



APPENDICES

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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APPENDIX A

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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Thai Gold Spot Price from August 2009 – December 2010

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
31-Dec-10	20,000.00	20,100.00	1,408.10	30.100	20,047.00	-0.4380%
30-Dec-10	20,050.00	20,150.00	1,411.90	30.150	20,135.00	0.4580%
29-Dec-10	19,950.00	20,050.00	1,405.00	30.160	20,043.00	1.0634%
28-Dec-10	19,800.00	19,900.00	1,388.80	30.190	19,831.00	0.5157%
27-Dec-10	19,700.00	19,800.00	1,381.60	30.190	19,729.00	-0.2025%
25-Dec-10	19,700.00	19,800.00	1,384.40	30.190	19,769.00	0.2380%
24-Dec-10	19,700.00	19,800.00	1,381.60	30.180	19,722.00	0.0507%
23-Dec-10	19,700.00	19,800.00	1,381.80	30.160	19,712.00	-0.5363%
22-Dec-10	19,750.00	19,850.00	1,388.80	30.170	19,818.00	0.1464%
21-Dec-10	19,750.00	19,850.00	1,386.30	30.180	19,789.00	0.0505%
20-Dec-10	19,750.00	19,850.00	1,384.70	30.200	19,779.00	0.8479%
18-Dec-10	19,600.00	19,700.00	1,375.50	30.145	19,612.00	0.0663%
17-Dec-10	19,600.00	19,700.00	1,375.00	30.135	19,599.00	-0.6915%
16-Dec-10	19,700.00	19,800.00	1,385.70	30.110	19,735.00	-0.0861%
15-Dec-10	19,750.00	19,850.00	1,389.20	30.060	19,752.00	-1.1026%
14-Dec-10	19,900.00	20,000.00	1,406.00	30.030	19,971.00	0.8599%
13-Dec-10	19,750.00	19,850.00	1,392.60	30.060	19,800.00	0.4049%
11-Dec-10	19,700.00	19,800.00	1,385.80	30.085	19,720.00	-0.2482%
10-Dec-10	19,750.00	19,850.00	1,389.00	30.090	19,769.00	0.3903%
09-Dec-10	19,700.00	19,800.00	1,385.00	30.060	19,692.00	-1.1512%
08-Dec-10	19,850.00	19,950.00	1,395.00	30.190	19,920.00	-1.2968%
07-Dec-10	20,050.00	20,150.00	1,421.70	30.010	20,180.00	0.6862%
06-Dec-10	19,900.00	20,000.00	1,411.70	30.015	20,042.00	-0.2939%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
04-Dec-10	19,850.00	19,950.00	1,414.50	30.045	20,101.00	1.6503%
03-Dec-10	19,650.00	19,750.00	1,391.10	30.050	19,772.00	0.0708%
02-Dec-10	19,650.00	19,750.00	1,391.00	30.030	19,758.00	-0.0354%
01-Dec-10	19,650.00	19,750.00	1,389.00	30.085	19,765.00	0.8996%
30-Nov-10	19,500.00	19,600.00	1,371.10	30.205	19,588.00	0.1482%
29-Nov-10	19,450.00	19,550.00	1,366.10	30.270	19,559.00	0.1074%
27-Nov-10	19,400.00	19,500.00	1,364.20	30.280	19,538.00	0.2562%
26-Nov-10	19,400.00	19,500.00	1,366.10	30.160	19,488.00	0.0103%
25-Nov-10	19,450.00	19,550.00	1,370.50	30.060	19,486.00	-0.7159%
24-Nov-10	19,500.00	19,600.00	1,379.90	30.070	19,626.00	1.0397%
23-Nov-10	19,300.00	19,400.00	1,363.60	30.115	19,423.00	0.9674%
22-Nov-10	19,200.00	19,300.00	1,358.80	29.930	19,236.00	0.2446%
20-Nov-10	19,150.00	19,250.00	1,354.10	29.960	19,189.00	-0.2030%
19-Nov-10	19,200.00	19,300.00	1,357.80	29.940	19,228.00	0.0156%
18-Nov-10	19,200.00	19,300.00	1,358.00	29.930	19,225.00	1.1615%
17-Nov-10	19,000.00	19,100.00	1,338.80	30.010	19,003.00	-1.3174%
16-Nov-10	19,250.00	19,350.00	1,362.00	29.890	19,255.00	-0.5490%
15-Nov-10	19,350.00	19,450.00	1,366.70	29.950	19,361.00	0.0310%
13-Nov-10	19,300.00	19,400.00	1,368.80	29.895	19,355.00	-1.0382%
12-Nov-10	19,500.00	19,600.00	1,386.60	29.820	19,557.00	-1.0023%
11-Nov-10	19,600.00	19,700.00	1,411.40	29.590	19,754.00	0.3550%
10-Nov-10	19,550.00	19,650.00	1,406.90	29.580	19,684.00	-0.2081%
09-Nov-10	19,600.00	19,700.00	1,412.00	29.535	19,725.00	1.1113%
08-Nov-10	19,350.00	19,450.00	1,390.00	29.670	19,507.00	-0.2406%
06-Nov-10	19,400.00	19,500.00	1,394.10	29.655	19,554.00	0.5641%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
05-Nov-10	19,300.00	19,400.00	1,386.50	29.650	19,444.00	1.8007%
04-Nov-10	19,050.00	19,150.00	1,359.00	29.710	19,097.00	0.4040%
03-Nov-10	19,000.00	19,100.00	1,352.10	29.740	19,020.00	-0.7021%
02-Nov-10	19,100.00	19,200.00	1,355.70	29.870	19,154.00	-0.4636%
01-Nov-10	19,150.00	19,250.00	1,362.00	29.870	19,243.00	-0.0883%
30-Oct-10	19,100.00	19,200.00	1,359.80	29.945	19,260.00	1.3591%
29-Oct-10	18,950.00	19,050.00	1,340.80	29.960	19,000.00	1.0848%
28-Oct-10	18,800.00	18,900.00	1,326.30	29.960	18,795.00	-0.4088%
27-Oct-10	18,850.00	18,950.00	1,330.90	29.980	18,872.00	0.0212%
26-Oct-10	18,850.00	18,950.00	1,335.50	29.870	18,868.00	-0.5550%
25-Oct-10	18,950.00	19,050.00	1,342.90	29.870	18,973.00	1.2250%
23-Oct-10	18,750.00	18,850.00	1,327.70	29.845	18,742.00	0.6907%
22-Oct-10	18,650.00	18,750.00	1,317.00	29.880	18,613.00	-2.0158%
21-Oct-10	18,950.00	19,050.00	1,344.70	29.860	18,992.00	-0.0684%
20-Oct-10	19,000.00	19,100.00	1,340.70	29.970	19,005.00	-1.8765%
19-Oct-10	19,250.00	19,350.00	1,368.80	29.910	19,365.00	0.8297%
18-Oct-10	19,150.00	19,250.00	1,357.50	29.910	19,205.00	-0.7315%
16-Oct-10	19,250.00	19,350.00	1,368.90	29.880	19,346.00	-0.6081%
15-Oct-10	19,350.00	19,450.00	1,378.60	29.850	19,464.00	-0.1540%
14-Oct-10	19,350.00	19,450.00	1,382.10	29.820	19,494.00	1.5926%
13-Oct-10	19,100.00	19,200.00	1,358.20	29.865	19,186.00	0.6589%
12-Oct-10	18,950.00	19,050.00	1,344.10	29.980	19,060.00	-0.9036%
11-Oct-10	19,100.00	19,200.00	1,353.20	30.050	19,233.00	0.8406%
09-Oct-10	18,950.00	19,050.00	1,347.00	29.935	19,072.00	0.9377%
08-Oct-10	18,800.00	18,900.00	1,328.90	30.060	18,894.00	-1.5441%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
07-Oct-10	19,050.00	19,150.00	1,357.70	29.880	19,188.00	0.6378%
06-Oct-10	18,950.00	19,050.00	1,341.40	30.050	19,066.00	0.6683%
05-Oct-10	18,800.00	18,900.00	1,325.40	30.210	18,939.00	0.8431%
04-Oct-10	18,700.00	18,800.00	1,315.60	30.180	18,780.00	-0.5099%
02-Oct-10	18,700.00	18,800.00	1,318.60	30.265	18,876.00	0.6538%
01-Oct-10	18,700.00	18,800.00	1,309.80	30.270	18,753.00	-0.6220%
30-Sep-10	18,800.00	18,900.00	1,314.10	30.360	18,870.00	0.1910%
29-Sep-10	18,750.00	18,850.00	1,306.80	30.470	18,834.00	1.4386%
28-Sep-10	18,600.00	18,700.00	1,284.40	30.560	18,565.00	-1.1142%
27-Sep-10	18,700.00	18,800.00	1,295.80	30.630	18,773.00	-0.3032%
25-Sep-10	18,700.00	18,800.00	1,297.00	30.695	18,830.00	-0.1221%
24-Sep-10	18,750.00	18,850.00	1,295.40	30.770	18,853.00	0.5212%
23-Sep-10	18,650.00	18,750.00	1,292.90	30.670	18,755.00	-0.0267%
22-Sep-10	18,650.00	18,750.00	1,293.20	30.670	18,760.00	0.6954%
21-Sep-10	18,550.00	18,650.00	1,280.90	30.750	18,630.00	0.1020%
20-Sep-10	18,550.00	18,650.00	1,280.10	30.738	18,611.00	0.2690%
18-Sep-10	18,500.00	18,600.00	1,274.70	30.785	18,561.00	-0.3925%
17-Sep-10	18,550.00	18,650.00	1,280.80	30.760	18,634.00	0.5219%
16-Sep-10	18,450.00	18,550.00	1,266.70	30.940	18,537.00	-0.0108%
15-Sep-10	18,450.00	18,550.00	1,270.10	30.860	18,539.00	1.5712%
14-Sep-10	18,200.00	18,300.00	1,254.80	30.750	18,250.00	0.7590%
13-Sep-10	18,100.00	18,200.00	1,245.30	30.750	18,112.00	-0.2592%
11-Sep-10	18,150.00	18,250.00	1,246.70	30.795	18,159.00	-0.0661%
10-Sep-10	18,150.00	18,250.00	1,245.10	30.855	18,171.00	-0.8658%
09-Sep-10	18,300.00	18,400.00	1,254.90	30.880	18,329.00	-0.9827%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
08-Sep-10	18,400.00	18,500.00	1,256.30	31.150	18,510.00	0.4006%
07-Sep-10	18,350.00	18,450.00	1,249.30	31.200	18,436.00	0.3913%
06-Sep-10	18,300.00	18,400.00	1,247.60	31.120	18,364.00	-0.2556%
04-Sep-10	18,350.00	18,450.00	1,246.60	31.225	18,411.00	0.0380%
03-Sep-10	18,350.00	18,450.00	1,249.50	31.140	18,404.00	0.1196%
02-Sep-10	18,350.00	18,450.00	1,246.00	31.190	18,382.00	-0.0218%
01-Sep-10	18,350.00	18,450.00	1,245.50	31.210	18,386.00	0.3869%
31-Aug-10	18,250.00	18,350.00	1,237.10	31.300	18,315.00	0.2186%
30-Aug-10	18,250.00	18,350.00	1,234.80	31.290	18,275.00	-0.1039%
28-Aug-10	18,250.00	18,350.00	1,238.10	31.240	18,294.00	-0.1366%
27-Aug-10	18,250.00	18,350.00	1,236.20	31.330	18,319.00	-0.6095%
26-Aug-10	18,350.00	18,450.00	1,239.00	31.450	18,431.00	-0.1085%
25-Aug-10	18,350.00	18,450.00	1,238.60	31.495	18,451.00	1.3587%
24-Aug-10	18,150.00	18,250.00	1,221.30	31.510	18,202.00	-0.5096%
23-Aug-10	18,250.00	18,350.00	1,228.70	31.480	18,295.00	0.1367%
21-Aug-10	18,300.00	18,400.00	1,228.00	31.455	18,270.00	-0.4968%
20-Aug-10	18,300.00	18,400.00	1,231.20	31.530	18,361.00	0.0926%
19-Aug-10	18,300.00	18,400.00	1,228.50	31.570	18,344.00	0.3933%
18-Aug-10	18,250.00	18,350.00	1,221.70	31.620	18,272.00	-0.6220%
17-Aug-10	18,300.00	18,400.00	1,223.90	31.760	18,386.00	0.0054%
16-Aug-10	18,300.00	18,400.00	1,218.50	31.900	18,385.00	0.5345%
14-Aug-10	18,250.00	18,350.00	1,215.40	31.810	18,287.00	-0.2185%
13-Aug-10	18,250.00	18,350.00	1,213.90	31.920	18,327.00	0.7998%
12-Aug-10	18,150.00	18,250.00	1,203.30	31.945	18,181.00	0.2864%
11-Aug-10	18,100.00	18,200.00	1,200.50	31.928	18,129.00	0.0221%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
10-Aug-10	18,100.00	18,200.00	1,198.10	31.985	18,125.00	-0.7859%
09-Aug-10	18,200.00	18,300.00	1,208.50	31.960	18,268.00	-0.0985%
07-Aug-10	18,150.00	18,250.00	1,205.70	32.065	18,286.00	0.9230%
06-Aug-10	18,100.00	18,200.00	1,194.80	32.060	18,118.00	-0.2481%
05-Aug-10	18,150.00	18,250.00	1,196.50	32.095	18,163.00	-0.1650%
04-Aug-10	18,150.00	18,250.00	1,196.00	32.160	18,193.00	0.9999%
03-Aug-10	18,000.00	18,100.00	1,183.00	32.190	18,012.00	0.2056%
02-Aug-10	17,950.00	18,050.00	1,179.50	32.220	17,975.00	0.0556%
31-Jul-10	17,950.00	18,050.00	1,181.40	32.150	17,965.00	0.8385%
30-Jul-10	17,850.00	17,950.00	1,166.80	32.280	17,815.00	0.0505%
29-Jul-10	17,850.00	17,950.00	1,166.80	32.265	17,806.00	0.4052%
28-Jul-10	17,750.00	17,850.00	1,163.30	32.230	17,734.00	-1.8050%
27-Jul-10	18,050.00	18,150.00	1,184.90	32.220	18,057.00	-0.5578%
26-Jul-10	18,200.00	18,300.00	1,191.10	32.230	18,158.00	0.0882%
24-Jul-10	18,150.00	18,250.00	1,189.70	32.240	18,142.00	-0.7468%
23-Jul-10	18,250.00	18,350.00	1,197.50	32.270	18,278.00	0.8461%
22-Jul-10	18,150.00	18,250.00	1,185.80	32.315	18,124.00	-0.1323%
21-Jul-10	18,150.00	18,250.00	1,188.60	32.280	18,148.00	0.8189%
20-Jul-10	18,050.00	18,150.00	1,178.60	32.290	18,000.00	-0.8739%
19-Jul-10	18,200.00	18,300.00	1,189.50	32.275	18,158.00	-0.4670%
17-Jul-10	18,250.00	18,350.00	1,193.00	32.330	18,243.00	-0.8080%
16-Jul-10	18,400.00	18,500.00	1,206.40	32.230	18,391.00	-0.4341%
15-Jul-10	18,450.00	18,550.00	1,211.30	32.240	18,471.00	-0.2433%
14-Jul-10	18,500.00	18,600.00	1,211.20	32.320	18,516.00	0.3029%
13-Jul-10	18,450.00	18,550.00	1,205.70	32.370	18,460.00	0.1138%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
12-Jul-10	18,400.00	18,500.00	1,204.30	32.370	18,439.00	-0.5570%
10-Jul-10	18,500.00	18,600.00	1,211.40	32.360	18,542.00	1.0300%
09-Jul-10	18,350.00	18,450.00	1,197.90	32.390	18,352.00	-0.4729%
08-Jul-10	18,450.00	18,550.00	1,202.10	32.430	18,439.00	0.8770%
07-Jul-10	18,300.00	18,400.00	1,189.80	32.480	18,278.00	-1.6926%
06-Jul-10	18,550.00	18,650.00	1,211.60	32.440	18,590.00	0.1777%
05-Jul-10	18,550.00	18,650.00	1,209.40	32.440	18,557.00	-0.3389%
03-Jul-10	18,600.00	18,700.00	1,211.30	32.500	18,620.00	0.2850%
02-Jul-10	18,600.00	18,700.00	1,210.80	32.420	18,567.00	-2.3737%
01-Jul-10	18,950.00	19,050.00	1,239.90	32.420	19,013.00	-0.2049%
30-Jun-10	19,000.00	19,100.00	1,241.70	32.440	19,052.00	0.6847%
29-Jun-10	18,900.00	19,000.00	1,234.70	32.400	18,922.00	-1.7238%
28-Jun-10	19,100.00	19,200.00	1,257.00	32.380	19,251.00	-0.0675%
26-Jun-10	19,100.00	19,200.00	1,255.70	32.435	19,264.00	0.7294%
25-Jun-10	19,000.00	19,100.00	1,246.00	32.450	19,124.00	1.3000%
24-Jun-10	18,850.00	18,950.00	1,232.20	32.390	18,877.00	-0.5863%
23-Jun-10	18,950.00	19,050.00	1,240.20	32.370	18,988.00	0.2531%
22-Jun-10	18,900.00	19,000.00	1,238.60	32.330	18,940.00	-1.3843%
21-Jun-10	19,050.00	19,150.00	1,257.80	32.280	19,204.00	-0.0208%
19-Jun-10	19,100.00	19,200.00	1,256.50	32.320	19,208.00	0.7368%
18-Jun-10	18,950.00	19,050.00	1,244.20	32.400	19,067.00	1.0492%
17-Jun-10	18,800.00	18,900.00	1,231.00	32.405	18,868.00	-0.4125%
16-Jun-10	18,850.00	18,950.00	1,235.90	32.410	18,946.00	1.2748%
15-Jun-10	18,700.00	18,800.00	1,219.50	32.430	18,706.00	-1.1534%
14-Jun-10	18,800.00	18,900.00	1,229.50	32.540	18,923.00	0.1640%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
12-Jun-10	18,750.00	18,850.00	1,227.50	32.540	18,892.00	0.8132%
11-Jun-10	18,700.00	18,800.00	1,220.90	32.450	18,739.00	-0.1173%
10-Jun-10	18,700.00	18,800.00	1,220.30	32.505	18,761.00	-1.6336%
09-Jun-10	18,950.00	19,050.00	1,236.40	32.610	19,070.00	-1.0744%
08-Jun-10	19,050.00	19,150.00	1,248.60	32.640	19,276.00	2.6867%
07-Jun-10	18,650.00	18,750.00	1,214.90	32.655	18,765.00	-0.3405%
05-Jun-10	18,650.00	18,750.00	1,220.00	32.630	18,829.00	1.4821%
04-Jun-10	18,500.00	18,600.00	1,203.50	32.590	18,552.00	-1.2162%
03-Jun-10	18,650.00	18,750.00	1,218.60	32.580	18,779.00	-0.2075%
02-Jun-10	18,700.00	18,800.00	1,220.40	32.600	18,818.00	-0.0744%
01-Jun-10	18,700.00	18,800.00	1,222.80	32.560	18,832.00	1.0731%
31-May-10	18,600.00	18,700.00	1,210.50	32.540	18,631.00	-0.4979%
30-May-10	18,600.00	18,700.00	1,214.30	32.600	18,724.00	0.0962%
29-May-10	18,600.00	18,700.00	1,215.00	32.550	18,706.00	0.3481%
28-May-10	18,550.00	18,650.00	1,211.90	32.520	18,641.00	-0.1072%
27-May-10	18,550.00	18,650.00	1,212.10	32.550	18,661.00	1.8115%
26-May-10	18,250.00	18,350.00	1,188.90	32.590	18,326.00	0.9760%
25-May-10	18,100.00	18,200.00	1,183.50	32.420	18,148.00	0.3975%
23-May-10	18,050.00	18,150.00	1,177.00	32.470	18,076.00	0.3158%
22-May-10	18,000.00	18,100.00	1,176.20	32.390	18,019.00	-0.6472%
21-May-10	18,150.00	18,250.00	1,182.50	32.425	18,136.00	-2.2086%
20-May-10	18,450.00	18,550.00	1,210.60	32.380	18,541.00	-1.1209%
19-May-10	18,650.00	18,750.00	1,225.00	32.360	18,750.00	-0.7915%
18-May-10	18,850.00	18,950.00	1,234.20	32.375	18,899.00	0.0265%
16-May-10	18,650.00	18,750.00	1,231.40	32.440	18,894.00	-0.4173%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
15-May-10	18,700.00	18,800.00	1,239.20	32.370	18,973.00	0.3326%
14-May-10	18,650.00	18,750.00	1,237.40	32.310	18,910.00	-0.4748%
13-May-10	18,700.00	18,800.00	1,243.30	32.310	19,000.00	2.7696%
12-May-10	18,300.00	18,400.00	1,209.30	32.310	18,481.00	1.9948%
11-May-10	18,050.00	18,150.00	1,188.00	32.240	18,116.00	-1.9785%
09-May-10	18,200.00	18,300.00	1,208.00	32.340	18,478.00	0.8315%
08-May-10	18,150.00	18,250.00	1,198.00	32.340	18,325.00	1.3294%
07-May-10	17,900.00	18,000.00	1,182.20	32.340	18,083.00	1.3922%
06-May-10	17,750.00	17,850.00	1,165.80	32.340	17,833.00	-1.6407%
05-May-10	17,900.00	18,000.00	1,185.10	32.340	18,128.00	0.5643%
