

## Tables

**Table 1: Sample Incidence of Corporate Control Events**

<b>Year</b>	<b>Number of companies</b>	<b>Friendly takeovers</b>	<b>Failed friendly bids</b>	<b>Hostile takeovers</b>	<b>Failed hostile bids</b>	<b>Bid targets overall</b>	<b>Bankruptcies</b>
1988	579	26	0	13	5	44	2
1989	550	26	1	10	6	43	10
1990	526	21	3	7	3	34	11
1991	508	19	0	2	3	24	8
1992	495	7	0	3	3	13	6
1993	483	6	1	0	0	7	1
1994	462	6	0	2	2	10	3
1995	438	12	0	6	1	19	1
1996	59	6	0	1	0	7	0
<i>Totals</i>		<i>129</i>	<i>5</i>	<i>44</i>	<i>23</i>	<i>201</i>	<i>42</i>

Notes:

1. Observations on accounting years are allocated to the current calendar year if the accounting year ends in July-December, and to the preceding calendar year if the accounting year ends in January-June. See also the Data Appendix for a description of the 'year' variable.
2. At time of sampling, only 59 companies had company accounts reported by Datastream for 1996.

**Table 2: Takeover likelihood model: Friendly versus Hostile Targets**

Marginal effects from multinomial logit regression.

Sample period is 1989-96.

Number of observations = 4100.

$\chi^2$  (26) = 146.6; P-Value= 0.0000. Log Likelihood = -669.1

Likelihood Ratio Index = 0.1186

Variable	Friendly Targets			Hostile Targets		
	Marginal effect	Standard error	P-Value	Marginal effect	Standard error	P-Value
Log Real Capital Stock	-.0024	.0012	0.049	.00051	.00054	0.34
Return-on-Sales	-.0312	.0233	0.18	-.0099	.0122	0.41
Q	-.0020	.00081	0.01	-.0017	.00062	0.006
Sectoral Q	.0015	.0013	0.25	.00020	.00072	0.77
Leverage	.0055	.0028	0.05	-.0012	.0036	0.73
Sectoral Leverage	-.0096	.0130	0.46	.0038	.0059	0.52
Income Gearing	.00025	.00094	0.78	.000015	.000036	0.67
Sectoral Income Gearing	.00032	.00095	0.73	-.00010	.000048	0.03
Takeover Rumours	.0074	.0029	0.01	.0043	.0012	0.00
Age 1-5 Years Dummy	.0530	.0080	0.00	.0094	.0048	0.05
Age 6-9 Years Dummy	.0238	.0047	0.00	-.0075	.0057	0.19
Aggregate Takeover Activity	.00020	.000071	0.004	.000069	.000035	0.05
Real GDP Growth	.0013	.00083	0.10	.001163	.0004459	0.009

Notes:

1. Time dummies are excluded.
2. Industry dummies are insignificant and thus excluded.
3. Regressors scaled so that means lie on the unit interval. Marginal effects evaluated at means of variables.
4.  $\chi^2$  statistic is for a Wald test of the null hypothesis that the marginal effects are jointly insignificantly different from zero.
5. The Likelihood Ratio Index—which is also known as McFadden's (pseudo) R-squared—has been recommended by Cameron-Windmeijer (1997) as a measure of goodness-of-fit for the logit model.

**Table 3: Summary Statistics on Actual Sample Frequency and Predicted Probabilities**

Sample period 1989-96. 4100 observations.

<b>Probability</b>	<b>Mean</b>	<b>Std. Dev.</b>
Sample Frequency of All-target takeover bids	.0380	.1913
Recursive All-target Predicted Probabilities	.0391	.0544
Sample Frequency of Friendly-target takeover bids	.0263	.1601
Recursive Friendly-target Predicted Probabilities	.0260	.0399
Sample Frequency of Hostile-target takeover bids	.0117	.1075
Recursive Hostile-target Predicted Probabilities	.0130	.0290

**Table 4: Prediction Tables. Recursive Model. Hostile targets.**

**Table 4.1: Hostile-target predicted probabilities for 1989**

Probability-Ranked Observations	Actual Bids in Subsequent Year		
	Top	Bottom	Top/Bottom
10	3	0	
20	6	0	
30	7	0	
40	7	0	
50	7	0	
100	9	0	
200	12	0	
290	14	2	7

Total Number of observations: 579

Total number of hostile bids: 16

**Table 4.2: Hostile predicted probabilities year-by-year**

Year of bid	Number of observations in preceding year	Number of actual bids	Number of bids in top half of ranked observations	Number of bids in bottom half of ranked observations	Top/bottom
1989	579	16	14	2	7
1990	550	10	8	2	4
1991	526	5	5	0	—
1992	508	6	4	2	2
1993	495	0	0	0	—
1994	483	4	2	2	1
1995	462	7	6	1	6
1996	438	1	0	1	0

**Table 5: Production Function Model**

Dependent variable is  $y_{it}$  (log real sales).

