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Registration No.: Director of Kanto Local Finance Bureau
(Financial Instruments Firms) No.324
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Response to the Tokyo Stock Exchange’s Request to Listed Companies with below par Price-to-book Ratio

28 April 2023

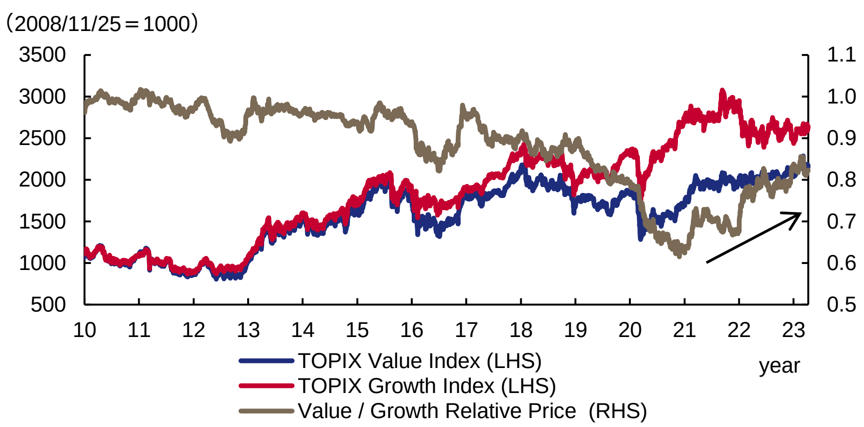
- In the Japanese stock market, investors are becoming increasingly attracted to value stocks. An important reason for this is a request made by the Tokyo Stock Exchange (TSE) in March, asking listed companies to outline “Measures towards implementing management that is conscious of cost of capital and stock price”.
- In particular, expectations for measures such as stock buybacks and dividend hikes have increased for companies with a price-to-book ratio (PBR) lower than 1. Expanding shareholder returns is a reasonable response for companies whose capital returns are below their cost of capital. However, the TSE pointed out that companies should aim for structural solutions to secure capital returns in excess of the cost of capital, rather than the aforementioned temporary responses.
- Certain sectors in the TOPIX index have numerous low PBR component companies, indicating underlying structural issues exist in particular industries.

Since 2021, value stocks have been rising in the Japanese stock market compared to growth stocks (Figure 1). This is thought to be due to the worldwide trend of value stocks being dominant as U.S. and European interest rates rise, and speculation about the Bank of Japan’s policy revision. At end-March 2023, the TSE requested listed companies to take measures towards implementing management that is conscious of cost of capital and stock prices. This has contributed to the increase in stock prices, particularly for stocks with a PBR lower than 1, for which expectations have increased for measures such as share buybacks and increased dividends.

Hitoshi Asaoka
Senior Strategist

“Increasing appetite for value stocks”

Figure 1: TOPIX Value Index and Growth Index



Source: Refinitiv
Period: Daily data from 4 Jan. 2010 to 12 Apr. 2023
Note: The relative price is TOPIX Value Index ÷ TOPIX Growth Index

The TSE issued a request to all listed companies in the Prime Market and Standard Market on 31 March 2023 to take measures towards implementing management that is conscious of cost of capital and stock prices (Figure 2). The TSE revised its market classification in April last year. It issued the latest request based on discussions held with experts and other stakeholders as it continues to follow up on its goal of promoting the healthy development of the Japanese stock market.

"Tokyo Stock Exchange requests measures towards implementing management conscious of cost of capital and stock price"

Figure 2: Summary of TSE Requests to Listed Companies

Companies Subject to Request	All companies listed on the Prime and Standard Markets
Requested Action	In order to implement management that is conscious of cost of capital and stock price, TSE requests us to implement the following series of actions on an ongoing basis

Analysis of Current Situation	Gain a proper understanding of the company's cost of capital and profitability Analyze and evaluate the current situation around these and the market valuation at board of directors meetings
Planning & Disclosure	Have board of directors discuss and develop policies, targets, planning periods, and specific initiatives for improvement Disclose clear information on these, along with assessment of the current situation, to investors
Implementation of Initiatives	Push forward with management that is conscious of cost of capital and stock price, based on the disclosed plans Engage in proactive dialogue with investors based on this disclosure

※Conduct a progress analysis and update disclosures at least once a year

Start Date	TSE is not specifying a timeframe for the start date of disclosure, but requests as prompt a response as possible

