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Macro View

Changes Underway at Japanese Companies, as Seen in the BOJ Tankan

Signs of Easing Supply Constraints and the Medium- to Long-Term Upside for Japanese Equities

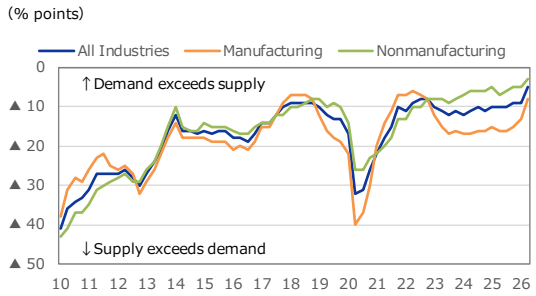
- The June Tankan showed that perceptions of labor shortages eased across a broad range of industries, particularly in the nonmanufacturing sector, even as business conditions and domestic supply-demand conditions remained firm.
- Given that aggregate labor input has not increased, the improvement may reflect not only greater labor mobility and more efficient workforce allocation, but also the emerging benefits of past investment in labor-saving equipment and IT systems.
- Although industry-level data show no clear correlation when all industries are included, an indicative analysis excluding information services reveals a modest correlation between increased software investment and an easing of perceived labor shortages.
- If supply constraints continue to ease alongside improvements in productivity and profit margins, the sustainability of earnings growth and ROE at Japanese companies could increase. This could represent a structural shift supporting further gains in Japanese equities through both earnings growth and higher valuations.

Perceived Labor Shortages Ease Despite Resilient Demand

What stood out to me in the Bank of Japan's June Tankan was the Employment Conditions DI, which showed an easing of perceived labor shortages across a broad range of industries, particularly in the nonmanufacturing sector. The improvements were generally small and, at this stage, represent no more than a marginal shift. Even so, the notable point is that the easing of perceived labor shortages was not necessarily accompanied by a deterioration in demand.

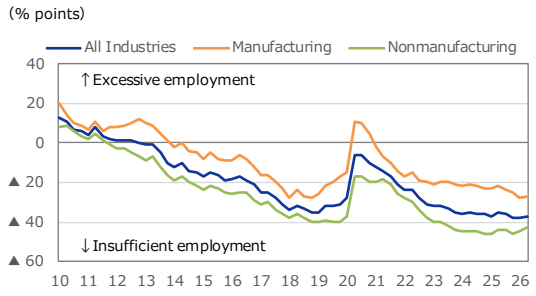
There would be nothing particularly significant about an easing of perceived labor shortages if it simply reflected an economic slowdown that had weakened corporate orders and production, thereby reducing staffing requirements. In the latest Tankan, however, business conditions remained at elevated levels, while assessments of domestic supply-demand conditions improved. In other words, perceptions of labor shortages eased even as demand remained resilient (Figures 1 and 2).

Figure 1: BOJ Tankan - Domestic Supply and Demand Conditions for Products and Services DI



Note: Quarterly survey data from March 2010 to June 2026.
Source:Compiled by SMDAM based on data from BoJ

Figure 2: BOJ Tankan - Employment Conditions DI



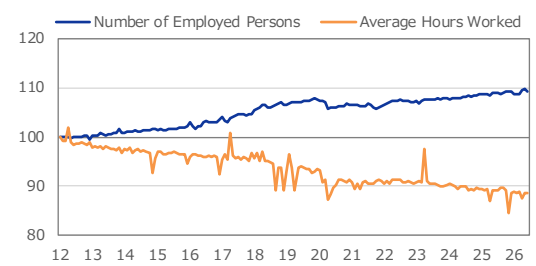
Note: Quarterly survey data from March 2010 to June 2026.
Source: Compiled by SMDAM based on data from BoJ

Ordinarily, stronger demand increases the amount of labor required and tends to intensify perceptions of labor shortages. The fact that such perceptions have instead eased may therefore point to some change on the supply side.

One possible explanation is an increase in labor supply. For example, the easing of the so-called annual-income threshold constraint may have reduced the incentive for part-time workers to limit their working hours, resulting in an increase in hours worked per employee. Employment among women, older people, and foreign workers may also have risen, allowing companies to recruit staff more readily than before.

Over this period, however, the number of employed persons continued to rise while average hours worked declined, meaning that aggregate labor input did not increase (Figures 3 and 4). At the very least, it appears difficult to explain the latest easing of perceived labor shortages solely in terms of an increase in the economy-wide supply of labor.

