FY2020 - FY2021 Economic Outlook

The recovery of mobility will be slow. Level of GDP among developed countries will fall short of a rebound to pre-Covid levels

August 18, 2020

Mizuho Research Institute Ltd.



Key points of our outlook

- The rate of global real GDP growth in 2020 is forecast to be -4.1%, the worst negative growth since the end of World War II. The recovery in 2021 will be slow. GDP growth among the major developed countries will fall short of a rebound to pre-Covid levels even at the end of 2021, with a recovery to the level of 2019 only from 2022 onward.
- The key to predicting the future course of the global economy is the direction of mobility. Based upon the view that social distancing requirements will continue, mobility will not return to pre-Covid levels until the Jan-Mar quarter of 2022 when the widespread uptake of the Covid-19 vaccine is expected. The recovery of mobility will likely proceed gradually in an ebb-and-flow path reflecting the recurring cessation and resurgence of infections. The recovery will follow a sawtooth pattern.
- A downturn of the economy should be averted in 2020 due to the implementation of aggressive fiscal policies.
 However, a reactionary decline due in part to the fading impact of income support will arise through 2021 and serve
 as a drag upon economic recovery. Corporate behavior placing priority on securing liquidity on hand may also serve
 to dampen capital investment growth.
- We forecast that the rate of Japan's real GDP growth will stand at -6.0% in FY2020 due to self-restraints on consumption and downward pressures upon exports. The Japanese economy is forecast grow only +3.4% in FY2021, being unable to bounce back from the steep fall in FY2020. The pace of recovery until the end of FY2021 will remain sluggish, due to the progress of adjustments in employment, wages, and capital investment, ongoing restrictions on consumption activities such as eating out, travel, and entertainment, and concerns regarding the resurgence of Covid-19 infections which dampen household and corporate business activities.

Overview of the global economic outlook: overall negative growth in 2020 including emerging market economies, with a slow recovery in 2021

Outlook on the global economy

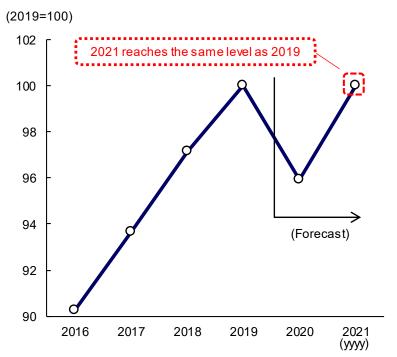
				(Y-o-y	% change)	(Y-o	-y % change)		(%Pt)
	2017	2018	2019	2020	2021	2020	2021	2020	2021
	CY			(Outlo	ook)	(Forecast as	of April)	(Comparison with	n April forecast)
Global real GDP growth	3.9	3.6	2.9	-4.1	4.3	-2.4	4.4	-1.7	-0.1
Japan, US, Eurozone	2.3	2.2	1.6	-6.9	3.7	-4.8	3.3	-2.1	0.4
US	2.3	3.0	2.2	-5.0	2.7	-3.7	2.9	-1.3	-0.2
Eurozone	2.5	1.9	1.3	-9.1	5.1	-6.2	4.5	-2.9	0.6
UK	1.9	1.4	1.5	-10.8	6.8	-2.8	1.0	-8.0	5.8
Japan	2.2	0.3	0.7	-5.7	2.1	-6.0	3.2	0.3	-1.1
Asia	6.3	6.1	5.2	-0.8	5.7	-0.1	5.7	-0.7	-
China	6.9	6.7	6.1	1.3	7.0	0.7	7.0	0.6	-
NIEs	3.4	2.9	1.7	-2.3	2.9	-3.7	2.7	1.4	0.2
ASEAN5	5.4	5.3	4.8	-3.7	5.4	-1.1	5.4	-2.6	-
India	6.6	6.8	4.9	-3.4	3.9	0.1	4.0	-3.5	-0.1
Australia	2.5	2.8	1.8	-4.2	2.9	-2.6	3.5	-1.6	-0.6
Brazil	1.3	1.3	1.1	-7.5	2.7	-2.8	2.5	-4.7	0.2
Mexico	2.1	2.2	-0.3	-11.1	2.5	-6.0	3.5	-5.1	-1.0
Russia	1.8	2.5	1.3	-4.6	2.9	-1.3	1.8	-3.3	1.1
Japan (FY)	1.9	0.3	0.0	-6.0	3.4	-6.5	5.3	0.5	-1.9

Note: The shaded areas are forecasts. The total of the forecast area is calculated upon the GDP share (PPP) by the IMF. Source: Made by MHRI based upon releases by the International Monetary Fund (IMF) and statistics of relevant countries and regions

Worst negative growth since the end of World War II in 2020 with a slow recovery in 2021

- The rate of global real GDP growth in 2020 is forecast to be -4.1% y-o-y, the worst negative growth since the end of World War II. The recovery in 2021 will be slow.
 - The key to predicting the future course is the direction of mobility*. Infection will not stop until there is widespread uptake of the Covid-19 vaccine, anticipated in the Jan-Mar quarter of 2022. Social distancing requirements will continue, and mobility will not return to pre-Covid levels up until that time. * Status of going to entertainment and retail facilities, etc. (crowd and time spent)
 - ◆ The recovery of mobility will only be gradual, so the recovery in the global economy will also be slow.
 - A downturn of the economy should be averted in 2020 due to the implementation of aggressive fiscal policies in each country. However, a reactionary decline will arise through 2021 and serve as a drag upon economic recovery.

Outlook on the global economy



Source: Made by MHRI based upon releases by the IMF and statistics of relevant countries and regions

Assumptions for the outlook

		Outline
	Timing for widespread uptake of vaccine	Anticipating that it will take more than one year for widespread uptake of the vaccine (Jan-Mar quarter of 2022) even after commercialization of a vaccine commences in Oct-Dec quarter of 2020
Behavioral restrictions	Covid-19 infections	Infection will not stop until widespread uptake of a vaccine
	Mobility	Mobility (going to entertainment and retail facilities) will not recover to pre-Covid levels until there is widespread uptake of the vaccine, and the recovery will be slow. The recovery path is anticipated to ebb-and-flow between improvements due to pauses in infections and suppression due to resurgence in infections
Inherent factors in	Fiscal policy	Economic downturn averted in 2020 due to aggressive fiscal policies (a reactionary decline through 2021 serving as a drag upon economic recovery)
each country	Other	Drop in consumption due to lower employment and wages, sluggish investment to ensure liquidity, reduced exports because of the decline in overseas consumption and investment

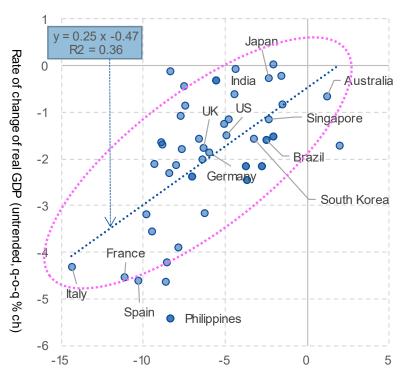
Source: Made by MHRI



Correlation between movement restrictions (decline in mobility) and change in GDP growth

- There is correlation between the decline in mobility and the rate of economic growth.
- The Apr-June quarter growth rate for major countries estimated from mobility indicates an annualized 20% to 40% decline. Despite the fall of external demand and contraction in inventories, the rate of growth is comparable to the actual published results.

