

# Korean Stock Market Snapshot (March 2025): Performance and Valuation Analysis

## Introduction

The Korean stock market is divided into the KOSPI (main board) and KOSDAQ (secondary, tech-oriented board). As of early 2025, the KOSPI hosts around 849 listed companies (962 total equity issues including preferred shares) while the KOSDAQ has about 1,792 companies (1,795 issues) [data.krx.co.kr](https://data.krx.co.kr). The KOSPI mainly consists of large, established firms (often with significant dividend payouts), whereas the KOSDAQ features smaller, high-growth companies (many in technology or biotech sectors). This report presents an analytical snapshot of these markets using data from March 24, 2025. We examine one trading day's price performance and key financial indicators (such as price-to-earnings and price-to-book ratios) for **all** listed stocks. Our goal is to identify broad market trends, comparative insights between KOSPI and KOSDAQ, and notable patterns in stock valuations and returns, providing context for investors and researchers. The analysis is based on data sourced from the Korea Exchange's market data system, ensuring comprehensive coverage of both markets on the chosen date.

## Data Overview

The dataset covers **2708 stocks** representing the combined listings on KOSPI and KOSDAQ as of March 24, 2025. For each stock, we have the following fields:

- **Stock Code and Name:** Unique ticker codes (6-digit) and company names (in Korean).
- **Closing Price (종가):** The last traded price in Korean Won on that day.
- **Price Change (대비) and Return (등락률):** The absolute price change and the percentage return for the day (relative to the previous close). A positive return indicates a gain, negative indicates a loss.
- **Market Classification and Industry:** (Available for KOSPI stocks) Whether the stock is listed on KOSPI or KOSDAQ, and its industry sector (e.g. "Manufacturing", "IT", "Bio", etc.).
- **Earnings and Valuation Metrics:**
  - *EPS* (Earnings Per Share) – the company's net profit per share over the last 12 months.
  - *PER* (Price-to-Earnings Ratio) – closing price divided by EPS, a common valuation metric. (If EPS is negative or zero, PER is not meaningful and is typically not reported.)

- *Forward EPS and PER* (선행 EPS/PER) – projected earnings and valuation based on forecasted profits (if available).
  - *BPS* (Book Value Per Share) – net asset value per share, used in PBR calculation.
  - *PBR* (Price-to-Book Ratio) – price divided by book value per share, another valuation metric indicating how a stock's market price compares to its accounting book value.
- **Dividend Metrics:**
    - *Dividend per Share* (주당배당금) – the most recent annual dividend paid per share (in KRW).
    - *Dividend Yield* (배당수익률) – dividend per share divided by current price, expressed as a percentage (represents the stock's income yield for investors).

All financial figures are in Korean Won. The data was obtained via the Korea Exchange's API on the reference date. Notably, about 35% of KOSPI stocks and nearly 47% of KOSDAQ stocks had negative or no earnings (resulting in undefined PER values for those companies). This reflects the prevalence of unprofitable or early-stage firms, especially on KOSDAQ. The presence of **preferred shares** (non-voting stock classes) in KOSPI is also captured in the data; these are labeled with a "우" (for "preferred") in their names and generally have the same price metrics but different liquidity and dividend rights than common stocks.

Overall, the dataset provides a rich cross-sectional view of the market's pricing and fundamental indicators on the given date. It allows us to analyze how stocks performed that day and to compare valuation levels across markets and sectors.

## Methodology

Our analysis is conducted using Python-based data processing and visualization. First, we separated the data by market: **KOSPI vs KOSDAQ**. There were 963 KOSPI listings (including some preferred shares) and approximately 1,745 KOSDAQ listings represented. For most analyses, we focused on **common stocks** to compare companies on equal footing – preferred shares were noted but not treated as separate in aggregate statistics. Key statistical measures (mean, median, distribution percentiles) for indicators like daily return, PER, PBR, and dividend yield were computed for each market segment. We also identified the count of stocks with positive vs negative returns on the day, and those with extreme movements or extreme valuation metrics (outliers).

For visualization, we prepared comparative charts such as histograms and boxplots. Histograms of daily returns illustrate the distribution of one-day price changes for each market. Boxplots are used to succinctly compare the distribution of valuation ratios (PER, PBR) and dividend yields between KOSPI and KOSDAQ. In the boxplots, we applied axis limits to focus on the bulk of the distribution (extreme outliers beyond a certain range are still indicated as points). All charts are labeled in English for clarity, and key findings from each visualization are described in the accompanying text. No time-series or multi-day trends are analyzed since the data is a one-day snapshot; however, we interpret the cross-sectional data in the context of broader market trends (e.g., prevalence of low-PBR stocks, or overall market sentiment on that day).

