OECD Economic Surveys
JAPAN

JANUARY 2024

OECD

OECD Economic Surveys: Japan 2024

Please cite this publication as:
OECD (2024), *OECD Economic Surveys: Japan 2024*, OECD Publishing, Paris, https://doi.org/10.1787/41e807f9-en.

ISBN 978-92-64-69099-8 (print)
ISBN 978-92-64-58697-0 (pdf)
ISBN 978-92-64-54870-1 (HTML)
ISBN 978-92-64-75526-0 (epub)

OECD Economic Surveys
ISSN 0376-6438 (print)
ISSN 1609-7513 (online)

OECD Economic Surveys: Japan
ISSN 1995-3062 (print)
ISSN 1999-012X (online)

Photo credits: Cover © Vincent Koen.

Corrigenda to OECD publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm.

Foreword

This *Survey* is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Japan were reviewed by the Committee on 5 September 2023. The draft report was then revised in light of the discussions and given final approval as the agreed report of the whole Committee on 28 September 2023. The cut-off date for information included in this report is 22 December 2023.

The Secretariat's draft report was prepared for the Committee by Müge Adalet McGowan, Randall Jones, Kei Oguro, Patrizio Sicari, Natia Mosiashvili and Tetsuya Yoshioka under the supervision of Vincent Koen. Editorial support was provided by Jean-Rémi Bertrand.

The previous Survey of Japan was issued in December 2021.

Information about the latest as well as previous Surveys and more details about how *Surveys* are prepared is available at www.oecd.org/eco/surveys

Table of contents

FIGURES

TABLES

Follow OECD Publications on:

https://twitter.com/OECD

https://www.facebook.com/theOECD

https://www.linkedin.com/company/organisation-eco-cooperation-development-organisation-cooperation-developpement-eco/

https://www.youtube.com/user/OECDiLibrary

https://www.oecd.org/newsletters/

This book has...

StatLinks

A service that delivers Excel® files from the printed page!

Look for the StatLink at the bottom of the tables or graphs in this book. To download the matching Excel® spreadsheet, just type the link into your Internet browser or click on the link from the digital version.

BASIC STATISTICS OF JAPAN, 2022[1]

(Numbers in parentheses refer to the OECD average)[2]

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	125.1		Population density per km²	343.3	(39.0)
Under 15 (%)	11.6	(17.2)	Life expectancy at birth (years, 2021)	84.4	(78.7)
Over 65 (%)	29.9	(18.0)	Men (2021)	81.5	(75.9)
International migrant stock (% of population, 2019)	2.0	(13.2)	Women (2021)	87.6	(81.7)
Latest 5-year average growth (%)	-0.3	(0.4)	Latest general election	October 2021	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%, 2021, OECD: 2022)		
In current prices (billion USD)	4 283.6		Agriculture, forestry and fishing	1.0	(2.8)
In current prices (trillion YEN)	559.7		Industry including construction	28.9	(28.3)
Latest 5-year average real growth (%)	-0.1	(1.7)	Services	70.1	(68.8)
Per capita (thousand USD PPP)	45.8	(57.6)			
GENERAL GOVERNMENT (Per cent of GDP)					
Expenditure (2021, OECD: 2022)	43.7	(43.2)	Gross financial debt (2020, OECD: 2021)	240.1	(106.6)
Revenue (2021, OECD: 2022)	37.5	(40.0)	Net financial debt (2020, OECD: 2021)	126.8	(68.4)
EXTERNAL ACCOUNTS					
Exchange rate (YEN per USD)	130.66		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	97.57		Machinery and transport equipment	53.9	
In per cent of GDP			Manufactured goods	12.0	
Exports of goods and services	21.5	(33.4)	Chemicals and related products, n.e.s.	11.8	
Imports of goods and services	25.3	(34.8)	Main imports (% of total merchandise imports)		
Current account balance	1.8	(-1.0)	Mineral fuels, lubricants and related materials	28.0	
Net international investment position (2020)	68.7		Machinery and transport equipment	24.3	
			Chemicals and related products, n.e.s.	11.4	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	60.9	(57.5)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	2.6	(5.0)
Men	69.5	(65.4)	Youth (aged 15-24, %)	4.3	(10.9)
Women	53.0	(50.1)	Long-term unemployed (1 year and over, %)	0.9	(1.2)
Participation rate (aged 15 and over, %)	62.5	(60.9)	Tertiary educational attainment (aged 25-64, %)	56.1	(40.7)
Average hours worked per year	1,607	(1,752)	Gross domestic expenditure on R&D (% of GDP, 2020)	3.3	(2.9)
ENVIRONMENT					
Total primary energy supply per capita (toe)	3.1	(3.8)	CO_2 emissions from fuel combustion per capita (tonnes)	7.9	(7.8)
Renewables (%)	7.7	(12.0)	Water abstractions per capita (1 000 m³, 2019)	0.6	
Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2019)	97.7	(61.7)	Municipal waste per capita (tonnes, 2020)	0.3	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2018, OECD: latest available)	0.334	(0.315)	Education outcomes (PISA 2022 score)		
Relative poverty rate (%, 2018, OECD: 2019)	15.7	(11.4)	Reading	516	(476)
Median disposable household income (thousand USD PPP, 2018, OECD: 2019)	21.7	(27.4)	Mathematics	536	(472)
Public and private spending (% of GDP)			Science	547	(485)
Health care	11.5	(9.2)	Share of women in parliament (%)	9.9	(32.5)
Pensions (2020, OECD: 2019)	10.0	(8.3)	Net official development assistance (% of GNI, 2017)	0.2	(0.4)
Education (% of GNI, 2021)	2.6	(4.4)			

[1] The year is indicated in parenthesis if it deviates from the year in the main title of this table.

[2] Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, United Nations, World Bank.

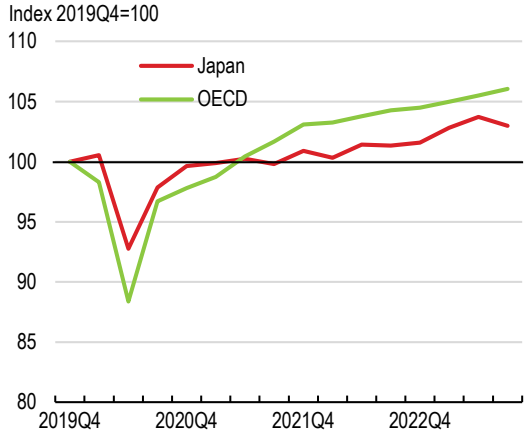
Executive Summary

High risks highlight the importance of boosting resilience to shocks

Global economic, monetary and financial sector developments have increased risks and uncertainty. The ongoing recovery, supported by supply-chain improvements, rising tourist arrivals, the release of pent-up demand and accommodative policies, has recently lost momentum (Figure 1).

Figure 1. The post-pandemic recovery has recently lost momentum

Gross domestic product, volume



Source: OECD, National Accounts database.

StatLink https://stat.link/o7s9dv

Domestic demand will remain the main driver of growth as global uncertainty weighs on external demand. The labour market will remain tight, contributing to higher wage growth in 2024-25. Rising wages, government subsidies and the new fiscal package will support private consumption and investment.

Risks are mainly external. The main downside risks relate to the global outlook, geopolitical tensions and renewed supply-side constraints. On the upside, tourism and domestic consumption could recover more strongly than expected.

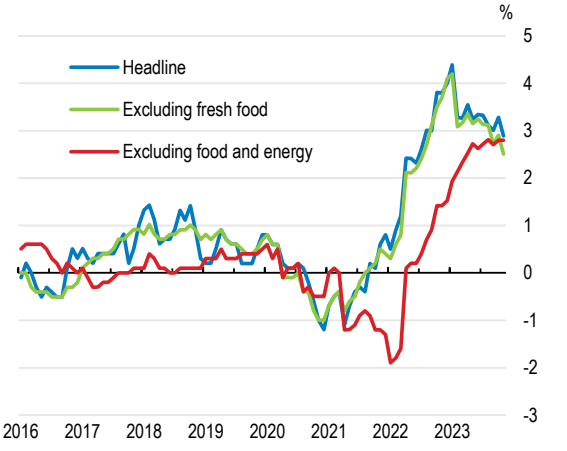
Japan is at a turning point, with inflation more likely to settle durably around the 2% inflation target than at any time since its inception. Following a long period of low inflation, consumer price inflation excluding fresh foods, which is the measure the Bank of Japan uses to guide its monetary policy, has exceeded the 2% target since April 2022 (Figure 2). The strong outcome of the latest annual spring wage negotiations, the highest in three decades, is a step towards achieving a virtuous cycle of redistribution and growth, and monetary policy normalisation. Headline and core consumer price inflation are projected to be around 2% in 2024-25 as government subsidies end, the output gap closes and wage growth gains traction (Table 1).

Table 1. GDP growth is set to moderate

(Annual growth, unless specified)	2022	2023	2024	2025
GDP at market prices	**1.0**	**1.9**	**1.0**	**1.1**
Total domestic demand	1.5	1.1	0.7	1.0
Gross public debt (% of GDP)	244.8	243.5	243.3	242.3
Unemployment rate (% of labour force)	2.6	2.6	2.5	2.4
Headline inflation (CPI)	2.5	3.2	2.6	2.0
Core inflation (index excluding food and energy)	0.3	2.7	2.3	2.0

Source: OECD, Economic Outlook No.114 database updated to take into account the 8 December 2023 Japanese national accounts release.

Figure 2. Inflation has risen above target



Source: Ministry of Internal Affairs and Communications.

StatLink https://stat.link/tn1hql

Divergent monetary policy from peers creates pressures. The short-term policy interest rate has remained unchanged at -0.1%, but yield curve control has become more flexible since December 2022. Greater flexibility in the conduct of yield curve control and a gradual modest increase in the short-term policy interest rate are warranted, based on projections of sustained inflation and wage dynamics. However, uncertainty around inflation is high.

Banks seem resilient in the near term, but risks should be monitored closely. Potential vulnerabilities include the phase-out of emergency support measures, increased foreign interest rate and foreign loan risks, a high share of floating-rate housing loans and rising debt-to-income ratios. Policies to support mergers and improve business models of regional banks, amidst demographic headwinds, should be continued.

Securing fiscal sustainability is key

Rebuilding fiscal buffers and ensuring debt sustainability should be prioritised, in a context of increasing debt service risks associated with a possible rise in long-term interest rates. Rapid population ageing is putting pressure on spending, increasing the already large transfers to the elderly.

Fiscal support to address the pandemic and the energy shock has increased gross public debt to an unprecedented level of almost 245% of GDP in 2022. Remaining measures to provide support against the energy shock should be targeted, with a view to phasing them out. Overreliance on supplementary budgets and contingency reserve funds lowers the transparency of fiscal projections and targets. Announcing concrete revenue and expenditure measures to enable a medium-term fiscal consolidation path would boost the credibility and sustainability of fiscal policy.

Containing spending growth requires health and long-term care reforms. Lengthy hospital stays and a high number of medical consultations suggest room for efficiency gains in providing high-quality care to Japan's ageing population. Reform priorities include boosting out-of-pocket payments for the more affluent elderly through means-testing, and shifting long-term care out of hospitals.

Japan should rely primarily on the consumption (value-added) tax to boost revenues. The current 10% rate is among the lowest in the OECD. In addition, various deductions to personal income taxes erode the tax base. Tax reforms should be accompanied by targeted support measures for low-income households.

Raising productivity growth should be prioritised

Reforms to improve the innovation framework and incentives for start-ups are key to boost productivity and potential growth and address ageing pressures.

Public support to R&D investment is high, but better diffusion of innovation is needed. SMEs only account for 6% of total R&D expenditure. The existing R&D tax credit is not immediately refundable and cannot be carried over, which reduces its effectiveness in stimulating innovation of young and innovative firms with limited tax liability.

Business dynamism is weak, with relatively few start-ups. The government plans to reduce the use of personal guarantees as collateral, which can help improve financing conditions for start-ups and reduce reliance on government guaranteed loans. Improving conditions for innovation capital, such as the undersized venture capital, and encouraging the use of mergers and acquisitions, can help overcome size-related barriers to growth.

The government aims to meet climate goals, while ensuring energy security

Achieving net-zero emissions by 2050 will be challenging, given heavy reliance on fossil fuels. Renewables only account for 11% of total energy supply and 22% of total electricity supply.

The government plans to use a mix of green investment, innovation and carbon pricing to meet targets. The commitment to gradually increase carbon prices from low levels and introduce an emission trading system should be followed through. The details of carbon pricing should be announced well in advance and the design should follow international best practices and provide sufficient incentives and certainty to incentivise private investment.

Projected contributions to emission reductions from innovative technologies, which are not yet cost effective, and nuclear power come with uncertainties. Given changing technologies, mapping out energy

scenarios and roadmaps considering different futures for the development of energy sources is key.

The ongoing efforts to boost the modest contribution of renewables to electricity supply, which is partly due to fragmentation in the electricity system, should be stepped up. Enhancing the electricity grid would help meet climate goals and increase energy security.

Limiting demographic headwinds requires multipronged reform

The projected decline in the population and employment should be mitigated by policies to reverse the fall in the fertility rate, remove obstacles to the employment of women and older persons and make greater use of foreign workers.

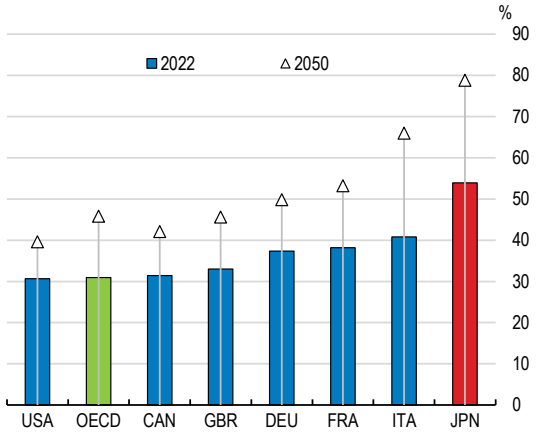
The government has placed reversing the fall in the fertility rate among its top priorities and plans to double its budget for child-rearing policies. The fertility rate is down to 1.3 and demographic projections based on unchanged policy assumptions point to a decline in Japan's population by about a quarter by 2060. The old-age dependency ratio is projected to reach 79% by 2050 (Figure 3).

Policies to support families and children, including improving work-life balance, could help reverse the decline in the fertility rate. The take-up and duration of parental leave by fathers is low, reflecting reduced earnings during the leave, concerns over negative career repercussions and the limited ability of SMEs to finance parental leave. The planned increases in spending on early childhood education and care should ensure quality and sufficient staff.

Past labour market reforms have raised employment, but more is needed to break down labour market dualism. The high share of young and female workers in non-regular jobs, with lower wages and career prospects, can delay family formation, weaken female labour force participation and contribute to the gender wage gap**.** Continuing *Work Style* reforms, including equal pay for equal work, would also support working conditions for older workers who are shifted to non-regular status at age 60. Social insurance coverage and training gaps between regular and non-regular workers should be lowered further.

Figure 3. Japan's population is projected to remain among the oldest in the OECD in 2050

Old-age dependency ratio



Note: 65 and older as a share of the population aged 20 to 64.
Source: OECD, Demography and Population database.
StatLink https://stat.link/h0pwax

Japan's traditional labour model of lifetime employment, a seniority-based wage system and mandatory retirement discourages the employment of older and female workers and labour mobility. Abolishing the right of firms to set mandatory retirement, typically at 60, would increase employment and weaken the role of seniority in setting wages, which would also benefit women and younger workers. Raising the pension eligibility age beyond the target of 65 in line with increasing life expectancy would also strengthen work incentives. These reforms should be accompanied by measures to re-skill older workers, whose participation in lifelong learning is relatively low.

Coping with population decline also requires building on recent policies to increase the role of foreign workers, which remains low, albeit rising. Offering long-term residency to workers and their families would make Japan more competitive in attracting more and higher-skilled foreign workers. Broad policies to increase the integration of foreign workers should be prioritised.

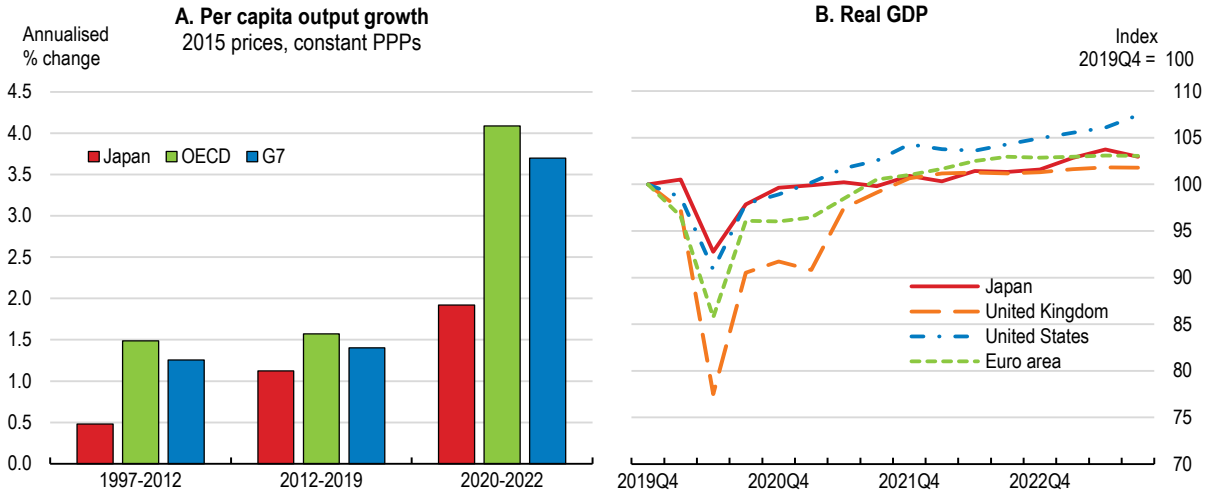
Main findings	Key recommendations
Increasing resilience to shocks	
Monetary policy remains highly accommodative, while the flexibility of the conduct of yield curve control has been increasing since December 2022. Headline and core consumer price inflation (excluding food and energy) are projected to be around 2% in 2024-25 and wage growth is projected to gain momentum. However, uncertainty remains high.	Further increase the flexibility of the conduct of yield curve control and start raising policy rates gradually, provided that inflation remains projected to be around 2% durably.
The financial system faces potential risks from foreign interest rates and banks' growing foreign and real estate loans. Repayment of principal for effectively interest-free and fully guaranteed loans granted during the pandemic creates additional risks, especially for regional banks.	Broaden the scope of systemic risk assessment by financial supervisors to closely monitor rising foreign interest-rate risks and potential credit risks.
The measures to protect households and firms against the pandemic and the energy shock increased public expenditures. Recent economic shocks have exacerbated medium-term fiscal challenges. The gross public debt-to-GDP ratio reached 245% in 2022. There is room to improve the fiscal framework, including the credibility of fiscal projections and targets and evaluation of policies.	Reduce the fiscal deficit by phasing out pandemic and energy shock related support. To put the government debt ratio on a downward trend, elaborate a clear and credible roadmap to achieve a primary surplus, underpinned by specific expenditure and tax measures. Limit the use of supplementary budgets and contingency reserve funds to large macroeconomic shocks and evaluate them ex post.
The total number of hospital beds, including for long-term care, and average length of hospital stays are higher than the OECD average.	Shift long-term care away from hospitals towards home-based care for those with low and moderate needs and towards institutional care for those with severe needs.
Tax revenues are close to the OECD average, but the shares of consumption and personal income taxes are relatively low.	Gradually raise tax revenues, including by increasing the consumption tax rate further in small increments.
Boosting productivity growth	
R&D investment by small and medium-sized enterprises (SMEs) is among the lowest in the OECD.	Make the R&D tax credit refundable or reinstate the tax carry-over to enhance incentives to invest by innovative start-ups and early-stage SMEs.
Business dynamism is weak, with relatively few start-ups and exit of low-productivity firms. Generous government guarantees for SME loans lower banks' incentives to improve credit risk management.	Promote the consolidation of managerial resources in viable SMEs by strengthening regulatory incentives for venture capital, and mergers and acquisitions deals. Further lower the coverage rate of public loan guarantees.
Achieving net zero emissions by 2050	
Ambitious climate targets depend on several emission reduction pathways, which depend on uncertain technologies that are not yet cost effective, and nuclear.	Improve contingency planning by mapping out energy scenarios and roadmaps, which reflect uncertainties over the development paths of technologies.
Fragmentation in the electricity system hinders the cost-effective integration of larger shares of renewable electricity sources.	Continue investments in transmission and distribution infrastructure, based on cost-benefit analyses, and enhance the electricity grid to support an increase of renewable electricity supply.
There are plans to introduce a national emission trading system and increase carbon pricing from low levels, but gradual phase-in may limit their contribution to meeting 2030 targets.	Ensure the planned carbon pricing measures provide sufficient incentives and consider a quicker phase-in to contribute to reaching 2030 targets.
Addressing demographic headwinds	
In 2022, 17% of eligible men took parental leave compared to 80% of women. The government is considering setting a target of 50% by 2025 and 85% by 2030 for men. More than half of men using parental leave in 2021 took less than two weeks.	Increase the take-up and duration of parental leave by fathers by raising the benefit for all parents and requiring firms to disclose the percentage of their eligible employees who take leave.
The share of female employees who are non-regular workers has risen sharply to 55% over the past 30 years. The low wages of non-regular workers in Japan's dualistic labour market discourage female employment and contribute to Japan's gender wage gap, while discouraging on-the-job training and slowing productivity growth. Dualism also has a negative impact on young people and older workers.	Break down labour market dualism by relaxing employment protection for regular workers and making it more transparent. Expand social insurance coverage and training for non-regular workers.
Japan's traditional labour market practices, such as mandatory retirement and seniority-based wages, are no longer appropriate in the context of rapid ageing. In 2022, 70% of firms set a mandatory retirement age of 60. The link between wages and seniority remains strong.	Further increase the mandatory retirement age with a view to abolish it and enforce the equal pay for equal work provision in the *Work Style* reform for all workers.
Although Japan has the longest life expectancy in the OECD, its pension eligibility age (for the wage-related portion of the Employees' Pension Insurance) is only 64 and 62 for men and women, respectively.	Raise the pension eligibility age beyond the target of 65 in line with increasing life expectancy to strengthen work incentives, increase pension benefits and reduce fiscal costs.
Japan ranks low in an international ranking of policies to integrate migrants, reflecting the fact that integration efforts are at an early stage.	Improve Japan's ability to attract foreign workers by implementing a comprehensive strategy to integrate migrants, including by preventing discrimination against them and improving their access to education and housing.

1 Key policy insights

The post-pandemic recovery is moderating against the backdrop of heightened uncertainty. The strong outcomes of the latest annual spring wage negotiations, the highest in three decades, could signal a turning point for price, growth and income dynamics, a long-standing aim of Japanese policies. Global monetary and financial sector developments and persistent inflation are putting pressure on the monetary policy framework, while interest rate and credit risks in the financial sector warrant close monitoring. Given high public debt, fiscal consolidation to rebuild fiscal buffers, underpinned by a credible medium-term fiscal framework to reduce the primary deficit and put the debt-to-GDP ratio on a clear downward path, is key. Rapid population ageing will drag down trend growth unless productivity gathers speed. It will exacerbate fiscal pressures, which requires policies to contain health and long-term care spending. Increasing the share of basic research in total R&D spending and the share of business-financed R&D performance at universities, strengthening competition and improving access to finance for start-ups would foster business dynamism and innovation. Longer-term sustainability also requires reducing greenhouse gas emissions in line with government targets, calling for green investment and innovation plus carbon pricing.

Prior to the pandemic, economic policy, under the heading of "Abenomics", aimed at overcoming deflation, accelerating economic growth and addressing the impact of demographic headwinds. Thanks to reforms, Abenomics did indeed raise growth and labour market participation, especially of women and older workers, and led to positive, albeit low, inflation. Since 2020, policy has focused more on the near term to protect households and firms against the dual shock of the pandemic and the energy crisis accelerated by Russia's war of aggression against Ukraine. The pandemic also disrupted the convergence in per capita output growth towards the OECD average (Figure 1.1, Panel A). The post-pandemic rebound, supported by supply-chain improvements, increasing tourist arrivals following the reopening of borders, the release of pent-up demand and accommodative fiscal and monetary policies, has recently lost momentum amidst high uncertainty (Panel B). Furthermore, divergence in monetary policy with other advanced economies, global financial instability, geopolitical tensions, and weaker global growth highlight the importance of enhancing the Japanese economy's resilience to shocks.

Figure 1.1. The post-pandemic recovery has recently lost momentum



Source: OECD, National Accounts database.

StatLink https://stat.link/mfkl8n

Addressing long-term structural challenges is key to resilient and sustainable growth. The gross public debt-to-GDP ratio reached 245% in 2022 (Figure 1.2, Panel A). Furthermore, demographic pressures will intensify, with the elderly dependency ratio forecast to reach 79% by 2050 (Chapter 2; Panel B). Boosting productivity growth is essential to compensate for the expected decline in the labour force due to population shrinking and ageing (Panel C). Ambitious reforms will also be needed to meet the government's net-zero emissions target by 2050 (Panel D).

The Kishida administration's *New Form of Capitalism* agenda focuses on human capital, innovation, economic security, and digital and green transformations (Box 1.1). The policy priorities are broadly in line with recommendations from past OECD Economic Surveys. To achieve more sustainable and inclusive growth, the government is increasing spending and planning reforms in several areas (human capital, children and families, green) (Government of Japan, 2023a). A Children and Families Agency was established in April 2023, which reflects the government's priority of addressing the demographic challenge and boosting the fertility rate from its current level of around 1.3.

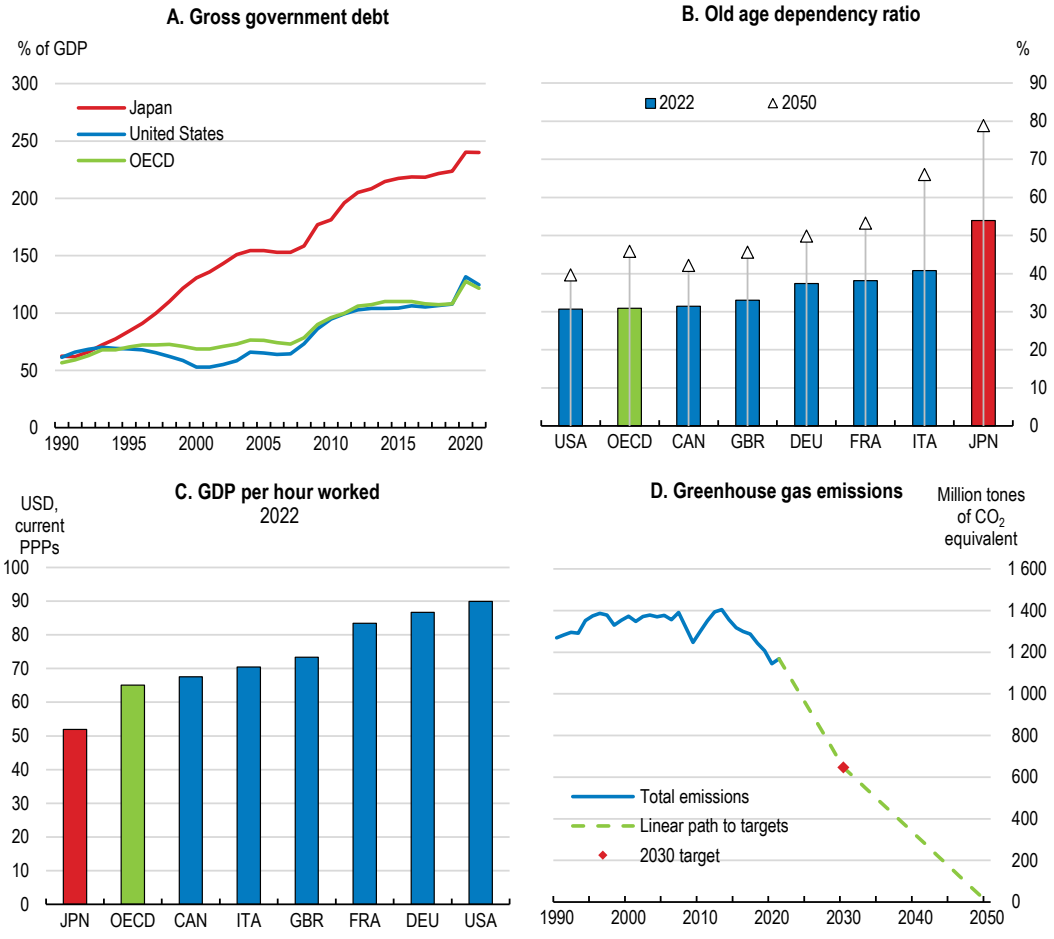
Against this background, the key messages of this *Survey* are:

- Achieving fiscal sustainability requires a credible and concrete plan to achieve a primary budget surplus and put the government debt ratio on a downward trend by containing ageing-related

expenditures and gradually increasing revenues to address post-pandemic challenges. Continued flexibility in the conduct of yield curve control and a gradual modest increase in the short-term policy interest rate is warranted, based on OECD projections of sustained inflation around the 2% target.

- Additional productivity-enhancing reforms to improve the innovation framework and incentives to support productive start-ups are key to boosting potential growth and addressing ageing pressures. Strengthening the financial position of young people and policies to support families and children, such as improved parental leave, would help to reverse the downward trend in the fertility rate. Removing obstacles to the employment of women and older persons and making greater use of foreign workers would help counter demographic headwinds.
- Meeting the ambitious climate targets requires a comprehensive policy package, including green investment, innovation and carbon pricing, and the preparation of contingency roadmaps towards targets, given the high share of uncertain technologies in emission reduction plans.

Figure 1.2. Long-standing challenges should be tackled



Note: In Panel A, OECD refers to the OECD weighted average. In Panel B, the old age dependency ratio is defined as the population aged 65 and above as a percentage of the population aged 20-64. In Panel D, the dashed line gives the implied linear reductions needed to meet the 2030 target, set at 46% from 2013 levels, and the 2050 target of net zero emissions.
Source: OECD, Economic Outlook No. 114 database; OECD Demography and Population Statistics database; OECD, Productivity database; OECD, Greenhouse Gas Emissions database and OECD calculations.

StatLink https://stat.link/oiab3h

Box 1.1. New form of capitalism: agenda and recent initiatives

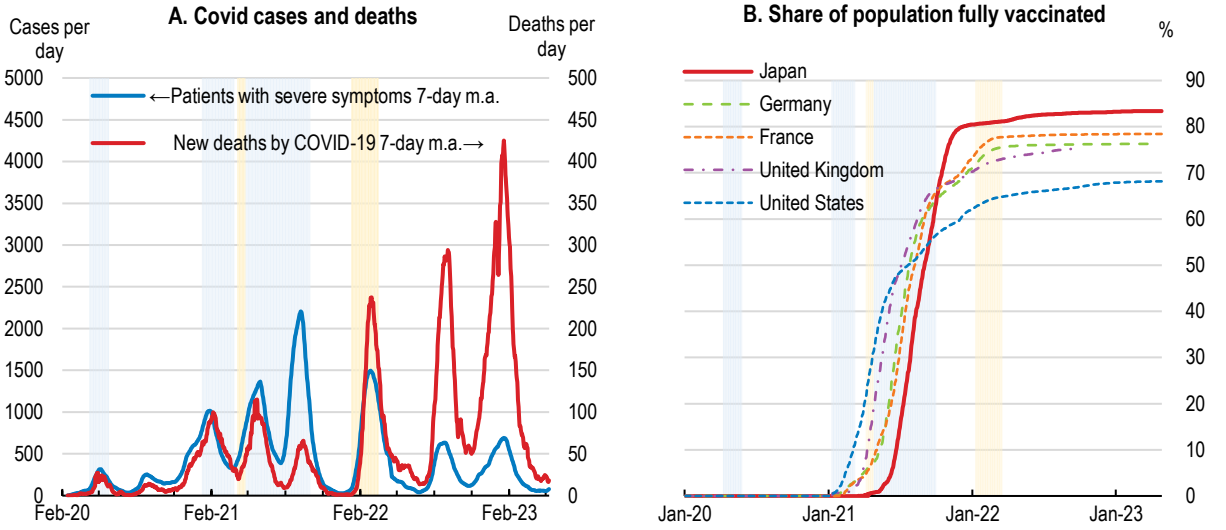
The government's *New Form of Capitalism* agenda aims to achieve a "virtuous cycle of growth and distribution" to revive the middle class. This will require collaboration of firms and workers and the public and private sectors. The *New Form of Capitalism* focuses on investment in four pillars: people, technology and innovation, start-ups, and green and digital initiatives (Government of Japan, 2022a). First, policies will aim to sustain a "virtuous cycle of wages and prices", building upon recent increases in inflation and the outcomes of the most recent wage negotiations, the highest in the past 30 years. Second, targeted public investment in human capital, digital and green transformations to stimulate further private investment and to attract firms to (re)locate in Japan will boost economic resilience. The November 2023 economic package, besides policies to support households against high prices, includes tax incentives to support wage growth, as well as regulatory reforms to promote start-ups and improve digitalisation, for example in the area of health.

- **Structural wage increases:** The government plans to encourage the pass-through of higher costs to prices by firms, which in turn can support higher wages and fair subcontracting transactions. The public and private sectors will work together to support structural wage increases through three pillars: (*i*) support for reskilling and upskilling; (*ii*) introduction of job-based wages according to the actual conditions of individual companies; and (*iii*) facilitation of the movement of labour to growing fields.
- **Green transformation (GX):** The government will provide support for initial investment (JPY 20 trillion) through "GX Economy Transition Bonds", introduce carbon pricing, and utilise new financial approaches to facilitate private and public GX investment towards the identified needs of JPY 150 trillion over the next 10 years. Furthermore, Japan will promote the diffusion of technologies and contribute to the realisation of regional and global GX through international cooperation.
- **Digital transformation (DX):** An action plan with tax, subsidy and regulatory reform measures will support domestic and foreign firms in strategic fields, such as semiconductors, batteries, bio-manufacturing, and data centres. The overall environment to promote DX investment will be improved, and the relevant infrastructure (e.g. telecommunications) to realise the *Vision for a Digital Garden City Nation*, an initiative to revitalise rural areas, will be promoted.
- **Start-ups:** The Five-year Start-up Development Plan, introduced in November 2022, set a goal of increasing start-up investment by more than tenfold (to JPY 10 trillion) by FY2027, and create 100 unicorns (private firms with a valuation of more than JPY 100 billion) and 100 000 start-ups. In the FY2022 supplementary budget, the government allocated JPY 1 trillion to the plan, which includes three pillars to foster start-ups through human resources, funding and open innovation.

1.1. Growth is moderating amidst high uncertainty

High levels of vaccination against COVID-19 (Figure 1.3) and the strengthening of the healthcare system to protect vulnerable groups enabled the lifting of restrictions and the reopening of borders in 2022. The release of pent-up demand, which was also boosted by the government's subsidies and policies to cushion the price shock, supported the recovery. Real GDP and per capita real output grew 1.0% and 1.4%, respectively, in 2022.

Figure 1.3. Successful vaccination helped overcome COVID-19



Note: The blue and yellow shaded areas show the time under a state of emergency, and quasi-state of emergency, respectively.
Source: Ministry of Health, Labour and Welfare; and OECD calculations based on Our World in Data.

StatLink https://stat.link/5n0c6g

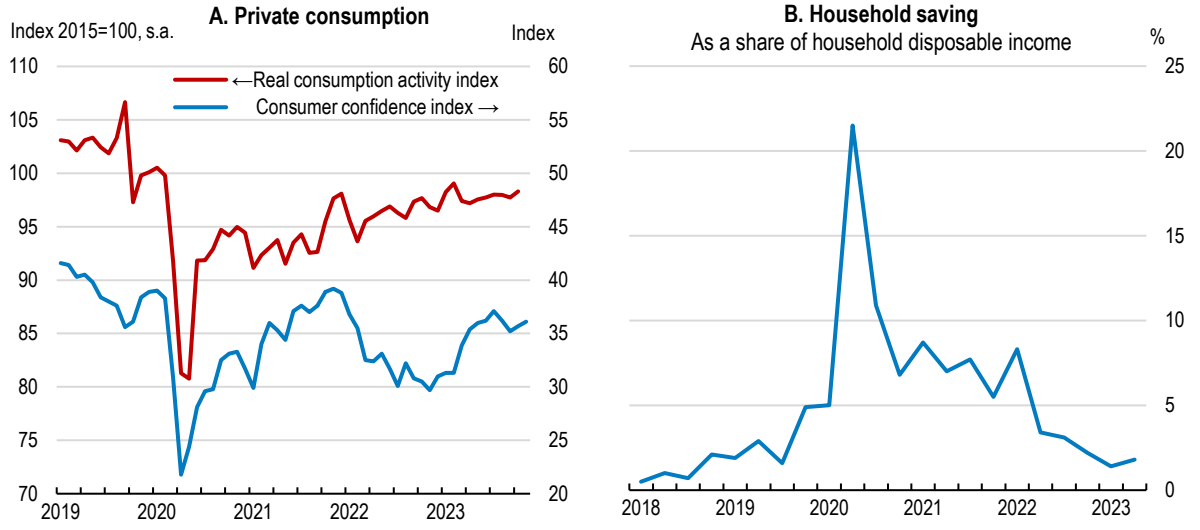
Direct macroeconomic risks from Russia's war on Ukraine have been limited, as Japan's trade links with Russia are modest. In 2022, the share of imports from and exports to Russia were 1.7% and 0.6% of the total, respectively. 83% of Japan's energy comes from fossil fuels, around 90% of which is imported, largely from Australia for coal and natural gas and the Middle East for oil. Dependence on Russia for fossil fuels, which was already low, declined further (coal: 6%, natural gas: 8%, oil: 1% in 2022), with substitution from other major exporters. Japan also depends on Russia for non-ferrous metals (13% of total imports of non-ferrous metals in volume in 2022), including palladium, which is used in catalytic converters for cars. While Japan has some stocks of such metals, whose prices have been more stable recently, persistent higher prices and supply shortages could create bottlenecks. The secondary impact through higher energy and food prices has been more pronounced, leading to sizeable policy support (see below).

Following robust growth in the first half of 2023, real GDP contracted by 0.7% in the third quarter with a decline in domestic demand. High uncertainty and inflation, together with dwindling pent-up demand, moderated private consumption (Figure 1.4). Consumption of durable and non-durable goods dropped in the second and third quarters, while that of services was flat.

In January 2023, headline consumer price inflation and the inflation index excluding fresh food reached their highest level in 41 years at 4.3% and 4.2%, respectively. They remain above target, at 2.8% and 2.5%, respectively, in November (Figure 1.5), with inflation excluding fresh food and energy at 3.8%. The contribution of energy prices to headline inflation has diminished, as has that of import and producer goods prices, while producer services prices are still rising. Consumer service prices were up 2.3% in November, driven by recreational services, including hotel charges (62.9%), reflecting the increase in inbound tourism. Food prices, which increased by 13% between January 2022 and November 2023, remain high.

The pass-through to consumer prices of cost increases led by the past rise in import prices is expected to continue in the near term. The share of price-increasing items in the consumer price inflation basket remains high (Panel C). Going forward, the scaling back of government subsidies for gas and electricity will push up prices, though the timing remains uncertain. Survey-based medium-term inflation expectations have also increased (Panel D), with 60% of firms expecting a price rise of 2% or more in the year ahead and long-term inflation expectations of slightly above 2%. Household inflation expectations have trended up, and average 10.7% for inflation a year from now.

Figure 1.4. The recovery in private consumption has recently moderated



Source: Cabinet Office; and Bank of Japan.

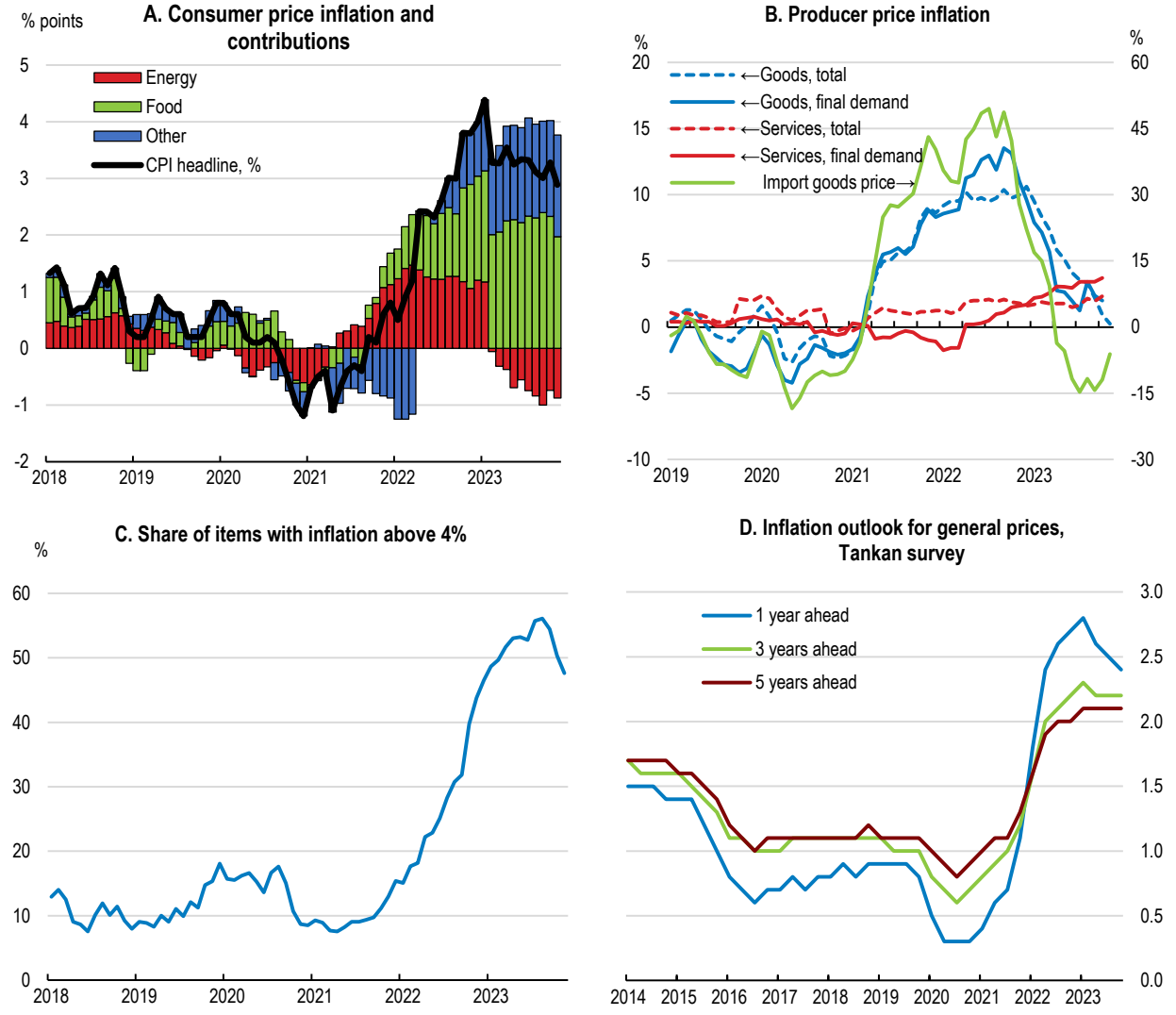
StatLink https://stat.link/4nodwk

Labour markets have become tighter, with a relatively high jobs-to-applicants ratio (Figure 1.6, Panels A-B). Skill shortages are partly linked to complementarities of intangible investment and skills (Furukawa et al., 2023). Prior to the pandemic, employment rates were steadily increasing, mainly driven by female and elderly people, partly thanks to past structural reforms (Panel C). As the scope for additional labour supply declines with demographic headwinds, structural reforms prioritising employment and skill-enhancing policies will be key (Chapter 2).

Whether inflation will reach the 2% target durably will partly depend on wage growth. The history of stagnant nominal wages in Japan is linked to backward-looking inflation expectations and workers' focus on job security rather than wage increases and low labour mobility, reflecting Japan's labour market specificities (*2021 and 2019 OECD Economic Surveys;* Chapter 2): *i)* seniority-based wages and long-term employment practices often lead to wage losses of middle-aged and elderly workers upon their job changes; and *ii)* the rising share of non-regular workers from 32% in 2005 to 37% in 2021 has pushed average wages down.

Wage dynamics are gradually changing, reflecting post-pandemic shifts in labour markets and higher inflation. Key labour unions and employers agreed on increases of 2.1% in base pay and 3.6% in headline wages in the latest *Shunto* wage negotiations, as against 0.6% and 2.1% a year earlier (Figure 1.7, Panel A). As a result, nominal wage growth has been trending up (Panel B). There were some indications that SMEs facing labour shortages are raising or planning to raise wages (JCCI, 2023), but the spread of wage increases to SMEs has lagged. Nevertheless, the contribution of higher base wages to nominal wage growth of full-time workers, which tended to be driven by overtime earnings and bonuses, is increasing (Panels C-D). In addition, job advertisement data for regular employees suggest a shift towards higher wages, which could boost labour mobility (Furukawa et al., 2023). Going forward, the largest union has stated that it will seek an increase of more than 3% in base pay and more than 5% in headline wages for FY2024 and the latest economic package also includes support for businesses to raise wages. Hence, wage growth is projected to gain momentum in 2024-25.

Figure 1.5. Inflation has become more broad-based

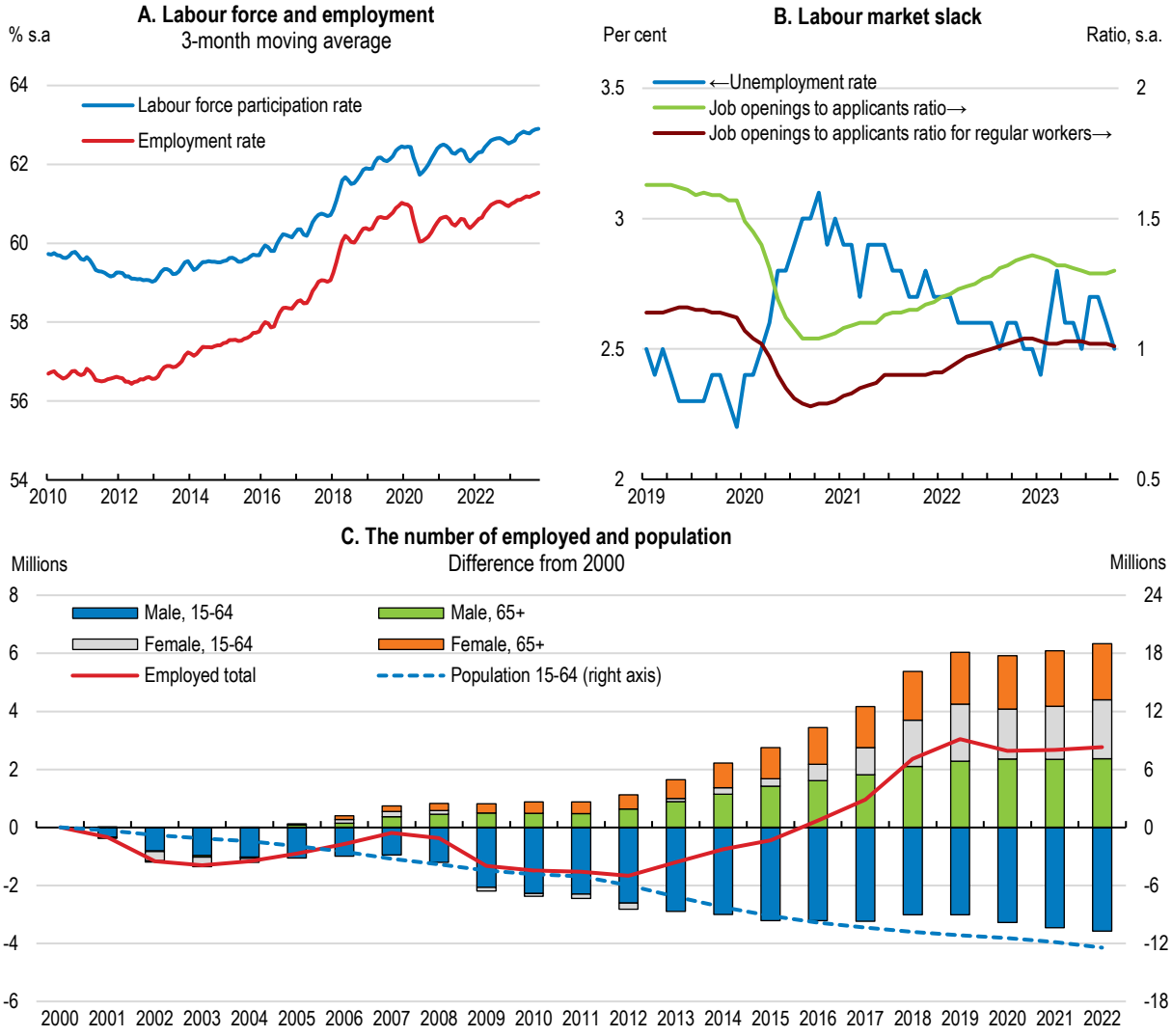


Source: Ministry of Internal Affairs and Communications; Bank of Japan; and OECD calculations.

StatLink https://stat.link/1yfhvk

The recovery of real exports and industrial production has been volatile, reflecting changes in supply-chain conditions and the global outlook. Exports to China, which is a major trading partner (Figure 1.8), have been lagging, while those to Europe have recently declined (Figure 1.9, Panel A). The goods trade balance has been improving due to moderating energy and raw materials prices (Panel B). The total number of inbound tourists was around 2019 levels in November, although the recovery in tourists from China is sluggish at only 34% of pre-pandemic levels (Panel C). The December Tankan survey points to strong enterprise investment plans, but the industrial production outlook has moderated, reflecting the uncertain global outlook (Panel D).

Figure 1.6. Labour markets have become tighter



Note: Panel A: older than15-years old.
Source: Ministry of Internal Affairs and Communications; and Ministry of Health, Labour and Welfare.

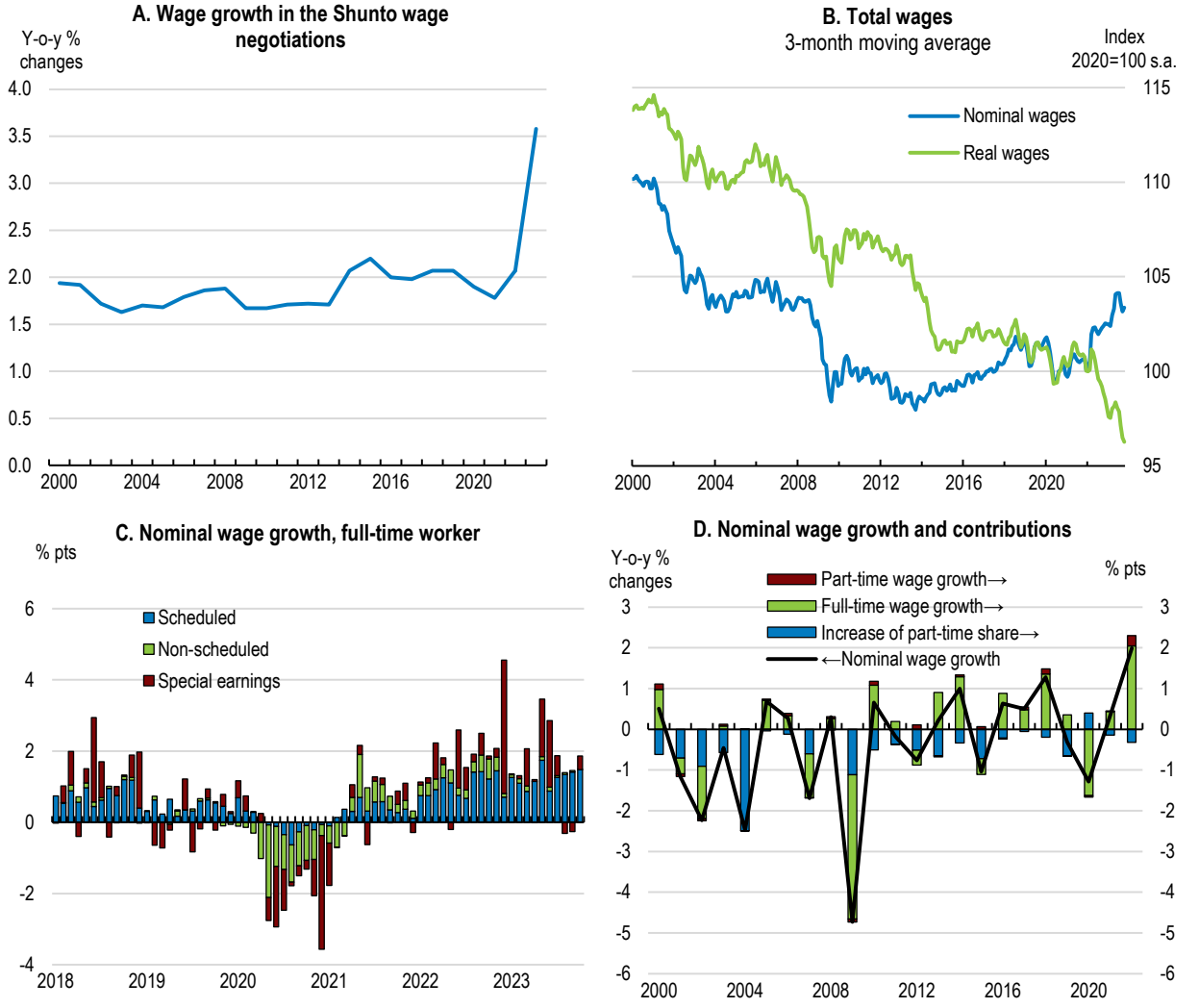
StatLink https://stat.link/umwxid

In the face of supply chain disruptions, the government passed the Economic Security Promotion Act in May 2022, which includes: *(i)* securing a stable supply of critical products; *(ii)* ensuring the stable provision of essential infrastructure services; (*iii)* supporting the development of specified critical technologies; and *(iv)* maintaining confidentiality of patent applications for selected security-related inventions. In December 2022, the government designated 11 critical products, including semiconductors, cloud computing, storage batteries, liquefied natural gas, antibacterial substance preparations, fertilisers and permanent magnets. Furthermore, Japan seeks to strengthen rule-based international trading partnerships, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, the Regional Comprehensive Economic Partnership Agreement, and more recently the Indo-Pacific Economic Framework, which includes 14 members, representing 40% of global GDP.

GDP growth is projected to slow from 1.9% in 2023 to 1.0% in 2024 and to slightly pick up to 1.1% in 2025, with a shrinking positive contribution from net exports (Table 1.1). Private consumption will be supported by rising wages and the new economic package. Business investment will grow moderately, thanks to government subsidies and high corporate profits. Public investment in large-scale projects will contribute

to growth in 2024. The labour market will remain tight, contributing to higher wage growth in 2024-25. Headline consumer price inflation is projected be over 2% by the end of 2025 as government subsidies end, the output gap closes and wage growth gains momentum.