Impact on GDP from behavioral restrictions (Jan-Mar quarter 2020)



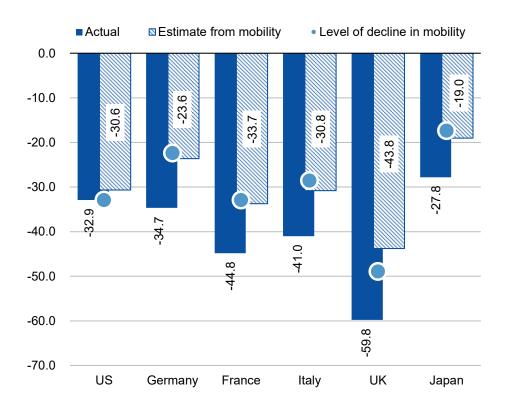
Rate of change in workplace mobility (% ch frompre-pandemic)

Note: 46 countries for which Jan-Mar quarter 2020 GDP data and mobility is available
The rate of change in mobility is the average crowd and period of stay in the workplace
from February 15 to March 31

GDP is the figure after removing the trend with an HP filter.

Source: Made by MHRI based upon releases by Google LLC, OECD and Bloomberg

Estimated value from the Apr-Jun quarter growth rate and the level of decline in mobility



Note: The estimated value is the forecast real GDP growth rate after removing the trend + the HP filtered trend growth rate

Mobility is the extent of decline from the previous quarter. Note that mobility is not available for China, so it has been excluded from the calculation.

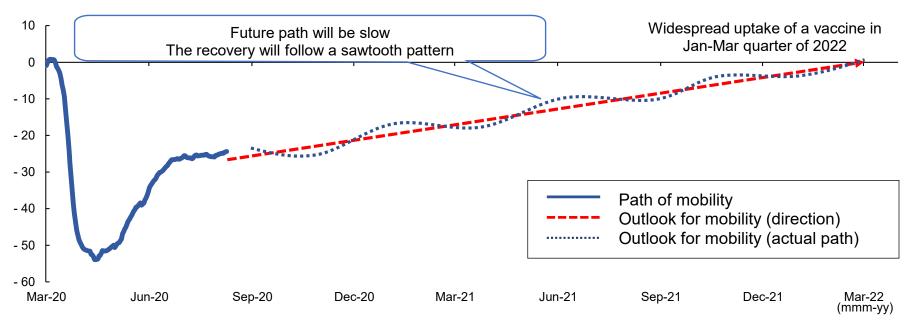
Source: Made by MHRI based upon releases by OECD, CEIC, Bloomberg and Google LLC

The pace of recovery in mobility will be slow and follow a sawtooth pattern

- Although mobility has recovered sharply following the easing of lockdown restrictions in each country, the subsequent pace of recovery has been slow.
 - In addition to some countries where restrictions have been imposed on mobility due to recent resurgence in the number of new cases of infection, consumers have shown self-restraint in their movements.
- Since it will take time until there is widespread uptake of a vaccine (anticipated to be the Jan-Mar quarter of 2022), the improvement in mobility will be slow. We anticipate that mobility will ebb and flow between improvements due to pauses in infections and suppression due to resurgence in infections (with a sawtooth pattern for the path of recovery in mobility).
 - Note that we do not anticipate a resumption of a global lockdown (although there is risk of resumption in the event of a rapid tightening of medical capacity).

Mobility path for major countries (The outlook is an image)

(Q-o-q % change in infections)

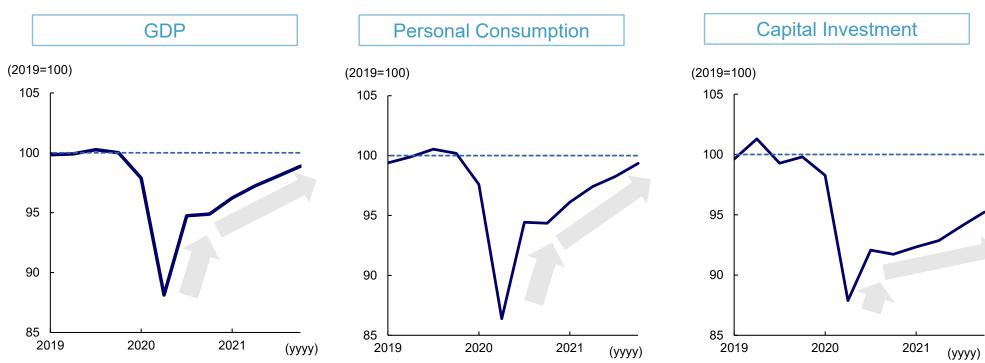


Note: Aggregate value for 17 major countries. Weighted according to GDP. Source: Made by MHRI based upon releases by Google LLC, OECD

GDP for Japan, the US and Europe unlikely to return to 2019 levels even by the end of 2021

- The GDP of major countries (Japan, the US and Europe) are unlikely to return to 2019 levels even by the end of 2021. We forecast that levels will recover from 2022.
- Although personal consumption will temporarily improve in the Jul-Sep quarter of 2020 due to the income support
 provided by aggressive fiscal policies and the recovery in mobility, growth will be subsequently weak through 2021.
 This is attributed to the slow improvement in mobility, sluggish growth in employment and incomes, and fading
 impact of income support.
- We forecast sluggish growth in capital investment due to the deterioration in corporate earnings because of sluggish
 domestic production and services activities as well as the priority given by companies to ensuring liquidity on hand.

Outlook for GDP, personal consumption and capital investment in major developed countries (composite of Japan, US and Europe) (Quarterly)



Note: US\$ conversion.

Source: Made by MHRI based upon statistics of relevant countries and regions

The US economy: Covid-19 slams brakes on the economy. The recovery path is expected to be slow

- We forecast growth rates for 2020 and 2021 of -5.0% and +2.7% respectively. There was an historic drop in the Apr-Jun quarter of 2020 due to the sudden brake on the economy from strict lockdowns.
- The economy recovered from May given the success of enormous fiscal support measures. Despite the surge of the unemployment rate, consumption was underpinned by strong financial positions of households due to generous unemployment benefits. Business sentiment has also improved. Financial markets have also stabilized due to the liquidity support measures from the US Fed.
- While we expect the US economy to turnaround to positive growth in the Jul-Sep quarter of 2020, rebounding from the Apr-Jun quarter, the subsequent pace of recovery will be sluggish. Points of particular focus will be (1) the prospect of additional fiscal support measures, (2) the corporate focus on liquidity and restraint on investment due to growing uncertainty, and (3) the protracted slump in demand for close contact services due to voluntary social distancing and public health measures.
- We forecast high unemployment and low inflation to continue due to the lingering output gap. The FOMC is
 maintaining a stance to continue firm monetary easing measures. We expect that the FOMC will introduce a new
 policy framework and take a stance tolerating an overshoot in the inflation rate, and that it will leave the policy
 interest rates unchanged throughout the forecast period.

