Outlook for the Japanese and Overseas Economies

ECONOMIC RESEARCH OFFICE
25th June 2020
(Original Japanese version released on 29th May)

MUFG Bank, Ltd.
A member of MUFG, a global financial group

Contents

Executive Summary

Due to the effects of COVID-19, the global economy will deteriorate more in 2020 than it did during the global financial crisis. In the latter half of the year, the economy will start to recover, but it will take time for it to return to the level it was at in 2019 before the COVID-19 pandemic.

- The economic activities of countries and regions were reduced significantly owing to the global spread of COVID-19 and the strict public health measures adopted in order to reduce the spread of the virus. The negative impact of the pandemic is unprecedented and the global economy is in an extremely difficult situation. In most countries, the GDP growth rate for the January-March quarter was either negative or slowed considerably.

  - ✓ Real GDP growth was -6.8% YoY in China, which was the first country to face the virus on a large-scale. This was its first negative growth since 1992, when China started to publish quarterly GDP statistics.
  - ✓ In the Eurozone – which was the next site of infection – real GDP growth was -3.8% QoQ in the January-March quarter. Growth also fell significantly to -5.0% QoQ annualised in the US, which has now recorded the highest number of cases of infection worldwide.
  - ✓ Japan was expected to recover from its negative growth in the October-December quarter last year caused by the consumption tax rate hike and typhoons, but the COVID-19 pandemic has weighed on its recovery and growth was -3.4% QoQ annualised in the January-March quarter – the second consecutive quarter of negative growth.

- In China, the spread of infection has been brought under control for the most part since the end of February. In the US, Europe and Japan, the number of new cases is currently decreasing thanks to strict public health measures. China has been taking steps to re-start its economic activities since March, and other developed countries such as the US, Japan and those in Europe started to do the same thing from the latter half of April and into May.

- The origin of the economic damage this time is not related to economics; it is “the restriction of economic activities to prevent the spread of COVID-19”. Therefore, there is a possibility that the level of economic activity will increase somewhat now and into the July-September quarter as these restrictions are eased. Some early statistics show economies are improving (it appears the level of economic activity bottomed out in the January-March quarter in China and did the same in around April and May in developed countries).

- That being said, with no established way to prevent the spread of the infection or to treat those infected, the easing of public health measures will be done in stages and individuals and businesses have to be cautious due to warnings about a second wave of infection. As a result, economic activities will not easily return to their previous levels. In terms of the forecast for the October-December quarter and up until the end of next year, it will take some time for countries’ economies to recover to the level they were at before the COVID-19 pandemic, with the exception of those countries that have been successful in minimising or stopping the spread of infection.

- Therefore, the real GDP growth rate of the global economy is forecast to be -3.1% YoY in 2020 and 5.5% YoY in 2021 (this does not take into account the development and mass production of a vaccine or treatment. In addition, it is also important to bear in mind the downside risks of a “second wave” and “large outbreaks in newly emerging countries”).

1. Overview (1) Covid-19: Current Situation

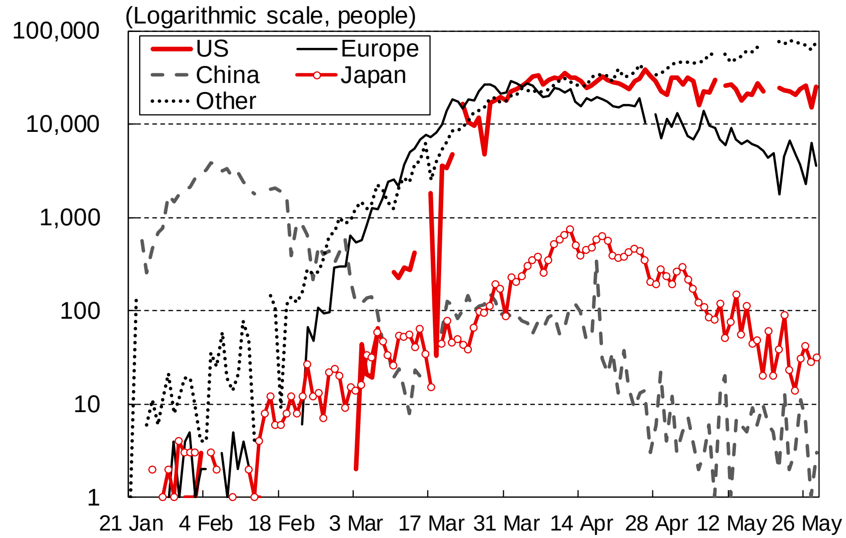
- According to the World Health Organization (WHO), the number of COVID-19 cases is 5,594,000 and the number of deaths is 353,000 as of 28th May. In terms of both the absolute number and as a percentage of the population, the number of cases and deaths is larger in Europe than in Asia.
- The number of new cases per day suggest China has brought the infection under control for the most part and that it is slowing in Europe and the US; however, the virus is spreading in other regions (mostly newly emerging countries), such as Russia and Brazil.
- Containment (or the end) of the spread of COVID-19 globally is still some way off. It is important to keep an eye on the situation in newly emerging countries in particular. Developed countries are starting to ease their various public health measures as the spread of infection slows, but it is still uncertain when economic activities will re-start completely owing to restrictions still in place on economic activities, the highly cautious stance adopted by individuals and businesses regarding COVID-19 and concerns about a second wave.

Number of Infected by Country (as of 28th May)

Country	Total number		Per 100,000 people	
	Cases of infection	Deaths	Cases of infection	Deaths
Spain	237,141	29,036	507.9	62.2
US	1,658,896	98,119	507.2	30.0
UK	267,244	37,460	398.0	55.8
Italy	231,139	33,072	381.2	54.5
Russia	379,051	4,142	260.1	2.8
France	147,852	28,543	227.5	43.9
Germany	179,717	8,411	216.2	10.1
Brazil	391,222	24,512	186.8	11.7
Mexico	74,560	8,134	59.1	6.4
Australia	7,139	103	28.7	0.4
Japan	16,683	867	13.1	0.7
India	158,333	4,531	11.7	0.3
Indonesia	23,851	1,473	8.9	0.6
China	84,547	4,645	5.8	0.3
Thailand	3,065	57	4.4	0.1

Note: Calculated using population numbers from 2018
Source: World Health Organization, United Nations, MUFG Bank Economic Research Office

Daily New Confirmed Cases of Infection by Country

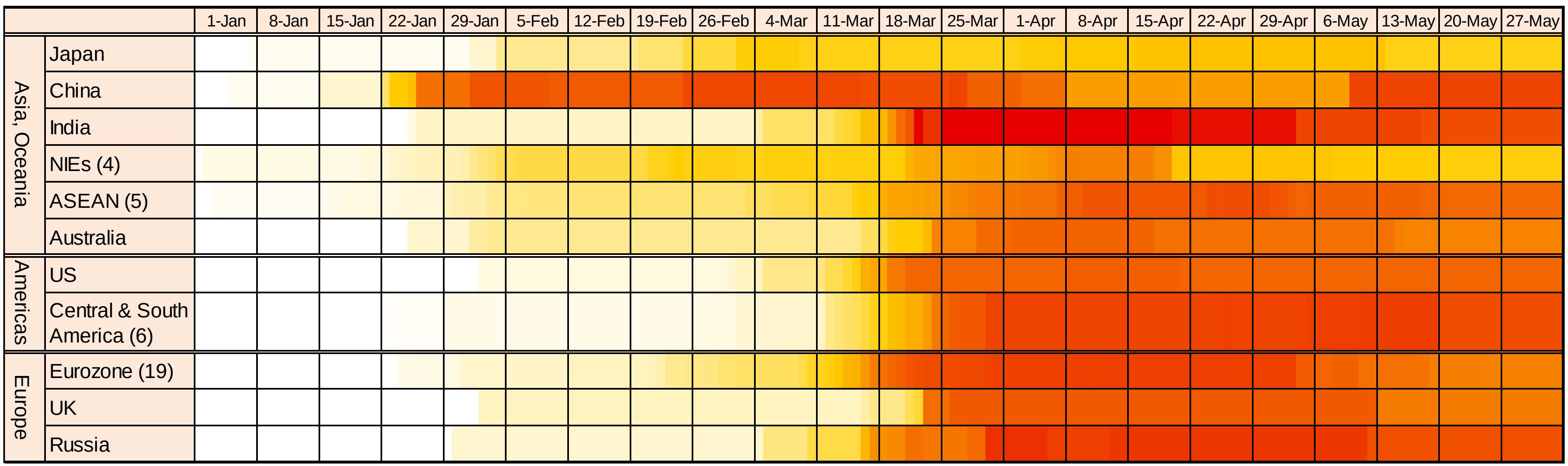


Note: 1. "Europe" = total of UK, Spain, Italy, Germany and France
2. Excludes data that shows mistakes (e.g. negative no. of new cases)
Source: World Health Organization, MUFG Bank Economic Research Office

1. Overview (2) Public Health Measures

- Many countries and regions have adopted strict public health measures, such as nationwide restrictions on going outside and closing shops in order to contain the spread of COVID-19.
- Currently, many countries and regions are exploring how to re-start economic activities and are drawing up “exit strategies” to aid decisions about whether or not to ease public health measures and re-start activities. On 16th April, the US government published guidelines for re-opening its economy in three stages and in Europe, the European Commission announced a roadmap for EU member countries on easing measures.
- Governments have been easing measures step by step according to their “exit strategies”, but the situation is still far from normal in terms of restriction of movement (school closures, workplace closures, events cancelled, individuals asked to refrain from going outside).
- Countries are working to develop a vaccine or treatment for COVID-19, yet most believe it will not be available for use on a large scale until the end of the year at the earliest.

