172	0.4857

Rý = 0.606371 F(5, 9) = 2.7728 [0.0872] å = 0.425083 DW = 2.40
RSS = 1.626263153 for 6 variables and 15 observations

EQ(8) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.59019	0.16607	3.554	0.0052	0.5581
DY1_1	-0.30860	0.21738	-1.420	0.1861	0.1677
DX1_1	-12.521	8.7388	-1.433	0.1824	0.1703
DX1_2	-12.236	7.7887	-1.571	0.1473	0.1980
ECM_1	-0.34546	0.10629	-3.250	0.0087	0.5137

Rý = 0.59486 F(4, 10) = 3.6707 [0.0434] å = 0.409124 DW = 2.33
RSS = 1.673821971 for 5 variables and 15 observations

EQ(9) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.42907	0.12671	3.386	0.0061	0.5104
DX1_1	-13.371	9.1117	-1.467	0.1703	0.1637
DX1_2	-13.857	8.0524	-1.721	0.1132	0.2121
ECM_1	-0.28880	0.10295	-2.805	0.0171	0.4170

Rý = 0.51321 F(3, 11) = 3.8657 [0.0412] å = 0.427589 DW = 2.89
RSS = 2.011155787 for 4 variables and 15 observations

EQ(10) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	**Coefficient**	**Std.Error**	**t-value**	**t-prob**	**PartRý**
Constant	**0.50635**	**0.12066**	**4.196**	**0.0012**	**0.5947**
DX1_2	**-10.453**	**8.0730**	**-1.295**	**0.2198**	**0.1226**
ECM_1	**-0.22351**	**0.097202**	**-2.299**	**0.0402**	**0.3058**

Rý = 0.417919 F(2, 12) = 4.3078 [0.0389] å = 0.447665 DW = 2.69
RSS = 2.404844886 for 3 variables and 15 observations

Diagnostic tests for the chosen EC model

AR 1- 1F(1, 11) = 1.0695 [0.3794]
ARCH 1 F(1, 10) = 0.0021395 [0.9640]
Normality Chiý(2)= 0.13453 [0.9349]
RESET F(1, 11) = 0.010678 [0.9196]

EC model with three lags

EQ(11) Modelling DY1 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.85481	0.34251	2.496	0.0548	0.5547
DY1_1	-0.74074	0.49520	-1.496	0.1949	0.3092
DY1_2	-0.045260	0.28745	-0.157	0.8810	0.0049
DY1_3	-0.036368	0.28165	-0.129	0.9023	0.0033
DX1	-11.503	15.137	-0.760	0.4816	0.1035
DX1_1	-24.341	15.447	-1.576	0.1759	0.3318
DX1_2	-3.0528	14.392	-0.212	0.8404	0.0089
DX1_3	2.1043	11.413	0.184	0.8610	0.0068
ECM_1	-0.64640	0.30446	-2.123	0.0872	0.4741

Rý = 0.664024 F(8, 5) = 1.2353 [0.4260] å = 0.503763 DW = 1.67
RSS = 1.2688876 for 9 variables and 14 observations

EQ(12) Modelling DY1 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.85208	0.31260	2.726	0.0344	0.5532
DY1_1	-0.75935	0.43322	-1.753	0.1302	0.3386
DY1_2	-0.048480	0.26185	-0.185	0.8592	0.0057
DX1	-12.210	12.904	-0.946	0.3806	0.1299
DX1_1	-24.566	14.034	-1.750	0.1306	0.3380
DX1_2	-2.3270	12.115	-0.192	0.8540	0.0061
DX1_3	2.0305	10.423	0.195	0.8520	0.0063
ECM_1	-0.65989	0.26149	-2.524	0.0451	0.5149

Rý = 0.662904 F(7, 6) = 1.6856 [0.2707] å = 0.460637 DW = 1.65
RSS = 1.273118987 for 8 variables and 14 observations

EQ(13) Modelling DY1 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.82293	0.25073	3.282	0.0134	0.6061
DY1_1	-0.74110	0.39168	-1.892	0.1004	0.3384
DX1	-11.347	11.171	-1.016	0.3436	0.1285
DX1_1	-23.671	12.231	-1.935	0.0942	0.3485
DX1_2	-3.1537	10.456	-0.302	0.7717	0.0128
DX1_3	1.5693	9.3967	0.167	0.8721	0.0040
ECM_1	-0.64725	0.23436	-2.762	0.0280	0.5215

Rý = 0.660978 F(6, 7) = 2.2746 [0.1532] å = 0.427684 DW = 1.65
RSS = 1.280392449 for 7 variables and 14 observations

EQ(14) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.58371	0.17301	3.374	0.0082	0.5584
DY1_1	-0.36229	0.24893	-1.455	0.1795	0.1905
DX1	-5.0517	9.8468	-0.513	0.6203	0.0284
DX1_1	-14.876	10.174	-1.462	0.1777	0.1919
DX1_2	-11.386	8.2605	-1.378	0.2014	0.1743
ECM_1	-0.38146	0.13084	-2.915	0.0172	0.4857

Rý = 0.606371 F(5, 9) = 2.7728 [0.0872] å = 0.425083 DW = 2.40
RSS = 1.626263153 for 6 variables and 15 observations

EQ(15) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.59019	0.16607	3.554	0.0052	0.5581
DY1_1	-0.30860	0.21738	-1.420	0.1861	0.1677
DX1_1	-12.521	8.7388	-1.433	0.1824	0.1703
DX1_2	-12.236	7.7887	-1.571	0.1473	0.1980
ECM_1	-0.34546	0.10629	-3.250	0.0087	0.5137

Rý = 0.59486 F(4, 10) = 3.6707 [0.0434] å = 0.409124 DW = 2.33
RSS = 1.673821971 for 5 variables and 15 observations

EQ(17) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.42907	0.12671	3.386	0.0061	0.5104
DX1_1	-13.371	9.1117	-1.467	0.1703	0.1637
DX1_2	-13.857	8.0524	-1.721	0.1132	0.2121
ECM_1	-0.28880	0.10295	-2.805	0.0171	0.4170

Rý = 0.51321 F(3, 11) = 3.8657 [0.0412] å = 0.427589 DW = 2.89
RSS = 2.011155787 for 4 variables and 15 observations

EQ(18) Modelling DY1 by OLS

The present sample is: 3 to 17

Variable	**Coefficient**	**Std.Error**	**t-value**	**t-prob**	**PartRý**
Constant	**0.50635**	**0.12066**	**4.196**	**0.0012**	**0.5947**
DX1_2	**-10.453**	**8.0730**	**-1.295**	**0.2198**	**0.1226**
ECM_1	**-0.22351**	**0.097202**	**-2.299**	**0.0402**	**0.3058**

Rý = 0.417919 F(2, 12) = 4.3078 [0.0389] å = 0.447665 DW = 2.69
RSS = 2.404844886 for 3 variables and 15 observations.

1.2 modelling the impact of interest rates on the rest of market activity variables through EC models (The specific Ec models: sample of the final model of each lag including the diagnostic tests): -

Data loaded from: Y2.xls

EQ(19) Modelling Y2 by OLS

The present sample is: 1 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	9.4556	1.0264	9.213	0.0000	0.8414
X1	-43.747	6.3340	-6.907	0.0000	0.7488

Rý = 0.748834 F(1, 16) = 47.703 [0.0000] å = 0.847309 DW = 0.739
RSS = 11.48691871 for 2 variables and 18 observations

Residual added to database

ECM = Residual values of equation 19

ADF unit root tests for the residual

Unit root tests 4 to 18
Critical values: 5%=-1.966 1%=-2.741

	t-adf	å	lag	t-lag	t-prob
ECM	-2.6555*	0.95050	2	0.72893	0.4800
ECM	-2.6699*	0.93321	1	0.67606	0.5109
ECM	-2.8569**	0.91493	0		

EC model without lag

EQ(20) Modelling DY 2 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.36718	0.18238	2.013	0.0653	0.2377
DX1	-6.4993	12.099	-0.537	0.6002	0.0217
ECM_1	-0.33241	0.17222	-1.930	0.0757	0.2228

Rý = 0.234547 F(2, 13) = 1.9917 [0.1760] å = 0.674011 DW = 1.73
RSS = 5.905778137 for 3 variables and 16 observations

EC model with one lag

EQ(21) Modelling DY2 by OLS

The present sample is: 2 to 17

Variable	**Coefficient**	**Std.Error**	**t-value**	**t-prob**	**PartRý**
Constant	**0.31966**	**0.17344**	**1.843**	**0.0882**	**0.2072**
DX1_1	**-16.268**	**12.398**	**-1.312**	**0.2122**	**0.1170**
ECM_1	**-0.43071**	**0.18039**	**-2.388**	**0.0328**	**0.3049**

Rý = 0.309067 F(2, 13) = 2.9076 [0.0904] å = 0.640362 DW = 1.93
RSS = 5.330826297 for 3 variables and 16 observations

Diagnostic tests for the chosen EC model

AR 1- 1F(1, 12) = 0.25545 [0.7790]
ARCH 1 F(1, 11) = 0.13394 [0.7213]
Normality Chiý(2)= 1.9142 [0.3840]
RESET F(1, 12) = 1.3366 [0.2701]

EC model with two lags

EQ(22) Modelling DY2 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.31966	0.17344	1.843	0.0882	0.2072
DX1_1	-16.268	12.398	-1.312	0.2122	0.1170
ECM_1	-0.43071	0.18039	-2.388	0.0328	0.3049

Rý = 0.309067 F(2, 13) = 2.9076 [0.0904] å = 0.640362 DW = 1.93
RSS = 5.330826297 for 3 variables and 16 observations

EC model with Three lags

EQ(23) Modelling DY2 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.31966	0.17344	1.843	0.0882	0.2072
DX1_1	-16.268	12.398	-1.312	0.2122	0.1170
ECM_1	-0.43071	0.18039	-2.388	0.0328	0.3049

Rý = 0.309067 F(2, 13) = 2.9076 [0.0904] å = 0.640362 DW = 1.93
RSS = 5.330826297 for 3 variables and 16 observations

Data loaded from: Y3.xls

EQ(24) Modelling Y3 by OLS

The present sample is: 1 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	19.798	1.3048	15.174	0.0000	0.9350
X1	-65.614	8.0522	-8.149	0.0000	0.8058

Rý = 0.805822 F(1, 16) = 66.398 [0.0000] å = 1.07716 DW = 1.02
RSS = 18.56445148 for 2 variables and 18 observations

Residual added to database

ECM = Residual values of equation 23

ADF unit root tests for the residual

Unit root tests 4 to 18
Critical values: 5%=-1.966 1%=-2.741

t-adf	å lag	t-lag	t-prob		
ECM	-2.2134*	0.65630	2	0.13581	0.8942
ECM	-2.3161*	0.63104	1	-0.46496	0.6496
ECM	-2.8990**	0.61312	0		