Curtain closes on economic expansion due to spread of Covid-19 and strict public health measures

- We forecast the rate of real GDP growth in the US to be -5.0% in 2020 and +2.7% in 2021. This will mark the end of 128 months of continuous economic growth.
- We forecast the economy to shift into a recovery trend after bottoming in the Apr-Jun quarter of 2020.
 - Additional fiscal policy measures should push up consumption in the Jul-Sep quarter, with a reactionary decline in the Oct-Dec quarter. The pace of recovery will be weak from 2021.

Outlook on the US economy

	2018	2019	2020	2021		20	19			20	20			20	21	
	CY		(Outl	ook)	Jan-Mar /	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
GDP (real) Q-o-q % ch. p.a.	3.0	2.2	- 5.0	2.7	2.9	1.5	2.6	2.4	- 5.0	-33	25.4	- 2.4	6.0	3.5	5.1	2.7
Personal consumption Q-o-q % ch. p.a.	2.7	2.4	- 4.8	4.1	1.8	3.7	2.7	1.6	- 6.9	-35	39.0	- 3.9	8.0	4.3	3.6	3.9
Housing investment Q-o-q % ch. p.a.	- 0.6	- 1.7	- 5.0	- 1.7	- 1.7	- 2.1	4.6	5.8	19.0	-39	-17	4.9	- 2.0	11.4	8.7	8.1
Capital investment Q-o-q % ch. p.a.	6.9	2.9	- 7.1	- 2.4	4.2	0.0	1.9	- 0.3	- 6.7	-27	4.4	- 8.2	- 2.4	- 1.1	10.6	4.5
Inventory investment Q-o-q contribution, % pt	0.2	- 0.0	- 1.0	1.7	0.2	- 1.0	- 0.1	- 0.8	- 1.3	- 4.0	0.8	0.5	2.2	1.5	2.5	0.4
Government consumption Q-o-q % ch. p.a.	1.8	2.3	1.8	- 3.1	2.5	5.0	2.1	2.4	1.3	2.7	- 1.6	3.0	- 4.6	- 6.1	- 7.2	- 5.4
Net exports Q-o-q contribution, % pt	- 0.3	- 0.2	0.2	- 0.1	0.6	- 0.8	0.0	1.5	1.1	0.7	- 1.2	0.0	- 0.3	- 0.0	- 0.2	- 0.2
Exports Q-o-q % ch. p.a.	3.0	- 0.1	-17	2.2	1.8	- 4.5	0.8	3.4	- 9.5	-64	15.7	8.0	10.7	10.7	7.2	7.2
Imports Q-o-q % ch. p.a.	4.1	1.1	-15	3.8	- 2.1	1.7	0.5	- 7.5	- 15.0	-53	21.8	5.8	10.3	8.3	7.0	6.8
Unemployment rate %	3.9	3.7	9.1	9.0	3.9	3.6	3.6	3.5	3.8	13.0	10.0	9.7	9.4	9.2	8.8	8.6
PCE deflator Y-o-y % ch.	2.1	1.5	0.8	1.4	1.4	1.5	1.5	1.5	1.7	0.6	0.5	0.6	0.5	1.4	1.8	1.7
Core excluding food and energy Y-o-y % ch.	2.0	1.7	1.0	1.1	1.7	1.7	1.8	1.6	1.8	0.9	0.8	0.7	0.5	1.1	1.3	1.4

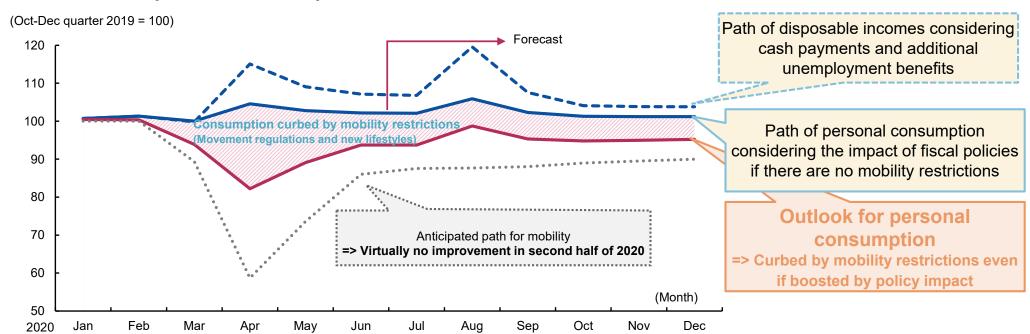
Note: The shaded areas are forecasts.

Source: Made by MHRI based upon releases by the US Department of Commerce and the US Department of Labor

Fiscal policy: enormous fiscal support measures averting a further downturn of the US economy, particularly consumption

- The US economy is supported strongly by fiscal policy measures. Consumption has been boosted by generous employment and income security measures, while strong financial support has served to curb corporate bankruptcies.
- Although substantially reduced by mobility restrictions such as lockdowns in the Apr-Jun quarter, disposable incomes have been boosted by additional unemployment benefits of US\$600/week and the first round of cash benefits. This has underpinned consumption.
- We forecast a temporary upturn of consumption in the Jul-Sep quarter due to delay in reducing the additional unemployment benefits and a second round of cash benefits (with a reactionary decline in the Oct-Dec quarter).
 - However, consumption will continue to be suppressed by a stalled recovery in mobility, and there will only be a moderate recovery from 2021.

Outlook for real personal consumption



Note: Mobility is the consumption related data by state, weighted according to personal consumption by state Source: Made by MHRI based upon releases by the US Department of Commerce and Google

Investment: liquidity prioritized, while capital investment is secondary

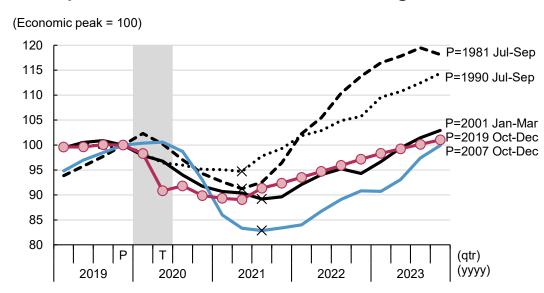
- US companies have raised vast sums of operating capital since March, totalling US\$1.6 trillion in bonds and bank loans (C&I loans).
 - The pace of bond issuance has been 2 to 2.7 times the average for 2019. Most bank loans reflect PPP loans.
 - Monthly sales in the US private sector are about US\$2.8 trillion (gross production amount for the Oct-Dec quarter). Demand for funds has surged due to the sharp decline in sales caused by lockdowns.
 - According to empirical research, companies faced with strong liquidity constraints have suffered more serious declines in their stock prices.
- It has taken a year and half for capital investment to recover in past periods of recession and recovery. We forecast the period for prioritizing liquidity on hand will continue for sometime in preparation for a resurgence in infections and renewed suspension of economic activity.