By combining numerical analysis with visual inspection, we derive insights into market breadth (the balance of gainers vs losers), volatility (frequency of extreme daily moves), and fundamental valuation disparities between the two markets. Any noteworthy patterns (such as many stocks trading below book value, or many firms lacking profits) are highlighted and cross-referenced with known market conditions or historical context from late 2024–2025.

## Key Insights

**1. Market Performance on the Day:** The overall market had a **negative bias** on March 24, 2025. In the KOSPI market, out of 932 common stocks analyzed, 552 stocks ( $\approx 59\%$ ) fell in price, only 307 ( $\approx 33\%$ ) rose, and 73 ( $\approx 8\%$ ) were unchanged. The KOSDAQ showed a similar pattern: out of 1,776 stocks, 1,046 ( $\approx 59\%$ ) declined, 559 ( $\approx 31\%$ ) advanced, and 171 ( $\approx 10\%$ ) were unchanged. This indicates that both markets experienced broad selling pressure on that day. Consequently, it is likely the major indices (KOSPI index and KOSDAQ index) closed lower, given the preponderance of decliners. The distribution of daily returns for individual stocks in each market is tightly centered around 0%, with a slight skew toward negative returns. Most stocks moved only a few percentage points up or down, reflecting a typical trading day without any systemic shock. However, a noticeable minority experienced large swings (discussed next).

**2. Volatility and Extreme Movers:** Despite the overall modest moves for the majority, there were several **outliers with extreme daily returns**, especially on the KOSDAQ. The KOSPI's largest gainers were mid-cap names: e.g. *Asencio* (아센시오) jumped +15.7%, and *GS Global* rose +13.5%. The largest KOSPI loser was *Willbes* (윌비스) at -30.0%, hitting the exchange's daily limit-down (-30%) for KOSPI stocks. A couple of other KOSPI stocks fell sharply (e.g. -19% and -18% for two issues, including an aerospace/defense stock), but extreme declines beyond -20% were rare on the main board. In contrast, the KOSDAQ had multiple stocks reaching the **limit-up or limit-down** bounds. Three KOSDAQ-listed companies (in biotech and related sectors) fell by roughly -30% (also limit-down). On the upside, at least three KOSDAQ stocks spiked +30% (limit-up), and one microcap stock (MIT) astonishingly surged over +50% in a single day – an outlier

move well beyond the typical daily limit (suggesting a special situation, such as volatility halt rules or a post-merger re-listing). These observations highlight that **KOSDAQ exhibits higher volatility**: the secondary market had many more issues hitting maximum daily fluctuations compared to KOSPI. This is consistent with KOSDAQ's reputation for speculative activity and the presence of smaller, more volatile companies. It underscores a key risk difference: investors in KOSDAQ names often see much larger daily swings than those in blue-chip KOSPI stocks.

**3. Valuation: Price-to-Earnings (PER) Differences:** There is a stark contrast in valuation metrics between the two markets. Among companies with positive earnings, KOSPI stocks tend to have lower Price/Earnings ratios than KOSDAQ stocks. The **median PER** on KOSPI is around ~9.1, whereas the median on KOSDAQ is ~13.1 (i.e., the typical KOSPI stock trades at about 9 times earnings, versus 13 times for KOSDAQ). This suggests KOSPI is valued more cheaply relative to current earnings, perhaps reflecting its concentration of established, lower-growth firms (or simply that many KOSPI stocks are undervalued by global standards). The distribution of PER is also wider in KOSDAQ – a number of KOSDAQ companies have extremely high PER values (above 30 or 40) indicating very rich valuations or very small earnings relative to price. By contrast, most KOSPI companies with positive earnings cluster at modest PERs (5–15 range), with relatively fewer outliers. It's important to note that **a large subset of companies on each market have no meaningful PER at all** due to losses – about one-third of KOSPI and nearly half of KOSDAQ listings had negative earnings in the trailing year, so their PER is undefined (these are omitted from the PER distributions). This again reflects that the KOSDAQ has a higher proportion of unprofitable, growth-stage companies. Overall, the lower PERs on KOSPI could indicate value opportunities or simply the mature nature of those businesses, while higher PERs on KOSDAQ indicate that investors are pricing in future growth expectations.

