

EQUITY PRODUCTS

Updated Tracking Error History of E-mini MSCI EAFE Index Futures

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We have documented the monthly performance of the E-mini MSCI EAFE futures listed and traded at CME with respect to its tracking error versus the underlying index. Given the recent global financial crisis, we have received inquiries about how the increased volatility in the market has impacted the performance. Therefore, we have updated the tracking error history to include the nine-month period following the last study.

With April 2006 being the first full calendar month of the contract, we have the performance of the last 41 full months. We observed that:

- The average monthly tracking error of the futures over the 41-month sample is attractively low, at close to zero;
- The monthly performance, however, does show additional volatility, especially during the end of last year. The estimated standard deviation of 180 basis points was a result of the recent heightened variability.

As we had reasoned in the previous article, the monthly performance of the futures contract is measured against the closing price of the futures at 3:15 p.m. Chicago time at the end of the month, or approximately five hours following the European market close. Information flow during that time will impact both futures and the underlying stocks, but the latter would not show up until the following business day. As such, the volatility in the tracking error is expected.

However, this phenomenon is “self-correcting,” in that a lower mark for this month also set a lower starting point for the ensuing month. Thus, the tracking error tends to be negatively auto-correlated, as evidenced in the data.

TABLE 1:
E-mini MSCI EAFE Futures Tracking Error Since Inception

	Monthly Performance			Monthly Tracking Error	
	Index/Net	Index/Gross	Futures	vs. Net	vs. Gross
Apr-06	4.84%	4.83%	4.81%	-0.03%	-0.03%
May-06	-3.73%	-3.76%	-3.65%	0.08%	0.11%
Jun-06	0.06%	0.04%	-0.22%	-0.28%	-0.26%
Jul-06	1.00%	0.99%	1.06%	0.06%	0.07%
Aug-06	2.80%	2.76%	2.45%	-0.35%	-0.32%
Sep-06	0.16%	0.14%	0.05%	-0.11%	-0.09%
Oct-06	3.91%	3.91%	4.02%	0.11%	0.12%
Nov-06	3.03%	3.01%	3.18%	0.15%	0.17%
Dec-06	3.15%	3.14%	3.33%	0.18%	0.18%
Jan-07	0.69%	0.69%	1.22%	0.53%	0.53%
Feb-07	0.84%	0.82%	-0.35%	-1.20%	-1.17%
Mar-07	2.58%	2.56%	3.52%	0.93%	0.96%
Apr-07	4.53%	4.51%	3.52%	-1.01%	-0.99%
May-07	1.90%	1.88%	1.72%	-0.19%	-0.16%
Jun-07	0.20%	0.19%	0.41%	0.21%	0.23%
Jul-07	-1.47%	-1.47%	-2.54%	-1.07%	-1.06%
Aug-07	-1.51%	-1.55%	-0.20%	1.31%	1.35%
Sep-07	5.35%	5.34%	5.57%	0.21%	0.23%
Oct-07	3.94%	3.93%	3.71%	-0.23%	-0.22%
Nov-07	-3.25%	-3.27%	-3.37%	-0.12%	-0.10%
Dec-07	-2.25%	-2.26%	-2.32%	-0.06%	-0.06%
Jan-08	-9.20%	-9.20%	-8.58%	0.62%	0.62%
Feb-08	1.48%	1.46%	-0.84%	-2.32%	-2.29%
Mar-08	-0.98%	-1.02%	2.55%	3.53%	3.56%
Apr-08	5.54%	5.52%	4.51%	-1.03%	-1.02%
May-08	1.17%	1.13%	0.68%	-0.49%	-0.45%
Jun-08	-8.14%	-8.15%	-8.57%	-0.44%	-0.43%
July-08	-3.21%	-3.21%	-3.94%	-0.73%	-0.72%
Aug-08	-4.04%	-4.06%	-4.29%	-0.25%	-0.23%
Sep-08	-14.49%	-14.50%	-11.32%	3.17%	3.18%
Oct-08	-20.18%	-20.18%	-20.60%	-0.42%	-0.42%
Nov-08	-5.34%	-5.38%	-10.97%	-5.63%	-5.59%
Dec-08	5.99%	5.98%	12.05%	6.07%	6.07%
Jan-09	-9.88%	-9.88%	-12.75%	-2.87%	-2.87%
Feb-09	-10.47%	-10.47%	-11.53%	-1.06%	-1.06%
Mar-09	5.87%	5.87%	8.09%	2.21%	2.21%
Apr-09	12.33%	12.33%	11.60%	-0.73%	-0.73%
May-09	11.09%	11.09%	13.75%	2.65%	2.65%
June-09	-0.77%	-0.77%	-1.43%	-0.66%	-0.66%
July-09	9.05%	9.05%	9.53%	0.49%	0.49%
Aug-09	5.18%	5.19%	4.18%	-1.00%	-1.01%
			Average	0.01%	0.02%
			Std Dev	1.800%	1.797%



For more information on E-mini MSCI EAFE Index futures,
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