Status of funding by US companies ("Cash is King")

(US\$bn) 1,800 Amount of bonds 1,600 issued (cumulative since March) 1.400 1.200 1,000 800 600 Balance of C&I loans (change 400 since February) 200 2020 Mar Apr May Jun (mmm)

Source: Made by MHRI based upon releases by the FRB and SIFMA

Capital investment trends after entering recession



Note: P refers to the economic peak, T refers to the economic bottom (Forecast value). The shaded areas are periods of recession

The dotted line for "P=2019 Oct-Dec quarter of 2019" shows the recent movement

Others are past trends setting the peak at the Oct-Dec quarter of 2019, with X marking the bottom for capital investment

Source: Made by MHRI based upon releases by the US Department of Commerce



The Eurozone economy: serious economic downturn and a slow recovery due to the prolongation of the phase dubbed "withCorona"

- We forecast economic growth rates for 2020 and 2021 in the Eurozone of -9.1% y-o-y and +5.1% y-o-y respectively. Given the strict lockdown measures, production activity, particularly for motor vehicles, contracted sharply in major Eurozone countries in the Apr-Jun quarter.
- We forecast the pace of recovery to be slow even after production resumes. There are three points concerning the economic recovery in the Eurozone: (1) will exports grow, (2) will household consumption revive, and (3) to what extent will reconstruction plans have an impact?
- Given the fall of global incomes because of the Covid-19 crisis, we forecast that there will be no growth in exports, companies will refrain from investment, household incomes and consumption will be sluggish, and that the pace of economic recovery will be slow.
- We forecast that public investment based upon government reconstruction plans in each country will be promoted from 2021. This is likely to be focused on strengthening medical systems as well as construction investment related to green and digital transformation. The transformation of the economic and industrial structure will be gradual due to the rigidity of the labor markets. Although government debt levels are high, we forecast this to peak out in 2020.
- Looking forward, the drop in core inflation should be temporary and remain close to 1%, since the economic recovery will be only moderate. We forecast policy interest rates to be left unchanged during the forecast horizon.

Historical decline due to strict lockdown

- Our forecasts on the rate of Eurozone real GDP growth is -9.1% y-o-y in 2020 and +5.1% y-o-y in 2021.
 - In the Apr-Jun quarter of 2020, consumption and production activities contracted sharply due to the strict lockdown measures.
 - In the second half of 2020, we expect that the resurgence of Covid-19 infections will cause consumers and companies to become cautious, thus serving as a drag upon Eurozone economic recovery.

Outlook on the Eurozone economy

	2018	2019	2020	2021		2019			202	20		2021				
	CY		(Outlo	ok)	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
GDP (real) Q-o-q % ch.	1.9	1.3	- 9.1	5.1	0.5	0.2	0.3	0.0	- 3.6	- 12.1	6.2	2.0	1.6	1.5	1.5	1.3
Domestic demand Q-o-q % ch.	1.9	1.9	- 8.5	4.5	- 0.4	1.8	- 1.1	1.1	- 3.3	- 11.9	5.6	2.1	1.5	1.3	1.3	1.1
Personal consumption Q-o-q % ch.	1.4	1.3	- 12.8	6.2	0.5	0.2	0.4	0.1	- 4.6	- 16.5	6.9	2.2	2.3	2.4	2.4	1.8
Gross fixed capital formation Q-o-q % ch.	2.4	5.9	- 8.6	3.4	0.4	0.7	- 0.3	3.3	- 1.8	- 16.7	7.1	2.1	1.6	1.1	1.1	1.2
Government consumption Q-o-q % ch.	1.2	1.8	1.1	4.0	0.5	0.5	0.6	0.3	- 0.4	- 1.1	2.7	1.5	0.8	0.7	0.7	0.6
Inventory investment Q-o-q contribution, %pt	0.1	- 0.4	0.4	- 0.5	- 0.9	1.4	- 1.4	0.2	- 0.3	1.1	- 0.2	0.1	- 0.2	- 0.4	- 0.4	- 0.3
External demand Q-o-q contribution, %pt	0.3	- 0.6	- 1.0	0.7	0.9	- 1.5	1.4	- 1.1	- 0.3	- 0.4	0.7	- 0.1	0.2	0.3	0.3	0.2
Exports Q-o-q % ch.	3.5	2.5	- 9.6	3.7	1.0	- 0.0	0.7	0.1	- 4.1	- 12.1	5.4	1.1	1.7	1.2	1.2	1.2
Imports Q-o-q % ch.	3.0	4.0	- 8.2	2.4	- 0.7	3.4	- 2.2	2.4	- 3.6	- 11.9	4.2	1.3	1.4	0.7	0.8	0.8
CPI Y-o-y % ch.	1.8	1.2	0.5	1.1	1.4	1.4	1.0	1.0	1.1	0.2	0.4	0.2	0.5	1.5	1.1	1.2
Core, excluding food and energy Y-o-y % ch.	1.0	1.0	0.8	0.4	1.0	1.1	0.9	1.2	1.1	0.9	0.8	0.4	0.2	0.1	0.6	0.8

Note: The shaded areas are forecasts.

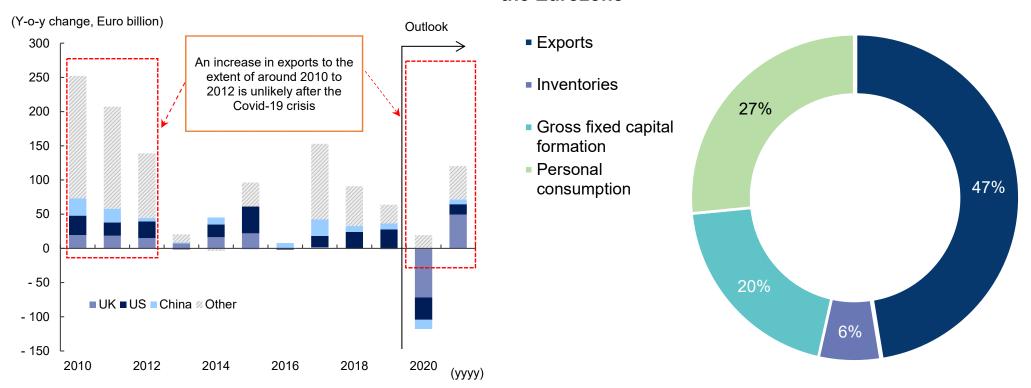
Source: Made by MHRI based upon releases by Eurostat

Exports: export growth is unlikely, which will undermine expansion in production and capital investment (domestic demand)

- Given the Eurozone's heavy dependence on exports of close to 50%, exports have a heavy influence upon production and capital investment (domestic demand) under such economic structure.
- We forecast export growth to be moderate due to the substantial decline in incomes inside and outside the Eurozone because of the Covid-19 crisis.
 - Exports to outside the Eurozone account for the largest percentage (47%) of final demand for the automotive industry, which is the driver of the Eurozone economy. The lack of external demand will weigh on production and capital investment in the automotive industry and affect the recovery in domestic demand.