Figure 1.7. Wage growth dynamics are gradually changing

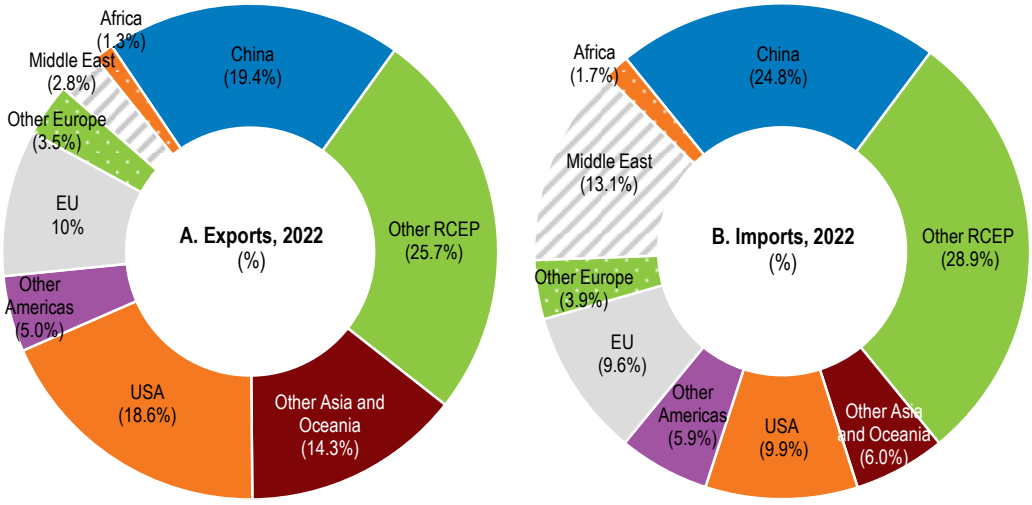


Note: In Panel B, scheduled and non-scheduled cash earnings refer to base and overtime wages, respectively. Special earnings include regular summer and winter bonuses.
Source: Ministry of Health, Labour and Welfare; Japanese Trade Union Confederation; and OECD calculations.

StatLink https://stat.link/b5y17f

Downside risks include weaker-than-expected external demand, including a sharper slowdown in China, and renewed energy price increases and supply-chain disruptions. A loss of confidence in Japan's fiscal sustainability and an increase in the sovereign risk premium could destabilise the financial sector and the real economy, with large negative global spillovers. On the upside, growth could be stronger in the event of a faster-than-expected recovery of consumption, especially of services. It would also be boosted by an upward surprise with respect to external demand, including inbound tourism. In addition, other lower probability threats to the outlook could derail the recovery (Table 1.2).

Figure 1.8. China and the United States are Japan's main trading partners



Note: Data refer to goods trade. Other Regional Comprehensive Economic Partnership (RCEP) includes Australia, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, New Zealand, the Philippines, Singapore, South Korea, Thailand, and Vietnam. Russia and Ukraine are included in Other Europe.
Source: Ministry of Finance; and OECD calculations.

StatLink https://stat.link/bl67eu

Table 1.1. Growth is set to moderate

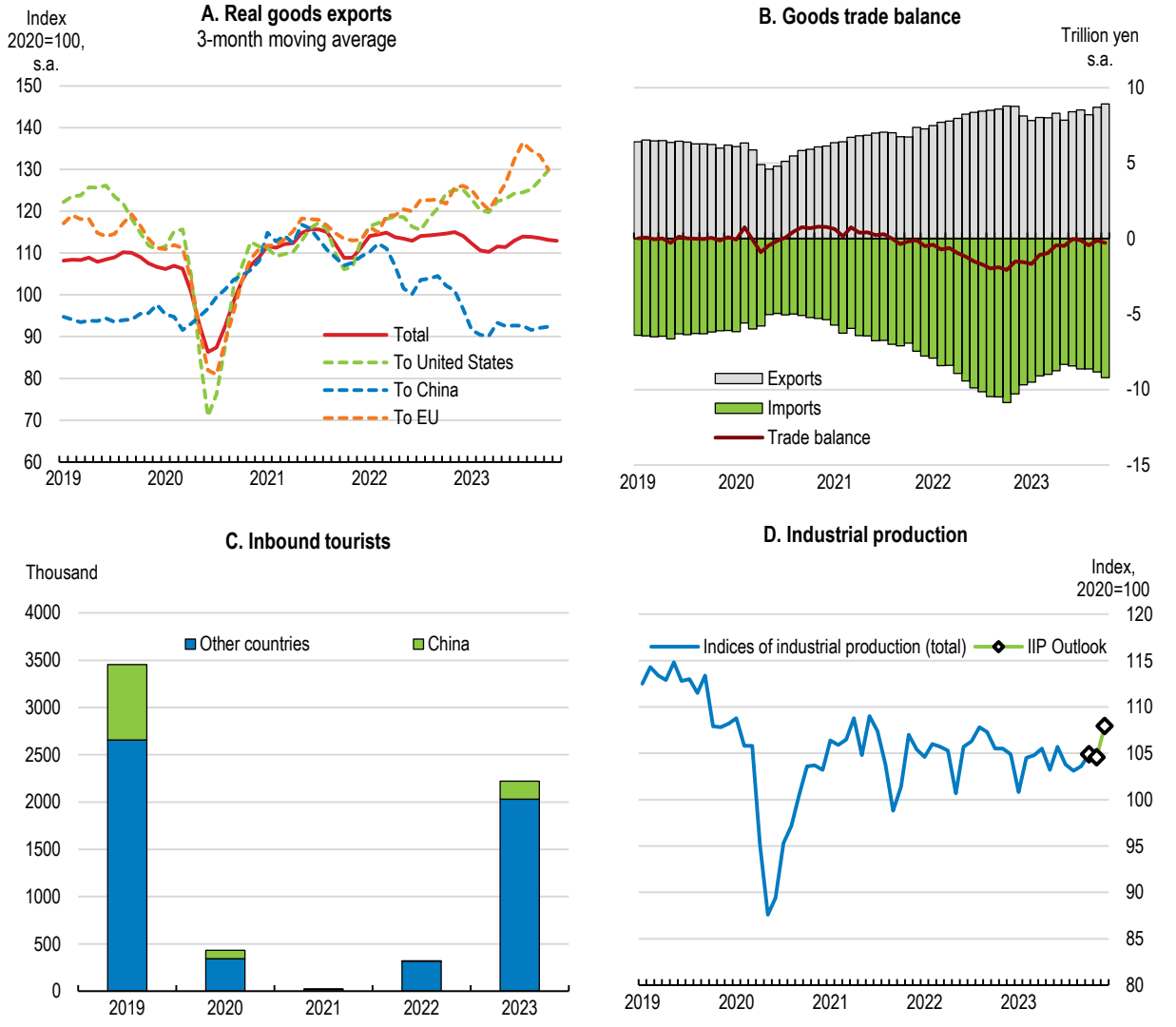
	2020	2021	2022	2023	2024	2025
	Current prices (JPY trillion)	Percentage changes, volume (2015 prices)				
GDP at market prices	539.8	2.6	1.0	1.9	1.0	1.1
Private consumption	291.8	0.8	2.2	0.9	1.0	0.6
Government consumption	113.2	3.4	1.7	0.8	- 1.0	0.0
Gross fixed capital formation	137.6	- 0.1	- 1.4	1.8	2.6	2.8
Final domestic demand	542.6	1.1	1.1	1.1	1.0	1.0
Stockbuilding[1]	- 1.3	0.4	0.3	0.0	- 0.3	0.0
Total domestic demand	541.3	1.5	1.5	1.1	0.7	1.0
Exports of goods and services	83.8	11.9	5.3	2.2	2.9	2.4
Imports of goods and services	85.3	5.1	7.9	- 1.1	1.8	2.0
Net exports[1]	- 1.5	1.0	- 0.5	0.8	0.2	0.1
Memorandum items						
Potential GDP	_	0.7	0.6	0.4	0.4	0.4
GDP deflator	_	- 0.2	0.3	3.8	2.7	2.2
Output gap	_	- 1.9	- 1.5	- 0.1	0.5	1.2
Consumer price index	_	- 0.2	2.5	3.2	2.6	2.0
Core consumer price index[2]	_	- 0.7	0.3	2.7	2.3	2.0
Unemployment rate (% of labour force)	_	2.8	2.6	2.6	2.5	2.4
Household saving ratio, net (% of disposable income)	_	7.8	5.2	2.8	2.3	0.7
General government financial balance (% of GDP)	_	- 6.2	- 5.7	- 5.2	- 4.3	- 3.3
General government gross debt (% of GDP)	_	239.3	244.8	243.5	243.3	242.3
Current account balance (% of GDP)	_	3.9	1.8	3.4	3.8	3.9

1. Contributions to changes in real GDP, actual amount in the first column.
2. Consumer price index excluding food and energy.
Source: OECD Economic Outlook No.114 database updated to take into account the 8 December 2023 Japanese national accounts release.

Table 1.2. Events that could lead to major changes in the outlook

Shock	Likely outcome
Escalating trade and geopolitical tensions	Supply chain disruptions and a contraction in exports and business investment
Disorderly exit from yield curve control or increased global financial instability	Financial instability caused by the repricing of risky assets
Higher frequency and severity of natural disasters	Significant loss of life, disruption of economic activity and high costs of reconstruction
Cyberattacks affecting key services	Disruptions on infrastructure, the financial sector and key government services triggering financial instability and adverse socio-economic activities

Figure 1.9. The recovery in exports and industrial production has been volatile



Note: In Panel C, the data are based on monthly averages and for 2023 include the average until November.
Source: Bank of Japan; Ministry of Finance; Japan National Tourism Organisation; Ministry of Economy, Trade and Industry; and OECD calculations.

StatLink https://stat.link/6qam1x

1.2. Pressures on the monetary policy framework have risen

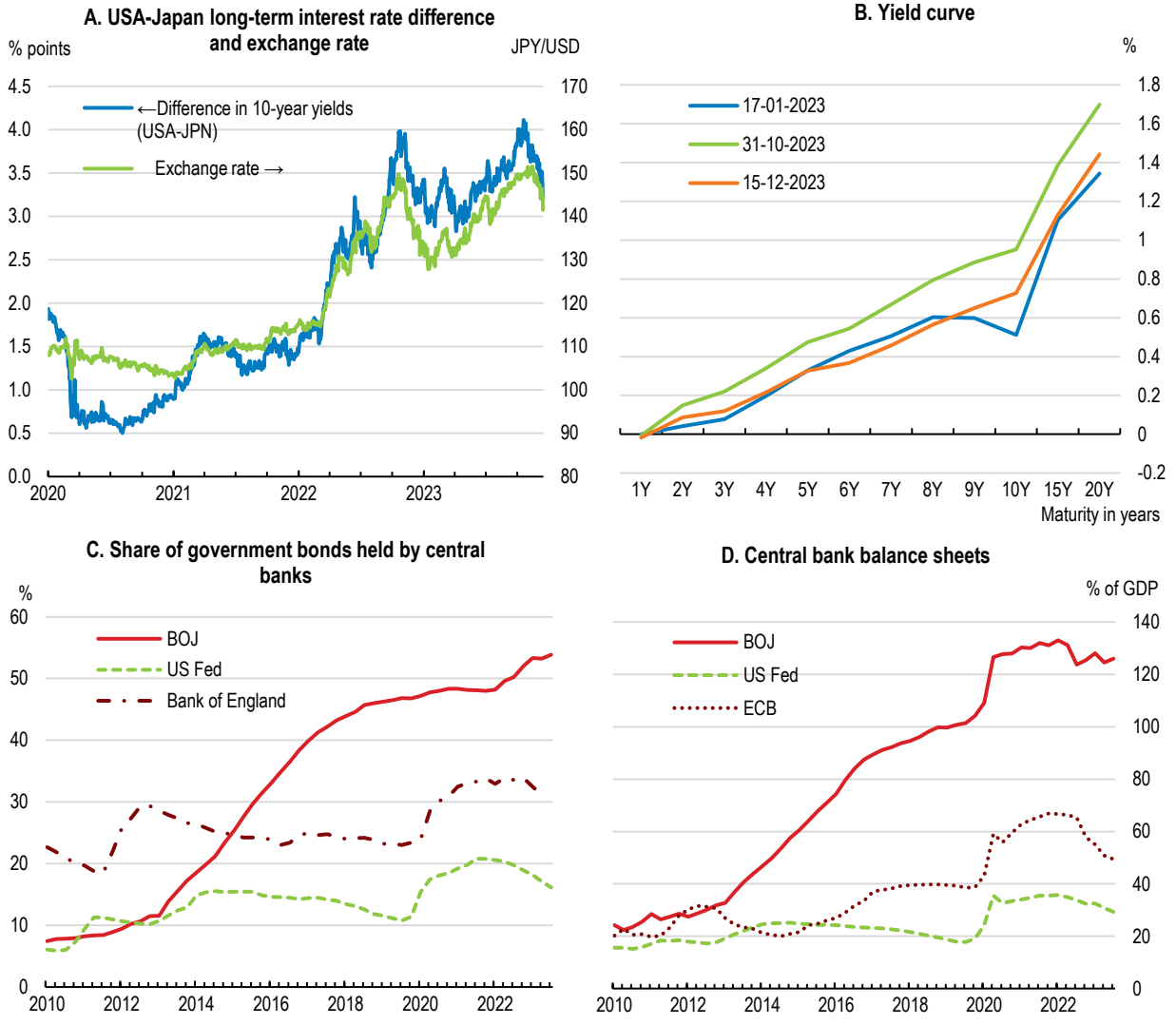
Monetary policy remains accommodative, with the short-term policy interest rate unchanged at -0.1%, but several adjustments in the conduct of yield curve control were made to improve market functioning. In December 2022, the Bank of Japan (BoJ) modified the conduct of yield curve control, by widening the fluctuation band around the 0% 10-year Japanese Government Bond (JGB) yield target from around ±25 basis points to around ±50 basis points and raising the monthly target of JGB purchases from JPY 7.3 trillion to about JPY 9 trillion. In January, funds-supplying operations were enhanced. In April, the governor announced a broad review of monetary policy (expected to be completed by late 2024) and the BoJ's forward guidance was changed by dropping the phrase "expects short- and long-term policy interest rates to remain at their present or lower levels". There are no immediate plans to revise the 2013 accord between the BoJ and the government, which set a goal to achieve a 2% inflation target "at the earliest possible time". In July 2023, the BoJ announced that the upper and lower bounds of the fluctuation band range will be treated as references, not as rigid limits, in its market operations and offered to buy 10-year JGBs at 1% through fixed-rate operations. In late October, the Bank shifted to regarding an upper bound of 1% of the yield target as a reference, with yields controlled mainly through large-scale JGB purchases and market operations.

Monetary policy divergence between Japan and other advanced economies contributed to substantial yen depreciation (Figure 1.10, Panel A), which triggered foreign exchange interventions with purchases of JPY against USD in September and October 2022 for the first time since 1998, amounting to roughly JPY 9.2 trillion (5% of Japan's forex reserves). Since then, there have been several episodes of pressures on the exchange rate and the 10-year JGB yield, which spiked at around 0.9% in late October. Pressures subsequently abated somewhat, but could return depending on global developments (Panel B). In September 2023, the BoJ held 54% of outstanding JGBs (excluding T-bills), and its total assets stood at around 126% of GDP (Panels C-D). BoJ purchases of JGBs amounted to a record JPY 23.7 trillion in January 2023 but fell back to JPY 9.3 trillion in October.

The extended use of yield curve control can create challenges, such as lower functionality of the JGB market and market volatility risks at its longer end. Reviews of the Reserve Bank of Australia's yield target, which ended in November 2021, concluded that future use of such policies should rest on an assessment of the flexibility of yield target to changing circumstances and the associated operational challenges, and that forward guidance weakened when the yield target became inconsistent with policy expectations in 2021 (RBA, 2021; Lucca and Wright, 2022). Despite different circumstances, Japan might face renewed pressures, if markets start speculating about the end of yield curve control. In addition, cross-country evidence suggests that prolonged monetary easing can lead to higher share of "zombie firms" (Jafarov and Minella, 2023; Hong et al., 2022; Acharya et al., 2019).

While acknowledging the potential side effects of prolonged monetary easing and that the likelihood of achieving the price stability target in a sustainable and stable manner has been increasing, the BoJ intends to continue quantitative and qualitive easing with yield curve control. The addition of "accompanied by wage increases" to reaching the price stability target of 2% in a sustainable and stable manner in the April 2023 statement suggests the wish to avoid premature tightening. In October, the BoJ revised its projections of consumer price inflation (excluding fresh food) up to 2.8% in FY2023 and FY2024, and 1.7% in FY2025, citing cost-push factors (BoJ, 2023a). However, according to the summary of opinions of the October 2023 meeting, a few members stated that next year's annual spring wage negotiations and the extent to which wage increases are reflected in prices will be key to confirming that the virtuous cycle between wages and prices is gathering traction.

Figure 1.10. Divergent monetary policy with peers creates pressures



Note: In Panel C, Japanese government bonds do not include T-bills.
Source: Bank of Japan; Cabinet Office; Federal Reserve Board; European Central Bank; Eurostat; and Ministry of Finance.
StatLink https://stat.link/yzoctw

If inflation remains above target and global yields go up, markets could challenge yield curve control again. Hence, modifications to increase flexibility and lower the risks of abrupt changes later, which could trigger market volatility, should be continued. The options include raising the 10-year JGB yield target, and/or moving to a shorter-term yield target. BoJ assessments suggest that short- and medium-term rates have a greater effect than long-term rates on the output gap. OECD projections of sustained inflation around 2% (Table 1.1), increasing wage growth and a closing of the output gap imply a gradual increase in the policy rate is warranted, starting from early 2024. In this context, potential adverse spillovers on domestic and global financial stability should be considered (IMF, 2023a). Macroprudential policies may help limit exit risks (see below). Communicating the current and future monetary stance clearly and in a timely manner is also key.

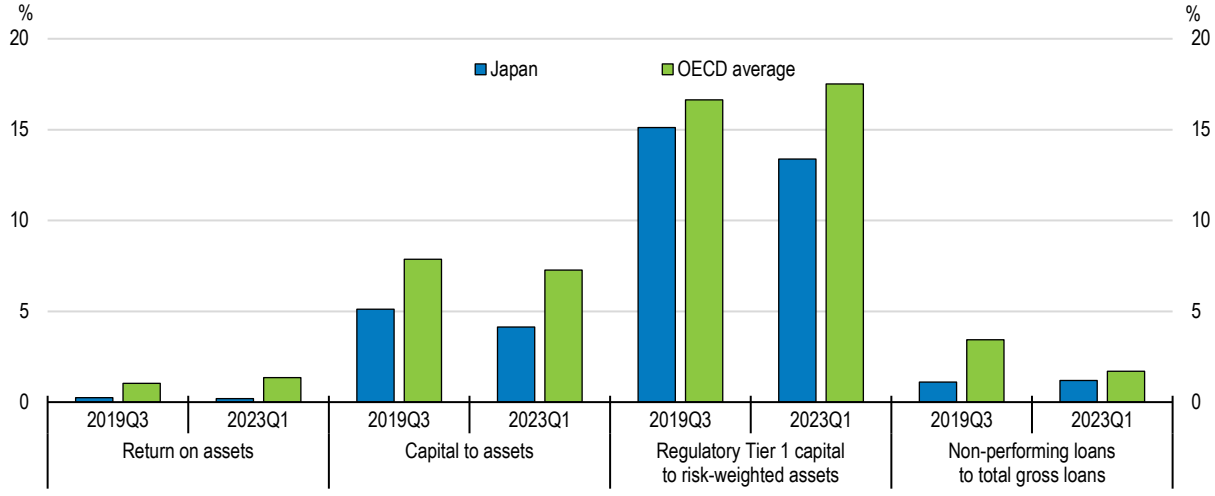
The uncertainty surrounding the inflation outlook is exceptionally large. Downside risk factors include long-standing structural barriers to wage growth (see above) and a potential slowdown in the global economy. On the other hand, a tighter labour market may lead to higher-than-projected wage growth. Remaining fiscal support and a renewed rise in energy prices would work in the same direction. In this context, the

key challenge facing the BoJ is how to durably achieve its inflation target without significantly overshooting while safeguarding financial stability. If the positive wage-inflation cycle gets underway more slowly than projected by the OECD, the BoJ is likely to wait for longer before raising interest rates.

1.3. Financial stability risks should be monitored closely

The financial system appears to remain resilient in the face of global headwinds. Capital adequacy ratios are well above regulatory requirements, but lower than the OECD average (Figure 1.11). The share of non-performing loans, at 1.2%, remains low. The failure of Silicon Valley Bank highlighted that changes in market interest rates could expose duration risks in banks' business models, but the impact on Japan's financial system was limited, with a temporary fall in the prices of bank stocks (BoJ, 2023b). However, rising foreign interest-rate risks and potential credit risks call for close monitoring and vigilance. The enhanced coordination between the BoJ and the Financial Services Agency (FSA), through joint stress tests, data sharing and the establishment of a joint Financial Monitoring Council in June 2021, should be continued.

Figure 1.11. The banking system appears to be sound



Note: 2023Q1 data for the OECD average are calculated using the latest available quarter for OECD countries.
Source: IMF Financial Soundness Indicators database.

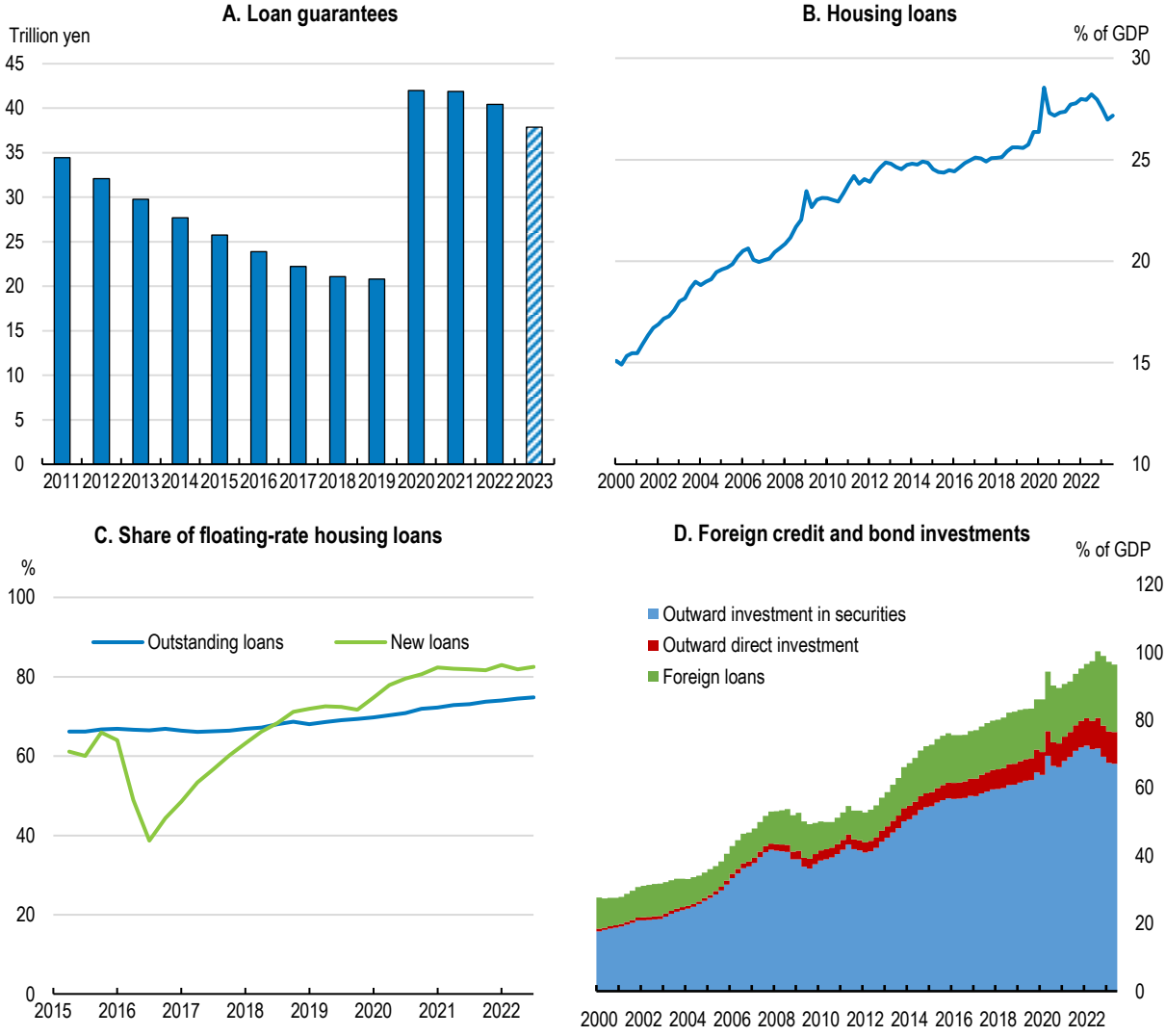
StatLink https://stat.link/6gthmb

A gradual wind-down of COVID-19 relief financial measures is underway. These include the termination of the BoJ's funds-supplying operations against government-supported loans in December 2022 and non-government-supported loans in March 2023. However, the outstanding loan guarantees remain high at JPY 41 trillion (7.3% of GDP) in FY2022 (Figure 1.12, Panel A). As repayments of interest-free loans start, some micro firms with cash shortages create risks for the exposed banks (BoJ, 2023b). Bankruptcies increased by 35% in the first half of FY2023 from a year earlier, with notably a rebound among SMEs in the food services and retail industries, but remain around pre-pandemic levels (BoJ, 2023c).

Although remaining around the OECD average, the household debt to disposable income ratio, at 121%, has increased, reflecting a higher share of real estate loans (Panel B). While housing loan delinquency rates remain low, increasing no down-payment loans, rising loan-to-income ratios and housing loans with a debt servicing ratio of 25% or above (20% of households), which partly reflect younger households taking larger housing loans, and a high share of floating-rate housing loans (76% of all housing loans in March 2023) warrant close monitoring (Panel C; BoJ, 2023b). The FSA has been considering sector-specific

risks, such as real estate lending, while conducting microprudential supervision, which incorporates macroprudential perspectives. However, macroprudential policies can help curb vulnerabilities from growth in housing loans, given the increasing number of households with low resilience to income or interest rate shocks. Including borrower-based macroprudential tools, such as loan-to-value or loan-to-income limits in the supervisory toolkit should be considered to enable speedy deployment, if needed. Furthermore, banks' exposure to domestic and foreign real estate businesses has been expanding, which warrants close monitoring (BoJ, 2023c).

Figure 1.12. Financial stability risks warrant vigilance



Note: In Panel A, data refer to government guarantees of banks' loans to SMEs at the end of each fiscal year. Data for FY2023 are only partially available until the end of October. In Panel B, data refer to loans by banks, Shinkin banks and trusts.
Source: Japan Federation of Credit Guarantee Corporations; Bank of Japan; and Cabinet Office.

StatLink https://stat.link/3r2akp

Foreign interest rate, foreign loan and currency funding risks should also be monitored closely. Foreign loans by major banks and foreign bond investments by banks and institutional investors have raised foreign currency interest rate risks (Panel D), although these risks have been declining since early 2023 (BoJ, 2023c). While overall foreign credit risks remain low, the increase in the size and concentration of foreign loans to borrowers with high financial leverage creates vulnerabilities to the exposed banks (BoJ, 2023b).

A change in the monetary policy framework, notably a steeper JGB yield curve or an increase in Japan's short-term policy rate, would also affect the financial system. The JGB holdings by banks (mainly T-bills) increased after the pandemic. While a steeper JGB yield curve can help improve banks' profitability in the medium term, some financial institutions with high exposures may face an immediate adverse impact (IMF, 2023b). Large banks are addressing these potential vulnerabilities by reducing their duration risks, but smaller banks could face difficulties.

While the sharp increase in interest rates in the UK gilt market and the collapse of the FTX currency exchange in 2022 have highlighted new potential risks, such risks seem contained in Japan. For example, corporate pension funds have refrained from engaging in excessive search for yields, even though the use of leverage transactions by life insurers has increased (Ito et al., 2023). Three legal reforms of the crypto asset regulatory framework since 2016 have strengthened supervision, requiring crypto exchanges, including stablecoin intermediaries (from June 2023), to register with the FSA and obtain a license to operate in Japan. A legal framework that came into effect in June 2023 aims to lower anti-money laundering risks and improve international coordination by including the "travel rule", which requires crypto exchanges to pass along information to one another for crypto asset (including stablecoins) transfers. These measures are welcome and monitoring of related risks should be continued.

Regional banks' profitability has been increasing, reflecting BoJ pandemic policy support and the 2020 "Special Deposit Facility", which aims to strengthen their business foundations. Branch consolidation and digitalisation helped reduce expenses, but further room for cost-cutting remains (Samikawa et al., 2021). The new grant scheme established by the FSA to support mergers is welcome. The authorities should continue to help regional banks upgrade business models, better utilise IT/Fintech, streamline costs, and consolidate, amid structural headwinds of a declining population. Furthermore, some regional banks have not sufficiently ascertained the impact of repayment of principal for effectively interest-free and fully guaranteed loans from the pandemic (BoJ, 2023d). Increasing the effectiveness of their risk management, such as their risk tolerance assessments, including downside scenarios, should be prioritised.

The BoJ has been conducting central bank digital currency experiments since April 2021. Following the completion of a technical feasibility assessment in March 2023, a pilot programme was launched. This will include the integrated configuration of central and intermediary network systems and endpoint devices, and the establishment of a Central Bank Digital Currency Forum to engage private stakeholders. These experiments to ensure ex-ante the coexistence of central bank digital currency with other forms of money are crucial to respond flexibly to future needs of user convenience and universal access. It will be important to carefully consider the impact on financial stability and privacy.

1.4. Addressing short and long-term fiscal policy challenges is key

The measures to protect households and firms against the pandemic and the energy shock compounded medium-term debt sustainability challenges. In 2022-23, the government launched three economic packages, worth JPY 64.7 trillion (11.5% of GDP), including funding for medium-term investment in areas such as economic security (semiconductors and generative AI), the green and digital transformations, education, and measures against the energy shock (Box 1.2), which are projected to keep the deficit high at 5.2% of GDP in 2023. The November 2023 economic package includes stronger tax incentives for businesses to achieve structural wage increases, regulatory reforms and R&D financing to generate new frontiers of growth in space and oceans. The measures to moderate the impact of high prices, in a context of falling real wages, include cash handouts to low-income households (additional JPY 70 thousand per household) and temporary cuts to income and residential taxes (JPY 40 thousand per person), which will cost JPY 1.1 trillion (0.2% of GDP) and about JPY 4 trillion, respectively.

Box 1.2. Main policy responses against the increase in energy and food prices

Several economic packages have been utilised to moderate the price surge and support vulnerable households and businesses (JPY 14 trillion, 2.4% of GDP) in 2022-23. The energy price subsidy for capping prices of petroleum products started in January 2022, with JPY 80 billion financed from the FY2021 supplementary budget. The September 2022 measures (JPY 3.5 trillion) included the extension of the subsidy for petroleum products, the freezing of the government selling price of imported wheat at the April level, a one-off special cash benefit to low-income households, and a special grant to local governments to help them support vulnerable households and businesses. The latter may be targeted but its criteria depend on each municipality. The second economic policy package and supplementary budget for 2022 further extended the subsidies for petroleum products until September 2023 and introduced new schemes to reduce electricity and city gas bills from January to September 2023 (JPY 6.1 trillion). In March, the government decided to use JPY 2.2 trillion from the contingency reserve fund to enhance the support and reduced the renewable energy levy on electricity from April. The extension of the subsidy programme aimed at lowering gasoline prices until the end of the year was announced in August 2023. Measures to reduce electricity and city gas bills were also extended, with the subsidy rates halved in September. The November economic package extended the current subsidies to cushion the impact of higher fuel oil, electricity and city gas prices until April 2024 (additional JPY 0.8 trillion), with those for electricity and city gas to continue with reduced rates in May 2024. It also included additional grants to local governments (JPY 1.6 trillion) to fund measures, including one-off cash benefits for low-income households. The broader package of reforms to deal with the energy crisis and with energy security also includes plans to accelerate the use of nuclear energy (see below).

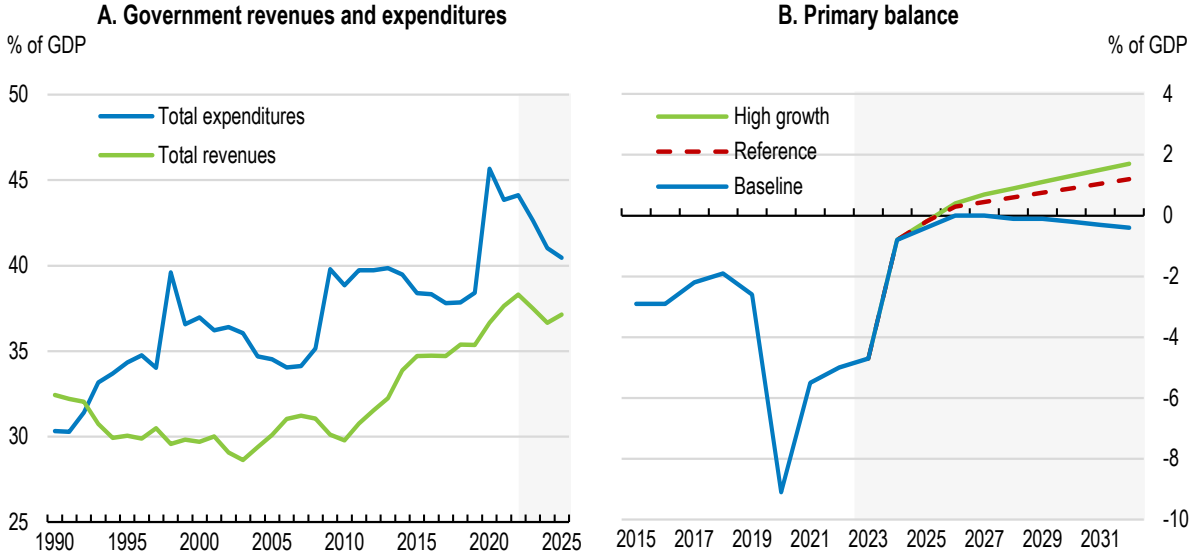
The main support measures have been sizeable and predominantly untargeted. Prolonged energy price caps exacerbate fiscal sustainability challenges and can reduce incentives to shift to renewables and lower energy demand by distorting market signals. Some OECD countries have already terminated untargeted VAT reductions on energy (e.g. the Netherlands) and remaining measures are set to expire in Autumn or Winter 2023 (Hemmerlé et al., 2023). As the recovery continues, policy normalisation should commence, with the phase-out of remaining measures. Any additional public support to income, if warranted by renewed energy price shocks, should focus only on the most vulnerable, who are not adequately protected by the general social protection system.

Persistent and sizeable fiscal deficits can undermine confidence in Japan's debt servicing capacity, which has been a concern for some time (Hoshi and Ito, 2014). Japan lacks a credible medium-term fiscal consolidation strategy to put public debt on a downward path and build fiscal buffers to increase resilience to shocks, which should include both revenue and expenditure measures (Figure 1.13, Panel A). Expenditures should move from demand creation towards boosting the supply side, guided by spending reviews (see below), while tax reforms should ensure a tax mix which limits the negative impact on growth and equity and does not undermine other objectives of the government. Net interest payments on outstanding debt are low at 0.47%, but the potential increase in the debt servicing burden if interest rates rise should be included in the consolidation scenarios. The plans to increase defence spending (JPY 43 trillion over the next five years) and the budget for children and families (JPY 3.5 trillion per year over the next three years; Chapter 2) may exacerbate these trends, as concrete offsetting revenue measures are yet to be decided.

Adopting assumptions in line with historical trends can improve fiscal policy credibility. The policy response to the dual shock worsened the fiscal situation, but the commitment to reaching primary surplus by FY2025 remains unchanged. The government produces different scenarios for medium-term fiscal projections (baseline, high growth and reference), which is welcome (Panel B; Cabinet Office, 2023a). In the high

growth and reference scenarios, which assume that TFP growth rises to 1.4% and 1.1%, respectively, in the next five years, the government achieves a primary surplus in FY2025, with expenditure reforms, but these scenarios could be difficult to achieve. The primary deficit remains under the baseline scenario where the economy grows around potential, with TFP growth of 0.5%, which is around the average for the period between 2012 and 2020. Hence, a clear and credible roadmap to achieve a primary surplus also at lower growth rates, underpinned by specific measures, and putting the government debt ratio on a downward trend, is needed.

Figure 1.13. Fiscal consolidation efforts should include expenditure and tax measures



Note: In Panel B, the economy grows around potential, with TFP growth of 0.5% under the baseline scenario, while the reference and the high growth scenarios assume TFP growth of 1.1% and 1.4%, respectively, with higher labour force participation rates. The primary balance is central and local governments on a fiscal year basis. See Cabinet Office (2023), *Economic and Fiscal Projections for Medium to Long Term Analysis* for details.
Source: OECD, Economic Outlook No. 114 database; and Cabinet Office.

StatLink https://stat.link/u6kd1l

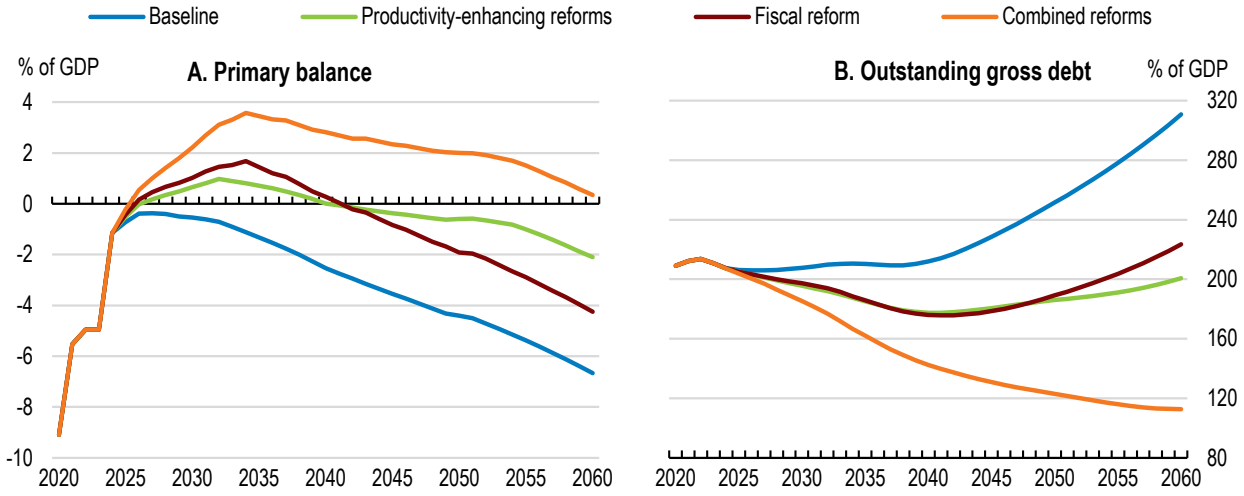
1.4.1. Assessing debt sustainability

The government projects that with ageing, social security spending will rise from 21.5% of GDP in 2018 to around 24% by 2040. Without corrective action, this would substantially worsen long-term fiscal sustainability. Building on the framework in the *2021 Economic Survey,* updated OECD debt sustainability analysis incorporates projections by the Cabinet Office until FY2032, the latest population projections (IPSS, 2023; Cabinet Office, 2023a) and additional spending to advance the green transformation. In the baseline scenario, where fiscal policy parameters are kept constant with annual real GDP growth of around 0.5%, the primary deficit of central and local governments will widen sharply after 2030 as spending pressures intensify due to rising age-related social security expenditures and a rapidly declining labour force, with the outstanding debt to GDP ratio rising rapidly to around 310% by 2060 (Figure 1.14).

In the fiscal reform scenario, where consumption and carbon taxes gradually increase after 2025 and half of their revenues are recycled to moderate their economic impact, the budgetary position improves for a while, before underlying spending pressures lead to increases in debt levels. The same happens albeit later in the productivity-enhancing reforms scenario, where potential annual growth rises to around 1% and improvements in public spending efficiency lower spending by 10% compared to the baseline. To keep

fiscal policy sustainable, fiscal reforms need to be combined with structural reforms to promote productivity growth. The projections rest on various simplifying assumptions, notably with respect to interest rates, and are sensitive to population and labour dynamics (Box 1.3). The possible impacts of some of the fiscal measures are outlined in Box 1.4.

Figure 1.14. Reforms are needed to ensure long-term fiscal sustainability



Note: The horizontal axis shows fiscal years. The primary balance and outstanding debt are based on the Cabinet Office definition (implying a somewhat lower debt ratio than the national accounts definition), and projections up to 2032 are based on the baseline Cabinet Office projection. The OECD assumes further spending related to the green transformation (GX) of around JPY 2 trillion per year from 2023 to 2050, and revenues from the forthcoming carbon pricing are assumed to be around JPY 1 trillion by 2050. After 2033, the long-term interest rate equals nominal GDP growth plus term and risk premia of around 0.2-0.3 percentage point. The baseline scenario takes into account rising spending pressure stemming from ageing and holds current fiscal policy settings constant. The fiscal reform scenario assumes the consumption tax (value-added tax) rate is gradually increased from 10% to 20% and the carbon tax from JPY 289/tCO_2 to JPY 4 000 over ten years beginning in 2025. Half of the additional revenues are recycled to offset the economic shock. The real GDP growth rates of the baseline and the fiscal reform scenario are almost identical due to the assumption of recycling revenues to mitigate the shock. In addition, the fiscal reform scenario includes raising the pension eligibility age by one year every three years, starting from 2031, towards age 70, which is assumed to affect labour force participation rates in age groups 60-64, 65-69 and 70-74 in 2030 and 2045, which by 2030 are the same as those in the baseline for five-year younger groups in 2045. Those who thus retire later are assumed to receive higher benefits by 4.2% per year of delay, corresponding to half of the currently applicable 8.4%. The productivity-enhancing reform scenario assumes a higher total factor productivity growth rate by 0.3 percentage point (Saruyama and Tahara, 2020) and higher labour participation, taken from the high growth scenario of the Cabinet Office projections, with a constant capital equipment ratio. Government spending is assumed to grow less robustly such that spending relative to baseline is 10% lower after 30 years. The combined reforms scenario reflects the joint effect of the fiscal reform and productivity-enhancing reform scenarios.
Source: Cabinet Office (2023a); OECD (2021a); MHLW (2019); and OECD calculations.

StatLink https://stat.link/cwifht

Box 1.3. Sensitivity analyses of long-term projections

Interest rate assumptions are critical to fiscal projections, given high levels of debt. The difference between long-term interest rates and nominal GDP growth rates after mid-2030 is around 0.2%-0.3%, which is low compared to historical experience on average over long periods. Uncertainty regarding interest rates has been rising. Additional simulations assuming that the interest rate-growth differential is higher or lower by one percentage point show that in the baseline scenario, the debt-to GDP ratio in 2060 would be around 70 percentage points more in the higher interest rate scenario (Table 1.3).

Table 1.3. Higher interest rates create risks for long-term fiscal sustainability

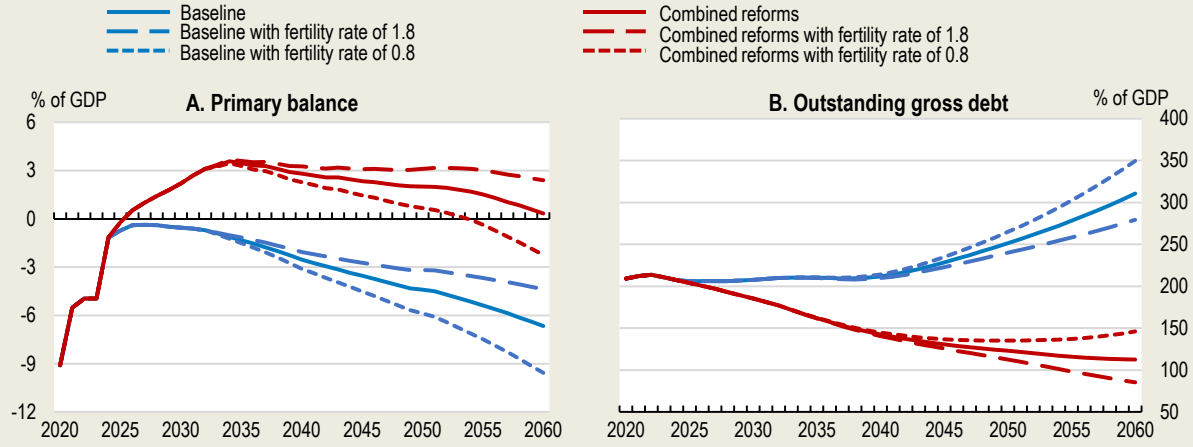
Outstanding gross debt as a per cent of GDP in 2060

	Premium assumed in Figure 1.14	Lower premium -1.0% pt	Higher premium +1.0% pt
Baseline scenario	310.7	256.7	378.0
Combined reforms scenario	112.6	83.6	149.8

Note: Assumed changes to interest rates are gradually phased in after 2030 over five years.
Source: OECD calculations.

A second set of sensitivity analyses concerns population projections, with the fertility rate higher or lower by 0.5 than the current rate of 1.3. For the higher (lower) fertility rate case, total population in 2060 will be around 9% larger (smaller) than in the baseline, affecting GDP growth and cost pressures. Reforms to reverse the declining trend in fertility rates, discussed in depth in Chapter 2, can improve debt sustainability (Figure 1.15).

Figure 1.15. Fiscal projections are sensitive to population assumptions



Note: The fertility rate will gradually increase (decrease) from 1.3 over the next ten years. The other economic assumptions, such as labour force participation rates, remain the same.
Source: OECD calculations.

StatLink https://stat.link/547bea

Box 1.4. Illustrative fiscal impact of proposed reform measures

The illustrative budgetary impact of some of the reforms proposed in this Survey, to the extent it can be quantified, is reported in Table 1.4.

Table 1.4. Illustrative impact of selected proposed reforms on the budget balance

Per cent of GDP

	2030	2040	2050
Consumption tax (value-added tax) rate raised by one percentage point per annum starting in 2025 to 20%, with half of the revenues used to support vulnerable households	+1.5	+2.6	+2.6
Carbon tax raised linearly to JPY 4 000 per tonne of CO_2 from 2025 to 2034, with half of the revenues used to support vulnerable households	+0.2	+0.1	0.0
Reform in social security and other expenditures with digitalisation (efficiency improves by 10% from 2025 over 30 years)	+0.5	+1.6	+2.8
Raising the pension eligibility age from 65 to 70 from 2031 over 15 years, with increased benefits of 4.2% per year for one year of delay	0.0	+0.4	+0.3

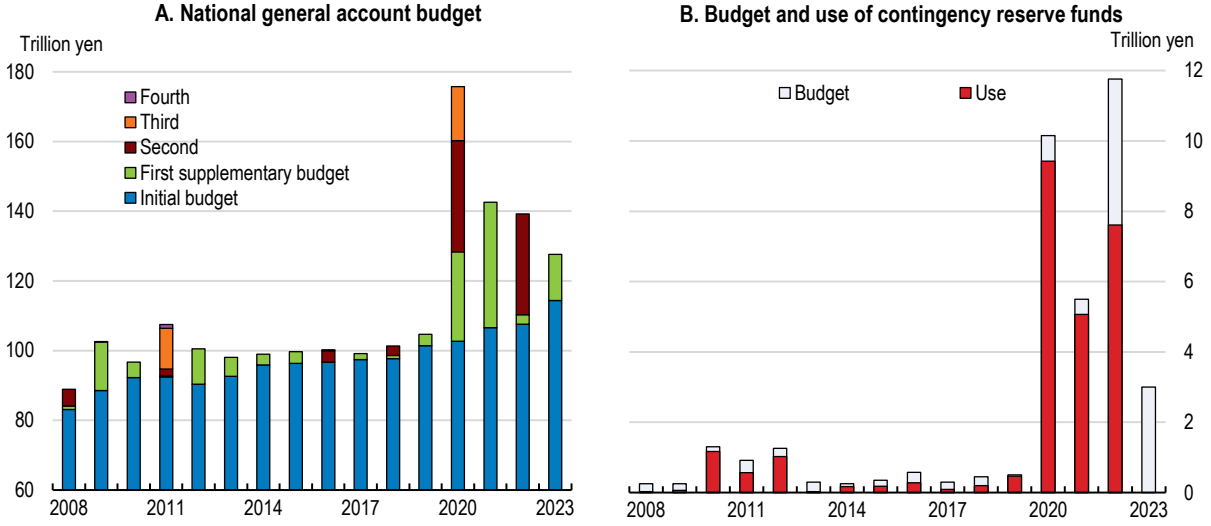
Note: The impacts reported are on the fiscal balance of central and local governments.
Source: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Cabinet Office; and OECD calculations.

1.4.2. Improving the fiscal framework

Overreliance on supplementary budgets and contingency reserve funds lowers the reliability and transparency of fiscal projections and targets. There have been 18 supplementary budgets since 2012, and seven since the pandemic, while contingency reserves have increased tenfold compared to their pre-pandemic average (Figure 1.16). While allowing a swift and effective policy response to shocks, the use of large and frequent supplementary budgets makes expenditure ceilings non-binding and lowers the consistency of annual budgets and medium-term fiscal sustainability. Notwithstanding the recent response to the large shocks, supplementary budgets across OECD countries tend to be small and are typically used for technical adjustments rather than new policy. Furthermore, revised budget increases can be offset by reducing budgets for other agencies by a corresponding amount or by borrowing from next year's appropriation (OECD, 2023a).

Recently, in Japan, parts of unused voted funds have been carried over to other purposes. For example, part of the unused voted funds, including contingency reserves, will serve to finance part of the increased defence spending. However, the use of supplementary budgets and contingency funds should be limited to large macroeconomic shocks with a more concrete definition under which circumstances they can be used. For example, the government could be obliged to declare a crisis or emergency formally to use supplementary budgets over a certain threshold. In addition, the use of the funds should be more targeted, for example towards supporting vulnerable groups against shocks and evaluated ex post to strengthen the fiscal framework and increase the effectiveness of macro policy support. To ensure that off-cycle budget spending is indeed used to respond to crises, whether or not off-budget spending is urgently warranted as a crisis response could be assessed in real time externally, for example by an independent fiscal institution.

Figure 1.16. The use of supplementary budgets and contingency reserve funds has increased



Note: Horizontal axes show fiscal years. In Panel B, contingency reserve funds include funds for general and special purposes.
Source: Ministry of Finance.

StatLink https://stat.link/4rthoq

Establishing an independent fiscal institution can help achieve fiscal targets and evaluate fiscal projections. Such bodies, which exist in most OECD countries, are associated with increased fiscal rule compliance, more accurate forecasts, and less pro-cyclical fiscal policy (Rawdanowicz et al., 2021). Their functions include monitoring compliance with fiscal rules, assessing long-term fiscal sustainability, analysing budgets and medium-term fiscal plans and endorsing or producing economic and fiscal forecasts (Box 1.5). In Japan, the Council on Economic and Fiscal Policy provides analysis and evaluation of long-term fiscal forecasts and fiscal targets since 2001. Headed by the Prime Minister, the Council includes five ministers, the BoJ governor, and two academic experts. More recently, the appointment of eight new experts for the advisory panel to the Council on Economic and Fiscal Policy and the enrichment of fiscal projections, reflecting the discussions of the Council, through additional scenarios and extended evaluation of risks via sensitivity and fan chart analysis, are steps in the right direction. However, establishing an independent fiscal institution would support the Japanese fiscal framework further. The main mandate should be to assess the government's macroeconomic and fiscal plans and projections, and could also include providing timely and transparent ex-ante evaluation of selected policies (e.g. pension and tax reform scenarios, targeting of temporary support measures) as in other OECD countries. For example, the Spanish and Belgian independent fiscal institutions regularly estimate ageing costs and simulate the fiscal effect of different pension reform proposals, which improves the transparency of such costs. The Irish Fiscal Advisory Board provided independent scrutiny of recent emergency spending programmes (i.e., pandemic-related and cost-of-living packages), including by quantifying the share of targeted measures (OECD, 2020a; IFAC, 2022). Independent monitoring by the Swedish Fiscal Policy Council, together with budget policy targets, a disciplined central government budget process and rules to secure openness and clarity, is an important element of the Swedish fiscal framework.

Spending reviews can support public finance sustainability through systematic analysis of existing expenditures with a view to prioritise and reallocate expenditures. Japan conducts annual spending reviews, which are then linked to the annual budget process, but they do not feed into multi-annual programmes. In addition, Japan applies Evidence-Based Policy Making (EBPM) methodology to evaluate the effectiveness of policies and projects ex-post. The use of both in the context of multi-year programmes and budgets could be enhanced further. For example, in Denmark, spending reviews inform decisions on multi-annual budget agreements to improve links with the medium-term fiscal framework (Tryggvadottir,

2022). There is also room to improve resources in terms of capacity (skilled experts) and time and the availability of performance data to effectively implement spending reviews and EBPM methodology (OECD, 2020b; RIETI, 2022). For example, Latvia established a specialised unit for spending reviews to build capacity and scale up the use of spending reviews. Increased use of digital technologies to connect related databases and data sharing across different government levels and bodies can help identify spending efficiency gains in areas such as health and long-term care (see below).

Box 1.5. Independent fiscal institutions: international experience

According to the *OECD Principles for Independent Fiscal Institutions* (IFIs), their leadership's term should optimally be independent of the electoral cycle; IFIs should be precluded from any normative policy-making responsibilities; and the leadership should be selected strictly on the basis of merit and technical competence (OECD, 2014). Experiences of OECD countries with IFIs have been varied. For example, in the United Kingdom, the IFI was created due to sharp increases in public debt and concerns over excessively optimistic fiscal forecasts (Chote and Wren-Lewis, 2013).

The Irish case is a good example of how IFIs can raise public awareness of long-term fiscal challenges and strengthen fiscal management (OECD, 2017). Established in 2012, the Irish Fiscal Advisory Council (IFAC) is mandated to independently assess the government's fiscal stance and budgetary forecasts, endorse the official macroeconomic forecasts prepared by the Department of Finance and monitor compliance with budgetary rules. The Council is made up of five members – including its Chair – appointed by the Minister of Finance among recognised domestic and international experts in macroeconomic and fiscal matters. The Council, whose members' four-year mandate is renewable up to three consecutive terms, has an annual budget of around EUR 0.8 million, and a six-person full-time Secretariat. Over the years, IFAC has become central to the national debate on public finances, particularly by stressing the need to ensure fiscal sustainability in the face of systemic challenges, such as population ageing, climate change and the digital transition. IFAC's reports and recommendations have gradually made inroads in the policy sphere. The authorities adopted a spending rule in 2021 and enhanced transparency via the adoption of strengthened medium- and long-term budgetary frameworks.