Heatmap of Restrictions on Movement by Country and Region

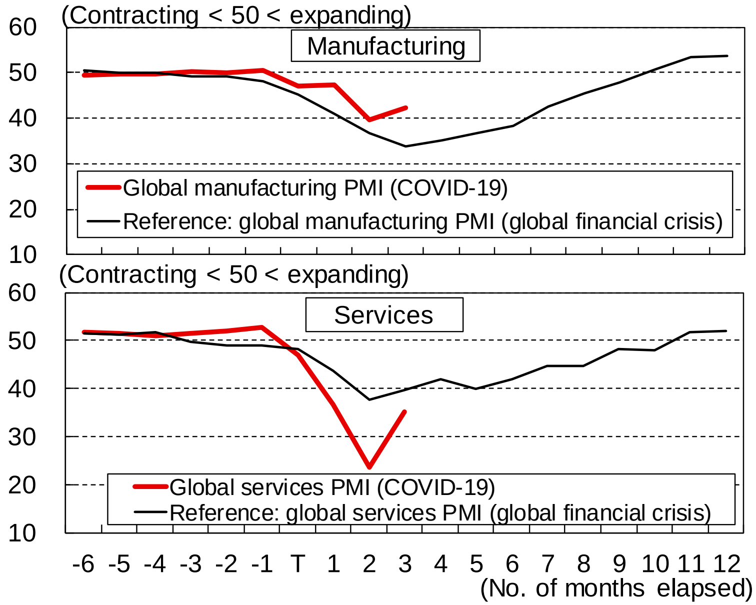


Note: 1. High number of restrictions on movement shown red, then yellow and white with none
2. Calculation for each region/country's number of restrictions on movement weighted by nominal GDP (purchasing power parity basis)
3. Number in brackets after region shows how many countries make up the total
Source: Oxford University (Hale, Thomas, Sam Webster, Anna Petherick, Toby Phillips, and Beatriz Kira (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government), IMF, MUFG Bank Economic Research Office

1. Overview (3) Economic Impact

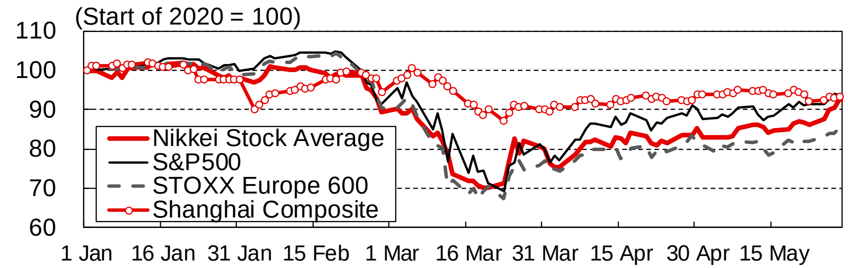
- As COVID-19 became a pandemic, many countries put into place public health measures, such as tight restrictions on movement and economic activities and the global economy was simultaneously plunged into a deep recession during the first half of 2020. The scale of the economic downturn exceeds that of the global financial crisis.
- With the slow easing of public health measures in several countries, the economy is forecast to bottom out in the April-June quarter. However, following the shift to an upward trend in economic activity brought about by the easing of public health measures, the economic recovery is predicted to be a gradual one owing to continued restrictions and wariness from individuals and businesses about the spread of infection. In fact, there are reports from some areas of another increase in the number of cases of infection after public health measures were eased.
- Although there were large movements in financial markets from the end of February in anticipation of the effects of COVID-19 on economies, markets have calmed due to financial authorities' swift and large-scale measures. Stock prices are on a gradual upward trend overall as public health measures are eased and economies recover.

PMI - Global, by Sector



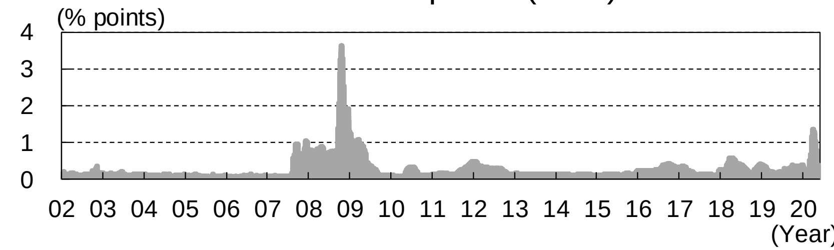
Note: For the global financial crisis, T = Sep '08; for COVID-19, T = Feb '20
Source: Markit, MUFG Bank Economic Research Office

Stock Prices in Major Countries



Source: Bloomberg, MUFG Bank Economic Research Office

LIBOR-OIS Spread (USD)



Note: "LIBOR-OIS spread" is the 3-month LIBOR less the 3-month OIS
Source: Bloomberg, MUFG Bank Economic Research Office

1. Overview (4) Economic Policies

- In order to soften the blow to economies from public health measures aimed at stopping the spread of infection, governments and financial authorities have implemented large-scale monetary and financial policies: they have addressed the fluctuations in financial markets with monetary easing, including quantitative easing and increased liquidity; provided financial support to the private sector; boosted lending to private businesses; and provided benefits and postponed or exempted tax payments*.

  *It can be said that monetary policies and fiscal policies are complementary. US Fed Chair Powell's remarked on this point saying, "the Fed has lending powers, not spending powers".

- In this historically unprecedented situation where economic activities are purposefully restricted in response to requests to protect public health, it appears the focus of economic policies is to maintain the essential functions of the economy with an eye on recovery, i.e. safeguarding households' livelihoods, maintaining corporations' employment and ensuring a continuation of business activities.

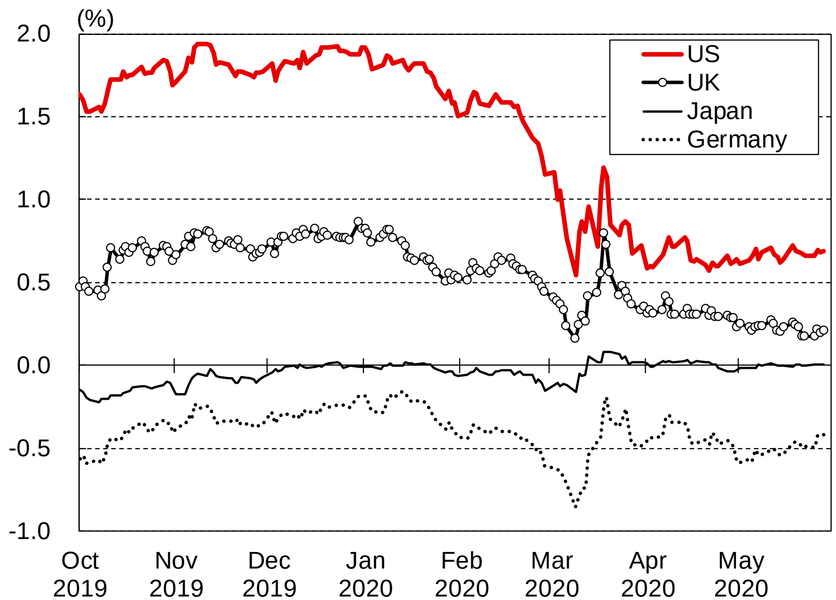
Governments' Fiscal Policies and Central Banks' Monetary Policies in Japan, the US and Europe

		Japan	US	Eurozone
Spending Fiscal Policy	Benefits	■ Special cash payment of JPY100,000 to every resident ■ Sustainability Payment Programme for companies whose sales have fallen	■ Provide USD1,200 cheques paid to each adult, expand unemployment insurance ■ Subsidised loans (PPP) for small and medium businesses with 500 employees or fewer	■ Financial support for small businesses and sole proprietors in major countries ■ Wage subsidies (e.g. short-term work) in major countries
Fiscal Policy	Capital injections for businesses	■ Provide subordinate loans and other capital through Japan Finance Corporation etc. (based on Cabinet decision)	–	■ Germany injects capital through its Economic Stability Fund
Fiscal Policy	Lending support	■ Special loans, crisis response financing and newly-established credit guarantee corporations aimed at companies whose sales have fallen	■ Newly established financial support for airlines ■ FRB purchase CPs, corporate bonds and small-business loans	■ Newly established system of government-backed loans and increase of guaranteed amount in major countries
Monetary Policy	Lending support for commercial banks	■ Established Special Funds-Supplying Operations to Facilitate Financing in Response to the Novel Coronavirus	■ Purchase loans for small businesses ■ Provide capital to purchase high quality assets from MMF	■ ECB relaxed the conditions of its third round of Targeted Longer-Term Refinancing Operations ■ Establish new Pandemic Emergency Purchase Programme
Monetary Policy	Asset purchasing	■ Increase amount of CPs and corporate bonds purchased by JPY7.5 trillion each up until the upper limit ■ Purchase necessary amount of long-term JGBs with no limit	■ Start quantitative easing by making unlimited purchases of treasury securities and mortgage-backed securities (MBS)	■ Launch new asset purchase programme (EUR750 billion) ending this year at the earliest ■ Temporarily increase amount of purchases under former asset purchase programme
Lending	Policy rate	–	■ 150bp rate cut	–

Source: Each country's government and central bank, MUFG Bank Economic Research Office

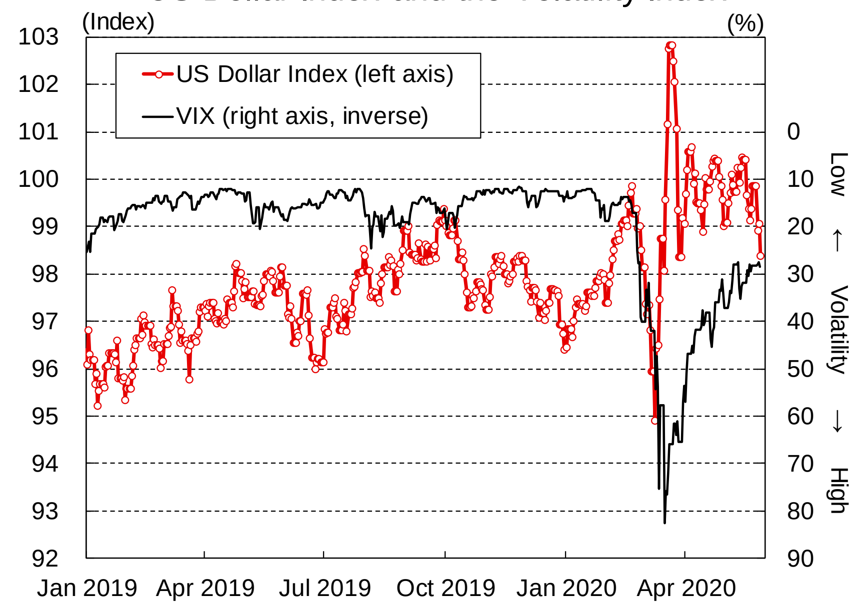
- The long-term interest rates of major developed countries fell from late February when concerns started to take root about the spread of COVID-19 in the US and Europe. In early March, risk-off sentiment grew and the US 10-year government bond yield fell sharply to around 0.3% for a short while. Markets experienced a large sale of government bonds due to a preference for liquidity, but excessive uneasiness about liquidity is fading amid continued large-scale monetary easing by central banks.
- The US Dollar Index fluctuated wildly due to the large increase in volatility brought about by COVID-19. Volatility subsequently decreased as central banks provided additional liquidity, including USD funding, and the US Dollar Index is now stable.