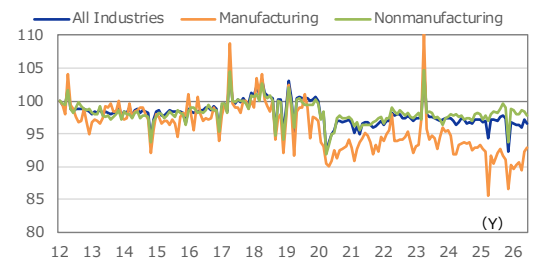
Figure 3: Number of Employed Persons and Average Hours Worked (SMDAM Seasonally Adjusted)



Note: Monthly data from January 2012 to June 2026.

Source: Compiled by SMDAM based on data from MIC

Figure 4: Labor Input (SMDAM Seasonally Adjusted)



Note: Monthly data from January 2012 to June 2026. Labor input is calculated as the number of employed persons multiplied by average hours worked.

Source: Compiled by SMDAM based on data from MIC

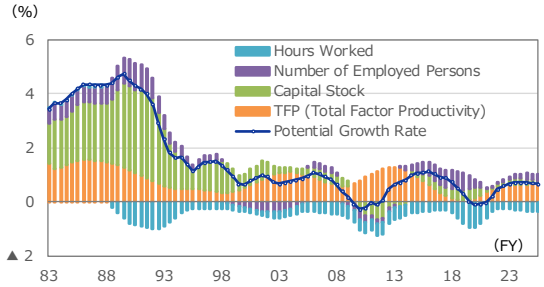
Greater labor mobility and the reallocation of employees within companies may also have contributed. Another plausible explanation, however, is that companies now require less labor input to meet a given level of demand—in other words, labor productivity may have improved.

The Benefits of Labor-Saving Investment May Be Starting to Emerge

My hypothesis is that Japan, which was one of the first countries in the world to confront the difficult challenge of a declining labor force and has often been described as a front-runner in confronting labor shortages and broader structural challenges, may now be beginning—albeit only at the margin—to overcome these challenges through capital investment and digitalization.

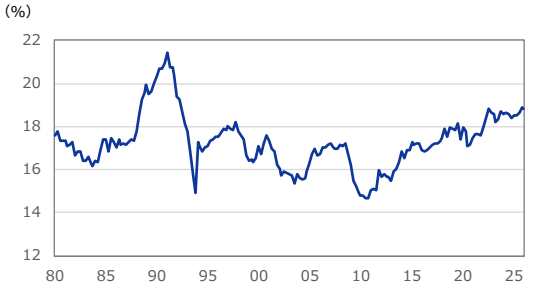
In recent years, Japanese companies have steadily increased investment in labor-saving equipment and IT systems in response to labor shortages. It takes time for an investment to move from implementation to adoption in the workplace and ultimately to translate into higher productivity. The benefits of these investments may now finally be starting to emerge in the form of easing perceptions of labor shortages (Figures 5 and 6).

Figure 5: Japan's Potential Growth Rate (BoJ Estimates)



Note: Semiannual data from the first half of FY1983 to the second half of FY2025.
Source: Compiled by SMDAM based on data from BoJ

Figure 6: Japan's Business Fixed Investment as a Share of Nominal GDP



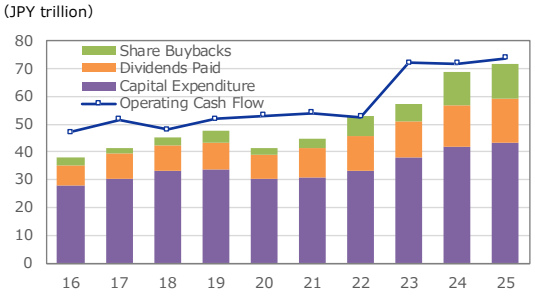
Note: Quarterly data from Q1 1980 to Q1 2026.
Source: Compiled by SMDAM based on data from Cabinet Office

Japanese companies have long been criticized for underinvesting. Viewed in terms of capital expenditure as a share of nominal GDP or the way corporate profits have been allocated, however, it would be inaccurate to suggest that they have not invested at all (Figures 7 and 8).