04-May-10	17,900.00	18,000.00	1,177.70	32.360	18,026.00	0.5173%
01-May-10	17,800.00	17,900.00	1,176.00	32.240	17,933.00	0.4695%
30-Apr-10	17,750.00	17,850.00	1,170.50	32.240	17,849.00	0.4211%
29-Apr-10	17,650.00	17,750.00	1,165.60	32.240	17,774.00	1.1089%
28-Apr-10	17,450.00	17,550.00	1,152.70	32.240	17,578.00	-0.2216%
27-Apr-10	17,450.00	17,550.00	1,155.30	32.240	17,617.00	-0.1928%
25-Apr-10	17,500.00	17,600.00	1,157.50	32.240	17,651.00	1.4207%
24-Apr-10	17,350.00	17,450.00	1,139.80	32.280	17,402.00	0.0747%
23-Apr-10	17,350.00	17,450.00	1,141.40	32.210	17,389.00	0.2822%
22-Apr-10	17,300.00	17,400.00	1,142.10	32.100	17,340.00	-0.3397%
21-Apr-10	17,350.00	17,450.00	1,141.70	32.220	17,399.00	1.0748%
20-Apr-10	17,200.00	17,300.00	1,126.70	32.300	17,213.00	-0.5215%
18-Apr-10	17,300.00	17,400.00	1,136.80	32.180	17,303.00	-1.8495%
17-Apr-10	17,500.00	17,600.00	1,155.50	32.250	17,626.00	-0.7968%
13-Apr-10	17,600.00	17,700.00	1,165.10	32.240	17,767.00	0.1014%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
11-Apr-10	17,550.00	17,650.00	1,161.40	32.310	17,749.00	0.7238%
10-Apr-10	17,500.00	17,600.00	1,154.10	32.280	17,621.00	0.4151%
09-Apr-10	17,400.00	17,500.00	1,145.80	32.380	17,548.00	1.1636%
08-Apr-10	17,250.00	17,350.00	1,133.60	32.350	17,345.00	0.7117%
07-Apr-10	17,150.00	17,250.00	1,125.20	32.360	17,222.00	0.0174%
06-Apr-10	17,150.00	17,250.00	1,125.00	32.360	17,219.00	0.4365%
04-Apr-10	17,100.00	17,200.00	1,120.10	32.360	17,144.00	0.0292%
03-Apr-10	17,100.00	17,200.00	1,120.10	32.350	17,139.00	0.2337%
02-Apr-10	17,050.00	17,150.00	1,117.50	32.350	17,099.00	0.7514%
01-Apr-10	16,950.00	17,050.00	1,108.80	32.360	16,971.00	0.0354%
31-Mar-10	16,950.00	17,050.00	1,109.40	32.330	16,965.00	-0.0530%
30-Mar-10	16,950.00	17,050.00	1,109.30	32.350	16,974.00	0.0236%
28-Mar-10	16,950.00	17,050.00	1,106.70	32.420	16,970.00	0.8641%
27-Mar-10	16,850.00	16,950.00	1,096.50	32.440	16,824.00	0.5543%
26-Mar-10	16,750.00	16,850.00	1,091.40	32.410	16,731.00	-0.2686%
25-Mar-10	16,800.00	16,900.00	1,096.40	32.350	16,776.00	-0.6654%
24-Mar-10	16,900.00	17,000.00	1,104.40	32.330	16,888.00	-0.1952%
23-Mar-10	16,950.00	17,050.00	1,106.20	32.340	16,921.00	-0.3068%
21-Mar-10	16,950.00	17,050.00	1,107.90	32.390	16,973.00	-1.2471%
20-Mar-10	17,150.00	17,250.00	1,123.20	32.350	17,186.00	0.3556%
19-Mar-10	17,100.00	17,200.00	1,121.60	32.280	17,125.00	-1.1842%
18-Mar-10	17,250.00	17,350.00	1,132.20	32.360	17,329.00	1.4415%
17-Mar-10	17,100.00	17,200.00	1,112.90	32.450	17,081.00	0.2697%
16-Mar-10	17,050.00	17,150.00	1,104.10	32.620	17,035.00	0.4530%
14-Mar-10	17,000.00	17,100.00	1,101.50	32.550	16,958.00	-1.3181%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
13-Mar-10	17,200.00	17,300.00	1,113.00	32.640	17,183.00	0.4316%
12-Mar-10	17,100.00	17,200.00	1,107.20	32.670	17,109.00	-1.4679%
11-Mar-10	17,350.00	17,450.00	1,122.20	32.710	17,362.00	-0.1554%
10-Mar-10	17,350.00	17,450.00	1,122.60	32.750	17,389.00	-1.1834%
09-Mar-10	17,500.00	17,600.00	1,137.00	32.720	17,596.00	0.4386%
07-Mar-10	17,450.00	17,550.00	1,134.40	32.650	17,519.00	0.1657%
06-Mar-10	17,450.00	17,550.00	1,132.20	32.660	17,490.00	-0.1657%
05-Mar-10	17,450.00	17,550.00	1,134.10	32.660	17,519.00	-0.3988%
04-Mar-10	17,500.00	17,600.00	1,137.60	32.690	17,589.00	1.4027%
03-Mar-10	17,300.00	17,400.00	1,119.30	32.760	17,344.00	-0.7639%
02-Mar-10	17,400.00	17,500.00	1,122.80	32.910	17,477.00	-0.1429%
27-Feb-10	17,400.00	17,500.00	1,117.90	33.100	17,502.00	0.7686%
26-Feb-10	17,300.00	17,400.00	1,109.70	33.090	17,368.00	1.5960%
25-Feb-10	17,100.00	17,200.00	1,093.10	33.060	17,093.00	0.2284%
24-Feb-10	17,150.00	17,250.00	1,090.60	33.060	17,054.00	-2.2955%
23-Feb-10	17,400.00	17,500.00	1,115.30	33.080	17,450.00	-0.7934%
22-Feb-10	17,450.00	17,550.00	1,122.10	33.140	17,589.00	0.4787%
20-Feb-10	17,400.00	17,500.00	1,117.10	33.130	17,505.00	0.7397%
19-Feb-10	17,300.00	17,400.00	1,107.20	33.180	17,376.00	0.4037%
18-Feb-10	17,250.00	17,350.00	1,102.40	33.190	17,306.00	-1.3830%
17-Feb-10	17,450.00	17,550.00	1,119.60	33.135	17,547.00	0.4512%
16-Feb-10	17,350.00	17,450.00	1,112.70	33.190	17,468.00	1.7207%
15-Feb-10	17,100.00	17,200.00	1,093.40	33.200	17,170.00	-0.0873%
13-Feb-10	17,100.00	17,200.00	1,092.40	33.260	17,185.00	0.8943%
12-Feb-10	17,000.00	17,100.00	1,085.60	33.170	17,032.00	0.8313%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
11-Feb-10	16,900.00	17,000.00	1,077.10	33.155	16,891.00	-0.1715%
10-Feb-10	16,900.00	17,000.00	1,078.80	33.160	16,920.00	0.9084%
09-Feb-10	16,800.00	16,900.00	1,068.70	33.170	16,767.00	-0.3691%
08-Feb-10	16,850.00	16,950.00	1,072.00	33.190	16,829.00	0.6857%
06-Feb-10	16,800.00	16,900.00	1,065.00	33.180	16,714.00	0.3836%
05-Feb-10	16,750.00	16,850.00	1,063.20	33.110	16,650.00	-3.9047%
04-Feb-10	17,300.00	17,400.00	1,105.20	33.120	17,313.00	-1.3140%
03-Feb-10	17,450.00	17,550.00	1,121.80	33.060	17,542.00	0.9393%
02-Feb-10	17,300.00	17,400.00	1,108.30	33.150	17,378.00	2.0463%
01-Feb-10	17,000.00	17,100.00	1,083.60	33.220	17,026.00	0.6423%
30-Jan-10	17,000.00	17,100.00	1,080.20	33.110	16,917.00	-0.5541%
29-Jan-10	17,000.00	17,100.00	1,084.60	33.160	17,011.00	-0.4165%
28-Jan-10	17,100.00	17,200.00	1,092.10	33.070	17,082.00	-0.0468%
27-Jan-10	17,100.00	17,200.00	1,092.90	33.060	17,090.00	0.2226%
26-Jan-10	17,050.00	17,150.00	1,091.00	33.045	17,052.00	-0.5322%
25-Jan-10	17,200.00	17,300.00	1,098.30	33.000	17,143.00	0.5029%
23-Jan-10	17,150.00	17,250.00	1,091.50	33.040	17,057.00	-0.2752%
22-Jan-10	17,150.00	17,250.00	1,094.80	33.030	17,104.00	-0.9369%
21-Jan-10	17,300.00	17,400.00	1,105.10	33.030	17,265.00	-1.9956%
20-Jan-10	17,600.00	17,700.00	1,130.50	32.940	17,613.00	-0.2608%
19-Jan-10	17,650.00	17,750.00	1,137.90	32.810	17,659.00	-0.0170%
18-Jan-10	17,650.00	17,750.00	1,136.40	32.860	17,662.00	0.3517%
16-Jan-10	17,600.00	17,700.00	1,130.00	32.930	17,600.00	-0.3177%
15-Jan-10	17,650.00	17,750.00	1,135.30	32.880	17,656.00	-0.0962%
14-Jan-10	17,700.00	17,800.00	1,137.10	32.860	17,673.00	-0.2317%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
13-Jan-10	17,700.00	17,800.00	1,132.80	33.060	17,714.00	-2.0340%
12-Jan-10	18,000.00	18,100.00	1,156.10	33.060	18,078.00	-0.0055%
11-Jan-10	18,000.00	18,100.00	1,156.20	33.060	18,079.00	1.0956%
09-Jan-10	17,750.00	17,850.00	1,137.70	33.230	17,882.00	0.0000%
08-Jan-10	17,750.00	17,850.00	1,137.70	33.230	17,882.00	0.7522%
07-Jan-10	17,700.00	17,800.00	1,132.60	33.130	17,748.00	0.9738%
06-Jan-10	17,600.00	17,700.00	1,120.60	33.160	17,576.00	-0.5221%
05-Jan-10	17,650.00	17,750.00	1,127.50	33.130	17,668.00	1.0297%
04-Jan-10	17,500.00	17,600.00	1,112.60	33.230	17,487.00	1.3066%
02-Jan-10	17,350.00	17,450.00	1,096.50	33.280	17,260.00	-0.1505%
31-Dec-09	17,350.00	17,450.00	1,096.50	33.330	17,286.00	0.1158%
30-Dec-09	17,250.00	17,350.00	1,094.60	33.350	17,266.00	-0.8133%
29-Dec-09	17,450.00	17,550.00	1,102.20	33.390	17,407.00	-0.9434%
28-Dec-09	17,550.00	17,650.00	1,113.00	33.380	17,572.00	0.8917%
26-Dec-09	17,450.00	17,550.00	1,104.10	33.350	17,416.00	-0.0746%
25-Dec-09	17,450.00	17,550.00	1,104.60	33.360	17,429.00	0.1091%
24-Dec-09	17,400.00	17,500.00	1,103.40	33.360	17,410.00	1.8668%
23-Dec-09	17,100.00	17,200.00	1,083.00	33.360	17,088.00	-0.5253%
22-Dec-09	17,250.00	17,350.00	1,092.30	33.250	17,178.00	-2.0113%
21-Dec-09	17,500.00	17,600.00	1,114.80	33.240	17,527.00	0.0057%
19-Dec-09	17,500.00	17,600.00	1,112.40	33.310	17,526.00	0.7733%
18-Dec-09	17,450.00	17,550.00	1,106.80	33.220	17,391.00	-1.6651%
17-Dec-09	17,700.00	17,800.00	1,125.10	33.228	17,683.00	-0.3556%
16-Dec-09	17,700.00	17,800.00	1,130.40	33.190	17,746.00	1.2361%
15-Dec-09	17,550.00	17,650.00	1,118.20	33.140	17,528.00	-0.5973%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
14-Dec-09	17,600.00	17,700.00	1,124.90	33.140	17,633.00	0.6657%
12-Dec-09	17,500.00	17,600.00	1,115.10	33.210	17,516.00	-1.5747%
11-Dec-09	17,800.00	17,900.00	1,135.70	33.125	17,794.00	0.7276%
10-Dec-09	17,750.00	17,850.00	1,127.30	33.130	17,665.00	-0.8848%
09-Dec-09	17,800.00	17,900.00	1,134.60	33.210	17,822.00	-1.8788%
08-Dec-09	18,200.00	18,300.00	1,156.80	33.190	18,160.00	1.2300%
07-Dec-09	18,050.00	18,150.00	1,144.40	33.140	17,938.00	-1.6586%
05-Dec-09	18,300.00	18,400.00	1,161.40	33.200	18,238.00	-3.2581%
04-Dec-09	18,850.00	18,950.00	1,202.40	33.130	18,842.00	-1.2762%
03-Dec-09	19,050.00	19,150.00	1,217.70	33.135	19,084.00	0.1573%
02-Dec-09	18,950.00	19,050.00	1,215.20	33.150	19,054.00	1.6403%
01-Dec-09	18,650.00	18,750.00	1,194.00	33.190	18,744.00	2.2062%
30-Nov-09	18,300.00	18,400.00	1,166.90	33.220	18,335.00	-1.1388%
28-Nov-09	18,500.00	18,600.00	1,176.70	33.320	18,545.00	1.9053%
27-Nov-09	18,200.00	18,300.00	1,156.60	33.260	18,195.00	-1.9539%
26-Nov-09	18,600.00	18,700.00	1,182.60	33.170	18,554.00	0.3509%
25-Nov-09	18,450.00	18,550.00	1,176.70	33.220	18,489.00	0.7002%
24-Nov-09	18,350.00	18,450.00	1,167.80	33.240	18,360.00	0.2672%
23-Nov-09	18,250.00	18,350.00	1,165.00	33.230	18,311.00	1.1866%
21-Nov-09	17,950.00	18,050.00	1,150.90	33.240	18,095.00	0.6709%
20-Nov-09	17,900.00	18,000.00	1,143.90	33.220	17,974.00	0.9672%
19-Nov-09	17,800.00	17,900.00	1,133.60	33.200	17,801.00	-1.0061%
18-Nov-09	17,900.00	18,000.00	1,145.40	33.190	17,981.00	0.8994%
17-Nov-09	17,750.00	17,850.00	1,134.80	33.200	17,820.00	0.5007%
16-Nov-09	17,650.00	17,750.00	1,128.80	33.210	17,731.00	1.0375%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
14-Nov-09	17,550.00	17,650.00	1,118.50	33.170	17,548.00	0.5142%
13-Nov-09	17,450.00	17,550.00	1,109.10	33.280	17,458.00	-0.6623%
12-Nov-09	17,500.00	17,600.00	1,115.10	33.320	17,574.00	0.0626%
11-Nov-09	17,500.00	17,600.00	1,115.10	33.300	17,563.00	1.2778%
10-Nov-09	17,300.00	17,400.00	1,100.60	33.310	17,340.00	-0.6954%
09-Nov-09	17,400.00	17,500.00	1,108.30	33.310	17,461.00	0.8223%
07-Nov-09	17,200.00	17,300.00	1,096.90	33.380	17,318.00	0.2197%
06-Nov-09	17,200.00	17,300.00	1,094.50	33.380	17,280.00	0.1216%
05-Nov-09	17,100.00	17,200.00	1,091.50	33.430	17,259.00	-0.0174%
04-Nov-09	17,100.00	17,200.00	1,091.40	33.440	17,262.00	3.0229%
03-Nov-09	16,650.00	16,750.00	1,058.10	33.465	16,748.00	0.3589%
02-Nov-09	16,600.00	16,700.00	1,055.70	33.420	16,688.00	0.9573%
31-Oct-09	16,500.00	16,600.00	1,044.70	33.450	16,529.00	0.1332%
30-Oct-09	16,450.00	16,550.00	1,044.30	33.420	16,507.00	1.0413%
29-Oct-09	16,350.00	16,450.00	1,031.30	33.490	16,336.00	-0.4885%
28-Oct-09	16,400.00	16,500.00	1,037.90	33.440	16,416.00	-0.0792%
27-Oct-09	16,400.00	16,500.00	1,038.70	33.440	16,429.00	-1.4623%
26-Oct-09	16,650.00	16,750.00	1,055.60	33.390	16,671.00	-0.2815%
24-Oct-09	16,650.00	16,750.00	1,054.80	33.510	16,718.00	-0.5190%
23-Oct-09	16,700.00	16,800.00	1,062.50	33.440	16,805.00	0.4413%
22-Oct-09	16,650.00	16,750.00	1,057.20	33.460	16,731.00	0.1914%
21-Oct-09	16,650.00	16,750.00	1,056.40	33.420	16,699.00	-0.6447%
20-Oct-09	16,700.00	16,800.00	1,063.60	33.410	16,807.00	0.6387%
19-Oct-09	16,600.00	16,700.00	1,055.20	33.460	16,700.00	0.5283%
17-Oct-09	16,550.00	16,650.00	1,052.80	33.360	16,612.00	0.3256%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
16-Oct-09	16,500.00	16,600.00	1,046.90	33.440	16,558.00	-0.6981%
15-Oct-09	16,600.00	16,700.00	1,052.00	33.510	16,674.00	-0.8480%
14-Oct-09	16,650.00	16,750.00	1,064.80	33.390	16,816.00	0.3933%
13-Oct-09	16,550.00	16,650.00	1,062.80	33.320	16,750.00	1.3463%
12-Oct-09	16,400.00	16,500.00	1,047.70	33.350	16,526.00	0.2120%
10-Oct-09	16,400.00	16,500.00	1,048.90	33.240	16,491.00	0.1578%
09-Oct-09	16,350.00	16,450.00	1,044.40	33.330	16,465.00	-0.8467%
08-Oct-09	16,450.00	16,550.00	1,053.30	33.330	16,605.00	0.4527%
07-Oct-09	16,350.00	16,450.00	1,047.30	33.370	16,530.00	2.5799%
06-Oct-09	16,000.00	16,100.00	1,020.60	33.370	16,109.00	1.4444%
05-Oct-09	15,850.00	15,950.00	1,003.60	33.450	15,878.00	0.0063%
03-Oct-09	15,800.00	15,900.00	1,002.30	33.490	15,877.00	0.1008%
02-Oct-09	15,800.00	15,900.00	1,000.10	33.530	15,861.00	-0.2896%
01-Oct-09	15,850.00	15,950.00	1,006.60	33.410	15,907.00	0.7446%
30-Sep-09	15,800.00	15,900.00	995.00	33.550	15,789.00	0.1902%
29-Sep-09	15,750.00	15,850.00	991.00	33.620	15,759.00	-0.0063%
28-Sep-09	15,750.00	15,850.00	991.50	33.605	15,760.00	0.4260%
26-Sep-09	15,800.00	15,900.00	990.70	33.490	15,693.00	-1.1027%
25-Sep-09	15,850.00	15,950.00	997.20	33.640	15,867.00	-1.0719%
24-Sep-09	15,950.00	16,050.00	1,010.10	33.570	16,038.00	-0.2988%
23-Sep-09	16,000.00	16,100.00	1,014.00	33.540	16,086.00	-0.5703%
22-Sep-09	16,050.00	16,150.00	1,016.90	33.635	16,178.00	1.7082%
21-Sep-09	15,850.00	15,950.00	997.00	33.725	15,904.00	-0.9886%
19-Sep-09	15,950.00	16,050.00	1,006.50	33.740	16,062.00	-0.6268%
18-Sep-09	16,050.00	16,150.00	1,013.40	33.720	16,163.00	-0.5737%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
17-Sep-09	16,100.00	16,200.00	1,019.40	33.715	16,256.00	0.0923%
16-Sep-09	16,100.00	16,200.00	1,016.20	33.790	16,241.00	1.2017%
15-Sep-09	15,900.00	16,000.00	999.90	33.930	16,047.00	0.4747%
14-Sep-09	15,850.00	15,950.00	994.30	33.960	15,971.00	-1.3434%
12-Sep-09	16,000.00	16,100.00	1,005.10	34.050	16,187.00	0.8126%
11-Sep-09	15,950.00	16,050.00	999.30	33.970	16,056.00	1.2030%
10-Sep-09	15,750.00	15,850.00	986.20	34.010	15,864.00	-0.9099%
09-Sep-09	15,850.00	15,950.00	994.90	34.020	16,009.00	-0.8893%
08-Sep-09	16,000.00	16,100.00	1,003.20	34.040	16,152.00	0.8331%
07-Sep-09	15,850.00	15,950.00	994.60	34.050	16,018.00	-0.0187%
05-Sep-09	15,850.00	15,950.00	994.50	34.060	16,021.00	0.7141%
04-Sep-09	15,750.00	15,850.00	987.10	34.070	15,907.00	0.3779%
03-Sep-09	15,650.00	15,750.00	983.70	34.060	15,847.00	3.1213%
02-Sep-09	15,300.00	15,400.00	954.30	34.030	15,360.00	0.2803%
01-Sep-09	15,250.00	15,350.00	951.90	34.020	15,317.00	-0.4235%
31-Aug-09	15,300.00	15,400.00	956.20	34.010	15,382.00	0.0390%
29-Aug-09	15,300.00	15,400.00	955.60	34.020	15,376.00	0.7049%
28-Aug-09	15,250.00	15,350.00	949.00	34.015	15,268.00	0.4859%
27-Aug-09	15,150.00	15,250.00	943.40	34.050	15,194.00	-0.3220%
26-Aug-09	15,200.00	15,300.00	947.30	34.020	15,243.00	0.2430%
25-Aug-09	15,200.00	15,300.00	944.70	34.030	15,206.00	-0.8578%
24-Aug-09	15,250.00	15,350.00	953.00	34.025	15,337.00	-0.0847%
22-Aug-09	15,250.00	15,350.00	953.70	34.030	15,350.00	1.4766%
21-Aug-09	15,100.00	15,200.00	939.70	34.030	15,125.00	-0.2641%
20-Aug-09	15,150.00	15,250.00	942.20	34.030	15,165.00	0.7679%

