OPINION

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The Investment Value of Analysts' Recommendations and Target Prices

This article examines whether excess returns can be generated using analysts' recommendations and target prices issued by domestic brokerage analysts. Portfolios were constructed based on recommendations and target prices announced between 2000 and 2024, and their performance was analyzed. The results show statistically significant excess returns for portfolios ranked highly by recommendations consensus and by target price implied return consensus, thereby confirming the investment value of analysts' recommendations and target prices. However, such excess returns are observed only in the period prior to 2012 and not thereafter. The apparent disappearance of investment value after 2013 is attributed to increased optimistic bias and diminished discriminatory power in recommendations and target prices, as well as a weakening of analysts' informational advantage due to the contraction of corporate information acquisition channels.

Analysts present their overall assessment of a covered firm's share price level through stocks recommendations and target prices. Because these metrics communicate in a concise and direct manner whether a stock is overvalued or undervalued, they are among the most accessible and practically useful forms of information provided by analysts. This raises the question of whether investors can generate excess returns by relying on recommendations or target prices. According to the market efficiency hypothesis, it is difficult to earn excess returns using such information, since value-relevant information is incorporated into stock prices immediately upon the release of recommendations or target prices; unless the information is obtained prior to publication, abnormal profits should not be achievable. Nevertheless, it is reasonable to view the substantial time and effort analysts devote to firm analysis and to the

∗ All opinions expressed in this paper represent the author's personal views and thus should not be interpreted as Korea Capital Market Institute's official position.

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issuance of recommendations and target prices as resting on the premise that this information can contribute to improving investors' returns.

This article presents the results of an analysis of excess returns based on consensus portfolios formed from recommendations and target prices, using approximately 700,000 equity research reports issued by domestic analysts on listed firms between 2000 and 2024.

The Sources of Investment Value

If excess returns can be earned from recommendations or target prices, two possible explanations may be considered. The first is market underreaction to recommendations or target prices. Differences across investors in the speed of information acquisition, conservative or delayed responses, or limited stock liquidity may all lead to a lagged price adjustment. In such cases, excess returns may arise due to market inefficiency. The second possibility is that recommendations and target prices embed information about long-term changes in firms' fundamentals. These indicators represent a summary assessment of a wide range of factors affecting a firm's valuation. As a result, the market's immediate reaction may not fully incorporate all of the information considered by analysts. Excess returns may subsequently emerge as analysts' views on evolving fundamentals are realized and investors revise their expectations. This explanation differs from the first in that the source of excess returns is not delayed price adjustment to existing information, but rather the updating of information over time.

Conversely, it is also possible that reliance on recommendations or target prices leads to excess losses. One reason is investor overreaction. If investors rely too heavily on these signals and behave in a herding manner, prices may respond excessively at the time of announcement and later revert toward fundamental values, resulting in excess losses. Another possibility is optimistic bias in recommendations and target prices. Analysts may have incentives to issue favorable assessments in order to support their firms' brokerage and investment banking businesses or to maintain good relationships with the listed companies that serve as their information sources. After an initially positive price response to optimistic recommendtions and target prices, subsequent reassessment of firm fundamentals may lead to excess losses. In sum, whether investors can generate excess returns from recommendations and target prices

depends on the quality of the information they contain and the degree of market efficiency.[1)]

Portfolio Construction and Analysis Methodology

The investment value of analysts' recommendations and target prices is evaluated based on the excess returns of portfolios constructed from consensus measures. The recommendations consensus portfolios are formed as follows. Scores of 5, 4, 3, and 2 are assigned to Strong Buy, Buy, Hold, and Sell recommendations[2)], respectively, and at the end of each month[3)] the average score for each stock is calculated using all recommendations issued during the preceding month. Portfolios are then constructed by classifying stocks into groups according to their consensus scores: those with scores above 4 (H), those with scores equal to 4 (B), and those with scores below 4, which are further divided into an upper subgroup (L) and a lower subgroup (LL). In addition, portfolios are separately formed based on changes in consensus relative to the previous month—Up (U), Unchanged (H), and Down (D). At the beginning of each month, an equal amount is invested in each stock included in a given portfolio (equal-weighted), the positions are held for one month, and portfolio constituents are rebalanced at each month-end.

