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Bank of Japan

Japan's Labor Market under Demographic Decline: Evolving Dynamics and Macroeconomic Implications

Remarks at the Panel on
"The Policy Implications of Labor Market Transition"
at the Jackson Hole Economic Policy Symposium
Hosted by the Federal Reserve Bank of Kansas City

UEDA Kazuo
Governor of the Bank of Japan

Introduction

Let me begin by thanking the organizers for inviting me to this conference. This year's theme, "Labor Markets in Transition," is highly relevant to Japan. Our labor market is indeed undergoing a significant transformation, but the direction and underlying causes are somewhat unique to our country.

For many years after the burst of the asset price bubble in the early 1990s, the combination of near-zero inflation, economic stagnation, and structural policies aimed at stimulating labor supply masked the demographic pressures on labor market tightness. The large-scale monetary easing since 2013, together with post-COVID-19 global inflation, has finally pushed inflation into positive territory. Wages are now rising, and labor shortages have become one of our most pressing economic issues. Today, I would like to discuss the evolution of Japan's labor market and its interaction with broader macroeconomic developments.

I. Demographic Trends

Like many other countries, Japan's demographics have been shaped by two major forces. First, the birth rate (total fertility rate) fell sharply from around 4 to around 2 in the 1950s, resumed its decline in the early 1980s, and stood at 1.15 in 2024. Second, the life expectancy of men rose from 63.6 years in 1955 to 81.1 years in 2024, and that of women rose from 67.8 years in 1955 to 87.1 years in 2024. As a result, the working-age population peaked in 1995, while the total population peaked later, in 2008 (Chart 1).

Whether population decline leads to tighter labor markets and higher wages depends on how it is perceived by households and firms as well as on other drivers of the dynamics of the economy.

Chart 2 shows the *Tankan* (Short-Term Economic Survey of Enterprises in Japan) diffusion index for employment conditions. There was a brief period of tightness in the late 1980s to early 1990s, driven by an overheated economy and asset price inflation. The approaching decline in the working-age population also prompted firms to hire more workers. However, the bubble's collapse and subsequent financial instability ushered in prolonged stagnation,

compounded by the Global Financial Crisis. Labor markets remained loose despite demographic decline. Only with the large-scale monetary easing of the mid-2010s did conditions begin to tighten.

II. Rising Participation of Women and Seniors

Rising labor force participation rates have mitigated the impact of demographics on labor supply. Labor force participation among women and seniors has increased sharply since the early 2010s, more than compensating for the fall in the working-age population (Chart 3). The participation rate of women aged 15-64 reached 78 percent in June 2025 -- up from around 60 percent in the early 2000s.

Research attributes this to both policy and social changes: expansion of social insurance coverage to part-time workers, greater childcare and after-school care capacity, and a gradual shift in norms toward supporting women's employment. For seniors, as a result of legal reforms made so far, firms are required to ensure employment until age 65 and to make efforts to ensure employment opportunities until age 70.

That said, the scope for further increases is limited. The current female labor force participation rate is already comparable to Northern European economies. The labor force participation rate for people aged 65 and over was above 25 percent in 2024, which was the second highest among OECD countries, after South Korea.

Two areas could still expand labor supply, though both would require significant policy effort. First, increasing the share of full-time work among women and extending working hours: Currently, only around 50 percent of women workers are regular employees, compared with around 80 percent for men. This would require measures such as further expanding after-school care capacity. Second, foreign labor: Although foreign workers account for only around 3 percent of the labor force, their contribution to labor force growth from 2023 to 2024 exceeded 50 percent.[1] Further increases would require a broader discussion.

[1] The share of foreign workers in the labor force is based on the number of people.

III. The Return of Wage Growth

Turning to wage developments, the story involves both labor market dynamics and inflation expectations.

For decades, wages remained stagnant despite occasional labor market tightness. From the mid-1990s until 2022, base wage growth for regular full-time workers remained within the range of minus 1 percent to plus 1 percent, mirroring similarly muted CPI inflation for all items excluding fresh food (Chart 4). The absence of wage growth reflected both rising participation -- expanding labor supply -- and entrenched deflationary expectations. In that environment, firms assumed competitors would not raise prices and thus refrained from raising their own prices or wages, even in the face of higher costs or stronger demand. Breaking out of this equilibrium required a large external shock.