EC model without lag

EQ(25) Modelling DY3 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.0015400	0.022516	0.068	0.9466	0.0004
X1	0.59167	1.3948	0.424	0.6789	0.0148
ECM_1	-0.45202	0.20720	-2.182	0.0498	0.2840

Rý = 0.292517 F(2, 12) = 2.4808 [0.1254] å = 0.0853288 DW = 1.98
RSS = 0.08737206652 for 3 variables and 16 observations

EC model with one lag

EQ(26) Modelling DY3 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.0039984	0.021811	0.183	0.8576	0.0028
DX1_1	0.68398	1.0260	0.667	0.5176	0.0357
ECM_1	-0.47824	0.20843	-2.295	0.0406	0.3049

Rý = 0.307552 F(2, 12) = 2.6649 [0.1102] å = 0.0844173 DW = 1.98
RSS = 0.0855152809 for 3 variables and 16 observations

EC model with two lags

EQ(27) Modelling DY3 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.0039984	0.021811	0.183	0.8576	0.0028
DX1_1	0.68398	1.0260	0.667	0.5176	0.0357
ECM_1	-0.47824	0.20843	-2.295	0.0406	0.3049

Rý = 0.307552 F(2, 12) = 2.6649 [0.1102] å = 0.0844173 DW = 1.98
RSS = 0.0855152809 for 3 variables and 16 observations

EC model with three lags

EQ(28) Modelling DY3 by OLS
The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.73134	0.12198	5.996	0.0005	0.8370
Y3_2	-14.047	2.3410	-6.000	0.0005	0.8372
Y3_3	-21.233	3.6042	-5.891	0.0006	0.8322
X1_2	4.7260	1.4767	3.200	0.0151	0.5940
X1_3	1.8769	0.90790	2.067	0.0775	0.3791
ECM_1	13.976	2.4158	5.785	0.0007	0.8270

Rý = 0.912269 F(5, 7) = 14.558 [0.0014] å = 0.0393389 DW = 2.86
RSS = 0.01083285211 for 6 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 7) = 2.0771 [0.2205]
ARCH 1 F(1, 6) = 1.1002 [0.3423]
Normality Chiý(2)= 1.9429 [0.3785]
RESET F(1, 7) = 1.035 [0.3309]

Data loaded from: Y4.xls

EQ(29) Modelling Y4 by OLS

The present sample is: 1 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	7.6232	0.76530	9.961	0.0000	0.8611
X1	-16.591	4.7228	-3.513	0.0029	0.4355

Rý = 0.435451 F(1, 16) = 12.341 [0.0029] å = 0.631783 DW = 0.281
RSS = 6.386402614 for 2 variables and 18 observations

Residual added to database

ECM = Residual values of equation 29

ADF unit root tests for the residual

Unit root tests 4 to 18
Critical values: 5%=-1.966 1%=-2.741

t-adf	å lag	t-lag	t-prob		
ECM	-2.1873*	0.64219	2	0.88420	0.3940
ECM	-2.1413*	0.63678	1	-0.84414	0.4139
ECM	-2.5988*	0.63021	0		

EC model without lag

EQ(30) Modelling DY4 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.17846	0.034490	5.174	0.0002	0.6732
DX1	1.6706	2.3413	0.714	0.4881	0.0377
ECM_1	-0.18934	0.051624	-3.668	0.0028	0.5085

Rý = 0.542555 F(2, 13) = 7.7094 [0.0062] å = 0.128274 DW = 2.61
RSS = 0.2139038819 for 3 variables and 16 observations

EC model with one lag

EQ(31) Modelling DY4 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.28813	0.025952	11.102	0.0000	0.9181
DY4_1	-0.73428	0.11144	-6.589	0.0000	0.7979
DX1	0.80203	1.2894	0.622	0.5466	0.0340
DX1_1	-1.3807	1.3677	-1.010	0.3344	0.0848
ECM_1	-0.32253	0.034854	-9.254	0.0000	0.8862

Rý = 0.908309 F(4, 11) = 27.242 [0.0000] å = 0.062432 DW = 0.967
RSS = 0.04287525001 for 5 variables and 16 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 0.45472 [0.6501]
ARCH 1 F(1, 8) = 0.0047065 [0.9470]
Normality Chiý(2)= 0.5791 [0.7486]
RESET F(1, 9) = 0.93197 [0.3596]

EC model with two lags

EQ(32) Modelling DY4 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.093773	0.023099	4.060	0.0019	0.5997
DY4_2	0.28515	0.089240	3.195	0.0085	0.4814
DX1	1.7709	1.0737	1.649	0.1273	0.1983
ECM_1	-0.038592	0.025660	-1.504	0.1607	0.1706

Rý = 0.773748 F(3, 11) = 12.539 [0.0007] å = 0.0481842 DW = 2.40
RSS = 0.02553884421 for 4 variables and 15 observations

EC model with three lags

EQ(33) Modelling DY4 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.040778	0.14861	-0.274	0.7930	0.0124
DY4_1	-0.48863	0.32348	-1.511	0.1816	0.2755
DY4_2	0.75852	0.32816	2.311	0.0601	0.4710
DY4_3	0.25569	0.24368	1.049	0.3345	0.1550
DX_1	1.2016	1.4971	0.803	0.4528	0.0970
DX1_2	-3.8605	2.8105	-1.374	0.2187	0.2392
DX1_3	-2.3930	1.9404	-1.233	0.2636	0.2022
ECM_1	0.12830	0.17539	0.731	0.4921	0.0819

Rý = 0.884306 F(7, 6) = 6.5515 [0.0178] å = 0.0459805 DW = 2.46
RSS = 0.01268525436 for 8 variables and 14 observations
Data loaded from: Y5.xls

EQ(34) Modelling Y5 by OLS

The present sample is: 1 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	14.170	1.2475	11.358	0.0000	0.8897
X1	-47.008	7.6988	-6.106	0.0000	0.6997

Rý = 0.699708 F(1, 16) = 37.281 [0.0000] å = 1.02989 DW = 0.508
RSS = 16.97067193 for 2 variables and 18 observations

Residual added to database
ECM = Residual values of equation 34

ADF unit root tests for the residual

Unit root tests 4 to 18
Critical values: 5%=-1.968 1%=-2.757

	t-adf	å	lag	t-lag	t-prob
ECM	-2.7415*	0.012845	2	2.8149	0.0168
ECM	-1.9818*	0.016130	1	-1.6075	0.1339
ECM	-1.8460	0.017085	0		

EC model without lags

EQ(35) Modelling DY5 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.0073284	0.0079546	-0.921	0.3751	0.0661
DX	0.36836	0.57001	0.646	0.5303	0.0336
ECM_1	0.18973	0.23346	0.813	0.4322	0.0522

Rý = 0.134436 F(2, 12) = 0.93189 [0.4205] å = 0.0286279 DW = 1.68
RSS = 0.009834672521 for 3 variables and 15 observations

EC model with one lag

EQ(36) Modelling DY5 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.0085665	0.0043453	-1.971	0.0743	0.2611
DY5_1	-0.62197	0.11485	-5.415	0.0002	0.7272
DX	0.35427	0.31095	1.139	0.2788	0.1055

ECM_1	-0.28325	0.15443	-1.834	0.0938	0.2342

Rý = 0.763892 F(3, 11) = 11.863 [0.0009] å = 0.0156167 DW = 1.77
RSS = 0.00268269284 for 4 variables and 15 observations

EC model with two lags

EQ(37) Modelling Svar7 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.013191	0.0042847	-3.079	0.0132	0.5130
DY5_1	-0.65788	0.22846	-2.880	0.0182	0.4795
DY5_2	0.25063	0.12734	1.968	0.0806	0.3009
DX_2	-0.39114	0.21940	-1.783	0.1083	0.2610
ECM_1	-0.40173	0.12735	-3.155	0.0117	0.5251

Rý = 0.822845 F(4, 9) = 10.451 [0.0014] å = 0.0119203 DW = 2.69
RSS = 0.001278836017 for 5 variables and 14 observations

Diagnostic test for the chosen model

AR 1- 1F(1, 8) =	1.0389	[0.3386]
ARCH 1 F(1, 7) =	0.62617	[0.4547]
Normality Chiý(2)=	1.272	[0.5294]
RESET F(1, 8) =	1.6313	[0.2373]

EC model with three lags

EQ(38) Modelling Svar7 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.013191	0.0042847	-3.079	0.0132	0.5130
DY5_1	-0.65788	0.22846	-2.880	0.0182	0.4795
DY5_2	0.25063	0.12734	1.968	0.0806	0.3009
DX_2	-0.39114	0.21940	-1.783	0.1083	0.2610
ECM_1	-0.40173	0.12735	-3.155	0.0117	0.5251

Rý = 0.822845 F(4, 9) = 10.451 [0.0014] å = 0.0119203 DW = 2.69
RSS = 0.001278836017 for 5 variables and 14 observations

Data loaded from: Y6.xls

EQ(39) Modelling Y5 by OLS

The present sample is: 2 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.071778	0.042951	-1.671	0.1154	0.1570
Svar13	0.62986	0.26616	2.366	0.0318	0.2718

Rý = 0.271848 F(1, 15) = 5.6001 [0.0318] å = 0.0353961 DW = 1.58
RSS = 0.01879329418 for 2 variables and 17 observations

Residual added to database
ECM = Residual values of equation 38

ADF unit root tests for the residual

Unit root tests 5 to 18
Critical values: 5%=-1.968 1%=-2.757

	t-adf	å	lag	t-lag	t-prob
ECM	-2.9966**	0.069751	2	0.60171	0.5596
ECM	-3.9776**	0.067872	1	2.9387	0.0124
ECM	-2.1723*	0.085512	0		

EC model without lag

EQ(40) Modelling %DY6 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.35308	0.074972	4.710	0.0004	0.6305
DX1	1.6578	5.0877	0.326	0.7497	0.0081
ECM_1	0.019480	0.069121	0.282	0.7825	0.0061

Rý = 0.0118407 F(2, 13) = 0.077887 [0.9255] å = 0.278043 DW = 2.39
RSS = 1.005002779 for 3 variables and 16 observations

EC model with one lag

EQ(41) Modelling %DY6 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.39629	0.11899	3.330	0.0060	0.4803
%DY6_1	-0.20656	0.27280	-0.757	0.4635	0.0456
DX1_1	-3.9492	5.7682	-0.685	0.5066	0.0376
ECM_1	-0.013677	0.080108	-0.171	0.8673	0.0024

Rý = 0.0839723 F(3, 12) = 0.36668 [0.7784] å = 0.278634 DW = 1.90
RSS = 0.9316416444 for 4 variables and 15 observations

