

## Nikkei 225 in August

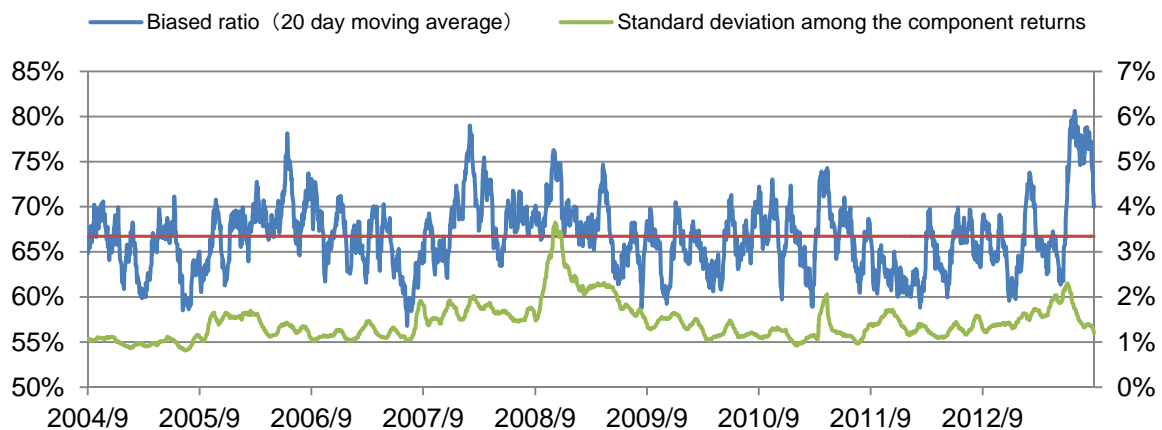
As of the end of August, the Nikkei Stock Average (Nikkei 225) stood at 13388.86 down 279.46 points, or 2.0%, from the end of July, in line with the low-volume trend. The index closed down 4.0% on 7<sup>th</sup>, due to the yen's sharp gain and renewed concern about an end to the US monetary easing policy. Furthermore escalating tensions in Syria had negative impact on market sentiment toward the end of the month.

### This month's Topic : More components in the index move in the same direction?

More and more Nikkei 225 component stocks have recently moved in the same direction. "Biased ratio"(defined later, 20 day moving average) have hovered at high around 75% for around two months and it exceeded 80% at end of June, both of which recorded for the first time in 10 years.

The ratio indicates how much percentage of the 225 component stock prices rise or fall intraday in a biased one direction. The calculation is done by (1) counting number of rising shares and that of falling shares intraday i.e. closing minus opening prices, in the components, then (2) dividing the greater number (from up or down) by the number of components (usually 225) to make the ratio.

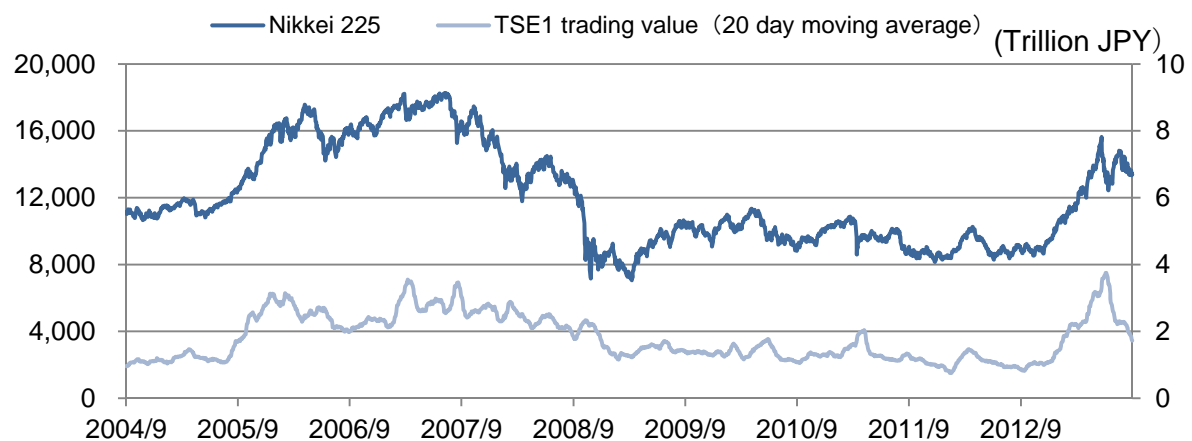
(Figure 1) Figure1: Biased ratio and standard deviation among component returns.