Date	Low	High	Foreign Price	THB/USD	Thai price	Returns
19-Aug-09	15,050.00	15,150.00	933.60	34.080	15,049.00	-1.1036%
15-Aug-09	15,200.00	15,300.00	947.60	33.950	15,216.00	-1.1500%
14-Aug-09	15,300.00	15,400.00	956.00	34.040	15,392.00	-0.2790%
13-Aug-09	15,300.00	15,400.00	958.40	34.050	15,435.00	1.2517%
11-Aug-09	15,200.00	15,300.00	946.20	34.060	15,243.00	-0.9987%
10-Aug-09	15,300.00	15,400.00	956.80	34.020	15,396.00	0.4688%
08-Aug-09	15,250.00	15,350.00	955.40	33.910	15,324.00	-0.7541%
07-Aug-09	15,300.00	15,400.00	960.40	33.990	15,440.00	-0.2910%
06-Aug-09	15,350.00	15,450.00	963.50	33.980	15,485.00	-0.2129%
05-Aug-09	15,350.00	15,450.00	965.10	33.995	15,518.00	1.4344%
04-Aug-09	15,200.00	15,300.00	951.80	33.980	15,297.00	-0.3068%
03-Aug-09	15,250.00	15,350.00	953.60	34.020	15,344.00	-0.0977%
01-Aug-09	15,200.00	15,300.00	954.50	34.020	15,359.00	1.8266%

Gold Future Price in Thailand Future Market (TFEX)
GFZ09 (December 2009)