EC model with two lags

EQ(42) Modelling Svar7 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.26180	0.14319	1.828	0.0974	0.2505
%DY6_1	-0.23593	0.24357	-0.969	0.3556	0.0858
%DY6_2	0.53048	0.25706	2.064	0.0660	0.2987
DX1_1	-4.6379	4.9211	-0.942	0.3682	0.0816
ECM_1	-0.10165	0.077552	-1.311	0.2193	0.1466

Rý = 0.399335 F(4, 10) = 1.6621 [0.2343] å = 0.237325 DW = 1.63
RSS = 0.5632329794 for 5 variables and 14 observations

EC model with three lags

EQ(43) Modelling %DY6 by OLS

The present sample is: 5 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.42086	0.11389	3.695	0.0050	0.6027
%DY6_2	0.35663	0.20009	1.782	0.1084	0.2609
%DY6_3	-0.54781	0.20254	-2.705	0.0242	0.4484
DX1_1	-4.9435	4.0243	-1.228	0.2504	0.1436
ECM_1	-0.096542	0.069512	-1.389	0.1983	0.1765

Rý = 0.681957 F(4, 9) = 4.8245 [0.0235] å = 0.176427 DW = 2.57
RSS = 0.2801398736 for 5 variables and 13 observations

1.3 Modelling the impact of interest rates on the market size, market liquidity and market concentration through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y10.xls

EQ(44) Modelling DY10 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.17876	0.058211	3.071	0.0089	0.4204
DX1	-2.5534	3.9270	-0.650	0.5269	0.0315
ECM_1	-0.17216	0.090011	-1.913	0.0781	0.2196

Rý = 0.223884 F(2, 13) = 1.875 [0.1925] å = 0.215045 DW = 2.40
RSS = 0.6011739183 for 3 variables and 16 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 12) = 0.44906 [0.6494]
ARCH 1 F(1, 11) = 0.022191 [0.8843]
Normality Chiý(2)= 2.9616 [0.2364]
RESET F(1, 12) = 1.5561 [0.2360]

Data loaded from: Y11.xls

EQ(45) Modelling %DY11 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.012676	0.020588	0.616	0.5496	0.0306
DX1	-0.58033	1.3311	-0.436	0.6706	0.0156
ECM_1	-0.84559	0.26041	-3.247	0.0070	0.4677

Rý = 0.470103 F(2, 12) = 5.3229 [0.0221] å = 0.0738471 DW = 2.56
RSS = 0.06544078483 for 3 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 2F(2, 10) = 1.0479 [0.3862]
ARCH 1 F(1, 10) = 1.0277 [0.3346]
Normality Chiý(2)= 3.654 [0.1956]
RESET F(1, 11) = 1.1869 [0.2992]

Data loaded from: Y12.xls

EQ(46) Modelling DY12 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.27394	0.11578	2.366	0.0396	0.3589
DY12_1	-0.67797	0.21248	-3.191	0.0096	0.5045
DY12_2	0.15682	0.21372	0.734	0.4799	0.0511
DX1_1	-7.0330	7.5996	-0.925	0.3765	0.0789
ECM_1	-0.89298	0.25447	-3.509	0.0056	0.5519

Rý = 0.613178 F(4, 10) = 3.9629 [0.0352] å = 0.391621 DW = 2.48
RSS = 1.533670241 for 5 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 1.2595 [0.3346]
ARCH 1 F(1, 8) = 0.93059 [0.3630]
Normality Chiý(2)= 0.23311 [0.8900]
RESET F(1, 9) = 0.42335 [0.5315]

Data loaded from: Y15.xls

EQ(47) Modelling DY15 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.033099	0.017746	-1.865	0.0991	0.3031
DY15_1	-0.50360	0.30498	-1.651	0.1373	0.2542
DY15_3	0.57949	0.37654	1.539	0.1624	0.2284
DX1	1.2094	0.95060	1.272	0.2390	0.1683
DX1_1	2.5295	1.2018	2.105	0.0684	0.3564
ECM_1	-0.57693	0.24063	-2.398	0.0433	0.4181

Rý = 0.549771 F(5, 8) = 1.9537 [0.1907] å = 0.0422245 DW = 1.76
RSS = 0.01426325493 for 6 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 2F(2, 6) = 0.12002 [0.8890]
ARCH 1 F(1, 6) = 0.75755 [0.4176]
Normality Chiý(2)= 2.2749 [0.3206]
RESET F(1, 7) = 0.28744 [0.6085]

2 Modelling the impact of real interest rates on the stock market performance through EC models (the final EC models including the diagnostic tests): -

2.1 Modelling the impact of real interest rates on the market activity variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y1.in7 and Y1.bn7

EQ(48) Modelling Svar7 by OLS
The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	1.0083	0.18700	5.392	0.0003	0.7441
DY1_1	-0.54775	0.22492	-2.435	0.0351	0.3723
DX2_3	-19.773	7.5477	-2.620	0.0256	0.4070
ECM_1	-0.61902	0.14406	-4.297	0.0016	0.6487

Rý = 0.651867 F(3, 10) = 6.2416 [0.0117] å = 0.362602 DW = 1.46
RSS = 1.314802162 for 4 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 0.39462 [0.5455]
ARCH 1 F(1, 8) =9.6996e-005 [0.9924]
Normality Chiý(2)= 0.31656 [0.8536]
RESET F(1, 9) = 0.0039357 [0.9513]

Data loaded from: Y2.in7 and Y2.bn7

EQ(49) Modelling DY2 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.73559	0.13484	5.455	0.0003	0.7485
DY2_1	-0.52552	0.21563	-2.437	0.0350	0.3726
DX2_3	-18.107	6.5296	-2.773	0.0197	0.4347
ECM_1	-0.58044	0.19505	-2.976	0.0139	0.4697

Rý = 0.598209 F(3, 10) = 7.9629 [0.0031] å = 0.335818 DW = 1.17
RSS = 1.127739873 for 4 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 2.3387 [0.1605]
ARCH 1 F(1, 8) = 0.34581 [0.5727]
Normality Chiý(2)= 3.0966 [0.2126]
RESET F(1, 9) = 0.25477 [0.6259]

Data loaded from: Y3.in7 and Y3.bn7

EQ(50) Modelling DY3 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.59869	0.19138	3.128	0.0096	0.4708
DX2_3	-23.765	11.922	-1.993	0.0716	0.2654
ECM_1	-0.66358	0.18305	-3.625	0.0040	0.5443

Rý = 0.544359 F(2, 11) = 6.5709 [0.0133] å = 0.562187 DW = 2.28
RSS = 3.476600377 for 3 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 10) = 0.3252 [0.5811]
ARCH 1 F(1, 9) = 0.74871 [0.4094]

```
Normality Chiý(2)=      1.149 [0.5630]
RESET  F( 1, 10) =    0.92909 [0.3578]
```

Data loaded from: Y4.in7 and Y4.bn7

EQ(51) Modelling DY4 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.27240	0.054815	4.969	0.0003	0.6730
DY4_1	-0.58492	0.20018	-2.922	0.0128	0.4157
DX2	-96110	2.6852	-0.358	0.7266	0.0106
ECM_1	0031850	0.083068	- 3.834	0.0024	0.5506

Rý = 0.66164 F(3, 12) = 11.317 [0.0011] å = 0.114826 DW = 0.744
RSS = 0.1582188723 for 4 variables and 16 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1, 10) =     1.9474 [0.1931]
ARCH 1 F( 1,  9) =  0.0025095 [0.9611]
Normality Chiý(2)=     3.6278 [0.2656]
RESET  F( 1, 10) =    0.98355 [0.3447]
```

Data loaded from: Y5.in7 and Y5.bn7

EQ(52) Modelling Svar7 by OLS
The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.20532	0.091172	2.252	0.0508	0.3604
DY5_2	0.46444	0.16752	2.772	0.0217	0.4606
DX2	9.4178	3.1764	2.965	0.0158	0.4941
DX2_3	-8.0227	2.8016	-2.864	0.0187	0.4768
ECM_1	-0.40304	0.078907	-5.108	0.0006	0.7435

Rý = 0.816631 F(4, 9) = 10.02 [0.0023] å = 0.133963 DW = 1.78
RSS = 0.1615155947 for 5 variables and 14 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  8) =    0.30866 [0.5937]
ARCH 1 F( 1,  7) =6.0889e-005 [0.9940]
Normality Chiý(2)=     3.7724 [0.1516]
RESET  F( 1,  8) =  0.0031465 [0.9566]
```

Data loaded from: Y6.in7 and Y6.bn7

EQ(53) Modelling %DY6 by OLS
The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.020824	0.0050026	-4.163	0.0019	0.6341
Svar7_1	-0.90297	0.19225	-4.697	0.0008	0.6881
Svar8_3	0.59379	0.24275	2.446	0.0345	0.3744
Residual_1	-0.29316	0.17436	-1.681	0.1236	0.2204