Sample period is 1989 to 1996.

551 companies; 3413 observations.

Independent Variable	Col. (1)	Col. (2)	Col. (3)	Col. (4)	Col. (5)
$y_{it-1}$	0.5993 (0.1042) <sup>a</sup>	0.7935 (0.0536) <sup>a</sup>	0.6716 (0.0766) <sup>a</sup>	0.8656 (0.0487) <sup>a</sup>	0.6630 (0.0798) <sup>a</sup>
$l_{it}$	0.7429 (0.1044) <sup>a</sup>	0.7675 (0.0816) <sup>a</sup>	0.7236 (0.1009) <sup>a</sup>	0.7555 (0.0929) <sup>a</sup>	0.7654 (0.0919) <sup>a</sup>
$l_{it-1}$	-0.5723 (0.1147) <sup>a</sup>	-0.6066 (0.0846) <sup>a</sup>	-0.5540 (0.1192) <sup>a</sup>	-0.6409 (0.1028) <sup>a</sup>	-0.5811 (0.1056) <sup>a</sup>
$k_{it}$	0.3495 (0.1344) <sup>a</sup>	0.1793 (0.1078) <sup>c</sup>	0.3241 (0.1301) <sup>b</sup>	0.1588 (0.1210)	0.2635 (0.1191) <sup>b</sup>
$k_{it-1}$	-0.2233 (0.1252) <sup>c</sup>	-0.1397 (0.1014)	-0.2096 (0.1204) <sup>c</sup>	-0.1409 (0.1099)	-0.1792 (0.1145) <sup>c</sup>
$p_{it-1}^F$		0.9275 (0.4674) <sup>b</sup>		0.7519 (0.4779)	
$p_{it-1}^H$			0.1369 (0.2436)	-0.0858 (0.2723)	
$p_{it-1}^A$					0.4747 (0.2108) <sup>b</sup>
m1	0.00	0.00	0.00	0.00	0.00
m2	0.86	0.53	0.73	0.48	0.78
Sargan	0.81	0.17	0.54	0.09	0.58

Notes:

1. Time dummies are included in all specifications. Industry dummies (in the levels equations) are insignificant and thus excluded.
2. Predicted probabilities generated by a recursively-estimated takeover likelihood model.
3. All equations estimated with one-step GMM system estimator. Instruments for equations in first-differences are  $y_{it-2}$ ,  $l_{it-2}$ ,  $k_{it-2}$ ,  $p_{it-2}$  and further lags. Instruments for equations in levels are  $\Delta l_{it-1}$ ,  $\Delta k_{it-1}$  and  $\Delta p_{it-1}$ . Instruments  $\Delta y_{it-1}$  are rejected by Sargan test, and thus excluded.
4. In parentheses are asymptotic standard errors robust to general cross-section and time-series heteroskedasticity. The superscript 'a' indicates that the coefficient is significantly different from zero at the 0.01 level, 'b' at the 0.05 level and 'c' at the 0.10 level.
5. m1 and m2 are test statistics, distributed standard normal, for first- and second-order serial correlation in the first-differenced residuals. Sargan statistic is that for the corresponding two-step GMM estimator, distributed chi-squared. P-values are reported.

**Table 6: Production Function Model: Robustness**

Dependent variable is  $y_{it}$  (log real sales).

Sample period is 1989 to 1996.

551 companies; 3413 observations.