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
29-Dec-09	17,500.00	17,570.00	17,500.00	17,540.00	17,485.51	(194.49)	652.00	1,037.00	-1.1062%
28-Dec-09	17,730.00	17,750.00	17,640.00	17,680.00	17,680.00	70.00	887.00	1,422.00	0.3967%
25-Dec-09	17,580.00	17,620.00	17,560.00	17,610.00	17,610.00	30.00	384.00	2,012.00	0.1705%
24-Dec-09	17,360.00	17,590.00	17,360.00	17,580.00	17,580.00	400.00	1,184.00	2,040.00	2.3016%
23-Dec-09	17,240.00	17,240.00	17,180.00	17,180.00	17,180.00	(180.00)	1,212.00	2,079.00	-1.0423%
22-Dec-09	17,350.00	17,390.00	17,290.00	17,350.00	17,360.00	(240.00)	1,092.00	2,485.00	-1.3730%
21-Dec-09	17,600.00	17,690.00	17,580.00	17,590.00	17,600.00	80.00	824.00	2,661.00	0.4556%
18-Dec-09	17,590.00	17,620.00	17,510.00	17,530.00	17,520.00	(330.00)	1,921.00	2,806.00	-1.8660%
17-Dec-09	18,000.00	18,000.00	17,840.00	17,850.00	17,850.00	(60.00)	2,008.00	2,944.00	-0.3356%
16-Dec-09	17,770.00	17,930.00	17,700.00	17,910.00	17,910.00	240.00	1,830.00	2,819.00	1.3491%
15-Dec-09	17,790.00	17,840.00	17,620.00	17,670.00	17,670.00	(60.00)	1,716.00	2,842.00	-0.3390%
14-Dec-09	17,740.00	17,770.00	17,670.00	17,730.00	17,730.00	(240.00)	2,115.00	2,911.00	-1.3446%
11-Dec-09	17,940.00	17,990.00	17,900.00	17,990.00	17,970.00	20.00	1,228.00	3,117.00	0.1114%
9-Dec-09	17,920.00	18,000.00	17,840.00	17,940.00	17,950.00	(450.00)	3,257.00	3,031.00	-2.4761%
8-Dec-09	18,450.00	18,500.00	18,290.00	18,400.00	18,400.00	(690.00)	3,247.00	3,819.00	-3.6814%
4-Dec-09	19,040.00	19,120.00	18,960.00	19,100.00	19,090.00	(210.00)	2,832.00	4,407.00	-1.0940%
3-Dec-09	19,300.00	19,390.00	19,270.00	19,310.00	19,300.00	100.00	3,258.00	4,532.00	0.5195%
2-Dec-09	19,160.00	19,220.00	19,110.00	19,200.00	19,200.00	350.00	3,942.00	4,160.00	1.8397%
1-Dec-09	18,680.00	18,900.00	18,600.00	18,860.00	18,850.00	330.00	4,143.00	4,003.00	1.7662%
30-Nov-09	18,680.00	18,760.00	18,380.00	18,530.00	18,520.00	160.00	3,944.00	4,600.00	0.8677%
27-Nov-09	18,800.00	18,830.00	17,940.00	18,360.00	18,360.00	(420.00)	5,339.00	4,313.00	-2.2618%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
26-Nov-09	18,920.00	18,940.00	18,650.00	18,770.00	18,780.00	70.00	5,265.00	5,311.00	0.3734%
25-Nov-09	18,680.00	18,740.00	18,610.00	18,710.00	18,710.00	210.00	3,590.00	4,690.00	1.1287%
24-Nov-09	18,460.00	18,510.00	18,430.00	18,490.00	18,500.00	40.00	2,159.00	4,296.00	0.2165%
23-Nov-09	18,350.00	18,490.00	18,330.00	18,470.00	18,460.00	490.00	4,305.00	4,086.00	2.6903%
20-Nov-09	17,910.00	18,010.00	17,900.00	17,970.00	17,970.00	100.00	2,619.00	3,937.00	0.5580%
19-Nov-09	17,970.00	17,970.00	17,830.00	17,860.00	17,870.00	(130.00)	2,462.00	4,205.00	-0.7248%
18-Nov-09	17,880.00	18,020.00	17,850.00	18,010.00	18,000.00	160.00	2,584.00	4,043.00	0.8929%
17-Nov-09	17,850.00	17,880.00	17,800.00	17,840.00	17,840.00	90.00	2,101.00	4,011.00	0.5058%
16-Nov-09	17,690.00	17,800.00	17,670.00	17,740.00	17,750.00	220.00	2,270.00	3,994.00	1.2472%
13-Nov-09	17,490.00	17,570.00	17,450.00	17,530.00	17,530.00	(70.00)	1,691.00	4,058.00	-0.3985%
12-Nov-09	17,660.00	17,730.00	17,580.00	17,600.00	17,600.00	60.00	3,016.00	4,059.00	0.3415%
11-Nov-09	17,480.00	17,580.00	17,440.00	17,540.00	17,540.00	120.00	2,153.00	4,248.00	0.6865%
10-Nov-09	17,430.00	17,430.00	17,310.00	17,420.00	17,420.00	(100.00)	1,599.00	4,159.00	-0.5724%
9-Nov-09	17,330.00	17,530.00	17,310.00	17,530.00	17,520.00	270.00	2,818.00	4,142.00	1.5531%
6-Nov-09	17,180.00	17,260.00	17,180.00	17,240.00	17,250.00	50.00	993.00	4,567.00	0.2903%
5-Nov-09	17,160.00	17,220.00	17,090.00	17,200.00	17,200.00	30.00	2,099.00	4,482.00	0.1746%
4-Nov-09	17,020.00	17,220.00	17,010.00	17,170.00	17,170.00	360.00	3,538.00	4,130.00	2.1190%
3-Nov-09	16,890.00	16,890.00	16,780.00	16,820.00	16,810.00	40.00	1,676.00	3,880.00	0.2382%
2-Nov-09	16,620.00	16,780.00	16,620.00	16,750.00	16,770.00	120.00	1,141.00	3,614.00	0.7181%
30-Oct-09	16,650.00	16,700.00	16,600.00	16,650.00	16,650.00	100.00	1,270.00	3,378.00	0.6024%
29-Oct-09	16,450.00	16,570.00	16,450.00	16,560.00	16,550.00	20.00	925.00	3,419.00	0.1209%
28-Oct-09	16,590.00	16,600.00	16,520.00	16,530.00	16,530.00	(50.00)	931.00	3,242.00	-0.3020%
27-Oct-09	16,610.00	16,620.00	16,560.00	16,580.00	16,580.00	(210.00)	1,089.00	3,111.00	-1.2586%
26-Oct-09	16,780.00	16,800.00	16,750.00	16,800.00	16,790.00	10.00	229.00	3,228.00	0.0596%
22-Oct-09	16,820.00	16,830.00	16,770.00	16,780.00	16,780.00	30.00	684.00	3,196.00	0.1789%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
21-Oct-09	16,740.00	16,840.00	16,740.00	16,750.00	16,750.00	(90.00)	657.00	3,115.00	-0.5359%
20-Oct-09	16,900.00	16,920.00	16,780.00	16,840.00	16,840.00	80.00	766.00	3,182.00	0.4762%
19-Oct-09	16,670.00	16,800.00	16,660.00	16,760.00	16,760.00	140.00	680.00	3,013.00	0.8388%
16-Oct-09	16,690.00	16,700.00	16,480.00	16,620.00	16,620.00	(50.00)	1,198.00	3,047.00	-0.3004%
15-Oct-09	16,830.00	16,870.00	16,640.00	16,680.00	16,670.00	(160.00)	742.00	3,002.00	-0.9552%
14-Oct-09	16,750.00	16,870.00	16,750.00	16,830.00	16,830.00	150.00	1,038.00	3,061.00	0.8953%
13-Oct-09	16,550.00	16,720.00	16,550.00	16,680.00	16,680.00	150.00	862.00	3,018.00	0.9033%
12-Oct-09	16,460.00	16,530.00	16,460.00	16,530.00	16,530.00	90.00	379.00	2,940.00	0.5460%
9-Oct-09	16,490.00	16,490.00	16,420.00	16,440.00	16,440.00	(100.00)	666.00	2,797.00	-0.6064%
8-Oct-09	16,420.00	16,620.00	16,410.00	16,540.00	16,540.00	180.00	784.00	2,630.00	1.0942%
7-Oct-09	16,220.00	16,390.00	16,220.00	16,350.00	16,360.00	280.00	1,255.00	2,509.00	1.7263%
6-Oct-09	16,080.00	16,100.00	16,050.00	16,080.00	16,080.00	80.00	620.00	2,118.00	0.4988%
5-Oct-09	15,990.00	16,010.00	15,970.00	16,000.00	16,000.00	50.00	164.00	1,967.00	0.3130%
2-Oct-09	15,950.00	15,960.00	15,930.00	15,950.00	15,950.00	(20.00)	147.00	1,880.00	-0.1253%
1-Oct-09	16,010.00	16,010.00	15,970.00	15,970.00	15,970.00	-	207.00	1,867.00	0.0000%

GFG10 (February 2010)

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
25-Feb-10	17,230.00	17,230.00	17,060.00	17,110.00	17,170.67	30.67	1,056.00	1,263.00	0.1788%
24-Feb-10	17,460.00	17,460.00	17,130.00	17,140.00	17,140.00	(430.00)	1,269.00	1,800.00	-2.4778%
23-Feb-10	17,550.00	17,630.00	17,540.00	17,580.00	17,570.00	(90.00)	369.00	2,535.00	-0.5109%
22-Feb-10	17,720.00	17,760.00	17,650.00	17,650.00	17,660.00	140.00	1,205.00	2,675.00	0.7959%
19-Feb-10	17,430.00	17,540.00	17,420.00	17,530.00	17,520.00	100.00	1,686.00	2,843.00	0.5724%
18-Feb-10	17,460.00	17,480.00	17,350.00	17,430.00	17,420.00	(260.00)	1,620.00	3,046.00	-1.4815%
17-Feb-10	17,560.00	17,750.00	17,560.00	17,680.00	17,680.00	120.00	2,146.00	3,382.00	0.6810%
16-Feb-10	17,470.00	17,630.00	17,420.00	17,560.00	17,560.00	260.00	1,896.00	3,593.00	1.4917%
15-Feb-10	17,230.00	17,320.00	17,230.00	17,310.00	17,300.00	150.00	1,038.00	3,721.00	0.8708%
12-Feb-10	17,190.00	17,230.00	17,140.00	17,150.00	17,150.00	100.00	2,448.00	3,878.00	0.5848%
11-Feb-10	17,060.00	17,080.00	17,040.00	17,050.00	17,050.00	20.00	1,106.00	4,559.00	0.1174%
10-Feb-10	17,020.00	17,080.00	17,010.00	17,030.00	17,030.00	100.00	1,505.00	4,826.00	0.5889%
9-Feb-10	16,910.00	17,010.00	16,910.00	16,930.00	16,930.00	(50.00)	1,161.00	4,992.00	-0.2949%
8-Feb-10	16,890.00	17,030.00	16,880.00	16,980.00	16,980.00	220.00	2,190.00	4,959.00	1.3041%
5-Feb-10	16,840.00	16,930.00	16,630.00	16,760.00	16,760.00	(730.00)	5,149.00	5,158.00	-4.2634%
4-Feb-10	17,640.00	17,640.00	17,470.00	17,490.00	17,490.00	(290.00)	2,257.00	6,249.00	-1.6445%
3-Feb-10	17,640.00	17,810.00	17,610.00	17,790.00	17,780.00	180.00	3,963.00	6,530.00	1.0175%
2-Feb-10	17,480.00	17,610.00	17,440.00	17,600.00	17,600.00	410.00	4,263.00	5,887.00	2.3571%
1-Feb-10	17,130.00	17,200.00	17,090.00	17,190.00	17,190.00	20.00	1,754.00	5,930.00	0.1164%
29-Jan-10	17,210.00	17,230.00	17,150.00	17,190.00	17,170.00	(100.00)	1,861.00	5,925.00	-0.5807%
28-Jan-10	17,190.00	17,310.00	17,180.00	17,260.00	17,270.00	(50.00)	2,453.00	6,151.00	-0.2891%
27-Jan-10	17,380.00	17,420.00	17,280.00	17,320.00	17,320.00	70.00	2,029.00	6,277.00	0.4050%
26-Jan-10	17,420.00	17,440.00	17,240.00	17,260.00	17,250.00	(180.00)	2,864.00	6,482.00	-1.0381%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
25-Jan-10	17,400.00	17,450.00	17,400.00	17,420.00	17,430.00	70.00	1,702.00	6,476.00	0.4024%
22-Jan-10	17,330.00	17,400.00	17,270.00	17,360.00	17,360.00	(100.00)	2,740.00	6,403.00	-0.5744%
21-Jan-10	17,560.00	17,600.00	17,420.00	17,470.00	17,460.00	(420.00)	3,631.00	6,434.00	-2.3770%
20-Jan-10	17,940.00	17,960.00	17,810.00	17,870.00	17,880.00	(50.00)	2,033.00	7,115.00	-0.2793%
19-Jan-10	17,990.00	17,990.00	17,930.00	17,930.00	17,930.00	(30.00)	1,600.00	7,082.00	-0.1672%
18-Jan-10	17,940.00	17,980.00	17,910.00	17,970.00	17,960.00	(20.00)	1,661.00	6,802.00	-0.1113%
15-Jan-10	18,030.00	18,040.00	17,930.00	17,990.00	17,980.00	(10.00)	1,632.00	6,718.00	-0.0556%
14-Jan-10	18,130.00	18,150.00	17,970.00	17,990.00	17,990.00	(10.00)	2,690.00	6,573.00	-0.0556%
13-Jan-10	17,950.00	18,020.00	17,910.00	17,990.00	18,000.00	(320.00)	3,789.00	6,146.00	-1.7622%
12-Jan-10	18,270.00	18,380.00	18,250.00	18,310.00	18,320.00	(20.00)	2,902.00	5,560.00	-0.1091%
11-Jan-10	18,250.00	18,350.00	18,250.00	18,350.00	18,340.00	450.00	3,797.00	5,277.00	2.4843%
8-Jan-10	17,890.00	17,930.00	17,860.00	17,870.00	17,890.00	(90.00)	1,614.00	5,559.00	-0.5018%
7-Jan-10	18,040.00	18,040.00	17,970.00	17,980.00	17,980.00	30.00	2,482.00	5,406.00	0.1670%
6-Jan-10	17,900.00	17,960.00	17,890.00	17,950.00	17,950.00	(20.00)	2,215.00	5,679.00	-0.1114%
5-Jan-10	17,870.00	17,980.00	17,840.00	17,970.00	17,970.00	210.00	3,398.00	5,130.00	1.1755%
4-Jan-10	17,580.00	17,760.00	17,490.00	17,750.00	17,760.00	260.00	2,255.00	4,623.00	1.4748%
30-Dec-09	17,500.00	17,530.00	17,460.00	17,500.00	17,500.00	(190.00)	1,347.00	4,406.00	-1.0799%
29-Dec-09	17,690.00	17,730.00	17,680.00	17,690.00	17,690.00	(160.00)	1,463.00	4,536.00	-0.9004%
28-Dec-09	17,890.00	17,890.00	17,810.00	17,850.00	17,850.00	120.00	2,022.00	4,327.00	0.6745%
25-Dec-09	17,680.00	17,740.00	17,660.00	17,740.00	17,730.00	50.00	497.00	4,008.00	0.2824%
24-Dec-09	17,460.00	17,690.00	17,460.00	17,680.00	17,680.00	420.00	1,914.00	3,944.00	2.4042%
23-Dec-09	17,330.00	17,340.00	17,250.00	17,260.00	17,260.00	(200.00)	1,535.00	3,647.00	-1.1521%
22-Dec-09	17,470.00	17,500.00	17,410.00	17,460.00	17,460.00	(250.00)	1,470.00	3,522.00	-1.4217%
21-Dec-09	17,720.00	17,800.00	17,690.00	17,710.00	17,710.00	80.00	1,036.00	3,428.00	0.4527%
18-Dec-09	17,660.00	17,740.00	17,620.00	17,630.00	17,630.00	(330.00)	1,941.00	3,320.00	-1.8545%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
17-Dec-09	18,100.00	18,120.00	17,950.00	17,960.00	17,960.00	(50.00)	1,888.00	3,454.00	-0.2780%
16-Dec-09	17,860.00	18,020.00	17,800.00	18,010.00	18,010.00	220.00	1,780.00	3,013.00	1.2291%
15-Dec-09	17,900.00	17,940.00	17,750.00	17,790.00	17,790.00	(50.00)	1,719.00	2,858.00	-0.2807%
14-Dec-09	17,880.00	17,890.00	17,790.00	17,840.00	17,840.00	(240.00)	1,546.00	2,597.00	-1.3363%
11-Dec-09	18,000.00	18,090.00	17,990.00	18,090.00	18,080.00	60.00	941.00	2,477.00	0.3324%
9-Dec-09	18,010.00	18,090.00	17,920.00	18,020.00	18,020.00	(440.00)	2,365.00	2,253.00	-2.4124%
8-Dec-09	18,370.00	18,600.00	18,360.00	18,450.00	18,460.00	(730.00)	2,193.00	2,425.00	-3.8783%
4-Dec-09	19,160.00	19,220.00	19,060.00	19,200.00	19,190.00	(210.00)	2,099.00	2,600.00	-1.0884%
3-Dec-09	19,410.00	19,490.00	19,370.00	19,400.00	19,400.00	100.00	2,192.00	2,918.00	0.5168%
2-Dec-09	19,280.00	19,330.00	19,190.00	19,300.00	19,300.00	400.00	2,250.00	2,701.00	2.0943%
1-Dec-09	18,710.00	18,950.00	18,650.00	18,900.00	18,900.00	320.00	1,939.00	2,265.00	1.7076%