Post-COVID-19 global inflation provided that shock. CPI inflation for all items excluding fresh food peaked at 4.2 percent in early 2023, and expectations of positive inflation began to take hold. We have now seen three consecutive years of high rates of wage increases in the annual spring labor-management wage negotiations, with this year's 5.25 percent increase -- based on total wage increase -- marking a 34-year high. Notably, wage growth is spreading from large enterprises to small and medium enterprises (SMEs).

Barring a major negative demand shock, the labor market is expected to remain tight and continue to exert upward pressure on wages. But structural changes beyond participation rates are also shaping labor market outcomes.

IV. Greater Labor Mobility

Labor mobility has risen from historically low levels. In the past, regular full-time employees rarely changed jobs, and firms faced little pressure to raise base wages to retain staff. Recently, competition for workers has intensified. As shown in the left-hand panel of Chart 5, the number of regular employees switching jobs has been increasing, especially among younger generations.[2]

[2] For details on the recent labor mobility in Japan, see Bank of Japan (2025) and Ikeda et al. (2025).

Rising wages are reinforcing this mobility. Some SMEs unable to match wage growth have closed or merged, releasing workers into the broader market. The right-hand panel of Chart 5 suggests a possible shift of labor from low- to high-productivity firms, potentially mitigating demographic headwinds. This may be one instance where moderate wage increases under labor shortages lead to efficiency-improving reallocation.

V. Substitution of Labor with Capital

Persistent shortages are also prompting investment in labor-saving technologies. Firms in labor-intensive sectors such as accommodations, eating and drinking services, and retailing are leading this shift (Chart 6).[3] Software investment growth in these industries is outpacing that in other sectors. More broadly, investment in labor-saving technology has become a key driver of capital spending.[4]

AI use among Japanese firms remains in its early stages (Chart 7). Studies point out that many routine tasks -- performed relatively more often by women and non-regular workers -- can be automated by technology.[5] However, in Japan, much of the employment growth over the past decade has been among women, while the share of non-regular workers has been declining. The youth unemployment rate, which in some countries seems to be affected by AI adoption, is at a 30-year low in Japan. So far, AI adoption has not generated significant labor market disruption. Whether it will provide just enough substitution to offset demographic decline remains to be seen.

Concluding Remarks

In sum, demographic shifts that began in the 1980s are now producing acute labor shortages and persistent upward pressure on wages. They are also driving significant adjustments on the supply side of the economy -- through higher participation, increased mobility, and capital-labor substitution.

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[3] For a discussion on recent investment under the labor shortages in Japan, see Chikamatsu, Ikeda, and Yagi (2024).

[4] In a large-scale corporate survey conducted by the Bank of Japan as part of its "Review of Monetary Policy from a Broad Perspective," many firms cited labor shortages as the reason for their current proactive stance on capital investment. For more details, see Bank of Japan (2024).

[5] See, for example, De La Rica and Gortazar (2016) and Brussevich et al. (2018).

These forces will complicate the relationship between labor market conditions, wages, and prices. We will continue to monitor these developments closely and incorporate our assessment of evolving supply-side conditions into the conduct of monetary policy.

Thank you very much for your attention.