Long-Term Interest Rates in Major Countries



Source: Bloomberg, MUFG Bank Economic Research Office

US Dollar Index and the Volatility Index

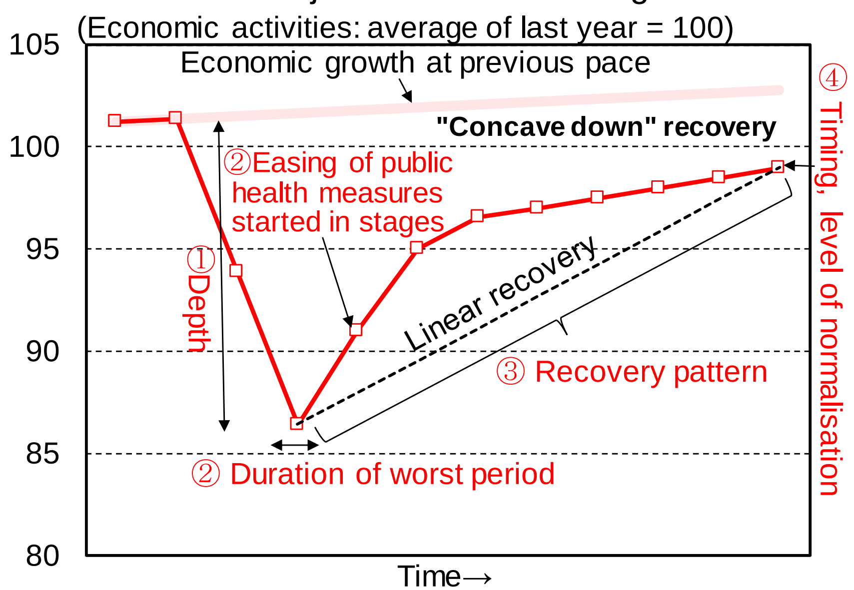


Source: Bloomberg, MUFG Bank Economic Research Office

2. Key Points of the Outlook (1) Re-Starting Economic Activities and the Path to Recovery

- Economies have slumped due to restrictions on economic activities on a global scale taken in order to control the spread of COVID-19 and when it comes to determining what path of recovery they will take, there is no previous example to follow and it is difficult to predict when the spread of infection will end at present.
- Making economic predictions as usual is difficult due to the accumulation of demand components. The route taken by economies from now has been estimated based on the following: the depth of its slump (the level of real GDP), the duration of its worst period, its recovery pattern and timing, and the level of its normalisation.
- In the case of developed countries, economies slowed by around 10%~20% from their previous pace (depth of slump) and they have already started to ease public health measures (duration of worst period). Looking back, it is likely the worst period was between April and May. Indicators which are published rapidly, such as daily statistics and PMI, suggest the level of economic activity is currently recovering.
- On the other hand, it appears economic activities will take some time to return to previous levels given that the easing of restrictions is gradual, the wariness felt by individuals and businesses will not fade easily and the increase in new remote demand will not fully make up for the decrease in demand resulting from cautiousness. As a result, it is probable that the path of recovery will form a “concave down” curved line.

GDP of Major Countries and Regions



Source: Various, MUFG Bank Economic Research Office

Assumptions about the Road to Economic Recovery

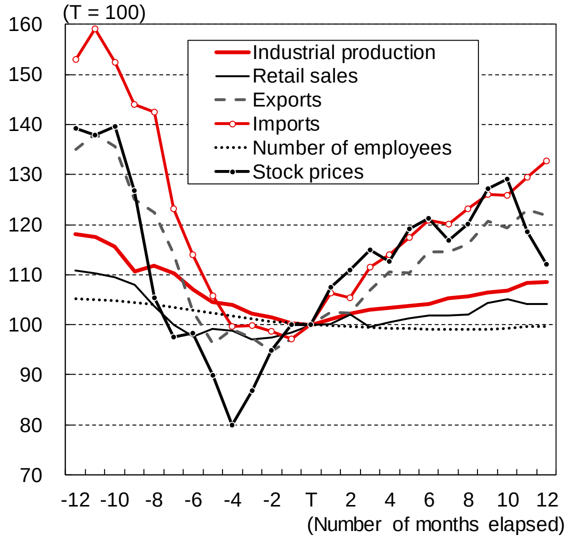
Variables	Specific examples and assumptions
① Depth of slump	■ Each country’s retail sales and production slowed by around 10~20% from their previous paces
② Duration of worst period	■ Worst period from end-April into May. Countries then started to ease public health measures
③Recovery pattern and timing	■ Level of economic activities start to increase as public health measures are eased ■ The recovery is forecast to be gradual, however, as the easing of public health measures will be carried out in stages and there is a sense of caution felt by individuals and businesses that will not easily be resolved
④ Timing and level of normalisation of economic activities	■ “Normalisation” of economy around the end of the year once a “new lifestyle” is adopted. However, downward pressure on economic activities to continue and level of economic activities likely to be lower than before COVID-19

Note: Does not factor in development or mass production of vaccine or medicine. Includes risk factors of second wave and large outbreak in emerging countries
Source: Various, MUFG Bank Economic Research Office

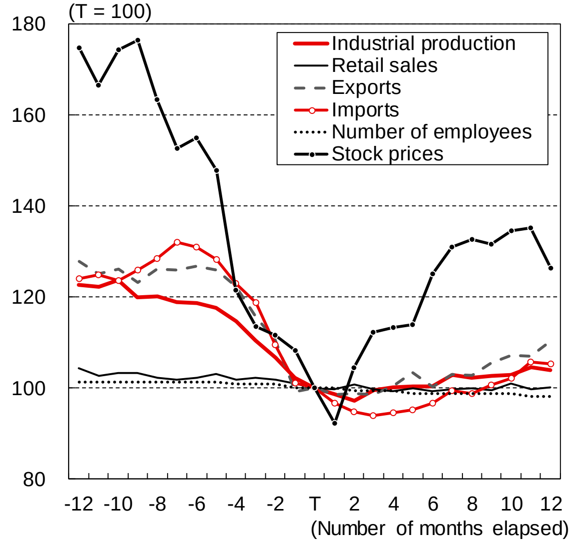
(1) Re-Starting Economic Activities and the Path to Recovery

- This economic slump was sparked by the sudden need to stop economic activities, the reason for which was not driven by economics, i.e. it was caused by public health measures to stop the spread of infection. It appears there will be an uptick and overall upward shift with some fluctuations in a number of economic activities as public health measures are eased.
- The path of economic recovery taken by developed countries after recessions in the past reveals that recoveries are generally led by stock prices. Next comes a recovery in foreign demand, which leads to improvements in production and imports. Even when the economy has bottomed out, employment deteriorates for a while after.
- This time, there has been a comparatively early recovery of stock prices in anticipation of a re-starting of economic activities due to loosened public health measures. There is a strong possibility that a recovery in employment will take place to a certain extent with the easing of the artificial economic restrictions (maintaining employment is the most important issue for governments in many countries. It is thought the majority of the unemployed in the US are temporary lay-offs and that employers and employee relations are still connected).

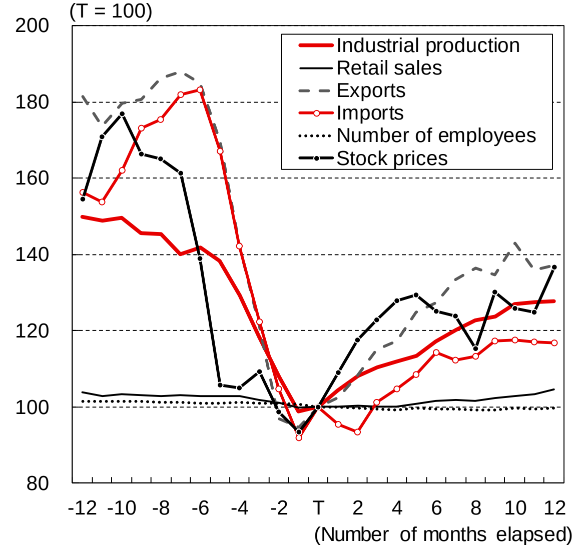
US Economic Indicators during the Global Financial Crisis



Eurozone Economic Indicators during the Global Financial Crisis



Japan Economic Indicators during the Global Financial Crisis

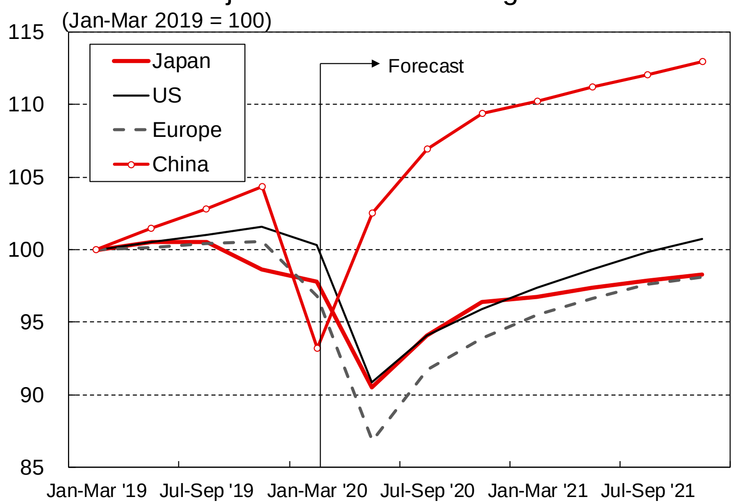


Note: “T” indicates the month at the bottom of the economic slump. For the US this is June 2009, the Eurozone is February 2009 and Japan is March 2009
Source: National statistics of each country, MUFG Bank Economic Research Office

(2) Outlook for the Japanese and Overseas Economies (May)

- The spread of COVID-19 globally and the strict public measures aimed at stopping the spread of infection have led to restrictions on economic activities and their decline in many countries and regions. Following the January-March quarter, there will also be an unavoidable deterioration of the global economy in the April-June quarter too.
- That being said, moves to re-start economic activities have been underway from the latter half of April and into May, and restrictions on movement are starting to be loosened in stages in countries other than China, which has already contained the infection and re-started its economic activities. As a result, the global economy's GDP is expected to reach the bottom of its slump in the April-June quarter and its growth rate will be positive in the July-September quarter.
- Even if the cases of infection are tapering off right now, countries cannot be complacent about a second wave and there will be continued heavy, downward pressure on some areas of demand due to changes to peoples' patterns of behaviour. Therefore, the recovery from the October-December quarter onwards will be a gradual one and it will take some time before demand will return to the level it was at in 2019 before the COVID-19 pandemic.
- Based on the above, the real GDP growth rate of the global economy is forecast to be -3.1% YoY in 2020 and 5.5% YoY in 2021.