1.4.3. Addressing ageing-related costs

Population ageing will increase fiscal pressures, with national projections pointing to an increase of around JPY 17 trillion (2.7% of projected GDP in 2025) in health, long-term care and pension expenditures between FY2025 and 2040 (Figure 1.17, Panel A). Recent reforms to contain expenditures include an increase in co-payments of medical costs and a drug price revision. A roadmap for social security reforms is being discussed, which would include adjusting contributions of the elderly to medical and long-term care insurance, boosting the productivity and efficiency of health care, including via the digitalisation of health services, reforming social security insurance to reduce gaps across different types of workers and extending healthy life expectancy (Committee on Social Security System Oriented to All Generations, 2023). Since 2022, pension amounts are recalculated once a year even when a beneficiary is still working to reflect the contributions based on working after age 65 in pension benefits before the time of termination of employment or the age of 70, and the threshold of income beyond which earnings-related pensions are reduced for people aged 60 to 64 has been increased. Depending on the results of the next financial verification of the sustainability of the pension system (conducted every five years), scheduled for 2024, the authorities may consider further pension reform.

Ensuring a sustainable pension system

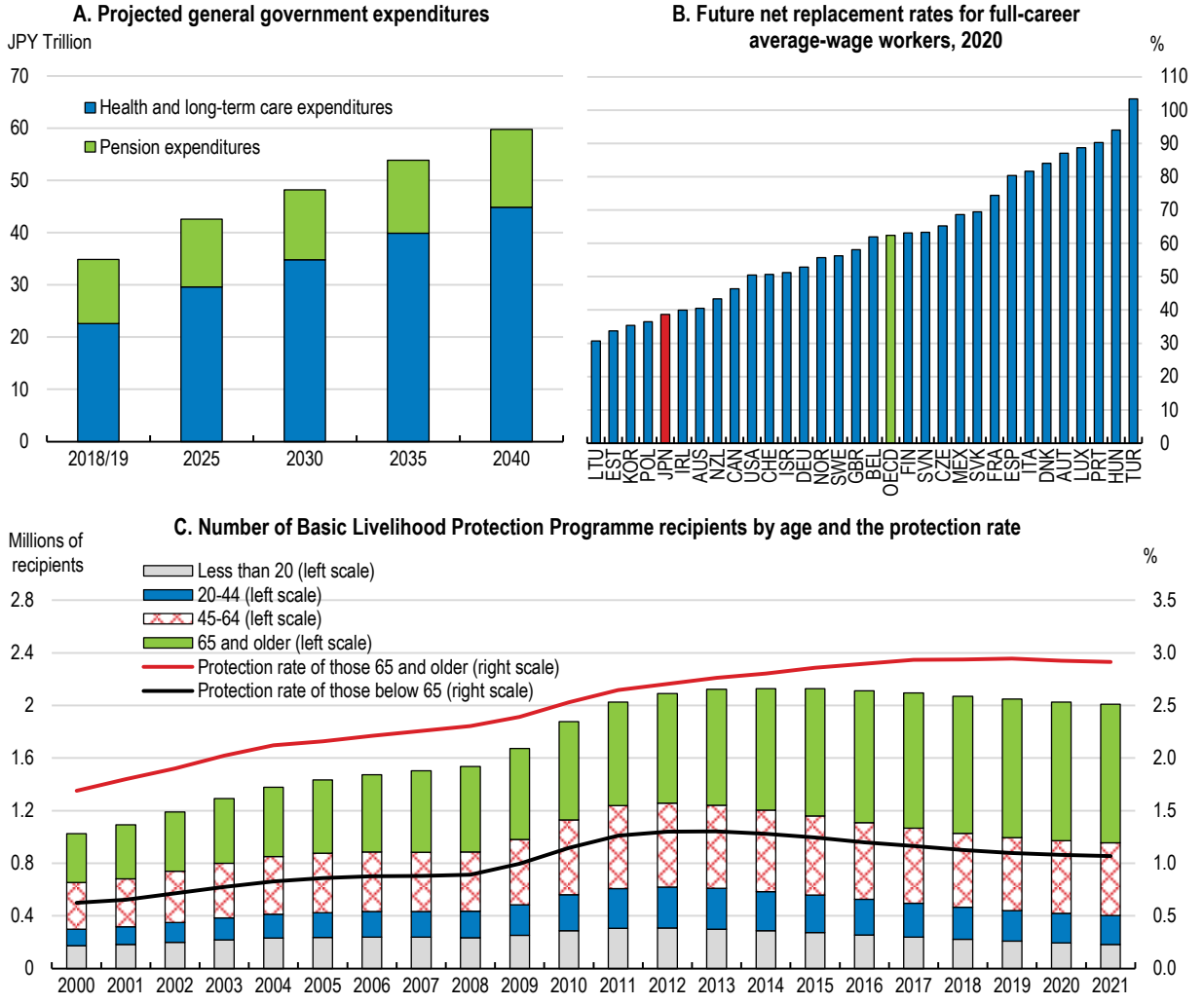
Pension reforms should carefully balance adequacy and sustainability concerns. Strong employment growth, including through longer careers, has partly offset the demographic impact on pension expenditures. However, the future net replacement rate of 39% for full-career average-wage workers is well below the 62% OECD average (Panel B), and could increase relative old-age poverty, which at 20% is already higher than the 13% OECD average. Lack of income security from the basic pension (National Pension Scheme) for some elderly also puts pressure on the tax-financed public assistance system. Public assistance was designed to provide emergency relief to those unable to maintain a minimum income level, but has started to function as a supplementary pension. Around half of recipients are aged 65 and over (2.8% of the elderly population), compared to 36% in 2000 (Panel C), which can crowd out assistance for low-income households of working age (Oshio, 2018).

Japan and Korea are the only OECD countries where the mandatory retirement age applies to private-sector workers from age 60, while in nine other countries it applies only from age 65 or higher (OECD, 2021b). Future retirement ages (i.e. for those entering the labour market at age 22 in 2020) are set to increase in a number of OECD countries, for example to 67 in Norway and 68 in Finland, but no changes are planned in Japan. The reform with the biggest impact would be to raise the pension eligibility age above 65 in line with life expectancy and abolish mandatory retirement, which was set at age 60 by 72.3% of firms in 2022, even though many of them have extension and/or re-employment schemes (Chapter 2). This would strengthen work incentives, reduce poverty among the elderly, improve intergenerational equity and promote the sustainability of the pension system. Furthermore, it would be desirable to accelerate the increase in women's eligibility age for Employee Pension Insurance, which is set to reach 65 by 2030 (Chapter 2). Another reform option could be to extend the contribution period for a full basic pension from 40 to 45 years.

Macroeconomic indexation, introduced in 2004, which applies a correction both to price indexation of mandatory basic and earnings-related pensions in payment and, for new pensions, to the uprating of past wages, will help cope with spending pressures. However, the application is delayed in times of negative price or wage growth. A carry-over mechanism, introduced in 2016, in principle corrects for the delayed adjustment in following years, but the correction will be suspended if the replacement rate falls below a certain threshold (50% based on the Japanese method for calculating the rate). The failure to revise the income-related benefits in line with indexation plans resulted in the overpayment of benefits in the past. To ensure the long-term sustainability of the pension system, indexation should be fully applied, even in the event of deflation.

Reforms to expand employee insurance coverage of non-regular workers should be continued. The self-employed are covered by the basic pension but are not mandatorily covered by earnings-related schemes. The firm size threshold that applies to mandatory coverage for part-time workers declined from 500 full-time employees to 100 in 2022 and will decrease to 50 in 2024, but about 30% of part-time employees in Japan work at firms with less than 50 full-time employees. To the extent that about one-third of women tend to be part-time workers, such reforms can also help lower the gender pension gap, as the relative pension income difference between men and women at 47% is much higher than the OECD average of 26% (OECD, 2021b). Removing obstacles to the creation of full-time and regular jobs, notably by reducing employment protection for regular workers, and continuing with *Work Style* reforms, as recommended in previous Economic Surveys, would also help (Chapter 2).

Figure 1.17. Population ageing exacerbates fiscal sustainability challenges



Note: Panel A shows national projections of health, long-term-care and pension expenditures under baseline economic scenarios with medium birth and death rates. Horizontal axes show fiscal years. In Panel B, OECD calculations based on the pension model, using pension entitlements on current legislation and pension system parameters reflecting the situation from 2020 onwards. The calculations show the pension benefits of a worker who enters the system that year at age 22 and retires after a full career. In Panel C, the protection rate refers to the share receiving the Basic Livelihood Protection Programme.

Source: Ministry of Health, Labour and Welfare; OECD, Pensions at a Glance 2021; Ministry of Internal Affairs and Communications and OECD calculations.

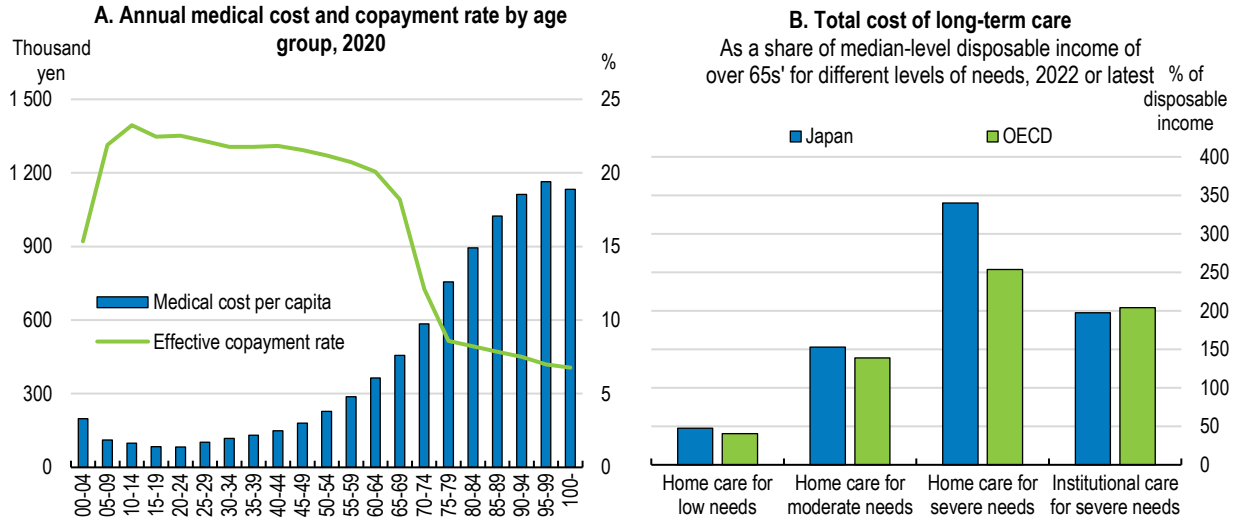
StatLink https://stat.link/vje1d7

Containing health and long-term care spending

Several indicators, such as the high number of hospital beds, long length of hospital stays and the high number of medical consultations, point to room for efficiency gains in health and long-term care spending (Table 1.5). The share of public health expenditures in total expenditures is comparatively high, out-of-pocket payments are low, especially for certain segments of the population, and doctors are predominantly paid on a fee-for-services basis. Improving spending efficiency is key as population ageing will increase such pressures and costs. For example, dementia prevalence in Japan, which was the highest in the OECD at 26.7 people per 1 000 population in 2021 (compared to the 15.7 OECD average), is expected to increase to 44.7 by 2050 (OECD, 2021c). Besides the fiscal costs of dementia, the productivity costs for family and informal caregivers are also high (Ikeda et al., 2021).

Out-of-pocket expenditures as a share of current health expenditure at 15.1% are below the OECD average of 24.1%. The level of co-payment depends primarily on age, rather than income, with reduced rates on co-payments for those aged 70 and over (Figure 1.18, Panel A). The burden on the working population will increase as the population ages. Hence, the increase in the co-payment ratio from 10% to 20% for those aged 75 and over, whose income surpasses a certain threshold, since October 2022 (as against a 30% standard rate), is welcome. Further raising the co-payment ratio or lowering the income threshold could be considered, given the large wealth of the elderly on average. The reduced co-payments should be means-dependent for all adults and limited to low-income households.

Figure 1.18. There is room to reduce the fiscal cost of health and long-term care



Note: Panel B: OECD aggregate shows the average for 30 jurisdictions in the OECD. Low, moderate and severe needs correspond to 6.5, 22.5 and 41.25 hours of care per week, respectively. The costs of institutional care include the provision of food and accommodation, so are overestimated relative to home care. The OECD average is computed across jurisdictions' latest available observations (from 2018 to 2022). The reference year is 2022 for Japan.
Source: Ministry of Health, Labour and Welfare; OECD Health at a Glance 2021; and OECD analyses based on the Long-Term Care Social Protection questionnaire and the OECD Income Distribution Database.

StatLink https://stat.link/tn8p4s

Table 1.5. International comparison of selected health and long-term care settings

	Number of doctor consultations per capita per year	Share of private expenditure on outpatient care (%)	Household out-of-pocket payments (%)	Average total hospital stay for inpatient care[1]	Total number of hospital beds[2]	Number of acute-care beds[2,3]	Number of long-term care beds[2,3]
Japan	11.1	15.9	14.9	27.5	43.7	26.8	8.0
OECD average	5.6	27.6	22.1	8.3	23.6	16.8	3.1
Highest country	14.7	52.3	48.5	27.5	77.1	36.6	32.2
Lowest country	1.4	10.5	7.0	4.4	9.9	7.2	0.0

Note: 1. In days. 2. Per 1 000 population aged 65 years and older. 3. In hospitals.
Source: OECD, Health Statistics database.

Japan mostly uses fee-for-service payments for both primary care and outpatient specialists, which is the case amongst half of the OECD countries. This type of payment can result in excessive expenditure growth

due to incentives for the overprovision of care, if not combined with strict budgeting mechanisms (Lindner and Lorenzoni, 2023). As recommended in the 2019 *Economic Survey*, gradually increasing the use of a pay-for-performance system, in which providers are given financial incentives to meet performance standards, could help reduce the number of doctor consultations and improve spending efficiency in Japan. In this context, some OECD countries are testing new payment models (based on value rather than volume) more aligned with the objectives of improving quality of care, better co-ordinating and integrating care delivery across settings and services, containing health expenditures and rewarding health promotion and disease prevention, which could also be considered.

Patients can access secondary and tertiary care facilities directly without a referral from a primary care physician (Kato et al., 2019) even though additional out-of-pocket payments were introduced in 2016 on visits to tertiary care hospitals without referral. Such payments for direct access to hospitals were increased in 2022, which is welcome. Requiring primary care referral for secondary care can lower costs further. Well-integrated medical records can also improve the efficiency of primary care and connection between inpatient and outpatient primary care, but an enhanced data infrastructure and management is needed. The proportion of primary care physician offices using electronic medical records has increased from 15% in 2012 to 42% in 2021 but remains far below the 93% OECD average (OECD, 2021c). Further use of digital technologies to connect related databases, as recommended in the *2021 Economic Survey,* is also key. Systematic analysis of such data can create spending efficiency gains and improve quality of care. For example, Ireland is planning to set up an independent central authority to reap the benefits of data integration. In Japan, Fukuoka City is centralising and analysing relevant data to improve the effectiveness of its long-term care policies (Box 1.6).

Box 1.6. Fukuoka City: creating a healthy social model

Fukuoka is a dynamic city, with a favourable business environment, and reasonable costs of living and doing business. Designated a National Strategic Special Zone for Global Startups and Job Creation in 2014, Fukuoka City has a Startup Support Hub, which offers integrated startup support services, a startup visa programme and special corporate tax reductions for startups. Fukuoka City has also successfully delayed the demographic transition, with a relatively young population. Nevertheless, it is preparing for the future when the effects of population ageing will kick in (the “era of 100-year life”) through the Fukuoka 100 project, which started in July 2017 and includes a number of initiatives. First, information on the 1.64 million Fukuoka City residents, regarding births, health, nursing care and deaths, has been centralised and analysed to identify the main reasons for needing long-term care. This analysis then serves to create mechanisms and devices that make people want to be active by utilising roads and parks, and prepare preventive measures, for example, to keep oral health for the entire lifetime. Second, to create a “dementia-friendly city”, where people with dementia can live in a community that they are accustomed with in a familiar environment, the city holds lectures on dementia care techniques for different groups, such as local residents, elementary and junior high school students, and paramedics.

Source: Fukuoka City Government (2017), Fukuoka 100.

Moving long-term care away from hospitals can create savings and enhance patient well-being, complementing the existing focus on community-based comprehensive care delivery. The number of long-term care beds in hospitals is 2.5 times the OECD average (Table 1.5), and many acute care hospital beds are used for long-term care (Jones, 2022). The large hospital capacity is one reason behind the provision of long-term care in hospitals, with “social hospitalisation” contributing to long average hospital stays. Using hospitals for long-term care is inefficient, as it costs more than twice as much as beds in long-term care facilities, reflecting regulations on the number of medical staff and equipment in hospitals (Jones, 2022). In addition, costs of home-based long-term care for over-65-year-olds with mild and moderate needs as a

share of their disposable income tend to be significantly lower than in the case of institutional long-term care (Figure 1.18, Panel B). Hence, moving long-term care away from hospitals, prioritising home-based care, including the provision of help through formal caregivers, and assigning only those with severe needs to institutional care would be most cost-effective. It will be important to ensure that the shift to home-based care does not lead to unintended consequences, such as women dropping out of the labour force to care for elderly relatives. Ensuring an adequate supply of paid nurses or formal helpers, which could include foreign long-term caregivers, and increasing awareness of the 2017 Child Care and Family Care Leave Act, which offers flexibility to allow workers to provide some long-term care and remain in the labour force, to workers and firms, are key (Chapter 2).

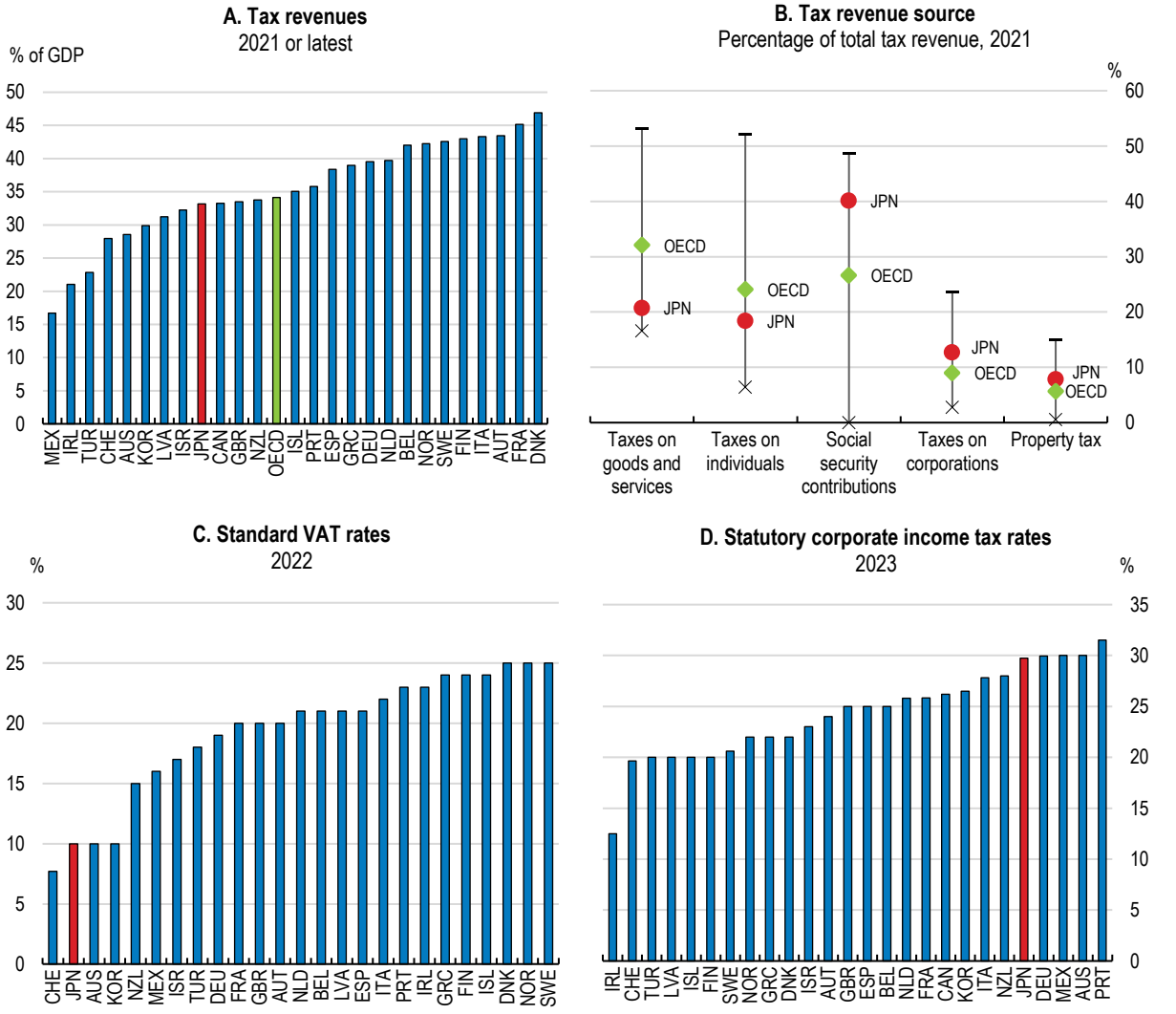
1.4.4. Reforming the tax system

Boosting government revenues should be an integral part of a strategy to achieve fiscal sustainability. Japan's tax revenues as a share of GDP are close to the OECD average (Figure 1.19, Panel A), although they are above the non-EU OECD average. However, the share of consumption and personal income taxes is relatively low (Panel B). In contrast, the shares of social security contributions and corporate income taxes are above the OECD average. The government is considering raising social security contribution rates further, which can lower employment incentives, and corporate income taxes to finance higher defence spending. The former already make up 36% of general government revenues. Given population ageing, eliminating distortions in the tax system that discourage employment, while enhancing its redistributive function to achieve an optimal tax mix is key.

Despite steadily increasing to 10% by October 2019, the consumption tax (standard value-added tax) rate remains among the lowest in the OECD and consumption tax revenues at 5% of GDP are relatively low (Panel C). Consumption taxes have relatively low distortionary effects on labour, savings and investment, distribute the tax burden equitably across generations and can be a relatively stable revenue source. Among the policy options, a continuous and gradual increase of consumption taxes would yield relatively high fiscal revenues, with relatively small adverse effects on long-run GDP and welfare (OECD, 2021a; McGrattan et al., 2018). As recommended in previous OECD Economic Surveys of Japan, the consumption tax rate should be raised gradually, following a regular medium-term schedule enshrined in legislation, to limit the economic impact and minimise policy uncertainty, and could be complemented with well-targeted cash transfers to low-income households.

Several deductions to personal income taxes erode the tax base (Table 1.6). Reforming deductions benefiting high-income households would increase tax progressivity and revenues. Despite a top statutory rate of 55%, personal tax revenues are relatively low. Reducing the wage income deduction, the largest deduction at 28.5% of gross personal income before taxes, which exceeds the costs faced by employees (such as commuting), can broaden the tax base. Currently, the earned income deduction, which aims to serve as a deduction for estimated service costs and adjust the tax burden on employees with that of other incomes, starts at JPY 550 000 of gross employment income and is capped at JPY 1.95 million. The need to adjust the burden of employee incomes against other incomes could be reduced by improved tax compliance by self-employed workers through an effective use of the national personal ID (My Number) system to increase transparency of their income. Likewise, deductions for pension income apply even to very wealthy pensioners, with a ceiling of JPY 1.95 million. Tax reforms in FY2018 cut the deduction and lowered the ceiling in both cases. However, there is room to further lower the ceilings, accompanied by targeted support measures for low-income households. Reforming the social security insurance and tax treatment of second earners would boost female employment and tax revenues (Chapter 2). The deduction for dependent children who are older than 16 years under certain conditions could also be reassessed if the eligibility for the child allowance, currently ending on 31 March after the child reaches the age of 15, is extended to 31 March after turning 18, as discussed in the government's Children's Future Strategy Policy (Government of Japan, 2023b).

Figure 1.19. The share of consumption and personal income taxes is relatively low



Note: In Panel A, data for Japan and Australia refer to 2020. For Japan, data are presented in fiscal years. Tax revenues include social security contributions according to the OECD Revenue Statistics methodology. In Panel D, statutory corporate income tax rate refers to the combined central and sub-central (statutory) corporate income tax rates.
Source: OECD, Revenue Statistics database.

StatLink https://stat.link/2wlr3z

Table 1.6. Personal income tax deductions

Per cent of gross income before taxes in 2021[1]

	Basic deduction	Spouse deduction	Deduction for social security contributions and income taxes	Wage income deduction[2]	Total deduction
Japan	9.3	7.4	14.4	28.5	59.7
G7	11.5	1.1	8.5	5.5	26.6

1. For a married household with two children with one worker earning the average wage. 2. Work-related expenses.
Source: OECD (2022), *Taxing Wages, 2022*.

Japan's corporate income taxes yield high revenues, with a relatively high corporate tax rate (Panel D). However, a targeted reduced rate (15%) applies to an annual taxable income below JPY 8 million for SMEs, compared to the standard 23.2% rate for large companies. Such size-contingent policies may discourage firm growth (Benedek et al., 2017). The corporate tax system is further complicated by local taxes, which vary with company size. Hence, in the medium term, simplifying the system and abolishing the lower tax rate for SMEs could increase revenues. Raising taxes on capital gains and dividends could also boost revenues and could enhance the progressivity of the tax system. Marginal effective tax rates on bank deposits, dividends and capital gains in Japan are lower than the OECD average, especially for high-income earners (OECD, 2018). Capital gains and dividends are subject to a flat rate of 20%, with some exemptions to promote households' financial investments through Nippon Individual Savings Accounts. As higher-income earners have more capital, which is taxed at a flat lower rate than the top tax rate for labour income, the tax burden declines for annual income exceeding about JPY 100 million (Kumakura and Kojima, 2018).

Table 1.7. Past OECD recommendations on macroeconomic policies and actions taken

Recommendations in past surveys	Actions taken since 2021
While inflation remains below target, maintain the current accommodative monetary policy to support the recovery.	Monetary policy remained accommodative, with tweaks to the conduct of yield curve control in December 2022, July 2023 and October 2023.
Continue to support regional banks to strengthen their business foundations.	A grant scheme to support mergers was established by the FSA.
Financial supervisors need to remain vigilant with regard to liquidity and funding risks.	The FSA regularly monitors foreign currency liquidity and funding risks.
Elaborate a roadmap to realise a primary surplus in a comprehensive plan to achieve longer-term sustainability.	No action taken.
Pursue opportunities to improve public spending efficiency, including through the greater use of digital technologies.	Following trial projects in June 2022 to introduce the *Evidence-Based Policy Making* method to boost efficiency of public administration, its extension to around 5 000 projects has been approved.
Continue *Work Style* reforms including equal pay for equal work and flexible working arrangements with improving child-care provision to boost female labour force participation.	Information on leave for fathers and flexibility on the timing of parental leave has increased since 2021. The firm size threshold, where firms are obliged to establish and publicise an action plan to improve the proportion of female workers, was lowered in 2022. Prefectural Labour Bureaus have strengthened efforts to ensure the implementation of equal pay for equal work.
Continue to raise the compulsory retirement age or abolish it.	The existing subsidies provided to employers who raise the retirement age to 65 or older or abolish the mandatory retirement age remain in place.
Once the economy has recovered, gradually raise revenues, including by increasing the consumption tax rate further by small increments on a regular basis.	No action taken.

1.5. Productivity-enhancing reforms should be prioritised

Raising productivity growth, which has been muted in recent decades, is key to address the demographic headwinds. Improving the innovation framework and incentives, boosting regulation and increasing access to finance can help lower the productivity gap between SMEs and large firms and boost intangible investment.

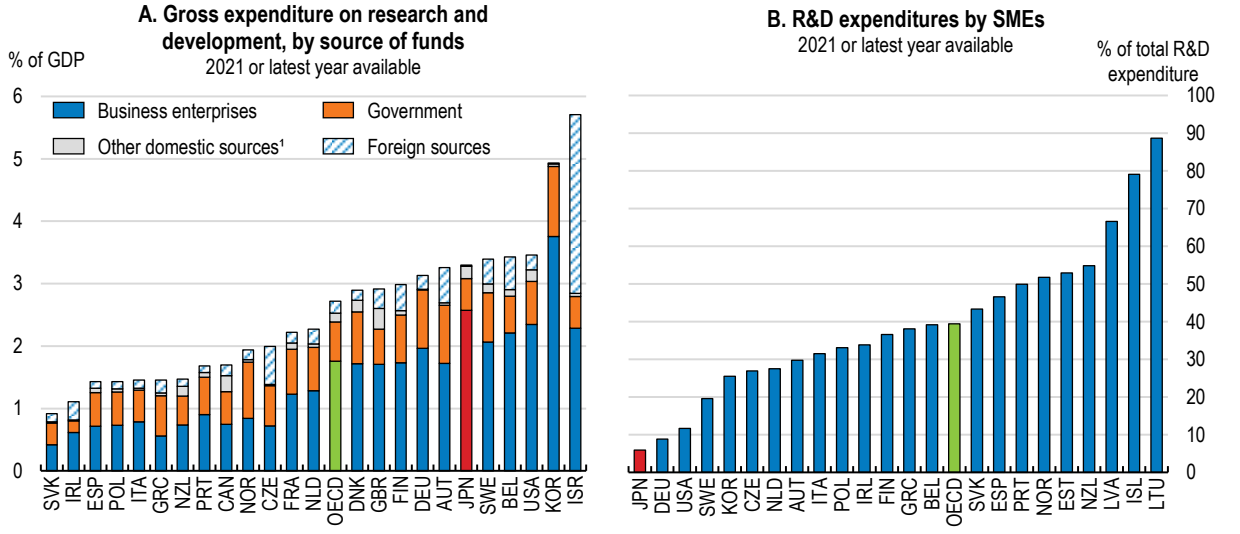
1.5.1. Reviving the R&D engine

At 3.3% of GDP, Japan's spending on research and development (R&D) was among the highest in the OECD in 2021 (Figure 1.20, Panel A). However, since 2000, R&D outlays have risen at an average annual rate of only 1.2% in real terms, the third weakest outturn in the OECD area. Furthermore, domestic

innovation activities exhibit weak integration with global innovation networks, with foreign sources funding only 0.6% of total R&D in 2021. Private businesses performed around 80% of total R&D, but just about 6% was linked to SMEs, way below the OECD average of 40% (Panel B; OECD, 2022a). In this context, the large concentration of business R&D in manufacturing activities, which account for about 80% of the total, limits the resources earmarked for more innovative services. R&D investment in the ICT sector, for instance, amounted to less than 3% of all business R&D in 2020, an OECD-low.

While Japan is a global leader in the number of patents, these are largely driven by incremental innovation, as most filings relate to narrow improvements of existing technologies (Jones, 2022), while many are not used in follow-on research (Bahar and Strauss, 2020). Moreover, a number of patents are actually thickets of intellectual property rights set up by incumbents, which may deter the commercialisation of new inventions or innovative products (OECD, 2021a). This is a potentially important issue for the digital transformation with the development of new products and processes spanning several intellectual property domains. To better support open innovation, the Japan Patent Office has thus set up model contracts helping R&D start-ups and business companies to improve their communication and successfully navigate the legal and negotiating hurdles of joint research and licence agreements. However, competition authorities may need to monitor whether improper strategic use of patenting is hindering digital transformation.

Figure 1.20. High levels of R&D spending are mostly sustained by large enterprises



1. Includes higher education and private non-profit sectors.
Source: OECD, Research and Development Statistics database.

StatLink https://stat.link/fvl62b

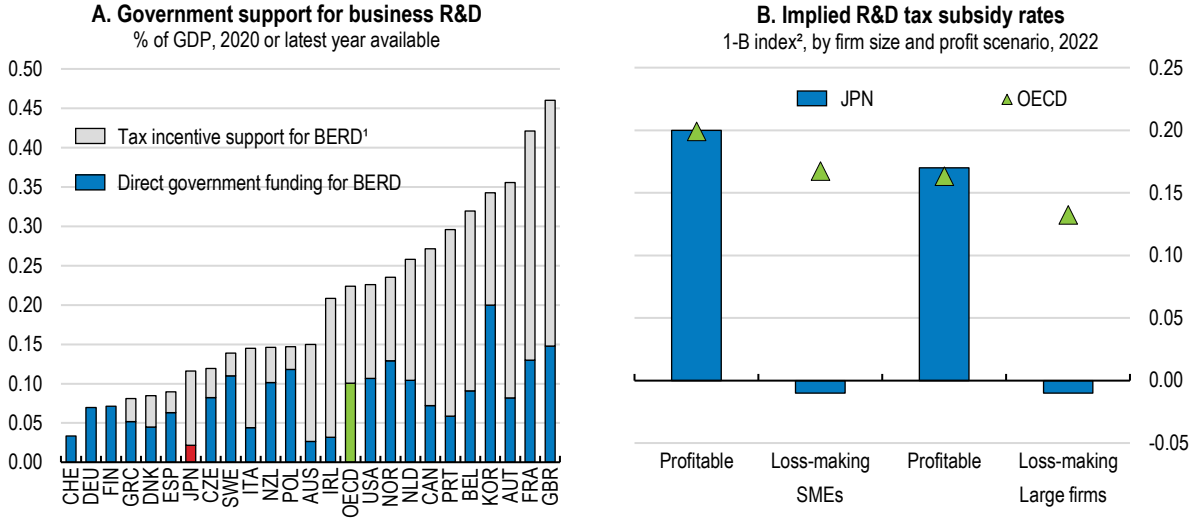
Enhancing R&D incentives

Public support to business R&D is below the OECD average and has decreased markedly in recent years, decoupling from business R&D expenditures. The support is largely tax based, with direct grants accounting for less than one fifth of the total (Figure 1.21, Panel A). The policy mix is broadly consistent with empirical evidence that tax incentives generate more benefits than costs (Lester and Warda, 2020) and are relatively effective in promoting R&D spending (Hall and van Reenen, 2000), even if potentially open to risks of deadweight losses. Direct subsidies are frequently associated with “picking winners” risks, which can, however, be limited through well-designed competitive processes (Jones and Kim, 2015; Giebe et al., 2006). Hence, increased use of direct grants targeting specific objectives, such as reducing the

financing gap in intangibles, which affects innovative start-ups (OECD, 2021d; Appelt et al., 2016), could be considered. However, it is important to evaluate the effectiveness of direct subsidies, which increased during the pandemic, to prevent the creation of zombie firms (Hashimoto and Hirasawa, 2021).

The design of the R&D tax incentives implies slightly negative marginal tax subsidy rates for loss-making firms, below the OECD average (Panel B). While this is independent of firm size, the impact on smaller firms could be higher. Although accounting for 71% of all recipients, SMEs received just 7% of overall R&D tax subsidies in 2019, whereas they attracted about one fifth of direct funding (OECD, 2021e). The non-refundable nature of the tax credit and the lack of carry-forward provisions, abolished in 2015, stifle the investment incentives of new and smaller firms, which generally lack sufficient tax liability and are more likely to be credit-constrained. Making the credit refundable or reinstating the tax carry-over would enhance investment incentives of innovative start-ups and SMEs.

Figure 1.21. Public support of R&D spending is largely tax based



1. In the case of Canada, Japan, and Hungary, subnational tax support for BERD is included in tax support for BERD.
2. Implied marginal R&D tax subsidy rates, customarily derived as 1 minus the B-Index, specify the notional level of subsidy (before tax) on one additional unit of R&D outlay. See OECD, *Definition, interpretation and calculation of the B index* for further details.
Source: OECD R&D Tax Incentives database; R&D Tax Incentives in Japan, INNOTAX, Tax Incentives for R&D and Innovation.

StatLink https://stat.link/9xwr15

Boosting the innovation potential of universities

The strong commercial orientation of Japan's R&D system restricts the scope for basic research, largely performed in universities and public research institutes (Figure 1.22). Basic research helps generate new knowledge that, even if without any immediately foreseeable application or use, lays the foundation for further technological innovation. However, interactions between business and university R&D are limited, with only 0.5% of business-financed R&D performed at universities, despite a relatively generous tax credit allowing companies to deduct 30% of R&D expenses from their tax liabilities, when incurred in joint research projects with universities or acknowledged national public research institutions (METI, 2022a). Hence, enhancing the role of universities and public research institutions by strengthening their links with businesses, especially SMEs, could help fulfil the government's objective to boost creative innovation (Government of Japan, 2021).

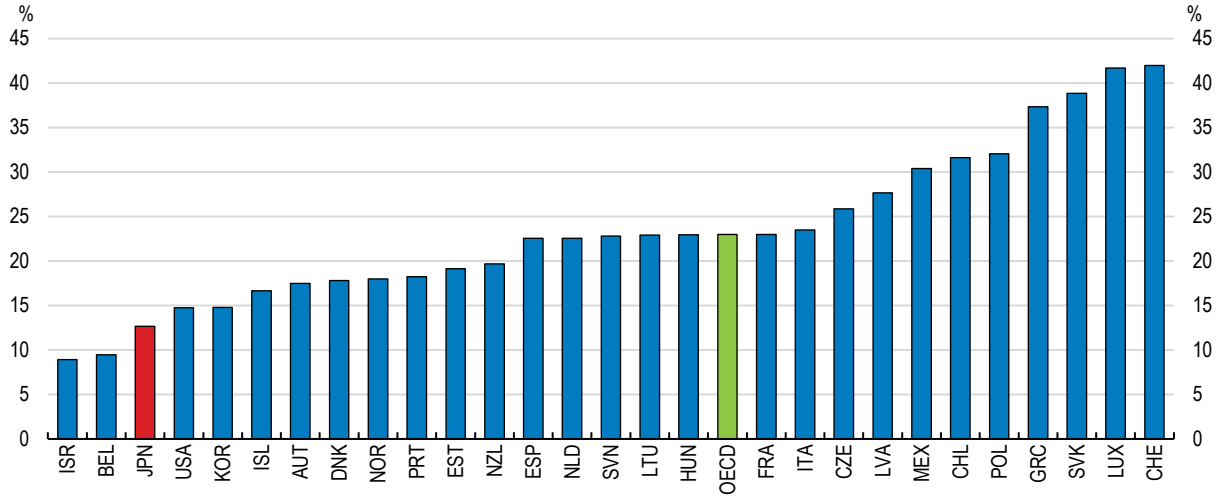
The limited mobility of researchers across institutions remains a barrier to the diffusion of innovative ideas. While researchers' mobility is relatively strong within the business sector, university researchers or experts rarely avail of the possibility, introduced in 2014, to hold cross-appointments with multiple universities,

research centres and private companies (METI, 2020a). Hence, the plans to include cross-organisational experiences among the evaluation criteria for permanent research jobs in universities and researchers' career progression should be followed through. Likewise, Japan's net inflows of scientific authors remained steadily negative in recent years (OECD, 2023b), despite government pledges to attract more foreign talent to enhance universities' internationalisation (Government of Japan, 2015). Enabling incoming foreign scientists and researchers to progress their career within their host departments and universities would maximise the impact of new skills and concepts on local operational and organisational processes.

Fulfilling the Science, Technology and Innovation Basic Plan's objective to make universities the engine of a revamped national innovation circuit, built on a strong public-led basic research system, warrants considerable investment. Having acquired the status of national university corporations in 2004, following partial privatisation, national universities were pressured to broaden their sources of revenues and their operational support funds were cut by 1% per year (Kikuchi, 2021). In 2019, general government funding of university-performed R&D was only about 4% above its 2000 level, in real terms, compared to a 61% increase in the United States, although it grew in line with nominal GDP over the same period (OECD, 2022a).

Figure 1.22. Engagement in basic research projects is weak

As a percentage of total R&D expenditures, 2021 or latest year available



Source: OECD Research and Development Statistics database.

StatLink https://stat.link/tlrkvh

The University Endowment Fund, launched in March 2022 and with a current allocation of about JPY 10 trillion (1.8% of GDP), is set to use the gains from the investment of the fund's assets to provide selected universities with stable long-term funding to upgrade their research infrastructure, and support university start-ups and higher personnel expenses to attract top researchers. The Fund is managed by the national research funding body, the Japan Science and Technology Agency, based on a set of guidelines drafted by the Ministry of Education to ensure investment with a long-term perspective (Council for Science, Technology and Innovation, 2021).

Access to the scheme is based on an assessment of the candidate institutions' plans for institutional reform, capacity to generate internationally outstanding research, possession of highly effective business and financial strategies, and autonomous and responsible governance systems (Government of Japan, 2022b). Eligibility criteria for the scheme should be clearly outlined and transparent, particularly as regards assessing universities' vision and commitment to future reform, while ensuring limited scope for

government intervention. This would support competition and reduce the risk of stifling innovation by concentrating investments into “preferred” technologies.

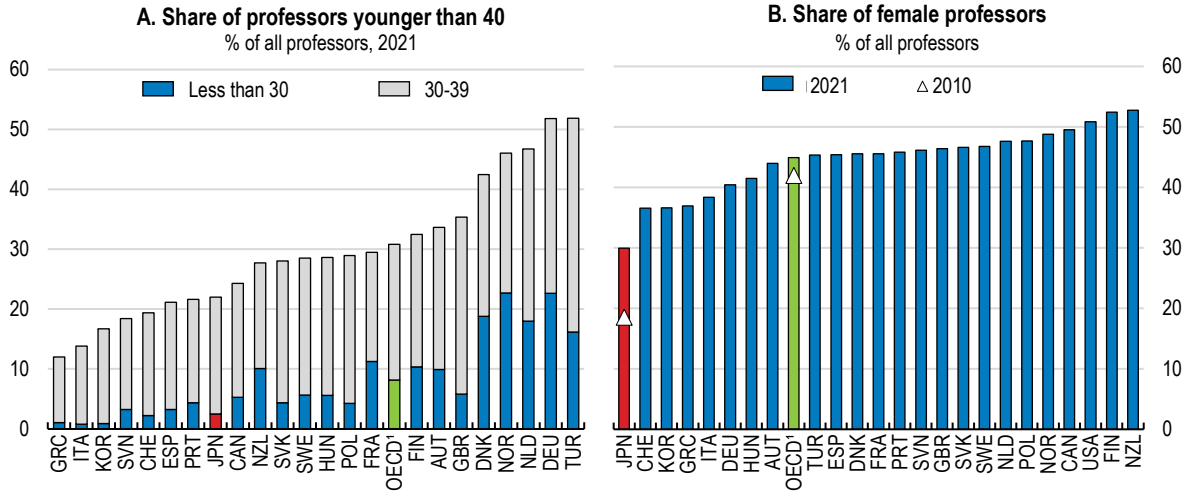
The potential of the Fund to boost innovation intensity is large, but adverse incentives should be avoided. A priori, selected universities will enjoy full flexibility on how to use the allocated funds, without facing specific requirements on research areas and type of projects, which can enable academia to foster research that would not be viable in the private sector (Aghion et al., 2008). It will be important to ensure that not only research projects leading to relatively quicker commercial returns are conducted. Hence, the impact of the Fund on boosting theoretical basic research should be regularly assessed and monitored.

Declining research time of scientists can restrict universities’ innovation capacity. Increased staff shortages, driven by steady reductions in block funding since 2004, have increased the involvement of researchers in administrative work and university management. Stricter separation between research functions and academic administrative responsibilities, assuming availability of adequate funding, would boost innovation outcomes. Empirical evidence suggests mostly an inverted U-shape relationship between researchers’ productivity and age (Costas et al., 2010), although high individual ability may help offset the adverse effects of age on the quality of scientific contributions (Yu et al., 2022). Hence, easing seniority rules in project management by increasing the cap on the annual amount of project funding attributable to young researchers, independently from their affiliations with associate or full professors, may encourage more creative thinking.

Reviving the interest for scientific professions

Japan’s capacity to regain excellence in broad-based innovation will hinge on a highly skilled workforce, but the share of science, technology, engineering, or mathematics (STEM) graduates remains relatively low at 19% in 2021, compared to 24% OECD-wide. At 7%, the share of female STEM graduates is the lowest in the OECD. Moreover, the rate of advancement to doctoral programmes fell to less than 10% in 2021 from 17% in 2000 (Government of Japan, 2022b), which is potentially driven by stagnant wages and the perspective of slow career progression, amidst increasing non-standard employment contracts, with only 22% of university professors younger than 40 in 2021 (Figure 1.23, Panel A).

Figure 1.23. The age and gender diversity of university professors remains low



1. Unweighted average across countries with available data.
Source: OECD, Education at a Glance database.

StatLink https://stat.link/naik20

Mirroring broader gender gaps within Japan's socioeconomic context, discussed in Chapter 2, women's participation in academia and STEM tertiary education programmes is relatively low, although increasing. The share of female university professors at 30% in 2021 was the lowest in the OECD (Panel B), while female students made up 17% and 20% of new enrolments in STEM tertiary education and doctoral programmes, respectively. The government has committed to launch a large-scale survey and factor analysis of the reasons behind gender-specific approaches to education and careers in natural sciences by 2023-24. The STEM pipeline can be strengthened by the promotion of mentoring to promote STEM vocations among female students in secondary and in early university years, which has proven successful when provided by female mentors (Wu et al., 2022), or events showcasing female STEM role models (Guenaga et al., 2022). Easing the burden of childcare for young couples and lone parents can also help in this context, as well as reducing employment and wage gender gaps of 11.7% and 22.1%, respectively (compared to the OECD averages of 10.2% and 11.9%) (Chapter 2).

Ongoing reforms to increase the attractiveness of research careers are welcome. The government plans to triple the number of doctoral students receiving a payment for living expenses (JPY 1.8 million per year) by 2025. Forthcoming regulations allowing universities to finance salary increases for some staff, e.g., research assistants, through external funds, could also help (Government of Japan, 2021; Cabinet Office, 2022). Bringing forward the implementation of some planned reforms, such as lowering the ratio of clerical-to-teaching work to less than 10% and changing the criteria for evaluating the performance of senior university managers to incentivise them to improve gender and age diversity of the academic staff, should be considered.

1.5.2. Strengthening resource allocation

Business dynamism is relatively modest in Japan, with low firm entry rates and growth of start-ups, reflecting the difficulties faced by more innovative start-ups in accessing finance and scaling up (OECD, 2021a). Traditionally bank-based, business financing still relies heavily on real estate collateral and personal guarantees, which are ill-suited for intangible-intensive new businesses. Moreover, effective resource allocation is constrained by generous – and weakly targeted – public support to SMEs, which prevents the exit of unproductive firms. Stronger incentives for equity financing, including venture capital and merger and acquisition deals, could ease these distortions and boost business dynamism.

Reforming public support to businesses

In FY2021, government-guaranteed loans accounted for about 14% of total outstanding loans to SMEs and 7.9% of GDP, up from 4% of GDP in 2018 (Figure 1.24). Loan coverage rates have been declining to 80% from 100%, but remain relatively high. Likewise, upstream Credit Guarantee Corporations, which cover the credit risk of private banks, avail of a rather generous credit insurance provided by the publicly-owned Japan Finance Corporation, with coverage rates of around 70-80%. Furthermore, public financial institutions provided direct loans to SMEs worth 5.2% of GDP (OECD, 2022b). While some European countries offered similar coverage rates on subsidised business loans during the pandemic (Albertazzi et al., 2020), others provided more targeted support, with France and Spain differentiating coverage rates based on firms' turnover, applying lower basic rates to larger SMEs (Altavilla et al., 2021).

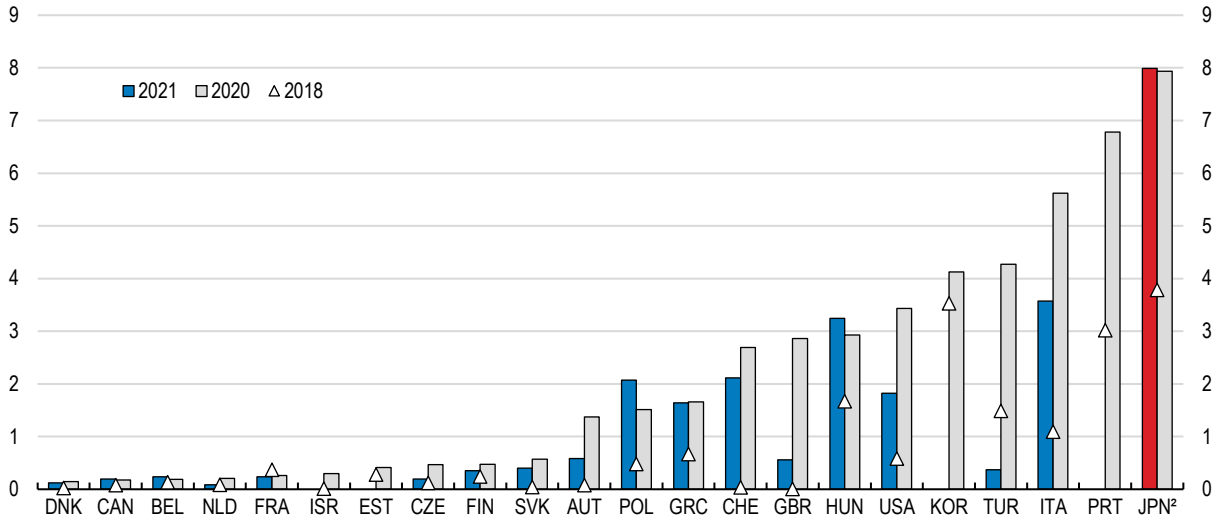
The type of generous public support to SMEs provided in Japan can lower resource reallocation and firm exit, delay restructuring, and reduce the entry and investment opportunities of more innovative firms. Furthermore, it tends to favour firms that have established relationships with credit institutions and reduces financial institutions' risks and incentives to establish effective credit evaluation for SME lending, hindering the development of market-based financing (Jones, 2022). Hence, the government should further lower the coverage rates of government guaranteed loans to strengthen banks' credit risk management.

Bank preferences for real estate collateral and personal guarantees weigh on business creation and firm growth, as any additional expansion-oriented financing requires the redefinition of collateral (Financial

Council, 2023a). As recommended in the *2021 Economic Survey,* exempting the family home from personal professional bankruptcies (like in many Canadian provinces and France) could help. Recent measures, such as Japan Patent Office's guidelines on intellectual property business valuation in SME settings, have helped develop lending based on immaterial assets, and increase the share of private banks' loans not associated with managers' guarantees from 12% in FY2015 to 33% in FY2022 (METI, 2023a).

Figure 1.24. Government guarantees for SME loans have surged further with the pandemic

As a percentage of GDP[1]



1. Government guarantees available to banks and other financial institutions.
2. As of the end of the fiscal year (March) for Japan.
Source: OECD Secretariat calculations based on OECD (2022), *Financing SMEs and Entrepreneurs 2022: An OECD Scoreboard*.

StatLink https://stat.link/5b3rn7

Government plans to reform the collateral system, which will improve financing conditions for start-ups with growth potential, are welcome. Allowing for new lending to be underpinned by a security interest established over the entirety of the business' assets and its future receivables will remove the need for personal guarantees and collateral by reducing information asymmetries between lenders and borrowers (Financial Council, 2023a). A new credit guarantee system will also free start-ups younger than five years from the need to provide personal guarantees. The effectiveness of the scheme will depend on clearly defining collateralised assets to ensure legal stability and on ensuring that the scheme does not deteriorate the relative position of stakeholders, especially workers (Financial Council, 2023b). The government aims to submit new legislation to introduce the possibility – when negotiating a loan – to incorporate intangible assets into collateral, which is not foreseen under the current Civil Code. Rapid approval and enactment of the reform will be key to help domestic innovative start-ups fulfil their potential.

Improving conditions for innovation capital

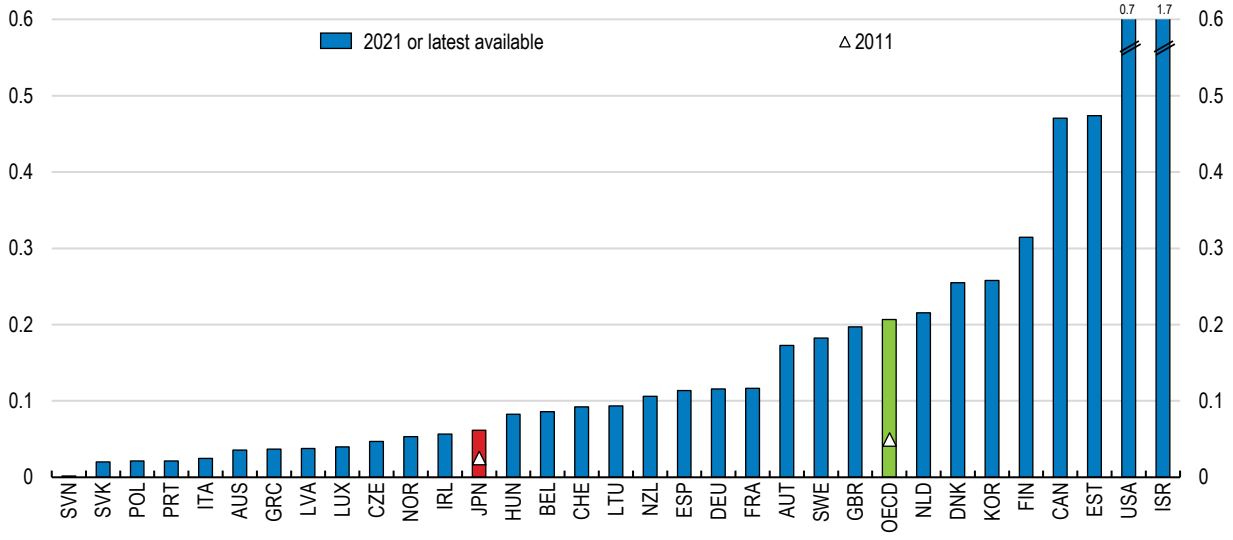
Well-functioning venture capital (VC) markets are important drivers of innovation and productivity growth. VC eases information asymmetries involved in the valuation of intangibles, allows funding for radical innovations, and increases the probability of co-financing by institutional investors (Jeppson, 2018). In 2021, domestic VC firms accounted for one third of total investment in Japanese start-ups, whose value had sextupled since 2014 to reach an overall worth of JPY 1.1 trillion (METI, 2022b). Nevertheless, Japan's VC market remains undersized (Figure 1.25) and is mostly concentrated in seed and early-stage investments. The Government Pension Investment Fund has recently started investing in private equity

and venture capital funds, which can support start-up creation and development and provide an important boost to innovation funding, like in the United States.