The target price consensus portfolios are constructed as follows. At the end of each month, the average target price for each stock is calculated using all target prices issued during the preceding month. An implied return consensus is then computed from the ratio of this average target price to the month-end closing price. Within each industry[4)], stocks are sorted into quartile groups based on the level of the consensus measure, and stocks belonging to the same quartile across industries are combined to form industry-neutral quartile portfolios (LL, L, H, HH). Using the same procedure, industry-neutral quartile portfolios are also formed based on the changes in consensus relative to the previous month. The use of industry-neutral

1) Michaely, R., & Womack, K. (1999). Conflict of interest and the credibility of underwriter analyst recommendations. Review of Financial Studies, 12(4), 653–686.;, Barber, B. M., Lehavy, R., & Trueman, B. (2007). Comparing the stock recommendation performance of investment banks and independent research firms. Journal of financial economics, 85(2), 490-517.

2) No Strong Sell recommendations were issued during the sample period.

3) recommendations issued during the one-month window ending five trading days prior to the last trading day of each month are used as the reference set. This restriction is imposed to prevent short-term return reactions to recommendation announcements from being reflected in portfolio returns. The same criterion is applied in the construction of the target price consensus portfolios as well.

4) It is based on FnGuide's 25 industry categories (mid-level classification).

portfolios serves to control for cross-industry variation in implied returns and reflects the fact that analysts typically specialize in particular industries and conduct relative evaluations within their coverage industries.[5] An equal amount is invested in each stock in a given portfolio at the beginning of each month, and the portfolios are rebalanced at month-end.

Portfolio returns are then calculated for each of the portfolios, and excess returns are calculated using the Carhart (1997) 4-factor model as the benchmark.[6][7] All excess returns reported in the subsequent analysis are on a monthly basis.

Portfolio Excess Returns

Figure 1 presents the excess returns of portfolios constructed on the basis of the level and changes in the consensus of recommendations and implied returns derived from analyst reports issued between 2000 and 2024. For the recommendation consensus portfolios (Panels (1) and (2)), excess returns increase with the level of the consensus and with positive revisions in consensus. However, among the seven portfolios, statistically significant excess returns are observed only for the B(Buy) consensus portfolio. This indicates that a portfolio composed of stocks with a Buy consensus would have generated an excess return of 0.24% per month (2.92% on an annualized basis).

A similar pattern is observed for the implied return consensus portfolios (Panels (3) and (4)). Excess returns rise as the implied return consensus becomes higher and as it is revised upward. For both the consensus level and the change in consensus, the lowest (LL) and highest (HH) portfolios exhibit statistically significant excess returns, with the highest consensus-level portfolio (HH) achieving an excess return of 0.48% per month (5.91% annualized). In addition, statistically significant excess returns are also found for long–short portfolios that take long positions in the highest-consensus portfolios and short positions in the lowest-consensus portfolios, whether based on consensus level or consensus change.

5) Da, Z., & Schaumburg, E. (2011). Relative valuation and analyst target price forecasts. Journal of Financial Markets, 14(1), 161-192.

6) There is no qualitative difference in the results even when excess returns are estimated using CAPM or DGTW as the benchmark. For DGTW, please refer to the following paper. Daniel, K., Grinblatt, M., Titman, S., Wermers, R., 1997. Measuring mutual fund performance with characteristic based benchmarks. Journal of Finance 52, 1035–1058.

7) Transaction costs are not taken into account in this analysis.

