Reality Checking Japan's Rally

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EXECUTIVE SUMMARY

Investors' rising optimism about Japan's economy and financial markets is based more on perceived improvements in the political, structural, sociological and psychological landscape, than on hard economic data. In the days before 'Abenomics' entered the financial industry lexicon, Japan was widely perceived to have an economy with many strengths, but one which was held back by a weak government, various structural issues including poor corporate governance, and a socio-psychological malaise which was manifested in low consumer spending, timid corporate investment, and deflation. Investors' newfound enthusiasm about the economy and markets reflects the belief that these problems may finally be overcome and the economy's potential realized.

Finding a "fair value" for any equity market is difficult. It is even harder to turn the qualitative, human factors that are fuelling investor optimism into a quantitative valuation of the Japanese market. Investors trying to translate cultural trends into a single-point forecast for the equity market risk appearing speculative to the point of being farcical. However, we still must judge whether the effect of Abe's reforms has already been fully priced in by the market's unusually large move this year, by rule of thumb if not by mathematical process. To do so, we seek to develop a sense–rather than a hard figure–of the market's relative valuation by comparing its recent performance to:

a) History: how does the current rally look relative to previous rallies?

b) Other geographies: how does the Japanese market's price compare to the rest of the world?

c) Fundamental expectations: is the current rally justified by change in EPS forecasts?

We hope that these methods provide our sense of where the Japanese equity market currently stands while helping readers form their own judgments.

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The data argue neither for, nor against stronger equity markets.

ABENOMICS

"Abenomics" describes a set of monetary, fiscal and structural policies designed to boost the Japanese economy. Loose monetary policy is intended to raise asset prices to make investors wealthier and increase companies' and consumers' access to credit. Simultaneously, increased government stimulus spending should create demand. In the longer term, supply-side structural reform will increase the economy's efficiency and its potential growth rate.

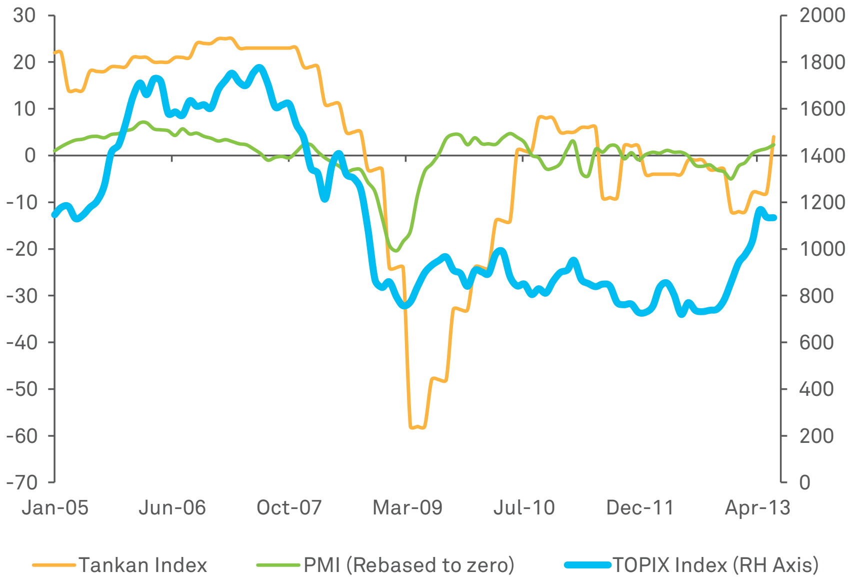
But economic policies are not the only reason for the new optimism about Japan. The bull case is that the country now has a leader who has both the will and the political support to make major reforms and see them followed through. In doing so, he has the opportunity to change the psychology of the public and business community, casting away the lack of confidence and ending the indecisiveness that many observers blame for the decades of economic stagnation.

Abenomics may succeed partly because Japan lacks the private sector "debt hangover" that many observers blame for slow growth in other developed economies. According to the Bank of Japan, leverage levels in the private sector have fallen by ¥400 trillion since 1997. Meanwhile, banks have reduced the portion of non-performing loans on their balance sheets from 8.4 percent in 2001 to 2.4 percent in 2011, according to World Bank data. This decrease in private sector leverage has been achieved at the expense of an increase in public sector leverage; however, the current level of public sector debt does not appear to threaten either future government funding or private sector confidence.The relatively high savings rate of Japanese private sector suggests that households and businesses are in a position to increase spending and consumption should they choose to do so. It is in this circumstance that the Keynesian monetary and fiscal policies proposed by Abe are most likely to be effective.

LOOKING AT MARKET LEVELS AND HARD DATA

Despite the enthusiasm about Japan, its recent economic and equity market performance is not extraordinary by historical standards. The TOPIX is still well below its levels of 2000 or 2006. Forward-looking indicators such as the PMI and the TANKAN series (a long-running survey of Japanese companies' outlooks) have also risen, but remain below pre-financial crisis levels. The data argue neither for nor against stronger equity markets. The pro-Japan case is that a sea change in economic culture and popular psychology is underway and an immediate improvement in economic data should not be expected. If one buys this argument, the recent rally appears quite modest. This may reflect a sharp split between two highly divergent perceived valuation levels amongst market participants; one belonging to the pro-Abenomics Japan bulls and one belonging to the bears. However, the hard data by itself is not supportive of higher equity valuations.