Exports by destination other than the Eurozone

Breakdown of final demand for motor vehicles and parts in the Eurozone



Source: Made by MHRI based upon releases by Eurostat

Source: Made by MHRI based upon releases by Eurostat, Input-Output Table (2019)

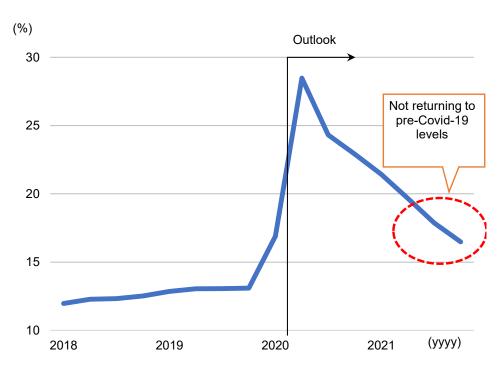
Household sector: sluggish wages and deterioration in consumer sentiment. Savings ratio up while consumption is restrained

- We forecast continued decline in the growth rate for nominal wages in the Eurozone.
 - Much of the wage negotiations for 2020 finished before the Covid-19 crisis, and full-fledged review of wages due to the Covid-19 crisis should occur in 2021. We forecast the rate of wage increases will be low following the review due to the prolonged slump in demand.
- Given the deterioration of consumer sentiment, we forecast that the average savings rate in 2020 will surpass the level at the time of the Global Financial Crisis.
 - Although the savings ratio will peak out from the Apr-Jun quarter of 2020, consumer sentiment is weak due to sluggish wages and we anticipate it will take time to return to pre-Covid-19 levels.

Eurozone: nominal wages

(Y-o-y % change) 3.0 2.5 2.0 1.5 1.0 0.5 0.0 2018 2019 2020 2021 (yyyy)

Eurozone: savings rate



Source: Made by MHRI based upon releases by Eurostat

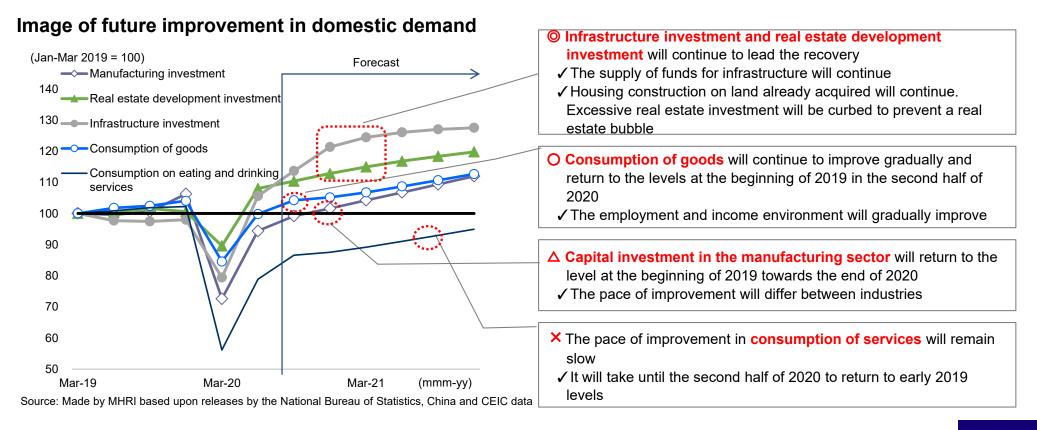
Source: Made by MHRI based upon releases by Eurostat

The Chinese economy: the infrastructure-led recovery is forecast to continue despite the slow pace of improvement in private demand

- The rate of real GDP growth in the Apr-Jun quarter of 2020 in China was +3.2% y-o-y, rising into positive territory from the previous quarter (-6.8% y-o-y). This was driven by the recovery of investment in infrastructure and real estate development. Exports and capital investment related to special demand generated by Covid-19 (including masks and PCs for remote working) contributed to the increase.
- We forecast economic growth rates for 2020 and 2021 of +1.3% and +7.0% respectively, Even though the pace of
 improvement in personal consumption and capital investment will be slow, we forecast continued recovery led by
 infrastructure investment. Although external demand will be weighed down by the protracted slump in emerging
 market economies and the fading impact of special demand, we forecast a gradual recovery particularly for exports
 to developed market countries.
- As for infrastructure investment, we forecast an increase through 2021, supported by local government revenue bonds (local government bonds to be redeemed from the revenues from infrastructure, etc.). An increase in local government debt will be unavoidable due to the decline in productivity of infrastructure investment and rise of maintenance costs.

Despite the slow pace of improvement in private demand, we expect an infrastructure-driven recovery and forecast a growth rate of +1.3% for 2020

- Even though the pace of improvement in personal consumption and capital investment will be slow, the infrastructure investment-led recovery will continue. We forecast a rate of growth of +1.3% y-o-y in 2020.
 - Infrastructure investment is forecast to continue increasing in 2021, given the decision to continue issuing local government revenue bonds.
 - However, despite the strength of infrastructure investment related sectors (raw materials and construction machinery), the pace of improvement in capital investment will be slow due to personal consumption related sectors such as light industrial goods. Discretionary services such as eating out and drinking will exert downward pressure on personal consumption.
 - Although external demand will be weighed down by the protracted slump in emerging market economies and the fading impact of special demand, we forecast a gradual recovery particularly for exports to developed market countries.

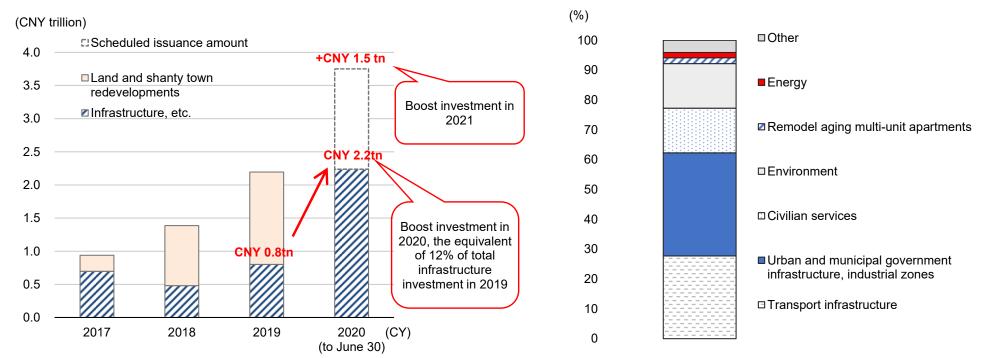


Fiscal policy: infrastructure investment should continue to grow, supported by the issuance of local government bonds

- Local government revenue bonds are issued at a high pace to fund infrastructure investment. This will contribute to the expansion of infrastructure investment in 2020.
 - Measures have been strengthened due to the realization that past measures led to the storing of land throughout 2018 and 2019 and did not have the desired effect to push up infrastructure investment. Revenue bonds issued during 2020 will, in principle, be limited for use in infrastructure investment. There will also be a focus on government priorities with respect to the actual investees.
- Infrastructure investment will continue to increase in 2021, given the absence of a reactionary decline due to support by the scheduled issuance of revenue bonds.
- A decline in productivity of infrastructure investment due to the buildup of past investments, and the rise of local government debt due to higher maintenance costs will be unavoidable.