Outlook for the Real GDP Growth Rate of Major Countries and Regions



Source: Each countries' national statistics, MUFG Bank Economic Research Office

Outlook for the Global Economy (Major Countries and Regions)

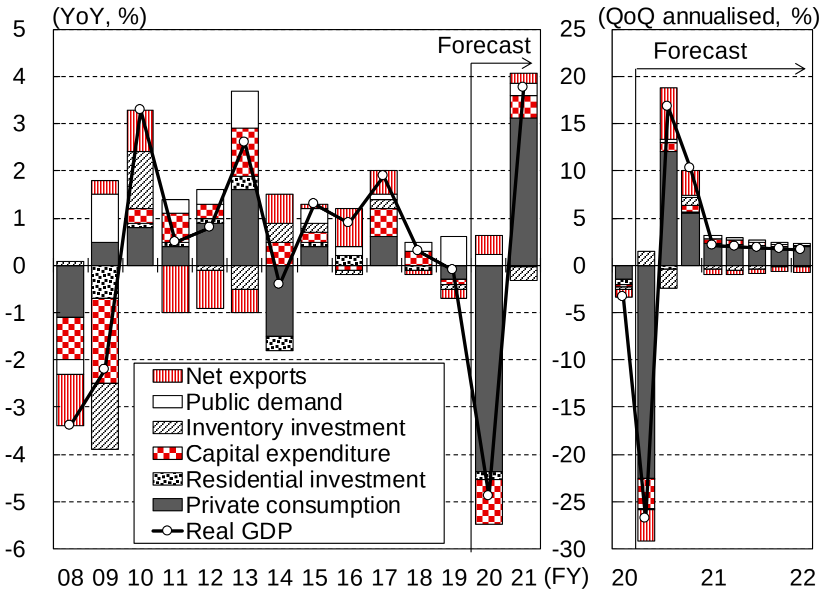
■Real GDP Growth rate (%)	2019	Economic Research Office Forecast 2020	Economic Research Office Forecast 2021	IMF Forecast (April) 2020	IMF Forecast (April) 2021
World	2.9	- 3.1	5.5	- 3.0	5.8
US	2.3	- 5.5	4.1	- 5.9	4.7
Eurozone	1.2	- 8.0	5.1	- 7.5	4.7
UK	1.4	- 8.3	6.6	- 6.5	4.0
Japan (fiscal year)	- 0.1	- 4.9	3.8	-	-
Japan (calendar year)	0.7	- 5.2	3.0	- 5.2	3.0
Asia (11 countries)	5.1	0.2	7.5	0.7	8.1
China	6.1	0.8	8.4	1.2	9.2
ASEAN (5 countries)	4.8	- 1.0	7.0	- 0.7	7.7

Source: Each country's national Statistics, MUFG Bank Economic Research Office

3. The Japanese Economy (1) Overview

- Japan's real GDP growth rate for the January-March quarter was -3.4% QoQ annualised (first preliminary estimate): the second consecutive quarter of negative growth. As COVID-19 spreads both within Japan and overseas, there was a continued slump in demand components – primarily private consumption – and a large decrease in exports.
- In the April-June quarter, too, it appears private consumption in particular will fall significantly due to the impact of the state of emergency which was declared, resulting in the third consecutive quarter of negative growth.
- Looking ahead, it seems economic activities are re-starting domestically and overseas and that the level of activity will hit its lowest point in the April-June quarter before recovering from the July-September quarter. However, owing to the continuation of certain restrictions on economic activities and social distancing resulting from a sense of caution about the spread of infection, it is likely to be some time before business and consumer sentiment is clearly optimistic and economic activities return to the level they were at before the COVID-19 pandemic and the consumption tax rate hike.
- Based on the above, the real GDP growth rate is expected to be -4.9% YoY in FY2020 and 3.8% YoY in FY2021.

Real GDP and Final Demand



Source: Cabinet Office, MUFG Bank Economic Research Office

GDP Forecast

(YoY, %)

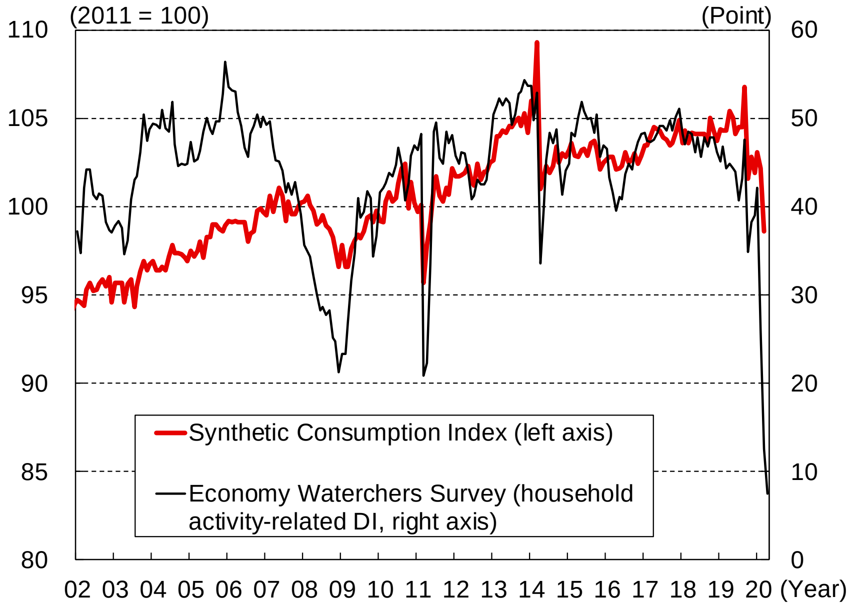
	FY 2018 (Actual)	FY 2019 (Actual)	FY 2020 (Forecast)	FY 2021 (Forecast)
Real GDP	0.3	-0.1	-4.9	3.8
Private Consumption	0.1	-0.6	-7.8	5.8
Private Residential Investment	-4.9	0.3	-6.2	-0.7
Private Non-Residential Investment	1.7	-0.9	-5.8	3.0
Inventory Investment (contribution)	0.0	-0.1	0.0	-0.3
Public Demand	0.8	2.6	0.9	1.0
Net Exports (contribution)	-0.1	-0.2	0.4	0.2
Exports	1.7	-2.7	-10.5	10.2
Imports	2.5	-1.7	-12.6	8.9
Nominal GDP	0.1	0.7	-3.0	3.3
GDP Deflator	-0.2	0.7	2.0	-0.4

Source: Cabinet Office, MUFG Bank Economic Research Office

3. The Japanese Economy (2) Household Sector

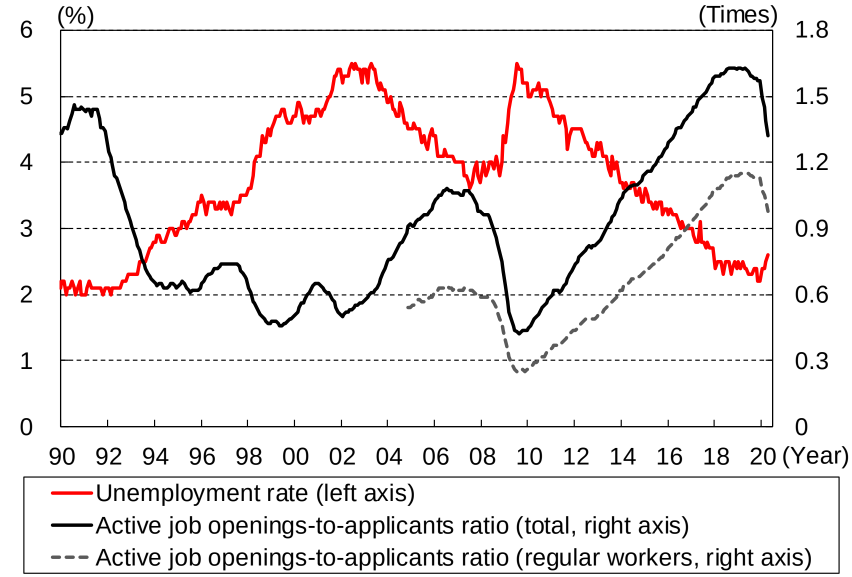
- There has been a significant decline in private consumption owing to the state of emergency which asked businesses to refrain from opening and individuals to not go outside where possible. However, the state of emergency is now lifted and the level of economic activity is expected to slowly recover after bottoming out during April and May.
- Japan is exploring how to re-start its economic activities while adopting a “new lifestyle”, but as long as no radical cure or vaccine for COVID-19 has been developed or mass produced, it seems likely it will take a while for citizens’ concerns to be resolved. Attention should be paid to changes in the overall trend of demand owing to the “new lifestyle”, such as an increase in online demand.
- Turning to the labour market, the unemployment rate is at an historical low and the ratio of job openings to applicants is high, but there has been a noticeable deterioration since March. Looking ahead, the impact on employment will probably continue for some months, yet economic activities are re-starting and it appears employment has not worsened to the levels experienced during the global financial crisis at this point in time.