<Figure 1> Monthly Excess Returns of Consensus Portfolios — Full-Sample

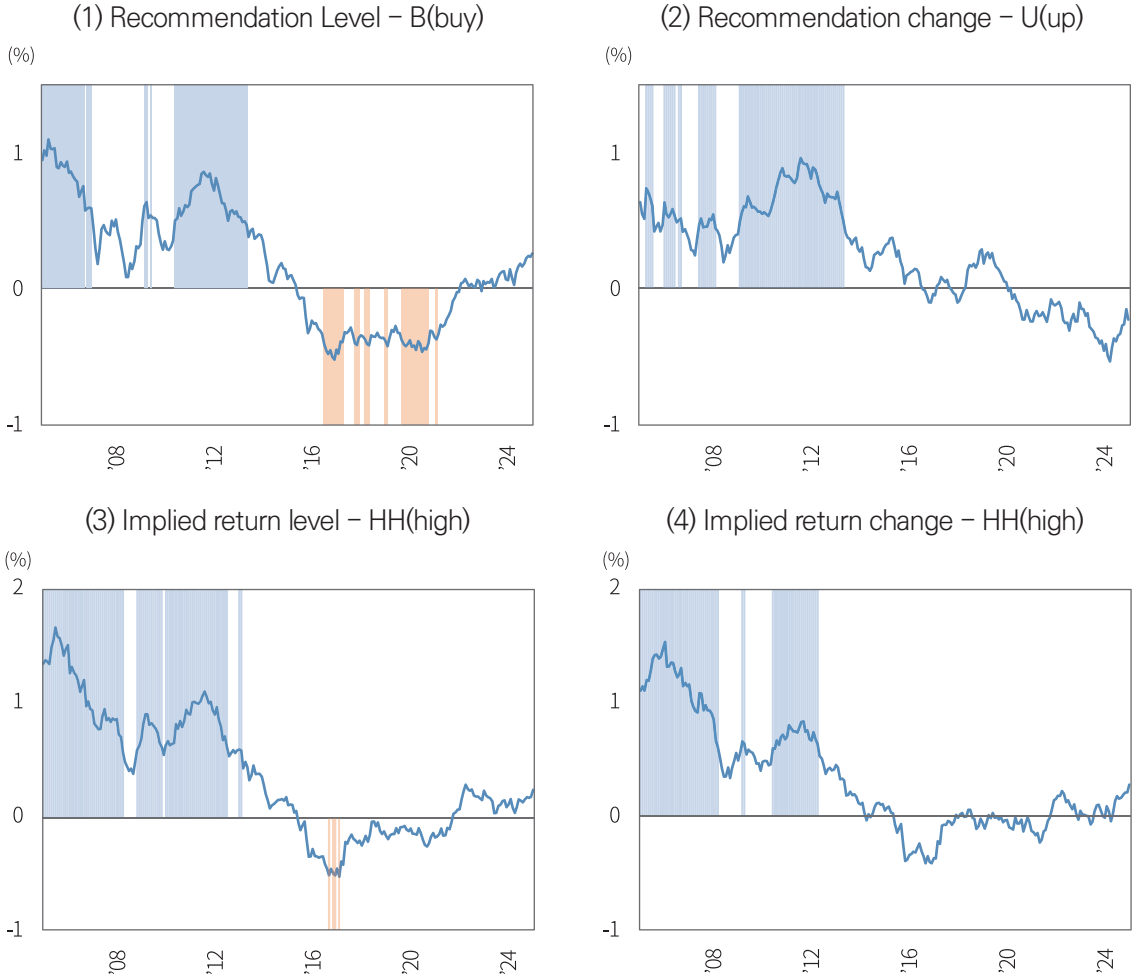
Additional analyses indicate that combining information from recommendation consensus and implied return consensus yields higher excess returns, confirming that analysts' recommendations and target prices contain independent investment value. When portfolio weights are assigned in proportion to market capitalization (value-weighted), however, the overall statistical significance of excess returns declines. This suggests that the investment value of recommendations and target prices is relatively greater for small- and mid-cap stocks than for large-cap stocks.