Independent Variable	Col. (1)	Col. (2)	Col. (3)	Col. (4)	Col. (5)
$y_{it-1}$	0.6814 (0.0744) <sup>a</sup>	0.6395 (0.0765) <sup>a</sup>	0.7134 (0.0669) <sup>a</sup>	0.6319 (0.0855) <sup>a</sup>	0.8292 (0.0594) <sup>a</sup>
$l_{it}$	0.7879 (0.0805) <sup>a</sup>	0.7685 (0.0888) <sup>a</sup>	0.7671 (0.0890) <sup>a</sup>	0.7289 (0.0959) <sup>a</sup>	0.7779 (0.0836) <sup>a</sup>
$l_{it-1}$	-0.5823 (0.0965) <sup>a</sup>	-0.5709 (0.1025) <sup>a</sup>	-0.5877 (0.1082) <sup>a</sup>	-0.5240 (0.1088) <sup>a</sup>	-0.6361 (0.1021) <sup>a</sup>
$k_{it}$	0.1521 (0.1092)	0.2624 (0.1118) <sup>b</sup>	0.2384 (0.1149) <sup>b</sup>	0.2562 (0.1187) <sup>b</sup>	0.0893 (0.0894)
$k_{it-1}$	-0.0907 (0.1161)	-0.1691 (0.1079)	-0.1538 (0.1109)	-0.1584 (0.1156)	-0.0546 (0.0911)
$p^A_{it-1}$	0.3742 (0.2119) <sup>c</sup>	0.4618 (0.2061) <sup>b</sup>	0.7212 (0.2993) <sup>b</sup>	0.4140 (0.2063) <sup>b</sup>	0.5339 (0.2775) <sup>b</sup>
$Q_{it-1}$	-0.0017 (0.0031)				0.000025 (0.0037)
$LEV_{it-1}$		0.0246 (0.0081) <sup>a</sup>			0.0302 (0.0104) <sup>a</sup>
$Rum_{it-1}$			-0.0209 (0.0133)		-0.0164 (0.0122)
$Age_{it-1}$				-0.0019 (0.0019)	-0.0004 (0.0012)
m1	0.00	0.00	0.00	0.00	0.00
m2	0.65	0.76	0.72	0.70	0.46
Sargan	0.61	0.61	0.50	0.59	0.23

Notes:

1. Time dummies are included in all specifications. Industry dummies (in the levels equations) are insignificant and thus excluded.
2. Predicted probabilities taken from a recursively-estimated takeover likelihood model.
3. All equations estimated with one-step GMM system estimator. All independent variables except for age (which is treated as exogenous) are instrumented. Instruments for equations in first-differences are as in Table 4.1, with additional regressors instrumented with twice- and further-lags. Instruments for equations in levels are the lagged first-differences of the included independent variables, except for  $\Delta y_{it-1}$  and  $\Delta LEV_{it-1}$ , both of which are rejected by the Sargan test.
4. In parentheses are asymptotic standard errors robust to general cross-section and time-series heteroskedasticity. The superscript 'a' indicates that the coefficient is significantly different from zero at the 0.01 level, 'b' at the 0.05 level and 'c' at the 0.10 level.
5. m1 and m2 are test statistics, distributed standard normal, for first- and second-order serial correlation in the first-differenced residuals. Sargan statistic is that for the corresponding two-step GMM estimator, distributed chi-squared. P-values are reported.

**Table 7: Investment Model**Dependent variable is  $I_t/K_{it-1}$  (Investment rate)

Sample period is 1990 to 1996

494 companies; 2697 observations.

Independent Variable	Col. (1)	Col. (2)	Col. (3)	Col. (4)
$I_{t-1}/K_{it-2}$	-0.0482 (0.0535)	-0.0598 (0.0492)	-0.0487 (0.0524)	-0.0383 (0.0489)
$\Delta y_{it}$	0.1938 (0.0476) <sup>a</sup>	0.2338 (0.0501) <sup>a</sup>	0.1800 (0.0412) <sup>a</sup>	0.2210 (0.0511) <sup>a</sup>
$\Delta y_{it-1}$	0.0894 (0.0226) <sup>a</sup>	0.0921 (0.0247) <sup>a</sup>	0.0945 (0.0210) <sup>a</sup>	0.0866 (0.0247) <sup>a</sup>
$(k_{it-2} - y_{it-2})$	-0.0786 (0.0205) <sup>a</sup>	-0.0835 (0.0193) <sup>a</sup>	-0.0803 (0.0205) <sup>a</sup>	-0.0701 (0.0175) <sup>a</sup>
$y_{it-2}$	0.0110 (0.0062) <sup>c</sup>	0.0293 (0.0104) <sup>a</sup>	0.0104 (0.0062) <sup>c</sup>	0.0321 (0.0106) <sup>a</sup>
$C_{t-1}/K_{it-2}$	0.0175 (0.0111)	0.0231 (0.0122) <sup>c</sup>	0.0150 (0.0105)	0.0219 (0.0122) <sup>c</sup>
$p_{it-1}^F$	-0.9586 (0.2950) <sup>a</sup>		-1.0569 (0.3313) <sup>a</sup>	
$p_{it-2}^H$		-0.2045 (0.1137) <sup>c</sup>	-0.3019 (0.1278) <sup>b</sup>	
$p_{it-1}^A$				-0.2340 (0.1239) <sup>b</sup>
$p_{it-2}^A$				-0.1275 (0.0905)
Wald on probabilities			0.003	0.14
m1	0.00	0.00	0.00	0.00
m2	0.30	0.47	0.25	0.00
Sargan	0.15	0.10	0.13	0.21