GFV10 (October 2010)

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
28-Oct-10	18,900.00	18,940.00	18,860.00	18,900.00	18,889.72	(90.28)	867.00	1,273.00	-0.4768%
27-Oct-10	19,020.00	19,030.00	18,950.00	18,980.00	18,980.00	(30.00)	1,147.00	1,799.00	-0.1579%
26-Oct-10	19,010.00	19,050.00	18,960.00	19,000.00	19,010.00	180.00	1,076.00	2,231.00	0.9514%
22-Oct-10	18,920.00	18,920.00	18,750.00	18,830.00	18,830.00	(270.00)	2,160.00	2,548.00	-1.4237%
21-Oct-10	19,100.00	19,130.00	19,060.00	19,110.00	19,100.00	(10.00)	1,091.00	3,103.00	-0.0523%
20-Oct-10	19,080.00	19,140.00	19,070.00	19,110.00	19,110.00	(320.00)	2,938.00	3,374.00	-1.6607%
19-Oct-10	19,420.00	19,450.00	19,390.00	19,440.00	19,430.00	70.00	1,497.00	3,950.00	0.3609%
18-Oct-10	19,340.00	19,370.00	19,270.00	19,370.00	19,360.00	(170.00)	2,720.00	4,061.00	-0.8743%
15-Oct-10	19,530.00	19,570.00	19,500.00	19,540.00	19,530.00	20.00	1,287.00	4,991.00	0.1025%
14-Oct-10	19,500.00	19,590.00	19,470.00	19,510.00	19,510.00	240.00	3,977.00	5,297.00	1.2378%
13-Oct-10	19,290.00	19,290.00	19,230.00	19,270.00	19,270.00	70.00	1,186.00	4,877.00	0.3639%
12-Oct-10	19,280.00	19,300.00	19,140.00	19,200.00	19,200.00	(70.00)	2,834.00	4,922.00	-0.3639%
11-Oct-10	19,240.00	19,310.00	19,220.00	19,270.00	19,270.00	320.00	1,905.00	5,184.00	1.6746%
8-Oct-10	18,990.00	19,080.00	18,920.00	18,970.00	18,950.00	(280.00)	3,542.00	5,285.00	-1.4668%
7-Oct-10	19,120.00	19,310.00	19,120.00	19,230.00	19,230.00	130.00	3,211.00	6,100.00	0.6783%
6-Oct-10	19,090.00	19,130.00	19,080.00	19,100.00	19,100.00	180.00	2,946.00	6,343.00	0.9469%
5-Oct-10	18,820.00	18,950.00	18,820.00	18,920.00	18,920.00	100.00	2,245.00	6,483.00	0.5299%
4-Oct-10	18,850.00	18,870.00	18,820.00	18,830.00	18,820.00	(20.00)	679.00	5,921.00	-0.1062%
1-Oct-10	18,860.00	18,870.00	18,830.00	18,840.00	18,840.00	(90.00)	1,738.00	5,828.00	-0.4766%
30-Sep-10	18,890.00	18,950.00	18,890.00	18,930.00	18,930.00	(20.00)	879.00	5,971.00	-0.1056%
29-Sep-10	18,950.00	18,970.00	18,920.00	18,950.00	18,950.00	240.00	3,136.00	5,979.00	1.2746%
28-Sep-10	18,800.00	18,810.00	18,670.00	18,710.00	18,710.00	(160.00)	3,126.00	5,862.00	-0.8515%
27-Sep-10	18,840.00	18,880.00	18,840.00	18,860.00	18,870.00	(30.00)	602.00	6,400.00	-0.1589%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
24-Sep-10	18,850.00	18,920.00	18,850.00	18,900.00	18,900.00	90.00	2,146.00	6,258.00	0.4773%
23-Sep-10	18,810.00	18,820.00	18,800.00	18,800.00	18,810.00	20.00	743.00	5,668.00	0.1064%
22-Sep-10	18,770.00	18,810.00	18,750.00	18,790.00	18,790.00	80.00	2,077.00	5,687.00	0.4267%
21-Sep-10	18,710.00	18,710.00	18,650.00	18,710.00	18,710.00	20.00	1,102.00	5,670.00	0.1070%
20-Sep-10	18,730.00	18,740.00	18,660.00	18,700.00	18,690.00	(20.00)	1,686.00	5,683.00	-0.1070%
17-Sep-10	18,650.00	18,720.00	18,640.00	18,710.00	18,710.00	110.00	4,066.00	5,423.00	0.5897%
16-Sep-10	18,620.00	18,630.00	18,570.00	18,600.00	18,600.00	10.00	1,773.00	4,897.00	0.0538%
15-Sep-10	18,580.00	18,630.00	18,580.00	18,580.00	18,590.00	190.00	4,147.00	4,299.00	1.0273%
14-Sep-10	18,310.00	18,410.00	18,300.00	18,410.00	18,400.00	140.00	2,361.00	5,066.00	0.7638%
13-Sep-10	18,310.00	18,320.00	18,250.00	18,260.00	18,260.00	(120.00)	1,787.00	5,451.00	-0.6550%
10-Sep-10	18,350.00	18,390.00	18,340.00	18,370.00	18,380.00	(110.00)	2,191.00	5,469.00	-0.5967%
9-Sep-10	18,480.00	18,500.00	18,470.00	18,500.00	18,490.00	(70.00)	1,501.00	5,394.00	-0.3779%
8-Sep-10	18,610.00	18,610.00	18,560.00	18,560.00	18,560.00	30.00	1,233.00	5,532.00	0.1618%
7-Sep-10	18,550.00	18,560.00	18,510.00	18,530.00	18,530.00	10.00	841.00	5,783.00	0.0540%
6-Sep-10	18,520.00	18,530.00	18,500.00	18,520.00	18,520.00	(40.00)	946.00	5,690.00	-0.2157%
3-Sep-10	18,550.00	18,560.00	18,540.00	18,560.00	18,560.00	20.00	1,281.00	5,565.00	0.1078%
2-Sep-10	18,520.00	18,560.00	18,520.00	18,530.00	18,540.00	(20.00)	665.00	5,531.00	-0.1078%
1-Sep-10	18,550.00	18,580.00	18,550.00	18,560.00	18,560.00	90.00	1,466.00	5,372.00	0.4861%
31-Aug-10	18,480.00	18,500.00	18,470.00	18,480.00	18,470.00	-	873.00	5,305.00	0.0000%
30-Aug-10	18,460.00	18,500.00	18,460.00	18,470.00	18,470.00	(70.00)	1,439.00	5,249.00	-0.3783%
27-Aug-10	18,540.00	18,550.00	18,510.00	18,550.00	18,540.00	(50.00)	831.00	5,145.00	-0.2693%
26-Aug-10	18,630.00	18,640.00	18,580.00	18,580.00	18,590.00	(10.00)	1,093.00	4,951.00	-0.0538%
25-Aug-10	18,520.00	18,610.00	18,520.00	18,600.00	18,600.00	180.00	2,247.00	5,485.00	0.9725%
24-Aug-10	18,410.00	18,420.00	18,400.00	18,420.00	18,420.00	(60.00)	1,093.00	4,938.00	-0.3252%
23-Aug-10	18,510.00	18,520.00	18,480.00	18,480.00	18,480.00	(60.00)	909.00	4,881.00	-0.3241%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
20-Aug-10	18,570.00	18,590.00	18,540.00	18,540.00	18,540.00	(10.00)	1,043.00	4,825.00	-0.0539%
19-Aug-10	18,580.00	18,580.00	18,550.00	18,550.00	18,550.00	20.00	832.00	4,526.00	0.1079%
18-Aug-10	18,590.00	18,600.00	18,520.00	18,530.00	18,530.00	(50.00)	1,447.00	4,542.00	-0.2695%
17-Aug-10	18,580.00	18,590.00	18,540.00	18,570.00	18,580.00	10.00	1,247.00	4,240.00	0.0538%
16-Aug-10	18,560.00	18,600.00	18,550.00	18,570.00	18,570.00	210.00	1,363.00	4,174.00	1.1373%
11-Aug-10	18,410.00	18,430.00	18,350.00	18,360.00	18,360.00	10.00	705.00	4,391.00	0.0545%
10-Aug-10	18,380.00	18,400.00	18,350.00	18,360.00	18,350.00	(110.00)	1,025.00	4,113.00	-0.5977%
9-Aug-10	18,430.00	18,480.00	18,420.00	18,450.00	18,460.00	100.00	559.00	3,943.00	0.5432%
6-Aug-10	18,360.00	18,390.00	18,340.00	18,360.00	18,360.00	(10.00)	367.00	3,941.00	-0.0545%
5-Aug-10	18,380.00	18,400.00	18,350.00	18,370.00	18,370.00	(20.00)	608.00	3,788.00	-0.1088%
4-Aug-10	18,340.00	18,400.00	18,340.00	18,380.00	18,390.00	160.00	1,126.00	3,732.00	0.8738%
3-Aug-10	18,260.00	18,260.00	18,200.00	18,230.00	18,230.00	30.00	834.00	3,948.00	0.1647%
2-Aug-10	18,240.00	18,270.00	18,190.00	18,210.00	18,200.00	80.00	1,081.00	3,940.00	0.4405%

GFZ10 (December 2010)

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
29-Dec-10	20,120.00	20,180.00	20,080.00	20,140.00	20,124.45	194.45	1,086.00	1,338.00	0.9709%
28-Dec-10	19,880.00	19,940.00	19,860.00	19,940.00	19,930.00	120.00	474.00	2,034.00	0.6039%
27-Dec-10	19,810.00	19,830.00	19,800.00	19,810.00	19,810.00	(20.00)	267.00	2,140.00	-0.1009%
24-Dec-10	19,820.00	19,840.00	19,790.00	19,840.00	19,830.00	20.00	129.00	2,104.00	0.1009%
23-Dec-10	19,880.00	19,880.00	19,800.00	19,810.00	19,810.00	(90.00)	217.00	2,138.00	-0.4533%
22-Dec-10	19,900.00	19,910.00	19,870.00	19,900.00	19,900.00	-	214.00	2,211.00	0.0000%
21-Dec-10	19,860.00	19,900.00	19,860.00	19,890.00	19,900.00	50.00	295.00	2,211.00	0.2516%
20-Dec-10	19,880.00	19,890.00	19,840.00	19,840.00	19,850.00	110.00	562.00	2,318.00	0.5557%
17-Dec-10	19,700.00	19,750.00	19,700.00	19,730.00	19,740.00	(70.00)	665.00	2,275.00	-0.3540%
16-Dec-10	19,790.00	19,820.00	19,760.00	19,800.00	19,810.00	(100.00)	625.00	2,332.00	-0.5035%
15-Dec-10	19,960.00	19,980.00	19,890.00	19,910.00	19,910.00	(140.00)	750.00	2,376.00	-0.7007%
14-Dec-10	20,000.00	20,090.00	20,000.00	20,050.00	20,050.00	130.00	648.00	2,410.00	0.6505%
13-Dec-10	19,790.00	19,930.00	19,790.00	19,920.00	19,920.00	60.00	415.00	2,501.00	0.3017%
9-Dec-10	19,890.00	19,910.00	19,840.00	19,860.00	19,860.00	(160.00)	1,136.00	2,549.00	-0.8024%
8-Dec-10	19,960.00	20,020.00	19,890.00	20,020.00	20,020.00	(220.00)	1,192.00	2,697.00	-1.0929%
7-Dec-10	20,190.00	20,250.00	20,190.00	20,230.00	20,240.00	380.00	1,343.00	2,905.00	1.8953%
3-Dec-10	19,830.00	19,870.00	19,820.00	19,860.00	19,860.00	10.00	435.00	3,082.00	0.0504%
2-Dec-10	19,850.00	19,870.00	19,830.00	19,850.00	19,850.00	(10.00)	467.00	3,034.00	-0.0504%
1-Dec-10	19,880.00	19,900.00	19,840.00	19,850.00	19,860.00	150.00	1,696.00	2,992.00	0.7582%
30-Nov-10	19,600.00	19,720.00	19,570.00	19,710.00	19,710.00	150.00	1,542.00	3,357.00	0.7639%
29-Nov-10	19,590.00	19,630.00	19,520.00	19,560.00	19,560.00	(20.00)	1,078.00	3,185.00	-0.1022%
26-Nov-10	19,610.00	19,660.00	19,580.00	19,580.00	19,580.00	-	1,002.00	3,076.00	0.0000%
25-Nov-10	19,600.00	19,620.00	19,570.00	19,580.00	19,580.00	(90.00)	540.00	3,115.00	-0.4586%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
24-Nov-10	19,640.00	19,710.00	19,640.00	19,670.00	19,670.00	140.00	1,586.00	3,077.00	0.7143%
23-Nov-10	19,430.00	19,550.00	19,420.00	19,530.00	19,530.00	150.00	1,041.00	3,604.00	0.7710%
22-Nov-10	19,400.00	19,440.00	19,370.00	19,390.00	19,380.00	(20.00)	1,174.00	3,900.00	-0.1031%
19-Nov-10	19,400.00	19,410.00	19,310.00	19,400.00	19,400.00	-	1,416.00	4,053.00	0.0000%
18-Nov-10	19,290.00	19,420.00	19,280.00	19,400.00	19,400.00	240.00	1,386.00	3,984.00	1.2448%
17-Nov-10	19,110.00	19,180.00	19,080.00	19,180.00	19,160.00	(250.00)	1,785.00	4,031.00	-1.2964%
16-Nov-10	19,410.00	19,420.00	19,370.00	19,420.00	19,410.00	(140.00)	1,428.00	3,924.00	-0.7187%
15-Nov-10	19,570.00	19,600.00	19,510.00	19,550.00	19,550.00	(140.00)	1,645.00	3,611.00	-0.7136%
12-Nov-10	19,790.00	19,800.00	19,640.00	19,700.00	19,690.00	(140.00)	2,403.00	3,440.00	-0.7085%
11-Nov-10	19,750.00	19,840.00	19,750.00	19,840.00	19,830.00	90.00	1,455.00	3,271.00	0.4549%
10-Nov-10	19,680.00	19,780.00	19,640.00	19,740.00	19,740.00	(40.00)	1,716.00	3,146.00	-0.2024%
9-Nov-10	19,770.00	19,800.00	19,750.00	19,780.00	19,780.00	220.00	2,068.00	2,929.00	1.1185%
8-Nov-10	19,560.00	19,580.00	19,530.00	19,550.00	19,560.00	50.00	1,323.00	3,182.00	0.2560%
5-Nov-10	19,560.00	19,600.00	19,500.00	19,500.00	19,510.00	210.00	3,319.00	3,708.00	1.0822%
4-Nov-10	19,280.00	19,310.00	19,220.00	19,300.00	19,300.00	20.00	985.00	4,411.00	0.1037%
3-Nov-10	19,260.00	19,300.00	19,230.00	19,290.00	19,280.00	(60.00)	956.00	4,076.00	-0.3107%
2-Nov-10	19,290.00	19,350.00	19,290.00	19,340.00	19,340.00	(40.00)	840.00	3,732.00	-0.2066%
1-Nov-10	19,310.00	19,390.00	19,300.00	19,390.00	19,380.00	270.00	2,019.00	3,472.00	1.4030%
29-Oct-10	19,150.00	19,160.00	19,100.00	19,100.00	19,110.00	110.00	1,185.00	4,472.00	0.5773%
28-Oct-10	19,020.00	19,050.00	18,980.00	19,000.00	19,000.00	(90.00)	985.00	4,708.00	-0.4726%
27-Oct-10	19,100.00	19,130.00	19,050.00	19,090.00	19,090.00	(20.00)	697.00	4,502.00	-0.1047%
26-Oct-10	19,080.00	19,150.00	19,070.00	19,120.00	19,110.00	170.00	1,232.00	4,466.00	0.8936%
22-Oct-10	19,040.00	19,040.00	18,850.00	18,950.00	18,940.00	(270.00)	1,951.00	4,194.00	-1.4155%
21-Oct-10	19,210.00	19,240.00	19,170.00	19,210.00	19,210.00	-	905.00	3,761.00	0.0000%
20-Oct-10	19,190.00	19,240.00	19,180.00	19,210.00	19,210.00	(300.00)	1,651.00	3,384.00	-1.5496%