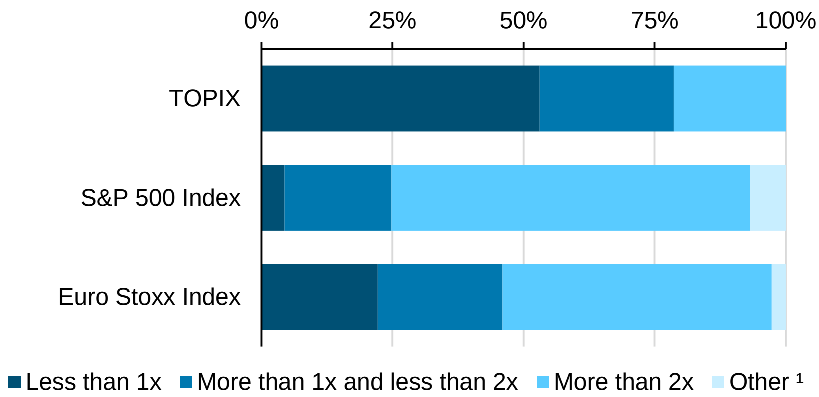
Source: Tokyo Stock Exchange

In the request, the TSE pointed out "a PBR lower than 1 suggests either that the return on capital is below the cost of capital, or that growth potential is not sufficiently evaluated by investors," and requested the analysis, evaluation, and disclosure of the current situation from this perspective.

A PBR lower than 1 indicates that the evaluation of a company by investors (stock price) is lower than its liquidation value (net assets per share) in the stock market. If the return on capital, such as ROE (return on equity), which indicates the return on capital, is below the cost of equity capital (the expected return rate that investors demand from the company), it suggests that the company is not achieving profitability sufficient to compensate for the funds provided by investors.

According to recent data, companies with a PBR lower than 1 account for more than half of the TOPIX-listed companies (Figure 3). This ratio is considerably higher compared to U.S. and European stock indices, and it has been a concern for the market, government, and others for some time.

Figure 3: Distribution of PBR among Stocks Included in the Indices in Japan, U.S., and Europe



Source: Factset
Period: As of 10 Apr. 2023
Note: [1]PBR is #n/a for some companies, (e.g., net assets are negative) in the data based on Factset.

"Relationship between PBR, ROE and cost of capital"

The relationship between PBR, ROE, and cost of capital can be analysed in the context of current trends in the stock market. It has been observed that many companies with a PBR lower than 1 are announcing measures to increase shareholder returns, such as increased dividends and share buybacks.

In the context of the sustainable growth model (Figure 4) of corporate finance theory, it is understood that a PBR greater than 1 signifies an ROE that exceeds the cost of capital. Such companies can increase their enterprise value by investing in their businesses and reducing dividends in favour of higher internal reserves.

Figure 4: Relationship between PBR and ROE (Sustainable Growth Model)

・**B**=Shareholder Equity, **ROE**=Return on Equity, **d**=Dividend Payout Ratio
⇒ Profit=**B×ROE**, Dividend=**B×ROE×d**
・**g**=Sustainable growth rate (also called internal growth rate) that can be achieved solely through internal profit growth and not through external financing
⇒ **g=ROE×（1-d）**(**1-d**=the retention ratio)
・**r**=Cost of equity (Assuming r>g), P=Corporate value (stock price)
⇒ **P=（B×ROE×d）／（r-g）**
(according to the general dividend discount model）
This formula shows that the current stock price equals the present value of the sum of all future dividends
・Dividing both sides of the formula by **B**

$$P/B = ROE \times d/(r-g)$$
$$= (ROE - ROE \times (1-d))/(r-g)$$
$$= (ROE - g)/(r-g)$$

Thus, the below is derived.

PBR＞1 ⇔ ROE＞r
PBR＜1 ⇔ ROE＜r

Source: "Seminar Corporate Finance" (By Asaoka, Sunagawa, Okada) (Nikkei Business Publications, Inc) and others

Conversely, a PBR lower than 1 indicates an ROE that falls short of the cost of capital, leading to a decline in enterprise value resulting from investment in the business. Therefore, for such companies, it is more desirable to expand shareholder returns through share buybacks and increased dividends, returning part of the invested capital to shareholders, as long as they cannot increase ROE in the short term.

Therefore, expanding shareholder return policies are reasonable as a short-term response for companies with a PBR below 1. However, it is important to note that the TSE has urged companies to view such measures as temporary solutions rather than long-term strategies. Rather, it expects companies to achieve sustained ROE that exceeds the cost of capital.