Private Consumption and Consumer Sentiment



Source: Cabinet Office, MUFG Bank Economic Research Office

Employment Indicators

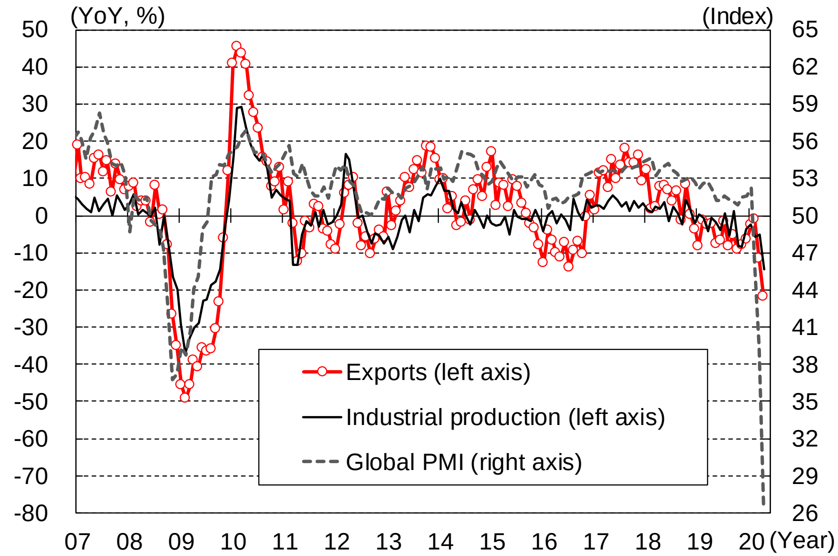


Source: Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare, MUFG Bank Economic Research Office

3. The Japanese Economy (3) Corporate Sector

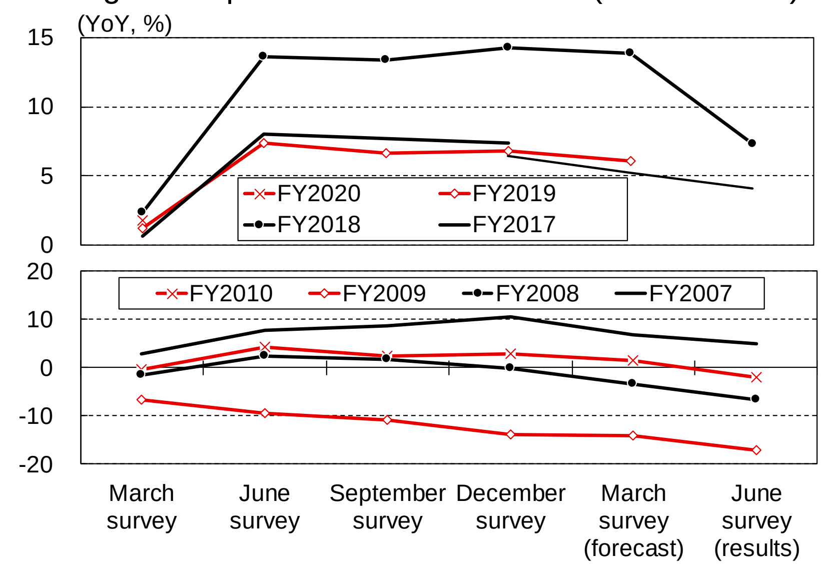
- Although exports had been recovering from the latter half of last year, they started to fall at an accelerated pace from March. Judging by the situation in the US and Europe, there will be an unavoidable slump in Japanese exports up until the middle of this year which will be comparable to the one that occurred during the global financial crisis. Additionally, production is also slowing due to the decrease in domestic demand and exports.
- From the latter half of the year, it appears countries' domestic demand will start to recover as restrictions on domestic and foreign economic activities are eased. However, it will take time before trade and production experience a full-scale recovery.
- According to the Bank of Japan's March Tankan survey, large enterprises (all industries) plan to increase their fixed investment (includes land purchasing, excludes software) for FY2020 by 1.8% YoY – in line with a typical year. At the time of the March survey, business sentiment was apparently still firm. However, the level of economic activity is decreasing due to the COVID-19 pandemic and there is a possibility that plans for investment will be shelved until the next fiscal year or beyond depending on the COVID-19 situation. Fixed investment in FY2009 – the year following the global financial crisis – was very different to the year before and after, and it is important to watch out for the same trend occurring again.

Exports, Industrial Production and PMI



Source: Ministry of Finance, Ministry of Economy, Trade and Industry, Bloomberg, MUFG Bank Economic Research Office

Large Enterprises' Fixed Investment (All Industries)



Note: Includes land purcahsing expenses, excludes software
Source: Bank of Japan, MUFG Bank Economic Research Office

- The Japanese government has drawn up two supplementary budgets which focus on maintaining employment and enhancing financial support. The first supplementary budget is being implemented and it appears it will start having its desired effect of underpinning livelihoods and economic activity.
- The Bank of Japan is carrying out policy measures focused on financing. At first, the scale was limited compared to now, but it has since expanded to around the same level as those of central banks in the US and Europe after the addition and revision of measures at each monetary policy meeting since March.

Outline of the Two Supplementary Budgets for FY2020

First Supplementary Budget (enacted 30th April)			Second Supplementary Budget (draft) (cabinet approval 27th May)	
Main Expenses	Budget (JPYtn)	Size of business (JPYtn)	Main Expenses	Budget (JPYtn)
Protect employment and sustain business continuity (expanding special measures on the Employment Adjustment Subsidies, Sustainability Payment Programme, zero interest loans, special cash payment)	19.5	88.8	Enhancing financial support (interest-free financing, providing capital such as funds and subordinated loans)	11.6
Preventative measures against the spread of infection (comprehensive grants, distribution of masks, support research and development of vaccines)	1.8	2.5	Supporting medical treatment providers (support grant for medical and nursing care, distribution of medical masks, development of medicine and vaccines)	3.0
Recover economic activities through public-private efforts, as the next phase ("Go To campaign")	1.8	8.5	Establishing a rent support grant for SMEs	2.0
Develop a resilient economic structure (Subsidies to promote domestic investment, strengthen export and domestic supply capacities of food products etc.)	0.9	15.7	Enchancing the Employment Adjustment Subsidy	0.5
Contingency funds	1.5	1.5	Other support (expansion of "Special Allocation for Revitalization to Cope with COVID-19", enhancing the "Subsidy Program for Sustaining Business")	4.7
Total	25.6	117.0	Contingency funds	10.0
			Total	31.8

Note 1. Only "cost of Covid-19 countermeasures" written. Provision to the Special Account for the National Debt Consolidation Fund is abbreviated
2. "The size of business" in the Second Supplementary Budget is unclear at this point in time
Source: Ministry of Finance, Cabinet Office, MUFG Bank Economic Research Office

Key Points of Monetary Policy Meeting

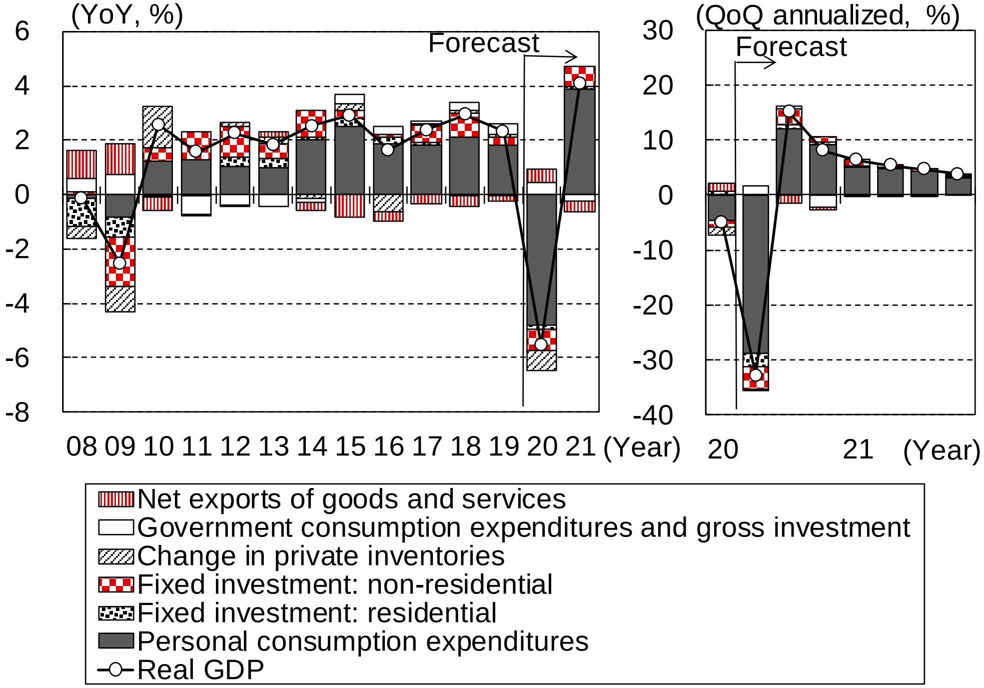
Item	Summary
Purchases of CP and corporate bonds	CP:Approx. JPY9.5 trillion (existing amount of JPY2 trillion + additional JPY7.5 trillion) Corporate bonds: Approx. JPY10.5 trillion (existing amount of JPY3 trillion + additional JPY7.5 trillion) ※Other than the additional purchases, existing amounts outstanding will be maintained ※Maximum amounts of a single issuer's CP and corporate bonds to be purchased will be raised, maximum remaining maturity will be extended for corporate bonds
Special Funds-Supplying Operations to Facilitate Financing in Response to COVID-19	Maturity: up to 1 year; interest rate: 0% Eligible counterparites (amount as of end April): ① Expand range of eligible collateral to corporate debt (below), JPY 25 trillion ※bonds, CP, mortgages and other loans ② Provide JPY 30 trilllion to banks for zero-interest rate and unsecured loans Current accounts held at the Bank: twice as much as the amounts outstanding of loans will be included in the Macro Add-on Balances (0% interest rate), interest rate of 0.1% applied to outstanding balances of current accounts
Yield curve control	Short-term: interest rate of -0.1% on Policy-Rate Balances Long-term: purchase a necessary amount of JGBs without setting an upper limit so that 10-year JBG yields will remain at around 0%
Purchases of ETFs and J-REITs	Purchase so that amounts outstanding will increase at annual paces with an upper limit of: ETF: Approx. JPY12 trillion; J-REIT: Approx. JPY 180 billion ※ As a guideline, purchase at former pace (half each amount as above)

Note: "Additional purchases" as a part of "Purchases of CP and corporate bonds" and the Special Funds-Supply Operations to Facilitate Financing in Response to COVID-19 have a time limit of up until end-March 2021
Source: Bank on Japan, MUFG Bank Economic Research Office

4. The US Economy (1) Overview

- In the January-March quarter, the real GDP declined sharply by 5.0% QoQ annualised (second estimate). Economic activity was generally normal until late February, when community transmission of the novel coronavirus was first reported. In mid- to late March, however, stay-at-home orders and other activity restrictions directly eroded demand, resulting in a 6.8% QoQ annualised decline in personal consumption expenditures.
- In May, the economy started reopening in all states (to varying degrees) while cases of infection continued to rise. Consumer and business sentiment indicators have shown signs of improvement, and the Federal Reserve's asset purchase programmes went into full swing in May. Congress has passed four economic stimulus bills totalling $2.8 trillion (equivalent to roughly 15% of GDP). Based on the above, the economy is expected to start recovering in the July-September quarter as activity restrictions are gradually lifted.
- Consumer spending on services will likely take time to recover due to caution over a recurrence of the outbreak. Recovery of capital investment by businesses is also likely to take time. Thus, the overall economy is projected to recover slowly. We project that real GDP will decline 5.5% YoY in 2020 and increase 4.1% YoY in 2021.