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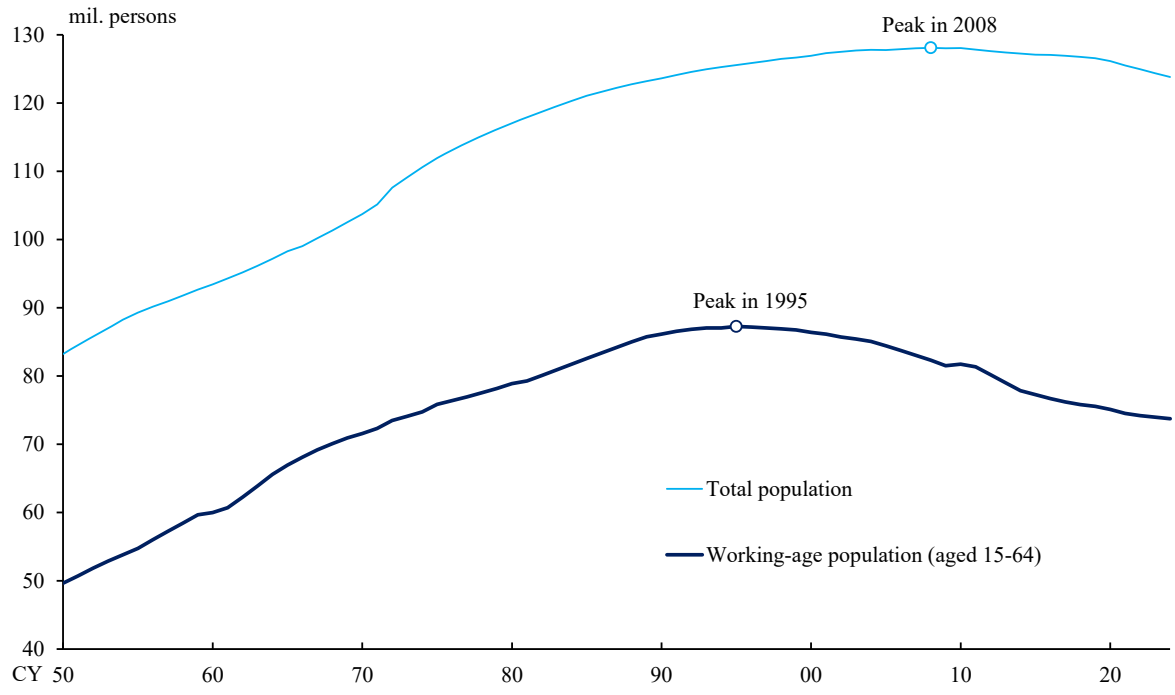
Chart 1