Notes:

1. Time dummies are included in all specifications. Industry dummies (in the levels equations) are insignificant and thus excluded.
2. Predicted probabilities taken from a recursively-estimated takeover likelihood model.
3. All equations estimated with one-step GMM system estimator. Instruments for equations in first differences are  $(I_{t-2}/K_{it-3})$ ,  $(k_{it-2} - y_{it-2})$ ,  $y_{it-2}$ ,  $C_{t-2}/K_{it-3}$ ,  $p_{it-2}$  and further lags. Instruments for equations in levels are  $\Delta(I_{t-1}/K_{it-2})$ ,  $\Delta y_{it-1}$  and  $\Delta p_{it-1}$ .
4. In parentheses are asymptotic standard errors robust to general cross-section and time-series heteroskedasticity. The superscript 'a' indicates that the coefficient is significantly different from zero at the 0.01 level, 'b' at the 0.05 level and 'c' at the 0.10 level.
5. Wald test applies if there are two probabilities included in the model, and is for the null hypothesis that the probabilities are jointly insignificantly different from zero. P-values are reported.
6. m1 and m2 are test statistics, distributed standard normal, for first- and second-order serial correlation in the first-differenced residuals. Sargan statistic is that for the corresponding two-step GMM estimator, distributed chi-squared. P-values are reported.

**Table 8: Investment Model: Robustness**Dependent variable is  $I_t/K_{it-1}$  (Investment rate)

Sample period is 1990 to 1996

494 companies; 2697 observations.

Independent Variable	Col. (1)	Col. (2)	Col. (3)	Col. (4)	Col. (5)
$I_{t-1}/K_{it-2}$	-0.0297 (0.0503)	-0.0745 (0.0530)	-0.0607 (0.0528)	-0.0556 (0.0559)	-0.0195 (0.0476)
$\Delta y_{it}$	0.1577 (0.0373) <sup>a</sup>	0.1891 (0.0399) <sup>a</sup>	0.1891 (0.0389) <sup>a</sup>	0.1799 (0.0412) <sup>a</sup>	0.1735 (0.0345) <sup>a</sup>
$\Delta y_{it-1}$	0.0842 (0.0207) <sup>a</sup>	0.1051 (0.0219) <sup>a</sup>	0.0950 (0.0211) <sup>a</sup>	0.0998 (0.0251) <sup>a</sup>	0.0729 (0.0199) <sup>a</sup>
$(k_{it-2} - y_{it-2})$	-0.0687 (0.0201) <sup>a</sup>	-0.0923 (0.0220) <sup>a</sup>	-0.0855 (0.0213) <sup>a</sup>	-0.0841 (0.0233) <sup>a</sup>	-0.0555 (0.0179) <sup>a</sup>
$y_{it-2}$	0.0092 (0.0064)	0.0116 (0.0065) <sup>c</sup>	0.0088 (0.0062)	0.0096 (0.0063)	0.0087 (0.0039) <sup>b</sup>
$C_{t-1}/K_{it-2}$	0.0026 (0.0075)	0.0032 (0.0090)	0.0148 (0.0106)	0.0146 (0.0105)	0.0030 (0.0091)
$p_{it-1}^F$	-0.8126 (0.2799) <sup>a</sup>	-1.0974 (0.3481) <sup>a</sup>	-1.1867 (0.4141) <sup>a</sup>	-1.0252 (0.3119) <sup>a</sup>	-0.7602 (0.3398) <sup>b</sup>
$p_{it-2}^H$	-0.3034 (0.1237) <sup>b</sup>	-0.3018 (0.1259) <sup>b</sup>	-0.2591 (0.1286) <sup>b</sup>	-0.3011 (0.1276) <sup>b</sup>	-0.2818 (0.1170) <sup>b</sup>
$Q_{it-1}$	0.0052 (0.0021) <sup>b</sup>				0.0031 (0.0022)
$Q_{it-2}$	-0.0013 (0.0010)				-0.0009 (0.0015)
$LEV_{it-1}$		0.0031 (0.0047)			-0.0042 (0.0067)
$LEV_{it-2}$		-0.0054 (0.0045)			-0.0032 (0.0056)
$Rum_{it-1}$			0.0095 (0.0063)		0.0091 (0.0053) <sup>c</sup>
$Rum_{it-2}$			0.0009 (0.0039)		0.0038 (0.0038)
$Age_{it-1}$				0.0004 (0.0006)	-0.0003 (0.0004)
Wald on $p_{it-1}^F$ and $p_{it-2}^H$	0.005	0.004	0.01	0.003	0.01
m1	0.00	0.00	0.00	0.00	0.00
m2	0.30	0.20	0.25	0.23	0.23
Sargan	0.17	0.12	0.08	0.13	0.02