Real GDP by Expenditure Category



Source: Department of Commerce, MUFG Bank Economic Research Office

GDP Forecast by Component (Calendar Year)

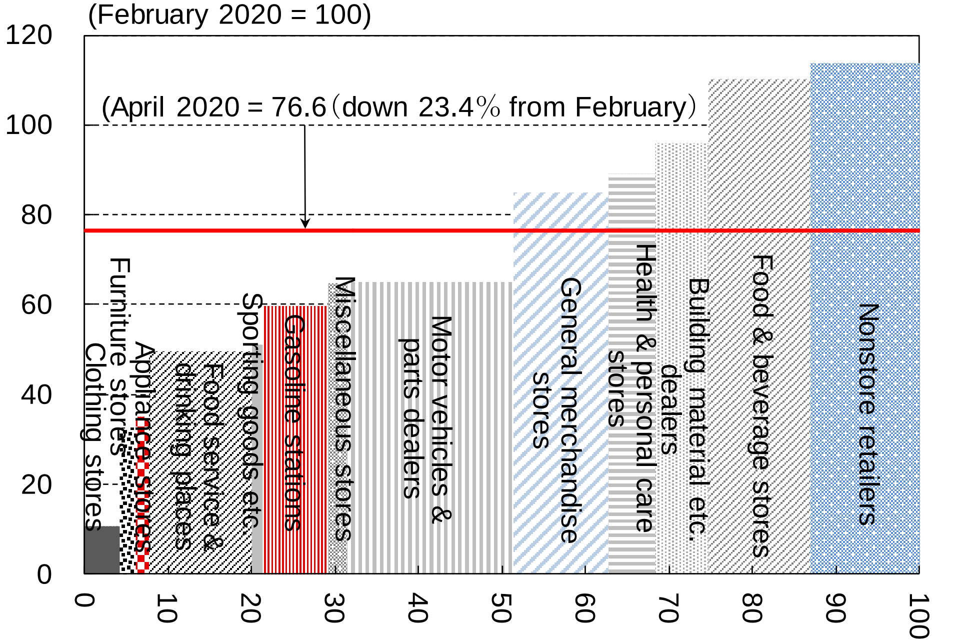
(YoY, %)

	2019 (actual)	2020 (forecast)	2021 (forecast)
Real GDP	2.3	- 5.5	4.1
Personal consumption expenditures	2.6	- 6.9	5.6
Fixed investment: residential	- 1.5	- 4.8	2.5
Fixed investment: non-residential	2.1	- 5.6	5.4
Change in private inventories (contribution)	0.1	- 0.7	0.0
Government consumption expenditures and gross investment	2.3	2.5	- 1.3
Net exports of goods and services (contribution)	- 0.2	0.5	- 0.4
Exports	- 0.0	- 5.5	5.1
Imports	1.0	- 6.6	5.9
Nominal GDP	4.1	- 3.9	6.1

Source: Department of Commerce, MUFG Bank Economic Research Office

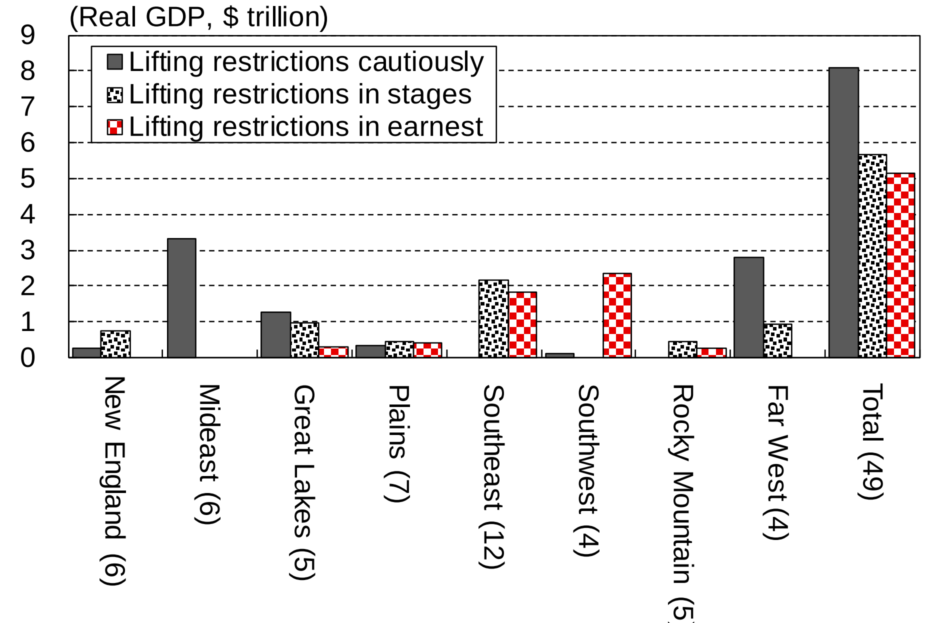
- As demand took a direct hit from restrictions on economic activity, April retail sales declined 23.4% from February (pre-pandemic levels), and a temporary glut in the labour force led to a surge in layoffs in such service industries as food service and accommodation. Nonfarm payroll declined 20.5 million MoM and the unemployment rate rose to 14.7% in April: the highest since the end of World War II.
- As the economy started reopening in all states in May, consumer sentiment appears to have bottomed out. Demand will likely recover to some extent once activity restrictions are eased. In addition, major economic stimulus measures announced late March are being implemented. Thus, consumer spending is expected to pick up in the July-September quarter while service spending will be slower to recover due to caution over a recurrence of the outbreak.
- Over 80% of job losses in April were temporary layoffs (the percentage was around 30% before). As a result, employment is projected to recover to some extent when demand picks up. If many people end up unable to find work for a long time, however, they may exit from the labour force. Employment recovery will be key to the recovery of consumer spending.

US Retail Sales (February vs April 2020)



Note: April 2020 sales in comparison to February 2020 levels. Horizontal axis shows weighting of each category.
Source: Department of Commerce, MUFG Bank Economic Research Office

Status of Economic Reopening in the US

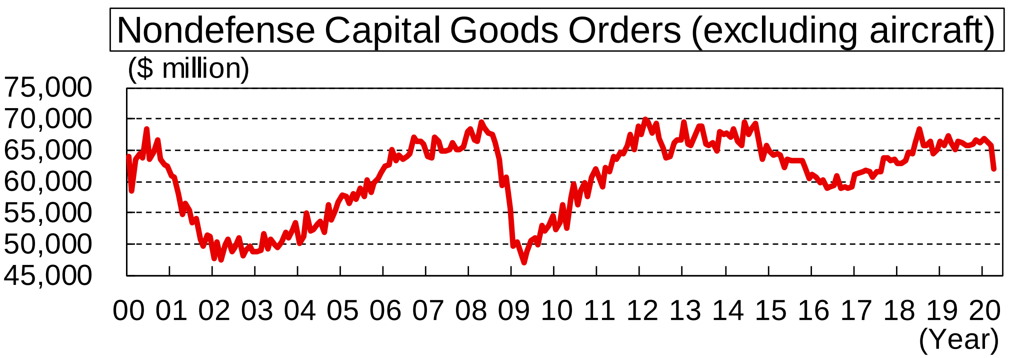


Note: Parentheses on horizontal axis indicate the number of states in each region. Hawaii and Alaska are not included.
Source: Bureau of Economic Analysis, MUFG Bank Economic Research Office

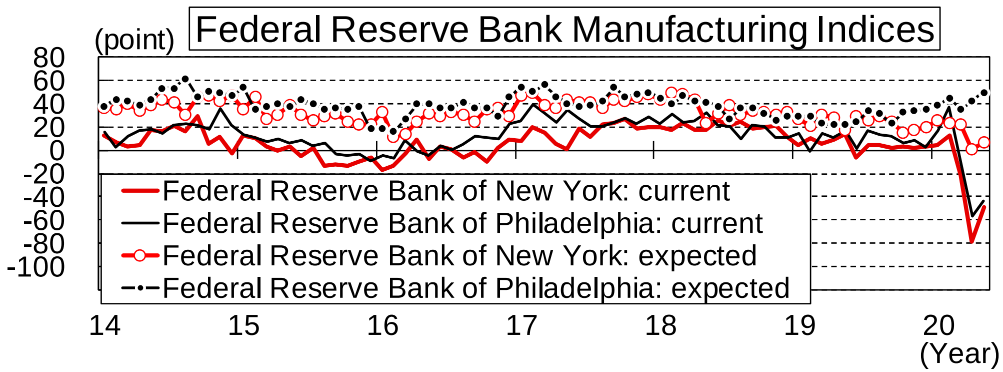
4. The US Economy (3) Household Sector

- Restrictions on economic activity from mid- and late March have severely impacted business activity, and durable goods orders – a leading indicator of capital investment – declined sharply in April along with business sentiment. Business sentiment appears to be improving amid gradual economic reopening in all states starting in May, but capital investment will likely decline for the time being.
- Capital investment in intellectual properties will likely remain steady, mainly in well-performing industries like information technology. However, with many industries hit by significant revenue declines (even if only temporarily), consumer and business behaviour may undergo structural changes. In addition, concern over US-China friction is rising again, so equipment and structure investment is likely to remain weak for a long time. Overall, it is likely that capital investment will be slow to pick up.