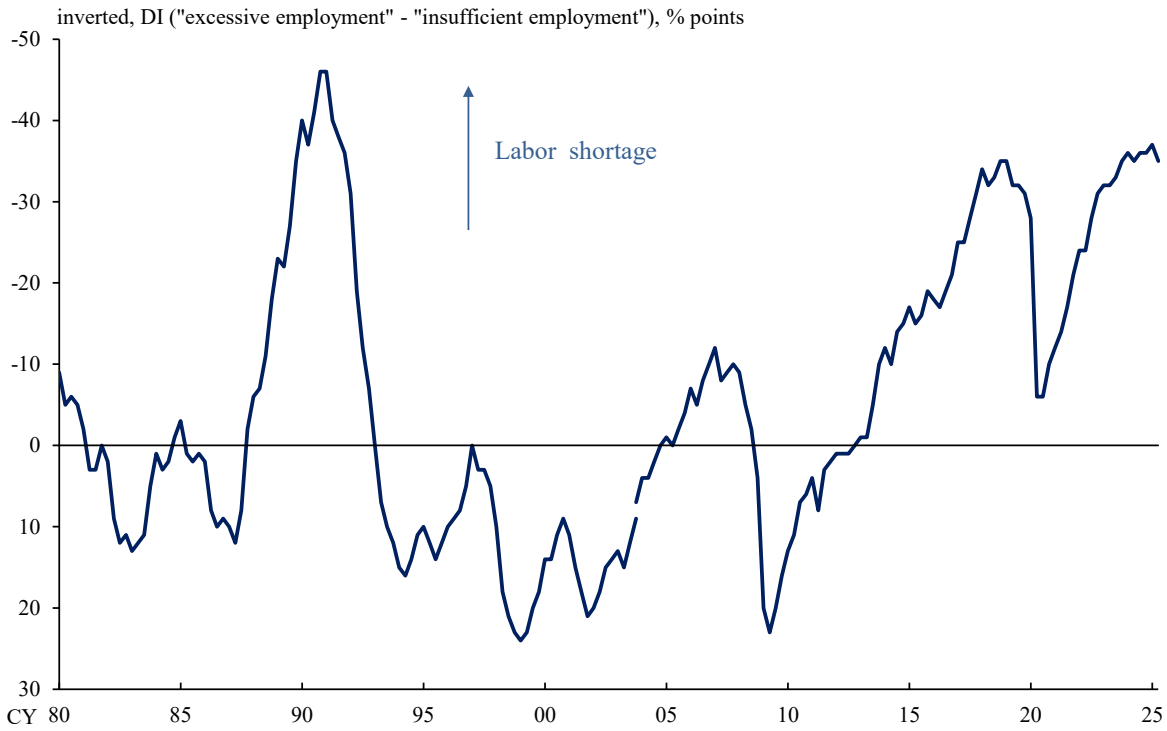
Japan's Population Trends



Note: Figures from 1950 to 1971 exclude Okinawa Prefecture.
Source: Ministry of Internal Affairs and Communications.

Chart 2

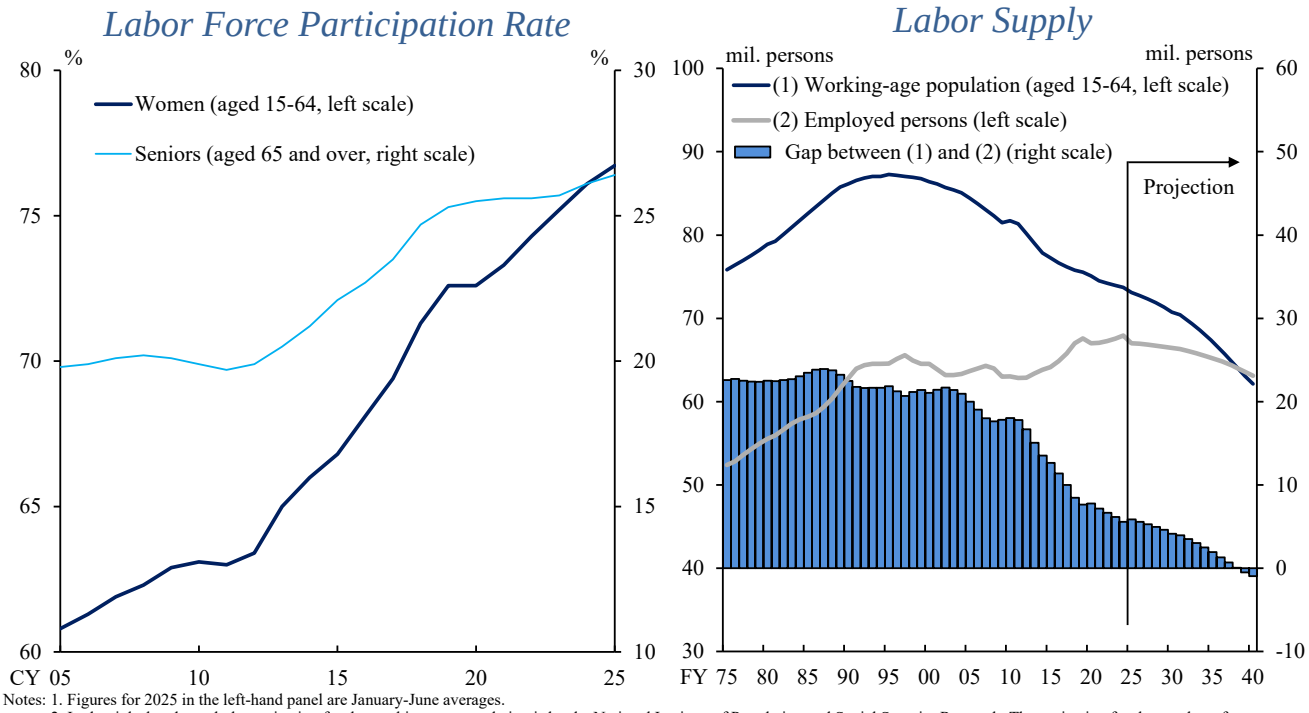
Labor Market Tightness in Japan



Note: Based on the *Tankan*. There is a discontinuity in the data for December 2003 due to a change in the survey framework.
Source: Bank of Japan.