Rý = 0.732405 F(3, 10) = 10.13 [0.0062] å = 0.0133691 DW = 2.27
RSS = 0.001787324246 for 4 variables and 14 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  9) =    0.84871 [0.3809]
ARCH 1 F( 1,  8) =    0.06859 [0.8000]
Normality Chiý(2)=     1.5961 [0.4502]
RESET  F( 1,  9) =     1.9334 [0.1978]
```

2.2 Modelling the impact of real interest rates on the market size, market liquidity and market concentration variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y10.in7 and Y10.bn7

EQ(54) Modelling Svar7 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.24463	0.12131	2.017	0.0714	0.2891
DY10_1	-0.28256	0.29061	-0.972	0.3538	0.0864
DY10_2	0.24030	0.27021	0.889	0.3947	0.0733
DX2_2	-3.7586	4.3632	-0.861	0.4092	0.0691
ECM_1	-0.31679	0.14192	-2.232	0.0497	0.3326

Rý = 0.366846 F(4, 10) = 1.4485 [0.2884] å = 0.221374 DW = 2.03
RSS = 0.4900636876 for 5 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 2F(2, 8) = 3.3435 [0.0880]
ARCH 1 F(1, 8) = 0.0030958 [0.9570]
Normality Chiý(2)= 2.8476 [0.2720]
RESET F(1, 9) = 0.25525 [0.6255]

Data loaded from: Y11.in7 and Y11.bn7

EQ(55) Modelling %DY11 by OLS

The present sample is: 5 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.045729	0.026515	1.725	0.1353	0.3314
%DY11_1	-0.84353	0.31434	-2.683	0.0364	0.5455
%DY11_2	1.8376	0.72858	2.522	0.0452	0.5146
%DY11_3	1.9885	0.79295	2.508	0.0460	0.5118
DX2_2	-3.1648	1.7148	-1.846	0.1145	0.3621
DX2_3	-3.8480	1.6451	-2.339	0.0579	0.4770
ECM_1	-3.6120	1.0009	-3.609	0.0112	0.6846

Rý = 0.824507 F(6, 6) = 4.6982 [0.0408] å = 0.0600966 DW = 1.61
RSS = 0.02166957645 for 7 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 5) = 0.34638 [0.5818]
ARCH 1 F(1, 4) = 0.48246 [0.5255]
Normality Chiý(2)= 1.2424 [0.5373]
RESET F(1, 5) = 2.815 [0.1271]

Data loaded from: Y12.in7 and Y12.bn7

EQ(56) Modelling Svar7 by OLS
The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.56183	0.12413	4.526	0.0011	0.6720
DY12_1	-0.81948	0.21201	-3.865	0.0031	0.5990
DX_3	-22.699	6.8054	-3.335	0.0075	0.5266
ECM_1	-1.1361	0.22844	-4.974	0.0006	0.7121

Rý = 0.720186 F(3, 10) = 8.5794 [0.0041] å = 0.308837 DW = 1.15
RSS = 0.9538047999 for 4 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 2.3332 [0.1610]
ARCH 1 F(1, 8) = 0.39705 [0.5462]

Normality Chiý(2)= 1.2919 [0.5242]
RESET F(1, 9) = 0.28681 [0.6053]

Data loaded from: Y14.in7 and Y14.bn7

EQ(57) Modelling DY14 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.28828	0.091128	3.164	0.0115	0.5265
DY14_1	-1.4609	0.24225	-6.030	0.0002	0.8016
DX2_1	12.434	5.2694	2.360	0.0426	0.3822
DX2_3	-15.892	5.0213	-3.165	0.0115	0.5267
ECM_1	-1.8840	0.44436	-4.240	0.0022	0.6664

Rý = 0.841678 F(4, 9) = 11.962 [0.0012] å = 0.245245 DW = 1.14
RSS = 0.5413054727 for 5 variables and 14 observations

Diagnostic tests for the chosen model

R 1- 1F(1, 8) = 0.8914 [0.3727]
ARCH 1 F(1, 7) = 0.27783 [0.6144]
Normality Chiý(2)= 3.5553 [0.1622]
RESET F(1, 8) = 0.034344 [0.8576]

Data loaded from: Y15.in7 and Y15.bn7

EQ(58) Modelling DY15 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.041301	0.019172	-2.154	0.0596	0.3402
DY15_1	-0.31713	0.27408	-1.157	0.2770	0.1295
DY15_3	0.86235	0.41245	2.091	0.0661	0.3269
DX2_2	1.1432	0.94644	1.208	0.2579	0.1395
ECM_1	-0.43959	0.20517	-2.143	0.0608	0.3378

Rý = 0.478192 F(4, 9) = 2.0619 [0.1688] å = 0.0428575 DW = 1.89
RSS = 0.01653089458 for 5 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 8) = 0.031171 [0.8642]
ARCH 1 F(1, 7) = 1.1753 [0.3142]
Normality Chiý(2)= 0.86057 [0.6503]
RESET F(1, 8) = 0.38239 [0.5535]

3 Modelling the impact of the inflation rate on the stock market performance through EC models (the final EC models including the diagnostic tests): -

3.1 Modelling the impact of the inflation rate on the market activity variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y1.in7 and Y1.bn7

EQ(59) Modelling DY1 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.87297	0.18368	4.753	0.0010	0.7151
DY1_1	-0.57236	0.24831	-2.305	0.0466	0.3712
DY1_3	0.42636	0.21908	1.946	0.0835	0.2962
DX3	11.003	4.9521	2.222	0.0534	0.3542
ECM_1	0.50837	0.14651	-3.470	0.0071	0.5722

Rý = 0.662761 F(4, 9) = 4.4218 [0.0299] å = 0.376189 DW = 1.84
RSS = 1.273660154 for 5 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 8) = 0.083031 [0.7806]
ARCH 1 F(1, 7) = 0.025202 [0.8783]
Normality Chiý(2)= 0.26568 [0.8756]
RESET F(1, 8) = 0.10933 [0.7494]

Data loaded from: Y2.in7 and Y2.bn7

EQ(60) Modelling DY2 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.57825	0.13753	4.205	0.0023	0.6627
DY2_1	-0.51337	0.23812	-2.156	0.0595	0.3406
DX3_1	-8.8720	5.3396	-1.662	0.1310	0.2347
DX3_3	10.085	4.3965	2.294	0.0475	0.3689
ECM_1	-0.64436	0.23307	-2.765	0.0219	0.4592

Rý = 0.576512 F(4, 9) = 3.063 [0.0752] å = 0.363416 DW = 1.32
RSS = 1.188638671 for 5 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 8) = 1.3328 [0.2816]
ARCH 1 F(1, 7) = 0.17179 [0.6909]
Normality Chiý(2)= 2.9563 [0.2281]
RESET F(1, 8) = 1.7369 [0.2240]

Data loaded from: Y3.in7 and Y3.bn7

EQ(61) Modelling DY3 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.35656	0.20060	1.777	0.1134	0.2831
DY3_2	0.54023	0.25250	2.140	0.0648	0.3639
DY3_3	-0.50614	0.28763	-1.760	0.1165	0.2790
DX3_1	-12.179	6.4029	-1.902	0.0937	0.3114
DX3_3	15.877	6.2625	2.535	0.0350	0.4455
ECM_1	-0.65750	0.16778	-3.919	0.0044	0.6575

Rý = 0.738077 F(5, 8) = 4.5087 [0.0299] å = 0.499813 DW = 1.60
RSS = 1.99850538 for 6 variables and 14 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  7) =    0.27569 [0.6158]
ARCH 1 F( 1,  6) =   0.066711 [0.8048]
Normality Chiý(2)=     1.2548 [0.5340]
RESET  F( 1,  7) =     2.4268 [0.1632]
```

Data loaded from: Y4.in7 and Y4.bn7

EQ(62) Modelling DY4 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.29625	0.036484	8.120	0.0000	0.8460
DY4_1	-0.70230	0.15067	-4.661	0.0005	0.6442
DX3	1.1663	1.0804	1.079	0.3016	0.0885
ECM_1	-0.30157	0.050226	-6.004	0.0001	0.7503

Rý = 0.8185 F(3, 12) = 18.039 [0.0001] å = 0.0840984 DW = 0.892
RSS = 0.0848705713 for 4 variables and 16 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  11) =   0.005367 [0.9451]
ARCH 1 F( 1, 10) =  3.697e-005 [0.9953]
Normality Chiý(2)=      0.2843 [0.8675]
RESET  F( 1,  11) =    0.37992 [0.5710]
```

Data loaded from: Y5.in7 and Y5.bn7

EQ(63) Modelling DY5 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.37160	0.095821	3.878	0.0037	0.6256
DY5_2	0.39786	0.17834	2.231	0.0526	0.3561
DY5_3	-0.50150	0.17720	-2.830	0.0197	0.4709
DX3	-3.3942	1.7866	-1.900	0.0899	0.2862
ECM_1	-0.19476	0.080503	-2.419	0.0387	0.3941

Rý = 0.796223 F(4, 9) = 8.7915 [0.0036] å = 0.141221 DW = 1.38
RSS = 0.1794912351 for 5 variables and 14 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  8) =    0.90351 [0.3697]
ARCH 1 F( 1,  7) =     1.4088 [0.2740]
Normality Chiý(2)=   0.067784 [0.9667]
RESET  F( 1,  8) =     3.1565 [0.1152]
```

Data loaded from: Y6.in7 and Y6.bn7

EQ(64) Modelling %DY6 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.014352	0.0076244	-1.882	0.0843	0.2280
DX3	-0.38477	0.27598	-1.394	0.1885	0.1394
ECM_1	0.41482	0.21553	1.925	0.0783	0.2359