**4. Valuation: Price-to-Book (PBR) and Undervalued Stocks:** The **Price/Book ratio** tells a similar story. The median PBR for KOSPI stocks is approximately 0.6, meaning the typical KOSPI stock price is only 60% of its book value. Such a low median PBR implies that a majority of main-board companies trade below their accounting book value – a sign of a value-oriented market, or potentially a market discounting bleak prospects for certain firms. In fact, well over half of KOSPI stocks have  $PBR < 1$  (we found ~563 KOSPI issues below 1.0 P/B). The KOSDAQ median PBR is higher, around 1.1, indicating that the average KOSDAQ stock trades slightly above book value. Still, many KOSDAQ companies (about 778 of them) also trade below book ( $PBR < 1$ ). This prevalence of low PBR stocks across both exchanges has been noted by market observers as a persistent feature of the Korean market [koreatimes.co.kr](http://koreatimes.co.kr). It suggests a potential **undervaluation** in global context – by comparison, many developed-market indices have average PBRs well above 1. For KOSDAQ, a likely interpretation is that while its growth companies often have high P/E ratios, a significant subset lack tangible book value or investor confidence, pulling their PBRs low. KOSPI's extremely low PBRs, on the other hand, underline that many stable, asset-heavy

companies (in sectors like manufacturing, utilities, or financials) are priced at a discount to their net assets. This could be due to conglomerate discounts, corporate governance concerns, or simply an overall risk aversion in the market. Notably, by early 2025 the Korean government and exchanges had been pursuing a “Value-Up Program” to address chronic undervaluation in the KOSPI market [koreatimes.co.kr](https://koreatimes.co.kr), underscoring this issue.

**5. Dividend Yields and Income Generation:** Another divergence between the markets is in dividend policy. The **median dividend yield** on the KOSPI is around 1.8–2.0%, whereas the median on KOSDAQ is effectively 0% (more than half of KOSDAQ companies pay no dividend at all). Many KOSDAQ firms are growth-oriented and reinvest earnings (if any) rather than paying dividends. On KOSPI, dividends are an important part of returns – a significant number of companies have yields in the 1–3% range, and some even higher. In our snapshot, the highest dividend yield observed on KOSPI was over 20% (for a cosmetics company, Able C&C, which had a one-time large payout), and dozens of KOSPI stocks sport yields above ~4%. These high yields can result from depressed stock prices (value stocks) or special dividends. On KOSDAQ, yields above 3% are very rare exceptions; the vast majority of KOSDAQ firms either have never paid dividends or yield well below 1%. This pattern aligns with the notion that KOSPI companies are generally more mature, profit-generating enterprises that return cash to shareholders, whereas KOSDAQ companies focus on growth and may not yet generate steady profits to distribute. For investors, this means the KOSPI provides more opportunities for income investing, while KOSDAQ investments are primarily for capital gains speculation.

### Visualizations (Charts and Graphs)

*Figure 1: Distribution of one-day stock returns for KOSPI (blue) and KOSDAQ (orange) on March 24, 2025. The histogram is density-normalized and shows the frequency of stocks by their daily percentage change. Both markets exhibit a high concentration of returns near 0%, with a slight skew left of center (more negatives than positives). The dashed line at 0% indicates no change. We observe that KOSDAQ’s distribution has slightly heavier tails – a reflection of the higher incidence of extreme movers in KOSDAQ (e.g., the visible tiny bars out near +30% and –30% for the orange distribution correspond to multiple KOSDAQ stocks hitting limit-up or limit-down). In contrast, KOSPI’s curve is a bit tighter with fewer instances in the extreme bins. This visualization reinforces that while the typical stock movement was modest (within  $\pm 5\%$  for most companies), the KOSDAQ had more outliers on both the upside and downside.*