Issuance of local government revenue bonds

Use of local government revenue bonds issued during 2020



Source: Made by MHRI based upon releases by wind

Source: Made by MHRI based upon releases by GF Securities Development & Research Center and wind

Emerging markets: the spread of Covid-19 infections and the high dependence on tourism, overseas remittances and commodity exports will serve as a drag

- In 2020, the economic growth rates of emerging market (EM) countries will fall deep into negative territory, mainly for countries where Covid-19 infections continue to spread. In addition to reduced mobility accompanying restrictions in economic activities, the drop in tourism income, remittances by foreign workers and commodity exports, which are major sources of foreign currency, and the lower global demand for motor vehicles will weigh on the economies.
- The pace of economic recovery from the second half of 2020 will vary greatly according to the degree to which infection has been contained and each country's economic structure. There should be comparatively fast recoveries in countries where infection has been contained such as Vietnam, South Korea and Taiwan. The recoveries in South Korea and Taiwan will also be boosted by increased exports of semi-conductors due to the global increase in demand for IT.
- Stagnant mobility will impede the recovery in countries where the containment of infection has been delayed such
 as India, Brazil and Mexico. We forecast it will take time before there is full-fledged recovery in international people
 flows while there will also be protracted downward pressure on growth from reduced inbound tourists and lower
 demand for transportation fuel.
- Despite the relatively small scale of measures by EM countries to deal with Covid-19 compared to developed market (DM) countries, the decline in annual revenues due to factors such as the economic slowdown and lower crude oil production will lead to large increases in fiscal deficits in 2020. There will be limited scope for additional policy measures because of the deterioration of public finances and the prevention of the outflow of funds due to credit rating downgrades. In 2021, constraints on spending will serve as a drag on growth.

Substantial negative growth in 2020 apart from areas where Covd-19 infections have been contained

- The pace of recovery will vary according to the degree of containment of Covid-19 infections and recovery of mobility, the level of dependence on natural resources, tourism and foreign remittances, and the scope for fiscal spending, etc.
 - We have revised upward our outlook on growth from our outlook in April for countries where the containment of infections and recovery in mobility have been relatively fast such as South Korea, Taiwan and Vietnam.
 - We have made a substantial downward revision of our outlook on growth from our outlook in April for countries where the containment of infections has been delayed such as the Philippines, India, Brazil, Mexico and Russia.

Outlook on the Asian and EM economies

	2018	2019	2020	2021	2020	2021
	(CY)		(Outlo	ok)	(Outlook as	of April)
Asia	6.1	5.2	- 0.8	5.7	- 0.1	5.7
China	6.7	6.1	1.3	7.0	0.7	7.0
NIEs	2.9	1.7	- 2.3	2.9	- 3.7	2.7
South Korea	2.9	2.0	- 1.8	3.2	- 3.6	2.9
Taiwan	2.7	2.7	- 0.1	3.0	- 3.0	2.5
Hong Kong	2.9	- 1.2	- 6.5	2.1	- 4.3	2.1
Singapore	3.4	0.7	- 6.0	2.3	- 4.8	2.9
ASEAN5	5.3	4.8	- 3.7	5.4	- 1.1	5.4
Indonesia	5.2	5.0	- 2.1	4.7	- 0.6	3.9
Thailand	4.2	2.4	- 7.5	2.8	- 3.7	5.2
Malaysia	4.8	4.3	- 5.3	6.5	- 2.0	6.2
The Philippines	6.3	6.0	- 9.5	8.7	0.4	7.8
Vietnam	7.1	7.0	2.8	7.7	0.5	8.3
India	6.8	4.9	- 3.4	3.9	0.1	4.0
Australia	2.8	1.8	- 4.2	2.9	- 2.6	3.5
Brazil	1.3	1.1	- 7.5	2.7	- 2.8	2.5
Mexico	2.1	- 0.3	- 11.1	2.5	- 6.0	3.5
Russia	2.5	1.3	- 4.6	2.9	- 1.3	1.8

Note: Real GDP growth rate (y-o-y, %). The shaded areas are forecasts. Average figures are calculated upon the GDP share (purchasing power parity base) by the IMF for Asia, NIEs and ASEAN5

Source: Made by MHRI based upon releases by the IMF and statistics of relevant countries and regions



Japan: even though growth in the Jul-Sep quarter will be strong, the pace of recovery will be slow

- Japan's real GDP growth rate for FY2020 is forecast to be -6.0%. Consumption and exports fell sharply in the AprJun quarter, reflecting self-restraints upon consumption and lockdown overseas. In the Jul-Sep quarter, when the
 declaration of a state of emergency in Japan was lifted and lockdowns were eased in major countries of the world,
 exports and consumption recovered due to a reactionary rebound from the previous quarter, leading to higher
 growth.
- However, the pace of recovery until the end of FY2021 will be sluggish due to (1) progress in adjustments in employment, wages, and the capital investment; (2) partial restrictions upon consumption activities such as eating out, travel, and entertainment during the post-emergency declaration phase dubbed the "withCorona" (coexistence with the coronavirus) phase; and (3) uncertainty over the resurgence of infections serving to dampen household and corporate activities. The Japanese economy is forecast to grow only +3.4% in FY2021, falling short of a rebound from the steep fall in FY2020.
- After the declaration of a state of emergency was lifted, personal consumption, mainly in the fields of motor vehicles, home electrical appliances and other goods, recovered due in part to the effects of special cash payments. On the other hand, the recovery in consumption of services, such as eating out, travel and entertainment, has been slow due to concerns regarding the resurgence of Covid-19 infections. In FY2021, household disposable income is forecast to decline due to a backlash to the emergency cash payments, serving to hamper the recovery of consumption.
- The negative output gap will widen, putting downward pressure on prices. The BOJ core CPI (y-o-y change) will most likely turn negative and deflationary concerns are expected to intensify.

Japan: FY2020 real GDP growth is forecast to fall deep into negative territory, given the fall of domestic and external demand due to the Covid-19 pandemic

• Japan's real GDP growth rate for FY2020 is forecast to be -6.0%. The rebound in FY2021 will be limited due to lingering concerns regarding the resurgence of Covid-19 infections.