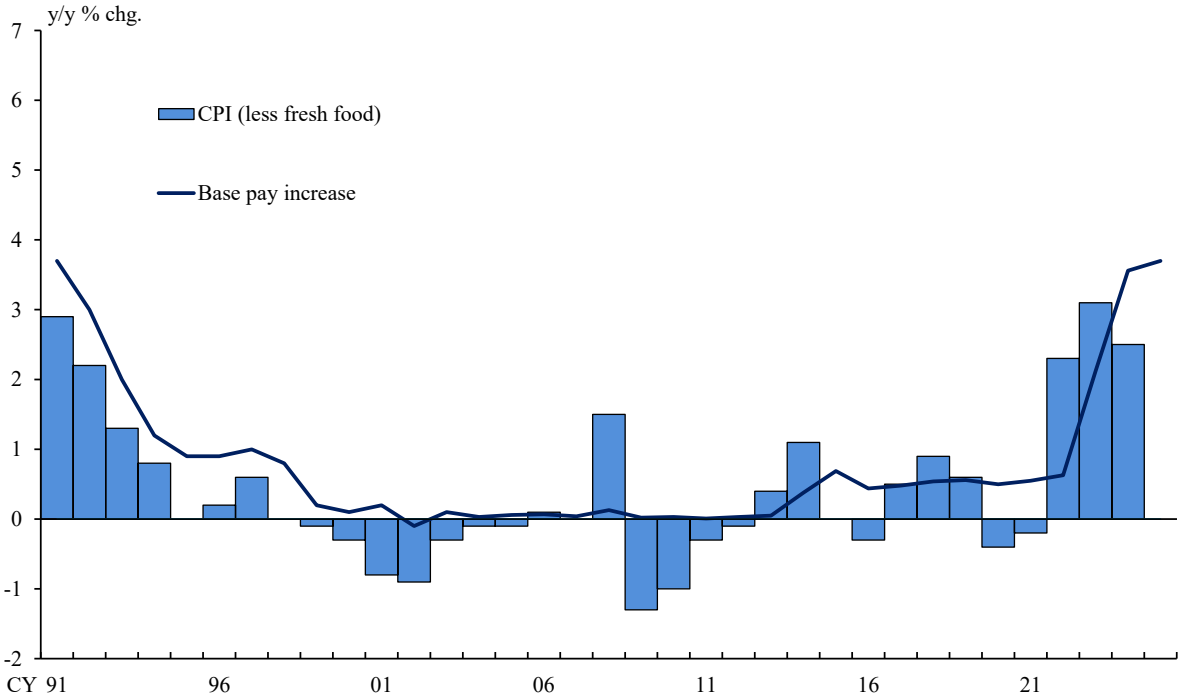
Chart 3

Labor Force Participation in Japan



Notes: 1. Figures for 2025 in the left-hand panel are January-June averages.
2. In the right-hand panel, the projection for the working-age population is by the National Institute of Population and Social Security Research. The projection for the number of employed persons is calculated based on projections by the Japan Institute for Labour Policy and Training.
Sources: Ministry of Internal Affairs and Communications; National Institute of Population and Social Security Research; Japan Institute for Labour Policy and Training.

Developments in Wages and Prices in Japan

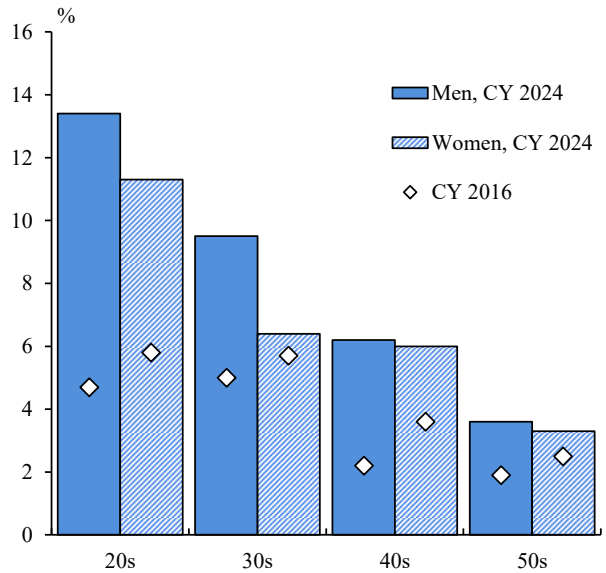


Notes: 1. The CPI figures exclude the effects of the consumption tax hikes etc.
2. Figures for base pay increases from 1991 to 2013 are those published by the Central Labour Relations Commission, while those from 2014 to 2025 are figures released by Rengo.