Taken together, these findings indicate that recommendations and implied return embed information about future changes in firm value and therefore possess long-term investment value. This raises the further question of whether the investment value of recommendations and target prices remains valid in recent periods and how it has evolved over time. To address this issue, a moving-window analysis is conducted. For four portfolios that exhibit positive excess returns in the full-sample analysis—namely, recommendations level B(Buy),

recommendations change U(Up), implied return level HH(High), and implied return change HH(Up)—portfolio excess returns are estimated each month beginning in December 2004 using rolling five-year sample windows. The results are presented in Figure 2. Blue (red) shading indicates that statistically significant positive (negative) excess returns are observed for the corresponding five-year window.

The results show a common pattern across all four portfolios: excess returns decline sharply around 2013, and their statistical significance disappears. For the recommendations level B(Buy) and implied return level HH(High) portfolios, statistically significant negative excess returns are observed in certain post-2013 subperiods despite being composed of favorably rated stocks. This is a noteworthy finding, indicating that the investment value of recommendations and target prices has largely dissipated since 2013.

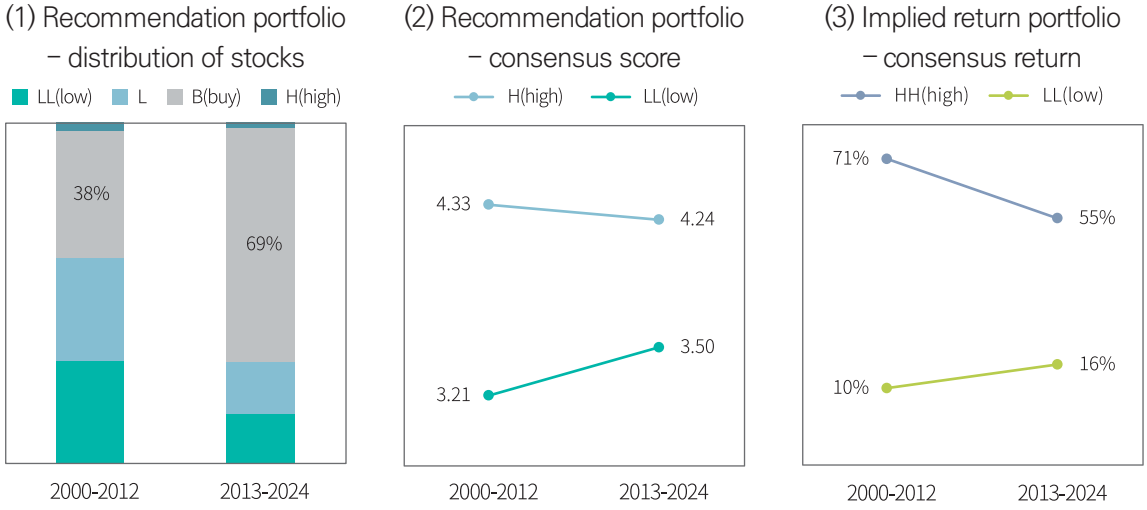
<Figure 2> Monthly Excess Returns of Consensus Portfolios — Moving window



The Disappearance of the Investment Value

Two possible explanations may account for the disappearance of the investment value of analysts' recommendations and target prices around 2013. The first is a deterioration in their discriminatory power. Panel (1) of Figure 3 shows changes in the relative proportion of stocks included in portfolios sorted by recommendations consensus level, while Panel (2) presents the time-series variation in the consensus of the highest- and lowest-ranked recommendations portfolios. The proportion of stocks with a Buy consensus rises markedly from 38% prior to 2012 to 69% after 2013, while the difference in consensus between the top and bottom portfolios declines from 1.12 before 2012 to 0.75 thereafter. This pattern is consistent with an increasing buy recommendations and suggests that growing optimistic bias may be a key factor behind the decline in investment value. Panel (3) reports the implied return spreads between the highest and lowest implied return consensus portfolios. The gap narrows substantially, from 0.61 before 2012 to 0.39 after 2013. The reduction in cross-sectional dispersion in implied returns likely weakens the screening effectiveness of implied return and is plausibly linked to the erosion of their investment value.