Outlook on the Japanese economy

		2019 FY	2020 (Fored	2021 cast)	2020 Jan-Mar	Aor-Jun	Jul-Sep	Oct-Dec	2021 Jan-Mar	Aor-Jun	Jul-Sep	Oct-Dec	2022 Jan-Mar
GDP (real)	Q-o-q % ch	0.0	-6.0	3.4	-0.6	-7.8	3.5	0.9	0.9	0.5	0.6	0.5	0.4
	Q-o-q % ch p.a.	_	-	_	-2.5	-27.8	14.9	3.8	3.7	2.2	2.5	2.0	1.5
Domestic demand	Q-o-q % ch	0.2	-3.9	2.6	-0.4	-4.8	2.2	0.7	0.8	0.5	0.5	0.4	0.3
Private sector demand	Q-o-q % ch	-0.5	-5.7	3.3	-0.5	-6.5	2.7	1.0	1.0	0.5	0.5	0.5	0.4
Personal consumption	Q-o-q % ch	-0.6	-5.4	3.2	-0.8	-8.2	5.4	1.3	0.7	0.4	0.2	0.2	0.2
Housing investment	Q-o-q % ch	0.5	-8.6	-0.3	-4.2	-0.2	-4.8	-1.9	0.1	0.6	0.7	0.9	0.6
Capital investment	Q-o-q % ch	-0.3	-6.4	4.5	1.7	-1.5	-6.2	0.5	2.0	1.5	1.8	1.7	1.5
Inventory investment	Q-o-q contribution, % pt	(-0.1)	(0.0)	(-0.1)	(-0.1)	(-0.0)	(0.2)	(-0.0)	(0.1)	(-0.1)	(-0.0)	(-0.0)	(-0.1)
Public sector demand	Q-o-q % ch	2.5	1.2	1.0	-0.0	-0.0	1.1	-0.1	0.0	0.2	0.7	0.0	0.0
Government consumption	Q-o-q % ch	2.3	0.8	1.3	0.0	-0.3	0.4	0.3	0.4	0.3	0.2	0.2	0.3
Public investment	Q-o-q % ch	3.3	3.0	-0.2	-0.5	1.2	3.6	-1.5	-1.6	-0.2	2.3	-0.8	-1.0
External demand	Q-o-q contribution, % pt	(-0.2)	(-2.0)	(0.7)	(-0.2)	(-3.0)	(1.2)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Exports	Q-o-q % ch	-2.6	-15.2	9.0	-5.4	-18.5	8.5	2.8	2.0	1.5	1.5	1.6	1.7
Imports	Q-o-q % ch	-1.5	-3.7	3.8	-4.2	-0.5	0.2	1.2	1.0	0.9	0.9	0.9	0.9
GDP (nominal)	Q-o-q % ch	0.8	-5.9	2.0	-0.5	-7.4	3.0	0.3	0.5	-0.0	0.9	0.1	-0.0
GDP deflator	Y-o-y % ch	0.8	0.0	-1.4	0.9	1.5	0.3	-0.5	-1.1	-2.2	-1.3	-1.0	-1.1
Domestic demand deflator	Y-o-y % ch	0.5	-0.2	0.1	0.7	0.1	0.2	-0.5	-0.4	0.2	-0.1	0.0	0.0

Note: Figures in the shaded areas are forecasts.

Source: Made by MHRI based upon Cabinet Office, Quarterly Estimates of GDP

Japan: adjustments in employment and wages will progress. The BOJ core CPI (y-o-y ch) will fall into negative territory

 The unemployment rate is forecast to rise to the 3%-level and the nominal compensation of employees is expected to fall sharply in FY2020. The BOJ core CPI (consumer prices, ex fresh food and energy) is expected to turn negative through FY2021.

Outlook on the Japanese economy (major economic indicators)

		2019 FY	2020 (Fored	2021 cast)	2020 Jan-Mar	Aor-Jun	Jul-Sep	Oct-Dec	2021 Jan-Mar	Aor-Jun	Jul-Sep	Oct-Dec	2022 Jan-Mar
Industrial production	Q-o-q % ch	- 3.8	- 11.0	9.3	0.4	- 16.7	8.8	2.4	2.2	1.8	1.6	1.7	1.5
Ordinary profits	Y-o-y % ch	- 13.1	- 41.6	18.9	- 28.4	- 59.1	- 49.7	- 29.4	-21.4	32.9	18.3	14.1	13.8
Nominal compensation of employees	Y-o-y% ch	1.8	- 3.8	1.2	1.7	- 2.7	- 3.3	- 5.8	- 2.9	0.6	0.5	2.4	1.2
Unemployment rate	%	2.4	3.1	2.9	2.4	2.8	3.3	3.2	3.1	3.0	2.9	2.8	2.8
New housing starts	P.a., 10,000 units	88.4	76.1	76.4	86.3	79.8	75.6	75.4	75.0	76.0	76.5	77.3	77.5
Current account balance	P.a., JPY tril	19.7	10.5	7.9	19.4	8.5	12.4	12.3	10.0	8.4	8.9	8.9	6.9
Domestic corporate goods prices	Y-o-y% ch	0.1	- 1.6	0.4	0.6	- 2.2	- 0.5	-2.5	- 1.2	2.2	- 0.2	- 0.3	-0.1
Domestic corporate goods prices (ex consumption tax)	Y-o-y% ch	- 0.6	- 2.5	-	- 1.0	- 3.7	- 2.1	-	-	·	-	-	-
Consumer prices, ex fresh food	Y-o-y% ch	0.7	- 0.1	0.1	0.6	- 0.1	0.4	-0.1	- 0.3	0.4	0.1	0.0	0.1
Consumer prices, ex fresh food (ex consumption tax, free education)	Y-o-y% ch	0.5	- 0.2	_	0.2	- 0.5	0.1	- 0.1	- 0.2	_	_	-	_
Consumer prices, ex fresh food and energy	Y-o-y% ch	0.6	0.0	- 0.2	0.7	0.3	0.4	- 0.1	- 0.4	- 0.3	- 0.2	- 0.2	-0.2
Consumer prices, ex fresh food and energy (ex consumption tax, free education)	Y-o-y% ch	0.5	- 0.1	-	0.5	0.2	0.1	-0.0	- 0.4	-	-	-	-

Note: 1. Figures in the shaded areas are forecasts. The readings above may differ from public releases because the rates of change are calculated on the basis of real-terms data 2. Ordinary profits are based upon the *Financial Statements Statistics of Corporations by Industry* (all industries basis) (ex finance & insurance)

Source: Made by MHRI based upon relevant statistics

Despite the fast recovery of post-bottom consumption, a complete recovery in FY2021 is unlikely due to the deterioration of employment and income

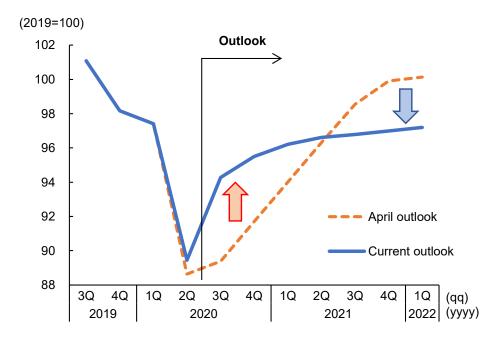
- The bottom was Apr-Jun quarter of 2020, which slumped due to the declaration of a state of emergency.
 - The resumption of business establishments due to the lifting of the declaration of a state of emergency and the spending of special cash payments provided a boost and led to a recovery in June, particularly in consumption of goods.
- While higher consumption growth is expected in the Jul-Sep quarter due to a reactionary rebound from the previous quarter, consumer spending thereafter will most likely be sluggish.
 - (1) Partial restrictions upon consumption activities such as eating out, travel, and entertainment, and (2) the deterioration of employment and income conditions such as the higher unemployment rate and reduced end-of-year bonuses will weigh on the economy.
 - Although the recovery in consumption of goods should be relatively fast, we assume that eating out, travel, and entertainment will remain at about 70% to 85% of pre-Covid levels as at the end of FY2021.