Notes:

1. Time dummies are included in all specifications. Industry dummies (in the levels equations) are insignificant and thus excluded.
2. Predicted probabilities taken from a recursively-estimated takeover likelihood model.
3. All equations estimated with one-step GMM system estimator. All independent variables except for age (which is treated as exogenous) are instrumented. Instruments for equations



in first-differences are as in Table 4.3, with additional regressors instrumented with twice- and further-lags. Instruments for equations in levels are as in Table 4.3; the Sargan test rejects  $\Delta Q_{it-1}$ ,  $\Delta LEV_{it-1}$  and  $\Delta Rum_{it-1}$ .

4. In parentheses are asymptotic standard errors robust to general cross-section and time-series heteroskedasticity. The superscript 'a' indicates that the coefficient is significantly different from zero at the 0.01 level, 'b' at the 0.05 level and 'c' at the 0.10 level.
5. Wald test is for the null hypothesis  $p^F_{it-1}$  and  $p^H_{it-2}$  are jointly insignificantly different from zero. P-values are reported.
6. m1 and m2 are test statistics, distributed standard normal, for first- and second-order serial correlation in the first-differenced residuals. Sargan statistic is that for the corresponding two-step GMM estimator, distributed chi-squared. P-values are reported.

**Table 9: Dividend Model**Dependent variable is  $(D/Y)_{it}$  (Dividend-to-sales ratio)

Sample period is 1990 to 1996

510 companies; 2821 observations.

Independent Variable	Col. (1)	Col. (2)	Col. (3)	Col. (4)	Col. (5)
$(D/Y)_{it-1}$	0.3063 (0.1753) <sup>c</sup>	0.2990 (0.1778) <sup>c</sup>	0.3236 (0.1723) <sup>c</sup>	0.2962 (0.1645) <sup>c</sup>	0.3076 (0.1507) <sup>b</sup>
$(\pi/Y)_{it}$	0.0685 (0.0259) <sup>a</sup>	0.0651 (0.0264) <sup>a</sup>	0.0833 (0.0253) <sup>a</sup>	0.0581 (0.0300) <sup>b</sup>	0.0714 (0.0315) <sup>b</sup>
Age <sub>it</sub>	0.00064 (0.00026) <sup>b</sup>	0.00068 (0.00028) <sup>b</sup>	0.00046 (0.00021) <sup>b</sup>	0.00056 (0.00024) <sup>b</sup>	0.00041 (0.00017) <sup>b</sup>
$p^A_{it}$	0.2168 (0.1484)	0.1110 (0.1164)			
$p^A_{it-1}$	-0.0289 (0.0236)				
$p^H_{it}$			0.5252 (0.2128) <sup>a</sup>		0.3270 (0.1874) <sup>c</sup>
$p^F_{it-1}$				-0.0720 (0.0462)	-0.0519 (0.0396)
Wald on probabilities	0.31				0.07
m1	0.04	0.04	0.01	0.04	0.02
m2	0.17	0.13	0.12	0.20	0.12
Sargan	0.52	0.51	0.58	0.39	0.39