Figure 1: Long-term time series of Japanese economic data and market performance



Source: Bloomberg; Data runs from January 2005 to September 2013

Historical comparison will always be an imperfect, if useful, method.

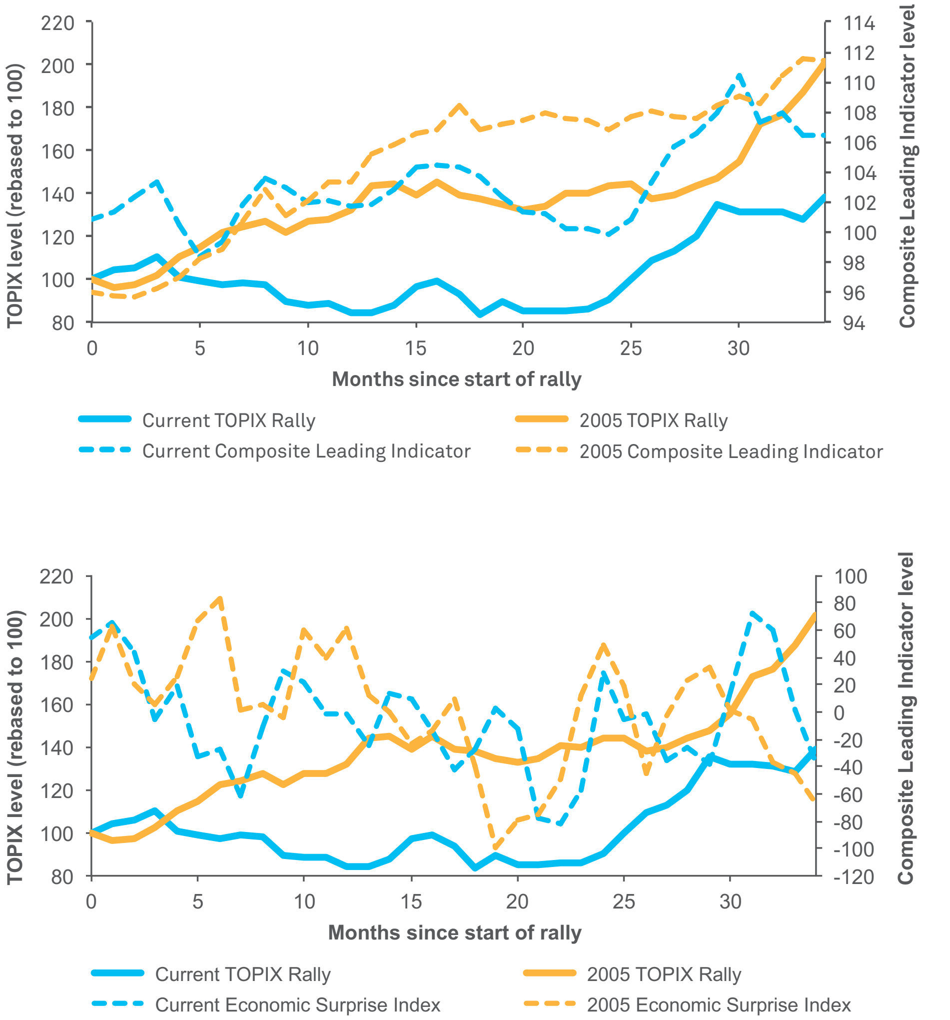
THE CURRENT RALLY RELATIVE TO HISTORY

Comparing current events to recent history is another way to develop a sense of market valuation in the current rally. The fact that circumstances constantly change means historical comparison will always be an imperfect, if useful, method. The Japanese market has experienced two distinct rallies since the asset price bubble burst in 1991. One peaked in 2001, another ran from 2003 to the end of 2005. The 2005 rally provides a more useful comparison with today because it also partially resulted from improvements in the domestic rather than the global economy.

The charts on the following page compare two series of aggregated economic data during both the 2003-05 rally and the current rally. Both time series have been rebased to the same date. The first chart shows the two stock market rallies and the OECD composite leading indicator (an intelligent aggregation of forward-looking economic data) values for the corresponding time periods. The second chart shows the two rallies and the Citigroup Economic Surprise Indices (a measure of whether economic data releases surpass or fail to meet analysts' expectations).

Equity markets might be expected not to respond to good economic data if underlying concerns remain.

Figure 2: TOPIX performance vs economic indicators, current and 2005 rallies



Source: Bloomberg, OECD, Citigroup; Current rally starts from October 2010, 2005 rally from January 2003

This comparison suggests that TOPIX valuations could be higher in the current rally. Both rallies were accompanied by rises in the composite leading indicator. However, the TOPIX currently lags the improvements in the leading indicator compared with its performance during the 2005 rally. Similarly, during the 2005 rally, there was a correlation between equity market performance and positive readings for the economic surprise index. This correlation does not exist in the current rally, suggesting that equity values have failed to respond to positive data releases.

