



RESEARCH DATA

| obs | GMF | R | GDP | ER | MFI |
|--------|----------|----------|----------|----------|----------|
| 1996:2 | 321533.2 | 14.74000 | 100634.7 | 2342.000 | 1411.000 |
| 1996:3 | 801496.8 | 14.02000 | 106561.9 | 2340.000 | 1634.000 |
| 1996:4 | 2782322. | 13.99000 | 108726.3 | 2383.000 | 2441.000 |
| 1997:1 | 5016010. | 11.07000 | 105261.1 | 2419.000 | 5624.000 |
| 1997:2 | 7260594. | 10.05000 | 105867.1 | 2450.000 | 9627.000 |
| 1997:3 | 6598817. | 22.00000 | 112212.7 | 3275.000 | 20603.00 |
| 1997:4 | 4916605. | 20.00000 | 109905.0 | 4650.000 | 20234.00 |
| 1998:1 | 4035786. | 27.75000 | 100535.7 | 8325.000 | 20618.00 |
| 1998:2 | 3162424. | 58.00000 | 91741.90 | 14900.00 | 19938.00 |
| 1998:3 | 2782570. | 68.76000 | 94258.10 | 10700.00 | 14860.00 |
| 1998:4 | 2992171. | 38.44000 | 89839.10 | 8025.000 | 15482.00 |
| 1999:1 | 3057535. | 37.84000 | 94371.10 | 8685.000 | 15708.00 |
| 1999:2 | 3447027. | 22.05000 | 93387.90 | 6726.000 | 16503.00 |
| 1999:3 | 3608375. | 13.02000 | 96939.90 | 8386.000 | 19020.00 |
| 1999:4 | 4974105. | 12.51000 | 94653.60 | 7100.000 | 24127.00 |
| 2000:1 | 5173736. | 11.03000 | 98244.50 | 7590.000 | 29298.00 |
| 2000:2 | 5442116. | 11.74000 | 98191.90 | 8735.000 | 32735.00 |
| 2000:3 | 5422461. | 13.62000 | 100862.9 | 8780.000 | 35841.00 |
| 2000:4 | 5515954. | 14.53000 | 100717.5 | 9595.000 | 39487.00 |
| 2001:1 | 5975984. | 15.58000 | 102189.9 | 10400.00 | 42518.00 |
| 2001:2 | 5922501. | 16.65000 | 102318.0 | 11400.00 | 44179.00 |
| 2001:3 | 6208595. | 17.57000 | 104746.0 | 9675.000 | 47335.00 |
| 2001:4 | 8003770. | 17.62000 | 102437.0 | 10400.00 | 51723.00 |
| 2002:1 | 13889589 | 16.76000 | 104917.3 | 9655.000 | 63083.00 |
| 2002:2 | 1791108 | 15.11000 | 106277.7 | 8730.000 | 69749.00 |
| 2002:3 | 35691198 | 13.22000 | 109199.6 | 9015.000 | 94619.00 |
| 2002:4 | 46613833 | 12.93000 | 106345.9 | 8940.000 | 125820.0 |
| 2003:1 | 58376756 | 11.40000 | 108461.4 | 8908.000 | 154936.0 |
| 2003:2 | 68350805 | 9.530000 | 110259.4 | 8282.000 | 178053.0 |
| 2003:3 | 85831864 | 8.660000 | 113492.1 | 8389.000 | 179356.0 |

REGRESSION RESULT

Dependent Variable: LOG(GMF)
 Method: Least Squares
 Date: 06/16/04 Time: 17:41
 Sample: 1996:2 2003:3
 Included observations: 30

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | -8.768261 | 37.80641 | -0.231925 | 0.8185 |
| LOG(R) | 0.177509 | 0.303128 | 0.585588 | 0.5634 |
| LOG(GDP) | 1.829876 | 3.108712 | 0.588628 | 0.5614 |
| LOG(ER) | -1.159914 | 0.577212 | -2.009513 | 0.0554 |
| LOG(MFI) | 1.297420 | 0.244946 | 5.296751 | 0.0000 |
| R-squared | 0.843989 | Mean dependent var | | 15.77678 |
| Adjusted R-squared | 0.819027 | S.D. dependent var | | 1.352955 |
| S.E. of regression | 0.575559 | Akaike info criterion | | 1.884061 |
| Sum squared resid | 8.281701 | Schwarz criterion | | 2.117594 |
| Log likelihood | -23.26092 | F-statistic | | 33.81133 |
| Durbin-Watson stat | 1.502499 | Prob(F-statistic) | | 0.000000 |

Dependent Variable: GMF
 Method: Least Squares
 Date: 06/17/04 Time: 10:20
 Sample: 1996:2 2003:3
 Included observations: 30

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | -81357972 | 1.58E+08 | -0.515043 | 0.6110 |
| R | 98375.11 | 537168.4 | 0.183136 | 0.8562 |
| GDP | 782.8739 | 1452.953 | 0.538816 | 0.5948 |
| ER | -135.6766 | 2788.539 | -0.048655 | 0.9616 |
| MFI | 428.9222 | 181.9537 | 2.357315 | 0.0265 |
| R-squared | 0.415812 | Mean dependent var | | 19705884 |
| Adjusted R-squared | 0.322342 | S.D. dependent var | | 37149943 |
| S.E. of regression | 30581828 | Akaike info criterion | | 37.46072 |
| Sum squared resid | 2.34E+16 | Schwarz criterion | | 37.69425 |
| Log likelihood | -556.9108 | F-statistic | | 4.448611 |
| Durbin-Watson stat | 2.176743 | Prob(F-statistic) | | 0.007484 |

MWD TEST

Dependent Variable: GMF
 Method: Least Squares
 Date: 06/19/04 Time: 07:46
 Sample: 1996:2 2003:3
 Included observations: 30