Indicators on Capital Investment

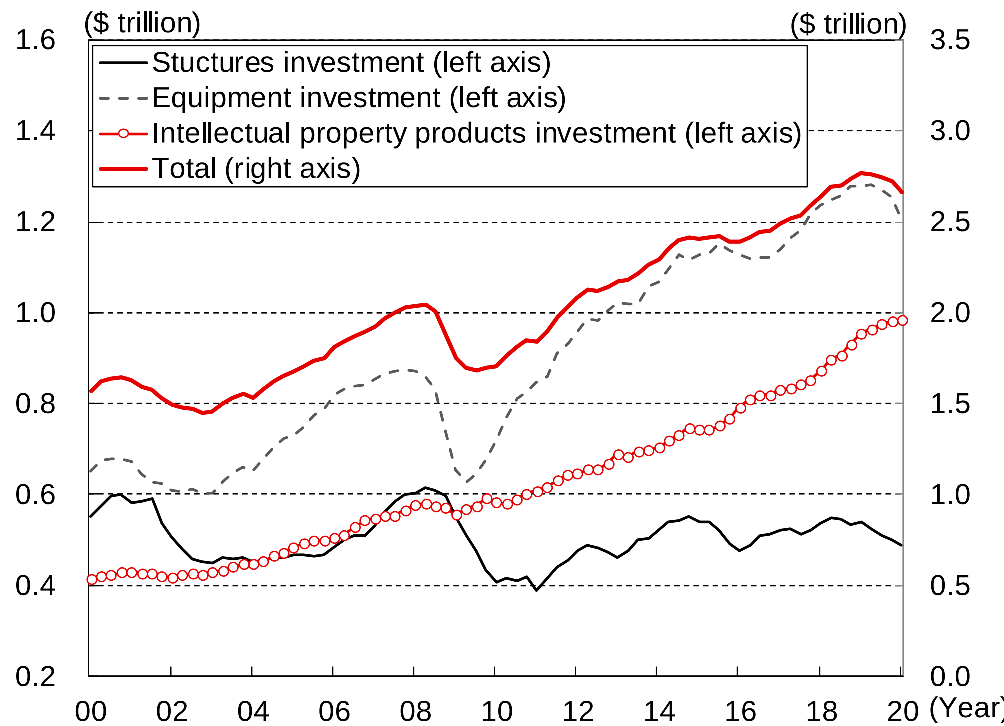


Source: Department of Commerce, MUFG Bank Economic Research Office



Source: Federal Reserve Banks, MUFG Bank Economic Research Office

Capital Investment in GDP Account



Source: Department of Commerce, MUFG Bank Economic Research Office

- The Fed cut the policy rate by 150 basis points over three unscheduled FOMC meetings on 3rd, 15th and 23rd March, and unveiled massive easing measures including unlimited purchases of Treasuries and mortgage-backed securities. In March and April, the Fed decided to set up programmes for risk asset purchases as well, and kept the policy unchanged at its regular meeting in April. FOMC members do not favour negative rates, so the FF target rate range will likely remain at the current level for the time being.
- The Federal government's $2.8 trillion stimulus packages (phases 1-4), worth roughly 15% of the GDP, include an increase of unemployment insurance benefits, cash payments to households, lending, subsidies and tax cuts to businesses, support of local governments and healthcare system support.
- The IMF projects that the US fiscal deficit will be 15.4% of GDP in 2020 and 8.6% of GDP in 2021. General government debt is expected to increase to 120% of GDP at the end of 2020, and 128% of GDP at the end of 2021. The issue of the debt ceiling is unlikely to surface for now as a bi-partisan bill was passed on August 2, 2019.

Monetary Policy Response

Policy rate cuts			
Target federal fund rate range cut by 150bps to 0.0-0.25%			
Quantitative easing			
Unlimited purchase of Treasuries, mortgage-backed securities (MBS) etc.			
Risk-asset purchase programs (9 facilities)			
Purchase through special purpose vehicles (SPVs) with Treasury Department funding support			
Overview	Main Conditions	Treasury Department contribution	Maximum expected purchase
①Commercial Paper Funding Facility (CPFF)			
CP, asset-backed CP purchase	A1/P1 or above rating	$10 bn	~$100 bn
②Primary Dealer Credit Facility (PDCF)			
Discount rate offered	Primary dealers of NY Fed	-	-
③ Money Market Mutual Fund Liquidity Facility (MMLF)			
Lending for asset purchase from money market funds	US depository institutions	$10 bn	~$100 bn
④Primary Market Corporate Credit Facility (PMCCF)			
Purchase newly issued bonds	BB- / Ba3 or above rating; maturity up to 4 years	$60 bn	~$600 bn
⑤Secondary Market Corporate Credit Facility (SMCCF)			
Purchase bonds in secondary market	BB-/Ba3 or above rating; maturity up to 5 years; some high-yield ETFs included	$35 bn	~$350 bn
⑥Term Asset-Backed Securities Loan Facility (TALF)			
Purchase ABS including some CLOs, CMBS	Highest credit rating; maturity up to 3 years	$20 bn	~$200 bn
⑦ Paycheck Protection Program Lending Facility (PPPLF)			
Lending to PPP loan originators	For small / midsize business with less than 500 staffers	-	~$660 bn
⑧ Main Street Lending Program (MSLP)			
Purchase loans to small / midsize businesses	Less than 10,000 staffers or sales of up to $2.5 bn	$75 bn	~$600 bn
⑨ Municipal Liquidity Facility (MLF)			
Purchase state/municipal bonds	City must have 250,000+ population County must have 500,000+ population	$35 bn	~$500 bn

Source: Federal Reserve, MUFG Bank Economic Research Office

Fiscal Policy Response

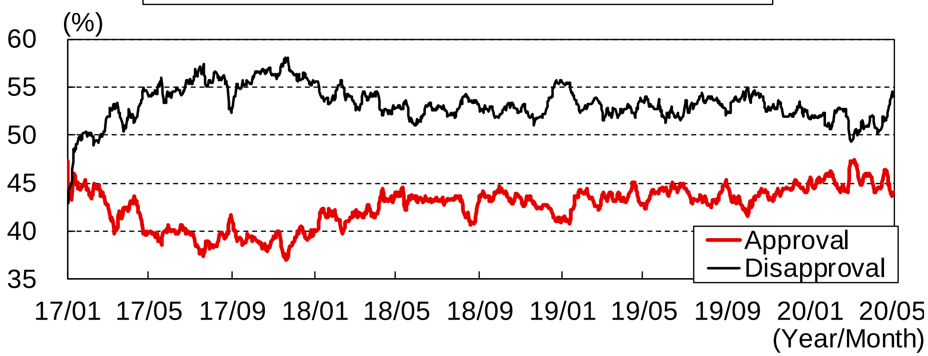
Program	($ bn)
Increase in unemployment insurance benefits	
Extra $600 per week for 4 months	250
Cash payment to households	
$1,200 per adult, $500 per child up to age 16	301
Loans, subsidies to small / midsize businesses (Paycheck Protection Program)	
・Small Business Administration loans to companies (less than 500 staffers) ・Repayment is partially waived if company retains workers	660
Tax benefits to companies	
・Payroll tax deduction under certain conditions ・Temporarily remove expiration of carry-over losses (80% of taxable income) ・Losses incurred between 2018 and 2020 can be carried back 5 years	221
Funding support to Fed asset purchase programs	
・For purchase of subordinated debt via special purpose vehicles ・Target is for Fed to provide funding of up to $4 trillion for risk assets	454
Funding support to state and local governments	
・Provided in accordance with population size ・Minimum of $1.25 bn provided to states	150
Others	
・Increase educational spending ・Increase Supplemental Nutrition Assistance Program (SNAP) spending ・Subsidies to hospitals ・Subsidies and loans to airlines, cargo carriers ・Strengthening of healthcare system ・Enhance Federal Emergency Management Agency (FEMA) funding ・Subsidies to public transport service providers	~750

Source: Congress, MUFG Bank Economic Research Office

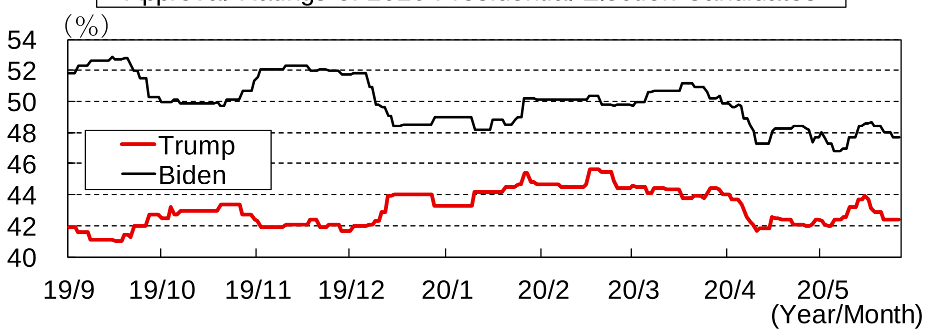
(4) Outlook for Presidential Election

- Media outlets are critical of Trump administration's response to the virus outbreak, but public's approval of President Donald Trump has been generally unchanged. Still, both the incumbent president and presumptive Democratic nominee Joe Biden have struggled to gain support in election polls since the end of March (another Democratic contender, Bernie Sanders, dropped out of the race on 8th April).
- Stock gains since the start of the Trump administration have been halved amid the virus outbreak, and employment and consumption have declined significantly (the unemployment rate is at its highest level since the end of WWII). The Trump administration can no longer tout steady economic growth as an accomplishment.
- As public opinion focuses on the virus shock and the government's responses to the outbreak, how the situation will unfold and candidates' stance on economic reopening may become a focal point in the election. As the administration faces the test of crisis management, it announced guidelines on 16th April for economic reopening in view of the many who hope for a swift economic reopening. All states have begun to reopen their economies in May.

