

Investment management

# Reassessing the Accuracy of Analyst Estimates

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*Unlike the prestigious I/B/E/S consensus forecast in the U.S. and Europe, analyst estimates in Japan are not highly regarded, and even empirically shown to be less accurate than management guidance or financial press forecasts by Toyo Keizai and Nikkei. However, we found that consensus estimates from IFIS Japan may enjoy a slight edge over Toyo Keizai's forecasts.*

Investors in Japan can access three types of corporate performance forecasts—management guidance, financial press forecasts from Toyo Keizai and Nikkei, and analyst estimates. In the U.S. and Europe, analysts' consensus forecasts from I/B/E/S (Institutional Brokers Estimate System) are highly esteemed and generally regarded as the market consensus. In contrast, analyst estimates in Japan rank below management guidance or financial press forecasts. This has even been confirmed by empirical studies.<sup>1</sup>

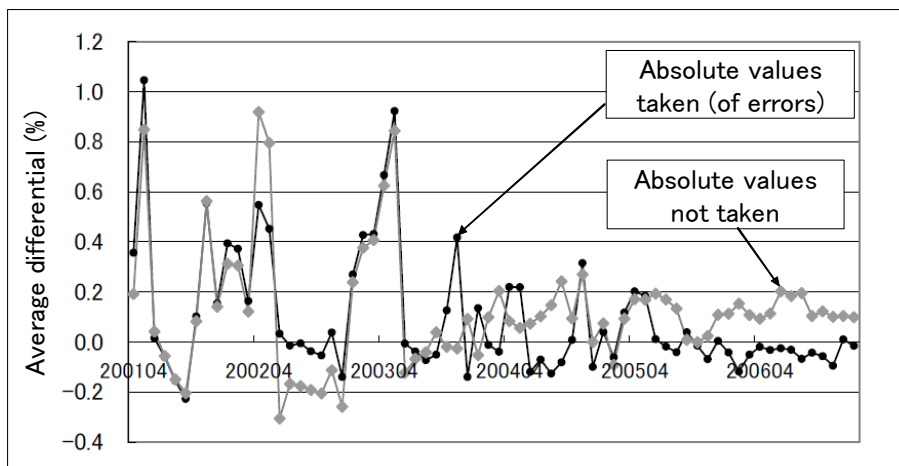
In recent years, however, IFIS Japan has enjoyed a growing reputation for the reliability of its consensus forecasts, which are based on a proprietary algorithm.<sup>2</sup> To test this reputation, we compared IFIS consensus data with Toyo Keizai forecasts in two areas—forecast error and investment performance.

First, for both IFIS and Toyo Keizai forecasts, we calculated forecast errors scaled by market capitalization for stocks on the TSE First Section whose fiscal year ends in March (excluding the financial sector). The forecast error is defined as the absolute difference between actual and estimated earnings for the fiscal year, divided by market capitalization at the end of the previous period, and thus expressed as a percentage. Monthly data points reflect updated forecasts when available.

$$\left| \text{Actual annual earnings} - \text{Earnings forecast} \right| \div \text{Market capitalization in previous period}$$

Unfortunately, the IFIS database, which begins in April 2001, covers less than half of the listed firms. Thus our comparison is limited to stocks for which both forecasts are available. The average differential between the two forecast errors (IFIS error – Toyo Keizai error) is plotted in Exhibit 1. For reference, we also plotted the differential when the absolute value of forecast errors is not taken.

**Exhibit 1 Average Differential of Forecast Errors (scaled by market cap, in %) (IFIS – Toyo Keizai)**

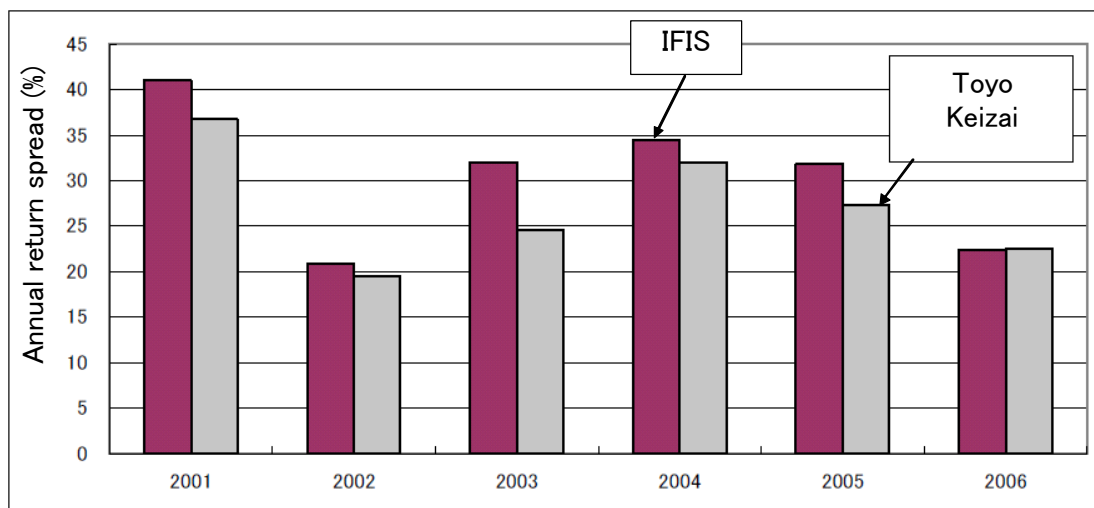


As seen by the large positive swings between 2001 and 2003, IFIS initially shows larger forecast errors than Toyo Keizai. However, IFIS forecast errors settle down from mid 2003 onward, and the difference with Toyo Keizai becomes minimal. We cannot determine whether the IFIS forecast error improves due to algorithm refinements or to factors in the investment environment such as the economic recovery and strong equity market.

Of particular interest in Exhibit 1 is the increase of the differential when the absolute value of forecast errors is not taken. The larger differential shows that IFIS forecasts tend to be consistently higher than Toyo Keizai's, indicating an optimistic bias. This result conforms with the general perception that analysts tend to be optimistic as a group.

We next examine investment performance based on the two forecasts. Stocks are ranked in descending order of earnings yield (estimated earnings per share  $\div$  share price; the inverse of PER), and grouped into quintiles. Then quintile returns are calculated assuming that equal investments are made in all stocks. This process is repeated every month. At the end of each fiscal year, the return spread is calculated between the top quintile (most undervalued group) and bottom quintile (most overvalued group). Results are shown in Exhibit 2.

**Exhibit 2 Annual Return Spread Between Top and Bottom Quintile (%)**



In each year, the IFIS consensus data produces results that equal or exceed Toyo Keizai. This may be partly because analysts constantly revise forecasts in response to new information. For investors, the value of forecasts lies not only in their accuracy, but in the speed and frequency of updates. Thus if used effectively in investment, analyst estimates do indeed provide valuable information.

#### Notes

1. Ota, Hiroshi. 2005. *Yoso rieki no seido to kachi kanrensei: I/B/E/S, shikiho, keieisha yoso no hikaku* (Accuracy of earnings forecasts and the correlation to valuation: A comparison of forecasts from I/B/E/S, *Shikiho*, and management guidance). *Gendai Finance* 28: 141-159.
2. IFIS consensus estimates are compiled from over 20 securities firms. The stocks covered thus vary from month to month. The historical database begins in April 2001, one year before the launch of service in April 2002, and is thus relatively small. However, the service is characterized by innovations that improve the quality of consensus estimates.