<Figure 3> Distribution of Portfolio Constituents and Consensus Levels



The second possible explanation is a weakening of analysts' informational advantage. In October 2013, an incident occurred in which certain analysts leaked nonpublic earnings information of CJ E&M to fund managers. CJ E&M, three of its IR officers, four analysts, and their affiliated securities firms were referred to prosecutors or formally notified for alleged

violations of the prohibition on the use of material nonpublic information, and four securities firms received institutional warnings or cautions.[8] In April of the same year, the government, in coordination with relevant authorities, announced a comprehensive set of measures to eradicate unfair trading practices, including market abuse regulation, which incorporated a regulatory framework targeting market abuse activities. A central provision of this framework prohibits those who produce or receive material nonpublic information—including secondary recipients—from using such information or enabling others to use it.[9] These two developments are widely understood to have increased the legal risks associated with obtaining and producing firm-related information, thereby significantly constraining communication between analysts and corporations. The resulting contraction in analysts' information channels likely contributed to a decline in their informational advantage.

A weakening of analysts' informational advantage is closely linked to reduced discriminatory power and increased optimistic bias in recommendations and target prices. The absence of proprietary information makes independent assessments—particularly negative evaluations—more difficult and increases reliance on public disclosures such as earnings announcements, which in turn can lead to clustering in recommendations and target prices and thus weaker cross-sectional differentiation. Moreover, if reduced access to corporate information heightens the incentive to maintain favorable relationships with covered firms, it may further reinforce optimistic bias in analysts' outputs.

It is also possible, of course, that the disappearance of investment value reflects an improvement in market efficiency and a corresponding reduction in delays in information incorporation. Advances in information technology and market infrastructure have undeniably accelerated the speed of information dissemination and reduced transaction costs. However, there is little evidence of any institutional or behavioral changes around 2013 that would have produced an abrupt shift in market efficiency. In this respect, improvements in market efficiency appear more consistent with a gradual trend, and are therefore better regarded as an indirect contributing factor.

8) Among them, three CJ E&M investor relations officers and two analysts were ultimately convicted in 2022.

9) The market order–disruption regulation was passed by the National Assembly in December 2014 and took effect in July 2015.

Future Directions

Analysts play an economically significant role in the Korean stock market. They publish nearly 20,000 research reports on listed firms each year and serve as key agents in diagnosing and forecasting economic and industry conditions, as well as in evaluating corporate decisions and performance. Against this backdrop, evidence suggesting that the investment value of analysts' recommendations and target prices has diminished—and that the primary causes may be a weakening of analysts' informational advantage and a decline in the discriminatory power of their outputs—raises concerns about the core functions and roles of analysts. As producers and intermediaries of information and as monitors of the market, analysts' economic functions fundamentally rest on informational depth, analytical capability, objectivity, and accuracy.

From the standpoint of informational and analytical capability, if analysts' access to corporate information is inevitably constrained by regulation, one viable strategy for enhancing the value added of their outputs is to concentrate on the use of alternative data sources, the adoption of new analytical techniques, and the differentiation of evaluation and research domains. From the perspective of objectivity and accuracy, efforts are needed to mitigate optimistic bias in analysts' assessments. It would be desirable to establish evaluation and compensation systems that are tied less to contributions to brokerage revenues and more to the objectivity, accuracy, and usefulness of forecasts and analyses; to strengthen the independence of research departments within securities firms; and to expand disclosure regarding information quality and potential conflicts of interest. Such measures would help align analysts' reputational incentives with the quality of the information they provide.

From a policy perspective, continued efforts are required to improve the information environment of the stock market. Strengthening regulation on material nonpublic information is essential for ensuring market fairness and credibility. At the same time, such regulation should not lead to an overall reduction in the amount of information available to the market. Complementary policies are therefore needed to enhance the quality of public disclosures, strengthen formal communication channels between firms and analysts, and promote the disclosure of nonfinancial information. These measures would also provide an important foundation for analysts to exercise their distinctive capabilities in processing diverse and complex information.