Although Japanese companies are often seen as relatively weak in product innovation—the creation of groundbreaking products and new markets—they have traditionally excelled at process innovation, improving existing processes and workflows to raise quality and efficiency. Investment in labor-saving equipment and business systems can be viewed as an extension of this strength.

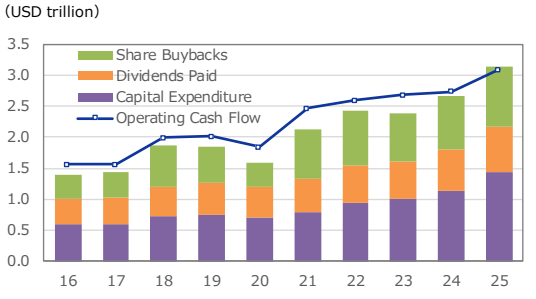
It would therefore not be surprising if companies facing the severe constraint of labor shortages had accelerated process improvements in an area of traditional expertise and were now beginning to see tangible results.

Figure 7: Operating Cash Flow, Investment and Shareholder Returns of TOPIX 500 Companies



Note: Data from FY2016 to FY2025. Financial companies are excluded.
Source: Compiled by SMDAM based on data from Bloomberg

Figure 8: Operating Cash Flow, Investment and Shareholder Returns of S&P 500 Companies



Note: Data from 2016 to 2025.
Source: Compiled by SMDAM based on data from Bloomberg

Industry-Level Data Are Partly Consistent with the Hypothesis

That said, the industry-level data do not provide unequivocal support for this hypothesis. For each industry, I estimated the change in perceived labor shortages that could not be explained by demand conditions alone, using the difference between the actual Employment Conditions DI and the level estimated from the Domestic Supply and Demand Conditions DI.

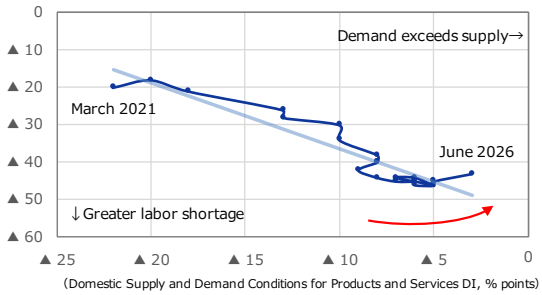
I then compared this measure with the cumulative growth in capital expenditure and software investment over the past five years. When all industries were included, the analysis showed no clear correlation.

When information services were excluded, however, a modest positive correlation emerged between cumulative growth in software investment and the degree to which perceived labor shortages had eased (Figures 9 to 12).

These results should be interpreted cautiously, given the limited sample size and their sensitivity to the treatment of outliers. Even so, the relationship between software investment and easing perceptions of labor shortages appeared somewhat clearer than the corresponding relationship for capital expenditure as a whole. This is consistent with the hypothesis that digitalization has begun to reduce staffing requirements in parts of the nonmanufacturing sector.

Figure 9: Domestic Supply-Demand Conditions and Perceived Labor Shortages in Nonmanufacturing

(Employment Conditions DI, % points)

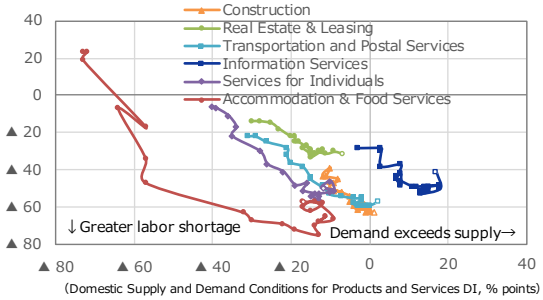


Note: Quarterly survey data from March 2021 to June 2026.

Source: Compiled by SMDAM based on data from BoJ

Figure 10: Domestic Supply-Demand Conditions and Perceived Labor Shortages by Nonmanufacturing Industry

(Employment Conditions DI, % points)

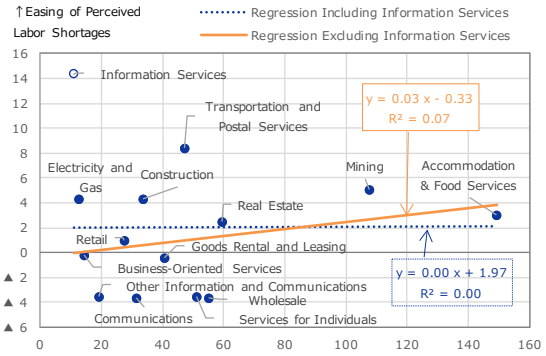


Note: Quarterly survey data from March 2021 to June 2026. Open markers indicate the latest observations.