The five-year plan for start-up development includes a wide array of measures, including substantive financial support, regulatory changes, and greater openness to foreign risk-capital investors (Cabinet Secretariat, 2022). Some prioritisation of the measures, frontloading those to attract innovative foreign investors, including by ensuring streamlined administrative and regulatory requirements, full mobility of skilled labour, enhanced information sharing and greater integration of domestic actors in global innovation networks and hubs, would support its effectiveness. Planned measures include the expansion of funding by JPY 120 billion to boost limited liability capital investment in domestic and foreign VC funds by 2027 and the strengthening of tax incentives and deductions for VC firms and individual business angels. Targeted tax measures should be appropriately designed and continuously monitored to ensure they are cost effective and do not create equity issues.

Figure 1.25. The venture capital market is undersized

As a percentage of GDP



Source: OECD Venture Capital Investments database.

StatLink https://stat.link/axif4b

Reliance on mergers and acquisitions (M&A), to overcome size-related barriers to growth, featured in less than 25% of Japan's start-up exits in FY2020 (METI, 2022c), compared to 90% and 67% in the United States and the European Union, respectively. M&As provide start-ups, particularly VC-backed ones, with a flexible approach to quickly scale up through the acquisition of new products, technologies, or talent. Planned tax reforms, set to become effective in 2023-24, and allowing, under certain conditions, companies to deduct 25% of the value of an equity investment in a start-up from their corporate taxable income, and the easing of tax rules applied to business spin-offs, can strengthen large corporations' incentives to invest in innovation. Reducing or removing limitations on the carry-forward of net operating losses in the case of corporate ownership changes could support these welcome reforms.

While regulatory barriers to foreign direct investment (FDI) are close to the OECD average (OECD, 2023c), Japan's inward FDI stock as a share of GDP is very low in international perspective (OECD, 2023d). In April 2023, the government announced a new action plan to reach the target of increasing the inward FDI stock from JPY 46.2 trillion at the end of 2022 to JPY 100 trillion by 2030 (Council for Promotion of Foreign Direct Investment in Japan, 2023). The plan highlights the need for further efforts to lower barriers, such

as easing procedures, providing multi-lingual support and improving the business environment. Reducing explicit restrictions, focusing on those affecting the service sector, would promote FDI inflows. Japan is also a minor player in cross-border M&As, which increasingly drive FDI, so activating the market for M&As, as recommended in the *2017 OECD Economic Survey*, would help as well (Jones, 2022).

M&A deals generate benefits but should be monitored closely. First, they can enhance quality in management and organisational processes and enable fairer valuations of firms' growth potential. Second, M&As can offer profitable firms led by older managers a wider range of alternatives to closing the business due to a lack of suitable successors. Despite subsidised loans, tax incentives, advisory and matching services, in 2022, 55% of the 49 600 business closures due to succession-related issues referred to profitable firms (TSR, 2023). Conversely, M&As can lower competition if used by large incumbent companies to 'internalise' innovations created by smaller competitors or new potential entrants (OECD, 2021a). The Japan Fair Trade Commission has stepped up its ability to identify anti-competitive mergers (Yagami et al., 2022), but the increased complexity of underlying trades warrants more flexible merger control frameworks. Having a stronger reliance on ex-post reviews and requiring dominant incumbents to prove that nascent acquisitions of start-ups do not have anticompetitive effects, in line with OECD recommendations (OECD, 2020c), would support competition enforcement and preserve consumer rights.

Boosting regulation and governmental digital transformation

A more competition-friendly regulatory framework would boost business dynamism and productivity growth. According to the OECD product market regulation indicators, licensing requirements are relatively low, thanks to an on-line one-stop shop and "silence is consent" rules, but the complexity of regulations, such as the high number of procedures involved in the registration of start-ups, can be reduced. Such reforms have the potential to boost GDP growth in the medium and long run (Box 1.7). The regulatory framework in the service and network sectors (except e-communications) is competition friendly and the regulatory environment for trade in services is the most open in the OECD. However, limitations on foreign entry and movement of people restrict legal and telecommunication services (OECD, 2022c). Relaxing the requirement for foreign service providers to be registered in Japan would help. There is also room to improve the regulatory framework for public procurement which does not guarantee a level playing field for all potential bidders.

Government use of digital technologies is lagging but progressing, as recommended in the *2021 Economic Survey*, with a target of having 98% of administrative procedures online by 2025. Online medical consultations and drug administration guidance were enhanced during the COVID-19 pandemic. Technological development may create new framework conditions, which requires the adoption of new rules or the revision of existing ones. Hence, the ongoing review of the regulations on software medical devices, including AI diagnostic imaging, to ease their development and market launch, is welcome. Japan has also been promoting smart cities, which rarely go beyond feasibility studies, due to marketability and legal barriers. However, National Strategic Special Zones, designated regions in which exclusive regulatory and system reforms are implemented, can help, as can the ongoing "Super City Initiatives" in Osaka and Tsukuba since 2022 (Cabinet Office, 2023b). Complementary policies to prevent digital exclusion, due to Japan's large cohorts of older people with limited or no digital literacy, are key.

Following a slow uptake since its introduction in 2016, the number of people with a My Number (national personal ID) card, which aims to facilitate the linking of data to the provision of public services, reached 72.7% of the population in October 2023, driven by the pandemic and the provision of more incentives by the government. Full uptake as soon as feasible should be aimed for. Following some recent cases of errors linked to the use of the cards, the government committed to a review of the system in June 2023. Ensuring data protection and privacy and improving user-friendliness, for example by simplifying the use of PIN numbers, will be key to build public trust in the wider use of the system. The application of the card as a health insurance card is being rolled out and the plans to further link it to the provision of public and

private services should be prioritised. Using the My Number system to complete administrative procedures, track the income of the self-employed and ensure data sharing across different government levels, as recommended in the *2021 Economic Survey,* and to improve the administrative efficiency of targeting subsidies to vulnerable households following shocks, would help better reap the benefits of digitalisation.

Box 1.7. Quantification of the impact of structural reforms

Table 1.8 presents the growth impact of some key structural reforms proposed in this Survey. These estimates are illustrative. The impact on GDP per capita is estimated using historical relationships between reforms and growth in OECD countries. The model does not capture policy-induced changes in deep-rooted preferences like risk aversion and their subsequent effects on economic variables.

Table 1.8. Potential impact of selected proposed reforms on per capita GDP

Reform	10-year effect	Long-run effect
Improve the regulatory environment	0.5	1.8
Support R&D spending in young and innovative firms	0.1	0.4
Shifting active labour market policies spending towards training	0.7	1.2
Increase the pension age to 67 for men by 2030 and women by 2035 (and link it to 2/3 of the increase in life expectancy thereafter)	0.2 (0.2)	0.7 (0.9)
Total	**1.5**	**4.1**

Note: Regulatory environment refers to improving Japan's OECD product market regulation score by two decimal points from its current 1.4, to bring it within the range of the top third performers in the OECD. The assumed rise in R&D spending to support start-ups equals 0.8% of GDP. Active labour market spending per unemployed in per cent of GDP per capita (12% in 2019), is assumed to increase by 15 percentage points, bringing Japan closer to the median of OECD countries.
Source: OECD calculations based on Guillemette and Turner (2021).

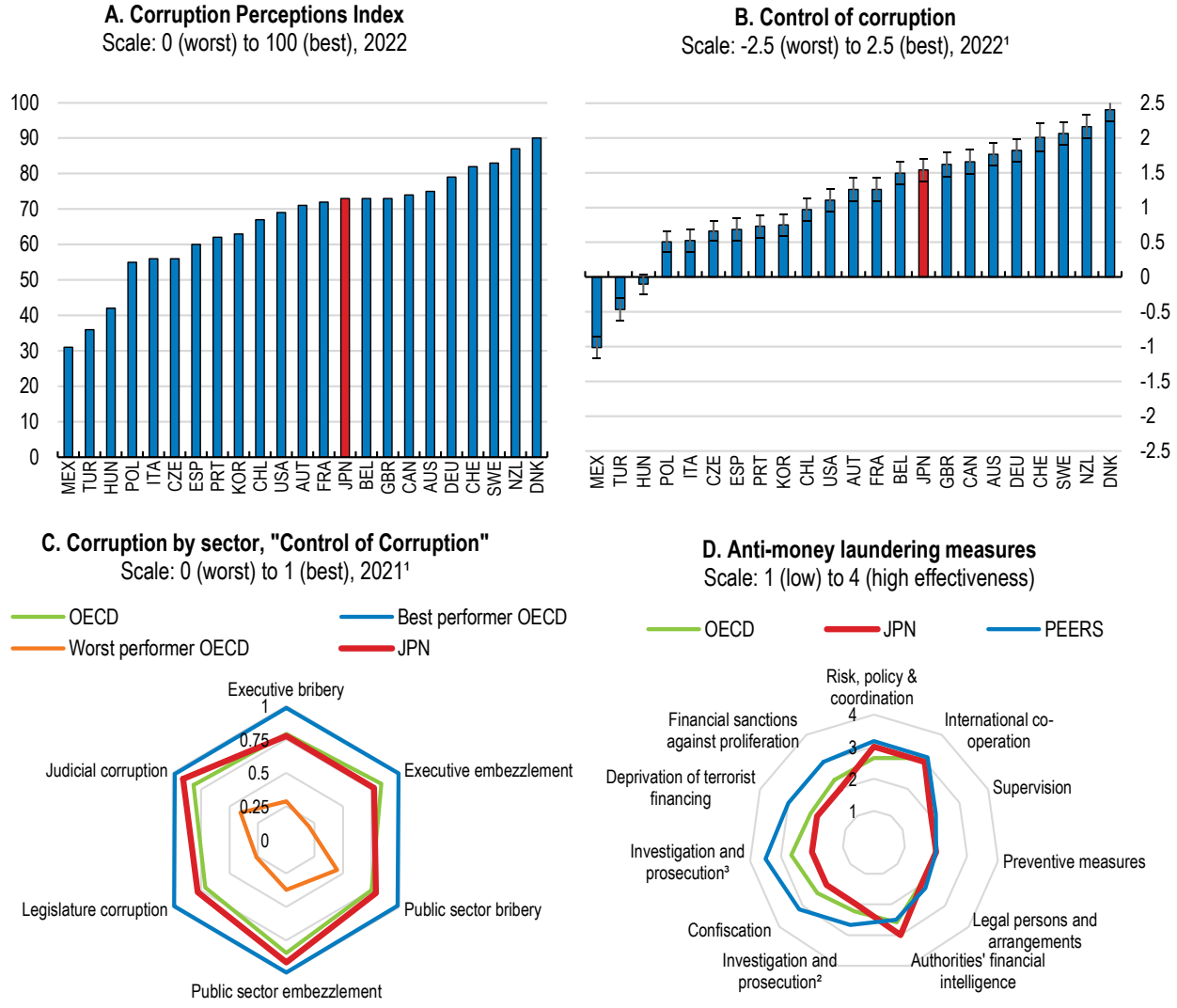
Strengthening public integrity

Government integrity and transparency is key for public-sector efficiency and productivity growth, via safer investment environments. It also conditions trust in public institutions, which, according to recent survey data, is weaker than the OECD average, in particular for the national government and legislatures (OECD, 2022d). Overall, levels of perceived corruption are below the OECD average (Figure 1.26, Panels A-C). Similarly, Japan is largely compliant with OECD best practices with respect to exchange of information with tax authorities, as assessed by the Global Forum on Transparency and Exchange of Information for Tax Purposes. However, there is room to improve anti-money laundering regulation, via more effective preventive measures, supervision, investigation and prosecution proceedings (Panel D). Enhanced guidelines on the identification and quantification of foreign bribery's proceeds for confiscation purposes could be of further help (OECD, 2021g).

Public service ethics laws are rather stringent, and several measures to strengthen the control of corruption have been adopted in recent years. However, some areas of public officials' interaction with the corporate sector remain a potential source of collusive behaviour (OECD, 2021a). Japanese companies' practice of hiring former, or freshly retired, senior government staff heightens the risk of bid-rigging incidents in public procurement *(kansei dango*) or of illicit lobbying activities. With respect to bid-rigging risks, the Japan Fair Trade Commission (JFTC) has been increasingly focusing its efforts on advocacy activities, to prompt companies to pre-emptively modify potentially illicit behaviours (Ae et al., 2023). Recent revisions to the leniency programme, ensuring applicant firms might avail of additional reductions in the administrative fines for bid-rigging, according to firms' degree of cooperation with case investigations, have enhanced JFTC's ability to enforce the law and deter its violations. Making use of algorithm-driven collusion-detection

models in public procurement auctions might help improve enforcement of competition policies (García-Rodríguez et al., 2022). Moreover, extending the rules requiring external audits and greater transparency in dealings with bidding companies, adopted by METI for its own larger procurement transactions in 2020, to other spheres of central government would boost integrity in public procurement and public spending efficiency.

Figure 1.26. Levels of perceived corruption are relatively low



1. Panel B shows the point estimate and the margin of error; Panel C shows sector-based subcomponents of the "Control of Corruption" indicator by the Varieties of Democracy Project; Panel D shows ratings from the FATF peer reviews of each member to assess levels of implementation of the FATF Recommendations. The ratings reflect the extent to which a country's measures are effective against 11 immediate outcomes.
2. Refers to money laundering.
3. Refers to terrorist financing.
Source: Panel A: Transparency International; Panel B: World Bank, Worldwide Governance Indicators; Panel C: Varieties of Democracy Project, V-Dem Dataset v12; and Panel D: OECD, Financial Action Task Force (FATF).

StatLink https://stat.link/1592hn

Japan has no specific law or disclosure requirement for government interactions with interest groups, despite indirect regulation through the Act on Public Service Ethics. Requiring public officials to disclose information on their interaction with lobbyists through publicly available registries or open agendas, as in most OECD countries (OECD, 2021f), would support more inclusive policymaking. Similarly, centralising and consolidating reports on lawmakers' political fund income and expenditures, currently submitted to the Ministry of Internal Affairs and prefectural election administration commissions (Noguchi, 2021), to make them available in electronic format and in a timely way, would be welcome.

Despite ongoing progress, the implementation of the OECD Anti-Bribery Convention remains incomplete. Increased efforts are needed to strengthen enforcement of foreign bribery cases, set up a proper framework enabling private sector legal, auditing, and accounting professionals to detect and report suspicious acts, and consider revisions of export credit agencies' staff guidelines for recently established internal reporting procedures (OECD, 2021g). In June 2023, the Diet approved legislation to increase sanctions for foreign bribery to the highest level among Japan's economic crimes, extend the statute of limitations and expand jurisdiction. The impact of these reforms will need to be assessed as they are implemented. Amendments to the 2004 Whistleblower Protection Act, which came into force in mid-2022, considerably enhanced insiders' incentives to report criminal and administrative offences, but failed to introduce penalties for firms retaliating against whistleblowers (OECD, 2021g). Such penalties, combined with the adoption of specific reward programmes, may encourage disclosure activities, improving effective enforcement of anti-corruption policies.

Table 1.9. Past OECD recommendations on productivity and digitalisation and actions taken

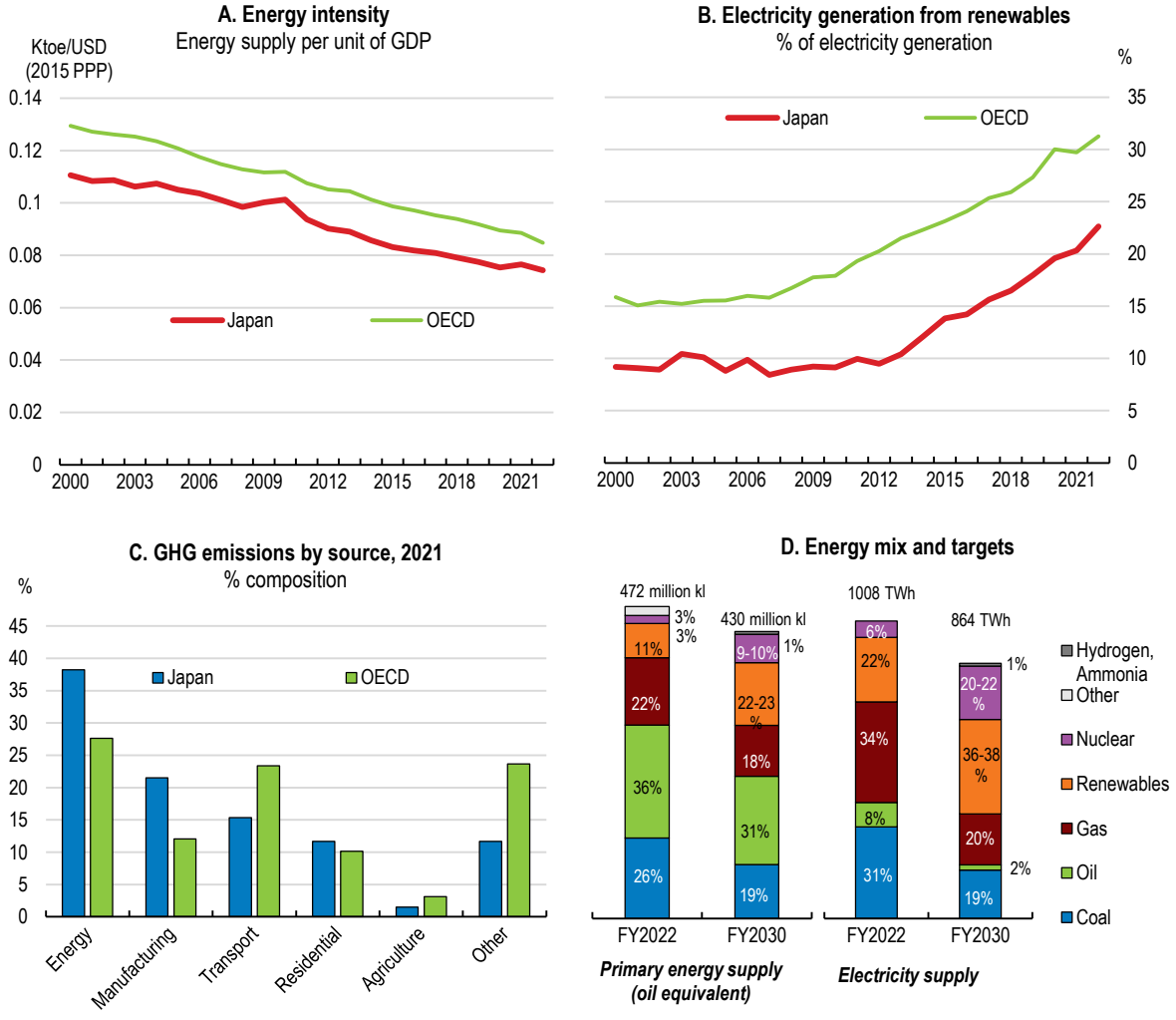
Recommendations in past surveys	Actions taken since 2021
Increase targeted spending on R&D, investment and education and training to boost productivity growth.	The national research and development authority (NEDO) will spend JPY 20 billion per year (until 2027) to subsidise two thirds of R&D start-ups' costs of practical application development, provided the remaining third is funded through (certified) venture capital investment.
Encourage mergers, acquisitions and divestitures of SMEs in the face of labour shortages to promote consolidation of managerial resources in viable firms.	In addition to the existing subsidies, tax deferrals, and M&A deductible expenses to ease business successions, as of April 2023, companies can deduct 25% of the value of an equity investment in start-ups from their corporate tax liabilities.
Develop base registries to link government databases.	The Digital Agency is in the early stages of developing a base registry.
Address regulatory and privacy issues to facilitate greater use of digitalisation.	The Special Commission on Digital Administrative Reform has been reviewing laws and regulations to clear out analog regulations, such as visual inspection and written-notice regulations.
Raise e-government supply, service orientation and cost efficiency in the public sector, for instance by building on private sector expertise.	The Digital Agency conducts reviews of projects, in collaboration with the private sector.
Continue to develop financing methods serving firms with high shares of intangible capital.	The government will present a draft bill allowing innovative firms to obtain growth financing from banks by pledging their entire business assets as collateral. The Japan Patent Office established an IP Finance Portal to disseminate guidelines on the evaluation of intangible-intensive SME business models.
Expand access to entrepreneurial training and finance, in particular for women.	The government established a nationwide network of 290 organisations providing women entrepreneurs with advisory/mentoring support. In FY2022, the Japan Finance Corporation increased the funds allocated to subsidised loans to new and recent (less than seven years) women entrepreneurs.
Promote greater female participation in STEM disciplines, such as through mentor programmes.	Efforts to expand the flagship "Riko-Challenge" programme, supported by 865 organisations, encouraging female high-school students to choose STEM career paths, are progressing.
Continue to work with companies to reform seniority wage schemes and promote mid-career hires.	In 2022, to incentivise mid-career hires for companies with 301 or more workers, disclosing the share of mid-career employees was made mandatory to receive subsidies.

1.6. Achieving net-zero emissions by 2050 will require major efforts

1.6.1. Emission reduction targets and plans

Japan has ambitious targets of reducing greenhouse gas emissions by 46% from 2013 levels by 2030 and achieving net-zero emissions by 2050. After peaking in 2013, emissions have been declining (Figure 1.2 above), driven by a decline in energy intensity and an increase in the share of renewables (Figure 1.27, Panels A-B). Energy remains the largest source of emissions, followed by manufacturing and transport (Panel C). The government aims to lower the share of total energy supply from fossil fuels from 84% in FY2022 to 67% in FY2030 (Panel D). In addition, the Green Growth Strategy noted an energy mix of 50-60% renewables, 30-40% nuclear and thermal with carbon capture utilisation and storage and 10% hydrogen and ammonia in 2050 as a reference point for discussion (METI, 2020b). However, an official breakdown for the energy mix in 2050 does not exist given high uncertainty, including for different technologies, and the possibility of multiple scenarios towards achieving 2050 targets (METI, 2021).

Figure 1.27. Bold reforms are needed to reach ambitious targets



Source: IEA (2021), IEA World Energy Statistics and Balances database; OECD, National Accounts database; Environment Database - Greenhouse gas emissions; and Ministry of Economy, Trade and Industry.

StatLink https://stat.link/lhympc

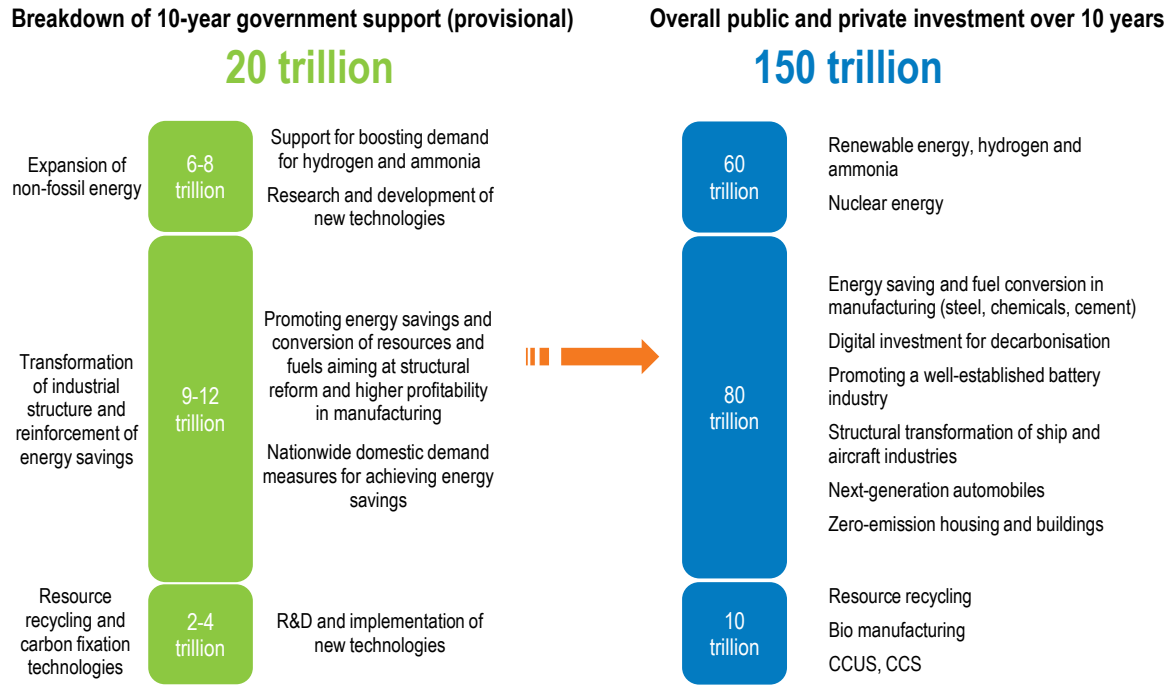
Japan's renewed impetus towards reducing emissions, outlined in the recent Basic Plan for Green Transformation (GX) Policy (Government of Japan, 2023c; Box 1.8), by a mix of innovation, green investment, transition finance, regulations, international collaboration, and carbon pricing, is welcome. The government plans to raise JPY 20 trillion through GX Economy Transition Bonds to kick off private and public investment of around JPY 150 trillion over the next 10 years, and has outlined a breakdown of investment needs in different areas (Figure 1.28). The funds will likely be used for investment in existing technologies and those still in development. The 5-year and 10-year bonds (JPY around 800 billion each) are to be issued in February 2024 as "Japan Climate Transition Bonds", with international third party certification. The complete redemption of the bonds is intended for 2050 and to be financed with revenues from the forthcoming carbon pricing measures.

While Japan has strong climate change coping capacity (INFORM, 2023), it is also highly exposed to climate change risk (IEA, 2021) as an island state located in a region with increasing typhoon intensity. About 40% of the population (and business facilities) are exposed to the risk of floods, which, for example, entailed damages worth JPY 2.1 trillion in 2019. Besides their impact on human lives, such natural disasters involve large economic costs that may weigh on the real economy, including on land prices and financial institutions, especially regional banks (Ashizawa, 2022). The National Adaptation Plan, launched in 2021 and formulated based on the climate-related risks identified in a five-yearly impact assessment report, outlines the planned government measures for disaster prevention and control across sectors (NIES, 2023). As of September 2023, all prefectures have formulated Local Climate Change Adaptation Plans based on the Climate Change Adaptation Act, and municipalities are also progressively formulating plans. 41 prefectures have completed the establishment of Local Climate Change Adaptation Centres (NIES, 2023). Ensuring information is efficiently shared among all policymaking levels is key to scale preventive adaptation action at the local level, while measures supporting the availability and take-up of insurance against natural hazards may also be considered. Integrating policies and measures for climate resilience into long-term energy and climate plans to make the energy sector more resilient to climate hazards should be continued.

Box 1.8. Basic Plan for Green Transformation Policy

The Basic Plan for Green Transformation (GX) Policy outlines a ten-year roadmap towards decarbonisation targets, based on four key areas, First, pro-growth carbon pricing will include upfront investment support via GX Economy Transition Bonds to expand non-fossil fuel energy sources and facilitate R&D in new and green technologies, a GX surcharge (on fossil fuel supply) and an emission trading scheme to be gradually phased in over the next ten years (see below). Second, regulatory support, such as expanding offshore wind power generation sites to exclusive economic zones, will stimulate private investment via long-term assistance and R&D support. Strengthening regulations, such as building efficiency standards, will help achieve the target of net-zero energy consumption for newly constructed buildings and houses by 2030 and all buildings and houses by 2050. Third, new financing methods to support companies will be promoted through international rule making and investment support for transition technologies, such as ammonia. Fourth, Japan will focus on supporting global and regional decarbonisation plans. For example, Asia Zero Emissions Community, a cooperation platform to help partner countries in Asia achieve energy transition through policy coordination and integrated support on technology, finance and human resources, was formed. Furthermore, the Joint Crediting Mechanism, a bilateral offset crediting mechanism to incentivise leading decarbonising technologies in partner countries, will be extended.

Figure 1.28. Investment needs towards decarbonisation are large



Source: METI (2023b), *Realising and Implementing Pro-Growth Carbon Pricing Initiative Related to the Draft of Basic Policy for Realising GX*.
StatLink https://stat.link/ro81i0

1.6.2. Moving away from fossil fuels

Forthcoming measures to restart as many existing nuclear reactors as possible, prolong those still in operation beyond the current 60-year limit, with regular reviews by the regulator, and construct "next-generation" reactors, can boost the share of nuclear power in electricity supply. Of Japan's 33 operational reactors, 10 have restarted and 7 had passed the Nuclear Regulation Authority review as of May 2023. The recovery of Japan's nuclear plants requires an independent technical review by the regulator to satisfy enhanced safety standards, and work with local communities to regain social acceptance. Since the Fukushima Daiichi Plant accident in 2011, safety standards have been tightened, and according to a February 2023 Asahi Shimbun poll, 51% of the population support restarting reactors, the highest share in a decade, partly reflecting the energy price crisis. Nevertheless, relatively long inspection and restart times create uncertainties.

Hydrogen, ammonia, and carbon capture, utilisation, and storage (CCUS) are expected to play a key role in meeting net-zero emissions by 2050. The government has revised its Hydrogen Strategy and is working to introduce co-firing of ammonia in coal-fired plants to reduce CO_2 emissions during combustion. Increasing power generation by hydrogen and ammonia will depend on reducing production, transport and storage costs, and R&D outcomes in this area. Japan should also continue to lead efforts to develop international supply chains for hydrogen and ammonia, which remain limited, and promote international knowledge sharing. Given the high share of public R&D on these technologies, conducting systematic evaluations to make timely adjustments will be key.

Plans to reach the 2030 target of reducing the share of coal-fired power in the energy mix to 19% include efficiency improvements, the phase-out of inefficient coal-fired power plants, and the development of "CCUS-ready" coal plants and co-firing of ammonia in coal-fired plants. However, reconciling continued reliance on coal and the commitment to achieve net-zero emissions by 2050 will be challenging. Given the

high average lifespan of 40 years of coal plants, a clear plan to phase out inefficient coal-fired power plants is key to avoid the risk of "stranded assets", while expanding alternative power generation capacity, such as nuclear power and renewable energy, in order to promote energy security and economic efficiency. Japan plans to build "CCUS-ready" coal and gas plants, but uncertainty about the scope for scaling up carbon capture, utilisation, and storage in a cost-effective manner remains high. Hence, major investment in new coal-fired capacity should be contingent on progress in developing new decarbonisation technologies and cost-benefit analysis.

High carbon content of energy used (e.g., coal) also leads to high emissions in the residential sector, despite comparatively low energy consumption per capita (Hoeller et al., 2023). Japan is among the 16 OECD countries with explicit climate targets and commitments for the building sector, with an aim to promote zero-energy buildings and houses (buildings or houses with zero net primary energy consumption annually) for newly constructed buildings by 2030 and in the average of all building stocks by 2050 (MLIT, 2022). The plans to streamline building standards and the revised Building Energy Conservation Act, which entered into force in June 2022, mandating all new buildings from 2025 to comply with energy efficiency standards, are welcome. The ongoing efforts to help decarbonise existing buildings, such as financial support for renovations to improve energy efficiency and the promotion of the use of renewable energy in buildings, should be continued.

Expanding the use of renewables can help meet climate goals, increase energy security and improve affordability. Japan has a high potential for power generation from offshore wind and tidal power (world's sixth-longest coastline and widest exclusive economic zone), and geothermal resources (third-largest and equivalent to 10 nuclear power plants). However, their share in electricity supply and targets remains modest, and the deployment of renewables could be accelerated. The installation costs of renewables are relatively high in Japan because of the limited availability of cheap land, high labour costs and special safety requirements for equipment against natural disasters. However, there is potential for reducing costs, especially through increased competition (IEA, 2021). Improving social acceptance (e.g. for offshore wind) and complementary investment in network infrastructure coupled with demand-side management and targeted R&D support will also be key.

Across the OECD, R&D funding, streamlined planning processes, and subsidies have contributed to significant reductions in the costs of renewables and increases in private investment in clean energy technologies. For example, government policies have contributed to development of offshore wind energy in Denmark and the United Kingdom (Box 1.9). Given the scale of investment needed, an efficient permits and licensing system should complement existing measures, such as technology support to innovation and subsidies. Hence, measures, such as the increase in seabed lease duration from 2-3 years to 30 years for offshore projects in 2019, should be continued.

Uncertainty in some emission reduction pathways due to technologies that are not yet cost effective, or may face lack of public acceptance, requires contingency planning. Given changing technologies, regularly assessing whether existing strategies, policies and instruments need to be revised, and mapping out energy scenarios and roadmaps considering different futures for the development of energy sources is key.

The ongoing efforts to boost the contribution of renewables to electricity supply are partly constrained by limited integration of regional electricity grids. The fragmentation of the electricity network into regional grids, with two different frequencies and limited interconnector capacity, constrains the transmission and distribution network (OECD, 2021a; IEA, 2021). A renewable feed-in-premium was introduced in April 2022. By paying generators a subsidy based on the wholesale market price, plus a marginal rate, the feed-in-premium links the revenue the generator receives with the market price and provides more incentives to increase supply during peak demand hours. The government is also reforming its battery energy storage system regulations to lower grid constraints. The Organisation for Cross-regional Coordination of Transmission Operators recently revised a long-term plan for wide interconnected systems by FY2050,

with investment estimated at around JPY 7 trillion (OCCTO, 2023). Three regional interconnectors are set to start operation in FY2027, as recommended in the *2021 Economic Survey*.

There is room to improve competition in electricity markets. In 2020, the legal unbundling of transmission and distribution segments from generation and retail segments of ten vertically integrated electricity companies was completed. However, recent cases of customer data mismanagement, i.e., sharing of customer information by transmission and distribution companies with retail ones, have raised competition concerns (The Mainichi, 2023). Low penalties for non-compliance could be a factor. The Electricity and Gas Market Surveillance Commission (EGC), created in 2015 for monitoring competition, can investigate and make recommendations, but has no formal power to regulate markets (IEA, 2021). Increasing EGC's powers in ensuring incumbents' compliance with laws and regulations, for example by enabling it to decide on enforcement actions rather than make recommendations to the minister, would boost competition and investment.

Box 1.9. Offshore wind energy in the United Kingdom

The United Kingdom is the largest offshore wind energy market in the OECD, with a total commissioned capacity currently close to 14 gigawatts (GW), following average annual capacity additions of 1.2 GW since 2015. Hornsea 2, the world's largest offshore windfarm (1.3 GW), located 89 km off the Yorkshire Coast, became operational in August 2022 and will provide low-cost energy to 1.4 million homes.

Public policies have played a key role in the development of the United Kingdom's offshore wind industry. The government's move to protect renewable generation investors from volatility in wholesale electricity prices via long-term private law contracts reduced uncertainty. Furthermore, an offshore wind acceleration task force was established to streamline planning and permitting processes, while the frequency of seabed leasing rounds was gradually increased. Offshore wind projects are also set to benefit from the economy-wide generous capital allowances introduced in Budget 2023 to support investment in plants and machinery and plans to reduce the approval time for new offshore wind farms from four years to one.

Source: IEA (2023), *Renewable Energy Market Update*, June; UK Department for Business and Trade (2023), *Offshore Wind*; and Ørsted.

Electric and fuel cell vehicles could make a key contribution to emission reductions for transport. Reaching the 2035 target of 100% for the sale of new "electrified passenger vehicles", which includes non-plug-in, plug-in hybrid and hydrogen-based vehicles, requires further investment, improved regulations and sufficient electricity supply and smart grids. Investigating the extent of the effect of the increased share of EVs on electricity demand and grid integration, careful planning of electricity infrastructure, peak load management, and smart charging will be critical. The number of EVs per charging station increased from 6.3 in 2016 to 13.9 in 2022 (the OECD average being 20). The 2030 target of 150 000 charging stations, including 30 000 fast chargers, is welcome in light of the government's ambition to strongly increase the sale of EVs. Evidence from Norway suggests that public investment in charging stations in large cities and major highways can trigger private investment in such infrastructure (D'Arcangelo et al., 2022). Reducing private car ownership and boosting alternative modes of transport via street redesign, spatial planning that is focused on increasing proximity, and support for shared mobility, can also help decarbonisation of the transport sector (OECD, 2022e).

Japan has been a pioneer in electric, hybrid and hydrogen-based cars using fuel cells, but full EVs represented only 2% of new passenger car sales in FY2022, despite support through subsidies and tax incentives. The rising global demand for full EVs and regulations in Japan's export markets, which exclude hybrids from zero emission vehicles, can create risks for the automobile industry, which has concentrated on hybrids until recently. In addition, production capacity for hydrogen-powered vehicles remains small. It will be important to monitor international developments and periodically assess government support

policies for different technologies and their contributions to emission reductions to guide investment towards the most cost-efficient technologies in this field.

1.6.3. Implementing planned carbon pricing measures effectively

Countries have a wide range of policy mixes to reach their net zero emissions. Carbon pricing in Japan has been limited so far, with a tax on fossil fuels introduced in 2012 and voluntary cap-and-trade emissions trading systems (ETS) in Tokyo Metropolitan City and Saitama Prefectures (ICAP, 2022a and 2022b), which are relatively limited in scope. However, the gradual introduction of an ETS in three phases from FY2023 and of a GX surcharge (on fossil fuel supply) from FY2028, is planned to complement increases in infrastructure investment and improved regulations.

While the introduction of an ETS, as recommended in past Economic Surveys, is welcome, the long phase-in period will limit its contribution to meet 2030 targets and should be reconsidered. The first phase of Japan's ETS (a voluntary baseline-and-credit system) started in April 2023 through the GX League, an initiative launched in 2022 to facilitate public-private-academia cooperation towards decarbonisation (METI, 2023c). Each firm in the League will set its own GHG emissions targets, disclose its efforts and investments and implement voluntary emissions trading. As of July 2023, 564 firms, from various industries, such as manufacturing, finance and ICT, accounting for around 40% of total emissions (including electricity supply to households), are participating. From FY2026, participation and compliance will shift towards a mandatory system, which will include targets based on government guidelines and approval by private third parties and a stronger regulatory system, but details are not yet known. From FY2033, a transition from a benchmark-based free allocation to auctioning of CO_2 emissions in the power generation sector is planned. Annual performance assessments of the first phase should be conducted to adjust the system at an early stage, if needed, and clarify the design of the next phases.

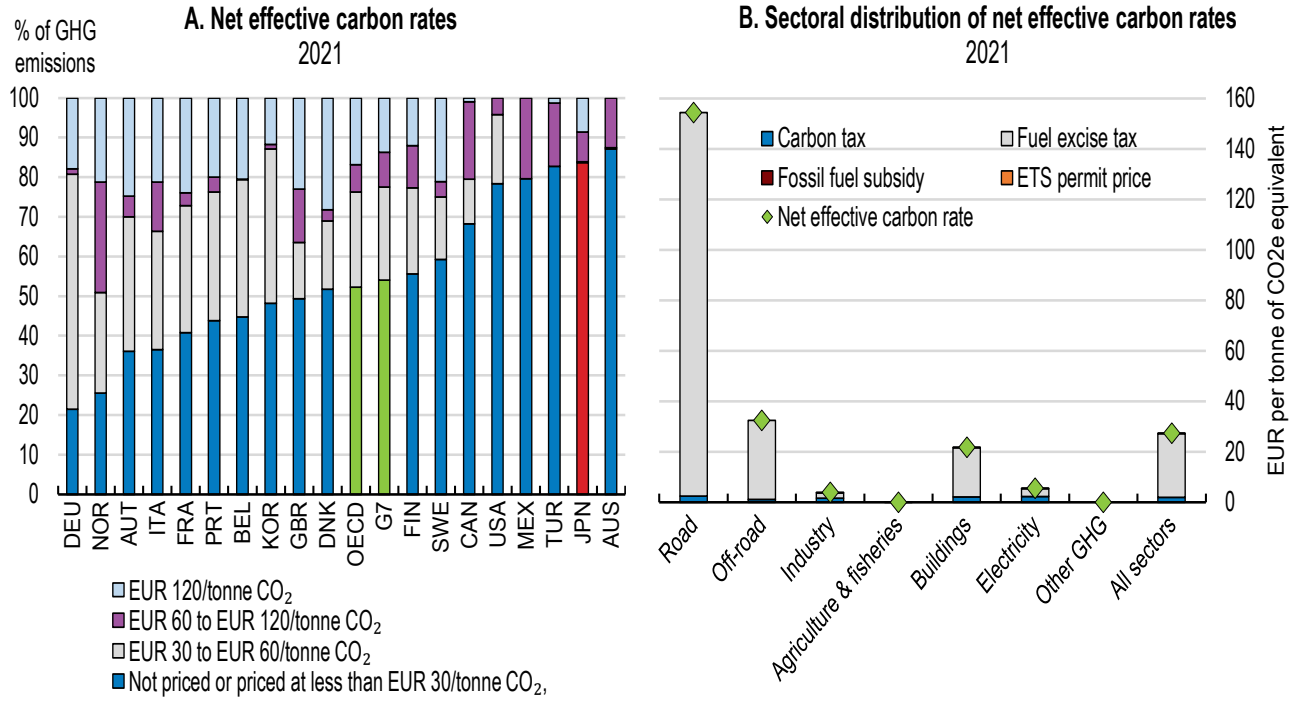
Policy certainty is crucial to incentivising green investment and behavioural change (Berestycki et al., 2022). The lack of caps on emissions, voluntary participation and goal setting as well as free allocation of emission allowances by the government makes the first phase different from traditional schemes and does not generate revenues. Hence, it will be important to follow through with the transition to the second phase of mandatory compliance and allocation of emission allowances by the regulator, based on firms' historic emissions or capacity. The necessary legislative measures for the implementation of the second phase of the ETS are set to be introduced within two years. This should include the announcement of which emission-intensive industries will be required to participate well in advance of their phase-in dates. Introducing a minimum allowance price, as in California, could also be useful. Hence, it is welcome that the authorities plan to review the case for the introduction of minimum and maximum prices.

While free allocation might help safeguard competitiveness and prevent carbon leakage initially, gradually winding it down in favour of auctioning can help correct potential market distributional distortions, such as penalising new entrants, generate revenue and increase the mitigation effectiveness of ETS. Free allocation of permits drives a wedge between marginal and average carbon prices, similar to tax allowances (OECD, 2021h; IEA, 2020). Hence, the plans for introducing auctions from 2033 should be followed through. International experience, such as in the European Union and British Columbia, suggests that well-designed ETS do not adversely affect employment and firm profits (OECD, 2021i; Yamazaki, 2017). For example, recycling of revenues to particularly impacted firms can help smooth the transition.

There is considerable room to improve carbon pricing (Figure 1.29, Panel A). The current tax, at JPY 289 (USD 1.78) per tonne CO_2, is one of the lowest in the OECD. The effective CO_2 price is particularly low in industry and power generation (Panel B). The plan to introduce a GX surcharge (on fossil fuel supply) from FY2028 is welcome, but the scope and coverage of the surcharge are yet to be decided. The late phase-in and likely low initial level may limit its contribution to meet 2030 targets and should be reconsidered. The level and scope of the surcharge should provide sufficient incentives and equalise marginal costs. Japan's specific features, such as a large industrial base and high end-user prices for electricity and natural

gas, can increase the impact of higher carbon prices on households and firms. A significant percentage of financially weaker firms in high-emission sectors and those in downstream industries could be adversely impacted (IMF, 2023b; Makoto, 2021). Hence, measures to prepare high-emission sectors through clear signals and transition finance support could help.

Figure 1.29. Carbon pricing is underutilised

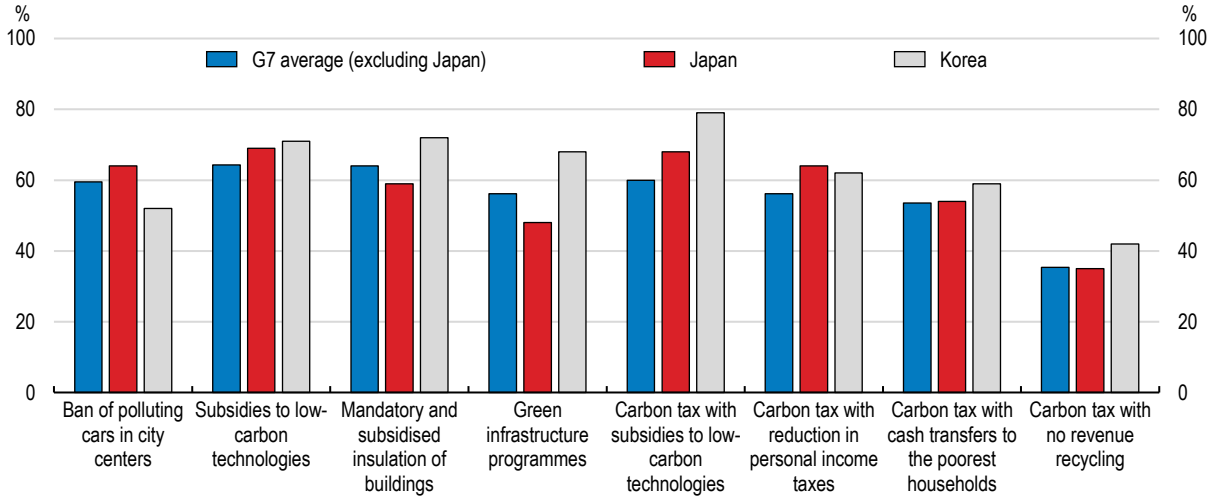


Source: OECD (2022), *Pricing Greenhouse Gas Emissions: Turning Climate Targets into Climate Action*, Paris.

StatLink https://stat.link/fb7i0s

Japan should also use revenues from carbon prices to mitigate the impact on low-income households, which can help boost public acceptance. According to a recent OECD survey of more than 1900 representative respondents across Japan, 89% agree that climate change is an important problem and 85% that Japan should take measures to fight climate change (Dechezleprêtre et al., 2022). Policies that are perceived to be more effective and progressive, such as subsidies for low-carbon technologies and regulations including insulation of buildings, receive more support. The use of revenues matters substantially for policy support for carbon taxes. Public support for carbon pricing at USD45/tCO_2 is higher when the revenues are used to fund green infrastructure and clean-technology adoption, lower income taxes or fund cash transfers to the poorest households. In contrast, taxes on fossil fuels without earmarking of revenues are among the least popular policies (Figure 1.30). Information campaigns explaining the effectiveness and distributional effects of climate policies can significantly increase support.

Figure 1.30. Public support for climate change policies varies across measures and countries



Source: Dechezleprêtre, A. et al. (2022), "Fighting climate change: International attitudes toward climate policies", *OECD Economics Department Working Paper*, No. 1714.

StatLink https://stat.link/yg6voe

Table 1.10. Past OECD recommendations on environmental policy and actions taken

Recommendations in past surveys	Actions taken since 2021
Elaborate an emission reduction plan with a concrete and feasible timetable, including for the investments needed to adjust the energy mix and meet the zero net emission target.	The Plan for Global Warming Countermeasures was revised in October 2021 to meet 2030 targets. It is reviewed annually and revised every three years.
Make greater use of market-based instruments, such as the carbon tax, a trading system or carbon-credit market, while taking into account the social and economic impact, as part of the wider strategy that also includes investment and regulation.	The Basic Plan for Green Transformation (GX) Policy includes investment, regulation and carbon pricing measures. An emission trading system was experimentally launched in FY2023 and will be formalised in FY2026. Auctioning of emissions in the power generation sector will be phased in from FY2033. A GX-Surcharge (on fossil fuel supply) for companies, such as fossil fuel importers, will be introduced from FY2028.
Invest in more interconnector capacity and ensure regional electricity grids support an increase of renewable electricity supply.	The construction of three regional interconnectors is to be completed by FY2027.

Recommendations on macroeconomic and structural policies

MAIN FINDINGS	RECOMMENDATIONS (key ones in bold)
Increasing resilience to shocks	
Monetary policy remains highly accommodative, while the flexibility of the conduct of yield curve control has been increasing since December 2022. Headline and core consumer price inflation (excluding food and energy) are projected to be around 2% in 2024-25 and wage growth is projected to gain momentum. However, uncertainty remains high.	**Further increase the flexibility of the conduct of yield curve control and start raising policy rates gradually, provided that inflation remains projected to be around 2% durably.**
The financial system faces potential risks from foreign interest rates and banks' growing foreign and real estate loans. Repayment of principal for effectively interest-free and fully guaranteed loans granted during the pandemic creates additional risks, especially for regional banks.	**Broaden the scope of systemic risk assessment by financial supervisors to closely monitor rising foreign interest-rate risks and potential credit risks.** Consider including traditional borrower-based macroprudential tools, such as limits on loan-to-value or debt-service-to-income ratios, in the supervisory toolkit to enable their speedy deployment, as needed.
The measures to protect households and firms against the pandemic and the energy shock increased public expenditures.	**Reduce the fiscal deficit by phasing out pandemic and energy shock related support.**
Recent economic shocks have exacerbated medium-term fiscal challenges. The gross public debt-to-GDP ratio reached 245% in 2022. There is room to improve the fiscal framework, including the credibility of fiscal projections and targets and evaluation of policies.	**To put the government debt ratio on a downward trend, elaborate a clear and credible roadmap to achieve a primary surplus, underpinned by specific expenditure and tax measures.** **Limit the use of supplementary budgets and contingency reserve funds to large macroeconomic shocks and evaluate them ex-post.** Establish an independent fiscal institution. Enhance evidence-based policy making and spending reviews, especially for multi-year programmes.
Population ageing will heighten fiscal pressures, with national projections pointing to an increase of around JPY 17 trillion (2.7% of projected GDP in 2025) in health, long-term care and pension expenditures between FY2024 and 2040.	Extend the contribution period for a full basic pension. Fully apply macroeconomic indexation to pension benefits, even in times of deflation.
The high share of public health expenditures, with low out-of-pocket payments, long hospital stays and frequent doctor consultations, and a fee-for-service system, suggest room for boosting spending efficiency.	Boost the co-payment rate of the elderly for health and long-term care by means-testing based on an effective method of assessing income and assets. Gradually shift towards a pay-for-performance system to reduce the number of doctor consultations. Improve the gate-keeping role of primary care physicians.
The total number of hospital beds, including for long-term care, and average length of hospital stays are higher than the OECD average.	**Shift long-term care away from hospitals towards home-based care for those with low and moderate needs and towards institutional care for those with severe needs.** To avoid that a shift to home-based care leads to women dropping out of the labour force, ensure an adequate supply of paid nurses or formal helpers.
The lack of integrated and digital medical records hinder spending efficiency.	Increase the use of digital technologies for public services by improving quality and accessibility of information.
Tax revenues are close to the OECD average, but the shares of consumption (value-added) and personal income taxes are relatively low.	**Gradually raise tax revenues, including by increasing the consumption tax rate further in small increments.**

MAIN FINDINGS	RECOMMENDATIONS (key ones in bold)
Boosting productivity growth	
R&D investment by small and medium-sized enterprises (SMEs) is among the lowest in the OECD.	**Make the R&D tax credit refundable or reinstate the tax carry-over to enhance incentives to invest by innovative start-ups and early-stage SMEs.**
Despite generous tax credits, the share of business-financed R&D performed at universities is low. So is the share of basic research projects in total R&D expenditure.	Foster links between businesses, universities and public research institutions by encouraging staff mobility through cross-appointments. Make cross-organisational experience an explicit evaluation criterion for permanent research positions and researchers' career progression. Ensure that the University Endowment Fund effectively enhances basic research capacity by monitoring and assessing selected universities' research projects.
The share of graduates in STEM disciplines is low, particularly for women.	Promote greater female participation in STEM disciplines, for example through mentor programmes.
Business dynamism is weak, with relatively few start-ups and exit of low-productivity firms. Generous government guarantees for SME loans lower banks' incentives to improve credit risk management.	**Promote the consolidation of managerial resources in viable SMEs by strengthening regulatory incentives for venture capital, and mergers and acquisitions deals.** **Further lower the coverage rate of public loan guarantees.**
Inward foreign direct investment (FDI) remains limited, despite regulatory barriers close to the OECD average.	Continue to lower barriers to inward FDI by reducing explicit restrictions and activating the market for M&As.
Despite recent measures strengthening the control of corruption, the public procurement system remains open to bid-rigging incidents.	Extend Ministry of Economy, Trade and Industry rules on public procurement, requiring external audits and greater transparency in dealing with bidding companies, to other spheres of central government.
Achieving net zero emissions by 2050	
Ambitious climate targets depend on several emission reduction pathways, which depend on uncertain technologies that are not yet cost effective, and nuclear.	**Improve contingency planning by mapping out energy scenarios and roadmaps, which reflect uncertainties over the development paths of technologies.**
Fragmentation in the electricity system hinders the cost-effective integration of larger shares of renewable electricity sources. There is room to further boost competition in electricity markets.	**Continue investments in transmission and distribution infrastructure, based on cost-benefit analysis, and enhance the electricity grid to support an increase of renewable electricity supply.** Enhance the regulatory powers of the Electricity and Gas Market Surveillance Commission, including its ability to enforce sufficient penalties for non-compliance.
There are plans to introduce a national emission trading system (ETS) and increase carbon pricing from low levels, but gradual phase-in may limit their contribution to meeting 2030 targets.	Follow international best practices of mandatory participation, allocation set by the regulator, and a gradually shift to auctions in the design of the ETS, as planned. **Ensure the planned carbon pricing measures provide sufficient incentives and consider a quicker phase-in to contribute to reaching 2030 targets.** Use part of the revenues from planned carbon pricing to support low-income households and invest in low-carbon technologies and infrastructure.

References

Acharya, V. et al. (2019), "Whatever it takes: The real effects of unconventional monetary policy", *The Review of Financial Studies*, Vol. 32, No. 9.

Ae, J. et al. (2023), *The Public Competition Enforcement Review: Japan*.

Aghion, P., M. Dewatripont and J.C. Stein (2008), "Academic freedom, private-sector focus, and the process of innovation", *RAND Journal of Economics*, Vol. 39, No. 3.

Albertazzi, U. et al. (2020), "Potential impact of government loan guarantee schemes on bank losses", *Financial Stability Review*, European Central Bank, May.

Altavilla, C. et al. (2021), "Loan guarantees, bank lending and credit risk reallocation", *Centre for Studies in Economics and Finance Working Papers*, No. 629, Naples.

Appelt, S. et al. (2016), "R&D tax incentives: Evidence on design, incidence and impacts", *OECD Science, Technology and Industry Policy Papers*, No. 32, OECD Publishing, Paris.

Ashizawa, T. et al. (2022), "Physical risks from climate change faced by Japan's financial institutions: Impact of floods on real economy, land prices, and FIs' financial condition", *Bank of Japan Review,* March.

Bank of Japan (2023a), *Outlook for Economic Activity and Prices*, October, Tokyo.

Bank of Japan (2023b*), Financial System Report*, April, Tokyo.

Bank of Japan (2023c*), Financial System Report*, October, Tokyo.

Bank of Japan (2023d), *On-Site Examination Policy for Fiscal 2023*, March, Tokyo.

Bahar, D. and S. Strauss (2020), *Innovation and the Transatlantic Productivity Slowdown*, Brookings Institution, Washington D.C.

