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Overview

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Context: Rating history, demographic headwinds and Covid-19 shock

- First driver for Negative Outlook:
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 - Economy, funding flexibility, debt structure, external position

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Executive summary

Japan: A+/Negative captures rising fiscal and growth challenges

- Credit rating on a gradual downward path, particularly since the financial crisis
- Japanese workforce to significantly decline over next 30 years, challenging public finance and growth outlooks

> The Covid-19 pandemic will weaken the already struggling public finances

- Public finances gradually but constantly deteriorated over past 30 years; BoJ heavily buying JGBs since 2012
- Comprehensive and supportive countermeasures against Covid-19 crisis have been implemented
- While needed, they are likely to permanently and materially impact Japan's fiscal consolidation efforts

> Low-inflation, slow-growth economy challenges debt reduction over medium-term

- Sluggish GDP growth has characterized the last three decades
- Under Abe administration, Japan has a achieved small, but sustained economic expansion
- However, Abenomics undershoots inflation targets while BoJ's balances dramatically inflated

Inherent credit strengths support Japan's sovereign rating

- Japan benefits from a wealthy and diversified economy
- Large domestic investor base, the role of the yen as reserve currency and large external position

SCOPE

Japan: Outlook change to A+/Negative

Context: Rating history, demographic headwinds and Covid-19 shock

Balancing fundamental developments with rating stability

On 24 April Scope revised Japan's Outlook on it's A+ rating to Negative from Stable

Scope's rating history on Japan vis-a`-vis US competitors



Source: Reuters, Scope Ratings GmbH

> Japan's creditworthiness on gradual decline since the financial crisis



% Millions US — UK — FR ■ 0~14 ■ 15~64 ■ 65 + 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060

Total population

Old-age dependency ratio

Source: UN, Scope Ratings GmbH

Source: National sources, Scope Ratings GmbH

> Japanese workforce expected to significantly decline in the next forty years

- Japan has the oldest population in the world with a median age of 48 years and 29% of citizens aged 65+
- By 2060, the working age population will shrink by one third and the old-age dependency ratio will reach 76%
- Participation rates of women, the elderly as well as foreign workers are rising but more progress is needed



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Deteriorating fiscal outlook

Primary balance and public debt % of GDP



% of the total

Social security expenditure

> Public finances experienced a gradual but constant deterioration over the last 30 years

- Government debt has increased from 64% in 1990 to 237% in 2019 due to sustained primary deficits
- The share of social security expenditure in total public spending has been increasing due to Japan's ageing society
- Budgetary pressures and fragile economic growth have constrained the government's ability to consolidate



Net present value of ageing-related spending, 2019-50 % of GDP



N.B. Pension projections rely on authorities' estimates when these are available; For NPV calculations, a discount rate of GDP growth + 1% is used for each economy. Source: IMF, Scope Ratings GmbH

Rising healthcare costs will weigh on public finances

- · Japan is among the advanced economies that face the largest rise in healthcare expenditure
- Rising structural expenditure pressures coupled with a shrinking tax base will gradually erode fiscal fundamentals



Deteriorating fiscal outlook

Fiscal package comparison % of GDP



Direct outlays Guaranteed Ioans

Source: IMF, Scope Ratings GmbH

Package composition:



> The government has announced a massive fiscal support package

- Successive fiscal support packages have been announced since December 2019
- In total, JPY 118 trillion, of which JPY 33.9 trillion (6% of GDP) in direct outlays have been announced
- This will provide much-needed support to the economy although timing is key



Deteriorating fiscal outlook

Primary balance

% of GDP



General government debt

% of GDP



Source: IMF, Scope Ratings GmbH

> ...which however will adversely impact on consolidation attempts

Scenario	Time Period	Real GDP growth (%)	Primary bal. (% of GDP)	Real eff. int. rate (%)	Debt end period (% of GDP)
History	2014-2019	1.0	-3.2	-0.6	237.7
IMF Baseline	2020-2024	0.5	-2.0	-0.4	237.6
Covid-19 baseline		-0.3	-3.7	-0.2	255.8



Deteriorating fiscal outlook

Investor base



JPY trillions

Bank of Japan's total assets

% of Japanese public debt

> Large-scale purchases by BoJ displace traditional private sector investor base

- Since 2012, the Bank of Japan has increased its share of Japanese government debt holdings from 11% to 40%
- Aggressive BoJ policies have displaced the traditional investor base of domestic banks and non-banks
- Is the BoJ's balance sheet expansion, now at over JPY 600 trillion and above 100% of GDP, sustainable?