Rý = 0.30183 F(2, 12) = 2.5939 [0.1158] å = 0.0257111 DW = 2.08
RSS = 0.007932713508 for 3 variables and 15 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1, 11) =    0.37962 [0.6936]
ARCH 1 F( 1, 10) =  0.0011506 [0.9736]
Normality Chiý(2)=     4.3654 [0.1127]
RESET  F( 1, 11) = 1.063e-005 [0.9975]
```

3.2 Modelling the impact of the inflation rate on the market size, market liquidity and market concentration variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y10.in7 and Y10.bn7

EQ(65) Modelling Svar7 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.17135	0.10427	1.643	0.1313	0.2126
DY10_1	-0.20226	0.28186	-0.718	0.4894	0.0490
DY10_2	0.31399	0.28404	1.105	0.2949	0.1089
DX3_1	-0.96100	2.9234	-0.329	0.7491	0.0107
ECM_1	-0.31024	0.16100	-1.927	0.0829	0.2708

Rý = 0.332549 F(4, 10) = 1.2456 [0.3527] å = 0.227291 DW = 2.06
RSS = 0.5166102908 for 5 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 0.082581 [0.7803]
ARCH 1 F(1, 8) = 0.0011643 [0.9736]
Normality Chiý(2)= 1.621 [0.3491]
RESET F(1, 9) = 0.00074879 [0.9788]

Data loaded from: Y11.in7 and Y11.bn7

EQ(66) Modelling %DY11 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.013707	0.022465	0.610	0.5531	0.0301
DX3	0.060403	0.79972	0.076	0.9410	0.0005
ECM_1	-0.78926	0.24766	-3.187	0.0078	0.4584

Rý = 0.459143 F(2, 12) = 5.0935 [0.0250] å = 0.0746069 DW = 2.49
RSS = 0.06679423925 for 3 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 10) = 1.643 [0.2416]
ARCH 1 F(1, 10) = 1.2517 [0.2894]
Normality Chiý(2)= 4.3519 [0.1135]
RESET F(1, 11) = 0.51219 [0.4891]

Data loaded from: Y12.in7 and Y12.bn7

EQ(67) Modelling DY12 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.41978	0.12206	3.439	0.0063	0.5419
DY12_1	-0.72641	0.25287	-2.873	0.0166	0.4521
DX3_3	8.2057	4.0165	2.043	0.0683	0.2945
ECM_1	-0.86499	0.23569	-3.670	0.0043	0.5739

Rý = 0.598669 F(3, 10) = 4.9724 [0.0230] å = 0.369868 DW = 1.48
RSS = 1.36802221 for 4 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 0.89262 [0.3694]
ARCH 1 F(1, 8) = 0.0015377 [0.9697]
Normality Chiý(2)= 0.10688 [0.9480]
RESET F(1, 9) = 0.51822 [0.4899]

Data loaded from: Y14.in7 and Y14.bn7

EQ(68) Modelling DY14 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.29473	0.080502	3.661	0.0052	0.5983
DY14_1	-1.2692	0.22094	-5.745	0.0003	0.7857
DX3_1	-9.6928	3.5034	-2.767	0.0219	0.4596
DX3_3	8.2434	2.8571	2.885	0.0180	0.4805
ECM_1	-1.4250	0.37370	-3.813	0.0041	0.6177

Rý = 0.829381 F(4, 9) = 10.937 [0.0017] å = 0.254591 DW = 1.16
RSS = 0.5833510158 for 5 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 8) =	1.1809	[0.3088]
ARCH 1 F(1, 7) =	1.2869	[0.2940]
Normality Chiý(2)=	0.43934	[0.8028]
RESET F(1, 8) =	0.54136	[0.4829]

Data loaded from: Y15.in7 and Y15.bn7

EQ(69) Modelling DY15 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.017886	0.021181	-0.844	0.4229	0.0818
DY15_1	-0.30225	0.26735	-1.131	0.2910	0.1378
DY15_2	0.27427	0.25474	1.077	0.3130	0.1266
DY15_3	0.79026	0.41174	1.919	0.0912	0.3153
DX3_1	0.53867	0.53030	1.016	0.3395	0.1142
ECM_1	-0.44073	0.19523	-2.257	0.0539	0.3891

Rý = 0.535324 F(5, 8) = 1.8433 [0.2106] å = 0.0428966 DW = 1.90
RSS = 0.01472093925 for 6 variables and 14 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 7) =	0.019116	[0.8939]
ARCH 1 F(1, 6) =	0.46785	[0.5195]
Normality Chiý(2)=	3.9106	[0.1415]
RESET F(1, 7) =	0.92362	[0.3685]

4 Modelling the impact of per capita income on the stock market performance through EC models (the final EC models including the diagnostic tests): -

4.1 Modelling the impact of per capita income on the market activity variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y1.in7 and Y1.bn7

EQ(70) Modelling DY1 by OLS

The present sample is: 5 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.37011	0.10807	3.425	0.0076	0.5658
%DX6_2	3.6029	1.3074	2.756	0.0223	0.4576
%DX6_3	1.0316	1.2549	0.822	0.4323	0.0698
ECM_1	0.19363	0.086721	2.233	0.0525	0.3565

Rý = 0.526518 F(3, 9) = 3.336 [0.0699] å = 0.38375 DW = 2.72
RSS = 1.325375607 for 4 variables and 13 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 8) = 1.321 [0.2836]
ARCH 1 F(1, 7) = 1.004 [0.3497]
Normality Chiý(2)= 0.0096368 [0.9952]
RESET F(1, 8) = 2.3662 [0.1625]

Data loaded from: Y2.in7 and Y2.bn7

EQ(71) Modelling DY2 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.19651	0.030557	6.431	0.0001	0.8053
DY2_1	-0.51310	0.17073	-3.005	0.0132	0.4746
%DX6	0.32085	0.17167	1.869	0.0912	0.2589
%DX6_1	0.43803	0.22181	1.975	0.0765	0.2806
ECM_1	-0.19169	0.047289	-4.054	0.0023	0.6217

Rý = 0.629731 F(4, 10) = 4.2519 [0.0289] å = 0.0646491 DW = 1.65
RSS = 0.04179507986 for 5 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 9) = 0.3547 [0.5661]
ARCH 1 F(1, 8) = 0.020096 [0.8908]
Normality Chiý(2)= 0.67206 [0.7146]
RESET F(1, 9) = 4.9822 [0.0525]

Data loaded from: Y3.in7 and Y3.bn7

EQ(72) Modelling DY3 by OLS

The present sample is: 5 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.14100	0.37022	-0.381	0.7190	0.0282
DY3_1	1.8380	0.58583	3.137	0.0257	0.6632
DY3_3	-2.2814	0.59258	-3.850	0.0120	0.7478
%DX6	16.772	6.1705	2.718	0.0419	0.5964
%DX6_1	12.215	5.4508	2.241	0.0751	0.5011
%DX6_2	3.9183	2.3884	1.641	0.1618	0.3499
%DX6_3	-9.7593	4.6460	-2.101	0.0897	0.4688
ECM_1	-1.0879	0.46178	-2.356	0.0651	0.5261

Rý = 0.814227 F(7, 5) = 3.1307 [0.1137] å = 0.532141 DW = 1.87
RSS = 1.415867858 for 8 variables and 13 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 4) = 0.00096069 [0.9768]
ARCH 1 F(1, 3) = 0.024818 [0.8848]
Normality Chiý(2)= 0.27921 [0.8697]
RESET F(1, 4) = 2.8545 [0.1181]

4.2 Modelling the impact of per capita income on the market size, market liquidity and market concentration variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y10.in7 and Y10.bn7

EQ(73) Modelling DY by OLS

The present sample is: 5 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.11745	0.076436	1.537	0.1630	0.2279
DY10_2	0.36964	0.28591	1.293	0.2321	0.1728
%DX6	-0.82758	0.67715	-1.222	0.2564	0.1573
%DX6_3	1.8451	0.65480	2.818	0.0226	0.4981
ECM_1	0.074389	0.12700	0.586	0.5742	0.0411

Rý = 0.51728 F(4, 8) = 2.1432 [0.1666] å = 0.207986 DW = 1.10
RSS = 0.346063751 for 5 variables and 13 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 7) = 2.1812 [0.1832]
ARCH 1 F(1, 6) = 0.01324 [0.9121]
Normality Chiý(2)= 1.8371 [0.3991]
RESET F(1, 7) = 1.9225 [0.2359]

Data loaded from: Y12.in7 and Y12.bn7

EQ(74) Modelling DY12 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.22386	0.12819	1.746	0.1086	0.2171
DY12_1	-0.40486	0.22828	-1.773	0.1038	0.2224
%DX6	1.4203	1.0583	1.342	0.2066	0.1407
ECM_1	-0.41735	0.19245	-2.169	0.0529	0.2995

Rý = 0.391085 F(3, 11) = 2.355 [0.1279] å = 0.468481 DW = 1.71
RSS = 2.414223426 for 4 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 10) = 0.38541 [0.5486]
ARCH 1 F(1, 9) = 1.4003 [0.2670]
Normality Chiý(2)= 3.4934 [0.1744]
RESET F(1, 10) = 0.41685 [0.5330]

Data loaded from: Y14.in7 and Y14.bn7

EQ(75) Modelling DY14 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.22793	0.10432	2.185	0.0604	0.3737
DY14_1	-0.56973	0.20722	-2.749	0.0251	0.4858
%DX6	1.3592	1.1157	1.218	0.2578	0.1565
%DX6_1	1.2616	1.5648	0.806	0.4434	0.0751
%DX6_2	2.7483	1.2181	2.256	0.0540	0.3889
ECM_1	-0.046971	0.19309	-0.243	0.8139	0.0073

Rý = 0.696051 F(5, 8) = 3.664 [0.0508] å = 0.360418 DW = 2.44
RSS = 1.039207279 for 6 variables and 14 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  7) =    0.71604 [0.4254]
ARCH 1 F( 1,  6) =  0.0050529 [0.9456]
Normality Chiý(2)=    0.66617 [0.7167]
RESET  F( 1,  7) =    0.19913 [0.6689]
```

Data loaded from: Y15.in7 and Y15.bn7

EQ(76) Modelling DY15 by OLS

The present sample is: 5 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.040622	0.010695	-3.798	0.0042	0.6158
%DX6_2	-0.20886	0.12696	-1.645	0.1344	0.2312
%DX6_3	-0.38656	0.12184	-3.173	0.0113	0.5279
ECM_1	0.19083	0.089596	2.130	0.0620	0.3351

Rý = 0.577386 F(3, 9) = 4.0987 [0.0433] å = 0.0384897 DW = 1.89
RSS = 0.01333313238 for 4 variables and 13 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  8) =   0.001408 [0.9710]
ARCH 1 F( 1,  7) =    0.30068 [0.6005]
Normality Chiý(2)=     2.2598 [0.3231]
RESET  F( 1,  8) =   0.081355 [0.7827]
```

5 Modelling the impact of the budget deficit on the stock market performance through EC models (the final EC models including the diagnostic tests): -

5.1 Modelling the impact of the budget deficit on the market activity variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y3.in7 and Y3.bn7

EQ(77) Modelling DY3 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.18910	0.24044	0.786	0.4482	0.0532
DY3_2	0.33923	0.30892	1.098	0.2956	0.0988
DX7_1	-1.8846	3.4675	-0.544	0.5976	0.0262
ECM_1	-0.37497	0.15574	-2.408	0.0348	0.3451

Rý = 0.350225 F(3, 11) = 1.9763 [0.1761] å = 0.673621 DW = 1.76
RSS = 4.99141754 for 4 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 10) = 0.014946 [0.9051]
ARCH 1 F(1, 9) = 1.3101 [0.2819]
Normality Chiý(2)= 0.34024 [0.8436]
RESET F(1, 10) = 2.9334 [0.1043]

Data loaded from: Y4.in7 and Y4.bn7

EQ(78) Modelling DY4 by OLS

The present sample is: 2 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.26488	0.032403	8.174	0.0000	0.8478
DY4_1	-0.72890	0.15702	-4.642	0.0006	0.6423
DX7	-0.84269	0.47123	-1.788	0.0990	0.2104
ECM_1	-0.32791	0.047400	-6.918	0.0000	0.7995

Rý = 0.80775 F(3, 12) = 16.806 [0.0001] å = 0.086553 DW = 1.26
RSS = 0.08989715718 for 4 variables and 16 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 11) = 1.444 [0.2812]
ARCH 1 F(1, 10) = 0.31826 [0.5851]
Normality Chiý(2)= 0.80898 [0.6673]
RESET F(1, 11) = 0.06858 [0.8063]

Data loaded from: Y5.in7 and Y5.bn7

EQ(79) Modelling DY by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.089905	0.10099	0.890	0.3924	0.0672
DY5_2	0.74693	0.23994	3.113	0.0099	0.4684
DX7_1	-1.6804	1.1867	-1.416	0.1844	0.1542
ECM_1	-0.14774	0.062639	-2.359	0.0379	0.3359

Rý = 0.496517 F(3, 11) = 3.6159 [0.0490] å = 0.207169 DW = 2.06
RSS = 0.472106744 for 4 variables and 15 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1, 10) =     0.3101 [0.5899]
ARCH 1 F( 1,  9) =  0.0046755 [0.9470]
Normality Chiý(2)=    0.87367 [0.6461]
RESET  F( 1, 10) =   0.078234 [0.7854]
```

Data loaded from: Y6.in7 and Y6.bn7

EQ(80) Modelling %DY6 by OLS

The present sample is: 4 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	-0.017511	0.0031110	-5.629	0.0003	0.7788
%DY6_1	-0.91093	0.13987	-6.513	0.0001	0.8250
DX7_3	-0.10916	0.048557	-2.248	0.0512	0.3596
ECM_1	-0.59241	0.12091	-4.900	0.0008	0.7273

Rý = 0.84251 F(3, 9) = 16.049 [0.0006] å = 0.009829 DW = 2.43
RSS = 0.0008694830774 for 4 variables and 13 observations