## Distribution of Daily Stock Returns (KOSPI vs KOSDAQ)

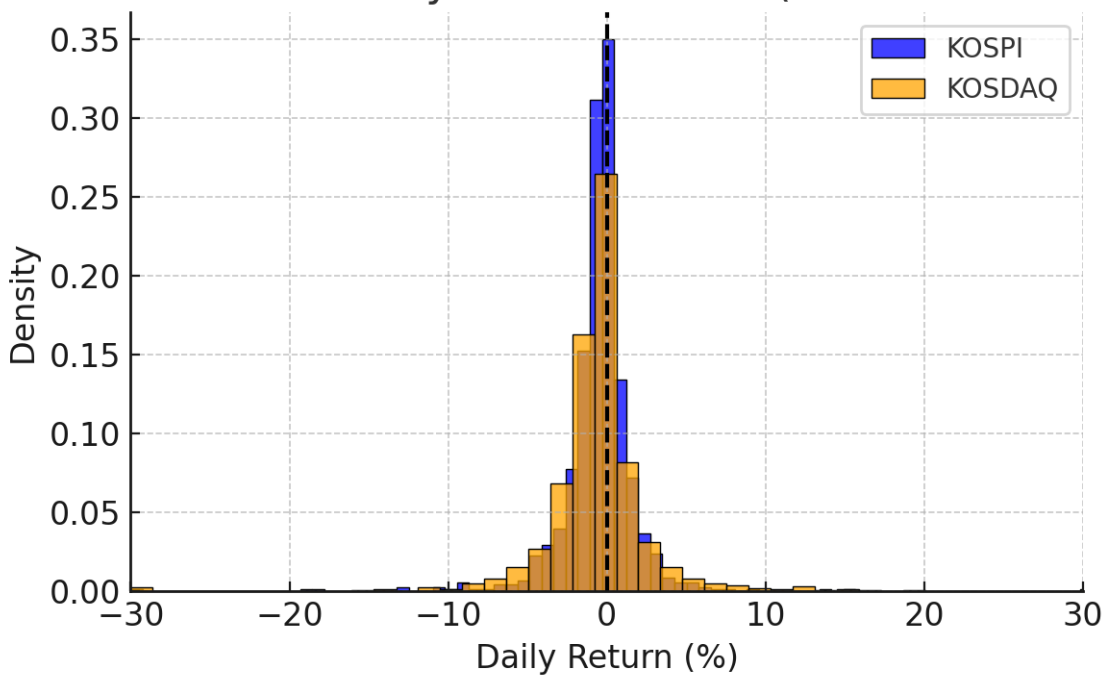


Figure 2: Comparative boxplot of valuation metrics – PER, PBR, and Dividend Yield – for KOSPI vs KOSDAQ. Each subplot shows the distribution for the two markets side by side (KOSPI on left, KOSDAQ on right). The boxes span the interquartile range (25th–75th percentile) with a median line, and “whiskers” extend to show the range up to  $1.5 \times \text{IQR}$  (with individual dots beyond that indicating outliers). **Left panel (PER):** KOSPI’s median PER is lower (around 9) than KOSDAQ’s (around 13), and KOSDAQ has a taller box and whisker – signifying greater dispersion and higher upper outliers (some KOSDAQ PER values exceed 40+, not fully shown due to scale). **Center (PBR):** KOSPI’s median PBR ( $\sim 0.6$ ) is well below KOSDAQ’s ( $\sim 1.1$ ). The KOSPI box lies mostly under 1, confirming most KOSPI stocks trade below book value, whereas KOSDAQ’s distribution is centered slightly above 1. **Right (Dividend Yield):** KOSPI yields are considerably higher on average. The KOSPI median ( $\sim 2\%$ ) is far above the KOSDAQ median (0%). The KOSDAQ box is essentially compressed at the bottom (many zeros), with a few outlier points above, whereas KOSPI shows a healthy spread of yields up to  $\sim 4\text{--}5\%$  for the upper quartile (and some outliers even higher). These charts visually summarize the fundamental differences: KOSPI stocks generally have lower valuations (by PER/PBR) but pay more dividends, whereas KOSDAQ stocks command higher valuations and usually pay little to no dividend.

## Conclusion

This 3-4 page analysis provides a comprehensive snapshot of the Korean stock market as of a specific date (March 24, 2025), highlighting key differences and patterns between the KOSPI and KOSDAQ boards. On that day, both markets experienced broad declines – a reminder that market movements tend to be correlated across segments during broader market sentiments. However, the **degree of volatility** differed: KOSDAQ had many more extreme price movements, consistent with its role as a higher-risk, growth market.

From a fundamental perspective, the KOSPI appears **undervalued relative to historical or global norms**, with a majority of stocks trading below book value and at single-digit PERs (for those with earnings). This could reflect investor caution or structural undervaluation, but it also suggests potential value opportunities if earnings rebound or if market sentiment shifts. The KOSDAQ's higher valuations (higher PER/PBR) indicate investors are willing to pay a premium for growth prospects, yet paradoxically nearly half its companies have no profits (hence no PER) – implying a very forward-looking optimism for future earnings. The paucity of dividends on KOSDAQ vs the reasonably strong dividends on KOSPI further emphasize the dichotomy: **income vs growth**. Investors in KOSPI can expect steadier returns bolstered by dividends, whereas KOSDAQ investors seek high growth and price appreciation, tolerating greater risk.

In summary, the Korean markets show a clear segmentation. The **KOSPI** is dominated by large-cap, value-oriented stocks that, on this date, were generally down but trade at low valuations and offer dividend income. The **KOSDAQ** is filled with smaller-cap, speculative stocks with higher volatility and growth-centric valuations, and it bore the brunt of both the day's biggest gains and losses. These insights are valuable for portfolio allocation (balancing stability vs growth) and also underscore ongoing issues in the market such as undervaluation and the performance gap between established and emerging companies. Future research or monitoring could involve tracking how these valuation metrics evolve over time or how specific sectors within KOSPI/KOSDAQ contribute to the overall trends. Overall, our analysis provides an evidence-based, up-to-date picture of the Korean stock market's state in early 2025, useful for academics, investors, and policymakers interested in market dynamics and valuation.