Date	Open	High	Low	Close	Settlement Price	Change	Volume	Open Interest	Returns
19-Oct-10	19,500.00	19,530.00	19,470.00	19,520.00	19,510.00	60.00	753.00	2,689.00	0.3080%
18-Oct-10	19,400.00	19,450.00	19,350.00	19,450.00	19,450.00	(120.00)	1,118.00	2,650.00	-0.6151%
15-Oct-10	19,590.00	19,610.00	19,550.00	19,580.00	19,570.00	-	693.00	2,289.00	0.0000%
14-Oct-10	19,520.00	19,610.00	19,510.00	19,570.00	19,570.00	250.00	1,719.00	2,133.00	1.2857%
13-Oct-10	19,350.00	19,360.00	19,300.00	19,330.00	19,320.00	60.00	543.00	2,042.00	0.3110%
12-Oct-10	19,300.00	19,340.00	19,200.00	19,260.00	19,260.00	(50.00)	831.00	1,948.00	-0.2593%
11-Oct-10	19,250.00	19,350.00	19,250.00	19,320.00	19,310.00	300.00	951.00	1,916.00	1.5658%
8-Oct-10	19,110.00	19,130.00	18,980.00	19,040.00	19,010.00	(260.00)	1,337.00	1,910.00	-1.3584%
7-Oct-10	19,140.00	19,340.00	19,140.00	19,270.00	19,270.00	140.00	1,128.00	1,932.00	0.7292%
6-Oct-10	19,150.00	19,160.00	19,110.00	19,120.00	19,130.00	170.00	719.00	1,942.00	0.8926%
5-Oct-10	18,870.00	18,990.00	18,870.00	18,960.00	18,960.00	90.00	822.00	1,761.00	0.4758%
4-Oct-10	18,900.00	18,920.00	18,860.00	18,870.00	18,870.00	(20.00)	247.00	1,509.00	-1.0590%



APPENDIX B

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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Unit Root Test for Gold Spot Price on October 2009 – December 2009

Null Hypothesis: S1 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.508443	0.0000
Test critical values:		
1% level	-3.504727	
5% level	-2.893956	
10% level	-2.584126	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(S1)
Method: Least Squares
Date: 01/12/11 Time: 16:01
Sample (adjusted): 2 91
Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S1(-1)	-1.014288	0.106672	-9.508443	0.0000
C	0.000925	0.001094	0.844802	0.4005
R-squared	0.506755	Mean dependent var		-4.50E-05
Adjusted R-squared	0.501150	S.D. dependent var		0.014636
S.E. of regression	0.010337	Akaike info criterion		-6.284167
Sum squared resid	0.009403	Schwarz criterion		-6.228616
Log likelihood	284.7875	Hannan-Quinn criter.		-6.261766
F-statistic	90.41049	Durbin-Watson stat		1.990415
Prob(F-statistic)	0.000000			

Null Hypothesis: S1 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.722168	0.0000
Test critical values:		
1% level	-4.063233	
5% level	-3.460516	
10% level	-3.156439	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(S1)
 Method: Least Squares
 Date: 02/21/11 Time: 00:42
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S1(-1)	-1.043396	0.107321	-9.722168	0.0000
C	-0.002105	0.002190	-0.961225	0.3391
@TREND(1)	6.72E-05	4.22E-05	1.592501	0.1149
R-squared	0.520726	Mean dependent var		-4.50E-05
Adjusted R-squared	0.509709	S.D. dependent var		0.014636
S.E. of regression	0.010248	Akaike info criterion		-6.290678
Sum squared resid	0.009137	Schwarz criterion		-6.207351
Log likelihood	286.0805	Hannan-Quinn criter.		-6.257076
F-statistic	47.26234	Durbin-Watson stat		1.992719
Prob(F-statistic)	0.000000			

Null Hypothesis: S1 has a unit root

Exogenous: **None**

Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.486200	0.0000
Test critical values:		
1% level	-2.590910	
5% level	-1.944445	
10% level	-1.614392	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(S1)

Method: Least Squares

Date: 02/21/11 Time: 00:47

Sample (adjusted): 2 91

Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S1(-1)	-1.005892	0.106037	-9.486200	0.0000
R-squared	0.502755	Mean dependent var		-4.50E-05
Adjusted R-squared	0.502755	S.D. dependent var		0.014636
S.E. of regression	0.010321	Akaike info criterion		-6.298312
Sum squared resid	0.009480	Schwarz criterion		-6.270536
Log likelihood	284.4240	Hannan-Quinn criter.		-6.287111
Durbin-Watson stat	1.990518			

Unit Root Test for Gold Future Price on October 2009 – December 2009

Null Hypothesis: F1 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.730314	0.0000
Test critical values:		
1% level	-3.504727	
5% level	-2.893956	
10% level	-2.584126	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(F1)
Method: Least Squares
Date: 01/12/11 Time: 16:05
Sample (adjusted): 2 91
Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F1(-1)	-0.809113	0.104667	-7.730314	0.0000
C	0.000812	0.001003	0.809784	0.4202
R-squared	0.404431	Mean dependent var		-1.39E-05
Adjusted R-squared	0.397663	S.D. dependent var		0.012193
S.E. of regression	0.009463	Akaike info criterion		-6.460835
Sum squared resid	0.007881	Schwarz criterion		-6.405284
Log likelihood	292.7376	Hannan-Quinn criter.		-6.438434
F-statistic	59.75776	Durbin-Watson stat		1.958645
Prob(F-statistic)	0.000000			

Null Hypothesis: F1 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.864891	0.0000
Test critical values:		
1% level	-4.063233	
5% level	-3.460516	
10% level	-3.156439	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F1)
 Method: Least Squares
 Date: 02/21/11 Time: 00:43
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F1(-1)	-0.832495	0.105850	-7.864891	0.0000
C	-0.001438	0.002014	-0.714011	0.4771
@TREND(1)	5.00E-05	3.88E-05	1.287164	0.2015
R-squared	0.415560	Mean dependent var		-1.39E-05
Adjusted R-squared	0.402125	S.D. dependent var		0.012193
S.E. of regression	0.009428	Akaike info criterion		-6.457478
Sum squared resid	0.007733	Schwarz criterion		-6.374151
Log likelihood	293.5865	Hannan-Quinn criter.		-6.423875
F-statistic	30.93028	Durbin-Watson stat		1.954390
Prob(F-statistic)	0.000000			

Null Hypothesis: F1 has a unit root
 Exogenous: **None**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.702707	0.0000
Test critical values:		
1% level	-2.590910	
5% level	-1.944445	
10% level	-1.614392	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F1)
 Method: Least Squares
 Date: 02/21/11 Time: 00:47
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F1(-1)	-0.800082	0.103870	-7.702707	0.0000
R-squared	0.399993	Mean dependent var		-1.39E-05
Adjusted R-squared	0.399993	S.D. dependent var		0.012193
S.E. of regression	0.009445	Akaike info criterion		-6.475634
Sum squared resid	0.007939	Schwarz criterion		-6.447858
Log likelihood	292.4035	Hannan-Quinn criter.		-6.464433
Durbin-Watson stat	1.960295			

Unit Root Test for Gold Spot Price on December 2009 – February 2010

Null Hypothesis: S2 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.995883	0.0000
Test critical values:		
1% level	-3.505595	
5% level	-2.894332	
10% level	-2.584325	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(S2)
Method: Least Squares
Date: 01/26/11 Time: 21:27
Sample (adjusted): 2 90
Included observations: 89 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2(-1)	-0.872456	0.109113	-7.995883	0.0000
C	-0.000424	0.001154	-0.367679	0.7140
R-squared	0.423590	Mean dependent var		0.000248
Adjusted R-squared	0.416964	S.D. dependent var		0.014216
S.E. of regression	0.010855	Akaike info criterion		-6.186188
Sum squared resid	0.010251	Schwarz criterion		-6.130263
Log likelihood	277.2854	Hannan-Quinn criter.		-6.163646
F-statistic	63.93415	Durbin-Watson stat		1.908753
Prob(F-statistic)	0.000000			

Null Hypothesis: S2 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.990444	0.0000
Test critical values:		
1% level	-4.064453	
5% level	-3.461094	
10% level	-3.156776	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(S2)
 Method: Least Squares
 Date: 02/21/11 Time: 00:52
 Sample (adjusted): 2 90
 Included observations: 89 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2(-1)	-0.882524	0.110447	-7.990444	0.0000
C	0.000956	0.002336	0.409334	0.6833
@TREND(1)	-3.08E-05	4.53E-05	-0.680344	0.4981
R-squared	0.426675	Mean dependent var		0.000248
Adjusted R-squared	0.413342	S.D. dependent var		0.014216
S.E. of regression	0.010889	Akaike info criterion		-6.169084
Sum squared resid	0.010196	Schwarz criterion		-6.085197
Log likelihood	277.5242	Hannan-Quinn criter.		-6.135271
F-statistic	32.00115	Durbin-Watson stat		1.902836
Prob(F-statistic)	0.000000			

Null Hypothesis: S2 has a unit root

Exogenous: **None**

Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.029884	0.0000
Test critical values:		
1% level	-2.591204	
5% level	-1.944487	
10% level	-1.614367	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(S2)

Method: Least Squares

Date: 02/21/11 Time: 00:55

Sample (adjusted): 2 90

Included observations: 89 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S2(-1)	-0.869533	0.108287	-8.029884	0.0000
R-squared	0.422694	Mean dependent var		0.000248
Adjusted R-squared	0.422694	S.D. dependent var		0.014216
S.E. of regression	0.010801	Akaike info criterion		-6.207107
Sum squared resid	0.010267	Schwarz criterion		-6.179145
Log likelihood	277.2163	Hannan-Quinn criter.		-6.195836
Durbin-Watson stat	1.910550			

Unit Root Test for Gold Future Price on December 2009 – February 2010

Null Hypothesis: F2 has a unit root
Exogenous: **Constant**
Lag Length: 1 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.603045	0.0000
Test critical values:		
1% level	-3.506484	
5% level	-2.894716	
10% level	-2.584529	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(F2)
Method: Least Squares
Date: 01/26/11 Time: 21:29
Sample (adjusted): 3 90
Included observations: 88 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F2(-1)	-1.030200	0.135498	-7.603045	0.0000
D(F2(-1))	0.298589	0.107181	2.785830	0.0066
C	-0.001000	0.001156	-0.865552	0.3892

R-squared	0.436528	Mean dependent var	0.000194
Adjusted R-squared	0.423270	S.D. dependent var	0.014130
S.E. of regression	0.010731	Akaike info criterion	-6.197952
Sum squared resid	0.009787	Schwarz criterion	-6.113497
Log likelihood	275.7099	Hannan-Quinn criter.	-6.163927
F-statistic	32.92526	Durbin-Watson stat	2.025781
Prob(F-statistic)	0.000000		

Null Hypothesis: F2 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 1 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.566525	0.0000
Test critical values:		
1% level	-4.065702	
5% level	-3.461686	
10% level	-3.157121	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F2)
 Method: Least Squares
 Date: 02/21/11 Time: 00:53
 Sample (adjusted): 3 90
 Included observations: 88 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F2(-1)	-1.036648	0.137005	-7.566525	0.0000
D(F2(-1))	0.303048	0.108215	2.800421	0.0063
C	-0.000130	0.002359	-0.055121	0.9562
@TREND(1)	-1.93E-05	4.56E-05	-0.423787	0.6728
R-squared	0.437730	Mean dependent var		0.000194
Adjusted R-squared	0.417649	S.D. dependent var		0.014130
S.E. of regression	0.010783	Akaike info criterion		-6.177361
Sum squared resid	0.009766	Schwarz criterion		-6.064754
Log likelihood	275.8039	Hannan-Quinn criter.		-6.131994
F-statistic	21.79818	Durbin-Watson stat		2.027078
Prob(F-statistic)	0.000000			