Source: Compiled by SMDAM based on data from BoJ

Figure 11: Relationship Between Changes in Perceived Labor Shortages and Business Fixed Investment

(Change in Perceived Labor Shortages, % points)



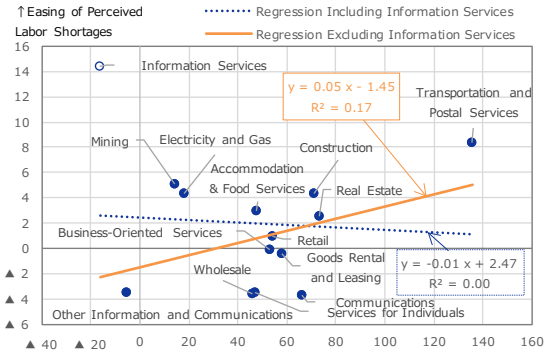
Note 1: The change in perceived labor shortages is defined as the year-on-year change in the gap between the actual Employment Conditions DI and the DI estimated from domestic supply-demand conditions. The estimated DI is obtained by regressing the Employment Conditions DI on the Domestic Supply and Demand Conditions for Products and Services DI. A positive change indicates an easing of perceived labor shortages.

Note 2: The change in perceived labor shortages represents the difference between June 2025 and June 2026 based on the definition above. Business fixed investment represents the cumulative growth rate over the five years from FY2021 to FY2025.

Source: Compiled by SMDAM based on data from BoJ

Figure 12: Relationship Between Changes in Perceived Labor Shortages and Software Investment

(Change in Perceived Labor Shortages, % points)



Note 1: The change in perceived labor shortages is defined as the year-on-year change in the gap between the actual Employment Conditions DI and the DI estimated from domestic supply-demand conditions. The estimated DI is obtained by regressing the Employment Conditions DI on the Domestic Supply and Demand Conditions for Products and Services DI. A positive change indicates an easing of perceived labor shortages.

Note 2: The change in perceived labor shortages represents the difference between June 2025 and June 2026 based on the definition above. Software investment represents the cumulative growth rate over the five years from FY2021 to FY2025.

Source: Compiled by SMDAM based on data from BoJ

Among the industries in which perceptions of labor shortages eased in the latest survey, for example, accommodation and food services recorded a sharp increase in capital expenditure over the past five years, while transportation and postal services posted substantial growth in software investment (Figures 13 and 14). Software investment also increased steadily in services for individuals.

The impact of each initiative—such as self-checkout systems, booking and dispatch platforms, more sophisticated inventory management, and the automation of back-office operations—may be relatively small in isolation. Collectively, however, these measures may have enabled companies to limit the additional staffing required to meet increased demand.

Figure 13: BOJ Tankan - Business Fixed Investment (Year-on-Year Change, %, Actual)

	FY21	FY22	FY23	FY24	FY25	Five-Year Cumulative Growth
All Industries	1.2	7.4	9.4	6.9	8.5	37.9
Manufacturing	2.9	8.5	6.5	6.6	7.9	36.8
Nonmanufacturing	-0.7	6.2	12.7	7.1	9.1	38.9
Construction	0.6	12.1	-4.9	4.9	18.7	33.5
Real Estate and Goods Rental and Leasing	4.4	12.8	17.1	7.9	3.3	53.7
Real Estate	3.0	15.2	14.4	14.4	2.7	59.5
Goods Rental and Leasing	7.4	8.0	23.1	-5.9	4.8	40.8
Wholesale and Retail	2.4	5.4	18.9	1.5	7.4	39.9
Wholesale	2.7	8.5	32.9	-0.9	5.6	55.0
Retail	2.2	2.7	6.8	4.0	9.4	27.5
Transportation and Postal Services	-0.3	0.3	16.7	13.0	11.6	47.2
Information and Communications	3.1	3.2	4.0	10.5	2.0	24.7
Communications	3.7	9.2	-4.3	18.2	2.7	31.6
Information Services	5.3	-5.7	5.9	-1.2	6.9	11.1
Other Information and Communications	-3.2	-1.1	21.8	9.7	-6.7	19.3
Electricity and Gas	-12.7	3.4	-0.9	13.7	10.9	12.8
Business-Oriented Services	-12.1	-3.1	49.6	-27.5	23.7	14.3
Services for Individuals	-8.4	22.0	22.4	2.4	7.8	51.0
Accommodation & Food Services	2.6	22.0	14.0	23.8	41.1	149.3