Diagnostic tests for the chosen model

```
AR 1- 1F( 1,  8) =     1.5591 [0.2471]
ARCH 1 F( 1,  7) =    0.37438 [0.5600]
Normality Chiý(2)=     1.6309 [0.4424]
RESET  F( 1,  8) =   0.012588 [0.9134]
```

5.2 Modelling the impact of the budget deficit on the market size, market liquidity and market concentration variables through EC models (the final EC models including the diagnostic tests): -

Data loaded from: Y10.in7 and Y10.bn7

EQ(81) Modelling DY10 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.20345	0.059471	3.421	0.0051	0.4938
DX7_2	0.73133	1.1005	0.665	0.5189	0.0355
ECM_1	-0.19234	0.10051	-1.914	0.0798	0.2338

Rý = 0.237824 F(2, 12) = 1.8722 [0.1960] å = 0.221722 DW = 2.55
RSS = 0.5899277724 for 3 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 11) = 0.68551 [0.5260]
ARCH 1 F(1, 10) = 0.016444 [0.9005]
Normality Chiý(2)= 2.1905 [0.0.2333]
RESET F(1, 11) =4.6754e-005 [0.9947]

Data loaded from Y11

EQ(82) Modelling %DY11 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.019060	0.017929	1.063	0.3105	0.0932
%DY11_1	-0.44177	0.22829	-1.935	0.0791	0.2540
DX7_2	0.16426	0.33675	0.488	0.6353	0.0212
ECM_1	-1.1547	0.27764	-4.159	0.0016	0.6113

Rý = 0.636485 F(3, 11) = 6.42 [0.0090] å = 0.0638842 DW = 2.13
RSS = 0.04489303232 for 4 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 10) = 0.16077 [0.6969]
ARCH 1 F(1, 9) = 0.053275 [0.8226]
Normality Chiý(2)= 2.096 [0.2523]
RESET F(1, 10) = 0.65266 [0.4380]

Data loaded from: Y12.in7 and Y12.bn7

EQ(83) Modelling DY12 by OLS

The present sample is: 3 to 17

Variable	Coefficient	Std.Error	t-value	t-prob	PartRý
Constant	0.29903	0.12120	2.467	0.0313	0.3562
DY12_1	-0.60148	0.23147	-2.599	0.0248	0.3804
DX7_2	1.7177	2.2563	0.761	0.4625	0.0501
ECM_1	-0.66117	0.23050	-2.868	0.0153	0.4279

Rý = 0.474336 F(3, 11) = 3.3086 [0.0611] å = 0.435279 DW = 2.22
RSS = 2.084149626 for 4 variables and 15 observations

Diagnostic tests for the chosen model

AR 1- 1F(1, 10) = 0.93088 [0.3574]
ARCH 1 F(1, 9) = 0.65488 [0.4392]
Normality Chiý(2)= 1.075 [0.5842]
RESET F(1, 10) = 0.23308 [0.6396]

Appendix E
Modelling the Relationship between the Economic Reform Programme and the Stock Market Performance through Multivariate Analysis

1-Modelling the relationship between the economic reform programme variables and the value of trade through multivariate analysis: -

(Sample of how multiple and step wise regression has been run)

Multiple Regression Analysis

Dependent variable: Y1

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.0529311	0.012879	4.10987	0.0034
X1	-0.0000281351	0.759023	-0.0000370675	1.0000
X2	-1.17125	1.26483	-0.926015	0.3815
X3	-0.897468	0.321526	-2.79128	0.0235
X4	0.0102461	0.165899	0.0617611	0.9523
X1	0.206531	0.553035	0.37345	0.7185
X6	0.0183515	0.0544818	0.336838	0.7449
X7	0.0117289	0.162634	0.0721183	0.9443

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.00866289	7	0.00123756	2.21	0.1441
Residual	0.00447468	8	0.000559335		
Total (Corr.)	0.0131376	15			

R-squared = 65.9398 percent
R-squared (adjusted for d.f.) = 36.1372 percent
Standard Error of Est. = 0.0236503
Mean absolute error = 0.0137807
Durbin-Watson statistic = 2.35587

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The output shows the results of fitting a multiple linear regression model to describe the relationship between Y1 and 7 independent variables. The equation of the fitted model is

Y1 = 0.0529311 + 0.0000281351*X1 - 1.17125*X2 - 0.897468*X3 + 0.0102461*X4 + 0.206531*X5 + 0.0183515*X6 + 0.0117289*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y1

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.051974	0.00582753	8.9187	0.0000
X2	-1.22262	0.330858	-3.69531	0.0027
X3	-0.844764	0.228695	-3.69385	0.0027

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.00847807	2	0.00423904	11.83	0.0012
Residual	0.00465949	13	0.000358422		
Total (Corr.)	0.0131376	15			

R-squared = 64.5331 percent
R-squared (adjusted for d.f.) = 59.0766 percent
Standard Error of Est. = 0.018932
Mean absolute error = 0.0136787
Durbin-Watson statistic = 2.35328

```
Stepwise regression
-------------------
Method: backward selection
F-to-enter: 4.0
F-to-remove: 4.0

     Step 0:
     ---------
     7 variables in the model.  8 d.f. for error.
     R-squared =  65.94%     Adjusted R-squared =  36.14%     MSE = 0.000559335

     Step 1:
     ---------
     Removing variable X1 with F-to-remove = 1.374E-9
     6 variables in the model.  9 d.f. for error.
     R-squared =  65.94%     Adjusted R-squared =  43.23%     MSE = 0.000497186

     Step 2:
     ---------
     Removing variable X4 with F-to-remove = 0.00584004
     5 variables in the model.  10 d.f. for error.
     R-squared =  65.92%     Adjusted R-squared =  48.88%     MSE = 0.000447758

     Step 3:
     ---------
     Removing variable X7 with F-to-remove = 0.0110751
     4 variables in the model.  11 d.f. for error.
     R-squared =  65.88%     Adjusted R-squared =  53.47%     MSE = 0.000407504

     Step 4:
     ---------
     Removing variable X6 with F-to-remove = 0.194287
     3 variables in the model.  12 d.f. for error.
     R-squared =  65.28%     Adjusted R-squared =  56.60%     MSE = 0.000380143

     Step 5:
     ---------
     Removing variable X5 with F-to-remove = 0.257216
     2 variables in the model.  13 d.f. for error.
     R-squared =  64.53%     Adjusted R-squared =  59.08%     MSE = 0.000358422

     Final model selected.

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---------------
   The output shows the results of fitting a multiple linear
regression model to describe the relationship between Y1 and 7
independent variables.  The equation of the fitted model is

Y1 = 0.051974 - 1.22262*X2 - 0.844764*X3

Since the P-value in the ANOVA table is less than 0.01, there is a
statistically significant relationship between the variables at the
99% confidence level.
```

2-Modelling the relationship between the economic reform programme variables and the volume of trade through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y2

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.0109279	0.0128211	0.852337	0.4188
X1	0.202036	0.550547	0.366972	0.7232
X2	-0.70659	0.320079	-2.20755	0.0583
X3	-0.517923	0.165153	-3.13602	0.0139
X4	-1.24263	1.25914	-0.986888	0.3526
X5	-0.0746777	0.755609	-0.0988312	0.9237
X6	0.035461	0.0542367	0.653819	0.5316
X7	0.064255	0.161903	0.396875	0.7018

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0209516	7	0.00299308	5.40	0.0150
Residual	0.00443451	8	0.000554314		
Total (Corr.)	0.0253861	15			

R-squared = 82.5317 percent
R-squared (adjusted for d.f.) = 67.247 percent
Standard Error of Est. = 0.0235439
Mean absolute error = 0.0138563
Durbin-Watson statistic = 1.37293

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y2 and 7 independent variables. The equation of the fitted model is

Y2 = 0.0109279 + 0.202036*X1 - 0.70659*X2 - 0.517923*X3 - 1.24263*X4 - 0.0746777*X5 + 0.035461*X6 + 0.064255*X7

Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between the variables at the 95% confidence level.

Multiple Regression Analysis

Dependent variable: Y2

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.0100895	0.00977122	1.03257	0.3222
X2	-1.20786	0.367407	-3.28752	0.0065
X3	-0.604145	0.260453	-2.31959	0.0388

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0202106	2	0.00673686	15.62	0.0002
Residual	0.00517549	13	0.000431291		
Total (Corr.)	0.0253861	15			

R-squared = 79.6129 percent
R-squared (adjusted for d.f.) = 74.5161 percent
Standard Error of Est. = 0.0207675
Mean absolute error = 0.015415
Durbin-Watson statistic = 1.96262

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y2and 7 independent variables. The equation of the fitted model is

Y2 = 0.0100895 - 1.20786*X2 - 0.604145*X3

Since the P-value in the ANOVA table is less than 0.01, there is a statistically significant relationship between the variables at the 99% confidence level.

3-Modelling the relationship between the economic reform programme variables and the number of transactions through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y3

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	1.10084	0.399828	2.75327	0.0249
X1	-1.94923	17.1689	-0.113532	0.9124
X2	50.1115	39.2666	1.27619	0.2377
X3	38.8032	23.5638	1.64673	0.1382
X4	10.0582	5.15032	1.95292	0.0866
X5	1.75777	9.98174	0.176099	0.8646
X6	-1.29406	1.69138	-0.76509	0.4662
X7	7.56568	5.04896	1.49846	0.1724

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	3.40277	7	0.48611	0.90	0.5477
Residual	4.31263	8	0.539079		
Total (Corr.)	7.71541	15			

R-squared = 44.1036 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.73422
Mean absolute error = 0.429896
Durbin-Watson statistic = 1.89955

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y3 and 7 independent variables. The equation of the fitted model is

Y3 = 1.10084 - 1.94923*X1 + 50.1115*X2 + 38.8032*X3 + 10.0582*X4 + 1.75777*X5 - 1.29406*X6 + 7.56568*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y3

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.445508	0.179297	2.48474	0.0253

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	7.71541	15	0.51436		
Total (Corr.)	7.71541	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.717189
Mean absolute error = 0.502414
Durbin-Watson statistic = 1.4761

Stepwise regression

Method: backward selection

F-to-enter: 4.0
F-to-remove: 4.0
   Final model selected.