Notes:

1. Time dummies are included in all specifications. Industry dummies (in the levels equations) are insignificant and thus excluded.
2. Predicted probabilities taken from a recursively-estimated takeover likelihood model.
3. All equations estimated with one-step GMM system estimator. Instruments for equations in first differences are  $(D/Y)_{it-2}$ ,  $(\pi/Y)_{it-2}$ ,  $p_{it-2}$  and further lags; age is treated as exogenous. Instruments for equations in levels are  $\Delta(\pi/Y)_{it-1}$  and  $\Delta p_{it-1}$ . Sargan test rejects  $\Delta(D/Y)_{it-1}$ .
4. In parentheses are asymptotic standard errors robust to general cross-section and time-series heteroskedasticity. The superscript 'a' indicates that the coefficient is significantly different from zero at the 0.01 level, 'b' at the 0.05 level and 'c' at the 0.10 level.
7. Wald test applies if there are two probabilities included in the model, and is for the null hypothesis that the probabilities are jointly insignificantly different from zero. P-values are reported.
5. m1 and m2 are test statistics, distributed standard normal, for first- and second-order serial correlation in the first-differenced residuals. Sargan statistic is that for the corresponding two-step GMM estimator, distributed chi-squared. P-values are reported.

**Table 10: Dividend Model: Robustness**

Dependent variable is  $(D/Y)_{it}$  (Dividend-to-sales ratio)

Sample period is 1990 to 1996

510 companies; 2821 observations.

Independent Variable	Col. (1)	Col. (2)	Col. (3)	Col. (4)
$(D/Y)_{it-1}$	0.2651 (0.1468) <sup>c</sup>	0.3271 (0.1601) <sup>b</sup>	0.3943 (0.1651) <sup>b</sup>	0.3284 (0.1307) <sup>a</sup>
$(\pi/Y)_{it}$	0.0821 (0.0244) <sup>a</sup>	0.0758 (0.0230) <sup>a</sup>	0.0712 (0.0182) <sup>a</sup>	0.0656 (0.0164) <sup>a</sup>
Age <sub>it</sub>	0.00051 (0.00021) <sup>b</sup>	0.00046 (0.00020) <sup>b</sup>	0.00022 (0.00011) <sup>b</sup>	0.00024 (0.00011) <sup>b</sup>
$p^H_{it}$	0.6163 (0.2056) <sup>a</sup>	0.4842 (0.1988) <sup>a</sup>	0.3608 (0.1373) <sup>a</sup>	0.4304 (0.1424) <sup>a</sup>
Q <sub>it</sub>	0.00026 (0.00034)			0.00023 (0.00028)
LEV <sub>it</sub>		-0.00051 (0.00096)		-0.0010 (0.0010)
Rum <sub>it</sub>			-0.00096 (0.00051) <sup>c</sup>	-0.0011 (0.00054) <sup>b</sup>
m1	0.01	0.02	0.02	0.02
m2	0.13	0.12	0.47	0.65
Sargan	0.31	0.44	0.58	0.21

Notes:

1. Time dummies are included in all specifications. Industry dummies (in the levels equations) are insignificant and thus excluded.
2. Predicted probabilities taken from a recursively-estimated takeover likelihood model.
3. All equations estimated with one-step GMM system estimator. All independent variables except for age (which is treated as exogenous) are instrumented. Instruments for equations in first-differences are as in Table 4.5, with additional regressors instrumented with twice- and further-lags. Instruments for equations in levels are as in Table 4.5, with the addition of  $\Delta Rum_{it-1}$  in Columns 3 and 4. Sargan test rejects  $\Delta(D/Y)_{it-1}$ ,  $\Delta Q_{it-1}$  and  $\Delta LEV_{it-1}$ .
4. In parentheses are asymptotic standard errors robust to general cross-section and time-series heteroskedasticity. The superscript 'a' indicates that the coefficient is significantly different from zero at the 0.01 level, 'b' at the 0.05 level and 'c' at the 0.10 level.
5. m1 and m2 are test statistics, distributed standard normal, for first- and second-order serial correlation in the first-differenced residuals. Sargan statistic is that for the corresponding two-step GMM estimator, distributed chi-squared. P-values are reported.