Null Hypothesis: F2 has a unit root
 Exogenous: **None**
 Lag Length: 1 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.567795	0.0000
Test critical values:		
1% level	-2.591505	
5% level	-1.944530	
10% level	-1.614341	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F2)
 Method: Least Squares
 Date: 02/21/11 Time: 00:56
 Sample (adjusted): 3 90
 Included observations: 88 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F2(-1)	-1.013525	0.133926	-7.567795	0.0000
D(F2(-1))	0.288834	0.106432	2.713797	0.0080
R-squared	0.431562	Mean dependent var		0.000194
Adjusted R-squared	0.424952	S.D. dependent var		0.014130
S.E. of regression	0.010715	Akaike info criterion		-6.211904
Sum squared resid	0.009874	Schwarz criterion		-6.155601
Log likelihood	275.3238	Hannan-Quinn criter.		-6.189221
Durbin-Watson stat	2.020156			

Unit Root Test for Gold Spot Price on August 2010 – October 2010

Null Hypothesis: S3 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-11.16829	0.0001
Test critical values:		
1% level	-3.503879	
5% level	-2.893589	
10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(S3)
Method: Least Squares
Date: 01/26/11 Time: 21:44
Sample (adjusted): 2 92
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S3(-1)	-1.167176	0.104508	-11.16829	0.0000
C	0.000893	0.000712	1.254065	0.2131
R-squared	0.583588	Mean dependent var		-1.35E-19
Adjusted R-squared	0.578909	S.D. dependent var		0.010399
S.E. of regression	0.006748	Akaike info criterion		-7.137382
Sum squared resid	0.004053	Schwarz criterion		-7.082198
Log likelihood	326.7509	Hannan-Quinn criter.		-7.115119
F-statistic	124.7306	Durbin-Watson stat		1.960436
Prob(F-statistic)	0.000000			

Null Hypothesis: S3 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-11.10546	0.0000
Test critical values:		
1% level	-4.062040	
5% level	-3.459950	
10% level	-3.156109	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(S3)
 Method: Least Squares
 Date: 02/21/11 Time: 00:57
 Sample (adjusted): 2 92
 Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S3(-1)	-1.167175	0.105099	-11.10546	0.0000
C	0.000941	0.001437	0.655134	0.5141
@TREND(1)	-1.06E-06	2.71E-05	-0.038978	0.9690
R-squared	0.583595	Mean dependent var		-1.35E-19
Adjusted R-squared	0.574131	S.D. dependent var		0.010399
S.E. of regression	0.006786	Akaike info criterion		-7.115421
Sum squared resid	0.004053	Schwarz criterion		-7.032645
Log likelihood	326.7517	Hannan-Quinn criter.		-7.082026
F-statistic	61.66641	Durbin-Watson stat		1.960465
Prob(F-statistic)	0.000000			

Null Hypothesis: S3 has a unit root
 Exogenous: **None**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-11.06252	0.0000
Test critical values:		
1% level	-2.590622	
5% level	-1.944404	
10% level	-1.614417	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(S3)
 Method: Least Squares
 Date: 02/21/11 Time: 00:59
 Sample (adjusted): 2 92
 Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S3(-1)	-1.152460	0.104177	-11.06252	0.0000
R-squared	0.576230	Mean dependent var		-1.35E-19
Adjusted R-squared	0.576230	S.D. dependent var		0.010399
S.E. of regression	0.006770	Akaike info criterion		-7.141844
Sum squared resid	0.004124	Schwarz criterion		-7.114252
Log likelihood	325.9539	Hannan-Quinn criter.		-7.130712
Durbin-Watson stat	1.955309			

Unit Root Test for Gold Future Price on August 2010 – October 2010

Null Hypothesis: F3 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-10.19340	0.0000
Test critical values:		
1% level	-3.503879	
5% level	-2.893589	
10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(F3)
Method: Least Squares
Date: 01/26/11 Time: 21:45
Sample (adjusted): 2 92
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F3(-1)	-1.077268	0.105683	-10.19340	0.0000
C	0.000492	0.000565	0.872243	0.3854
R-squared	0.538634	Mean dependent var		1.72E-19
Adjusted R-squared	0.533450	S.D. dependent var		0.007857
S.E. of regression	0.005366	Akaike info criterion		-7.595602
Sum squared resid	0.002563	Schwarz criterion		-7.540418
Log likelihood	347.5999	Hannan-Quinn criter.		-7.573339
F-statistic	103.9054	Durbin-Watson stat		1.995679
Prob(F-statistic)	0.000000			

Null Hypothesis: F3 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-10.20559	0.0000
Test critical values:		
1% level	-4.062040	
5% level	-3.459950	
10% level	-3.156109	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F3)
 Method: Least Squares
 Date: 02/21/11 Time: 00:57
 Sample (adjusted): 2 92
 Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F3(-1)	-1.084334	0.106249	-10.20559	0.0000
C	-0.000305	0.001137	-0.268316	0.7891
@TREND(1)	1.74E-05	2.15E-05	0.808581	0.4209
R-squared	0.542037	Mean dependent var		1.72E-19
Adjusted R-squared	0.531628	S.D. dependent var		0.007857
S.E. of regression	0.005377	Akaike info criterion		-7.581026
Sum squared resid	0.002544	Schwarz criterion		-7.498250
Log likelihood	347.9367	Hannan-Quinn criter.		-7.547631
F-statistic	52.07753	Durbin-Watson stat		1.995982
Prob(F-statistic)	0.000000			

Null Hypothesis: F3 has a unit root
 Exogenous: **None**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-10.16954	0.0000
Test critical values:		
1% level	-2.590622	
5% level	-1.944404	
10% level	-1.614417	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F3)
 Method: Least Squares
 Date: 02/21/11 Time: 00:59
 Sample (adjusted): 2 92
 Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F3(-1)	-1.069380	0.105155	-10.16954	0.0000
R-squared	0.534690	Mean dependent var		1.72E-19
Adjusted R-squared	0.534690	S.D. dependent var		0.007857
S.E. of regression	0.005359	Akaike info criterion		-7.609068
Sum squared resid	0.002585	Schwarz criterion		-7.581476
Log likelihood	347.2126	Hannan-Quinn criter.		-7.597936
Durbin-Watson stat	1.994981			

Unit Root Test for Gold Spot Price on October 2010 – December 2010

Null Hypothesis: S4 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-10.11483	0.0000
Test critical values:		
1% level	-3.504727	
5% level	-2.893956	
10% level	-2.584126	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(S4)
Method: Least Squares
Date: 01/26/11 Time: 21:59
Sample (adjusted): 2 91
Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S4(-1)	-1.075942	0.106373	-10.11483	0.0000
C	0.000841	0.000802	1.047816	0.2976
R-squared	0.537596	Mean dependent var		0.000121
Adjusted R-squared	0.532341	S.D. dependent var		0.011089
S.E. of regression	0.007583	Akaike info criterion		-6.903836
Sum squared resid	0.005060	Schwarz criterion		-6.848285
Log likelihood	312.6726	Hannan-Quinn criter.		-6.881435
F-statistic	102.3098	Durbin-Watson stat		1.985804
Prob(F-statistic)	0.000000			

Null Hypothesis: S4 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-10.05744	0.0000
Test critical values:		
1% level	-4.063233	
5% level	-3.460516	
10% level	-3.156439	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(S4)
 Method: Least Squares
 Date: 02/21/11 Time: 01:01
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S4(-1)	-1.075977	0.106983	-10.05744	0.0000
C	0.000910	0.001623	0.560788	0.5764
@TREND(1)	-1.53E-06	3.09E-05	-0.049322	0.9608
R-squared	0.537609	Mean dependent var		0.000121
Adjusted R-squared	0.526979	S.D. dependent var		0.011089
S.E. of regression	0.007626	Akaike info criterion		-6.881642
Sum squared resid	0.005060	Schwarz criterion		-6.798315
Log likelihood	312.6739	Hannan-Quinn criter.		-6.848039
F-statistic	50.57622	Durbin-Watson stat		1.985793
Prob(F-statistic)	0.000000			

Null Hypothesis: S4 has a unit root
 Exogenous: **None**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-10.05603	0.0000
Test critical values:		
1% level	-2.590910	
5% level	-1.944445	
10% level	-1.614392	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(S4)
 Method: Least Squares
 Date: 02/21/11 Time: 01:03
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
S4(-1)	-1.066062	0.106012	-10.05603	0.0000
R-squared	0.531827	Mean dependent var		0.000121
Adjusted R-squared	0.531827	S.D. dependent var		0.011089
S.E. of regression	0.007587	Akaike info criterion		-6.913659
Sum squared resid	0.005123	Schwarz criterion		-6.885883
Log likelihood	312.1147	Hannan-Quinn criter.		-6.902458
Durbin-Watson stat	1.980660			

Unit Root Test for Gold Future Price on October 2010 – December 2010

Null Hypothesis: F4 has a unit root
Exogenous: **Constant**
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.900989	0.0000
Test critical values:		
1% level	-3.504727	
5% level	-2.893956	
10% level	-2.584126	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(F4)
Method: Least Squares
Date: 01/26/11 Time: 22:00
Sample (adjusted): 2 91
Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F4(-1)	-1.053914	0.106445	-9.900989	0.0000
C	0.000741	0.000661	1.120648	0.2655
R-squared	0.526957	Mean dependent var		4.28E-22
Adjusted R-squared	0.521581	S.D. dependent var		0.009014
S.E. of regression	0.006235	Akaike info criterion		-7.295299
Sum squared resid	0.003421	Schwarz criterion		-7.239748
Log likelihood	330.2885	Hannan-Quinn criter.		-7.272898
F-statistic	98.02959	Durbin-Watson stat		2.004347
Prob(F-statistic)	0.000000			

Null Hypothesis: F4 has a unit root
 Exogenous: **Constant, Linear Trend**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.844858	0.0000
Test critical values:		
1% level	-4.063233	
5% level	-3.460516	
10% level	-3.156439	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F4)
 Method: Least Squares
 Date: 02/21/11 Time: 01:01
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F4(-1)	-1.053978	0.107059	-9.844858	0.0000
C	0.000673	0.001335	0.504509	0.6152
@TREND(1)	1.50E-06	2.54E-05	0.058760	0.9533
R-squared	0.526976	Mean dependent var		4.28E-22
Adjusted R-squared	0.516102	S.D. dependent var		0.009014
S.E. of regression	0.006271	Akaike info criterion		-7.273117
Sum squared resid	0.003421	Schwarz criterion		-7.189790
Log likelihood	330.2902	Hannan-Quinn criter.		-7.239514
F-statistic	48.46146	Durbin-Watson stat		2.004304
Prob(F-statistic)	0.000000			

Null Hypothesis: F4 has a unit root
 Exogenous: **None**
 Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.823255	0.0000
Test critical values:		
1% level	-2.590910	
5% level	-1.944445	
10% level	-1.614392	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(F4)
 Method: Least Squares
 Date: 02/21/11 Time: 01:03
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F4(-1)	-1.040412	0.105913	-9.823255	0.0000
R-squared	0.520206	Mean dependent var		4.28E-22
Adjusted R-squared	0.520206	S.D. dependent var		0.009014
S.E. of regression	0.006244	Akaike info criterion		-7.303351
Sum squared resid	0.003470	Schwarz criterion		-7.275576
Log likelihood	329.6508	Hannan-Quinn criter.		-7.292150
Durbin-Watson stat	2.002075			



APPENDIX C

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Johansen Cointegration test summary for

GFZ09 (December 2009)

Date: 01/12/11 Time: 20:12

Sample: 1 91

Included observations: 88

Series: S1 F1

Lags interval: 1 to 2

Selected (0.05 level*) Number of Cointegrating Relations by Model

Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Trace	2	2	2	2	2
Max-Eig	2	2	2	2	2

*Critical values based on MacKinnon-Haug-Michelis (1999)

Information Criteria by Rank and Model

Data Trend:	None	None	Linear	Linear	Quadratic
Rank or No. of CEs	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend

Log Likelihood by Rank (rows) and Model (columns)

0	557.6236	557.6236	557.6315	557.6315	557.6952
1	579.4759	579.4767	579.4841	579.4843	579.5434
2	590.6511	591.2245	591.2245	592.1087	592.1087

Akaike Information Criteria by Rank (rows) and Model (columns)

0	-12.49144	-12.49144	-12.44617	-12.44617	-12.40216
1	-12.89718	-12.87447	-12.85191	-12.82919	-12.80780
2	-13.06025*	-13.02783	-13.02783	-13.00247	-13.00247

Schwarz Criteria by Rank (rows) and Model (columns)

0	-12.26623	-12.26623	-12.16465	-12.16465	-12.06434
1	-12.55936	-12.50850	-12.45779	-12.40692	-12.35738
2	-12.60983*	-12.52110	-12.52110	-12.43944	-12.43944

Johansen Cointegration test summary for GFG10 (February 2010)

Date: 01/26/11 Time: 21:30
 Sample: 1 90
 Included observations: 87
 Series: F2 S2
 Lags interval: 1 to 2

Selected (0.05 level*) Number of Cointegrating Relations by Model

Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Trace	2	2	2	2	2
Max-Eig	2	2	2	2	2

*Critical values based on MacKinnon-Haug-Michelis (1999)

Information Criteria by Rank and Model

Data Trend:	None	None	Linear	Linear	Quadratic
Rank or No. of CEs	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	542.2522	542.2522	542.2819	542.2819	542.5993
1	564.8536	564.9118	564.9256	565.0066	565.1991
2	580.0425	580.5236	580.5236	580.9400	580.9400

Akaike Information Criteria by Rank (rows) and Model (columns)

0	-12.28166	-12.28166	-12.23637	-12.23637	-12.19768
1	-12.70928	-12.68763	-12.66496	-12.64383	-12.62527
2	-12.96649*	-12.93158	-12.93158	-12.89517	-12.89517

Schwarz Criteria by Rank (rows) and Model (columns)

0	-12.05491	-12.05491	-11.95293	-11.95293	-11.85756
1	-12.36915	-12.31916	-12.26814	-12.21867	-12.17177
2	-12.51299*	-12.42139	-12.42139	-12.32830	-12.32830

Johansen Cointegration test summary for GFV10 (October 2010)

Date: 01/26/11 Time: 21:46
 Sample: 1 92
 Included observations: 89
 Series: S3 F3
 Lags interval: 1 to 2

Selected (0.05 level*) Number of Cointegrating Relations by Model

Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Trace	2	2	2	2	2
Max-Eig	2	2	2	2	2

*Critical values based on MacKinnon-Haug-Michelis (1999)

Information Criteria by Rank and Model

Data Trend:	None	None	Linear	Linear	Quadratic
Rank or No. of CEs	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	675.2863	675.2863	675.3964	675.3964	675.5694
1	708.9983	709.3474	709.3503	709.4594	709.4597
2	720.4888	721.2569	721.2569	721.5954	721.5954

Akaike Information Criteria by Rank (rows) and Model (columns)

0	-14.99520	-14.99520	-14.95273	-14.95273	-14.91167
1	-15.66288	-15.64826	-15.62585	-15.60583	-15.58336
2	-15.83121*	-15.80353	-15.80353	-15.76619	-15.76619