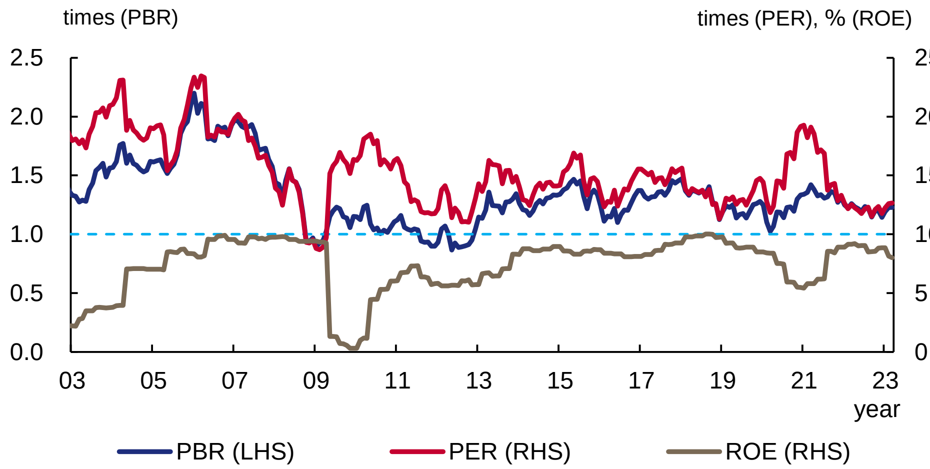
Instead of accepting a situation where ROE remains lower than the cost of capital, companies should reassess their management to ensure that ROE at least exceeds the cost of capital.

In summary, the relationship between PBR, ROE, and cost of capital is an important factor in determining the market value of a company. By balancing these factors, companies can enhance their financial performance and create value for their shareholders.

When examining the trends of the overall TOPIX PBR it has mostly remained in the range of the low 1x since 2013 and was approximately 1.2x as of March 2023 (Figure 5). During this period, the TOPIX overall ROE has also remained relatively flat at around 8%, indicating that a majority of TOPIX constituents did not experience an increase in ROE.

“ROE for the entire TOPIX has remained almost flat”

Figure 5: PBR, PER and ROE of TOPIX

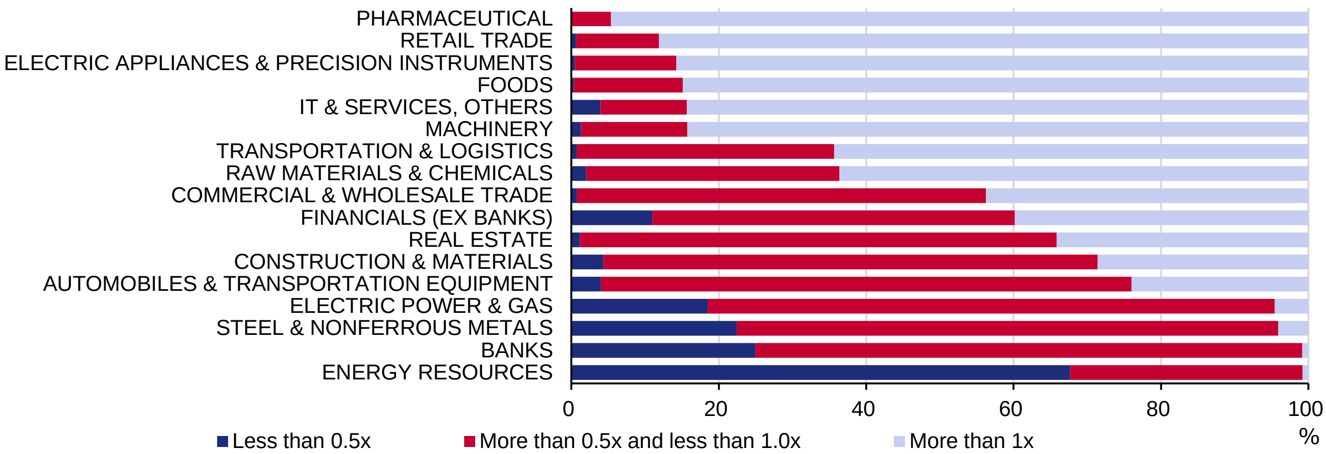


Source: Factset
Period: Monthly data from Jan. 2003 to Mar. 2023

Figure 6 displays the ratio of low PBR companies based on market capitalization within each of the 17 sectors of TOPIX. The chart indicates that low PBR firms are concentrated within certain sectors. For instance, industries with near 100% of stocks trading below 1x PBR, such as electric power and gas, and traditional regulated sectors like banks, may face challenges in improving their ROE through micro-level efforts alone. Other sectors, such as steel, non-ferrous metals, construction, and materials, may be experiencing low PBR ratios due to low growth expectations among the industry as a whole. To improve profitability throughout the Japanese economy, a combination of medium to long-term policy measures such as regulatory relaxation, alongside micro-level efforts, as requested by the TSE, to improve capital profitability such as ROE may be necessary.

The relatively high proportion of stocks with a PBR below 1 suggests structural issues within Japanese industries

Figure 6: Low-PBR Stocks Ratio in TOPIX 17 Sectors
(Based on Market Capitalization)



Source: Factset
Period: As of 10 Apr. 2023
Note: Calculated by market capitalization of stocks in each category related to PBR level within each sector

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