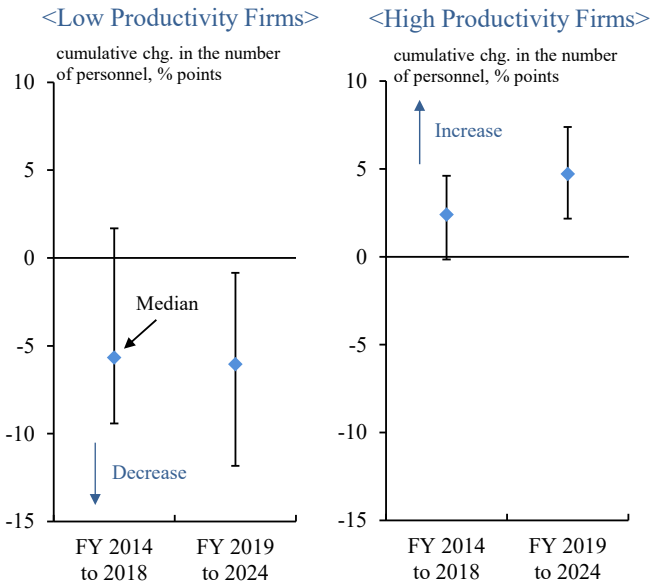
Sources: Ministry of Internal Affairs and Communications; Japanese Trade Union Confederation (Rengo); Central Labour Relations Commission.

Labor Mobility in Japan

Job-Change Rates among Regular Employees by Age



Labor Shift toward Firms with High Productivity



Notes: 1. Figures in the left-hand panel are the shares of regular employees in their 20s to 50s who changed jobs in the past year.
2. Figures in the right-hand panel are staff estimates, using microdata from the *Financial Statements Statistics of Corporations by Industry, Quarterly*, for firms that responded to the survey for the statistics for eight consecutive quarters. High/low productivity firms are defined as those in the top/bottom tercile within each period and industry. The diamond markers indicate medians of deviations in the rate of change in the number of personnel from that of the entire sample. The bands indicate 95 percent confidence intervals calculated using the bootstrap method.

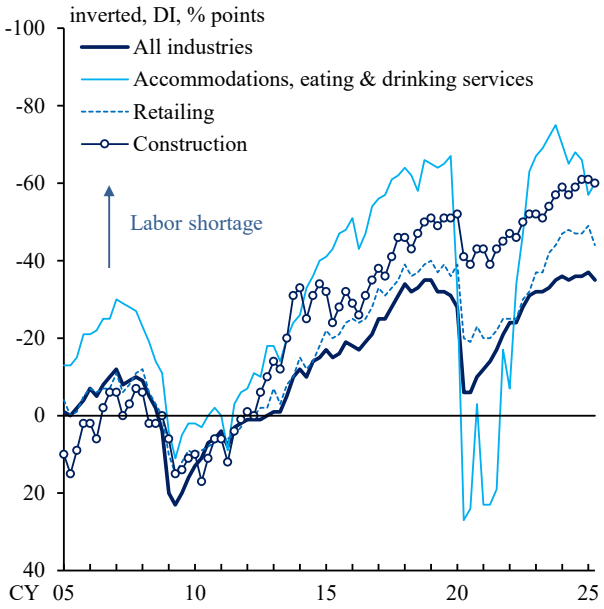
Sources: Mynavi, "Job Change Trends Survey 2025 (2024 Results)"; Ministry of Finance.