Benedek, D. et al. (2017), "The right kind of help? Tax incentives for staying small", *IMF Working Papers,* No. 139.

Berestycki, C. et al. (2022), "Measuring and assessing the effects of climate policy uncertainty", *OECD Economics Department Working Papers*, No. 1724, OECD Publishing, Paris.

Cabinet Office (2023a*), Economic and Fiscal Projections for Medium to Long Term Analysis,* Tokyo.

Cabinet Office (2023b), *Super City Initiatives and Digital Garden Special Zones for Health*, Tokyo (in Japanese).

Cabinet Office (2022), *Careers of Doctoral Personnel*, Tokyo.

Cabinet Secretariat (2022), *Startup Development Five-year Plan*, Cabinet Office, March.

Chote, R. and S. Wren-Lewis (2013), "United Kingdom: Fiscal watchdog and official forecaster", in *Restoring Public Debt Sustainability*, Oxford University Press.

Committee on Social Security Reform Oriented to All Generations (2023), *Draft Roadmap of the Reform Towards the Establishment of Social Security for All Generations*, Tokyo (in Japanese).

Council for Promotion of Foreign Direct Investment in Japan (2023), *Action Plan for Attracting Human and Financial Resources from Overseas*, Tokyo.

Council for Science, Technology and Innovation (2021), *Basic Approach to Investment Policy of University Endowment Fund toward Building World-Class Research Universities*, August.

Costas, R., T.N. van Leeuwen and M. Bordons (2010), "A bibliometric classificatory approach for the study and assessment of research performance at the individual level: The effects of age on productivity and impact", *Journal of the American Society for Information Science and Technology*, Vol. 68, No. 8.

D'Arcangelo, F. et al. (2022), "A framework to decarbonise the economy", *OECD Economic Policy Papers*, No.31.

Dechezleprêtre, A. et al. (2022), "Fighting climate change: International attitudes toward climate policies", *OECD Economics Department Working Paper*, No. 1714.

Financial Council (2023a), *Working Group on Legal Institutions for Cash-flow-focused Lending Practices*, Report, February.

Financial Council (2023b), *Working Group on Legal Institutions for Cash-flow-focused Lending Practices*, Secretariat explanation material, January.

Fukuoka City Government (2017), *Fukuoka 100* (webpage).

Furukowa, K., Y. Hogen and Y. Kido (2023), "Labour market of regular workers in Japan: A perspective from job advertisement data", *Bank of Japan Working Papers*, No. 7.

García Rodriguez, M.J. (2022), "Collusion detection in public procurement auctions with machine learning algorithms", *Automation in Construction*, Vol. 133, No. 104047.

Giebe, T., T. Grebe and E. Wolfstetter (2006), "How to allocate R&D (and other) subsidies: An experimentally tested policy recommendation", *Research Policy*, Vol. 35, No. 9.

Government of Japan (2023a), *Basic Policy on Economic and Fiscal Management and Reform 2023*, Tokyo (in Japanese).

Government of Japan (2023b), *Children's Future Strategy Policy*, Tokyo (in Japanese).

Government of Japan (2023c), *Basic Policy for Realizing GX*, Tokyo (in Japanese).

Government of Japan (2022a), *Grand Design and Action Plan for a New Form of Capitalism: Investing in People, Technology, and Startups*, June.

Government of Japan (2022b), *Integrated Innovation Strategy 2022*, June.

Government of Japan (2021), *Sixth Science, Technology and Innovation Basic Plan,* Tokyo.

Government of Japan (2015), *Fifth Science, Technology and Innovation Basic Plan*, December.

Guenaga, M. et al. (2022), "The impact of female role models leading a group mentoring program to promote STEM vocation among young girls", *Sustainability*, Vol. 14, No. 1420.

Guillemette, Y. and D. Turner (2021), "The long game: Fiscal outlooks to 2060 underline need for structural reform", *OECD Economic Policy Papers*, No. 29, OECD Publishing, Paris.

Hall, B. and J. Van Reenen (2000), "How effective are fiscal incentives for R&D? A review of the evidence", *Research Policy*, Vol. 29.

Hashimoto, Y. and T. Hirasawa (2021), "The effects of subsidies for SMEs: Matching and DID analysis based on project location and type of application", *RIETI Discussion Papers*, No. 28.

Hemmerlé, Y. et al. (2023), "Aiming better: Government support for households and firms during the energy crisis", *OECD Economic Policy Papers*, No. 32, OECD Publishing, Paris.

Hoeller, P. et al. (2023), "Home, green home: Policies to decarbonise housing", *OECD Economics Department Working Papers*, No. 1751, OECD Publishing, Paris.

Hong, G., D. Igan and D. Lee (2022), "Zombies on the brink: Evidence from Japan on the reversal of monetary policy effectiveness", *BIS Working Papers*, No. 987.

Hoshi, T. and T. Ito (2014), "Defying gravity: can Japanese sovereign debt continue to increase without a crisis?", *Economic Policy*, Volume 29, Issue 77.

ICAP (2022a), *Japan – Tokyo Cap-and-Trade Program*, International Carbon Action Partnership.

ICAP (2022b), *Japan - Saitama Target Setting Emissions Trading System*, International Carbon Action Partnership.

IEA (2021), *2021 Energy Policy Review: Japan*, Paris.

IEA (2020), *Implementing Effective Emissions Trading System*, Paris.

IFAC (2022), *Annual Report and Accounts 2021*, Irish Fiscal Advisory Council, Dublin.

Ikeda S. et al. (2021), "Economic burden of Alzheimer's disease dementia in Japan", *Journal of Alzheimer's Disease*, Vol. 81.

IMF (2023a), *Article IV: Japan*, Washington DC.

IMF (2023b), *Selected Issues: Japan*, Washington DC.

INFORM (2023), *Country Risk Profile,* Brussels.

IPSS (2023), *Population Projections for Japan (2023 revision): 2021 to 2070*, National Institute of Population and Social Security Research.

Ito, Y. et al. (2023), "Corporate pension funds' investment strategies and financial stability: Lessons from the turmoil in the UK gilt market", *Bank of Japan Review,* March.

Jafarov, E. and E. Minella (2023), "Too low for too long: Could extended periods of ultra easy monetary policy have harmful effects?", *IMF Working Papers,* No.105.

JCCI (2023), *Results of the "Survey on Minimum Wage and Wages and Employment of Small and Medium-sized Enterprises"*, Japanese Chamber of Industry and Commerce, March (in Japanese).

Jeppson, H. (2018), "Initial public offerings, subscription precommitments and venture capital participation", *Journal of Corporate Finance*, Vol. 50.

Jones, R. (2022), *The Japanese Economy: Strategies to Cope with a Shrinking and Ageing Population*, Routledge, New York.

Jones, R. and M. Kim (2015), "Enhancing dynamism and innovation in Japan's business sector", *OECD Economics Department Working Papers*, No. 1261, OECD Publishing, Paris.

Kato, D. et al. (2019). "Building primary care in Japan: Literature review", *Journal of General and Family Medicine*, Vol. 20.

Kikuchi, Y. (2021), "Impact of university reform on research performance aggregated and disaggregated across research fields: a case study of partial privatisation of Japanese national universities", *The Japanese Economic Review*, Vol. 74.

Kumakura, M. and D. Kojima (2018), "Japan's inequality and redistribution: The perspectives of human capital and taxation/social insurance", *Public Policy Review,* Vol. 14, No. 4.

Lester, J. and J. Warda (2020), *Enhanced Tax Incentives for R&D Would Make Americans Richer*, Information Technology & Innovation Foundation, September.

Lindner, L. and L. Lorenzoni (2023), "Innovative providers' payment models for promoting value-based health systems: Start small, prove value, and scale up", *OECD Health Working Papers*, No. 154.

Luca, D. and J. Wright (2022), "The narrow channel of quantitative easing: evidence from YCC from down under", *NBER Working Papers*, No. 29971.

McGrattan, E., K. Miyachi and A. Peralta (2018), "On financing retirement, health, and long-term care in Japan", *IMF Working Papers*, No. 249.

METI (2023a), *Management Guarantee* (webpage), Tokyo.

METI (2023b), *Realising and Implementing Pro-Growth Carbon Pricing Initiative related to the Draft of Basic Policy for Realising GX*, presentation to the Green Innovation Subcommittee of the Industrial Structure Council on February 2023, Tokyo (in Japanese).

METI (2023c), *GX League*, Ministry of Economy, Trade and Industry, Tokyo.

METI (2022a), *Extension and Expansion of the R&D System*, Tokyo.

METI (2022b), *White Paper on Small and Medium Enterprises*, Tokyo.

METI (2022c), *Startups,* Economic and Industrial Policy Bureau, Tokyo.

METI (2021), *6th Strategic Energy Plan*, Tokyo.

METI (2020a), *Basic Framework of the Cross-Appointment System and Points to Note (Supplementary Version),* Tokyo.

METI (2020b), *Green Growth Strategy Through Achieving Carbon Neutrality in 2050*, Tokyo.

MHLW (2019), *Summaries of the 2019 Actuarial Valuation and the Financial Implications of the Reform Options*, Ministry of Health, Labour and Welfare, Tokyo.

MLIT (2022), *Act for Partial Revision of the Act on the Improvement of Energy Consumption Performance of Buildings*, Ministry of Land, Infrastructure, Transport and Tourism, Tokyo.

NIES (2023), *A-PLAT – Climate Change Adaptation Information Platform*, National Institute for Environmental Studies, Tokyo.

Noguchi, Y. (2021), "Loopholes keep voters in the dark in Japan", *IRW – Investigative Reporting Workshop*.

OCCTO (2023), *Long-term Policy for Wide-Area Interconnected Systems,* Organisation for Cross-regional Coordination of Transmission Operators (in Japanese).

OECD (2023a), *OECD Budget Transparency Toolkit* (webpage), Paris.

OECD (2023b), *OECD Science, Technology and Innovation Scoreboard* (webpage), Paris.

OECD (2023c), *Indicators of Product Market Regulation*, Paris (website).

OECD (2023d), *OECD International Direct Investment Statistics 2022*, OECD Publishing, Paris.

OECD (2022a), *OECD Main Science and Technology Indicators database*, OECD Publishing, Paris.

OECD (2022b), *Financing SMEs and Entrepreneurship 2022: An OECD Scoreboard*, Paris.

OECD (2022c), *Japan Country Note 2022*, OECD Services Trade Restrictiveness Index, Paris.

OECD (2022d), *Building Trust to Reinforce Democracy: Main Findings from the 2021 OECD Survey on Drivers of Trust in Public Institutions*, OECD Publishing, Paris.

OECD (2022e), *Redesigning Ireland's Transport for Net Zero: Towards Systems that Work for People and the Planet*, OECD Publishing, Paris.

OECD (2021a), *OECD Economic Survey: Japan*, OECD Publishing, Paris.

OECD (2021b), *Pensions at a Glance,* OECD Publishing, Paris.

OECD (2021c), *Health at a Glance 2021: OECD Indicators*, OECD Publishing, Paris.

OECD (2021d), "Bridging the gap in the financing of intangibles to support productivity", *Background paper*, OECD Publishing, Paris.

OECD (2021e), *R&D Tax Incentives: Japan, 2021*.

OECD (2021f), *OECD Government at a Glance*, OECD Publishing, Paris.

OECD (2021g), *Implementing the OECD Anti-Bribery Convention: Phase 4 Two-Year Follow-Up Report*, OECD Publishing, Paris.

OECD (2021h), Effective Carbon Rates 2021: Pricing Carbon Emissions through Taxes and Emissions Trading, *OECD Series on Carbon Pricing and Energy Taxation*, OECD Publishing, Paris.

OECD (2021i), *Assessing the Economic Impacts of Environmental Policies: Evidence from a Decade of OECD Research*, OECD Publishing, Paris.

OECD (2020a), *Independent Fiscal Institutions: Promoting Fiscal Transparency and Accountability during the Coronavirus Covid-19 Pandemic*, OECD Publishing, Paris.

OECD (2020b), *Survey of Spending Reviews*, Paris (website).

OECD (2020c), *Start-ups, Killer Acquisitions and Merger Control*, OECD Publishing, Paris.

OECD (2019), *OECD Economic Survey of Japan 2019*, OECD Publishing, Paris.

OECD (2018), "Taxation of household savings", *OECD Tax Policy Studies*, No. 25.

OECD (2017), *OECD Review of the Irish Fiscal Advisory Council,* Paris.

OECD (2014), *Recommendation of the Council on Principles for Independent Fiscal Institutions,* Paris.

Oshio, T. (2018), "Growing poverty among the elderly: Public pension system is the framework that should respond", *RIETI column*.

Rawdanowicz, Ł., et al. (2021), "Constraints and demands on public finances: Considerations of resilient fiscal policy", *OECD Economics Department Working Papers*, No. 1694, OECD Publishing, Paris.

RBA (2021), *Review of the Yield Target*, Reserve Bank of Australia.

RIETI (2022), "Promoting EBPM in Japan: Interview with Prof. Daiji Kawaguchi", *Japan Spotlight,* May/June.

Samikawa, I. et al. (2021), "The actual state of branch consolidation in Japanese banks", *Regional Bank Restructuring and Branch Strategies,* No. 46, December.

Saruyama, S. and K. Tahara (2020), *2060 Digital & Global Economy*, Japan Centre for Economic Research.

The Mainichi (2023), "*Editorial: Yet Another Scandal Shows Japan's Major Electric Firms Stuck in Bad Old Ways",* 11 February.

Tryggvadottir, Á. (2022), "*OECD best practices for spending reviews",* *OECD Journal on Budgeting*, Vol. 21.

TSR (2023), *Closed and Dissolved Companies Trend Survey in 2022*, Tokyo Shoko Research, January.

Wu, D.J. et al. (2022), "Female peer mentors early in college have lasting positive impacts on female engineering students that persist beyond graduation", *Nature Communications*, Vol. 13, No. 683.

Yagami, K. et al. (2022), "Year in review: a general introduction to merger control issues in Japan*"* (web-page), *The Law Reviews*.

Yamazaki, A. (2017), "Jobs and climate policy: Evidence from British Columbia's revenue-neutral carbon tax", *Journal of Environmental Economics and Management*, Vol. 83.

Yu, H. et al. (2022), "Publish or perish: Selective attrition as a unifying explanation for patterns in innovation over the career", *Journal of Human Resources*.

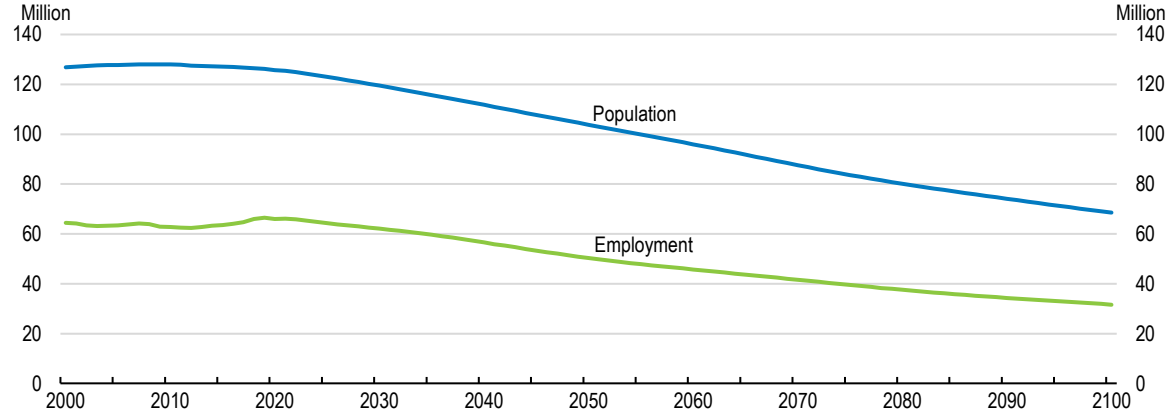
2 Addressing demographic headwinds: a long-term perspective

Randall JONES

Japan faces serious demographic headwinds. Under current fertility, employment and immigration rates, the population would fall by 45% by 2100 and employment by 52%. Given the challenges of a shrinking and ageing population, the government has pledged to “create a children-first economic society and reverse the birth rate decline”. One priority is to strengthen the weak financial position of youth, which leads many to delay or forgo marriage and children. Making it easier to combine paid work and family is also critical so that women are not forced to choose between a career and children. Policies should also cut the cost of raising children, the key obstacle to couples achieving their desired number of children. Given the challenge of reversing fertility trends, Japan needs to prepare for a low-fertility future by raising productivity and employment, particularly among women and older people. Breaking down labour market dualism, which disproportionately affects youth, women and older people, is a priority. Abolishing the right of firms to set a mandatory retirement age (usually at 60) and raising the pension eligibility age would also promote employment. Foreign workers are helping ease labour shortages, but more needs to be done to attract foreign talent. A comprehensive approach is needed to raise fertility, the employment rates of women and older persons and inflows of foreign workers.

Japan is at the frontier of the global demographic transition. It has long faced labour shortages, reflecting the decline in the working-age population since 1995. Pre-pandemic, the job offer-to-applicant ratio averaged 1.4 over 2014-19. In March 2023, close to two-thirds of small and medium-sized enterprises (SMEs) reported labour shortages (JCCI, 2023). Demographic pressures will intensify, driven by Japan's low fertility rate and long life expectancy. More than half of children born in 2007 in Japan are projected to live to 107 (Christensen et al., 2009). If the total fertility rate remains around 1.3 and net immigration remains constant, Japan's population would decline from 125 million to around 96 million in 2060 and to less than 70 million in 2100 (Figure 2.1). By 2060, 39% of the population will be 65 or older and 25% will be over 75. The labour force would shrink by more than half by the end of the century, assuming unchanged employment rates by age group, as the proportion of elderly increases. Demographic change on such a scale would have major economic, social and fiscal impacts. As a front-runner in demographic change, Japan's policies to cope with a shrinking and ageing population will offer critical lessons to other countries.

Figure 2.1. Japan's population and employment will decline significantly under current parameters



Note: Assumes that the total fertility rate remains constant at 1.3, net immigration continues at 100 000 per year and employment rates by gender and five-year age cohorts stay constant. Employment in all of the simulations in this chapter includes self-employed and workers in family businesses.
Source: OECD calculations based on the OECD Long-term Model.

StatLink https://stat.link/oz2lp4

The share of Japan's elderly (aged 65 and over) doubled from 7% of the population to 14% in just 24 years, compared to 71 years in the United States and 115 years in France (Table 2.1). It then increased from 14% to 20% in only 12 years, making Japan the first country to reach that benchmark. Japan's elderly dependency ratio is significantly higher than that of other OECD countries and is projected to reach 79% by 2050 (Figure 2.2), reducing the number of working-age persons to 1.3 per elderly. Other countries also face shrinking and ageing populations. Indeed, Korea's elderly dependency ratio will overtake Japan by 2050 and several European countries will close the gap.

A smaller population would have some advantages, such as less environmental damage and congestion and less expensive housing. The increasing number of elderly will drive the "silver market", boosting demand for products in diverse fields, such as healthcare, financial services, housing and leisure, thereby driving innovation. The increased costs of a large elderly population would be partially offset by fewer children. For example, an average of 450 public schools closed permanently each year between 2002 and 2020 (MEXT, 2022a). However, a shrinking and ageing population makes it challenging to sustain the GDP per capita level and social insurance systems that provide health and long-term care and income to the elderly. According to national projections, Japan's health and long-term care and pension spending is set to rise by around JPY 17 trillion (2.7% of projected GDP in 2025) between FY2025 and 2040 (Chapter

1). In addition, depopulation in many areas of Japan is making it difficult to efficiently supply adequate public services and is worsening regional disparities, as highlighted in the *2019 OECD Economic Survey of Japan*. Regions facing depopulation report growing problems of unidentified land owners and abandoned houses (*akiya*). A government research institute reported declining quality of services due to labour shortages (Morikawa, 2018). Prime Minister Kishida stated that Japan is "on the brink of not being able to maintain social functions" (Prime Minister's Office, 2023a). The government has also stressed that it respects the diverse values and ways of thinking about marriage and having children. The goal is to remove obstacles for people who wish to have (more) children but believe it is not feasible, thereby supporting the "pursuit of happiness" and reversing the fall in fertility.

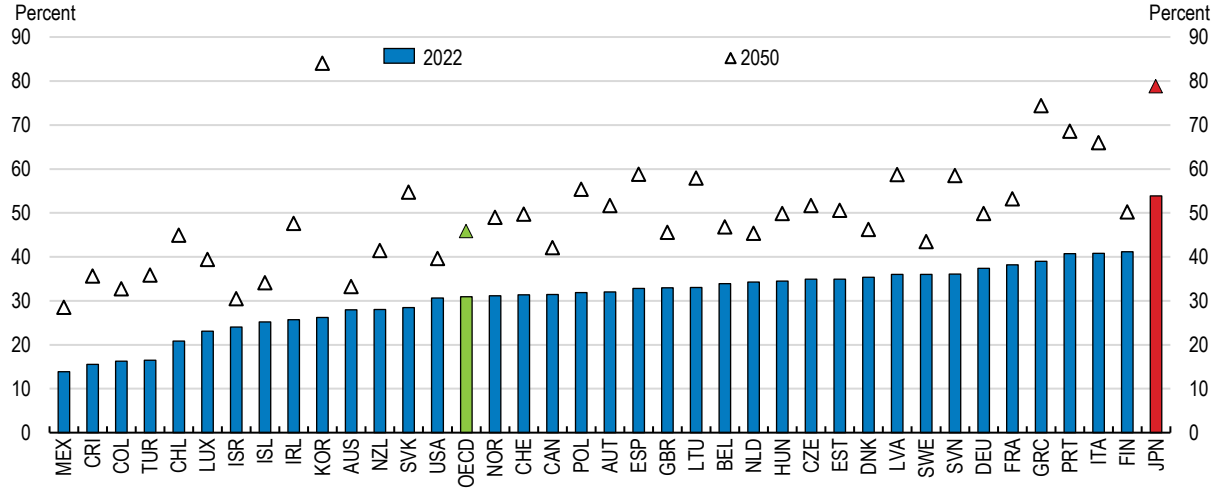
Table 2.1. Japan's population has been ageing rapidly

	Year when share of elderly (65 and over) make up:			Years elapsed	
Country	7% of the population	14% of the population	20% of the population	7 to 14%	14 to 20%
Korea	2000	2018	2025	18	7
Japan	**1970**	**1994**	**2006**	**24**	**12**
Germany	1931	1972	2008	40	36
United Kingdom	1929	1976	2025	47	49
Italy	1927	1988	2008	61	20
United States	1942	2014	2028	72	14
Sweden	1887	1972	2018	85	46
France	1864	1979	2028	115	39

Source: Jones, R. (2022), *The Japanese Economy: Strategies to Cope with a Shrinking and Ageing Population*, London: Routledge Press.

Figure 2.2. Japan's elderly dependency ratio is high and will continue rising

Old age dependency ratio



Note: Ratio of population aged 65 and above to population aged 20-64. Projections are based on medium fertility variant.
Source: OECD Demography and Population Statistics database.

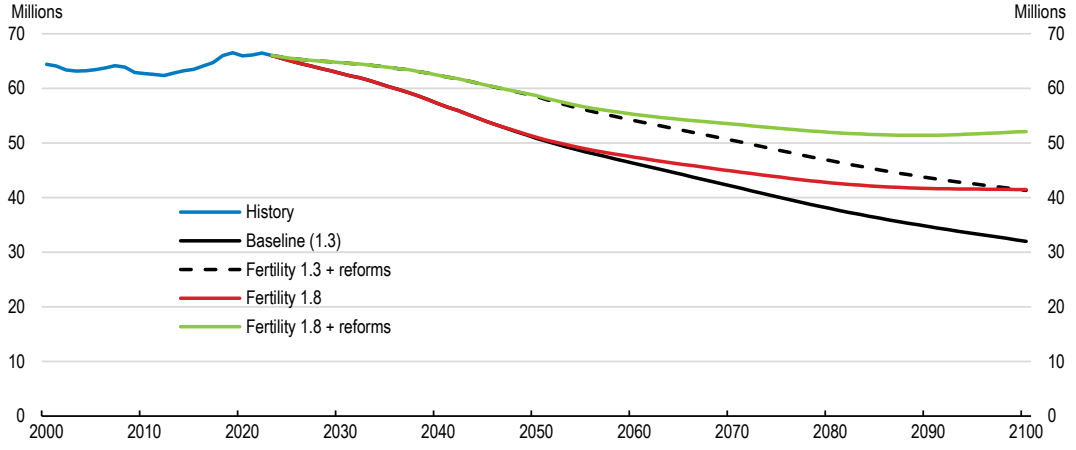
StatLink https://stat.link/bihp01

While the impact of higher fertility and employment rates would be significant, increasing productivity is crucial to addressing Japan's demographic challenge. Indeed, output per hour worked in Japan was 44% below the average of the top half of OECD countries in 2021. Policies to revive Japan's R&D engine and strengthen resource allocation are essential in this regard (Chapter 1). Achieving Japan's objective of "Society 5.0", driven by digitalisation and artificial intelligence, as discussed in the *2021 OECD Economic*

Survey of Japan, will play a key role. Japanese firms are world leaders in robotic technology. In 2020, robot density in Japan's manufacturing sector was the third highest in the world (International Federation of Robotics, 2021) and technology will enable robots to play an increasing role in the service sector and in daily household tasks. Other priorities to boost productivity and make the most of scarce workers include: exit and entry policies, reforming the low-productivity SME sector and improving human capital (*2017 OECD Economic Survey of Japan*); increasing international openness and promoting start-ups and venture-capital backed firms (*2015 OECD Economic Survey of Japan*); and regulatory reform and reform of the education system (*2011 OECD Economic Survey of Japan*).

This chapter focuses on Japan's demographic challenge and suggests policies to mitigate the decline in the labour force. The first section considers trends in the fertility rate and measures to remove obstacles to childbearing. Prime Minister Kishida recently stated, "We must create a children-first economic society and reverse the birth rate decline" (Prime Minister's Office, 2023a). Achieving the government's fertility rate target of 1.8 would not be sufficient to avoid a sharp decline in the labour force. Indeed, if employment rates by age group and net inflows of foreign workers remained constant, total employment would stabilise at just over 40 million by 2080 – a drop of 38% from today (Figure 2.3). Moreover, given the difficulty of raising fertility, which partially reflects changing social norms, and the decades-long wait for a demographic pay-off from higher fertility, it is essential to prepare for a low-fertility future, in part by raising labour force participation. With the employment rate for men aged 15 to 64 already the highest in the OECD at 84% in 2021, such policies should focus on women and older persons, as well as foreign workers. Despite the falling working-age population, employment rose by 5.6% over 2013-21, thanks to increased participation by women and older persons. Policies to further increase their employment are discussed in the second and third sections, respectively. The role of foreign workers in Japan is examined in the fourth section. A comprehensive strategy that includes increases in employment rates and foreign worker inflows would also keep employment just over 40 million in 2100 even if the fertility rate remained around 1.3. If a comprehensive strategy were accompanied by a rise in the fertility rate to 1.8, employment would remain above 50 million in 2100, about a quarter higher than if only the fertility rate increased (Figure 2.3). In sum, Japan should implement policies to reverse the decline in the fertility rate while removing obstacles to the employment of women and older persons and make greater use of foreign workers, which would have a more immediate impact on labour shortages.

Figure 2.3. Reforms to boost fertility, employment rates and foreign worker inflows would mitigate the decline in employment



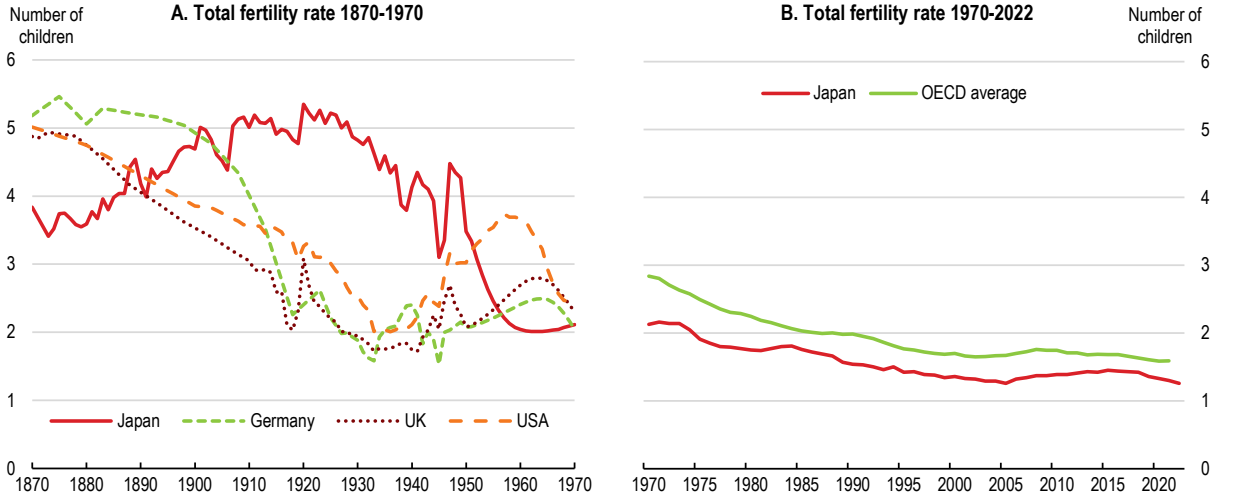
Note: The reforms include; *i)* a doubling of inflows of foreigners to 200 000 per year; *ii)* a convergence of female employment rates to those of men by 2050; and *iii)* the employment rate for each five-year cohort from 60-64 to 70-74 converges to that of the preceding cohort (i.e., the rate for the 60-64 group would rise to the 2021 rate for the 55-59 age group, etc.) by 2050.
Source: OECD calculations based on the OECD Long-term Model.

StatLink https://stat.link/0hjse1

2.1. Reversing the decline in the total fertility rate

Japan's compressed demographic transition (Table 2.1) is explained by its relatively high fertility rate in the first half of the 20th century. A declining fertility rate was a common feature of economic development in major countries beginning in the mid-1800s (Figure 2.4, Panel A). In contrast, Japan's fertility rose, averaging close to five between 1900 and 1940, while the rate fell close to the replacement level in the other countries. Following a post-World War II baby boom, Japan's fertility rate dropped sharply, remaining below two over the past 50 years (Panel B). After a modest rebound during the decade 2005-15, the downward trend resumed, parallel to the decline in the OECD area at large. In 2022, Japan's total fertility rate was a record low 1.26, the fourth lowest among OECD countries. The number of births in Japan fell from 2.7 million in 1949 to below 0.8 million in 2022 for the first time since 1899 and was only half the number of deaths. However, Japan's fertility rate exceeds that in some other advanced Asian economies, such as Singapore (1.1), Chinese Taipei (1.0), Hong Kong, China (0.9) and Korea (0.8), and is in line with China's 1.3.

Figure 2.4. Japan's total fertility rate has remained below two since 1975



Note: The total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in line with age-specific fertility rates in the specified year. Extrapolation filled the missing data points in Panel A.
Source: Doepke et al., 2022; World Bank; OECD, Family database; and Ministry of Labour, Health and Welfare.

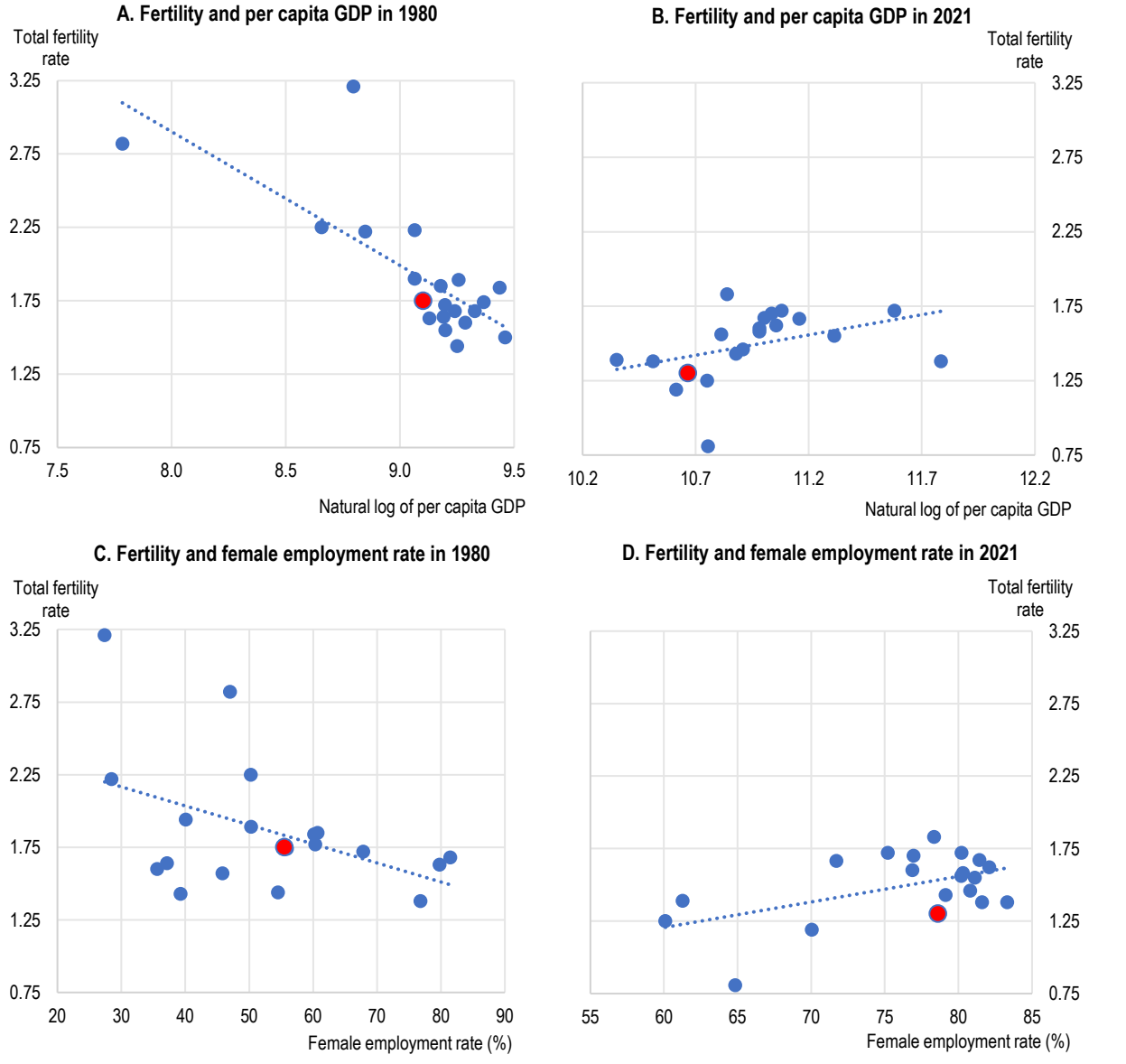
StatLink https://stat.link/p1ofxz

2.1.1. Factors driving the fall in fertility: an international perspective

The cross-country relationship between per capita income and fertility has changed significantly over time. In 1980, it was negative (Figure 2.5, Panel A), as fertility had fallen in high-income countries for more than a century. This was also true within countries, as higher-income parents chose to have fewer children than their lower-income counterparts. The inverse relationship between income and fertility was often attributed to the quantity-quality trade-off, as parents preferred to invest more in fewer children. A second explanation was the rising opportunity cost of children as women's education, employment and wages increased (Becker, 1960). The difficulty of balancing work and family commitments forced many women to choose between leaving their jobs to raise children or forgoing children to continue their careers, thereby leading to fewer births. This was reflected in a negative cross-country correlation between female employment and fertility in 1980 (Panel C).

While the quantity-quality trade-off and the opportunity cost of children still influence fertility rates, they no longer drive them in high-income countries. Indeed, as the fertility rate continued to decline, the cross-country correlation between fertility and per capita income became positive in the mid-1980s (Adema, 2023) and remained so in 2021 (Figure 2.5, Panel B). A similar shift occurred between fertility and female employment (Panel D and Oshio, 2019). This result is also found within Japan: a study of 1 890 municipalities found that municipalities with a higher female labour participation rate tend to have a higher total fertility rate (Kato, 2018), confirming that factors that enable women to combine employment and family responsibilities increase fertility.

Figure 2.5. The relationship of fertility with per capita income and female employment has evolved



Note: The correlation coefficient between fertility and income increased from -0.8 in 1980 to +0.4 in 2021, while the coefficient for fertility and the female employment rate rose from -0.5 to +0.5. The female employment rate is for the 25-54 age group. The figure includes 20 OECD countries for which data are available since 1980 (1983 for Belgium, Denmark, Greece and Luxembourg and 1984 for the United Kingdom). The larger red circles represent Japan.

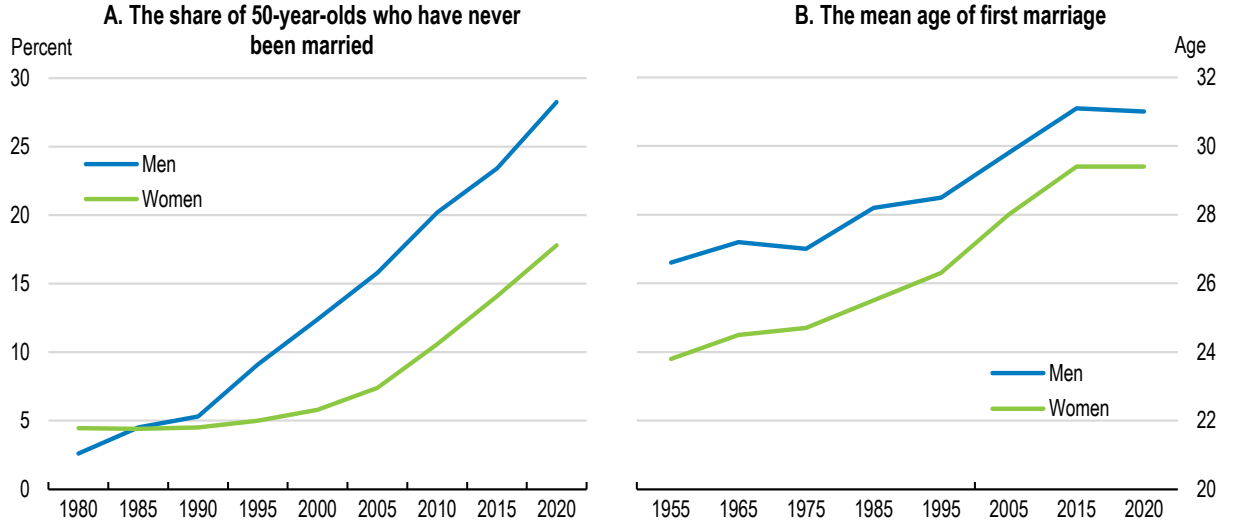
Source: OECD calculations based on data from the World Bank; OECD, National Accounts and OECD, Labour Force Statistics.

StatLink https://stat.link/w9nh3m

2.1.2. Shifting social norms in Japan

Japan's marriage rate halved from ten per 1 000 persons in 1970 to 4.8 in 2019, with a rising proportion of the population never marrying. The share of 50-year-olds who had never married rose from less than 5% in 1980 to 28.4% for men and 17.8% for women in 2020 (Figure 2.6, Panel A). The declining marriage rate is the key driver of low fertility; the share of children born outside of wedlock in Japan has remained around 2% since the 1950s even as the marriage rate declined. The rate of people who remain single is likely to increase further. In 2022, 40.1% of men and 28.9% of women in their 30s had never been married. Among them, only 46% of both sexes wished to be married (Cabinet Office, 2022). As in other countries, life goals other than family and children, such as career advancement, wealth and self-realisation, have gained importance. Japanese who do marry wed at a later age. The rise in the average age of men's first marriage from 26.6 in 1955 to 31.1 years by 2015 and from 23.8 to 29.4 years for women (Panel B) has had a significant impact on fertility. Non-marital cohabitation in Japan is also low. Only around 3% of the 18-34 age group were cohabitating in 2021, according to the National Institute of Population and Social Security Research survey (IPSS) (IPSS, 2022).

Figure 2.6. The share of single persons and the mean age of marriage have risen significantly



Source: Statistics Bureau of Japan (2021), *2020 Population and Households of Japan*; Ministry of Health, Labour and Welfare (2021), *Handbook of Health and Welfare Statistics*.

StatLink https://stat.link/vujhr7

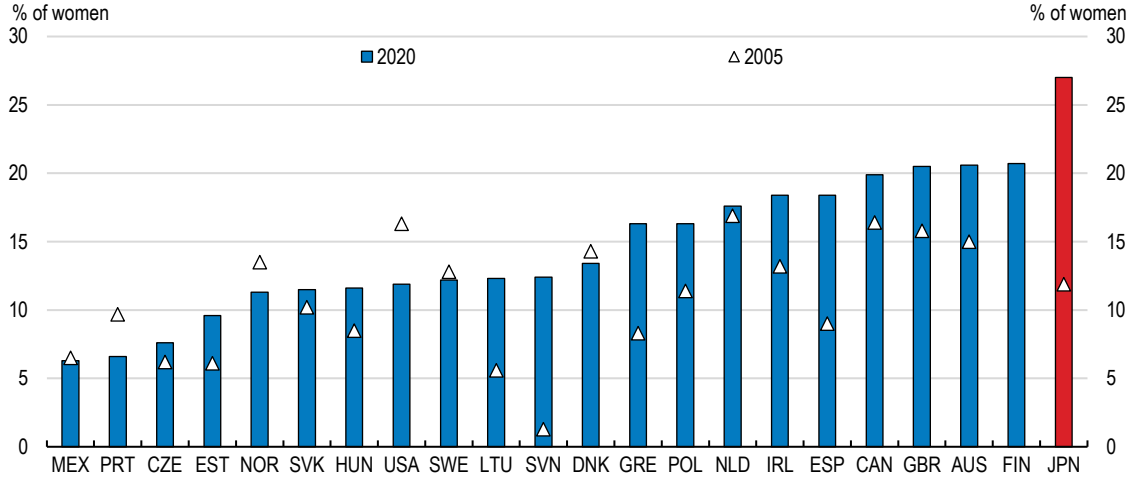
Delayed or forgone marriage has led to a steep rise in childlessness: the share of Japanese women who had not experienced any live births by age 50 increased from 11% in 2005 to 27% in 2020, the highest among OECD countries (Figure 2.7). In contrast, six OECD countries recorded a decline in childlessness between 2005 and 2020. The rise in the share of married couples in Japan who do not have children from 3.8% to 9.9% over 1992-2021 also contributed to the increase in childlessness. The proportion of people who agreed that "married couples should have children" fell from around 85% of both men and women to 37% for women and 55% for men over that period (IPSS, 2022).

A fall in the number of children per woman has also contributed to lowering the average fertility rate. The "completed number of births" (the average number of children born to couples married for 15-19 years) remained constant at around 2.2 between 1977 and 2002 before falling to 1.9 in 2021 (Figure 2.8). The trend decline since 1977 in the number of children born to couples married five to nine years (from 1.9 to 1.6 children) and couples married less than five years (from 0.9 to 0.7) suggests that the completed number of births is likely to decrease further (IPSS, 2022). One factor discouraging parenthood may be increasingly

intensive ("helicoptering") parenting norms. Parenting in Japan tends to be particularly intensive, and it is primarily mothers who look after children's daily needs and help them succeed in a highly competitive education system. A growing share of Japanese men faced with the (opportunity) costs of fatherhood may prompt some men to delay or reject having children because they feel unable to meet current standards of parenting (Doepke et al., 2022).

Figure 2.7. Childlessness is relatively high among Japanese women

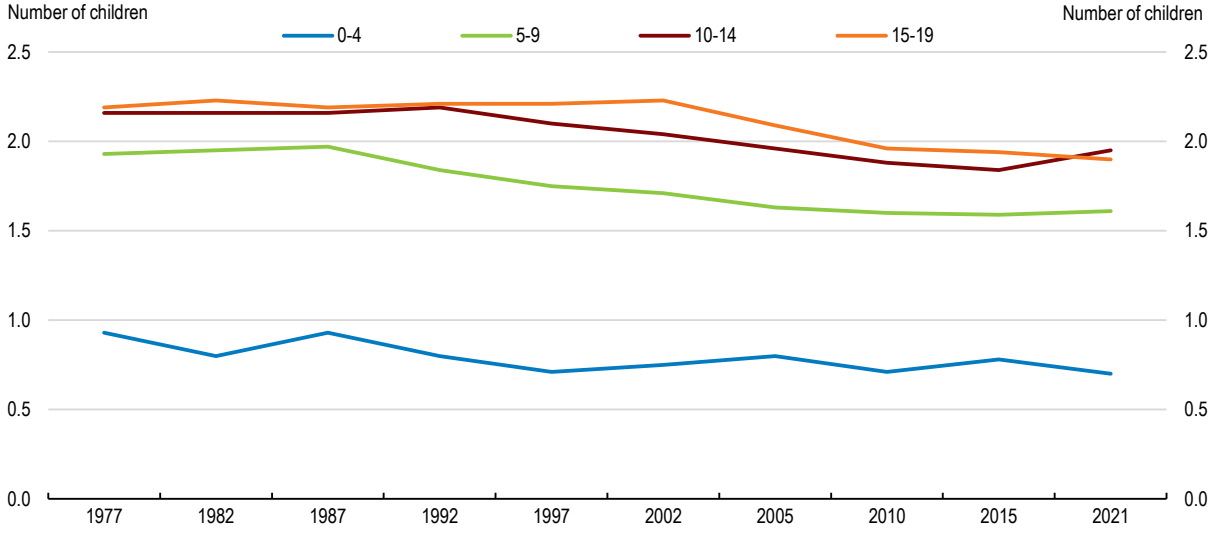
The share of women aged 50 who have not experienced any live births



Note: For women born in 1955 and 1970, thus reaching age 50 in 2005 and 2020, respectively (1955 and 1965 for Canada, Greece, Ireland and Mexico). Data for the United Kingdom include only England and Wales.
Source: OECD, Family Database.

StatLink https://stat.link/fda1sz

Figure 2.8. The number of children for couples by years of marriage has edged down



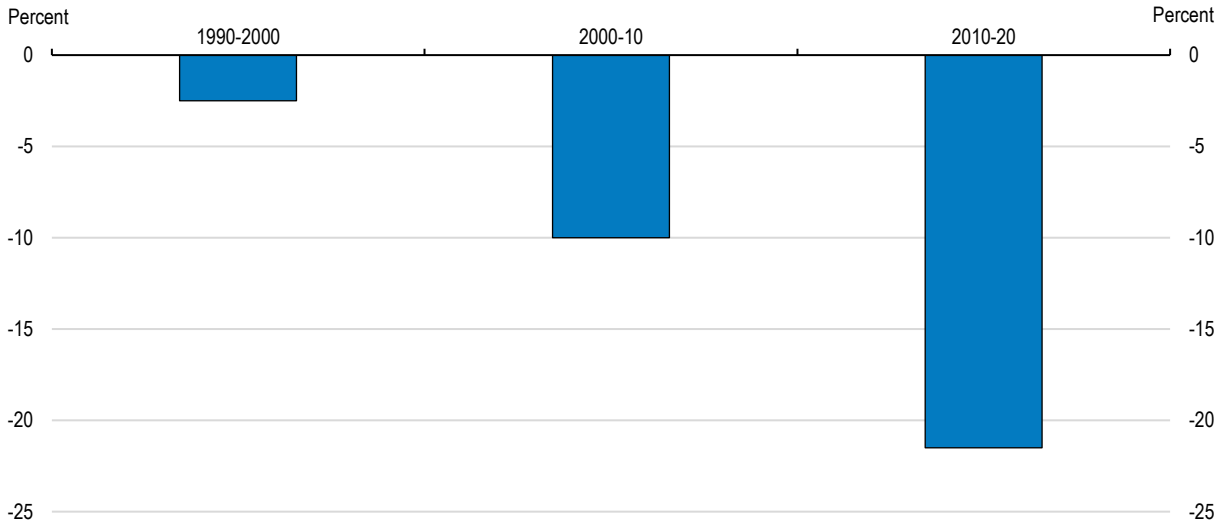
Note: 98% of children are born to married couples.
Source: National Institute of Population and Social Security Research (IPSS) (2022).

StatLink https://stat.link/j1b537

2.1.3. Policies to reverse the fall in Japan's total fertility rate

There is no simple explanation or solution for the low birth rate – it is a combination of complex social issues, despite many initiatives in Japan aimed at raising fertility (Box 2.1). Prime Minister Kishida stated, "In giving thought to the sustainability and inclusiveness of our nation's economy and society, we place child-rearing support as our most important policy" (Prime Minister's Office, 2023a). In addition to economic concerns, the increasing share of single men and women without family support may reduce the well-being and financial security of the elderly. The Prime Minister warned that Japan must address the issue "now or never"; "The next six to seven years are our last chance to see if we can reverse the (fertility) trend" (Prime Minister's Office, 2023b). The sense of urgency comes from the accelerating decline in the number of births (Figure 2.9). The number of live births fell by about 3% in the 1990s, 10% in the 2000s and 21.5% in the 2010s. If this trend continues, the number of births will fall at twice that speed in the 2030s.

Figure 2.9. The decline in the number of births is accelerating



Source: Cabinet Secretariat (2023a).

StatLink https://stat.link/f4rued

Nagi, an agricultural village of less than 6 000 people located 150 kilometres from Osaka and close to a Self-Defence Forces base, tried out a range of measures that contributed to an increase in its fertility rate from 1.4 in 2005 to 2.7 in 2021. First, childcare is inexpensive and flexible. Parents can leave their children at a childcare facility where mothers, staff and older volunteers watch their children for JPY 300 (USD 2.30) per hour. Second, Nagi provides a one-off payment of JPY 100 000 (USD 759) on the birth of each child. Third, Nagi provides support to reduce costs to families. For example, children receive free healthcare up to the age of 18, school meals are subsidised and three-bedroom apartments are available at a low monthly rent. In addition, an allowance is given for home childcare. Fourth, Nagi provides a subsidy for infertility treatment (Okamoto et al., 2019).

Changes in the fertility rate lead to large differences in population size over the long run (Figure 2.11, Panel A). If the rate rose to the government target of 1.8, set by former Prime Minister Abe, Japan's population would be 87 million in 2100, 27% above the baseline scenario of 68 million with the fertility rate remaining at 1.3. In contrast, if the rate fell to 0.8 (the rate in Korea), the population would be only 52 million in 2100. Changes in fertility influence the employment rate from 2050. With constant employment rates by gender and five-year age cohorts, employment in 2100 would be 30% higher (lower) under the 1.8 (0.8) fertility assumptions (Panel B).

Box 2.1. Government policies aimed at increasing the fertility rate

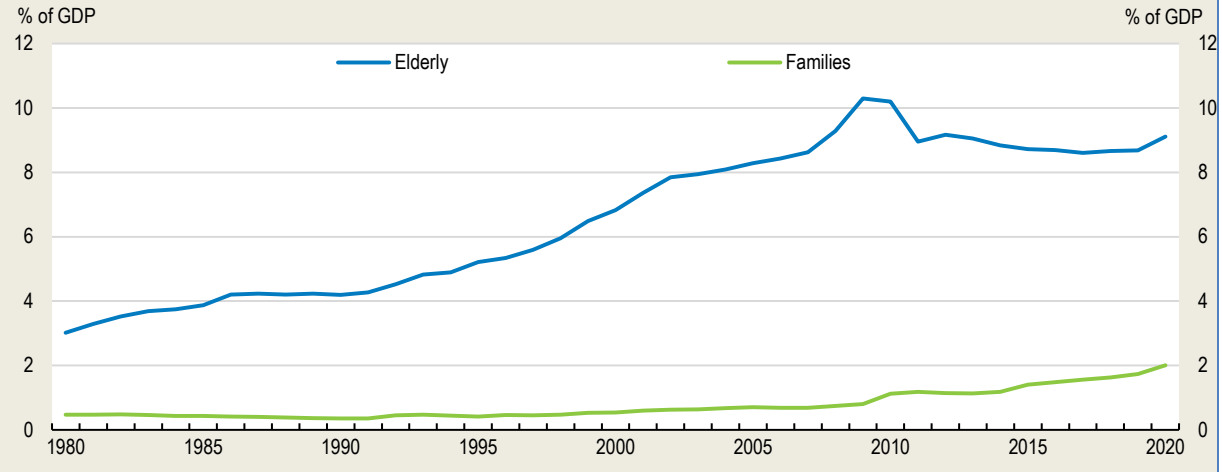
Whether deliberately or not, policies shape the environment in which childbearing decisions occur. Following the "1.57 shock" in 1989, when the fertility rate reached a then record low after 20 years of decline, the government launched the Angel Plan in 1994, followed by the New Angel Plan in 1999. Both plans aimed to make it easier to raise children by:

- Enhancing access to childcare services.
- Strengthening maternal and child healthcare facilities.
- Improving housing and public facilities for families with children.
- Promoting child development and improving the educational environment.
- Reducing the economic cost associated with child-rearing, including education.
- Making the employment environment more flexible for parents.
- Changing traditional gender roles and the work-first atmosphere in workplaces.

The Angel Plans were followed in 2009 by the Plus One Proposal. It aimed to increase family size by creating parent-friendly working conditions, partly by expanding childcare capacity by 50 000. A monthly allowance per child was introduced in 2010. Currently, the government offers JPY 10 000 to 15 000 (USD 75 to 113) per month for each child until graduation from middle school, with some limitations on higher-income families (the allowance is reduced to JPY 5 000 if the annual income of the head of household is JPY 9.6 million or more, and eliminated if it exceeds JPY 12 million).

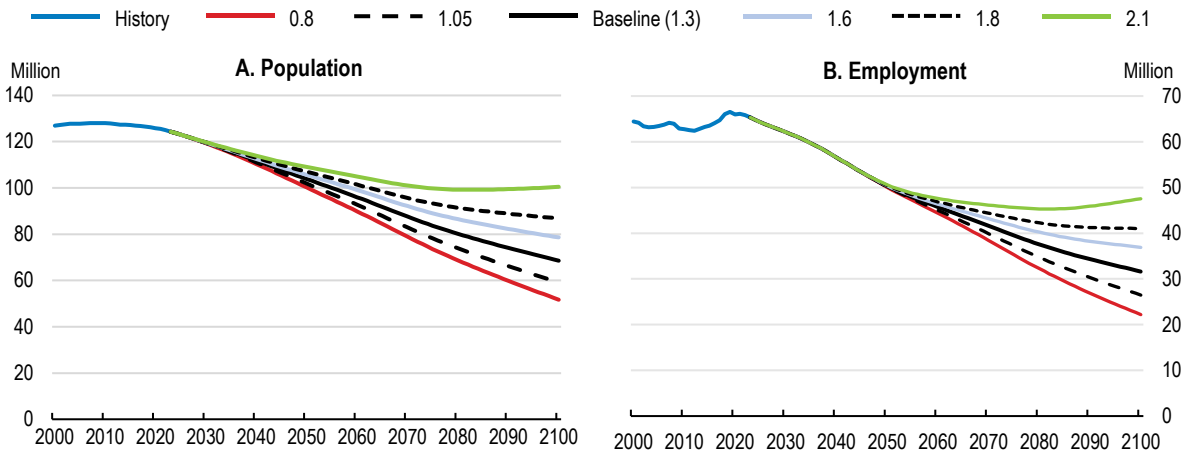
The government introduced additional measures during the Abe administration. *First*, Japan added 530 000 childcare places over FY2013-17, aiming to eliminate waiting lists by 2018. With waiting lists still significant, the 2017 "New Economic Policy Package" pledged to add another 320 000 childcare places to eliminate the waiting lists by FY2021, but fell short of this objective. *Second*, the government introduced free early childhood education and care for children aged three to five in 2019. *Third*, the authorities set a target of raising the share of fathers taking parental leave from 6% to 13%. Such measures boosted government spending on children and families from 0.6% of GDP in 2003 to 2.0% in 2020 (Figure 2.10). Despite these increases, spending on the elderly remained more than four times higher than on children and families.