Note: Business fixed investment includes software and research and development investment but excludes investment in land.
Source: Compiled by SMDAM based on data from BoJ

Figure 14: BOJ Tankan - Software Investment (Year-on-Year Change, %, Actual)

	FY21	FY22	FY23	FY24	FY25	Five-Year Cumulative Growth
All Industries	7.6	11.5	10.0	4.2	7.5	47.8
Manufacturing	9.7	16.2	11.3	7.2	5.1	59.8
Nonmanufacturing	6.4	9.1	9.3	2.7	8.8	41.8
Construction	30.9	2.4	16.8	3.0	6.2	71.3
Real Estate and Goods Rental and Leasing	6.5	13.2	18.8	4.0	12.0	66.8
Real Estate	-2.1	35.9	8.4	-6.0	27.7	73.1
Goods Rental and Leasing	24.8	-24.7	48.6	24.8	-9.4	57.9
Wholesale and Retail	10.6	28.9	5.6	-6.5	6.1	49.3
Wholesale	5.6	34.7	4.5	-8.9	7.6	45.7
Retail	18.2	20.7	7.3	-3.0	3.7	54.0
Transportation and Postal Services	20.9	21.7	7.7	3.3	44.0	135.7
Information and Communications	5.0	-1.2	10.1	2.8	2.1	19.9
Communications	5.8	16.3	4.1	11.3	16.6	66.2
Information Services	10.7	-14.0	4.8	-9.3	-7.6	-16.4
Other Information and Communications	-23.4	-4.2	31.4	10.2	-10.9	-5.3
Electricity and Gas	-24.1	-7.7	13.4	29.4	14.8	18.0
Business-Oriented Services	18.3	9.8	-1.3	9.0	9.4	52.9
Services for Individuals	-2.8	11.0	27.2	3.7	3.4	47.2
Accommodation & Food Services	4.1	53.0	-5.9	18.7	-17.1	47.5

Source: Compiled by SMDAM based on data from BoJ

By contrast, perceptions of labor shortages in construction have not eased despite increased software investment. Unlike administrative and management functions, which are relatively amenable to digitalization, replacing on-site labor is likely to require further advances in robotics, autonomous driving, and so-called physical AI. This illustrates how the difficulty of substituting technology for labor varies across industries.

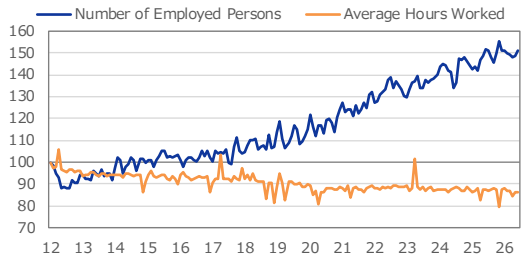
Generative AI may also have begun to make a marginal contribution to alleviating perceived labor shortages. Some media reports suggest that AI-driven task substitution has started to affect labor supply-demand conditions and wages in certain parts of IT engineering processes. The Tankan also showed an easing of perceived labor shortages in information services.

However, software investment has not increased in that industry, while labor input has risen across the broader information and communications sector, which includes information services. The latest data therefore do not necessarily support my hypothesis (Figures 15 and 16).

Moreover, expenditure on AI services may in some cases be recorded as an operating expense rather than capital expenditure, meaning that conventional software investment data alone may not fully capture the underlying trend.

Figure 15: Number of Employed Persons and Average Hours Worked in the Information and Communications Industry (SMDAM Seasonally Adjusted)

(January 2012 = 100)

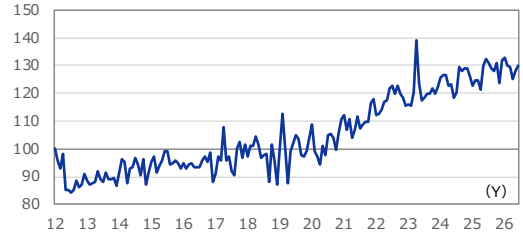


Note: Monthly data from January 2012 to June 2026.