Chart 6

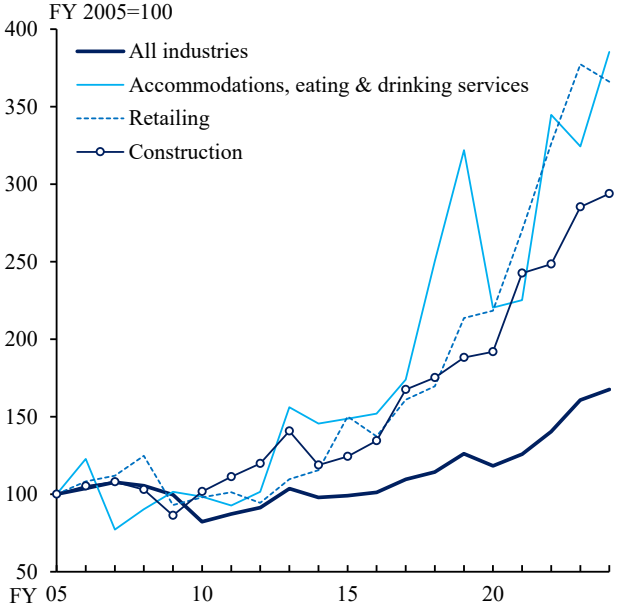
Substitution of Labor with Capital in Japan

Industries with Labor Shortages and Software Investment

<Labor Market Tightness>



<Software Investment>

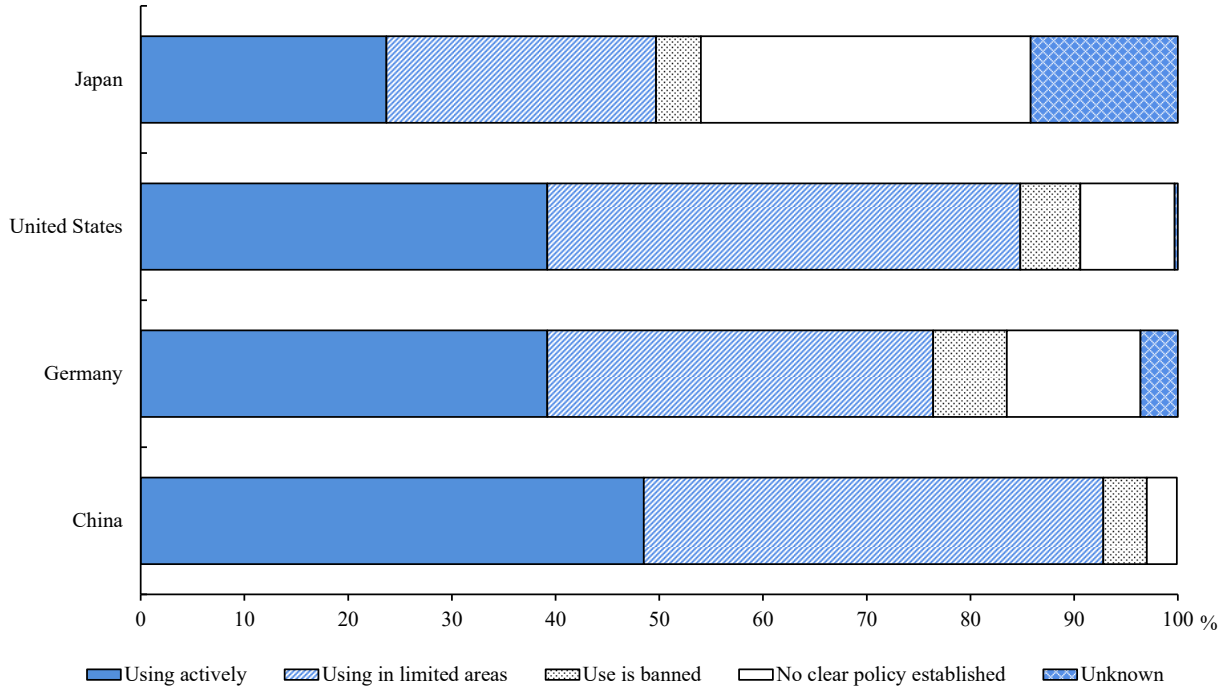


Note: Based on the *Tankan*.
Source: Bank of Japan.

Chart 7

Firms' Stance on the Use of Generative AI

Results of Fiscal 2024 Survey



Source: Ministry of Internal Affairs and Communications.