Figure 2.10. Government spending on elderly far outpaces outlays for families



Source: National Institute of Population and Social Security Research (2021), *The Financial Statistics of Social Security in Japan FY2020*.
StatLink https://stat.link/65syz3

Figure 2.11. Population and labour force projections under different fertility scenarios



Source: OECD calculations based on the OECD Long-term Model.

StatLink https://stat.link/vr5phw

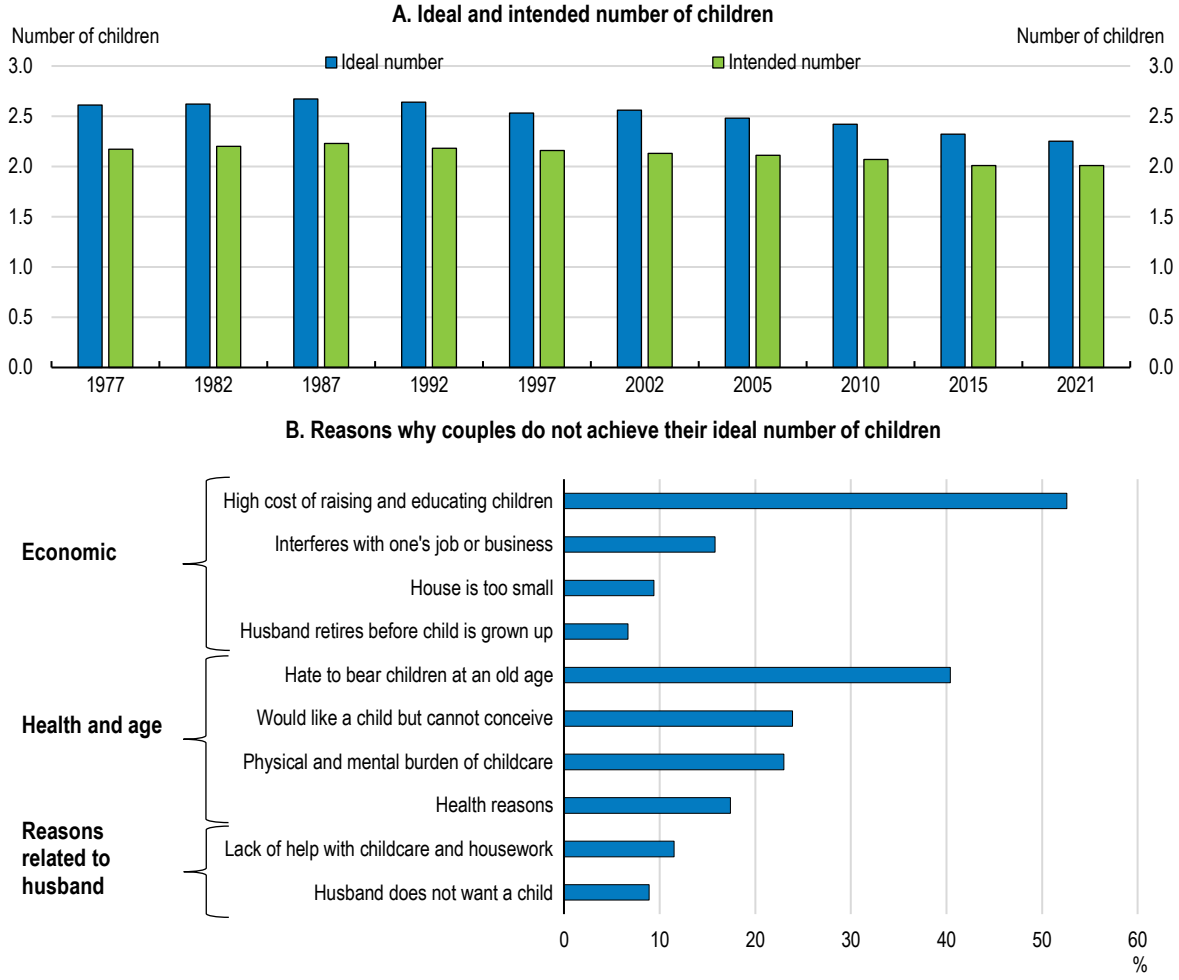
The IPSS survey of married couples taken every five years found that their ideal number of children declined from 2.6 in 2002 to 2.25 in 2021, still well above the replacement rate (Figure 2.12, Panel A). Moreover, their intended number of children fell only slightly from 2.1 to 2.0 over the same period. Therefore, the challenge is to enable families to have their desired number of children. In 2023, the government announced a package of measures to reverse the fertility decline (Box 2.2).

A wide range of factors influence fertility. First, the financial insecurity of young people forces a growing number to delay or abandon marriage. Second, economic factors, such as the high cost of raising and educating children and the lack of housing space, were cited as key obstacles in the IPSS survey (Figure 2.12, Panel B). Third, the negative impact of children on careers and businesses was cited by 16% of women in the survey. The 1992 survey found that half of women agreed that husbands should be the primary breadwinners and women should take care of the home. By 2021, that figure had fallen to 12% (IPSS, 2022). Women's expanding role in the labour market makes it increasingly important to enhance the compatibility between employment and family obligations. Fourth, the IPSS survey also cites several issues related to health and infertility, which are linked to the trend toward delayed marriage, reflecting in part the financial insecurity of young people that delays family formation.

Strengthening the financial situation of young people

Given that 98% of births are to married couples, policies that remove obstacles to marriage, particularly at a younger age, would boost the fertility rate. In the 2021 IPSS survey of single persons between the ages of 18 and 34, 84% of women and 81% of men said that they planned to get married eventually, and their desired number of children was 1.8 on average (IPSS, 2022). In a 2019 government survey that asked single young people, "What conditions are needed for you to consider marriage?", the most common response, at 42%, was "being financially comfortable". Another 10% cited the challenge of finding suitable housing (Cabinet Office, 2019). Addressing the financial obstacles resulting from low and unstable incomes despite long working hours would boost fertility. The first basic principle of children and child-rearing policy announced in March 2023 is to "increase the income of the young generation" (Cabinet Secretariat, 2023a).

Figure 2.12. A number of factors result in a gap between the actual and ideal number of children



Note: Panel B shows a survey of married women under 50 and whose intended number of children is less than their ideal number. As multiple answers were permitted, the total exceeds 100%. In addition, 8.2% responded that they wanted to focus on themselves and 5.0% said the social environment is not suitable for children.

Source: National Institute of Population and Social Science Research (IPSS) (2022).

StatLink https://stat.link/exsf3c

Box 2.2. The government's new plan to increase the fertility rate

The government established the Children and Families Agency on 1 April 2023 by combining offices responsible for child-related policy across the government into one organisation. The Basic Act on Children's Policy, which promotes child-related measures, came into effect at the same time. The "Acceleration Plans for Child and Childrearing Support", first announced in June 2023 and updated in the December 2023 as the "Strategy for Children's Future", contains the following measures.

Strengthening financial support for childrearing

- Expand the child allowance: *i)* the income test will be eliminated; *ii)* its coverage will be extended to high school-age children; and *iii)* the allowance will be increased for the third and subsequent children.
- Increase the lump-sum childbirth and nursing allowance from JPY 420 000 to 500 000 (USD 3 846). Strengthening support for childbirth, including extending the public medical insurance to cover the cost of childbirth, will be considered.
- Eliminate the reduction in subsidies for children's medical expenses and provide better healthcare for children.
- Expand scholarships and tuition reduction to middle-income households with multiple children and/or students studying science, engineering or agriculture and introduce "after-graduation payment of tuition fees", beginning initially at the master's degree level.
- Raise housing support for families with children and boost the capacity of child-friendly housing.

Expanding support for households with children

- Expand seamless support during pregnancy and after birth.
- Improve the quality of childcare, in part by changing the ratio of caregivers to children (for one-year-olds, the standard is changed from six children per childcare worker to five).
- Establish a "system for all children to go to nursery school or kindergarten" (tentative name).
- Meet diverse needs, including children with disabilities, those who are receiving medical care and children who require specialised support.

Promoting dual income households and co-parenting

- Consider boosting the FY2025 target for the share of private-sector male employees taking parental leave from 30% to 50% (85% for civil servants) and setting an 85% overall target for FY2030.
- Consider raising parental leave benefits to 100% of take-home for 28 days to encourage both parents to take parental leave.
- Significantly strengthen subsidies for SMEs that develop systems to support parental leave.
- Consider creating a system allowing a flexible work schedule for parents with children from age three until they enter primary school.
- Establish benefits for parents who work fewer hours while their children are under age two.
- Exempt self-employed and freelancers from paying National Pension contributions during childcare.

Raising awareness to create a society that is friendly to children and child-rearing

- Expand the "Children's Fast Track" at national facilities and other public and private facilities, taking into account the needs of users.

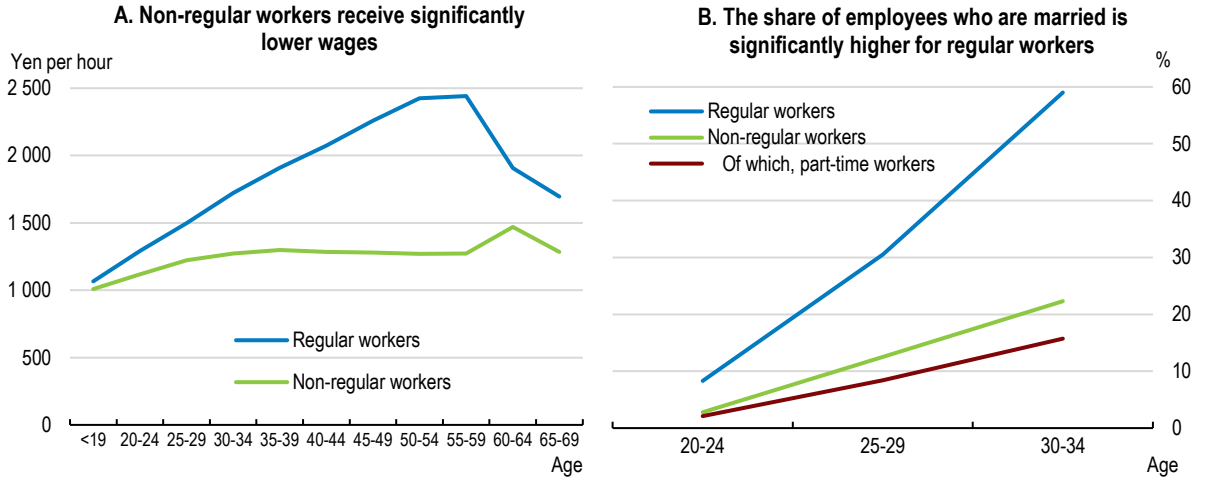
The government released the "General Principles for Child-related Measures" in December 2023, in accordance with the Basic Act and reflecting the opinions of children, those raising children and persons with relevant expertise.

Source: Government of Japan (2023a; 2023b and 2023c); Children's Future Strategy Council (2023).

Stronger economic growth would improve the financial position of young people and thus reduce obstacles to marriage and children. In addition, a number of policies would help in this regard:

- *First*, the seniority-based wage system tends to pay young workers less than their productivity while paying older workers more. Reducing the importance of seniority in wage-setting would increase the income of young people and increasing the weight of performance and job category in wage-setting would enable Japan to better utilise its human capital and raise productivity (see below).
- *Second*, the share of non-regular workers among the 15-24 age cohort has risen from around 20% in 1985 to 50% by 2022. For the 25-34 age group, it rose from 3% to 14% for men and from 25% to 31% for women over the same period. In addition to their precarious nature, non-regular jobs pay significantly lower wages than regular ones (Figure 2.13). The earnings gap is even wider as most non-regular workers do not receive bonus payments, which account for about 20% of annual wages, and separation payments. Given their higher incomes, regular workers in the 25-29 and 30-34 age groups are 2½ times more likely to be married than non-regular workers (Panel B). Policies to break down labour market dualism would also promote female employment (see below).
- *Third*, wealth inequality has risen significantly among young age cohorts; the share of households in the 25-35 age group with zero wealth increased from 5% in 1984 to 9% in 2014 and the Gini coefficient for wealth in that age group rose from 0.51 to 0.61 (Kitao and Yamada, 2019). Broadening the base and scaling back deductions of the inheritance tax would help reduce inequality, as recommended in the 2019 *OECD Economic Survey of Japan*. Only 8% of deceased persons in 2017 were subject to the inheritance tax. Using the additional revenue to help low-income youth would reduce obstacles to marriage and children.
- *Fourth*, it is crucial to address the issue of *hikikomori*, who are defined as individuals who refuse to leave their parents' house, do not work or go to school and isolate themselves for more than six months, according to the guidelines for the evaluation and support of *hikikomori*. A 2016 Cabinet Office survey estimated that more than half a million persons between the ages of 15 and 39 (1.6% of the total) were *hikikomori (*Tajan et al., 2017). The problem of shut-ins has been exacerbated by COVID-19. A 2023 Cabinet Office report estimated that around 2% of persons aged 15 to 39 were *hikikomori* (Cabinet Office, 2023). More use of teleworking and flexible working styles would help integrate *hikikomori* into society.

Figure 2.13. The low wages of non-regular workers increase the share who are single



Note: Panel A shows scheduled cash earnings divided by the actual number of scheduled hours worked in 2018. Earnings exclude overtime and bonus payments.
Source: Jones (2022); Cabinet Secretariat (2023b).

StatLink https://stat.link/1noksm

Supporting families and children

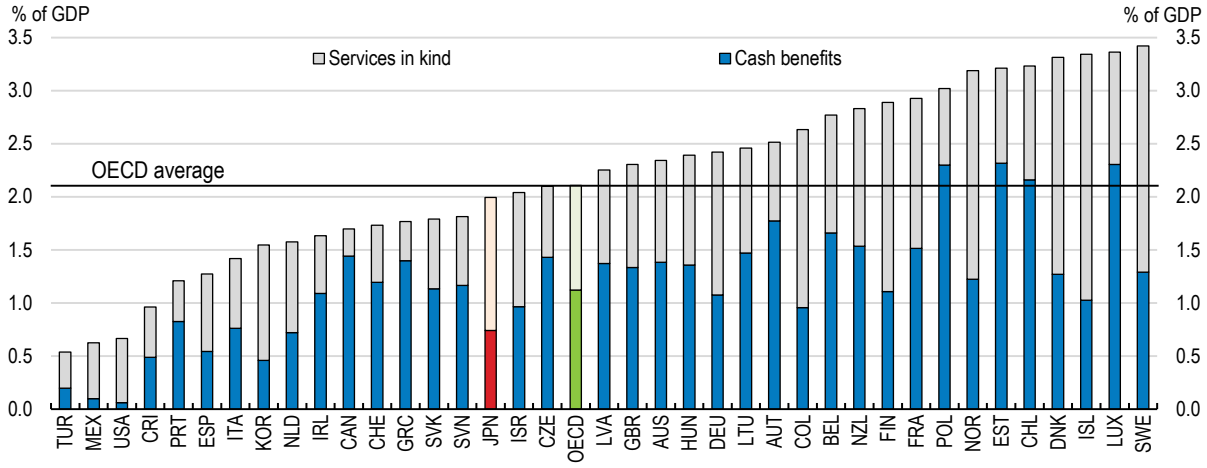
In a 2019 government poll, only 30% of adults agreed that Japan is moving toward a society that is friendly toward marriage, pregnancy, children and childbearing (Cabinet Office, 2019). Family policies can partially offset the cost of children, forgone earnings and career advancement, skill depreciation and the non-pecuniary burden of parenthood. Government spending on family support rose from 0.5% of GDP in 2000 to 2% in 2020, but remains slightly below the 2.1% OECD average (Figure 2.14). Some of the countries with the highest family support spending, such as France (Box 2.3) and Iceland, have been able to sustain high fertility rates (OECD, 2023a). In an international survey in 2020, only 38% of Japanese agreed that it was easy to raise children, compared to 77% in Germany, 82% in France and 97% in Sweden (Cabinet Office, 2021). The government is planning a large increase in spending on children and families.

Early childhood education and care and care for elderly relatives

Public expenditure on early childhood education and care (ECEC) has a stronger upward effect on fertility rates than child allowances, as it makes career and family commitments more compatible (OECD, 2023b). In Japan, government spending on in-kind support for early childhood education and care rose from 0.3% of GDP in 2000 to 0.8% in 2019 (Table 2.2), matching the OECD average. The expanded capacity boosted the share of children below age three enrolled in institution-based childcare from 16% in the early 2000s to 41% in 2019. The expansion of early childhood education and care has been linked to a small but significant rise in fertility in regions where women are most likely to participate in the labour market, with the strongest effect on first births, during the decade 2000-10. However, it had no effect in other regions (Fukai, 2017) and has not succeeded thus far in reversing the nationwide decline in the fertility rate.

Figure 2.14. Public expenditure on family support in Japan is relatively low

2020 or latest year



Note: The figure does not include tax breaks for families, which amounted to 0.3% of GDP in Japan in 2019, close to the 0.2% of GDP average.
Source: OECD, Family Database.

StatLink https://stat.link/mghc9n

Childcare capacity increased by 0.79 million over FY2013-21, boosting total capacity by about one-third to 3.2 million (Box 2.1). Enrolment rose nearly a quarter over that period (Figure 2.15) despite the falling number of children. The expansion of childcare facilitated an increase in the employment rate for women aged 25 to 44 from 68% in 2013 to 79% in 2022, in a context of significant labour shortages. With the sharp expansion in childcare facilities, enrolment fell from 95% of capacity in FY2013 to 91% in FY2017 and 87% in FY2021. The number of children under the age of one in childcare declined by 4% in FY2021, reflecting the impact of the COVID-19 pandemic. The waiting list for childcare dropped from 22 700 in FY2013 to 2 900 in FY2022. The oversupply of childcare on a nationwide basis is likely to increase in the future (Nihon Keizai Shimbun, 2021).

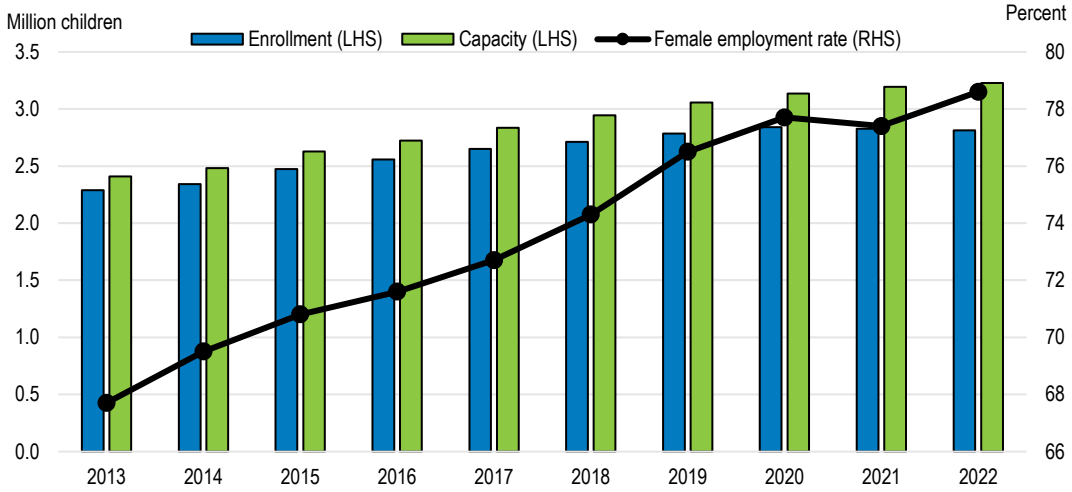
Table 2.2. Public spending on family policies in Japan has risen considerably since 2000

As a percentage of GDP

	2000	2019
Cash benefits	0.2	0.7
Family allowances	0.1	0.5
Child allowance	0.1	0.4
Social allowance	0.1	0.1
Maternity and parental leave	0.0	0.2
Benefits in kind	0.4	1.1
Early childhood education and care	0.3	0.8
Home help/accommodation	0.0	0.1
Other benefits	0.1	0.1
Total	**0.5**	**1.7**

Note: In addition, Japan's tax benefits to families with children amounted to 0.3% of GDP in 2019, close to the OECD average.
Source: OECD, Social Expenditure Database.

Figure 2.15. Childcare enrolment and capacity and female employment have risen



Note: Enrolment is for children age 0 to 5. The female employment rate is for the 25 to 44 age group.
Source: Ministry of Health, Labour and Welfare.

StatLink https://stat.link/zapmte

While there is excess capacity overall, 14% of Japan's 1 741 municipalities have waiting lists for childcare. Even though the waiting lists have less than 100 children in all but three cities, this indicates a mismatch of supply and demand. Approximately 60% of the children on waiting lists were in urban areas (Nippon.com, 2022). Given that the 0.79 million increase in childcare capacity over FY2013-21 only reduced the waiting list by around 20 000, there appears to be considerable latent demand for childcare. Moreover, the plan to allow mothers not in the labour force to use public childcare facilities to reduce loneliness for stay-at-home mothers (Box 2.2) may boost demand. The government plans to expand capacity further by 140 000 by FY2024. Targeting additional capacity on areas with existing or expected shortages is crucial. In addition, Japan faces a shortage of caregivers. The government plans to raise the number of childcare personnel by 25 000 by improving working conditions, supporting the acquisition of credentials by prospective workers, retaining a higher share of workers and recruiting retired childcare personnel. Boosting wages ought to be a key part of this initiative.

The provision of free early childhood education and care for children aged three to five in 2019 further boosted government spending on children and reduced financial burdens on parents. It had little impact, though, on enrolment, which was already over 90% for that age group. According to a 2022 government survey, about one-fifth of parents raised their ideal and intended number of children due to free early childhood education and care for the three-to-five-age group (Fukuda et al., 2022). However, the experience of Korea, which introduced free early childhood education and care in 2012, suggests that such policies alone are not sufficient to boost fertility or even prevent a decline.

Although Japan introduced long-term care insurance in 2000, families still play a key role in providing care to elderly relatives. In 2016, three-quarters of workers who left their jobs to provide long-term care were women, and 74% of them were between the ages of 30 and 60 (OECD, 2018a). A study found that employed women who began providing five or more hours of long-term care per week were significantly more likely to leave their jobs than women providing less care (Kikuzawa and Umemura, 2020). Rapid population ageing and the increased emphasis on home-based care for the elderly may make long-term care a more serious obstacle to female employment.

Box 2.3. Public support for children and families in France

France stands out among OECD countries because of its relatively high and stable total fertility rate, which reflects its family policies. After a steep drop at the beginning of the 1960s, France's fertility rate stabilised in the mid-1970s and has since remained steady at 1.8-2.0 children per woman. At 1.8 in 2020, France had the third-highest fertility rate in the OECD area. A large proportion of women have two or three children and few remain childless. France's elderly dependency ratio is projected to be close to the OECD average at around 50% in 2050 (Figure 2.2).

France's extensive and long-standing consistent family policies contribute to the high and stable fertility rate. In 2019, France's public spending on families, including tax breaks for families, was the highest in the OECD at 3.4% of GDP, well above the OECD average of 2.3% and Japan's 1.9%. A relatively large share of spending takes the form of tax breaks, which tend to favour high-income households. Lower-income families receive significant financial support through social assistance, housing subsidies and other means-tested benefits.

Outlays on families amounted to 2.7% of GDP, compared to 2% in Japan in 2020 (Figure 2.14), and finance parental leave, childcare services and a family allowance. Childcare services focused on preschool education (*école maternelle*), which is free for all children aged three to six. A working parent who meets the eligibility conditions is entitled to parental leave for up to three years and can return to the same or a similar position with the same employer. Parents receive a payment during leave that is close to half of the minimum wage. All families with two or more children receive a family allowance. Cash allowances to families have fallen from 2.0% of GDP in 1980 to 1.3% in 2019, but remain close to the OECD average.

France has provided a diversified system of supplementary resources in the form of money and services needed to raise children. While it is difficult to calculate the impact of specific policies, the provision of childcare services appears to be the most effective in encouraging families to have children and women to remain in the workforce. France's success reflects the stability of family policies based on strong popular support. This stability gives confidence to families that they will benefit from continuous support from the birth of a child until entry into the school system and beyond. Such confidence creates a favourable environment for having children.

Source: Thévenon (2016).

While an enhanced role for home-based care is essential to contain the soaring cost of long-term care and improve the well-being of the elderly, it is important to avoid discouraging female employment (Chapter 1). The government's 2016 "Plan for Dynamic Engagement of All Citizens" set an objective that "No one will be forced to leave their jobs to provide nursing care". However, only 3.2% of workers with long-term care responsibilities in 2017 took advantage of the provisions in the Child Care and Family Care Leave Act (Ikeda, 2017). The revision of the Act in 2017 allows workers to take long-term care leave three times for up to 93 days in total and exempts them from overtime work. It is important to increase awareness of long-term care leave entitlements among companies and workers and to provide incentives to promote its use. A key problem is the shortage of long-term caregivers in Japan, suggesting the need for more foreign caregivers. In July 2023, a Ministry of Health, Labour and Welfare panel launched discussions on whether to allow foreign workers to make home visits to provide long-term care for the elderly.

Parental leave

Public expenditure on parental leave also has a positive association with total fertility rates in OECD countries (OECD, 2023b). In Japan, both men and women have the right to parental leave, which can be taken consecutively or in tandem until the day before the child's first birthday. Parental leave of up to 12

months for fathers in Japan is the longest among OECD countries and well above the OECD average of about ten weeks. However, fathers' take-up of parental leave is relatively low, despite increasing from 7% in 2019 to 17% in 2022, compared to 80% for mothers (Figure 2.16, Panel A). In contrast, fathers' share is as high as 40% or more in some Nordic countries and Portugal. More than half of Japanese men using parental leave in 2021 took less than two weeks (Panel B). In contrast, nearly 80% of mothers take at least ten months of leave. OECD research shows that fathers who take parental leave are more likely to be actively engaged in childcare and tend to stay more involved with their children, which is beneficial for fathers, mothers and children (OECD, 2016a). In Nordic countries, flexibility in taking parental leave and generous benefits promote high take-up (Box 2.4).

Box 2.4. Parental leave policies in Sweden and Norway

In 1974, Sweden was the first country to introduce paid parental leave for both mothers and fathers. The total length is now 480 days. However, each parent is limited to 390 days, resulting in 90 days of exclusive leave that their partner cannot use. The introduction of parental leave reserved for fathers has induced a majority of fathers to take parental leave. Indeed, fathers currently account for about one-third of parental leave days taken in Sweden. Despite the exceptionally long length, each parent can receive up to 80% of their previous earnings for 390 days of parental leave, followed by a flat rate. Parents can take parental leave until their child is 18 months old.

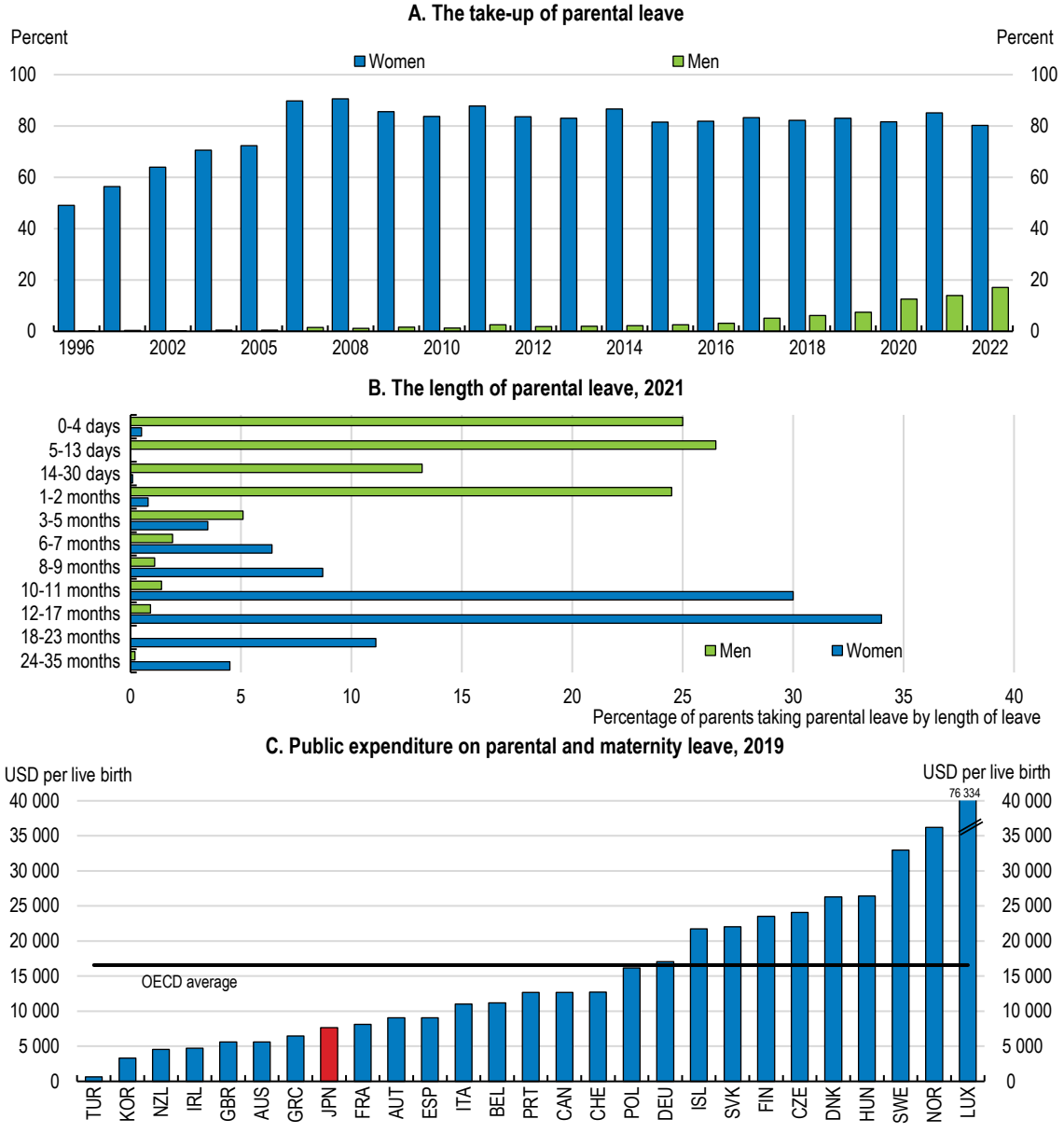
The Norwegian parental leave system also has exclusive leave entitlements for fathers (15 weeks) and mothers (18 weeks, including three weeks before birth). In addition, parents are entitled to a fully sharable period of 16 weeks, making a total of 49 weeks of parental leave. While the maximum parental leave for fathers, at 31 weeks, is shorter than the one year allowed in Japan, men took 38% of all parental leave days taken in 2022 in Norway, which is more than men in other OECD countries. However, while 90% of men take parental leave, 70% stop once the leave reserved for fathers is exhausted. The parental leave system provides flexibility; parents can combine part-time leave with part-time employment after the first six weeks. Benefits are exceptionally generous, providing 100% of previous earnings up to a ceiling close to Norway's average gross monthly earnings. Parental leave can be lengthened to 59 weeks if benefits are limited to 80% of previous earnings. Parental leave entitlement can be taken up to a child's third birthday (OECD, 2023a).

According to the OECD Family Database, the average payment rate for parental leave reserved for fathers in Norway and Sweden was 100% and 76%, respectively, of previous earnings in 2022, compared to 61% in Japan. While the parental leave reserved for fathers in the two Nordic countries is shorter than the 52 weeks in Japan, the higher payment rate encourages more fathers to take parental leave. The higher benefits and higher take-up in Norway and Sweden lead to significantly greater spending. Indeed, their spending on maternity and parental leave in 2019 was about 4.5 times higher (in USD terms) per live birth than in Japan (Figure 2.16 Panel C).

An important obstacle to parental leave in Japan is the financial and professional sacrifice it entails. In a 2020 government survey, 41.4% of the men did not take parental leave because they did not want to lose income (Cabinet Secretariat, 2023b). Fathers receive 67% of their earnings for the first 180 days and up to 50% for the remainder up to certain ceilings. The "average payment rate" (the proportion of previous earnings replaced by the benefit over the length of the paid leave entitlement for a person earning the average full-time earnings) was 61% in Japan in 2022. Another 27.3% of the men who did not take leave blamed their employers for making it difficult. Another common concern is the risk of negative career repercussions, given that traditional Japanese corporate culture discourages absences. Although discrimination against parental-leave takers is forbidden, 14.6% of men feared a negative effect on promotions and salaries, as they may be ostracised for not being a team player, and 7.2% were concerned

about losing their job. Moreover, many companies do not inform their employees of their right to take parental leave nor encourage them to use it. In the survey, 21.3% said their employer did not have a system to accommodate parental leave. Consequently, taking leave would impose heavy burdens on their colleagues, as firms may not hire replacements. Around 22% said they had assignments that only they could complete and 21% cited the heavy workload as a reason for not taking leave. Public expenditure on maternity and parental leaves per live birth in Japan was below the OECD average in 2019 (Figure 2.16, Panel C).

Figure 2.16. The take-up of parental leave by men is low and the duration is short



Note: Panel C shows public expenditure on maternity and parental leaves per live birth in 2019, in equivalent USD converted using 2015 purchasing power parities.
Source: Ministry of Health, Labour and Welfare; and OECD, Family Database.

StatLink https://stat.link/jcn7zo

The government launched *Sango-Papa-Ikukyu* in October 2022. It provides four weeks of paternity leave for fathers during the first eight weeks following the birth, with the benefit set at 80% of wages. In addition, companies are required to inform employees about their right to parental leave and have supervisors ask employees about their intentions. While this may boost the share of fathers taking leave, it is unlikely to lengthen its short duration.

In June 2023, the government indicated that it is considering an increase in the FY2025 target for the take-up of parental leave by men to 50% and setting an overall objective of 85% by FY2030. It proposed several initiatives to achieve these targets (Box 2.2): *i)* providing benefits equal to 100% of take-home pay for 28 days if both parents take leave; and *ii)* granting subsidies to ease the financial burden of parental leave on SMEs, which are most vulnerable to labour shortages. Moreover, SMEs have more non-regular workers (fixed-term, part-time and atypical). Large firms have taken the lead in providing parental leave for their employees. A survey of firms found that the share of eligible male workers taking parental leave in FY2020 exceeded 30% in 42 of Japan's leading firms, and topped 70% in 20 of them (Asahi Shimbun, 2022). Increasing the benefits paid to parents who take parental leave would help overcome men's concerns about extended work absences. The cost of higher benefits and longer leaves requires hiking the contribution rates paid to the Employment Insurance Fund, which finances the leave.

Child allowances

Spending on child allowances increased from 0.1% of GDP in 2000 to 0.4% in 2019 (Table 2.2). The government's June 2023 plan (Box 2.2) calls for expanding the allowance by eliminating mean testing and raising the eligibility age to 18. In addition, the Tokyo metropolitan government plans to introduce a monthly allowance of JPY 5 000 for every child up to age 18 in 2024, regardless of household income.

The central government's plan to expand the child allowance could cost JPY 2-3 trillion, which is about half of the budget for child-related policies in FY2023. Cash transfers to families with children, such as family or child allowances, lower the cost of having children, which tends to raise fertility rates. However, their impact on fertility is negligible in Japan, with an elasticity of only 0.1-0.2, which is consistent with estimates from other countries, including Canada, Germany, Israel and Spain (Yamaguchi, 2021). Moreover, any impact is only transitory (Bergsvik et al., 2021). In practice, parents tend to spend the transfers on their existing children, rather than having more children. In addition, generous transfers may push women out of the labour market (Bargu and Morgandi, 2018). Public spending on childcare is five times more effective than child allowances in raising fertility in Japan (Yamaguchi, 2021). In addition, tax exemptions for children do not significantly affect fertility (Bergsvik et al., 2021).

While the impact on fertility tends to be small and only temporary, targeted child allowances can reduce child poverty. In 2018, Japan's relative poverty rate (an income below half of the national median) for children aged 17 and under was 14%, slightly above the OECD average. The rate for children in single-parent households is the highest in the OECD at 48%, even though the government provides allowances for single parents. Carefully targeted child allowances in Japan would help reduce poverty and improve the prospects for children from disadvantaged backgrounds.

Reducing the financial cost of children

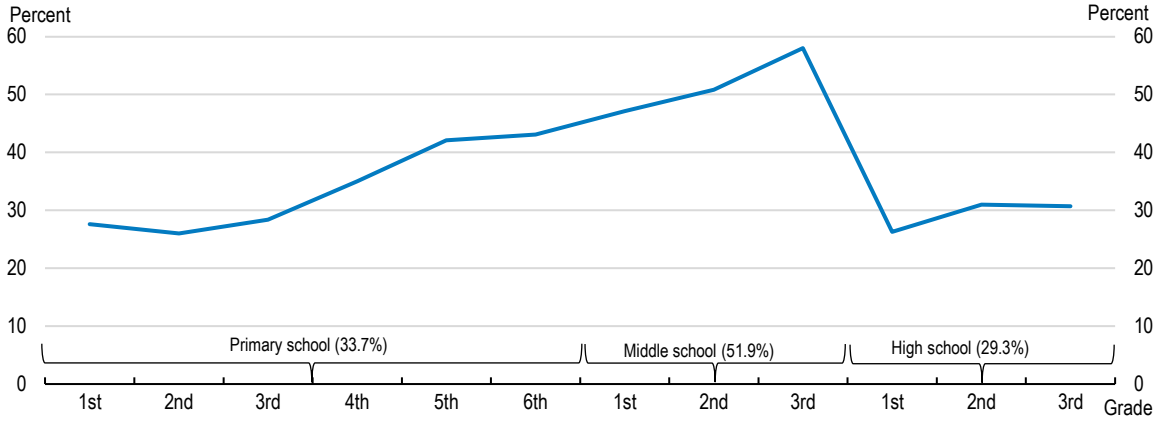
More than half of the parents cited the cost of raising and educating children as a reason for not achieving their desired number of children (Figure 2.12, Panel B). The share was highest for those who wished to have three or more children (IPSS, 2022). In a 2020 survey, 66% of parents agreed that "people's academic ability and record depend on how much is spent on their education". Moreover, around two-thirds of parents agreed that educational spending on their children was a heavy burden and planned to spend more on their children's education than for retirement (Sony Life Insurance, 2020). In its June 2023 plan, the government said that people should not abandon having children for financial reasons. It proposed lowering the cost of higher education by increasing scholarships and tuition reduction to middle-

income households at the bachelor's degree level and introducing "after-graduation payment of tuition fees" in which graduates pay back no-interest loans only after graduation (Box 2.2).

A more immediate concern for families with school-age children is the cost of after-school lessons in private institutions known as *juku*. Intense competition to enter prestigious schools and universities through high-stake exams has led to an essential role for *juku*. Indeed, entrance exams determine to a significant degree students' future educational, economic and social opportunities. There are an estimated 50 000 *juku* in Japan. In 2018, one-third of primary school students and one-half of middle school students attended *juku*, focusing on entrance exam preparation and supplementary courses centred on Japanese, English, math and science (Figure 2.17). Competition to enter private schools drives much of the after-school education. Indeed, in Tokyo, a quarter of middle school students attend private schools. In addition to *juku*, another one-fifth of students participate in home tutoring or distance learning.

Figure 2.17. Enrolment in after-school tutoring institutions (*juku*) is common

In 2017



Source: Kimura (2018).

StatLink https://stat.link/4fb1o7

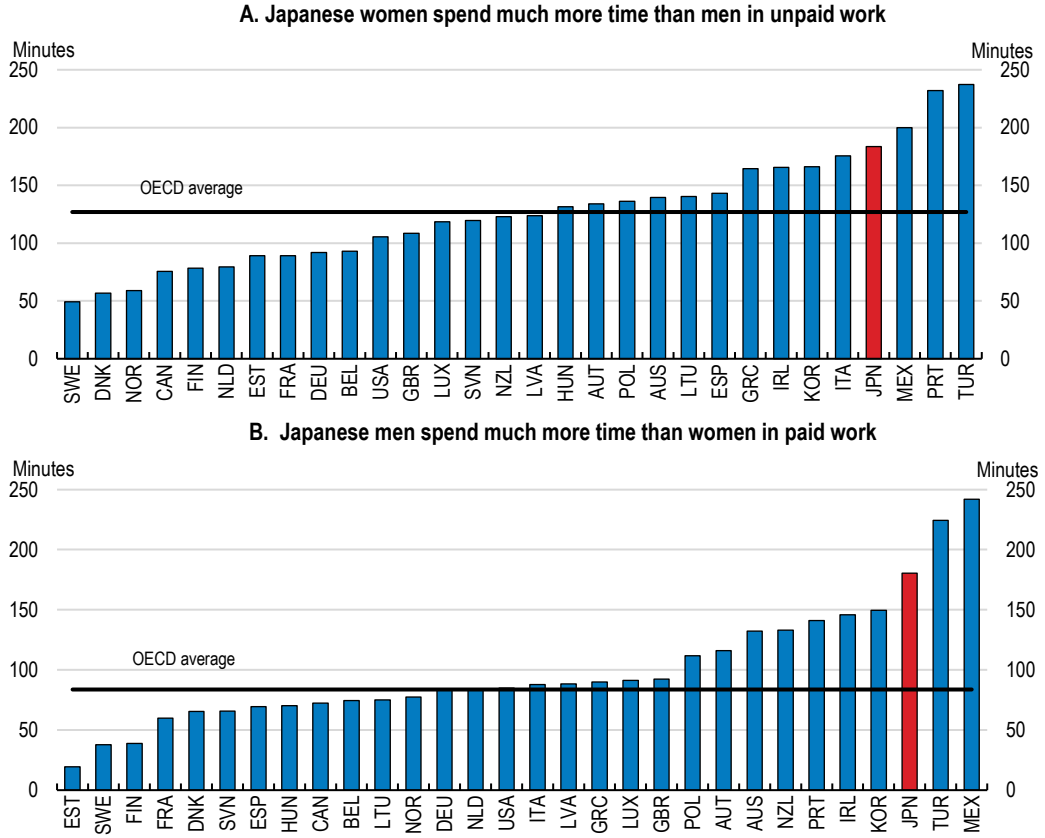
Average household spending on *juku* in FY2021 reached a record high. At the middle-school level, it averaged JPY 175 435 (USD 1 349) for children in private middle schools and JPY 250 196 (USD 1 925) for those in public institutions (MEXT, 2022b). Per student, this amounts to 4.6% to 6.5% of the average annual wage in FY2021, a significant burden, particularly for families with multiple children. *Juku* attendance is highest in Tokyo and other major urban areas (Kimura, 2018), where fertility rates are lowest. Reducing the role of *juku* would lower the financial cost of children while improving equity in educational outcomes. One priority is to increase the quality of school education, given that *juku* are succeeding in ways that schools are not. As recommended in the *2013 OECD Economic Survey of Japan*, reducing the importance of multiple-choice school entrance exams may also help diminish the dependence on *juku*, which prepare students for such exams. Greater weight could be given to other criteria, such as school grades, recommendations and extra-curricular activities at school. At the same time, providing the benefits of *juku* more broadly and at lower cost would be beneficial. For example, schools could offer after-school activities to compete with *juku*, an approach used in Korea. Greater use of internet-based services and the NHK (the public broadcaster) would also be beneficial (Jones, 2022).

Labour market policies for greater involvement of fathers at home

With increasing female labour force participation, couples have had to rebalance responsibilities for careers and raising children. Successfully finding a balance between careers and childcare that is perceived as fair is critical in determining fertility. Some studies link an unequal division of childcare and

housework to disagreements within couples over fertility intentions. Not surprisingly, women tend to want fewer children if they shoulder most of the unpaid work (Doepke et al., 2022). In Japan, a lack of help from fathers with housework and childcare is also cited as a reason that couples do not have their ideal or intended number of children (Figure 2.12, Panel B). Men spend an average of 41 minutes a day on "unpaid labour" – childcare, housework, shopping, etc. – less than one-third of the OECD average, while women spend 3¾ hours. Consequently, women devote around three hours per day more to unpaid labour than men (Figure 2.18). On the other hand, the time that Japanese men spend on paid labour is the second longest among OECD countries, with 27% of men working more than 48 hours per week in 2019. Long work hours, long commutes and after-work socialising limit men's availability for unpaid labour. Moreover, in dual-income households, fathers tend to arrive home later than mothers (Cabinet Secretariat, 2023b). Consequently, the gender gap in paid and unpaid work in Japan is exceptionally large and makes marriage and children unattractive to some women.

Figure 2.18. The gender imbalance in paid and unpaid work is large



Note: The figure shows the difference between males and females. For persons aged 15 to 64. Unpaid work includes routine housework; childcare, elderly care, shopping, etc. The survey year ranges from 1999 to 2019. Japan's survey was in 2016, the second most recent.
Source: OECD, Employment: Time Spent in Paid and Unpaid Work by Sex.

StatLink https://stat.link/hikfc3

The share of unpaid labour performed by men is positively correlated with the total fertility rate across countries, suggesting that increasing men's share of unpaid labour would boost fertility (Doepke et al., 2022). A recent study found that the longer the husband's time spent on housework and childcare, the higher the percentage of wives that continued to work and the higher the rate of births of second and subsequent children (Cabinet Secretariat, 2023b). While the government has little direct impact on the division of labour within households, reducing men's time in paid labour and increasing the share of men

who take parental leave and the length of their leave (Figure 2.16) would facilitate more unpaid labour by men.

In addition, further tightening and enforcing limits on working time would be helpful, as recommended in the *2019 OECD Economic Survey of Japan*. The Work Style reform introduced mandatory limits on overtime hours in 2019 (2020 for SMEs). Overtime work is limited to 45 hours per month and 360 hours per year. However, employers that have an agreement with their employees can require additional overtime and holiday work under certain conditions. First, it must be less than 100 hours per month and cannot exceed an average of 80 hours per month over a two to six-month time span. Second, overtime hours are allowed to surpass 45 hours per month for up to six months a year, as long as the annual total does not exceed 720 hours. The number of registered agreements on overtime work in 2021 was about 1.89 million. A 2019 law obliges employers to make efforts to introduce rest time between periods of work (interval-time regulation). The European Union, for example, requires an 11-hour interval. The share of Japanese firms with an interval-time rule increased from 1.8% in 2018 to 5.8% in 2022. Among large firms (1 000 or more workers), 14.6% have an interval rule, but less than 6% of firms with between 30 and 299 workers have it (MHLW, 2023a). The government's goal is to have 15% of firms with an interval system by 2025. Among the 80% of firms in 2022 that were not considering such a system, more than half said they did not see the necessity because they rarely require their employees to work overtime.

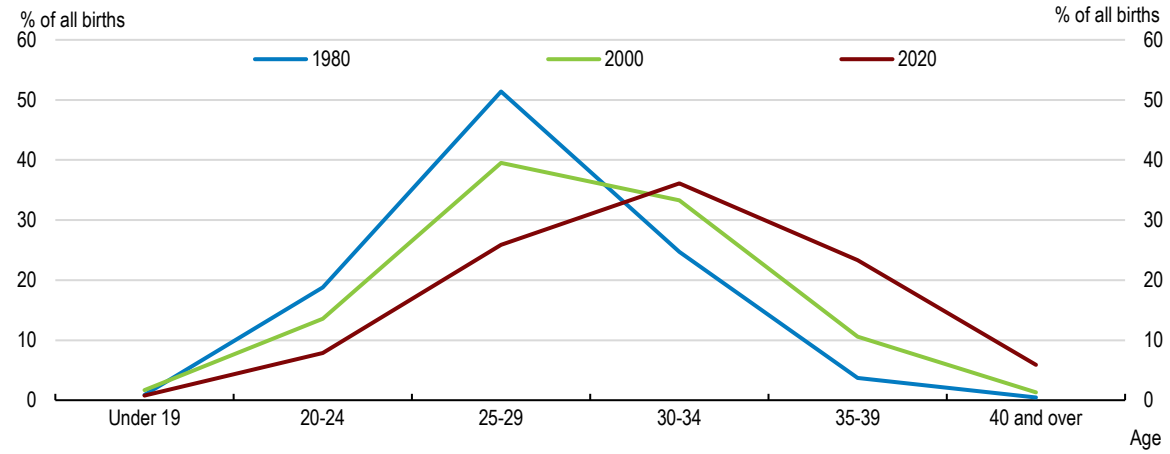
Increased teleworking would also improve work-life balance, particularly given long commuting times in major cities. Among enterprises with more than 100 regular employees, the share using teleworking jumped from 20% in FY2019 to 51% in FY2021 due to the pandemic. That year, 27% of employees teleworked at least once a week, led by the Tokyo metropolitan area at 42%. Teleworking was more prevalent in large companies at 40% compared to only 14% in those with less than 20 workers. In 2021, the government published a "Guideline to promote the appropriate introduction and implementation of telework". To encourage the use of teleworking, the government provides consulting services and subsidies for SMEs.

Addressing health and fertility issues

The average age of women at the time of their first birth increased from 26.4 years in 1980 to 30.7 in 2020, in line with the rising age of marriage. In 1980, more than 70% of babies were born to mothers under age 30, but by 2020, 65% were born to mothers aged 30 or older (Figure 2.19). The postponement of births means that some couples cannot have their ideal number of children due to health issues. In the IPSS survey of why couples did not achieve their desired number of children, women cited general health concerns (17%), not wanting to have children later in life (40%), and the physical and psychological burdens of children (23%) (Figure 2.12, Panel B). Improved work-life balance, including greater use of parental leave by fathers, would help mitigate some of these burdens.

In addition, 24% of women said they cannot bear a(nother) child, reflecting the fact that infertility problems rise with age (Figure 2.12, Panel B). Infertility was the explanation for 62% of the couples who had wished to have at least one child but planned on having no children. The share of couples being tested or treated for infertility rose from 13% in 2002 to 23% in 2021. For those married between five and nine years, the share was 28% (IPSS, 2022). The government introduced subsidies for in-vitro fertilization (IVF) in 2004 and by 2018, 6% of babies born in Japan were conceived using IVF. Health insurance has covered 70% of the cost of assisted reproductive technology, including IVF, since 2022. While Japan has the highest number of IVF cases, fewer than 10% succeed, one of the lowest rates in the world, and the share is falling. One reason is that around 40% of Japanese women who undergo IVF are in their 40s, twice as many as in the United Kingdom or France (Bioedge, 2018). In addition, rules covering the use of surrogacy and the donation of eggs and sperm are unduly restrictive.

Figure 2.19. Japanese women are giving birth at an older age



Source: Statistics Bureau of Japan, *Statistical Handbook of Japan 2020*.

StatLink https://stat.link/m05phx

2.2. Increasing labour market opportunities for women

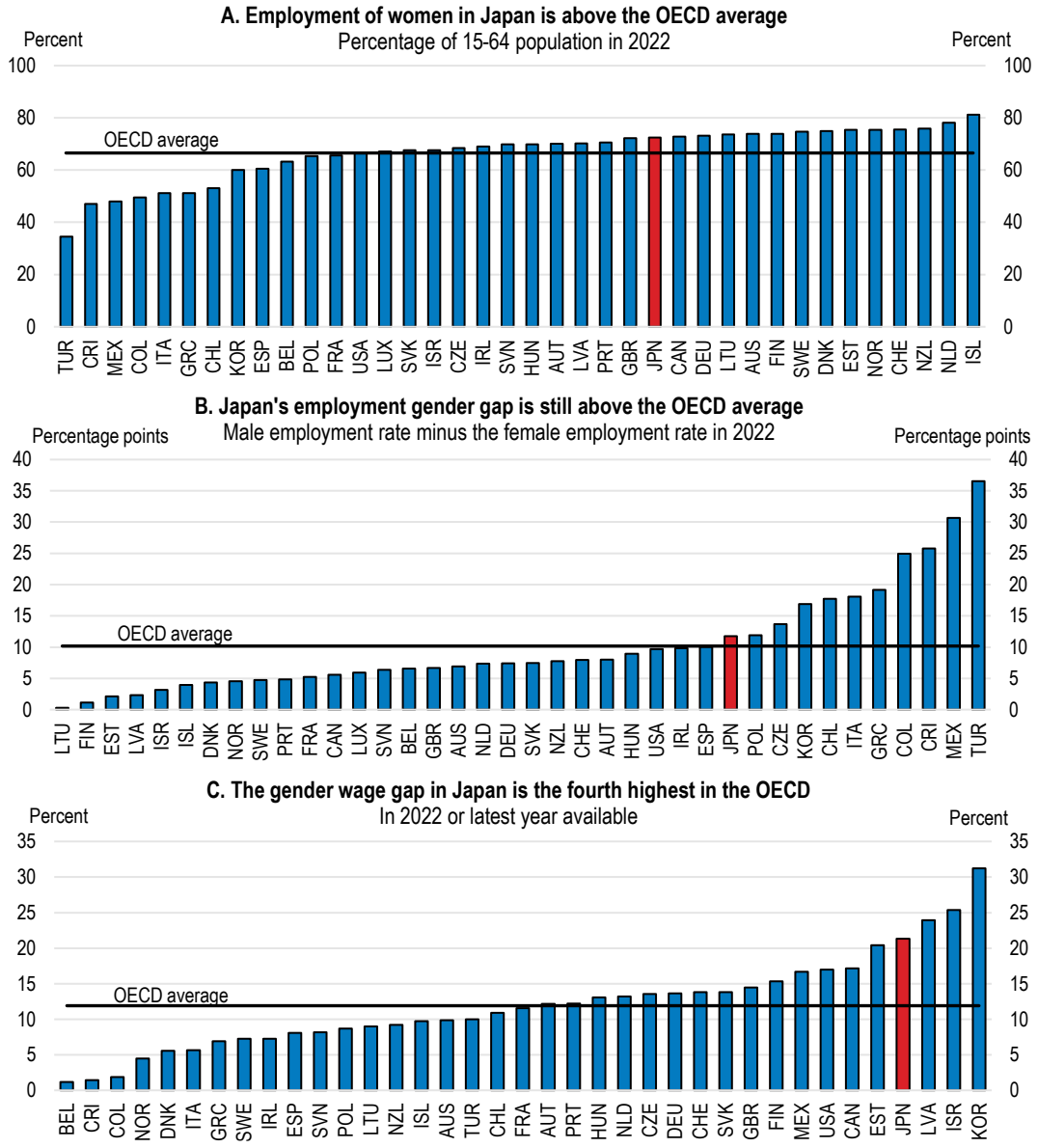
Japan ranks 125th among 146 countries in the 2023 Global Gender Gap Report (World Economic Forum, 2023). Although the gap has been nearly closed in some areas, such as education, large disparities remain in the labour market. The female employment rate rose from 60.7% in 2012 to 72.4% in 2022, surpassing the OECD average (Figure 2.20, Panel A), in the context of serious labour shortages. However, the gender employment gap remains close to the OECD average (Panel B), and the gender wage gap was the fourth largest in the OECD in 2021 (Panel C). OECD simulations suggest that narrowing the gender employment gap for each five-year age cohort by 2050 would boost total employment by 5% in all fertility scenario assumptions (Figure 2.21).