Source: Compiled by SMDAM based on data from MIC

Figure 16: Labor Input in the Information and Communications Industry (SMDAM Seasonally Adjusted)

(January 2012 = 100)



Note: Monthly data from January 2012 to June 2026. Labor input is calculated as the number of employed persons multiplied by average hours worked.

Source: Compiled by SMDAM based on data from MIC

Implications for Earnings Growth and Japanese Equities

Labor shortages have long acted as a supply constraint on the Japanese economy, limiting companies' ability to increase output even when demand was present.

If labor-saving measures allow companies to maintain or expand production and service provision with their existing workforce, they should be better positioned to increase volumes in response to stronger demand.

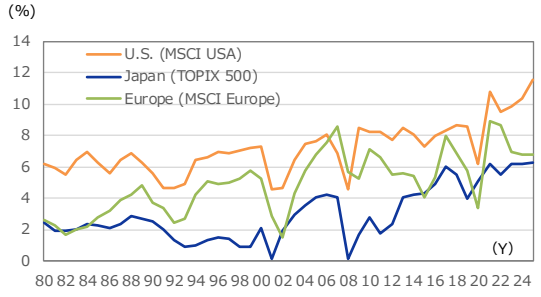
This has important implications for the valuation of Japanese equities. Japan is transitioning from a deflationary environment, in which companies found it difficult to raise prices, to a world of nominal growth in which price increases can be passed through more readily.

If this transition is accompanied by productivity gains that allow companies to maintain or increase volumes, revenue growth should become more sustainable. If companies can absorb higher labor and depreciation expenses while improving profit margins, this should also support higher ROE.

Of course, improvements in productivity and ROE do not automatically translate into higher price-to-earnings ratios. Rising interest rates and a higher cost of equity would place downward pressure on valuation multiples. Even so, if easing supply constraints raises the medium-term rate of earnings growth, expanding EPS should provide support for Japanese equities.

Moreover, if investors become increasingly confident in the sustainability of that growth, there may be scope for the PER applied to Japanese equities to rise, even after allowing for the effects of higher interest rates. In short, easing supply constraints could support Japanese equities through both stronger earnings growth and higher valuations (Figures 17 and 18).

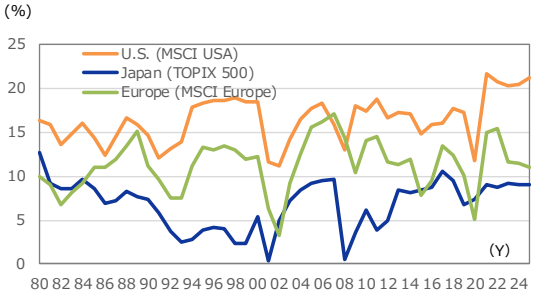
Figure 17: After-Tax Profit Margins of Japanese, U.S. and European Companies



Note: Data from 1980 to 2025. Trading companies and financial companies are excluded for Japan, while financial companies are excluded for the U.S. and Europe.

Source: Compiled by SMDAM based on data from Daiwa Securities

Figure 18: ROE of Japanese, U.S. and European Companies



Note: Data from 1980 to 2025. Trading companies and financial companies are excluded for Japan, while financial companies are excluded for the U.S. and Europe.

Source: Compiled by SMDAM based on data from Daiwa Securities

A Sign of Structural Change—or Merely a Temporary Phenomenon?

The June Tankan provided no more than an early sign of change—and perhaps only an indication that change may be possible. Nevertheless, in a country where labor shortages had previously appeared destined only to worsen, the possibility that companies are becoming better able to address supply constraints through investment and technology deserves to be monitored closely.

The industry-level analysis presented here found a modest correlation between software investment and easing perceptions of labor shortages when information services were excluded. This is by no means conclusive evidence. It does, however, provide a basis for examining the hypothesis that the benefits of labor-saving investment are beginning to emerge—not only through individual case studies, but also across industries.

The credibility of this hypothesis would increase if perceptions of labor shortages continued to ease in industries where demand remains resilient, accompanied by improvements in labor productivity and profit margins.

If Japanese companies are moving from a phase in which they cannot expand because of domestic labor shortages to one in which they can grow with fewer employees, it could represent a major turning point. Such a shift would have important implications not only for the Japanese economy, but also for the medium-term outlook for Japanese equities, supporting the market through both earnings growth and higher valuations.