The StatAdvisor

   The output shows the results of fitting a multiple linear regression model to describe the relationship between Y3 and 7 independent variables. The equation of the fitted model is

Y3 = 0.445508

4-Modelling the relationship between the economic reform programme variables and the number of traded companies through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y4

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.758172	0.314537	2.41044	0.0425
X1	8.12869	13.5065	0.601838	0.5639
X2	7.60462	30.8903	0.246182	0.8117
X3	13.7723	18.5372	0.742955	0.4788
X4	2.74373	4.05166	0.677188	0.5174
X5	8.33153	7.85244	1.06101	0.3197
X6	1.09468	1.33058	0.822708	0.4345
X7	-0.297769	3.97192	-0.0749686	0.9421

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	1.81246	7	0.258923	0.78	0.6244
Residual	2.66894	8	0.333618		
Total (Corr.)	4.4814	15			

R-squared = 40.444 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.577597
Mean absolute error = 0.337283
Durbin-Watson statistic = 2.38366

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y4 and 7 independent variables. The equation of the fitted model is

Y4 = 0.758172 + 8.12869*X1 + 7.60462*X2 + 13.7723*X3 + 2.74373*X4 + 8.33153*X5 + 1.09468*X6 - 0.297769*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y4

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.492912	0.136647	3.60719	0.0026

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	4.4814	15	0.29876		
Total (Corr.)	4.4814	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.546589
Mean absolute error = 0.433503
Durbin-Watson statistic = 2.04127

Stepwise regression

Method: backward selection

F-to-enter: 4.0
F-to-remove: 4.0

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y4 and 7 independent variables. The equation of the fitted model is

Y4 = 0.492912

5-Modelling the relationship between the economic reform programme variables and the value of new issues (including capital increase) through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y5

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.169687	0.0375343	4.52084	0.0014
X1	-3.73066	2.55192	-1.4619	0.1778
X2	5.34034	1.48113	3.60559	0.0057
X3	-0.927408	0.537495	-1.72543	0.1185
X4	-6.50691	6.16627	-1.05524	0.3188
X5	-0.0313922	3.71632	-0.00844711	0.9934
X6	-0.363635	0.263882	-1.37802	0.2015
X7	-0.102959	0.795242	-0.129468	0.8998

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.355334	7	0.050762	3.79	0.0339
Residual	0.120685	8	0.0134094		
Total (Corr.)	0.476019	15			

R-squared = 74.6471 percent
R-squared (adjusted for d.f.) = 54.9281 percent
Standard Error of Est. = 0.115799
Mean absolute error = 0.0717957
Durbin-Watson statistic = 2.31317

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y5 and 7 independent variables. The equation of the fitted model is

Y5 = 0.169687 - 3.73066*X1 + 5.34034*X2 - 0.927408*X3 - 6.50691*X4 - 0.0313922*X5 - 0.363635*X6 - 0.102959*X7

Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between the variables at the 95% confidence level.

Multiple Regression Analysis

Dependent variable: Y5

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.174263	0.0330541	5.27205	0.0002
X1	-0.866241	0.34563	-2.50627	0.0263
X2	4.541	1.42001	3.19786	0.0070
X3	-5.3371	1.90961	-2.79487	0.0152

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.295019	3	0.0983397	7.06	0.0046
Residual	0.181	12	0.013923		
Total (Corr.)	0.476019	15			

R-squared = 61.9764 percent
R-squared (adjusted for d.f.) = 53.2017 percent
Standard Error of Est. = 0.117996
Mean absolute error = 0.0780705
Durbin-Watson statistic = 2.87058

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y5 and 7 independent variables. The equation of the fitted model is

Y5 = 0.174263 - 0.866241*X1 + 4.541*X2 - 5.3371*X3

Since the P-value in the ANOVA table is less than 0.01, there is a statistically significant relationship between the variables at the 99% confidence level.

6-Modelling the relationship between the economic reform programme variables and the value of new issues (including capital increase) as a percentage of GDP through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y6

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.424115	0.166379	2.54909	0.0342
X1	1.65268	7.14442	0.231324	0.8229
X2	7.41533	16.3398	0.453819	0.6620
X3	1.51233	9.80549	0.154233	0.8812
X4	1.61213	2.14318	0.752216	0.4735
X5	-0.180967	4.15365	-0.0435682	0.9663
X6	-0.340147	0.703826	-0.483282	0.6418
X7	1.9668	2.101	0.936123	0.3766

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.270269	7	0.0386099	0.41	0.8691
Residual	0.746776	8	0.093347		
Total (Corr.)	1.01705	15			

R-squared = 26.574 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.305527
Mean absolute error = 0.181734
Durbin-Watson statistic = 2.71358
The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y6 and 7 independent variables. The equation of the fitted model is

Y6 = 0.424115 + 1.65268*X1 + 7.41533*X2 + 1.51233*X3 + 1.61213*X4 - 0.180967*X5 - 0.340147*X6 + 1.9668*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y6

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.343537	0.0650975	5.27727	0.0001

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	1.01705	15	0.067803		
Total (Corr.)	1.01705	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.26039
Mean absolute error = 0.2229
Durbin-Watson statistic = 2.45155

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y6 and 7 independent variables. The equation of the fitted model is

Y6 = 0.343537

7-Modelling the relationship between the economic reform programme variables and the market capitalization through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y7

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-3.5193	0.323727	-10.8712	0.0000
X1	3.83318	13.9011	0.275748	0.7897
X2	-10.2633	31.7927	-0.322818	0.7551
X3	-13.6687	19.0788	-0.716435	0.4941
X4	14.2302	4.17003	3.41249	0.0092
X5	-5.19815	8.08185	-0.643188	0.5381
X6	0.728779	1.36945	0.532169	0.6091
X7	-1.83888	4.08796	-0.449828	0.6648

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	9.58844	7	1.36978	3.88	0.0383
Residual	2.82717	8	0.353396		
Total (Corr.)	12.4156	15			

R-squared = 77.2289 percent
R-squared (adjusted for d.f.) = 57.3042 percent
Standard Error of Est. = 0.594471
Mean absolute error = 0.316141
Durbin-Watson statistic = 1.02184

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y7 and 7 independent variables. The equation of the fitted model is

Y7 = -3.5193 + 3.83318*X1 - 10.2633*X2 - 13.6687*X3 + 14.2302*X4 - 5.19815*X5 + 0.728779*X6 - 1.83888*X7

Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between the variables at the 95% confidence level.

Multiple Regression Analysis

Dependent variable: Y7

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-3.36603	0.204901	-16.4276	0.0000
X4	15.5554	2.67696	5.81084	0.0000

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	8.77664	1	8.77664	33.77	0.0000
Residual	3.63897	14	0.259927		
Total (Corr.)	12.4156	15			

R-squared = 70.6903 percent
R-squared (adjusted for d.f.) = 68.5968 percent
Standard Error of Est. = 0.50983
Mean absolute error = 0.391659
Durbin-Watson statistic = 1.00226

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y7 and 7 independent variables. The equation of the fitted model is

Y7 = -3.36603 + 15.5554*X4

Since the P-value in the ANOVA table is less than 0.01, there is a statistically significant relationship between the variables at the 99% confidence level.

8-Modelling the relationship between the economic reform programme variables and the market capitalization as a percentage of GDP through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y8

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-2.05859	0.191328	-10.7595	0.0000
X1	0.482249	8.21577	0.058698	0.9546
X2	-30.3246	18.7901	-1.61387	0.1452
X3	-17.1559	11.2759	-1.52147	0.1666
X4	7.69959	2.46456	3.12412	0.0141
X5	-4.45542	4.77652	-0.932775	0.3782
X6	0.635394	0.809369	0.785049	0.4550
X7	-2.85076	2.41606	-1.17992	0.2719

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	3.61597	7	0.516568	4.18	0.0311
Residual	0.987535	8	0.123442		
Total (Corr.)	4.60351	15			

R-squared = 78.5482 percent
R-squared (adjusted for d.f.) = 59.7779 percent
Standard Error of Est. = 0.351343
Mean absolute error = 0.190923
Durbin-Watson statistic = 1.01164

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y8 and 7 independent variables. The equation of the fitted model is

Y8 = -2.05859 + 0.482249*X1 - 30.3246*X2 - 17.1559*X3 + 7.69959*X4 - 4.45542*X5 + 0.635394*X6 - 2.85076*X7

Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between the variables at the 95% confidence level.

Multiple Regression Analysis

Dependent variable: Y8

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-2.02765	0.131068	-15.4702	0.0000
X4	9.26646	1.71236	5.41151	0.0001

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	3.11454	1	3.11454	29.28	0.0001
Residual	1.48897	14	0.106355		
Total (Corr.)	4.60351	15			

R-squared = 67.6558 percent
R-squared (adjusted for d.f.) = 65.3455 percent
Standard Error of Est. = 0.326121
Mean absolute error = 0.229585
Durbin-Watson statistic = 0.736175

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y8 and 7 independent variables. The equation of the fitted model is

Y8 = -2.02765 + 9.26646*X4

Since the P-value in the ANOVA table is less than 0.01, there is a statistically significant relationship between the variables at the 99% confidence level.

9-Modelling the relationship between the economic reform programme variables and the number of listed companies through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y9

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.572704	0.295648	1.93711	0.0887
X1	2.50522	12.6953	0.197333	0.8485
X2	22.0472	29.0352	0.759326	0.4694
X3	16.5608	17.424	0.950461	0.3697
X4	3.72856	3.80834	0.979051	0.3562
X5	-3.93298	7.38088	-0.532861	0.6086
X6	0.646072	1.25067	0.51658	0.6194
X7	2.76847	3.73339	0.741543	0.4796

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.583474	7	0.0833534	0.28	0.9433
Residual	2.35801	8	0.294751		
Total (Corr.)	2.94148	15			

R-squared = 19.836 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.54291
Mean absolute error = 0.326167
Durbin-Watson statistic = 2.60564

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y2 and 7 independent variables. The equation of the fitted model is

Y9 = 0.572704 + 2.50522*X1 + 22.0472*X2 + 16.5608*X3 + 3.72856*X4 - 3.93298*X5 + 0.646072*X6 + 2.76847*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y9

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.348985	0.110708	3.15231	0.0066

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	2.94148	15	0.196099		
Total (Corr.)	2.94148	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.442831
Mean absolute error = 0.312278
Durbin-Watson statistic = 2.63253

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y9 and 7 independent variables. The equation of the fitted model is

Y9 = 0.348985

10-Modelling the relationship between the economic reform programme variables and the volume of shares listed through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y10

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.000727254	0.0631396	0.0115182	0.9911
X1	0.0395484	2.71126	0.0145867	0.9887
X2	6.01278	6.20085	0.969669	0.3606
X3	3.23171	3.72112	0.868476	0.4104
X4	0.26957	0.813322	0.331443	0.7488
X5	0.870865	1.57628	0.552479	0.5957
X6	-0.0296564	0.267097	-0.111032	0.9143
X7	0.394143	0.797316	0.494337	0.6344

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0159575	7	0.00227965	0.17	0.9848
Residual	0.107547	8	0.0134434		
Total (Corr.)	0.123505	15			

R-squared = 12.9206 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.115946
Mean absolute error = 0.0578152
Durbin-Watson statistic = 1.75523

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y10 and 7 independent variables. The equation of the fitted model is

Y10 = 0.000727254 + 0.0395484*X1 + 6.01278*X2 + 3.23171*X3 + 0.26957*X4 + 0.870865*X5 - 0.0296564*X6 + 0.394143*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y10