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2013 2015 2017 ი

2011

2005

2007 2009

2003

2001

Source: IMF, Scope Ratings GmbH

US

UK

France

Japan has experienced sluggish GDP growth over the last three decades

201

Since 1990, Japan has experienced a decline in potential growth due to declining productivity growth and hours worked ٠

0.5

0.0

Italy

Japan

- Despite highly accommodative monetary and fiscal policies, Japan lags behind peers in terms of real growth
- Mounting demographic pressures will weigh on Japan's already low growth potential (estimated at 0.3-0.4%)

0

-1 -2

991

1993 995 1997 1999



Real GDP growth and unemployment rate



Source: Ministry of Internal Affairs and Communications, IMF, Scope Ratings GmbH

> Despite an ambitious 'Abenomics' reflation initiative, growth has yet to pick up

- Average GDP growth has been 1.17% since 2012 excl. 2020, above potential, due to fiscal and monetary stimulus
- This stimulus combined with an ambitious structural reform programme reduced unemployment to record lows
- However, real growth under Abenomics has hardly picked up, reflecting structural macroeconomic pressures
- Including the decline of -5% growth in 2020, average economic growth will essentially be flat despite all efforts

April 2020

SCOPE

Japan: Outlook change to A+/Negative

Low growth potential

Inflation



Central banks' balance sheet

% of GDP



> Inflation remains very low despite BoJ's policies

- Inflation remains well below the Bank of Japan's 2% target, due to demographic pressures and low potential growth
- This is despite forceful monetary policy interventions, with the BoJ's balance sheet now exceeding 100% of GDP
- Low growth and low inflation, on top of persistent deficits, prevent any reduction in Japan's debt-to-GDP ratio



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Economy, funding flexibility, debt structure, external position

A wealthy, diversified and competitive economy

GDP per capita (x axis), USD 000's; Global competitiveness Index (y axis); share in world GDP (bubble size)



productivity and economic efficiency of a country.

Source: World Economic Forum, IMF, Scope Ratings GmbH

Japan has a large, wealthy, diversified and competitive economy

- Japan has a wealthy tax base, with the GDP per capita level in line with peers
- Its large market size, competitive market, excellent infrastructure and well-educated population are key strengths
- In the 2019 Global Competitiveness Index, Japan ranked 6th

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> Domestic investor base and yen's reserve currency status reduce refinancing risks

- Japan is capable of refinancing its debts mostly domestically, due to a large, savings-rich domestic investor base
- Large-scale purchases of government debt by the BoJ provides continuous demand for Japan's debt at low costs
- The yen's reserve currency status further supports demand and pushes down yields
- Therefore, Japan's cost of debt remains very low despite a very large debt stock

SCOPE

Japan: Outlook change to A+/Negative

Economy, funding flexibility, debt structure, external position

Current account balance





Net International Investment Position % of GDP

Source: IMF, Scope Ratings GmbH

Source: IMF, Scope Ratings GmbH

A very robust external position is a key strength

- Japan continues to post sustained current account surpluses, underpinned by high foreign investment returns ٠
- It is now the largest creditor nation in the world, with a net international investment position of 66.5% of GDP as of 2019 ٠
- Large primary income flows due to massive net foreign assets support the current account despite recent trade tensions ٠



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Annexes

Credit strengths

- ✓ Diversified economy
- ✓ Funding flexibility
- ✓ Favourable debt structure
- ✓ Strong external position

Credit weaknesses

- Deteriorating fiscal outlook
- ✓ Low growth potential

Positive rating-change drivers

- ↑ Medium-term fiscal consolidation
- ↑ Higher potential GDP growth

Negative rating-change drivers

- Inability to consolidate public finances
- Inability to raise potential GDP growth





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