Equity markets might be expected not to respond to good economic data if underlying concerns remain. But a lack of market response makes less sense now when most of the risks appear to be on the upside. Comparing the current rally with the 2005 rally suggests that Japanese equity valuations still have the potential to rise significantly.

THE CURRENT RALLY RELATIVE TO OTHER GEOGRAPHIES

The current market can also be valued by comparing either a time series of its recent performance or current metrics such as its price-to-equity (P/E) ratios to those of other developed equity markets. As the chart shows, the TOPIX has underperformed the MSCI World, an index of developed economies' equity markets, since before the financial crisis.

The TOPIX has underperformed an index of developed economies' equity markets, since before the financial crisis.

Figure 3: TOPIX performance vs MSCI World, rebased to 100

Source: Bloomberg; Data runs from January 1, 1998 to September 30, 2013

Comparing valuation metrics for the Japanese equity market to other markets provides another perspective. Comparisons of P/E or price-to-book (P/B) ratios generally do not fully explain differences in performance between geographies. Idiosyncratic factors particular to each geography mean valuations can diverge for long periods. Historically, Japanese P/E ratios were significantly higher than those of other developed markets, and accounting and valuation issues specific to Japanese companies meant the measure was often considered irrelevant. Nevertheless, Japanese and U.S. P/E ratios are now fairly similar (see Figure 4), and cyclically adjusted P/Es are almost the same. The main difference in cross-market valuation lies in P/B or price-to-sales (P/S) ratios. Japanese companies have remarkably low P/B ratios. The accuracy of P/B ratios or the usefulness of P/B as a measure is open to dispute, but the extent to which Japan's metrics differ from those of the rest of the developed world suggests Japanese stocks have untapped value. That value could be unlocked by Abe's reforms.

Figure 4: Valuation metrics of Japanese and world markets

As of 9/30/2013	Estimated Price/Earnings	Dividend Yield	Price to Book Ratio	Price to Sales Ratio
SPX	15.12	2.1	2.47	1.53
TOPIX	14.52	1.69	1.22	0.65
MSCI World	14.8	2.61	2.05	1.24

Source: ISSG

Even if Japan averages two percent growth, the estimated TOPIX index level is higher than current valuations.

THE CURRENT RALLY RELATIVE TO FUNDAMENTAL EXPECTATIONS

The Gordon Growth Model—a fundamental valuation model—is our last method for assessing whether the TOPIX has correctly responded to changes in Japan. The GGM uses the formula *Market Price = Next Dividend/(Required Return – Growth Rate)* to establish a fair value for an equity market. The model is rarely used, though, because of the difficulty of reliably estimating these parameters. Instead of projecting these variables from scratch, we make a common-sense effort to estimate the changes in these parameters resulting from the improvement in economic and market prospects. We then estimate a new fair value for the TOPIX and compare it to the index's current valuation.

We compare analysts' current earnings expectations from the end of 2012 (prior to the debut of Abenomics and the start of the rally) and those from the end of September 2013. Using these ensures that market expectations for the next dividend parameter are used. We derive the required return on equity from the market valuation at the end of 2012 and assume it does not change between the two time periods. Therefore, the dividend growth rate is the only parameter we alter.

For the dividend growth rate, we assume the sustainable rate of increase in company dividends will equal the long-term sustainable rate of GDP growth. Using GDP growth as a proxy for dividend growth, we then state that the dividend growth rate at the end of 2012 was one percent (roughly, Japan's growth rate for the past 15 years). We then suppose growth increases to three percent, widely considered the normal long-term rate for a developed economy. These results are shown in Figure 5:

Figure 5: Japanese market fundamentals

	12/31/2012	9/30/2013
TOPIX index level	860	1194
GGM 'fair value' for index level		1535
Earnings per share	64.5	84.5
Required rate of return	8.5%	8.5%
Growth rate	1.0%	3.0%

Source: ISSG

If we assume Japan returns to three percent long-term growth, the GGM model suggests 1535 as a suitable level for the TOPIX, higher than its current 1194. We acknowledge this is a simple analysis and that markets can deviate from "fair value" estimates for long periods. However, even if Japan averages two percent growth, the estimated index level is 1299, again higher than current valuations. This data supports a higher TOPIX.

CONCLUSION

Establishing an equity market level that precisely reflects the state of Japan's economy, including the effects of Abenomics, is extremely difficult. Rather than attempt this task, we have tried to provide insight into whether the 2013 rally is an over- or under-reaction to ongoing social and policy changes.

The three comparisons we have conducted establish our view that the rally so far seems insufficient relative to the policy changes. We believe the Japanese equity market has room to rise further when all available information is taken into account, similar to the increase we have seen so far this year.

We do not suggest that this apparent mis-valuation will necessarily be corrected in the near term. The reform process faces many challenges and investors disagree widely over how optimistic to be about economic change. While we have a positive view of the Japanese equity market, we suggest discretion should be used in investment, both in terms of controlling the nature, size and timing of allocation to this market, and the use of active management to capture inefficiencies that may present themselves within the market.

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