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | -1.07E+08 | 91168057 | -1.174784 | 0.2516 |
| R | -156801.3 | 311830.4 | -0.502841 | 0.6197 |
| GDP | 1057.886 | 838.7950 | 1.261197 | 0.2194 |
| ER | 826.7459 | 1613.760 | 0.512310 | 0.6131 |
| MFI | 325.2162 | 105.9289 | 3.070138 | 0.0053 |
| Z1 | 44426767 | 6210645. | 7.153326 | 0.0000 |
| R-squared | 0.813483 | Mean dependent var | | 19705884 |
| Adjusted R-squared | 0.774625 | S.D. dependent var | | 37149943 |
| S.E. of regression | 17636442 | Akaike info criterion | | 36.38569 |
| Sum squared resid | 7.47E+15 | Schwarz criterion | | 36.66593 |
| Log likelihood | -539.7853 | F-statistic | | 20.93489 |
| Durbin-Watson stat | 1.815280 | Prob(F-statistic) | | 0.000000 |

Dependent Variable: LOG(GMF)
 Method: Least Squares
 Date: 06/19/04 Time: 07:46
 Sample: 1996:2 2003:3
 Included observations: 30

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 3.146065 | 21.74000 | 0.144713 | 0.8861 |
| LOG(R) | 0.164725 | 0.173815 | 0.947704 | 0.3527 |
| LOG(GDP) | 0.863850 | 1.787474 | 0.483280 | 0.6333 |
| LOG(ER) | -1.216253 | 0.331050 | -3.673929 | 0.0012 |
| LOG(MFI) | 1.266497 | 0.140511 | 9.013504 | 0.0000 |
| Z2 | -1.54E-08 | 2.14E-09 | -7.214158 | 0.0000 |
| R-squared | 0.950762 | Mean dependent var | | 15.77678 |
| Adjusted R-squared | 0.940504 | S.D. dependent var | | 1.352955 |
| S.E. of regression | 0.330010 | Akaike info criterion | | 0.797469 |
| Sum squared resid | 2.613758 | Schwarz criterion | | 1.077708 |
| Log likelihood | -5.962030 | F-statistic | | 92.68568 |
| Durbin-Watson stat | 1.021124 | Prob(F-statistic) | | 0.000000 |

MULTICOLLINEARITY

CORRELATION MATRIX

| | LOG(R) | LOG(GDP) | LOG(ER) | LOG(MFI) |
|----------|-----------|-----------|-----------|-----------|
| LOG(R) | 1.00000 | -0.606931 | 0.303835 | -0.212877 |
| LOG(GDP) | -0.606931 | 1.00000 | -0.349523 | 0.253021 |
| LOG(ER) | 0.303835 | -0.349523 | 1.00000 | 0.738151 |
| LOG(MFI) | -0.212877 | 0.253021 | 0.738151 | 1.00000 |



AUTOCORRELATION

LAGRANGE MULTIPLIER TEST

Breusch-Godfrey Serial Correlation LM Test:

| | | | |
|---------------|----------|-------------|----------|
| F-statistic | 0.897543 | Probability | 0.421372 |
| Obs*R-squared | 2.171906 | Probability | 0.337580 |

Test Equation:
 Dependent Variable: RESID
 Method: Least Squares
 Date: 06/17/04 Time: 14:02

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|-----------|-------------|------------|-------------|--------|
| C | -0.625175 | 44.43709 | -0.014069 | 0.9889 |
| LOG(R) | -0.018557 | 0.310721 | -0.059724 | 0.9529 |
| LOG(GDP) | 0.047040 | 3.616122 | 0.013008 | 0.9897 |
| LOG(ER) | 0.027805 | 0.752035 | 0.036972 | 0.9708 |
| LOG(MFI) | -0.010799 | 0.316127 | -0.034161 | 0.9730 |
| RESID(-1) | 0.266582 | 0.214651 | 1.241927 | 0.2268 |
| RESID(-2) | -0.136531 | 0.258957 | -0.527234 | 0.6031 |

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.072397 | Mean dependent var | 1.40E-15 |
| Adjusted R-squared | -0.169587 | S.D. dependent var | 0.534393 |
| S.E. of regression | 0.577932 | Akaike info criterion | 1.942243 |
| Sum squared resid | 7.682132 | Schwarz criterion | 2.269189 |
| Log likelihood | -22.13365 | F-statistic | 0.299181 |
| Durbin-Watson stat | 2.027246 | Prob(F-statistic) | 0.930929 |

HETEROCEDASTICITY

PARK TEST

Dependent Variable: LRES12
Method: Least Squares
Date: 06/17/04 Time: 07:44
Sample: 1996:2 2003:3
Included observations: 30

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | -49.31605 | 58.85406 | -0.837938 | 0.4100 |
| LOG(R) | 0.236135 | 0.471887 | 0.500406 | 0.6212 |
| LOG(GDP) | 4.187978 | 4.839399 | 0.865392 | 0.3951 |
| LOG(ER) | 0.081109 | 0.898558 | 0.090265 | 0.9288 |
| LOG(MFI) | -0.009988 | 0.381313 | -0.026195 | 0.9793 |
| R-squared | 0.054710 | Mean dependent var | | 0.276057 |
| Adjusted R-squared | -0.096536 | S.D. dependent var | | 0.855636 |
| S.E. of regression | 0.895985 | Akaike info criterion | | 2.769226 |
| Sum squared resid | 20.06973 | Schwarz criterion | | 3.002759 |
| Log likelihood | -36.53838 | F-statistic | | 0.361729 |
| Durbin-Watson stat | 2.266813 | Prob(F-statistic) | | 0.833437 |