Path by key goods and services

(2019=100)Outook 100 80 60 Durable goods Eating out Entertainment 40 Accommodation ······ Transport & Travel 20 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q (qq) 2022 (уууу) 2020 2021

Note: Services indicate there has been a substantial impact from Covid-19 Source: Made by MHRI based upon Cabinet Office, *Quarterly Estimates of GDP, etc.*

Outlook for real personal consumption



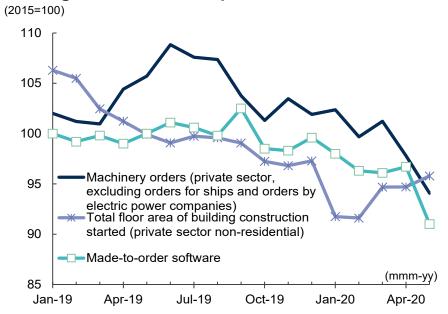
Source: Made by MHRI based upon Cabinet Office, Quarterly Estimates of GDP



Capital investment: overall decline in FY2020, followed by a recovery in machinery and intangible assets in FY2021

- Leading indicators on capital investment are weakening. FY2020 capital investment will decline sharply, reflecting
 the slump of corporate earnings. We expect a gradual recovery in FY2021 reflecting the recovery of earnings
 accompanying the bottoming of domestic and overseas economies.
 - Machinery: decline in FY2020 due to the fall of corporate earnings. Gradual recovery in FY2021 accompanying the bottoming out of earnings and rise of the capacity utilization rate.
 - Construction: although construction investment will follow firm footing in FY2020 reflecting the progress in largescale development projects, there will be a decline on a progress basis in FY2021, given the lagged impact of the decline in FY2020 corporate earnings and orders received.
 - Intangible assets: decline in FY2020 due to the fall of corporate earnings and orders received. Gradual recovery in FY2021 due to the increase of investment in digitalization.

Leading indicators of capital investment



Note: Machinery orders are the 3-month backwards moving average, total floor area of building construction started is the 6-month backward moving average

Source: Made by MHRI based upon Cabinet Office, Orders Received for Machinery, Ministry of Land, Infrastructure and Transport, Statistics Survey on Construction Works, Ministry of Economy, Trade and Industry, Indices of Tertiary Industry Activity

Outlook for capital investment by type

By type	Outlook					
Machinery	FY2020: Decline					
Machinery	FY2021: Gradual recovery					
Construction	FY2020: Firm					
Construction	FY2021: Decline					
Intangible	FY2020: Decline					
assets	FY2021: Gradual recovery					
Total	FY2020: Decline					
TOLAI	FY2021: Gradual recovery					

Source: Made by MHRI



Japanese monetary policy: bringing forward the "three pillars" to avoid a further fall of interest rates deeper into negative territory

- The BOJ is forecast to maintain its accommodative stance in the near term focusing on the "three pillars" of (1) support for funds-supplying operations to facilitate financing by companies, etc., (2) provision of yen and foreign currency funds to provide financial market stability, and (3) active purchases of ETFs, etc. Despite its assessment that the momentum for higher prices has been lost, the BOJ will avoid pushing interest rates deeper into negative territory by continuing to uphold stronger cooperation with the government.
- Key timings for policy adjustment will include the LDP presidential election in September 2021 and the end of BOJ Governor Haruhiko Kuroda's term of office in 2023. However, a change in monetary policy such as ending negative interest rates would be difficult while the US and Europe continue to ease. In the near term, the BOJ will most likely keep monetary policy accommodative while monitoring the side effects.

BOJ Outlook for Economic Activity and Prices (July 2020) BOJ response to Covid-19 (the "three pillars")

			CPI (all i	tems less fresh food)				
		Real GDP		Excluding the effects of the consumption tax hike and policies concerning the provision of free education				
FY2	020	5.7 to -4.5 [-4.7]	-0.6 to -0.4 [-0.5]	-0.7 to -0.5 [-0.6]				
	Forecast made in April 2020	-5.0 to -3.0	-0.7 to -0.3	-0.8 to -0.4				
FY2	021	+3.0 to +4.0 [+3.3]	+0.2 to +0.5 [+0.3]					
	Forecast made in April 2020	+2.8 to +3.9		+0.0 to +0.7				
FY2	022	+1.3 to +1.6 [+1.5]		+0.5 to +0.8 [+0.7]				
Forecast made in April 2020		+0.8 to +1.6	+0.4 to +1.0					

Support the financial positions of companies, etc.	Provision of yen and foreign currency funds to stabilize the financial markets	Active purchases of ETFs, etc.
Special Program Total allocation of 110 trillion yen + α Outright purchase of CP and corporate bonds: 20 trillion yen Special Operations in response to Covid: 90 trillion yen (including new fundssupplying operations decided in May)	Outright purchases of JGBs US\$ funds-supplying operations No limit	About 12 trillion yen annually ETF: Annual pace of about 12 trillion yen J-REIT: Annual pace of about 180 billion yen

Source: Made by MHRI based upon releases by the Bank of Japan

Source: Made by MHRI based upon releases by the Bank of Japan

Reference: Key political events

		2020		2021	2022				
US	Nov	Presidential and congresssional elections	Jan	Presidential inauguration	Feb	End of term of office of Federal Reserve Chair Jerome H. Powell			
			Sep	20 years since the September 11 attacks	Nov	Mid-term elections			
			Sep	Russia: Legislative election	Apr	France: Presidential election			
Europe			Oct	Germany: Legislative election	Jun	France: Legislative election			
			Autumn	Germany: Chancellor Merkel scheduled to step down					
			Mar	10 years since the Great East Japan Earthquake	Jul	End of term of office of Upper House members			
Japan			Jul-Sep	Tokyo Olympic and Paralympic Games					
oapan			Sep	End of term of office of the LDP president					
			Oct	End of term of office of Lower House members					
	Oct	China: Fifth Plenary Session of the CPC Central Committee	Jan	Vietnam: National Congress of the Communist Party	By year-end	Hong Kong: Chief Executive election			
			Jul	100th anniversary of the establishment of the Communist Party of China	Mar	South Korea: Presidential election			
Asia			Sep	Hong Kong: Legislative Council election	Around May	The Philippines: Presidential and legislative election			
					1H	Australia: Senate and House of Representatives elections			
					Autumn	China: 20th National Congress of the Communist Party			
Others					Oct	Brazil: Presidential election			

Note: "@ Sep" indicates that the event will be held sometime around September Source: Made by MHRI based upon media coverage



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