Policies to improve work-life balance and expand early childhood education and care, discussed above as strategies to raise the fertility rate, would also encourage female employment by making it easier to combine employment and family responsibilities. Other factors that hinder the quantity and quality of female employment include: *i)* the segmentation of the labour market between regular and non-regular workers (Figure 2.22, Panel A); *ii)* fiscal measures that discourage the labour market participation of second earners in households; and *iii)* discrimination against women. The priority is not to have women conform to the traditional Japanese employment system, but rather to change the traditional system to accommodate women and men in ways that promote the well-being of individuals and families.

2.2.1. Overcoming the impact of labour market dualism on women

Japan's dualistic labour market is a crucial factor explaining adverse labour market outcomes for women. The share of female employees who are non-regular workers has risen sharply over the past 30 years to 55%, far above the share for men (Figure 2.22, Panel B). Consequently, women account for more than two-thirds of non-regular workers, making it a major factor in Japan's large gender wage gap, given the low wages of non-regular workers. It also explains the high share of women employed as part-timers (39%) in 2021, well above the 24% OECD average. In the 25-29 age group, 84% of women are employed and 59% are employed as regular workers (Panel C). From age 30 (the median age of marriage), the share of women employed as regular workers declines steadily and it is surpassed by the share of non-regular workers in the 35-39 age cohort. In the 55-59 age group, only a quarter of women are regular workers.

Figure 2.20. Gender disparities in Japan's labour market remain large

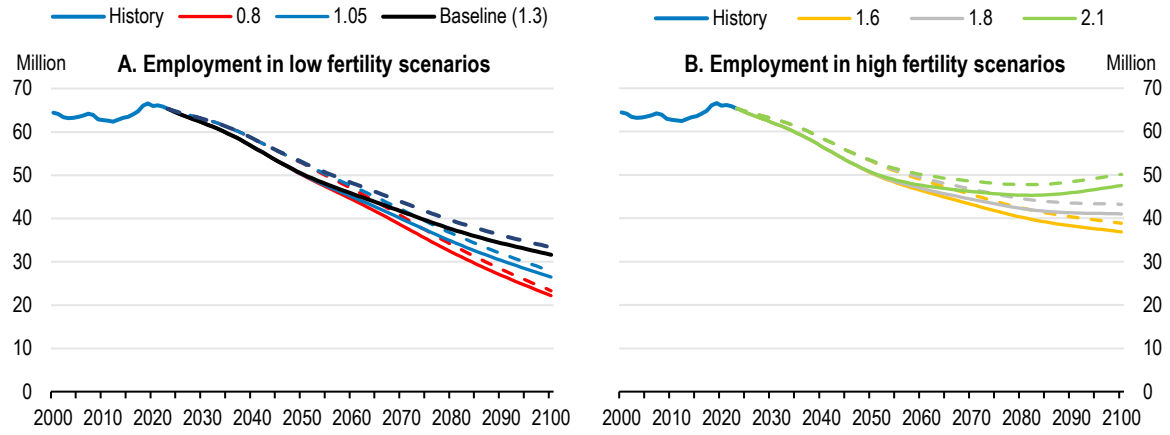


Source: OECD, Labour Force Statistics database.

StatLink https://stat.link/nxep38

Women's labour force participation and employment status depend to a large extent on their marital situation. At age 30, 89% of single women were employed, four-fifths in regular jobs (Figure 2.23, Panel A). In contrast, only 37% of married women were employed and only half were in regular jobs (Panel B), as many women withdraw from the labour force at the time of marriage or childbirth. The share of married women who are employed doubles to 74% by age 47, but non-regular employment accounts for 88% of the rise in employment, reflecting the obstacles to finding regular jobs, even for women who worked as regular workers before marriage and childbirth. A temporary absence to have children can thus have long-term repercussions on women's labour market prospects.

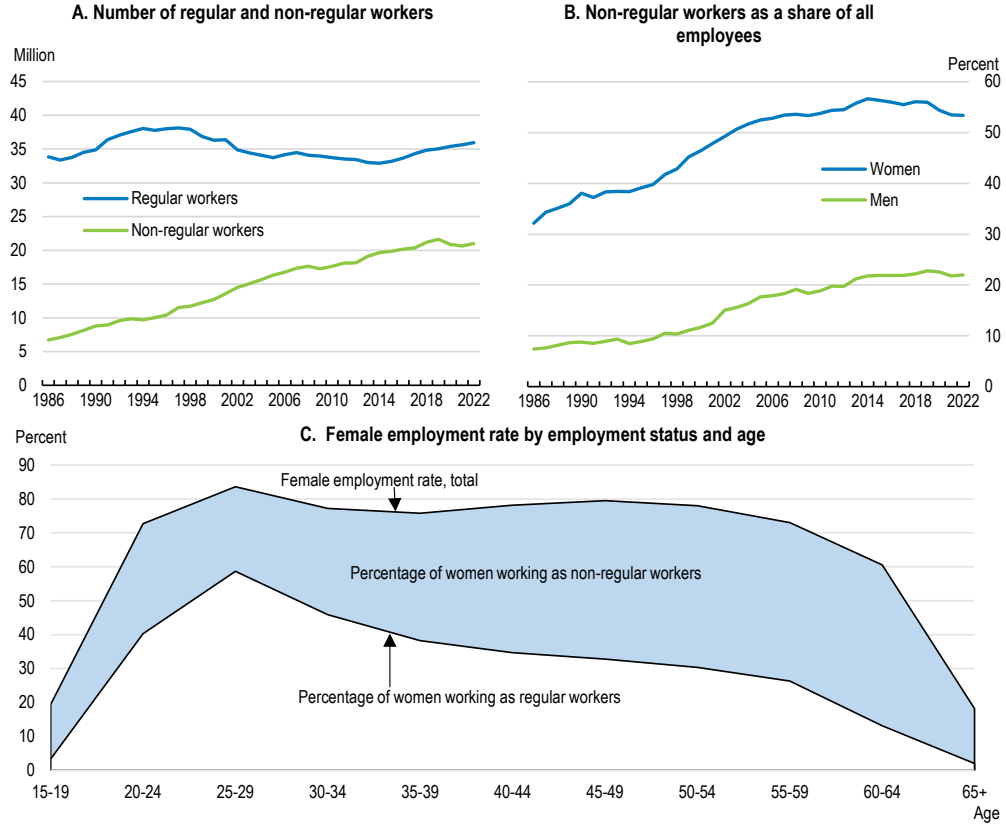
Figure 2.21. Labour force projections if female employment rises to the rate for men by 2050



Note: Dotted lines show female employment rate converging to the male rate by 2050 in each fertility scenario.
Source: OECD calculations based on the OECD Long-term Model.

StatLink https://stat.link/3tacgb

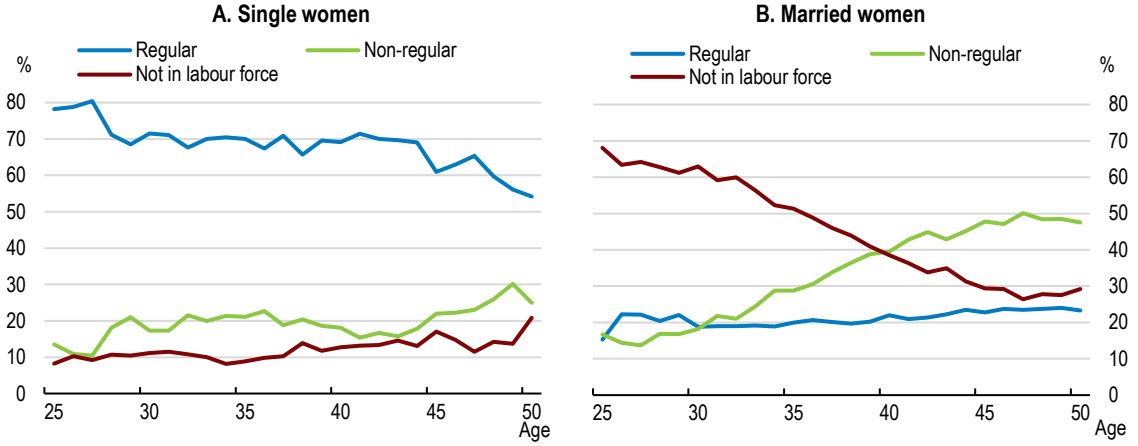
Figure 2.22. Non-regular employment is concentrated among women



Source: Ministry of Internal Affairs and Communications, *Labour Force Survey, Basic Tabulation*; and Cabinet Secretariat (2023b).

StatLink https://stat.link/n2auch

Figure 2.23. The rate of non-regular employment is much higher among married women



Note: See the note to Figure 2.24 for the source of the data.
Source: Kitao and Mikoshiba (2022).

StatLink https://stat.link/lryw79

Wages for non-regular workers do not increase with age and seniority in contrast to regular workers (Figure 2.24):

- Among women with at least a college degree, regular workers earn 4.4 times more than non-regular workers by age 50, while for women with only a high school degree, regular workers earn 3.2 times more. Moreover, they earn more than non-regular workers with at least a college degree, indicating that employment status has a larger influence on earnings than education levels.
- The earnings of non-regular female employees with at least a college degree are below those of regular workers with only a high school education for women aged 38 and above, indicating that obtaining more skills offers little reward for non-regular workers.

Reducing the share of non-regular employment among women would encourage more women to accept employment, particularly those with higher education who may hesitate to accept low-paid, menial jobs. It would also promote more regular jobs for all workers and encourage more on-the-job training, thereby boosting productivity (Kitao and Mikoshiba, 2020), and reduce wage and income inequality.

Former Prime Minister Abe set a goal that "the term non-regular work will be swept from this country" (Kojima et al., 2017). Breaking down dualism requires addressing the factors that encourage firms to hire non-regular workers. In a 2015 government survey asking firms why they hire non-regular workers, 39% cited the need to reduce labour costs (Gordon, 2017). In addition, firms pay less in social insurance for non-regular workers given their lower coverage. The other two reasons cited by firms for hiring non-regular workers are the need for a more flexible workforce to adapt to changing workloads (33% of firms) and the need to secure workers quickly (31%). Firms hire non-regular workers to act as shock absorbers – easy-to-hire and easy-to-fire resources that can be adjusted quickly in line with the business cycle – given the job security of regular workers (Yashiro, 2018). The "equal pay for equal work" principle in the 2018 Work Style reform aims to resolve "irrational gaps in working conditions between regular and non-regular workers in the same firm". However, it is difficult for workers to take complaints of unfair treatment to the judicial system, given their limited information and the fact that unions primarily represent regular workers.

The lack of employment flexibility stems from the employment protection accorded to regular workers. Japan's Labour Contract Act states that any dismissal of workers that "lacks objective, reasonable grounds and is not considered to be appropriate in general societal terms, [shall] be treated as an abuse of power and be invalid." This formulation allows the legal system considerable discretion. Judicial precedents have

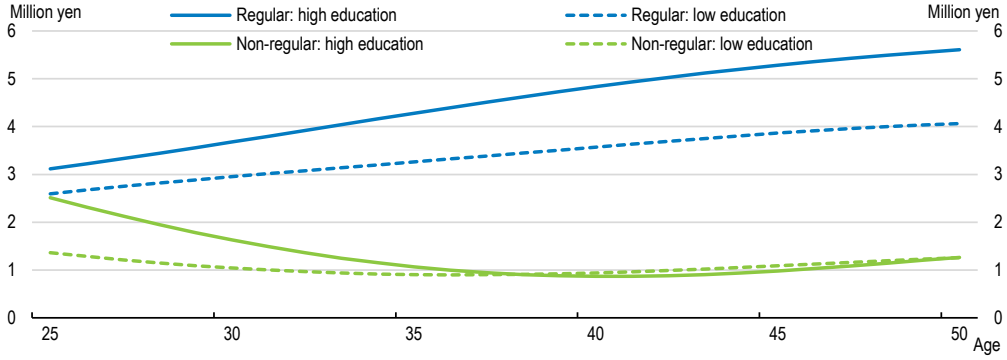
established four criteria to determine whether employment adjustment in corporate downsizings is an abuse of power by the company (OECD, 2019a):

- The employer must establish the economic need to decrease its workforce.
- The employer must demonstrate that it made all reasonable efforts to avoid dismissals, such as reducing overtime hours, offering voluntary retirement and seconding staff to affiliates.
- The employer must establish objective and reasonable criteria for selecting which workers are dismissed.
- The employer must demonstrate that the dismissal procedure is acceptable, for example, by showing that unions or worker representatives were consulted.

It is thus "exceedingly difficult to judge the validity of dismissal", as these criteria leave considerable room for interpretation (JETRO, 2016). If a firm is judged to fall short of any of the criteria, the dismissal may be invalidated. Courts typically order the reinstatement of dismissed workers with back pay. In sum, employers face great uncertainty in dismissing regular workers, thus prompting them to turn to non-regular workers for flexibility (OECD, 2019a).

Figure 2.24. Earnings of non-regular workers are low compared to regular workers

For women born between 1959 and 1969



Note: Data for Figures 2.23, 2.24 and 2.25 are from the Japan Panel Survey of Consumers (JPSC), the longest-running nationwide panel survey of individuals in Japan. The figure above uses the cohort of women born between 1959 and 1969, for which there are 19 500 yearly observations. The JPSC collects comprehensive information about the labour market experience of women, including earnings, educational and employment status. High education refers to women with a college degree and above. Low education refers to women with less than a college degree.
Source: Kitao and Mikoshiba (2022).

StatLink https://stat.link/an0pcq

Reducing labour market dualism could play a key role in strengthening the position of women and younger people to support families. As recommended in the *2019 OECD Economic Survey of Japan*, a comprehensive strategy is necessary to break down labour market dualism by improving social insurance coverage and training programmes for non-regular workers and reducing employment protection for regular workers, in part by increasing its transparency. Uncertainty could be reduced by requiring firms to pay a specific monetary compensation for dismissed workers, leading to a more foreseeable dispute settlement system. It would also contribute to the removal of mandatory retirement set by firms (see below). Some European countries have reduced employment protection through grandfathering – allowing workers to keep existing protection, but not granting it to new hires (OECD, 2019a). In sum, the objective should be to shift from protecting jobs to protecting workers, the so-called "flexicurity" epitomised by Denmark. This requires providing adequate income and re-employment support to displaced workers.

2.2.2. Addressing social insurance and tax arrangements that hold back female employment

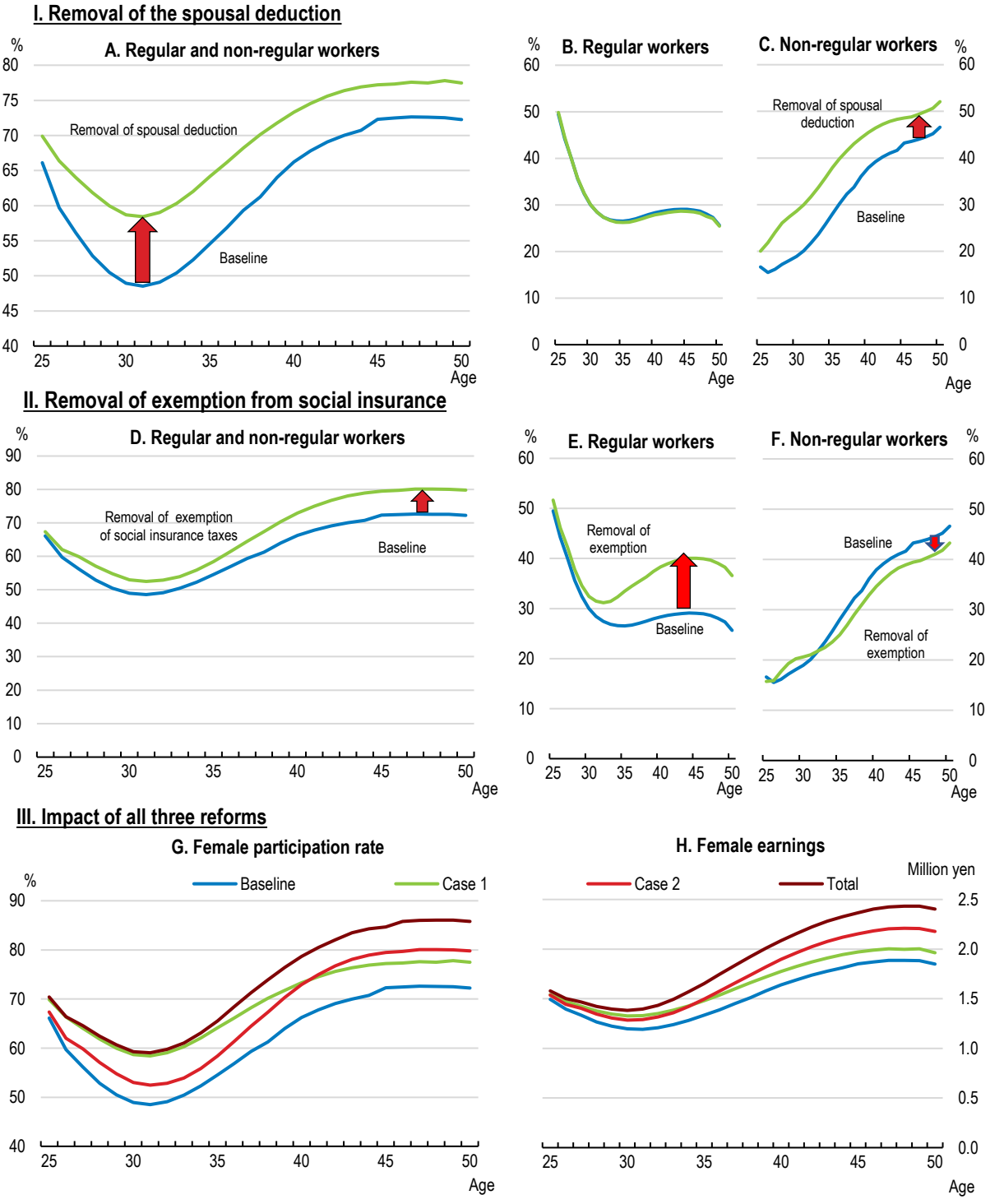
Empirical evidence demonstrates that second earners are relatively responsive to work incentives. Tax and benefit systems that weaken such incentives can impact employment, gender equity, income inequality and efficiency. Removing disincentives for second earners can positively affect employment and GDP (Thomas and O'Reilly, 2016). Measures aimed at protecting married women have negatively affected female labour force participation (Kitao and Mikoshiba, 2022). In 1961, Japan introduced tax deductions for the main earner if the second earner had an income below a certain threshold. Until 2018, the earnings threshold for the second earner for the spousal tax deduction was set at JPY 1.03 million (USD 7 923), the same level at which labour income is subject to income tax. The (special) spousal deduction allows the main earner to deduct JPY 380 000 (USD 2 923) from their taxable income. The deduction phased out gradually as second-earner income increased, reaching zero at JPY 1.41 million (USD 10 845). In addition, it is common for firms to provide spousal allowances for their workers, if the spouse earns below a certain limit. Around half of firms set the allowance at the same JPY 1.03 million threshold. Empirical studies show that the spousal deduction encourages women to limit their earnings to that threshold (Yokoyama, 2018). Most of the spousal deductions for the main earner went to high-income households, while less than one-fifth of those with earnings below the average wage benefited from it in 2016 (Jones and Seitani, 2019).

Spouses can also benefit from exemptions from social insurance contributions. For workers enrolled in employees' insurance, contributions amount to 30.1% of wages – 18.3% for pensions, 10.0% for health care (the rate for Health Insurance Associations that cover most SME employees) and 1.8% for long-term care – shared equally by employees and employers. An exemption from contributions for dependent spouses of workers enrolled in employees' insurance was introduced in 1985. Currently, spouses working more than 20 hours a week in firms with more than 100 employees are exempt from contributions if they earn below JPY 88 000 monthly, which is equivalent to JPY 1.06 million (USD 8 154) annually. When spouses are not covered by employees' insurance, spouses can earn up to JPY 1.3 million annually before they lose the exemption and have to pay their own contributions. In addition, the survivor's pension, which a surviving family can receive when a worker enrolled in employees' insurance dies, also affects women's labour supply (Kitao and Mikoshiba, 2022).

For the (special) spousal deduction scheme, the income threshold for second earners was raised to JPY 1.5 million (USD 11 538) in 2018 and phases out gradually to zero at JPY 2.01 million. In addition, the tax deduction was limited to main earners with income of less than JPY 11.95 million (USD 93 846). By allowing second earners to earn more while the main earner can still claim the deduction, the reform is likely to boost labour inputs by married women.

In sum, the multiple thresholds result in extremely high effective marginal tax rates on labour income of second earners, giving married women incentives to keep their earnings below JPY 1.06/1.3 million to avoid social insurance contributions, and JPY 1.5 million to avoid personal income taxes. They also have incentives to plan their labour supply taking into account a survivors' pension. A recent study estimated that abolishing the spousal deduction from personal income tax would significantly boost the female labour force participation rate (Figure 2.25, Panel A). For the 25-to-64-age group, the employment rate would rise by 6½ percentage points, with the increase concentrated among married women (Table 2.3). However, women would still have an incentive to keep their earnings below JPY 1.06/1.3 million) to maintain the exemption from social insurance contributions, thus limiting the impact on employment. Moreover, women would tend to choose non-regular jobs to keep their income below the threshold. Consequently, the rise in female participation from removing only the spousal deduction would be entirely due to women entering the labour force for non-regular jobs, while the share of regular workers barely changes in the simulation (Panels B and C).

Figure 2.25. Tax and social insurance reform could boost female labour participation rates



Note: See the note to Figure 2.24 for the data source. In Panels G and H, Case 1 is the removal of the spousal deduction; Case 2 is the exemption from social insurance contributions and Case 3 is the abolition of the survivors' pension, which is not shown separately in the figure.
Source: Kitao and Mikoshiba (2022).

StatLink https://stat.link/edgmv5

Table 2.3. Female participation rates under alternative policy scenarios (for the 25-64 age group)

	Baseline	Case 1 No spousal deduction	Case 2 No exemption from social insurance contributions	Case 3 No survivor benefits	Case 4 Cases 1-3 combined	Change of Case 4 from baseline (%pt)
Employed	64.6	71.2	71.2	65.9	77.1	12.5
Regular worker	28.6	26.6	35.6	29.2	40.2	11.6
Non-regular worker	37.8	44.5	35.6	36,7	36.9	-0.9
Not in labour force	35.4	28.9	34.1	34.1	22.9	-12.5
By marital status						
Single: employed	86.9	89.2	87.5	87.5	89.9	3.0
Regular worker	57.4	57.6	58.7	58.6	59.1	1.7
Non-regular worker	29.5	31.5	28.8	29.0	30.7	1.2
Single: not in labour force	13.1	10.8	12.5	12.5	10.1	-3.0
Married: employed	59.9	67.2	67.7	61.3	74.4	14.5
Regular worker	20.4	20.0	30.7	23.0	36.2	15.8
Non-regular worker	39.5	47.2	37.1	38.3	38.2	-1.3
Married: not in labour force	40.1	32.8	32.3	38.7	25.6	-14.5

Source: Kitao and Mikoshiba (2022).

As highlighted in the *2019 OECD Economic Survey of Japan*, abolishing the exemption from social insurance contributions would also boost the female labour force participation rate (Figure 2.25, Panel D). As in the case of the spousal deduction, it would rise by around 6½ percentage points for the 25-64 age group (Table 2.3). However, the increase is expected to come from women joining the labour force to become regular workers. In addition, some shift from non-regular to regular jobs (Panels E and F). With the removal of the exemption from social insurance contributions on earnings below JPY 1.06/1.3 million, married women have stronger incentives to work more and in a regular job, if possible. Consequently, the increase in the women's average earnings (estimated at 16%) would be larger than in the case of removing the spousal exemption (7%).

The impact of combining all three reforms – abolishing the spousal allowance, the social insurance contribution exemption and the survivor's pension – is shown in Figure 2.25, Panel G. The female participation rate for the 25 to 64 age group is estimated to rise by 12.5 percentage points (Table 2.3). The increase results primarily from an estimated 14.5 percentage-point rise for married women, which is attributed entirely to an increase in regular employment. This leads to a 28% rise in women's average earnings (Panel H), thus significantly narrowing the gender wage gap and boosting tax revenues (Kitao and Mikoshiba, 2022).

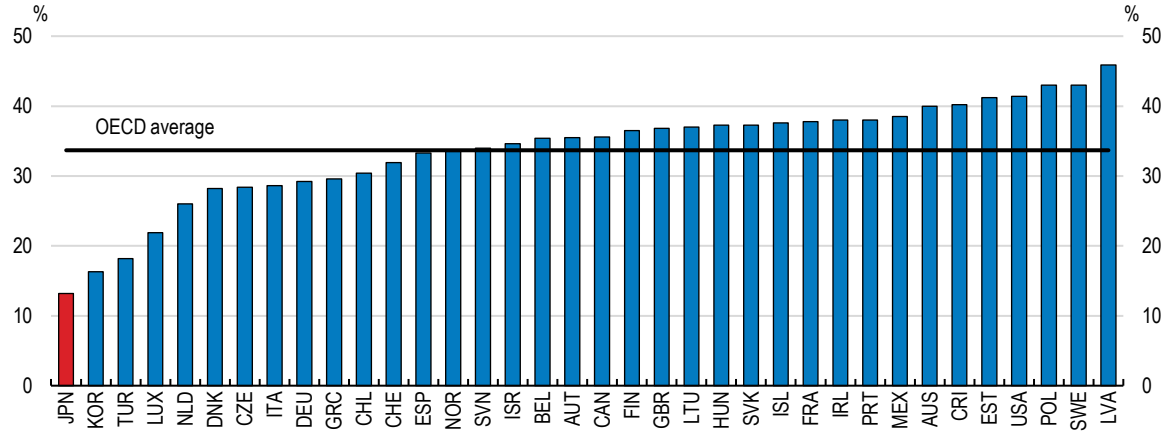
2.2.3. Tackling discrimination against women

In 2003, the government announced a target of boosting the share of leadership positions held by women to 30% by 2020. Nevertheless, the proportion of women in leadership roles remains low by international standards despite their rising education level and the enactment of gender equality laws. Women held only 13.2% of management positions in Japan in 2021, the lowest in the OECD (Figure 2.26), suggesting a serious misallocation of human resources, which contributes to Japan's large gender wage gap (see above). Moreover, women held 15.5% of the seats on the boards of the largest publicly-listed companies in 2022, about half of the OECD average (OECD Gender Data Portal), and 4.2% of senior management positions in government in 2021 (OECD, 2021a). The size threshold at which firms are required to establish an action plan to encourage the promotion of female employees was lowered from more than 300 workers to more than 100 in 2022. In June 2023, the government announced that the Tokyo Stock Exchange and

some other markets would include a provision in their regulations that each company in the top-tier Prime Market shall aim to increase the ratio of female executives to 30% or more by 2030. The companies are encouraged to craft action plans to achieve the objective. The share of women in the lower house of the Diet edged up from 7.9% in 2012 to 10.3% in 2023, but remained the lowest in the OECD.

Figure 2.26. Women's share of management positions is low

2021 or latest year



Source: OECD, Gender database.

StatLink https://stat.link/6u19t8

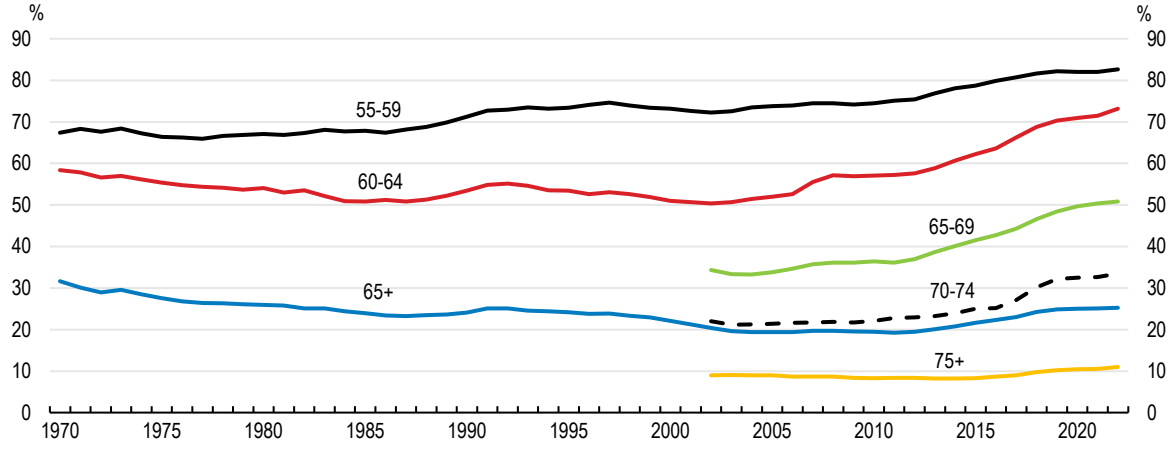
One factor contributing to the lack of women in leadership positions is the smaller share of women in higher education. In 2022, women accounted for 45% of university students, and nearly 80% studied liberal arts. Moreover, women accounted for only 17% of new tertiary students in science, technology, engineering and mathematics (STEM) (OECD, 2023c). Promoting greater female participation in STEM disciplines, for example through mentor programmes, is key (Chapter 1). However, having as much or more education than men does not result in equal outcomes for women (Yamaguchi, 2016). Tenure plays an essential role in determining wages and promotions in Japan's seniority-based system. The average length of female employment is shorter than that of men, given that almost one-third of women withdraw from the labour market when they have their first child. In addition, working long hours is often a prerequisite for promotion, prompting many women with family responsibilities to opt out of career tracks. Women's share of workers in managerial positions is significantly lower than for men with the same tenure (Yamaguchi, 2016).

Differences between men and women in age, education and tenure explain only 20-30% of the gender gap in management positions, with labour practices accounting for much of the remaining inequality (Youm and Yamaguchi, 2016). Women are less likely to enter fast-track career streams leading to management positions. Instead, they tend to enter the clerical work track in the "Career Track-Based Management System" (the "course system"), which makes it difficult for women to escape from low-paying jobs (Hara, 2018). Moreover, firms are less likely to invest in on-the-job training for women to acquire firm-specific skills, given that many are likely to withdraw from the labour force around the time of childbirth. This self-fulfilling prophecy is another reason for the "leaky labour market pipeline" to management positions for women (Naito, 2016). In addition, working long hours is a way to demonstrate commitment to the firm and the ability to accumulate firm-specific human capital. Men, who play a smaller role in housework and childcare (Figure 2.18), are more likely to be promoted (Kato et al., 2016). In sum, Japanese women face a "sticky floor" at the low end of the wage distribution due to a gendered job system and a glass ceiling at the high end due to a gender gap in promotion (Hara, 2018). Hence, limiting overtime working hours and incentivising teleworking could help (see above).

2.3. Removing obstacles to the employment of older persons

Reducing impediments to the employment of older persons would enhance well-being by boosting labour and pension income for the elderly, lowering their relative poverty rate and promoting economic growth. Employment rates for men and women in their 60s declined gradually until 2000 (Figure 2.27), reflecting the increasing generosity of public pensions and the falling number of self-employed workers (Usui et al., 2016). However, the employment rates for five-year age cohorts from 55-59 to 70-74 have each risen between 10 and 21 percentage points since 2002, driven by: *i)* longer healthy lifespans; *ii)* increased educational attainment of older persons; *iii)* the shift to less physically demanding jobs; and *iv)* policy measures, including a rise in the pension eligibility age (Oshio et al., 2019). The employment rate for those aged 65 and above in Japan was 25% in 2021, well above the 15% OECD average.

Figure 2.27. Employment rates for older persons have trended up in the past few decades



Source: OECD, Labour Force Statistics database.

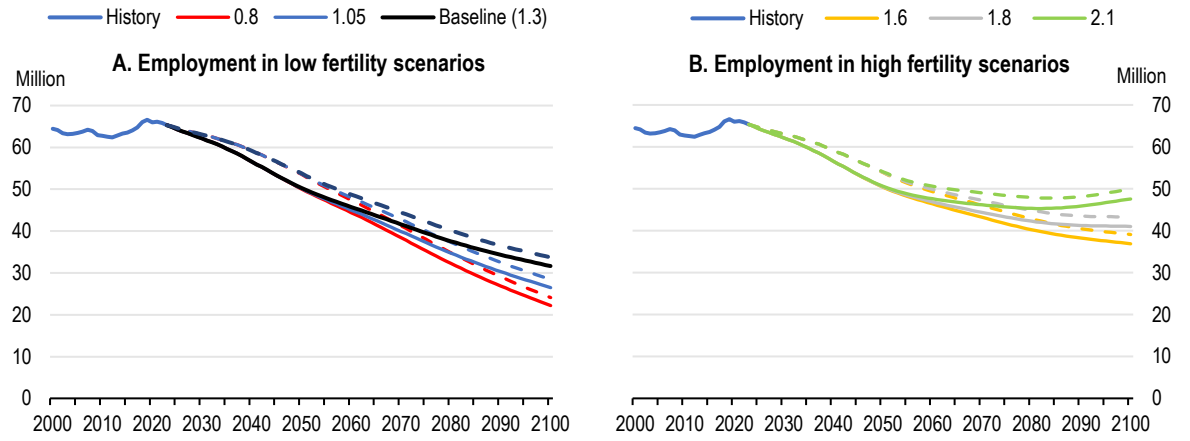
StatLink https://stat.link/mj5zb7

A 2019 government survey asked men and women in their sixties about their ideal retirement age. The most common response (32.1%) was "want to work as long as possible, regardless of age", followed by those who want to work "until 70 or older" (23.6%). Another 13.8% wanted to retire between the age of 65 and 69. The major motives for wanting to work were "economic reasons" (76.4%), "purpose in life and social participation" (33.4%) and "having time on their hands" (22.6%). Of those who cited economic reasons for working, more than four-fifths said that they worked to maintain current standards of living (JILPT, 2020a). Good health conditions among the elderly would allow many of those who wish to work to continue. One study examined the relationship between health and employment for people in the 51 to 54 age group. Based on that relationship, it estimated that employment of those aged 60-64 would increase by around one-fifth based on their current health assessment, and by more than one-third for those aged 65-69 (Usui et al., 2017).

According to OECD simulations, if the employment rate for each of the 60-64, 65-69 and 70-74 cohorts were to converge to that of the five-year cohort immediately younger by 2050, total employment would be 6.6-8.5% higher in 2100 in "low fertility" scenarios (Figure 2.28, Panel A) and 5-6% higher in "high fertility" scenarios (Panel B). While a rise in the employment rate for the over-75 age group is not included in the simulation, their rate is also likely to increase. The factors noted above – higher educational attainment, longer life expectancy, improved health and the changing nature of work – will continue to facilitate the employment of older persons. Indeed, Japan's healthy life expectancy is the longest, both at birth (74 years) and at age 60 (20 years) (WHO, 2023).

Fundamental labour market reform is essential to reinforce these trends. Japan's traditional model – lifetime employment, a seniority-based wage and promotion system, long working hours, company-based training and mandatory retirement – was successful when Japan's population was young and increasing, with a pyramid-shaped age distribution. It is poorly suited, however, to an era of 100-year lives because it discourages labour force participation by older persons and women, and labour mobility. More flexible wage and employment systems based on performance rather than age would enable Japan to better utilise its human capital and raise productivity. As recommended in the *2019 OECD Economic Survey of Japan*, the careers of older persons can be extended by: *i)* abolishing the right of companies to set a mandatory retirement age, while reducing the importance of seniority in setting wages; *ii)* raising the pension eligibility age beyond the current target of 65; and *iii)* expanding lifelong training and education for older persons to provide them with the skills for an increasingly digital economy.

Figure 2.28. Long-run labour force projections with a rise in the employment rate of older persons



Note: The dotted lines show a rise in the employment rate of older persons in each fertility scenario. The simulation assumes that the employment rate for each five-year cohort from 60-64 to 70-74 converges to that of the preceding cohort (i.e., the rate for the 60-64 group would rise to the 2021 rate for the 55-59 age group, the 65-69 rate would rise to the 60-64 rate, the 70-74 rate to the 65-69 rate by 2050).
Source: OECD calculations based on the OECD Long-term Model.

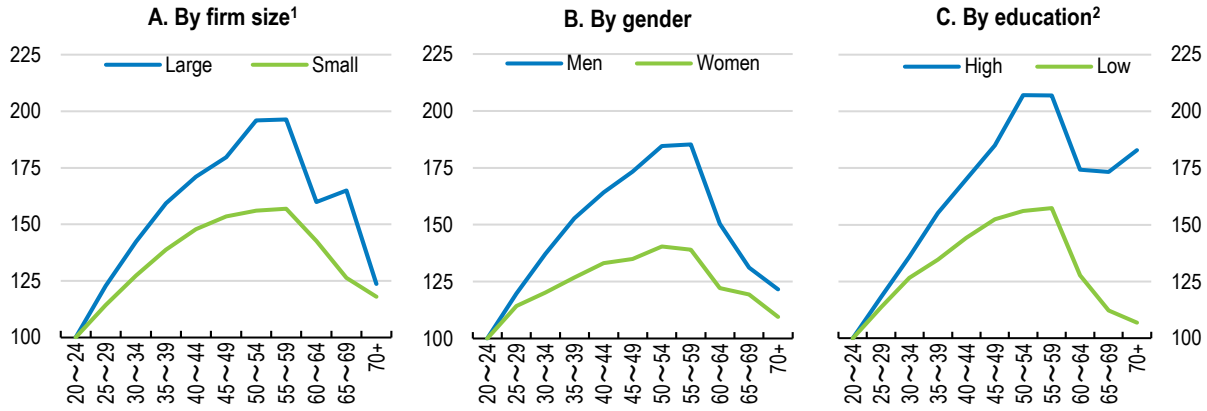
StatLink https://stat.link/fashz9

2.3.1. Abolishing mandatory retirement and moving away from seniority-based wages

Lifetime employment is an implicit long-term contract for regular workers, particularly those in larger enterprises. Firms hire new graduates with the promise of a job until the mandatory retirement age. The long-term commitment encourages employers to invest in their workers to develop company-specific skills, thus raising firms' competitiveness and productivity (Jones and Seitani, 2019). Wages rise steeply with seniority, particularly in large firms and for men and workers with tertiary education, until mandatory retirement (Figure 2.29). Seniority-based wages encourage lifetime commitment by workers to their firm by setting wages below marginal productivity for younger workers and above it for those with long tenures. The seniority-wage link in Japan, controlling for skills and other factors, is among the strongest in the OECD. A cross-country study of the relationship between the age-wage premium and the retention rate of employees between the ages of 60 and 64 shows a negative correlation in the OECD (OECD, 2018a). The seniority-based wage system makes older workers unattractive to firms once their productivity falls below the seniority-based wage. Mandatory retirement is essential for the firm to end the continuous wage increases of its regular employees resulting from the seniority-based wage system and high employment protection for regular workers (Miyamoto, 2016).

Figure 2.29. Japan's seniority-based wage system remains strong

The wage profile for regular employees, 20-24 age group = 100, 2021



1. Large firms are those with more than 1 000 employees and small firms are those with between 10 and 99.
2. High refers to university graduates and low refers to high school graduates.

Source: Ministry of Health, Labour and Welfare, *Basic Survey on Wage Structure 2021*.

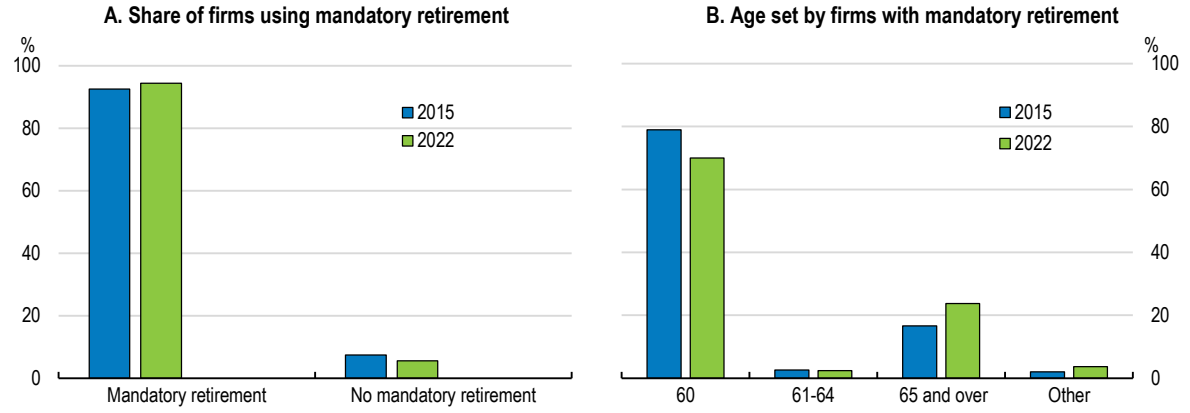
StatLink https://stat.link/sftwe6

Ending mandatory retirement

In 2022, 94% of firms set a mandatory retirement age (Figure 2.30, Panel A). In 1998, the government prohibited firms from setting a mandatory retirement age below 60, and in 2013, firms were required to offer continued employment until age 65 for employees who wish to continue working. Few firms have opted to raise their mandatory retirement age or eliminate it, reflecting the cost of seniority-based wage increases. Indeed, among the firms with mandatory retirement, the share of firms that set it at age 60 decreased only from 79% in 2015 to 70% in 2022 (Panel B). This option – keeping the mandatory retirement age at 60 and rehiring workers – is particularly popular at companies that include a large seniority component in their wage system (OECD, 2018a). The 9 percentage-point decline in the share of firms that ended mandatory retirement at age 60 between 2015 and 2022 was accompanied by a 7 percentage-point increase in the share raising it to age 65 and above.

Although the 2013 law helped to push up the employment rate for the 60-64 age group, a large share became non-regular workers (Figure 2.31). The percentage of men (women) who were non-regular workers jumped from 11% (59%) for the 55-59 age group to 45% (74%) in 2022. The average job quality of older persons is generally poor and wages are low because of mandatory retirement (Yashiro, 2018). A survey of workers in their 60s found that 18% of rehired employees earned the same as previously, while the 57% faced lower wages. Nearly 6% had a wage reduction of more than 40% (JILPT, 2020b). Overall, workers in large firms in the 60-64 age cohort faced wage reductions of 19%. For those 70 or above, wages were 37% below their peak in the 55-59 age group in 2021 (Figure 2.29). Demoting older workers to non-regular status at substantially lower wages reduces their motivation to work and prompts some employees to leave their firms, leading to a significant loss of human capital.

Figure 2.30. Most companies still set a mandatory retirement age of 60



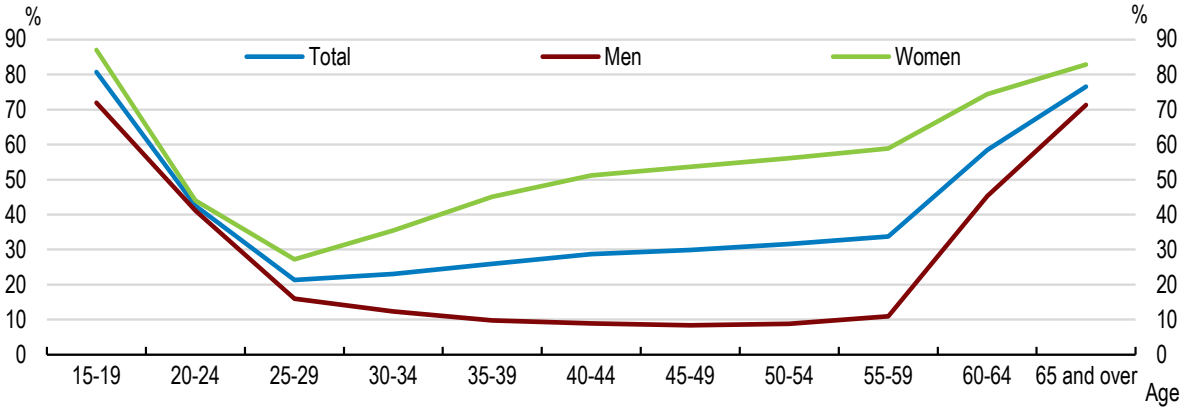
Source: Ministry of Health, Labour and Welfare, *General Survey on Working Conditions*.

StatLink https://stat.link/yapm2g

Japan introduced a law in 2020 encouraging firms to keep employees until age 70, though not necessarily within the firm itself, through one of five options: *i)* raising the retirement age to 70; *ii)* allowing employees to work beyond the age of mandatory retirement; *iii)* outsourcing operations to retirees who start their own business; *iv)* assigning retirees to philanthropic projects; and *v)* ending mandatory retirement. A 2022 survey by the Ministry of Health, Labour and Welfare found that 28% of companies had followed the recommendation. The share was larger at companies with 21-30 employees (31%) than at those with more than 300 employees (20%) (MHLW, 2022). The optimal solution is to abolish the right of firms to set a mandatory retirement age, a practice prohibited in the United States and some European countries as age discrimination. The uniform dismissal of workers by age despite individual differences in productivity is neither fair nor efficient (Yashiro, 2018). Providing people with better opportunities to continue working at an older age is critical in the face of population ageing. The OECD Recommendation of the Council on Ageing and Employment Policies called for governments to "discourage or further restrict mandatory retirement by employers" (OECD, 2018b). Preventing age discrimination would also help. Japan does not have general age discrimination legislation.

Figure 2.31. Many workers become non-regular employees at age 60

Non-regular employees as a share of all employees (excluding executives) by age, 2022



Source: Ministry of Internal Affairs and Communications, *Labour Force Survey (Basic Tabulation), 2022*.

StatLink https://stat.link/691ikm

Flattening the seniority wage curve

Ending mandatory retirement, or even increasing the minimum retirement age allowed, would push firms to align better the costs of employing older workers and their productivity. Indeed, the hike in the retirement age from 55 to 60 in the mid-1980s significantly flattened Japan's seniority wage curve (Clark and Ogawa, 1992). The OECD Recommendation of the Council on Ageing and Employment Policies urged employers and workers to "review their practices in setting pay to reflect productivity and competencies, not age" (OECD, 2018b).

Japanese firms are giving greater weight to job duties and performance and less to seniority. The "equal pay for equal work" principle in the 2018 Work Style reform is a positive step. It links workers' wages to productivity (Miyamoto, 2016), although workers prefer seniority-based wages. Wages are ultimately decided by employers and employees, making it problematic for the government to change wage-setting mechanisms. The public sector could provide an example by stressing performance-based pay and limiting automatic wage hikes with tenure. The retirement age for national and local civil servants was raised from 60 to 61 in April 2023 and will be gradually increased to 65 by FY2031. Although they remain regular workers, their wages will be cut by 30% at the beginning of the first fiscal year after reaching age 60, which appears inconsistent with the equal pay for equal work principle. The government will review and take actions on the wage reduction by the end of FY2031.

Moreover, reducing the weight of seniority in wage-setting would encourage labour mobility through mid-career hiring (so-called "secondary hiring"), as workers who change firms would not experience the wage losses typical in a seniority-based system. Younger workers could receive higher wages rather than accepting lower pay in exchange for a promise of higher pay in the future. Enhancing mobility also requires reforming the retirement allowance, a deferred payment of wages, rewards and benefits for long-term labour, thereby encouraging lengthy tenures. Personal income tax deductions on the retirement allowance increase sharply from JPY 400 000 per year to JPY 700 000 (USD 5 385) after 20 years of tenure. Smoothing the tax deduction, as recommended in the *2019 OECD Economic Survey of Japan*, could facilitate mid-career labour mobility.

2.3.2. Further increasing the pension eligibility age

Japan, along with Korea, is unique in allowing firms to set a mandatory retirement age (60) below the pension eligibility age (65 for the flat-rate portion of the Employees Pension Insurance and 64 and 62 for men and women, respectively, for the earnings-related portion). An OECD study found that raising the minimum and standard eligibility age by one year boosted the labour participation rate of the 55-74 age group by 0.8 percentage points in the median OECD country (Geppert et al., 2019). Abolishing mandatory retirement and eliminating other obstacles to the employment of older persons would facilitate further hikes in the pension eligibility age, which has not kept pace with the rise in life expectancy. As noted above, Japan's healthy life expectancy is the longest in the world. Even after reaching 65 in 2025 for men and 2030 for women, the eligibility age will remain below many other OECD countries. In 2018, the OECD Recommendation of the Council on Ageing and Employment Policies stated that countries should "ensure that the old-age pension system encourages and rewards later retirement in line with increased life expectancy" (OECD, 2018b).

In addition to removing an obstacle to the employment of older persons, later retirement would also reduce poverty among this age group. The 20% relative poverty rate of the elderly in Japan is well above the 12.5% OECD average. Under its current framework, the net replacement rate of public pensions is one of the lowest in the OECD at 38.7% for an individual who begins working at age 22 in 2020, far below the 62.4% OECD average (OECD, 2021b). The government's 2014 actuarial valuation shows that delaying the start of pension benefits to 68 would increase the replacement rate by more than ten percentage points by 2050 (Table 2.4). In addition, it would improve intergenerational equity and reduce fiscal costs. The government's decision to calculate pension benefits annually even when a beneficiary is still working

(instead of being recalculated only at the time of termination of employment or on reaching the age of 70) and increasing the income threshold beyond which earnings-related pensions are reduced for people aged 60 to 64 (Chapter 1) has removed some work disincentives for the elderly.

Table 2.4. Raising the pensionable age leads to a significant rise in the replacement rate

	Real GDP growth rate (%)		Replacement rate (%) in 2050 for pension eligibility age of:		
	FY2014-23	FY2024 onwards	65 years	68 years	70 years
Case C	2.0	0.9	51.0	63.9	72.5
Case E	2.0	0.4	50.6	63.3	71.8
Case G	1.2	-0.2	42.0	52.8	60.0
Case H	1.2	-0.4	41.9	52.7	59.8

Note: This table shows four of the eight simulations done by the Ministry of Health, Labour and Welfare. Total pension benefit payments are fixed, resulting in variations in the replacement rate for different GDP growth rates and pension eligibility ages. For the pension eligibility age of 65, the replacement rate shown for persons is for 2058 for Case G and 2054 for Case H.
Source: Ministry of Health, Labour and Welfare (2014), *Summaries of the 2014 Actuarial Valuation and Reform Options*.

2.3.3. Promoting lifelong learning

Education and training need to be adapted to benefit as much as possible from people's skills and potential as they age. The traditional three-stage pattern of education, career and retirement is no longer well-suited to rising generations, among whom many will live 100 years, and the accelerating pace of technological change. The skills learned by people in their teens or early 20s are inadequate for a career likely to extend into their 70s or even 80s (Gratton and Scott, 2017). Moreover, skills erode with age. Shifts in the Beveridge curve (the relationship between the unemployment and vacancy rates) indicate a deterioration in the matching process between job vacancies and job seekers since 2000 in Japan (OECD, 2021a). A well-functioning system of lifelong learning is essential to help workers adjust to changes in the labour market. The government and firms must enable workers of all ages to maintain and acquire appropriate skills (OECD, 2018c), thereby extending careers and mitigating demographic headwinds.

Japan's system of lifelong education and training is less developed than in many other OECD countries, especially with respect to off-the-job training (OECD, 2018c). From an international perspective, participation in training in Japan is low and is focused on firm-specific training. On-the-job training is the principal approach to skills development, encouraged by traditional Japanese employment practices, such as lifetime employment. With lifetime employment weakening, firms are less inclined to provide on-the-job training. Meanwhile, higher education institutions have focused on general education, leaving companies to provide job-specific skills. Tertiary institutions emphasising vocational education have seen a decline in enrolments as students shifted to universities. Consequently, the role of external training providers remains negligible in Japan and relatively few adults engage in structured training activities (OECD, 2021c).

The OECD Priorities for Adult Learning dashboard compares OECD member countries across seven dimensions, showing to what extent their adult learning systems are ready to help people develop and maintain relevant skills (OECD, 2019b). While Japan ranks highest in financing, it is among the bottom ten countries in five areas – coverage, inclusiveness, flexibility and guidance, alignment with skill needs and perceived training impact (Figure 2.32).

- *Coverage and inclusiveness*: persons most in need of adult learning, typically non-regular and low-skilled workers, have fewer opportunities (OECD, 2018c). In 2017, 63% of Japanese firms furnished on-the-job training to their regular employees, but only 28% to their non-regular employees. Breaking down labour market dualism would help promote inclusiveness in training (OECD, 2021c). In addition, while 35% of employees participate in training in any given year, the share falls to 22% for older employees (OECD, 2019b).

- *Flexibility*: the opportunity cost of adult learning is high, given long working hours in Japan. Shorter and more flexible training opportunities would help increase coverage.
- *Perceived training impact and alignment with skill needs*: Japanese participants in adult learning were the second-least likely to view it as useful. Nearly 70% of Japanese workers state that more training is necessary for their jobs. As for employers, 89% report hiring difficulties.

The role of junior colleges (*tanki daigaku*), which offer two-year programmes focusing on vocational education, had declined significantly, as the falling number of young people created more opportunities in universities. Indeed, the number of junior college students fell 74% over 1995-2016, while the number of junior colleges fell 43% (Jones, 2022). To overcome the misalignment of training and labour market needs, the government has stressed the importance of enhancing universities' role in vocational training by strengthening their links to the business sector. In 2017, only 8% of universities and public institutions offered formal courses for adult education and the share of part-time students in tertiary education was 7% (OECD, 2021c). The 2018-22 National Basic Plan for the Promotion of Education aimed to improve access to lifelong learning by encouraging universities to play a more significant role.