The "Biased ratio" increased at incidents such as global financial crisis in 2008 etc. However such increases continued just for short period, hence the buoyancy this time is quite rare. The other feature was that the levels of intraday returns did not show large variation. The recent cross-sectional standard deviation of the intraday returns kept low (see Figure 1). It represents the constituents recently moved not only in the same direction but also by more similar levels.

Why have the "Biased ratio" remained at high levels? Recent stagnant stock market and decreases in the trading values could be, but not be the main reason because the ratio had never buoyed for months from 2009 to middle of 2012 in such market condition. Instead, it might be caused by increased impact of index trading, or high frequency trading on prime stocks by foreign investors. However it is necessary to confirm that high "Biased ratio" is a new firm trend first.

(Figure 2) Nikkei 225 and trading values of all stocks on Tokyo Stock Exchange 1st section



**Performance Summary of August 2013**

○Nikkei 225 and its derived indices (Data as of end of August)

Name of Index	Index Value	Monthly Return	Avg Return	Volatility	Yealy High	The Date	Yearly Low	The Date
Nikkei 225	13388.86	-2.04%	0.18%	1.65%	15627.26	22-May	10486.99	23-Jan
Nikkei 225 TR	19245.80	-1.98%	0.19%	1.65%	22417.23	22-May	14924.17	23-Jan
Nikkei 225 VI (Volatility)	28.82	0.52%	0.29%	5.98%	46.19	13-Jun	19.06	8-Jan
Nikkei 225 VI Futures	119760.53	15.80%	0.28%	3.05%	120719.55	28-Aug	47519.52	23-Jan
Nikkei 225 Covered Call	11604.31	-0.89%	0.12%	1.33%	13319.05	22-May	9865.49	23-Jan
Nikkei 225 Risk Control	14581.55	-1.22%	0.11%	0.84%	15659.93	22-May	12624.71	8-Jan
Nikkei 225 Leveraged	7893.79	-4.71%	0.37%	3.31%	11165.32	22-May	5125.79	23-Jan
Nikkei 225 Inverse	3896.18	1.39%	-0.18%	1.65%	5261.18	8-Jan	3459.80	22-May

Name of Index	Index Value	Change	Hist. High	The year	Hist. Low	The year
Nikkei 225 DP	116.61	4.35%	119.45	2008	48.97	2002

○Benchmark and other indices

Name of Index	Index Value	Monthly Return	Avg Return	Volatility	Yealy High	The Date	Yearly Low	The Date
Nikkei 300	226.12	-2.01%	0.18%	1.51%	259.66	22-May	176.73	8-Jan
Nikkei China Related 50	1194.29	-1.83%	0.18%	1.64%	1423.34	22-May	981.20	8-Jan
Nikkei 500 Average	1130.31	-2.30%	0.16%	1.39%	1276.55	22-May	881.67	8-Jan
Nikkei Japan 1000	1303.66	-2.28%	0.18%	1.51%	1502.78	22-May	1023.90	8-Jan
Nikkei JASDAQ Average	1746.16	-4.23%	0.13%	1.11%	2140.59	14-May	1435.89	4-Jan

Note: Avg Return and Volatility are calculated on the daily return for the past 1 year.

"Change" in the Nikkei 225 Dividend Point Index (Nikkei 225 DP) indicates a comparison with the value at the end of August 2012.

Historical High and Low in the dividend index were based on the values in the same month since 1998.

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