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.00266972	0.0226849	0.117687	0.9079

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	0.123505	15	0.00823365		
Total (Corr.)	0.123505	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.0907394
Mean absolute error = 0.0457022
Durbin-Watson statistic = 1.70086

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y10 and 7 independent variables. The equation of the fitted model is

Y10 = 0.00266972

11-Modelling the relationship between the economic reform programme variables and the number of financial intermediaries through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y11

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.235235	0.151759	1.55006	0.1597
X1	-4.98998	6.51664	-0.765729	0.4658
X2	-7.80579	14.904	-0.523737	0.6147
X3	-1.71582	8.94388	-0.191843	0.8526
X4	-0.122638	1.95486	-0.0627352	0.9515
X5	1.2442	3.78867	0.328401	0.7510
X6	0.0557146	0.641981	0.0867855	0.9330
X7	0.742908	1.91638	0.387661	0.7084

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.15329	7	0.0218986	0.28	0.9437
Residual	0.621303	8	0.0776628		
Total (Corr.)	0.774593	15			

R-squared = 19.7898 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.278681
Mean absolute error = 0.115884
Durbin-Watson statistic = 2.40517

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y11 and 7 independent variables. The equation of the fitted model is

Y11 = 0.235235 - 4.98998*X1 - 7.80579*X2 - 1.71582*X3 - 0.122638*X4 + 1.2442*X5 + 0.0557146*X6 + 0.742908*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y11

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.199655	0.0568108	3.51438	0.0031

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	0.774593	15	0.0516395		
Total (Corr.)	0.774593	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.227243
Mean absolute error = 0.157494
Durbin-Watson statistic = 1.92012

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y11 and 7 independent variables. The equation of the fitted model is

Y11 = 0.199655

12-Modelling the relationship between the economic reform programme variables and the total value traded to market capitalization through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y12

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.258732	0.32642	0.792636	0.4509
X1	5.79575	14.0167	0.413489	0.6901
X2	15.5578	8.14909	1.90914	0.0927
X3	14.4133	19.2375	0.74923	0.4752
X4	1.38711	4.20472	0.329893	0.7500
X5	17.1137	32.0572	0.533849	0.6080
X6	0.992146	1.38084	0.718507	0.4929
X7	-0.143274	4.12197	-0.0347585	0.9731

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	2.07256	7	0.29608	0.82	0.5942
Residual	2.87441	8	0.359301		
Total (Corr.)	4.94697	15			

R-squared = 41.8956 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.599417
Mean absolute error = 0.350192
Durbin-Watson statistic = 2.54198

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y12 and 7 independent variables. The equation of the fitted model is

Y12 = 0.258732 + 5.79575*X1 + 15.5578*X2 + 14.4133*X3 + 1.38711*X4 +17.1137*X5 + 0.992146*X6 - 0.143274*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y12

Parameter	Estimate	Standard Error	T Statistic	P Value
CONSTANT	0.176678	0.123299	1.43293	0.1738
X2	14.8243	5.88554	2.51876	0.0246

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P Value
Model	1.54267	1	1.54267	6.34	0.0246
Residual	3.40429	14	0.243164		
Total (Corr.)	4.94697	15			

R-squared = 31.1842 percent
R-squared (adjusted for d.f.) = 26.2688 percent
Standard Error of Est. = 0.493116
Mean absolute error = 0.36857
Durbin-Watson statistic = 2.60933

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y12 and 7 independent variables. The equation of the fitted model is

Y12 = 0.176678 + 14.8243*X2

Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between the variables at the 95% confidence level.

13-Modelling the relationship between the economic reform programme variables and the total value traded to GDP through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y13

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-4.14642	0.579201	-7.15886	0.0001
X1	1.26644	24.8713	0.0509197	0.9606
X2	-33.5433	56.8825	-0.589694	0.5717
X3	-21.0115	34.1351	-0.61554	0.5553
X4	19.5981	7.46088	2.62679	0.0303
X5	-1.42295	14.4598	-0.0984074	0.9240
X6	1.35366	2.45018	0.552475	0.5957
X7	-3.23823	7.31405	-0.442742	0.6697

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	18.9563	7	2.70805	2.39	0.1223
Residual	9.05011	8	1.13126		
Total (Corr.)	28.0064	15			

R-squared = 67.6856 percent
R-squared (adjusted for d.f.) = 39.4105 percent
Standard Error of Est. = 1.06361
Mean absolute error = 0.580604
Durbin-Watson statistic = 1.11654

the StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y13 and 7 independent variables. The equation of the fitted model is

Y13 = -4.14642 + 1.26644*X1 - 33.5433*X2 - 21.0115*X3 + 19.5981*X4 - 1.42295*X5 + 1.35366*X6 - 3.23823*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y13

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-4.02132	0.33932	-11.8511	0.0000
X4	22.2934	4.4331	5.02886	0.0002

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	18.0269	1	18.0269	25.29	0.0002
Residual	9.97953	14	0.712824		
Total (Corr.)	28.0064	15			

R-squared = 64.367 percent
R-squared (adjusted for d.f.) = 61.8218 percent
Standard Error of Est. = 0.844289
Mean absolute error = 0.610222
Durbin-Watson statistic = 0.946952

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y13 and 7 independent variables. The equation of the fitted model is

Y13 = -4.02132 + 22.2934*X4

Since the P-value in the ANOVA table is less than 0.01, there is a statistically significant relationship between the variables at the 99% confidence level.

14-Modelling the relationship between the economic reform programme variables and the volume of shares traded to volume of shares listed through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y14

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.339596	0.342297	0.992111	0.3502
X1	7.91252	14.6985	0.538323	0.6050
X2	30.438	33.6165	0.905449	0.3917
X3	18.4416	20.1732	0.914163	0.3874
X4	3.9424	4.40924	0.894124	0.3974
X5	-4.96853	8.54546	-0.581423	0.5770
X6	0.568002	1.44801	0.392265	0.7051
X7	2.0386	4.32246	0.471629	0.6498

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.633769	7	0.0905384	0.23	0.9663
Residual	3.16082	8	0.395103		
Total (Corr.)	3.79459	15			

R-squared = 16.7019 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.628572
Mean absolute error = 0.335828
Durbin-Watson statistic = 3.15886

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y14 and 7 independent variables. The equation of the fitted model is

Y14 = 0.339596 + 7.91252*X1 + 30.438*X2 + 18.4416*X3 + 3.9424*X4 - 4.96853*X5 + 0.568002*X6 + 2.0386*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y14

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	0.147117	0.125741	1.17	0.2603

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	3.79459	15	0.252973		
Total (Corr.)	3.79459	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.502964
Mean absolute error = 0.376753
Durbin-Watson statistic = 3.24197

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y14 and 7 independent variables. The equation of the fitted model is

Y14 = 0.147117

15-Modelling the relationship between the economic reform programme variables and the percentage of 10 biggest companies' share in market capitalization through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y15

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-0.0671057	0.0269786	-2.48737	0.0377
X1	-0.0557357	1.15848	-0.048111	0.9628
X2	-1.50891	2.64953	-0.569501	0.5846
X3	-1.12705	1.58998	-0.708848	0.4986
X4	-0.491079	0.347521	-1.41309	0.1953
X5	-0.124107	0.673523	-0.184265	0.8584
X6	-0.151123	0.114127	-1.32417	0.2220
X7	-0.253786	0.340681	-0.744936	0.4776

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0134242	7	0.00191775	0.78	0.6211
Residual	0.0196352	8	0.0024544		
Total (Corr.)	0.0330594	15			

R-squared = 40.6064 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.0495419
Mean absolute error = 0.0254707
Durbin-Watson statistic = 2.12843

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y15 and 7 independent variables. The equation of the fitted model is

Y15 = -0.0671057 - 0.0557357*X1 - 1.50891*X2 - 1.12705*X3 - 0.491079*X4 - 0.124107*X5 - 0.151123*X6 - 0.253786*X7

Since the P-value in the ANOVA table is greater or equal to 0.10, there is not a statistically significant relationship between the variables at the 90% or higher confidence level.

Multiple Regression Analysis

Dependent variable: Y15

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-0.0396077	0.0117366	-3.37472	0.0042

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	0.0	0			
Residual	0.0330594	15	0.00220396		
Total (Corr.)	0.0330594	15			

R-squared = 0.0 percent
R-squared (adjusted for d.f.) = 0.0 percent
Standard Error of Est. = 0.0469463
Mean absolute error = 0.0312382
Durbin-Watson statistic = 1.90142

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y15 and 7 independent variables. The equation of the fitted model is

Y15 = -0.0396077

16-Modelling the relationship between the economic reform programme variables and the percentage of 10 biggest companies' share in value traded through multivariate analysis (general and final model): -

Multiple Regression Analysis

Dependent variable: Y16

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-0.094459	0.029713	-3.179	0.0130
X1	-0.41869	1.0396	-0.403	0.6977
X2	-2.7984	2.4749	-1.131	0.2909
X3	-2.2449	1.5777	-1.423	0.1926
X4	-0.78721	0.35479	-2.219	0.0573
X5	-0.051560	0.59261	-0.087	0.9328
X6	-0.13005	0.10123	-1.285	0.2349
X7	-0.29251	0.29872	-0.979	0.3561

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	2.54045	7	0.362921	4.13	0.0322
Residual	0.702503	8	0.0878129		
Total (Corr.)	3.24295	15			

R-squared = 54.0178 percent
R-squared (adjusted for d.f.) = 49.3828 percent
Standard Error of Est. = 0.296332
Mean absolute error = 0.179978
Durbin-Watson statistic = 1.09724

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y16 and 7 independent variables. The equation of the fitted model is

Y16 = -0.094459 - 0.41869*X1 - 2.7984*X2 - 2.2449*X3 - 0.78721*X4 - 0.051560*X5 - 0.13005*X6 - 0.29251*X7

Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between the variables at the 95% confidence level.

Multiple Regression Analysis

Dependent variable: Y16

Parameter	Estimate	Standard Error	T Statistic	P-Value
CONSTANT	-0.074370	0.017636	-4.217	0.0009
X4	-0.50453	0.20876	-2.417	0.0299

Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Model	2.26984	1	0.756614	9.33	0.0018
Residual	0.973106	14	0.0810922		
Total (Corr.)	3.24295	15			

R-squared = 28.9932 percent
R-squared (adjusted for d.f.) = 26.4915 percent
Standard Error of Est. = 0.284767
Mean absolute error = 0.196757
Durbin-Watson statistic = 1.42215

Final model selected.

The StatAdvisor

The output shows the results of fitting a multiple linear regression model to describe the relationship between Y16 and 7 independent variables. The equation of the fitted model is

Y16 = -0.074370 - 0.50453*X4

Since the P-value in the ANOVA table is less than 0.01, there is a statistically significant relationship between the variables at the 99% confidence level.