However, university programmes tend to provide in-depth courses that take considerable time, which may not meet the needs of firms and workers. In 2019, Japan launched professional and vocational universities and junior colleges. By 2023, 23 institutions had been created, of which 20 were in the private sector. These new institutions are to provide practical, creative vocational education in cooperation with the business sector, in contrast to conventional universities. Given their close cooperation with the business sector, these new institutions could be a model to expand lifelong learning. Moreover, as workers, employers and society share the benefits of lifelong learning, the cost should also be shared. Otherwise, the "working poor", primarily non-regular and low-skilled workers, risk being excluded (OECD, 2018a).

Figure 2.32. Japan ranks low on the OECD's Priorities for Adult Learning dashboard

Note: The seven dimensions of the dashboard aggregate multiple indicators. Indicator scores are normalised (min-max) for the aggregation and the aggregate scores are therefore the relative performance of countries. The index is from 0 to 1, with a higher score indicating a better performance.
Source: OECD (2021), *Creating Responsive Adult Learning Opportunities in Japan, Getting Skills Right*.

StatLink https://stat.link/loknxj

2.4. Making greater use of foreign workers

International experience demonstrates that the medium and long-term effects of migration on public finance, economic growth and the labour market are generally positive (OECD, 2016b). Immigration can raise tax revenue and social security contributions, increase the labour force and fill skill gaps. The number of foreign residents in Japan almost tripled from around 1 million in 1989 to 3.1 million in 2022 (Figure 2.33, Panel A). Japan emerged as a long-term migration destination in the 1990s (Korekawa, 2022), and ranked twelfth among OECD countries in 2019 (Panel B). Its long-term inflows have been concentrated among labour migrants; in 2019, 60% were labour migrants and 25% were family, in contrast to the United States, where 69% were family and 10% humanitarian.

Despite rising immigration, foreign-born residents of Japan account for only 2.3% of Japan's population, one of the lowest shares in the OECD (Panel C). Only about a quarter of the foreigners living in Japan at the end of June 2023 were permanent residents, reflecting the strict requirements compared to other OECD countries. Foreign nationals need to satisfy certain requirements to obtain permanent residence status in Japan. In principle, they must live ten continuous years in Japan, although there are exceptions. In contrast, in European countries and Korea, migrants are generally eligible for permanent residence after no more than five years and skilled migrants in Australia, Canada and New Zealand are granted permanent residency upon arrival (OECD, 2024).

The number of Japanese living abroad was 1.3 million in 2022, less than half of the registered foreign population in Japan. On a flow basis, the net emigration of Japanese, which averaged 33 000 a year over 1990-2010, has been close to zero since 2010 (Figure 2.34). The number of foreigners entering Japan has exceeded the number departing by an increasing margin since 2013, with a pause during the pandemic. The inflows have slowed the decline in Japan's population. The native Japanese population fell by 0.4% in 2019 as the number of deaths exceeded births, but the drop in the total population was cut to 0.2% by the increasing number of foreigners moving to Japan.

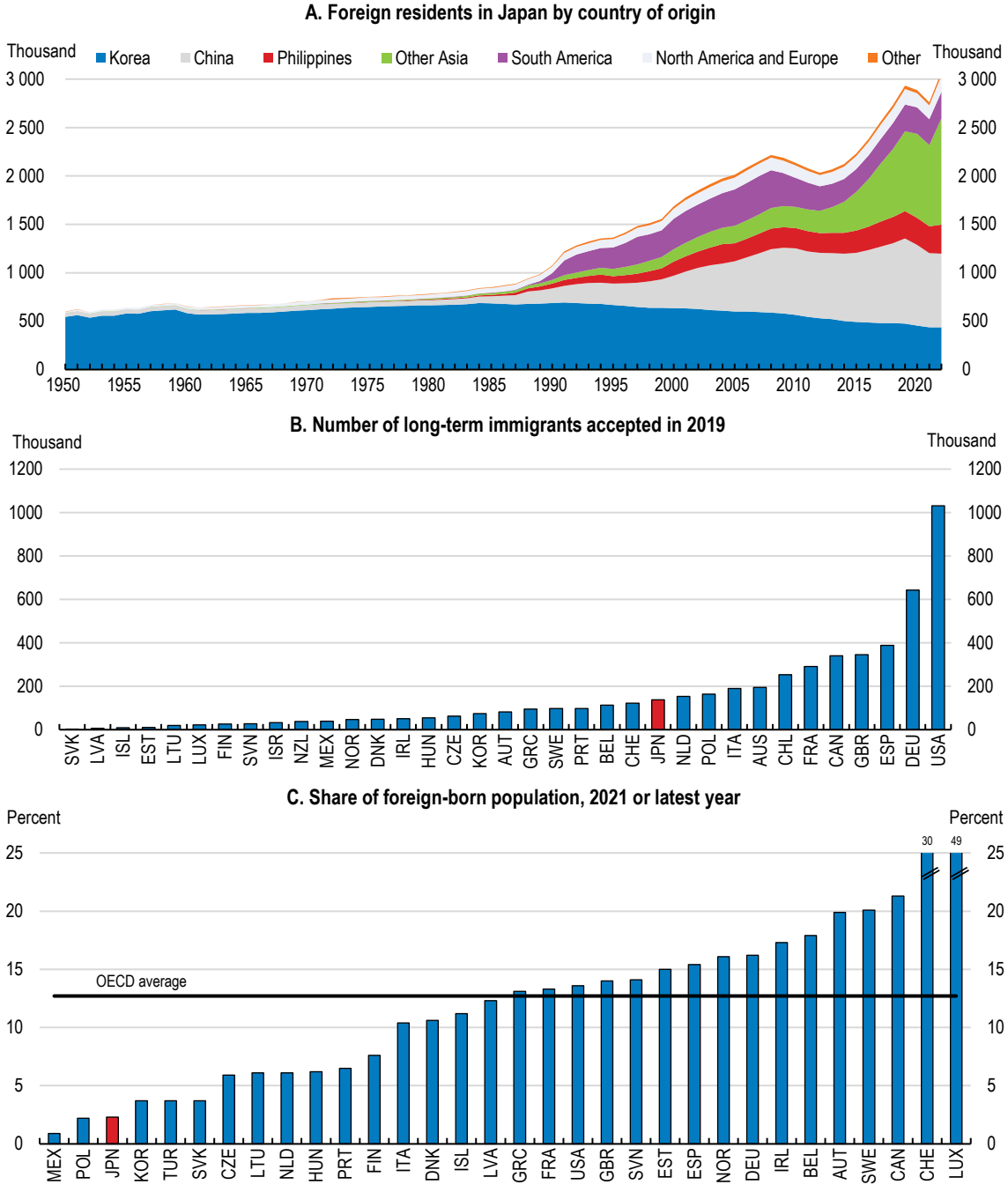
2.4.1. Foreign workers in Japan

Many studies calculate that Japan will have to rely more on foreign workers to maintain production levels, with the estimates varying widely depending on their assumptions. For example, Japan will face a shortage of more than 11 million workers by 2040 according to one study (Recruit Works Institute, 2023). The Japan International Cooperation Agency estimated that Japan needs 4.2 million foreign workers by 2030 and 6.7 million by 2040 to achieve the government's long-run medium growth scenario (JICA, 2022). Achieving the 2040 target would require the number of foreign workers to rise by 270 000 per year, more than double the 114 000 pace over the past decade (Figure 2.35). The number of foreign workers reported by Japanese firms increased by 2.7 times from 0.69 million in 2011 to 1.82 million in 2022, reflecting the easing of rules limiting their entry and labour shortages. The employment rate of foreign residents was 77% in 2020, matching the rate for the native-born (OECD, 2022). Nevertheless, foreign workers accounted for only 2.6% of Japan's labour force, one of the lowest shares in the OECD.

In 2022, foreigners employed based on their "resident status" accounted for one-third of foreign workers (Figure 2.35). About a quarter are (permanent) residents, which includes the Japan diaspora (*Nikkeijin*) and descendants of Japanese who emigrated, notably to South America, up to the fourth generation. The remainder are primarily spouses of Japanese or (permanent) residents.

The other 1.23 million foreign workers in 2022 were divided between three categories. First, a quarter were experts in professional and technical fields (Figure 2.35). This category includes those in the Specified Skilled Worker Programme introduced in 2019 (see below).

Figure 2.33. Japan's foreign population is relatively small but increasing



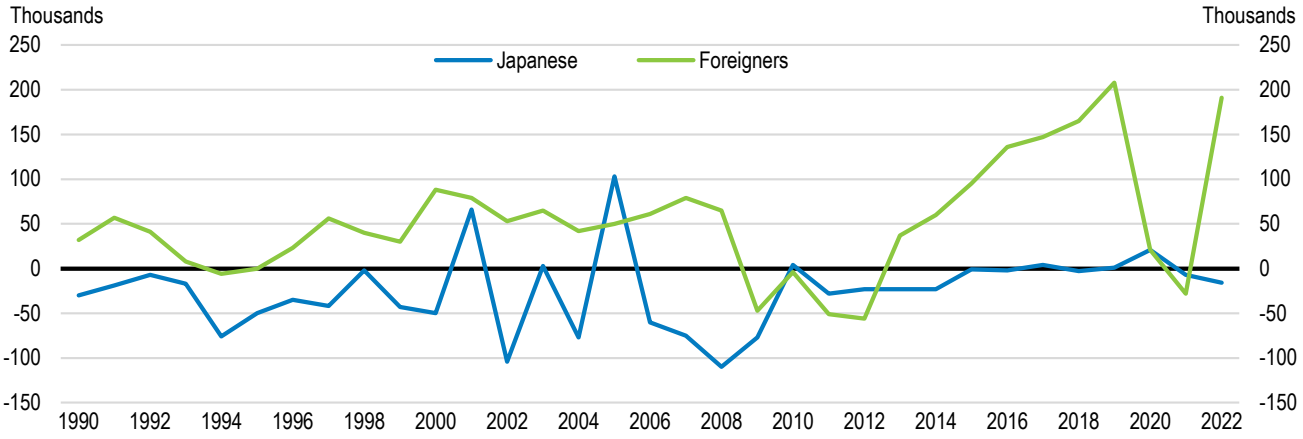
Note: Panel A – Korea includes those who went to Japan before 1945 and their descendants and newcomers since 1945, China includes Taiwan, and "Other" is Africa, Oceania and stateless persons. Panel C – the OECD area is a weighted average.
Source: Ministry of Justice, *Foreign Citizens Registration Data*; OECD, *International Migration Outlook 2022*.

StatLink https://stat.link/9qd6ek

Second, around one-fifth of foreign workers were trainees under the Technical Intern Training Programme, which began in 1993. Trainees are placed with a specific employer and allowed to work in Japan for three to five years without their families. Trainees are concentrated in manufacturing (58%) and construction (17%). About three-quarters come from Vietnam, Indonesia and the Philippines. Japan's large-scale use of trainees is unique among OECD countries. It accounted for 93% of foreign trainees admitted to OECD countries over 2019-21 (OECD, 2022).

Figure 2.34. Net emigration of foreigners to Japan has risen since 2012

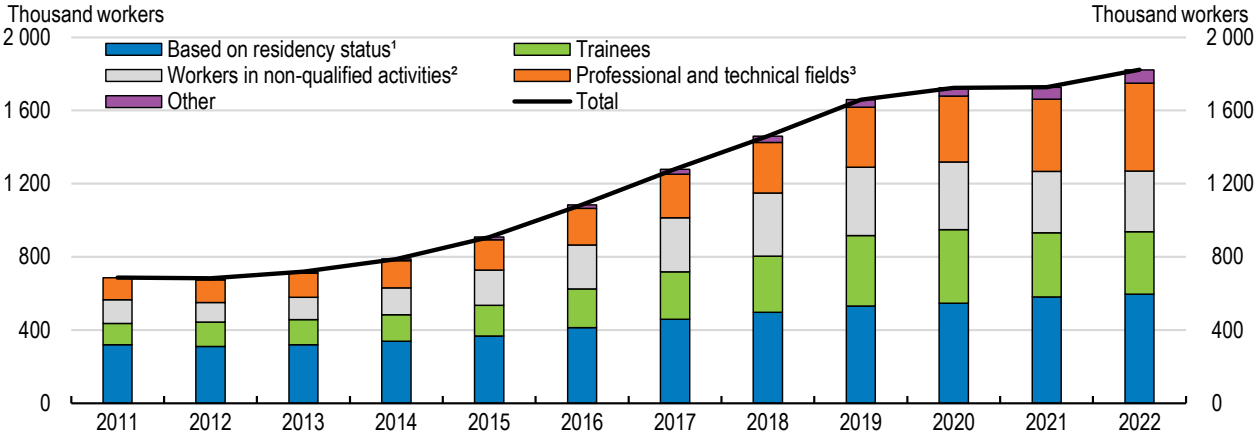
Negative values mean that the number of departures exceeds that of entrants



Source: Compiled from Population Estimates, Statistics Bureau, Ministry of Internal Affairs and Communications.

StatLink https://stat.link/du60kt

Figure 2.35. The number of foreign workers in Japan is rising



1. Includes (permanent) residents and spouses of Japanese or (permanent) residents.
2. Persons who have permission to engage in activities outside of their visa status. This group consists primarily of international students.
3. Includes professors and teachers, artists, religious teachers, journalists, business management (including corporate intra-industry transfers), legal and accounting services, health and nursing care, entertainment, research, engineers and specialists in humanities and international services.

Source: Ministry of Health, Labour and Welfare (2023), *Summary of Notification Status Indicating "Employment Status of Foreigners"*.

StatLink https://stat.link/3yq7ap

The programme's stated purpose is to promote developing countries' growth by transferring expertise and skills to trainees. However, in practice, both workers and employers have used it largely as a labour migration programme (OECD, 2024). Trainees are bound to their employer, limiting their mobility and bargaining power, which can make them susceptible to exploitation, such as employers not paying trainees and harassing them. In addition, excessive fees charged by some of the brokers who act as intermediaries between Japanese firms and potential foreign trainees result in some trainees being indebted when they arrive in Japan (OECD, 2024). Although trainees have been treated as employees under labour laws since 2010, a 2017 government report found that 71% of firms with trainees violated the Labour Standards Act, primarily related to working hours and safety standards (MHLW, 2018). In 2017, the government enforced

the Act on Proper Technical Intern Training and Protection of Technical Intern Trainees, with penalties attached to “reduce human rights violations”, stating that “trainees are no different from Japanese labourers” (OECD, 2019a).

Third, persons with permission to engage in activities outside their visa status accounted for another fifth of foreign workers in 2022 (Figure 2.35). International students, who comprise 78% of this group (MHLW, 2023b), can be authorised to work up to 28 hours per week. Inflows of international students amounted to around 125 000 annually in the years just prior to the pandemic. The number of work authorisations suggests that around 90% of international students work while enrolled in school (OECD, 2019a). However, the share is less because some international students have two jobs. China and Vietnam account for about two-thirds of international students working in Japan.

The characteristics of foreign workers vary significantly between country of origin, location in Japan, their status, industrial sector and size of firm (MHLW, 2022b):

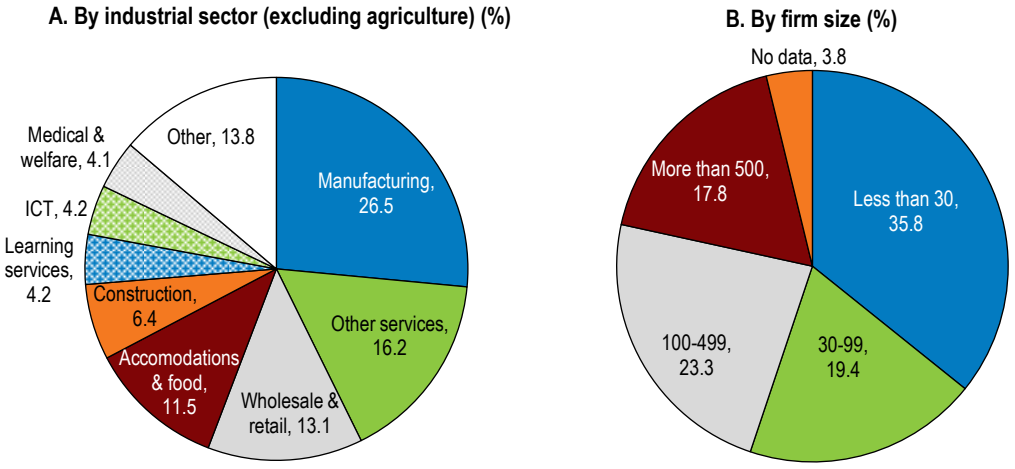
- China and Vietnam each accounted for about a quarter of foreign workers in Japan in 2021, with four other Asian countries – the Philippines, Nepal, Korea and Indonesia – providing another quarter. The migration of foreign workers primarily from middle-income countries reflects Japan’s worker shortages in labour-intensive sectors.
- Nearly 45% of foreign workers were employed in three of the most populous prefectures – Tokyo, Aichi (includes Nagoya), and Osaka. In Tokyo, international students and workers in professional and technical fields are most common, while trainees usually work outside major cities.
- More than half of foreign workers were in the service sector, focusing on wholesale and retail trade and the hospitality industry, and around a quarter in manufacturing, typically as trainees (Figure 2.36, Panel A). Workers in knowledge-intensive sectors of information and communications technology and learning support accounted for 8% of foreign workers.
- Most foreign employees work in small firms. More than 55% were employed in firms with less than 100 workers, while 17.8% worked in firms with 500 or more workers (Panel B).

2.4.2. Policies to increase the number of foreign workers

The Japanese have a generally positive attitude towards migrant workers, reflecting concerns about the country’s shrinking population. In 2022, all of Japan’s 47 prefectures, except Tokyo, recorded a population decline. In a 2018 poll in Japan by the Pew Research Centre, 58% responded that Japan should continue to allow the same number of immigrants and 23% favoured an increase. Majorities agreed that immigrants want to adopt Japanese customs (75%) and make Japan stronger thanks to their work and talents (59%) (Pew Research Centre, 2018). Similarly, a 2020 Nikkei Research poll found that 69% agree that an increase in the number of foreigners is good for Japan, with 82% citing their importance as workers (Nikkei Asia, 2020). In 2022, the governors of Gunma and Miyagi prefectures went to Vietnam to recruit workers. Increasing the number of foreign workers would have a significant impact on Japan’s labour force. If net immigration doubled from the average of 103 000 per year over 2013-22 to 200 000, Japan’s labour force would be between 13% and 20% larger in 2100, depending on the fertility scenario (Figure 2.37).

Figure 2.36. Foreign workers tend to be employed in small firms and in the service sector

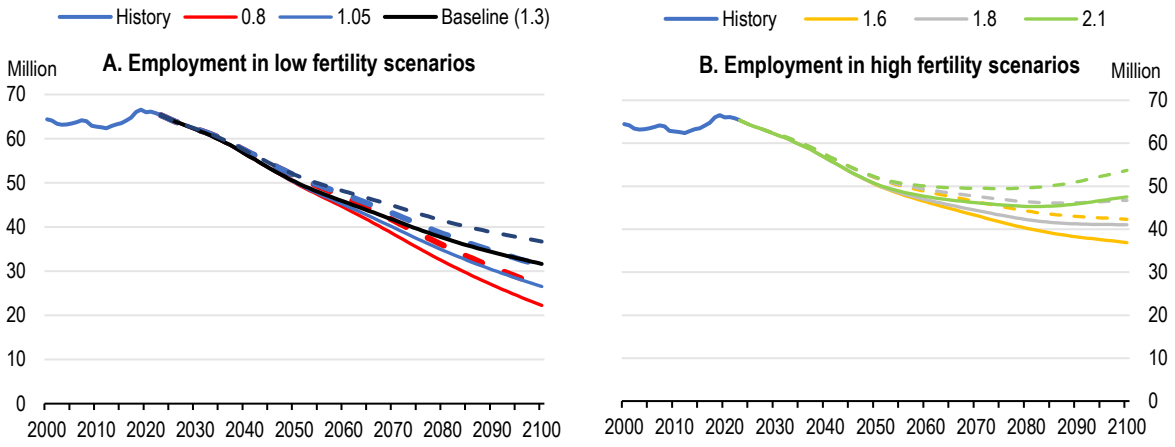
In 2022



Source: Ministry of Health, Labour and Welfare (2023), *Summary of Notification Status Indicating "Employment Status of Foreigners"*.

StatLink https://stat.link/a6e1vn

Figure 2.37. The impact of increased net immigration on employment in Japan



Note: The dotted lines show the impact of increased net immigration on Japan's labour force in each fertility assumption.
Source: OECD calculations based on the OECD Long-term Model.

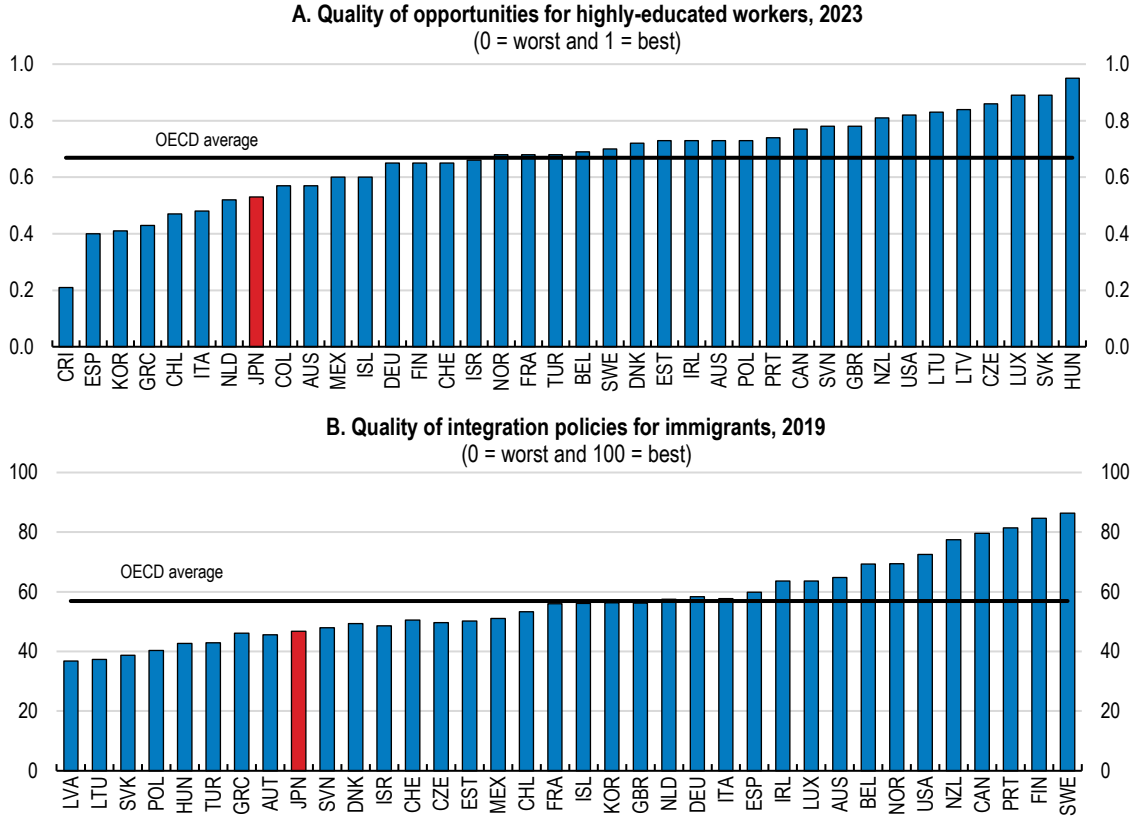
StatLink https://stat.link/c1thf7

The contributions of foreign workers depend on their quantity and skills, making it crucial to attract talented individuals. However, Japan faces growing competition from other Asian economies, such as Korea, Taipei, China, and Hong Kong, China, which also face labour shortages. For example, Korea's Employment Permit System, launched in 2004, allows foreign workers to change jobs within the same industry up to three times, and ensures equal pay with their Korean colleagues. The language barrier, lack of social networks, and unfamiliarity with the corporate culture pose challenges to foreign workers in Japan (ADBI-OECD-ILO, 2018). The OECD Indicators of Talent Attractiveness measure the strengths and weaknesses of OECD countries in their capacity to attract and retain migrants. In 2023, Japan ranked only 31st in the quality of opportunities available to highly educated workers (Figure 2.38, Panel A).

A 2020 study ranked Japan 28th among OECD countries in its policies to integrate migrants, describing Japan's approach as "immigration without integration" (Figure 2.38, Panel B). Japan ranked lowest in

preventing discrimination and 30th in education. A 2017 government study found that nearly 40% of foreign residents had been refused housing during the preceding five years because of their nationality (Centre for Human Rights Education and Training, 2017). Improving Japanese-language instruction for foreign workers and educational opportunities for their children is a priority. Indeed, Japan is the only OECD country where it is not mandatory for school-age foreign children to attend school.

Figure 2.38. There is room to improve policies to attract and integrate foreign workers



Source: OECD, Migration Statistics database; Migrant Integration Policy Index.

StatLink https://stat.link/yjxos2

Japan's weakness in integration reflects the fact that such policies started relatively recently with the introduction of the Comprehensive Measures for Acceptance and Coexistence of Foreign Nationals in 2018 (Ministry of Justice, 2018). As highlighted in the *2019 OECD Economic Survey of Japan*, preventing discrimination against migrants and improving access to education and housing are key to improve Japan's ability to attract and integrate migrants. The 2022 "Roadmap for the Realisation of a Society of Harmonious Coexistence with Foreign Nationals" provided a vision of what Japan should aim for and measures to achieve it (Ministry of Justice, 2022). This Roadmap, which includes a goal to "establish environments where foreign nationals can learn the Japanese language skills necessary for daily life and can learn about Japanese customs and social systems", should be used to improve the acceptance of foreign nationals.

Relatively low wages in Japan compared to other advanced economies have also made the country less attractive to potential migrants. The wage level of migrant workers in Japan was 26% below that of native-born workers in 2022, reflecting the importance of seniority-based wages and long-term employment (Korekawa, 2022). The weak yen, which reduces the value of overseas remittances from Japan, has exacerbated this trend. A study by the Japan Centre for Economic Research projects that low wages will make Japan unattractive to migrant workers from China, Vietnam, Indonesia and Thailand, who account

for more than half of Japan's foreign workers, by 2032 (Tomiyama et al., 2022). While Japan easily attracted workers from abroad in the past, it now has to actively seek foreign workers. Moreover, higher wages and better working conditions in other countries attract Japanese willing to work abroad. In the Pew Research Centre survey, the share of Japanese who said that emigration of Japanese to work in other countries was a moderate or very big problem rose from 39% in 2002 to 58%, though net emigration remains low or negative (Figure 2.34).

Specified Skilled Worker Programme and the Technical Intern Training Programme

In April 2019, Japan launched the Specified Skilled Worker Programme, a new residency status for work-ready foreigners with expertise in 14 business lines (now 12 following the merger of some lines) facing labour shortages. This landmark decision allows medium-skilled foreign workers to be employed in Japan on working visas for the first time rather than as trainees, international students and overseas Japanese descendants. The Programme is limited to 345 000 foreign workers over 2019-23. The government has emphasized that the Programme is not a step toward permanent resident status.

The new status has two categories. The Specified Skilled Worker (i) category is for workers "with a considerable degree of knowledge or experience" in the specified industries. This category is open to those who pass proficiency tests in the Japanese language and vocational skills and allows them to stay up to five years in Japan. Japan has signed Memoranda of Cooperation with 16 countries and conducts proficiency tests in 11 of them. However, foreign trainees who complete three years of Technical Intern Training in Japan can change their status to category (i) without taking the exams, giving them up to eight years in Japan, though without their family. The Specified Skilled Worker (ii) category initially applied to those with "expert skills" in only two sectors – construction and shipbuilding (Jones and Seitani, 2019). In June 2023, the government opened the Specified Skilled Workers (ii) category to each of the business lines opened to category (i), except nursing care. Workers in category (ii) may renew their period of stay without restrictions and bring their spouse and children, provided they meet specific legal requirements. Workers in both categories can change employers if they remain in the same industry and must be paid via a verifiable method to reduce the risk of abuse.

By the end of October 2023, Japan had accepted less than 195 000 workers, of which only 29 were in category (ii). The number was 56% of the maximum to be allowed by the end of March 2024, reflecting in part the impact of the COVID-19 pandemic. Only 19% of the total in 2022 arrived in Japan under the Specified Skilled Worker Programme. Most of the remainder were originally trainees in Japan who were accepted into the Programme, making it dependent on the Technical Intern Training Programme. At present, most candidates abroad are unable to meet the skills requirements of the Specified Skilled Worker Programme without prior experience in Japan (OECD, 2024). Vietnam accounted for more than half of the workers in the Programme, followed by Indonesia, the Philippines and China (Figure 2.39, Panel A). By industry, food and beverage and industrial manufacturing accounted for more than half (Panel B).

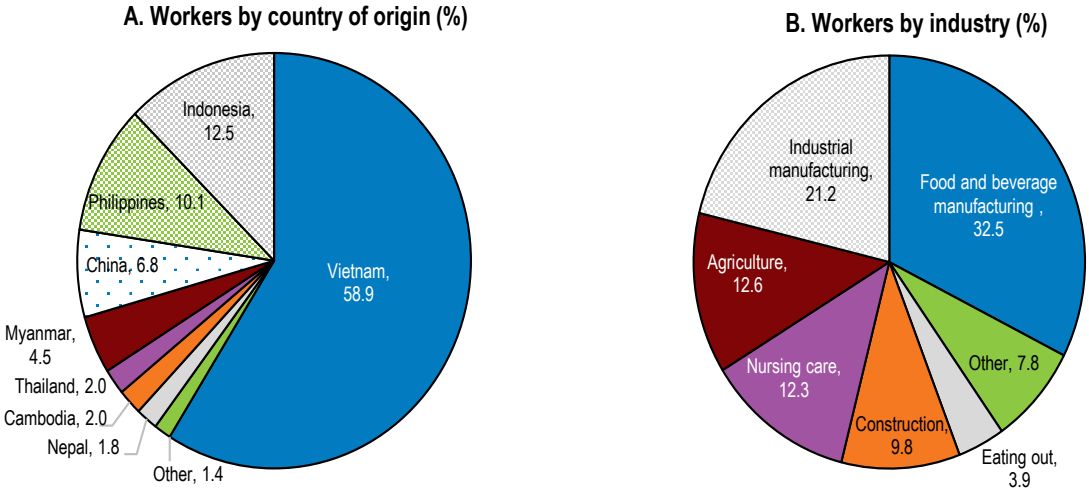
It would be unfortunate if Japan opened its door wider to foreign workers but attracted fewer people than needed or anticipated. The inflows under the Specified Skilled Worker Programme may have been limited by the tarnished reputation of the Technical Intern Training Programme because of human rights issues. The government's advisory panel in November 2023 released its final report, which stated that the authorities should consider reviewing the Programme and creating a new programme that clearly aims not only to develop but to secure human resources. The report outlines the need for workers to be able to change employers, as is the case for the Specified Skilled Worker Programme, to a certain degree. The report also proposes that transfers be allowed in principle for workers who have worked for at least a year at one place and have passed a skills test and the easiest level of the Japanese-Language Proficiency Test. However, transitional measures could be considered on an industry-by-industry basis for the one-year period. It also proposes that those who finish the newly-created programme (after three years) should be able to transfer smoothly to the Specified Skilled Worker Programme (Ministry of Justice, 2023). The

report also recommends tightening requirements and oversight of organisations that supervise and support companies accepting foreign workers.

The Japan Federation of Bar Associations has urged the government to abolish the Technical Intern Training Programme by merging it into an expanded Specified Skilled Worker Programme, with more emphasis on category (ii). Offering long-term residency to workers and their families would help attract more and higher-skilled foreign workers. The May 2023 proposals, which would allow trainees to change employers and acknowledges that the aim of the Technical Intern Training Programme is to secure human resources, would bring it closer into alignment with the Specified Skilled Worker Programme. Given that most foreign workers are unable to achieve the skills requirements of the Specified Skilled Worker Programme without prior experience in Japan, merging the Technical Intern Training Programme into the Specified Skilled Worker Programme would help it achieve its expectations in providing workers. It would also avoid the costs of administering vocational exams across a wide range of industries in 11 countries. Finally, a merger of the two programmes would help remove the stigma attached to the Technical Intern Training Programme based on concerns about the human rights issues noted above.

Figure 2.39. Foreign workers in the Specified Skilled Worker Programme cover a range of sectors

As of the end of 2022



Note: Industrial manufacturing refers to fabricated materials, industrial machinery, electrical, and information-related manufacturing.
Source: Immigration Services Agency of Japan.

StatLink https://stat.link/hl7aqo

Attracting highly-educated migrants to Japan

Japan's strategy of relying primarily on temporary foreign workers (Korekawa, 2022) to reduce labour shortages is insufficient. Temporary migrants have accounted for around four-fifths of Japan's labour migrants (Table 2.5). Until 2017, highly-skilled workers had to stay continuously in Japan for five years before being able to apply for permanent residence, a restrictive condition compared to most other OECD countries. To attract more highly qualified experts, the government introduced a points-based scheme in 2012 that provides preferential treatment, based on factors, such as academic background, work experience, research achievements and Japanese language ability, to outstanding foreigners eligible to obtain work status. Japan's points-based scheme grants faster access to permanent residence and favourable conditions for the entry of family members and applies to persons already residing in Japan and new arrivals from abroad (OECD, 2018d). In contrast to Japan's points-based scheme, which is conditional on employment in Japan and initially offers only temporary residence, Australia, Canada and

New Zealand select immigrants from a pool of candidates and immediately grant them permanent residence (OECD, 2019a). Japan's point-based system has been primarily used by foreigners already living in the country. Of the 34 700 cases during the past ten years, only 4 500 were immigrants arriving in Japan.

Several factors reduce Japan's ability to attract high-skilled foreign workers. First, the definition of the accompanying family of high-skilled workers and the access of spouses to the labour market is restrictive (OECD, 2024). Second, salaries for new graduates are low under Japan's seniority-based wage system, discouraging young potential immigrants who may not plan to stay in Japan long-term. Third, although Japan accepts high-skilled migrants, it does not actively try to attract them, unlike some countries (OECD, 2024). A job-matching platform would help attract high-skilled migrants to Japan.

In April 2023, the government announced several initiatives to encourage highly-skilled persons to work in Japan. Graduates of universities ranked in the world's top 100 will be allowed to stay in Japan for up to two years to look for jobs. In addition, a new pathway has been created for highly skilled professionals. Foreigners with an academic background or work experience and an annual income above a certain threshold will be able to gain permanent resident status after staying continuously in Japan for one year. Most applicants for the skilled professional visa are already in Japan on a different work or student visa. In addition to attracting new talent, Japan must help foreigners already in the country advance their careers to reach the income criteria.

Table 2.5. Temporary migrants account for most of labour migrants to Japan

In thousands

	Permanent migrants	Temporary migrants	Trainees	Sum of temporary and trainees	Total	Share of permanent
2018	66.0	107.7	157.8	265.5	331.5	19.9
2019	82.8	117.5	186.9	304.4	387.2	21.4
2020	56.9	24.9	86.2	111.1	168.0	33.9

Source: OECD (2022), *International Migration Outlook 2022*.

Recommendations to address demographic headwinds

FINDINGS (Main findings in bold)	RECOMMENDATIONS (key recommendations in bold)
Reversing the decline in the fertility rate	
The weak financial position of young people, which has led many to abandon or delay family formation is due in part to seniority wages, which implies young workers are paid less than their productivity.	Move away from seniority-based wages by giving more weight to performance and job category, which would allow Japan to boost productivity and better utilise its human capital.
In 2022, 17% of eligible men took parental leave compared to 80% of women. The government is considering setting a target of 50% by 2025 and 85% by 2030 for men. More than half of men using parental leave in 2021 took less than two weeks.	**Increase the take-up and duration of parental leave by fathers by raising the benefit for all parents and requiring firms to disclose the percentage of their eligible employees who take leave.**
The government plans to significantly increase its budget for child-rearing policies, which include early childhood education and care (ECEC), child allowances and parental leave.	Prioritise spending on early childhood education and care to increase capacity in areas that have waiting lists, ensuring the quality of childcare and overcoming shortages of caregivers.
Japan's relative poverty rate for children aged 17 and under is slightly above the OECD average and the rate for children in single-parent households is the highest in the OECD at 48%. Japan plans to expand its child allowance.	Given the limited impact of child allowances on fertility, focus child allowances on children living in relative poverty.
The most common reason given by couples for not achieving their desired number of children is the cost associated with raising and educating children. Average household spending on private after-school educational institutions (*juku*) for middle-school students was 4.6% to 6.5% of the average wage in FY2021, a significant burden, especially for families with multiple children.	Reduce the role of multiple-choice school entrance exams and give greater weight to other criteria, such as school grades, recommendations and extra-curricular activities in schools, and provide educational support more broadly at a lower cost through after-school programmes, the internet and public broadcasting.
Removing obstacles to the employment of women	
The share of female employees who are non-regular workers has risen sharply over the past 30 years to 55%. The low wages of non-regular workers in Japan's dualistic labour market discourage female employment and contribute to Japan's gender wage gap, while discouraging on-the-job training and slowing productivity growth. Dualism also negatively affects young people and older workers.	**Break down labour market dualism by relaxing employment protection for regular workers and making it more transparent.** **Expand social insurance coverage and training for non-regular workers.**
The social security insurance and tax treatment of second earners reduces female employment and encourages those that do enter the labour force to accept low-paying, non-regular jobs. In addition, this reduces social insurance contributions and tax revenue.	Abolish the exemption from social insurance contributions for second earners making less than JPY 1.06 (or 1.3) million and the tax deduction for main earners if the second earner makes less than JPY 1.5 million.
The time that Japanese men spend on paid labour is the second longest among OECD countries, discouraging employment opportunities for women, who devote around three hours per day more to unpaid labour than men.	Strictly enforce the mandatory limits on overtime hours and require firms to introduce rest time between periods of work. Increase support for SMEs that wish to expand teleworking.
Promoting the employment of older persons	
Japan's traditional labour market practices, such as mandatory retirement and seniority-based wages, are no longer appropriate in the context of rapid ageing. In 2022, 70% of firms set a mandatory retirement age of 60. The link between wages and seniority remains strong.	**Further increase the mandatory retirement age with an aim to abolish it and enforce the equal pay for equal work provision in the *Work Style* reform for all workers.**
Although Japan has the longest life expectancy in the OECD, its pension eligibility age (for the wage-related portion of the Employees' Pension Insurance) is only 64 and 62 for men and women, respectively.	**Raise the pension eligibility age beyond the target of 65 in line with rising life expectancy to strengthen work incentives, increase pension benefits and reduce fiscal costs.**
While around 35% of employees participate in training each year, the share falls to 22% for older employees. Long working hours and the perception that training is not well aligned with skill needs hinders lifelong training.	Use the new professional and vocational universities and junior colleges to provide practical vocational education, including to older persons, in cooperation with industry.
Making greater use of foreign workers	
Japan ranks low in an international ranking of policies to integrate migrants, reflecting the fact that integration efforts are at an early stage.	**Improve Japan's ability to attract foreign workers by implementing a comprehensive strategy to integrate migrants, including by preventing discrimination against them and improving their access to education and housing.**
The 2019 Specified Skilled Worker Programme has attracted slightly more than half of the 345 000 ceiling on workers from abroad between 2019 and the end of October 2023, in part due to the impact of the pandemic. The Technical Intern Training Programme has been troubled by human rights abuses.	Merge the Technical Intern Training Programme with the Specified Skilled Worker Programme and offer long-term residency to more workers and their families.
Japan's points-based scheme for skilled professional visas is conditional on employment in Japan and initially offers only temporary residence. The baseline for permanent residence for all skilled labour migrants is ten years, although recent reforms have reduced it to at least one year. The definition of accompanying family members and the ability of spouses to work is limited.	Select immigrants from a pool of candidates and expand access to permanent residence before ten years. Ease restrictions on the definition of accompanying family and the access of spouses to the labour market.

References

ADBI/OECD/ILO (2018), *Labor Migration in Asia: Increasing the Development Impact of Migration through Finance and Technology*, Asian Development Bank Institute, Tokyo.

Bargu, A. and M. Morgandi (2018), "Can mothers afford to work in Poland: Labor supply incentives of social benefits and childcare costs", *Policy Research Working Papers*, No. 8295.

Becker, G. (1960), "An economic analysis of fertility", in G. Becker (ed), *Demographic and Economic Change in Developed Countries: A Conference of the Universities*, Princeton: Princeton University.

Bergsvik, J., A. Fauske and R. Hart (2021), "Can policies stall the fertility fall? A systematic review of the (quasi-) experimental literature", *Population and Development Review*, Vol. 47/4.

Bioedge (2018), "Will IVF turn around Japan's declining population?", 9 June.

Cabinet Office (2023), *Survey on Attitudes and Lifestyles of Children and Young People (FY Reiwa 4)* (in Japanese).

Cabinet Office (2022), *Annual Report on the Declining Birth Rate 2022 (Summary)*.

Cabinet Office (2021), *FY2020 International Survey on Awareness of the Declining Birth Rate Society*.

Cabinet Office (2019), *Survey on Awareness of Measures for a Declining Birth Rate Society,* Annual Report on the Declining Birthrate 2019 (Summary).

Cabinet Secretariat (2023a), *Strengthening Policies for Children and Child-rearing (tentative proposal): Toward the Realization of Measures to Address the Declining Birth Rate in Different Dimensions*, 31 March (in Japanese).

Cabinet Secretariat (2023b), *Strengthening Polices for Children and Child-rearing (tentative proposal): References* (in Japanese).

Centre for Human Rights Education and Training (2017), *Analytical Report of the Foreign Residents Survey*, revised edition, report commissioned by the Ministry of Justice.

Children's Future Strategy Council (2023), *Draft Strategy for Children's Future* (in Japanese).

Christensen, K. et al. (2009), "Ageing populations: the challenges ahead", *Lancet*, Vol. 374.

Clark, R. and N. Ogawa (1992), "The effect of mandatory retirement on earnings profiles in Japan", *Industrial and Labour Relations Review*, Vol. 45, No. 2.

Doepke, M. et al. (2022), "The economics of fertility: A new era", *National Bureau of Economic Research Working Papers*, No. 29948.

Fukai, T. (2017), "Childcare availability and fertility: Evidence from municipalities in Japan", *Journal of the Japanese and International Economies*, Vol. 43.

Fukuda, T. et al. (2022), "Research on understanding the effects of free early childhood education and care", Japan Research Institute, 14 April (in Japanese).

Geppert, C. et al. (2019), "Labour supply of older people in advanced economies: The impact of changes to statutory retirement ages", *OECD Economics Department Working Papers*, No. 1554.

Gordon, A. (2017), "New and enduring dual structures of employment in Japan: The rise of non-regular labour, 1980s–2010s", *Social Science Japan Journal*, Vol. 20, Issue 1.

Government of Japan (2023a), *Basic Policy on Economic and Fiscal Management and Reform 2023* (in Japanese).

Government of Japan (2023b), *Direction for the Strategy for Children's Future* (in Japanese).

Government of Japan (2023c), *General Principles for Child-related Measures* (in Japanese).

Gratton, L. and A. Scott (2017), *The 100-Year Life*, Bloomsbury Information, London.

Hara, H. (2019), "The gender wage gap across the wage distribution in Japan: Within- and between-establishment effects", *Labour Economics*, Vol. 53.

International Federation of Robotics (2021), *Robot Density Nearly Doubled Globally*, 14 December.

IPSS (2022), *Sixteenth Basic Survey on Fertility Trends: Summary of Results*, National Institute of Population and Social Security Research, Tokyo (in Japanese).

JCCI (2023), *Results of the Survey on Minimum Wage and Wages and Employment of Small and Medium-sized Enterprises*, Japanese Chamber of Industry and Commerce, March (in Japanese).

JETRO (2016), *Investing in Japan*, Tokyo.

JICA (2022), *A Survey/Research Report on Efforts to Realise a Symbiotic Society with Foreigners by 2030/40*, Japan International Cooperation Agency.

JILPT (2020a), "Survey on employment and living of persons in their sixties", *JILPT Research Series*, Japan Institute for Labour Policy and Training, No.199 (in Japanese).

JILPT (2020b), "Survey on the employment of older persons", *JILPT Research Series*, Japan Institute for Labour Policy and Training, No. 198 (in Japanese).

Jones, R. (2022), *The Japanese Economy: Strategies to Cope with a Shrinking and Ageing Population*, London: Routledge Press.

Jones, R. and H. Seitani (2019), "Meeting fiscal challenges in Japan's rapidly ageing society", *OECD Economics Department Working Papers*, No. 1569, OECD Publishing, Paris.

Kakuchi, S. (2020), "Record numbers of female students, but is it enough?", *University World News*, 7 November.

Kato, T., H. Ogawa and H. Owan (2016), "Working hours, promotion and gender gaps in the workplace", *RIETI Discussion Paper Series,* No. 16-E-060.

Kato, H. (2018), "The analysis on disparities of fertility rate of Japanese municipalities", *Policy Research Institute*, Ministry of Finance Japan, Vol. 14.

Kikuzawa, S. and R. Uemura (2020), "Parental caregiving and employment among midlife women in Japan", *Research on Aging*, Vol. 43.

Kimura, H. (2018), *Data-based Discussion on Education and Children in Japan 2: Analysing Juku – Another School After School*, Child Research Net.

Kitao, S. and M. Mikoshiba (2022), "Why women work the way they do in Japan: Roles of fiscal policies", *RIETI Discussion Paper Series*, No. 22-E-016, Tokyo.

Kitao, S. and M. Mikoshiba (2020), "Females, the elderly, and also males: Demographic aging and macroeconomy in Japan", *Journal of Japan and International Economies*, Vol. 56, June.

Kitao, S. and T. Yamada (2019), "Dimensions of inequality in Japan: Distribution of earnings, income and wealth between 1984 and 2014", *RIETI Discussion Paper Series*, No. 19-E-034, Tokyo.

Kojima, S. et al. (2017), "Abe Shinzō's campaign to reform the Japanese way of work," *The Asia-Pacific Journal*, Vol. 15, Issues 23, No. 3.

Korekawa, Y. (2022), *What Does Matter? Beyond Cultural Explanations of Immigrant Society of Japan*, Center for Japanese Studies, University of California Berkeley.

MEXT (2022a), *Regarding the Status of Utilisation of Closed Public Elementary and Middle School Facilities and Surplus Classrooms in FY2021*, Ministry of Education, Culture, Sports, Science and Technology (in Japanese).

MEXT (2022b), *FY2021 Children's Study Expense Survey,* Ministry of Education, Culture, Sports, Science and Technology (in Japanese).

MHLW (2023a), *General Survey on Working Conditions,* Ministry of Health, Labour and Welfare (in Japanese).

MHLW (2023b), *Summary of Notification Status Indicating "Employment Status of Foreigners*, Ministry of Health, Labour and Welfare, October (in Japanese).

MHLW (2022), *2022 Survey on Employment Conditions of Elderly Persons*, Ministry of Health, Labour and Welfare (in Japanese).

MHLW (2018), *The Situation of Supervision Guidance, Inspections, etc. of Trainers of Foreign Technical Intern Trainees in 2017*, Ministry of Health, Labour and Welfare, Tokyo (in Japanese).

Migrant Integration Policy Index (2020), *Migrant Integration Policy Index*.

Ministry of Justice (2023), *Final Report* (in Japanese).

Ministry of Justice (2022), *Roadmap for the Realization of a Society of Harmonious Coexistence with Foreign Nationals* (in Japanese).

Ministry of Justice (2018), *Comprehensive Measures for Acceptance and Coexistence of Foreign Nationals* (in Japanese).

Miyamoto, H. (2016), "Reforming Japan's dual labour market", *East Asia Forum*, 23 December.

Morikawa, M. (2018), "Hidden inflation: Japan's labour shortage and the erosion of the quality of services", *VoxEU.org*, 31 March.

Naito, J. (2016), "The self-fulfilling prophecy in statistical gender discrimination: Its basic mechanism and the effects of diversity policies", *Sociological Theory and Methods*, Vol. 30, No. 1.

Nihon Keizai Shimbun (2021), "Childcare Vacancies in Rural Areas Increased in 2021 and the Number of New Users Fell Below the Previous Year for the First Time", 12 December.

Nikkei Asia (2020), "Nearly 70% of Japanese Say More Foreigners are 'Good': Survey", 10 January.

Nippon.com (2022), "Japan Sees 90% Drop in Daycare Waiting Lists over the Last Five Years", 14 September.

OECD (2024), *Recruiting Immigrant Workers: Japan,* OECD Publishing, Paris (forthcoming).

OECD (2023a), *Exploring Norway's Fertility, Work and Family Policy Trends,* OECD Publishing, Paris.

OECD (2023b), "Fertility, employment, and family policy: A cross-country panel analysis", *OECD Social, Employment and Migration Working Papers,* No. 299.

OECD (2023c), *OECD Science, Technology and Innovation Scoreboard* (webpage), Paris.

OECD (2022), *International Migration Outlook,* OECD Publishing, Paris.

OECD (2021a), *Government at a Glance 2021*, OECD Publishing, Paris.

OECD (2021b), *Pensions at a Glance 2021*, OECD Publishing, Paris.

OECD (2021c), *Creating Responsive Adult Learning Opportunities in Japan, Getting Skills Right*, OECD Publishing, Paris.

OECD (2019a), *OECD Economic Survey of Japan 2019*, OECD Publishing, Paris.

OECD (2019b), *How Future-ready is Japan's Adult Learning System?*, OECD Publishing, Paris.

OECD (2018a), *Working Better with Age: Japan*, Ageing and Employment Policies, OECD Publishing, Paris.

OECD (2018b), *Recommendation of the Council on Ageing and Employment Policies*, Paris.

OECD (2018c), *Education Policy in Japan: Building Bridges towards 2030*, OECD Publishing, Paris.

OECD (2018d), *International Migration Outlook*, OECD Publishing, Paris.

OECD (2017), *OECD Economic Survey of Japan 2017*, OECD Publishing, Paris.

OECD (2016a), "Parental leave: Where are the fathers? Men's uptake of parental leave is rising but still low", *Policy Brief*, OECD Publishing, Paris.

OECD (2016b), *International Migration Outlook,* OECD Publishing, Paris.

OECD (2015), *OECD Economic Survey of Japan 2015*, OECD Publishing, Paris.

OECD (2011), *OECD Economic Survey of Japan 2011*, OECD Publishing, Paris.

Okamoto, Y. et al. (2019), "Investigative research on declining birthrate policies in local communities", *Journal for Regional Policy Studies*, No. 11 (in Japanese).

Oshio, T. (2019), "Is a positive association between female employment and fertility still spurious in developed countries?", *Demographic Research*, Vol. 41, pp. 1277-1288.

Oshio, T., E. Usui and S. Shimizutani (2019), "Labour force participation of the elderly in Japan", in *Social Security Programs and Retirement around the World: Working Longer*, in C. Coile, K. Milligan and D. Wise (eds), University of Chicago Press.

Pew Research Centre (2018), *Japanese Views on Immigrants, Immigration, Emigration*, 12 November.

Prime Minister's Office of Japan (2023a), *Policy Speech by Prime Minister Kishida Fumio to the 211th Session of the Diet*.

Prime Minister's Office of Japan (2023b), *Press Conference by Prime Minister Kishida.*

Recruit Works Institute (2023), *Works Report 2023* (in Japanese).

Sony Life Insurance (2020), *2020 Survey on Educational Spending on Children*.

Tajan, N. et al. (2017), "Hikikomori: The Japanese Cabinet Office's 2016 survey of acute social withdrawal", *The Asia-Pacific Journal*, Vol. 15.

The Guardian (2023), "Baby Boomtown: Does Nagi Hold the Secret to Repopulating Japan?", 28 May.

Thévenon, O. (2016), "The influence of family policies on fertility in France: Lessons from the past and prospects for the future", in R. Rindfuss and M. Choe (eds), *Low Fertility, Institutions, and Their Policies,* Springer, Cham.

Thomas, A. and P. O'Reilly (2016), "The impact of tax and benefit systems on the workforce participation incentives of women," *OECD Taxation Working Papers*, No. 29.

Tomiyama, A. et al. (2023), "Dekasegi to Japan peak out by 2032 ~Local salary hikes and a weaker Yen will diminish the benefits", *Japan Centre for Economic Research* (in Japanese).

Usui, E., S. Shimizutani and T. Oshio (2017), "Health capacity to work at older age: Evidence from Japan", *Social Security Programs and Retirement Around the World: The Capacity to Work at Older Ages*, editor D. Wise, University of Chicago Press.

Usui, E., S. Shimizutani and T. Oshio (2016), "Are Japanese men of pensionable age underemployed or overemployed?", *Japanese Economic Review*, Vol. 67(2).

WHO (2020), *Healthy Life Expectancy (HALE) at Age 60 (years)* and *Healthy Life Expectancy (HALE) at Birth (years)*, World Health Organisation.

World Economic Forum (2023), *Global Gender Gap Report 2023*.

Yamaguchi, K. (2016), "Determinants of the gender gap in the proportion of managers among white-collar regular workers in Japan", *Japan Labour Review*, Vol. 13, No. 3.

Yamaguchi, S. (2021), *The Economics of Child-rearing Support,* Nihon Hyoronsha (in Japanese).

Yashiro, N. (2018), "Dismissal compensation and labour mobility in Japan", *Severance Payment and Labour Mobility*, edited by T. Hatta and S. Ouchi, Springer.

Yokoyama, I. (2018), "How the tax reform on the special exemption for spouses affected the work-hour distribution", *Journal of the Japanese and International Economies*, Vol. 49.

Youm, Y. and K. Yamaguchi (2016), "Gender gaps in Japan and Korea: A comparative study on the rates of promotion", *RIETI Discussion Paper Series*, No. 16-E-011.

OECD Economic Surveys

JAPAN

Japan has navigated the dual shock of the pandemic and the energy crisis well. However, significant headwinds from weak global growth, geopolitical tensions and high inflation highlight the importance of enhancing the Japanese economy's resilience to shocks. In a context of inflation, which has risen above target, and pressures from divergent monetary policy from peers, adjustments to monetary policy settings have commenced. Given high public debt, fiscal consolidation to rebuild fiscal buffers, underpinned by a credible medium-term fiscal framework to put the debt-to-GDP ratio on a clear downward path, is key. Longer-term sustainability also requires reducing greenhouse gas emissions in line with government targets, calling for green investment, innovation and carbon pricing. Reforms to improve the innovation framework and incentives for start-ups are key to boost productivity and address ageing pressures. Removing obstacles to the employment of women and older persons and making greater use of foreign workers are also essential to counter demographic headwinds. Strengthening the financial position of young people and policies to support families and children, such as improved parental leave, would help to reverse the downward trend in the fertility rate.

SPECIAL FEATURE: ADDRESSING DEMOGRAPHIC HEADWINDS

Volume 2024/2
January 2024

PRINT ISBN 978-92-64-69099-8
PDF ISBN 978-92-64-58697-0

ISSN 0376-6438
2024 SUBSCRIPTION
(18 ISSUES)

9 789264 690998