Schwarz Criteria by Rank (rows) and Model (columns)

0	-14.77150	-14.77150	-14.67311	-14.67311	-14.57613
1	-15.32734	-15.28475	-15.23438	-15.18640	-15.13597
2	-15.38381*	-15.30021	-15.30021	-15.20694	-15.20694

Johansen Cointegration test summary for GFZ10 (December 2010)

Date: 01/26/11 Time: 22:01
 Sample: 1 91
 Included observations: 88
 Series: F4 S4
 Lags interval: 1 to 2

Selected (0.05 level*) Number of Cointegrating Relations by Model

Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Trace	2	2	2	2	2
Max-Eig	2	2	2	2	2

*Critical values based on MacKinnon-Haug-Michelis (1999)

Information Criteria by Rank and Model

Data Trend:	None	None	Linear	Linear	Quadratic
Rank or No. of CEs	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	631.3875	631.3875	631.4010	631.4010	631.4545
1	662.7145	662.7146	662.7275	662.7277	662.7376
2	677.3462	677.9388	677.9388	677.9763	677.9763

Akaike Information Criteria by Rank (rows) and Model (columns)

0	-14.16790	-14.16790	-14.12275	-14.12275	-14.07851
1	-14.78896	-14.76624	-14.74381	-14.72108	-14.69858
2	-15.03060*	-14.99861	-14.99861	-14.95401	-14.95401

Schwarz Criteria by Rank (rows) and Model (columns)

0	-13.94269	-13.94269	-13.84123	-13.84123	-13.74069
1	-14.45115	-14.40027	-14.34968	-14.29881	-14.24816
2	-14.58017*	-14.49188	-14.49188	-14.39098	-14.39098



APPENDIX D

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Vector Autoregression Estimates for GFZ09 (December 2009)

Date: 01/12/11 Time: 16:06
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments
 Standard errors in () & t-statistics in []

	S1	F1
S1(-1)	-0.159086 (0.13498) [-1.17863]	0.019954 (0.12563) [0.15884]
F1(-1)	0.248831 (0.14467) [1.72000]	0.177548 (0.13465) [1.31857]
C	0.000809 (0.00108) [0.74582]	0.000807 (0.00101) [0.79942]
R-squared	0.033083	0.036699
Adj. R-squared	0.010855	0.014554
Sum sq. resids	0.009094	0.007878
S.E. equation	0.010224	0.009516
F-statistic	1.488363	1.657225
Log likelihood	286.2923	292.7506
Akaike AIC	-6.295384	-6.438903
Schwarz SC	-6.212057	-6.355576
Mean dependent	0.000911	0.001007
S.D. dependent	0.010280	0.009586
Determinant resid covariance (dof adj.)		5.80E-09
Determinant resid covariance		5.42E-09
Log likelihood		601.1053
Akaike information criterion		-13.22456
Schwarz criterion		-13.05791

Vector Autoregression Estimates for GFG10 (February 2010)

Vector Autoregression Estimates
 Date: 01/26/11 Time: 21:32
 Sample (adjusted): 2 90
 Included observations: 89 after adjustments
 Standard errors in () & t-statistics in []

	S2	F2
S2(-1)	-0.002165 (0.15213) [-0.01423]	0.141633 (0.15588) [0.90858]
F2(-1)	0.177176 (0.14524) [1.21991]	0.120694 (0.14882) [0.81101]
C	-0.000333 (0.00115) [-0.28890]	-0.000647 (0.00118) [-0.54778]
R-squared	0.032209	0.054043
Adj. R-squared	0.009703	0.032044
Sum sq. resid	0.010077	0.010580
S.E. equation	0.010825	0.011091
F-statistic	1.431097	2.456594
Log likelihood	278.0488	275.8810
Akaike AIC	-6.180872	-6.132157
Schwarz SC	-6.096986	-6.048270
Mean dependent	-0.000522	-0.000886
S.D. dependent	0.010877	0.011274
Determinant resid covariance (dof adj.)		7.32E-09
Determinant resid covariance		6.83E-09
Log likelihood		584.1087
Akaike information criterion		-12.99121
Schwarz criterion		-12.82343

Vector Autoregression Estimates for GFV10 (October 2010)

Vector Autoregression Estimates
 Date: 01/26/11 Time: 21:46
 Sample (adjusted): 2 92
 Included observations: 91 after adjustments
 Standard errors in () & t-statistics in []

	S3	F3
S3(-1)	-0.375354 (0.16390) [-2.29013]	-0.309547 (0.12813) [-2.41583]
F3(-1)	0.341477 (0.20842) [1.63842]	0.227881 (0.16294) [1.39859]
C	0.000896 (0.00071) [1.27030]	0.000590 (0.00055) [1.06965]
R-squared	0.056722	0.067795
Adj. R-squared	0.035284	0.046609
Sum sq. resids	0.003933	0.002404
S.E. equation	0.006685	0.005226
F-statistic	2.645860	3.199919
Log likelihood	328.1181	350.5216
Akaike AIC	-7.145453	-7.637838
Schwarz SC	-7.062677	-7.555063
Mean dependent	0.000765	0.000457
S.D. dependent	0.006806	0.005352
Determinant resid covariance (dof adj.)		5.12E-10
Determinant resid covariance		4.79E-10
Log likelihood		718.1794
Akaike information criterion		-15.65230
Schwarz criterion		-15.48674

Vector Autoregression Estimates for GFZ10 (December 2010)

Vector Autoregression Estimates
 Date: 01/26/11 Time: 22:01
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments
 Standard errors in () & t-statistics in []

	S4	F4
S4(-1)	-0.144668 (0.16369) [-0.88380]	-0.116934 (0.13424) [-0.87106]
F4(-1)	0.110367 (0.19921) [0.55401]	0.053938 (0.16338) [0.33014]
C	0.000809 (0.00081) [1.00186]	0.000744 (0.00066) [1.12264]
R-squared	0.009254	0.011527
Adj. R-squared	-0.013522	-0.011196
Sum sq. resids	0.005042	0.003391
S.E. equation	0.007613	0.006244
F-statistic	0.406301	0.507290
Log likelihood	312.8311	330.6792
Akaike AIC	-6.885136	-7.281760
Schwarz SC	-6.801809	-7.198433
Mean dependent	0.000790	0.000703
S.D. dependent	0.007562	0.006209
Determinant resid covariance (dof adj.)		9.77E-10
Determinant resid covariance		9.13E-10
Log likelihood		681.2557
Akaike information criterion		-15.00568
Schwarz criterion		-14.83903



APPENDIX E

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Least Square Estimation of GFZ09 (December 2009)

Dependent Variable: S1
 Method: Least Squares
 Date: 01/26/11 Time: 15:49
 Sample: 1 91
 Included observations: 91
 Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000247	0.000710	0.347765	0.7288
F1	0.669142	0.178480	3.749116	0.0003
R-squared	0.389390	Mean dependent var		0.000914
Adjusted R-squared	0.382529	S.D. dependent var		0.010223
S.E. of regression	0.008033	Akaike info criterion		-6.788792
Sum squared resid	0.005743	Schwarz criterion		-6.733608
Log likelihood	310.8900	Hannan-Quinn criter.		-6.766529
F-statistic	56.75585	Durbin-Watson stat		2.343520
Prob(F-statistic)	0.000000			

Least Square Estimation GFG10 (February 2010)

Dependent Variable: S2
 Method: Least Squares
 Date: 01/26/11 Time: 21:37
 Sample: 1 90
 Included observations: 90
 Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.33E-05	0.000673	0.123690	0.9018
F2	0.684427	0.143946	4.754736	0.0000
R-squared	0.503199	Mean dependent var		-0.000517
Adjusted R-squared	0.497553	S.D. dependent var		0.010816
S.E. of regression	0.007667	Akaike info criterion		-6.881817
Sum squared resid	0.005173	Schwarz criterion		-6.826265
Log likelihood	311.6817	Hannan-Quinn criter.		-6.859415
F-statistic	89.13321	Durbin-Watson stat		2.175562
Prob(F-statistic)	0.000000			

Least Square Estimation of GFV10 (October 2010)

Dependent Variable: S3
 Method: Least Squares
 Date: 01/26/11 Time: 21:49
 Sample: 1 92
 Included observations: 92
 Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000311	0.000357	0.869464	0.3869
F3	0.985848	0.099197	9.938303	0.0000
R-squared	0.601010	Mean dependent var		0.000757
Adjusted R-squared	0.596577	S.D. dependent var		0.006769
S.E. of regression	0.004300	Akaike info criterion		-8.039124
Sum squared resid	0.001664	Schwarz criterion		-7.984302
Log likelihood	371.7997	Hannan-Quinn criter.		-8.016997
F-statistic	135.5697	Durbin-Watson stat		2.140258
Prob(F-statistic)	0.000000			

Least Square Estimation of GFZ10 (December 2010)

Dependent Variable: S4
 Method: Least Squares
 Date: 01/26/11 Time: 22:07
 Sample: 1 91
 Included observations: 91
 Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.26E-05	0.000400	0.231376	0.8176
F4	0.921012	0.101899	9.038503	0.0000
R-squared	0.568969	Mean dependent var		0.000733
Adjusted R-squared	0.564126	S.D. dependent var		0.007539
S.E. of regression	0.004978	Akaike info criterion		-7.745993
Sum squared resid	0.002205	Schwarz criterion		-7.690809
Log likelihood	354.4427	Hannan-Quinn criter.		-7.723730
F-statistic	117.4816	Durbin-Watson stat		2.044806
Prob(F-statistic)	0.000000			



APPENDIX F

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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Cointegrating Regression of GFZ09 (December 2009)

Dependent Variable: S1
 Method: Dynamic Least Squares (DOLS)
 Date: 01/28/02 Time: 19:22
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments
 Cointegrating equation deterministics: C @TREND @TREND^2
 Automatic leads and lags specification (lead=0 and lag=0 based on SIC
 criterion, max=11)
 Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth =
 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F1	0.661154	0.094585	6.990076	0.0000
C	-0.001171	0.002098	-0.557968	0.5783
@TREND	4.46E-05	0.000106	0.419156	0.6762
@TREND^2	-2.23E-07	1.12E-06	-0.198391	0.8432
R-squared	0.393430	Mean dependent var		0.000911
Adjusted R-squared	0.364886	S.D. dependent var		0.010280
S.E. of regression	0.008193	Sum squared resid		0.005705
Durbin-Watson stat	2.344255	Long-run variance		4.11E-05

Cointegration Test - Hansen Parameter Instability

Date: 01/28/02 Time: 19:22

Equation: UNTITLED

Series: S1 F1

Null hypothesis: Series are cointegrated

Cointegrating equation deterministics: C @TREND @TREND^2

Lc statistic	Stochastic Trends (m)	Deterministic Trends (k)	Excluded Trends (p2)	Prob.*
0.114220	1	2	0	> 0.2

*Hansen (1992b) Lc(m2=1, k=2) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

Cointegration Regression GFG10 (February 2010)

Dependent Variable: S2
 Method: Dynamic Least Squares (DOLS)
 Date: 01/28/02 Time: 20:17
 Sample (adjusted): 2 85
 Included observations: 84 after adjustments
 Cointegrating equation deterministics: C @TREND @TREND^2
 Automatic leads and lags specification (lead=5 and lag=0 based on SIC criterion, max=11)
 Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F2	0.715237	0.164018	4.360719	0.0000
C	0.003088	0.001763	1.751840	0.0839
@TREND	-0.000165	9.68E-05	-1.704121	0.0926
@TREND^2	1.84E-06	1.13E-06	1.636043	0.1061
R-squared	0.586007	Mean dependent var		-0.000490
Adjusted R-squared	0.535656	S.D. dependent var		0.010080
S.E. of regression	0.006869	Sum squared resid		0.003491
Durbin-Watson stat	2.325976	Long-run variance		2.67E-05

Cointegration Test - Hansen Parameter Instability

Date: 01/28/02 Time: 20:18

Equation: UNTITLED

Series: S2 F2

Null hypothesis: Series are cointegrated

Cointegrating equation deterministics: C @TREND @TREND^2

Lc statistic	Stochastic Trends (m)	Deterministic Trends (k)	Excluded Trends (p2)	Prob.*
0.183217	1	2	0	> 0.2

*Hansen (1992b) Lc(m2=1, k=2) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

Cointegration Regression of GFV10 (October 2010)

Dependent Variable: S3
 Method: Dynamic Least Squares (DOLS)
 Date: 01/28/02 Time: 20:25
 Sample (adjusted): 2 91
 Included observations: 90 after adjustments
 Cointegrating equation deterministics: C @TREND @TREND^2
 Automatic leads and lags specification (lead=1 and lag=0 based on SIC
 criterion, max=11)
 Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth =
 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F3	0.855536	0.123494	6.927728	0.0000
C	0.001995	0.001111	1.796667	0.0760
@TREND	-7.59E-05	5.65E-05	-1.344151	0.1825
@TREND^2	6.70E-07	5.99E-07	1.117692	0.2669
R-squared	0.634213	Mean dependent var		0.000773
Adjusted R-squared	0.612440	S.D. dependent var		0.006844
S.E. of regression	0.004261	Sum squared resid		0.001525
Durbin-Watson stat	2.145064	Long-run variance		1.17E-05

Cointegration Test - Hansen Parameter Instability
 Date: 01/28/02 Time: 20:25
 Equation: UNTITLED
 Series: S3 F3
 Null hypothesis: Series are cointegrated
 Cointegrating equation deterministics: C @TREND @TREND^2

Lc statistic	Stochastic Trends (m)	Deterministic Trends (k)	Excluded Trends (p2)	Prob.*
0.100402	1	2	0	> 0.2

*Hansen (1992b) Lc(m2=1, k=2) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

Cointegration Regression of GFZ10 (December 2010)

Dependent Variable: S4
 Method: Dynamic Least Squares (DOLS)
 Date: 01/28/02 Time: 20:26
 Sample (adjusted): 3 91
 Included observations: 89 after adjustments
 Cointegrating equation deterministics: C @TREND @TREND^2
 Automatic leads and lags specification (lead=0 and lag=1 based on SIC criterion, max=11)
 Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F4	1.138170	0.119080	9.558036	0.0000
C	-0.000120	0.001306	-0.091742	0.9271
@TREND	3.51E-06	6.51E-05	0.053966	0.9571
@TREND^2	-3.74E-08	6.87E-07	-0.054457	0.9567
R-squared	0.593572	Mean dependent var		0.000747
Adjusted R-squared	0.569088	S.D. dependent var		0.007594
S.E. of regression	0.004985	Sum squared resid		0.002063
Durbin-Watson stat	2.088439	Long-run variance		1.45E-05

Cointegration Test - Hansen Parameter Instability
 Date: 01/28/02 Time: 20:27
 Equation: UNTITLED
 Series: S4 F4
 Null hypothesis: Series are cointegrated
 Cointegrating equation deterministics: C @TREND @TREND^2

Lc statistic	Stochastic Trends (m)	Deterministic Trends (k)	Excluded Trends (p2)	Prob.*
0.071136	1	2	0	> 0.2

*Hansen (1992b) Lc(m2=1, k=2) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

Curriculum Vitae

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