President Trump Approval and Disapproval Ratings

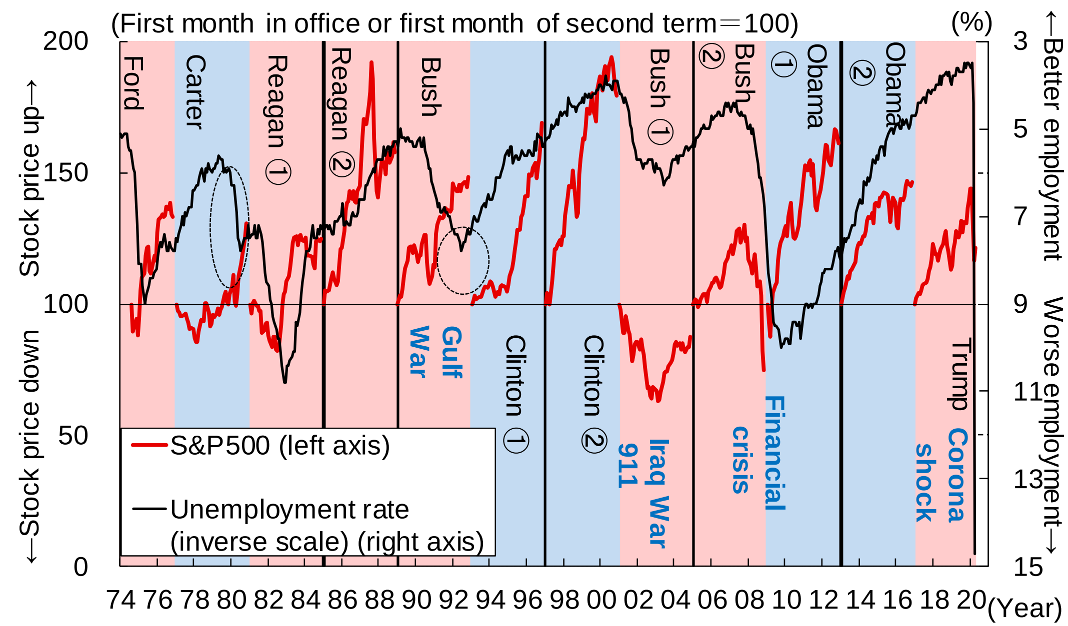


Approval Ratings of 2020 Presidential Election Candidates



Source: Real Clear Politics, MUFG Bank Economic Research Office

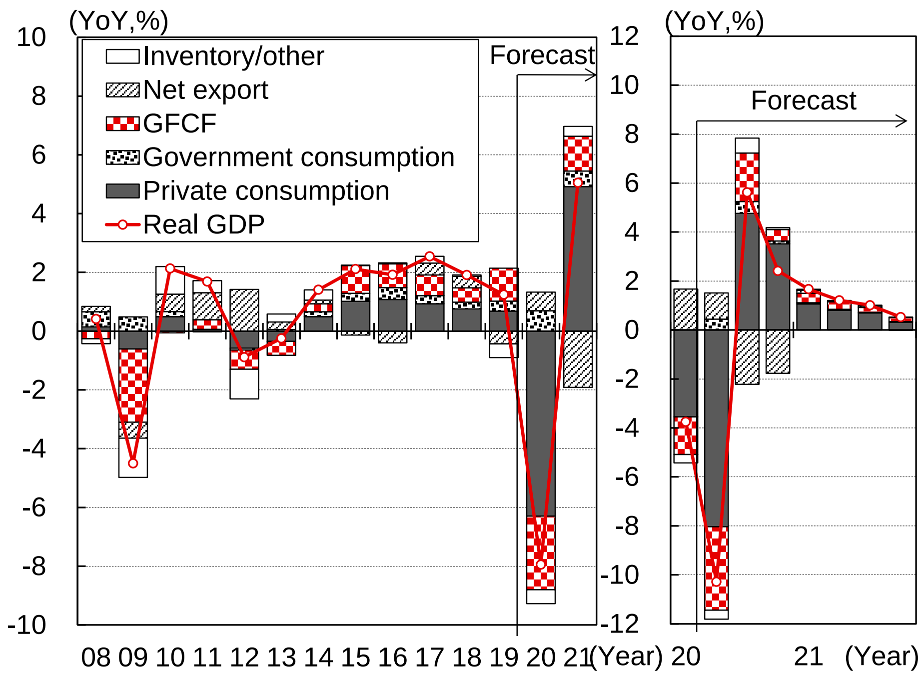
Unemployment Rate and Stock Prices by Presidency



Note: Stock price of first month in office or first month of second term＝100,
:Republican presidency, :Democratic presidency
Source: Department of Labor, Bloomberg, MUFG Bank Economic Research Office

- The spread of COVID-19 caused a sharp decline in Eurozone real GDP growth of 3.8% QoQ in the January-March quarter. Measures introduced worldwide to contain the virus have resulted in large declines in domestic and external demand throughout the region: German GDP fell 2.2% QoQ in the January-March quarter, France was down 5.3% QoQ, and Italy was down 5.3% QoQ.
- Monetary and fiscal policymakers in each country have introduced various measures to support businesses and households, but the Eurozone economy is expected to shrink further in the April-June quarter. The economy is expected to rebound in the July-September quarter as economic activity restarts, but measures are expected to be eased gradually, and individual and corporate concerns over the virus are expected to linger, meaning that any subsequent economic recovery is expected to proceed at a moderate pace. Real GDP is expected to shrink considerably in 2020, by 8.0% YoY. Though growth may improve to 5.1% YoY in 2021, the level of real GDP is likely to remain below its 2019 peak.

Eurozone Real GDP Growth Forecast



Source: Eurostat, MUFG Bank Economic Research Office

Real GDP Growth Forecast for Major European Countries

(YoY,%)

	2019				2020
	Q1	Q2	Q3	Q4	Q1
Eurozone	0.5	0.1	0.3	0.1	-3.8
Germany	0.5	-0.2	0.3	-0.1	-2.2
France	0.5	0.3	0.2	-0.1	-5.3
Italy	0.2	0.1	0.0	-0.2	-5.3
UK	0.6	-0.1	0.5	0.0	-2.0

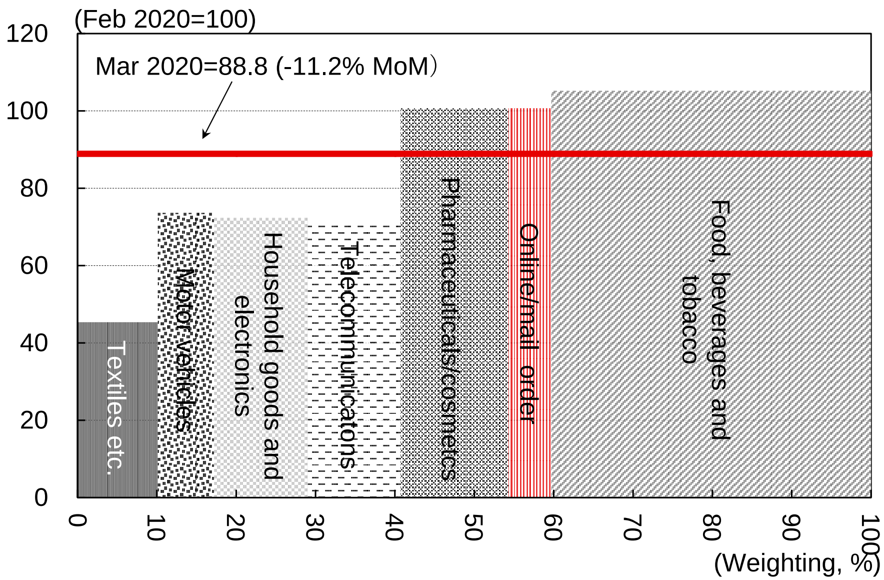
(YoY,%)

	2019 (actual)	2020 (forecast)	2021 (forecast)
Eurozone	1.2	-8.0	5.1
Germany	0.6	-7.1	5.2
France	1.5	-8.2	7.3
Italy	0.3	-9.4	5.0
UK	1.4	-8.3	6.6

Source: Eurostat, MUFG Bank Economic Research Office

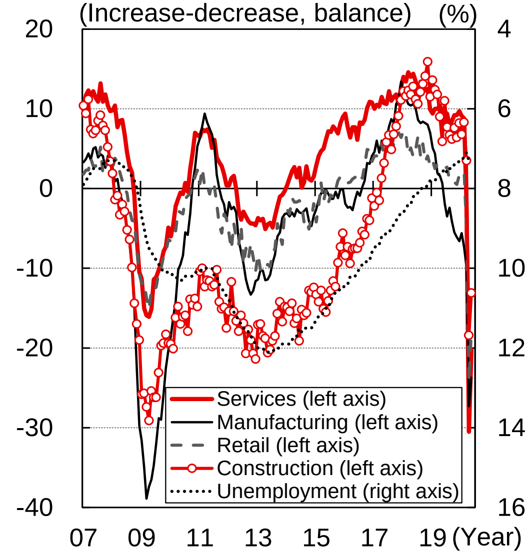
- Private consumption has contracted by an unprecedented extent due to public health measures such as travel bans and shop closures introduced from mid-March to contain the spread of COVID-19.
- A short term worsening of the employment environment is inevitable, particularly in the service sector, which employs around 3 in 4 workers in the Eurozone. However, individual countries have rolled out short-term support measures that far exceed those introduced in the wake of the Global Financial Crisis (GFC), which is expected to aid staff retention to some extent.
- Household incomes are expected to be supported somewhat by these measures, meaning that consumption of goods is likely to improve as public health measures are lifted. However, consumer concern about the virus is likely to take time to dissipate, meaning that consumption of services is likely to recover slowly.

Eurozone March Real Retail Sales Breakdown



Note 1: Data is from Mar 2020, indexed to Feb 2020=100. The horizontal axis shows the weighting of each item in real retail sales.
Source: Eurostat, MUFG Bank Economic Research Office

Eurozone Hiring Forecast by Sector, Unemployment



Note 1: Unemployment data is on inverted axis
Source: Eurostat, European Commission
MUFG Bank Economic Research Office

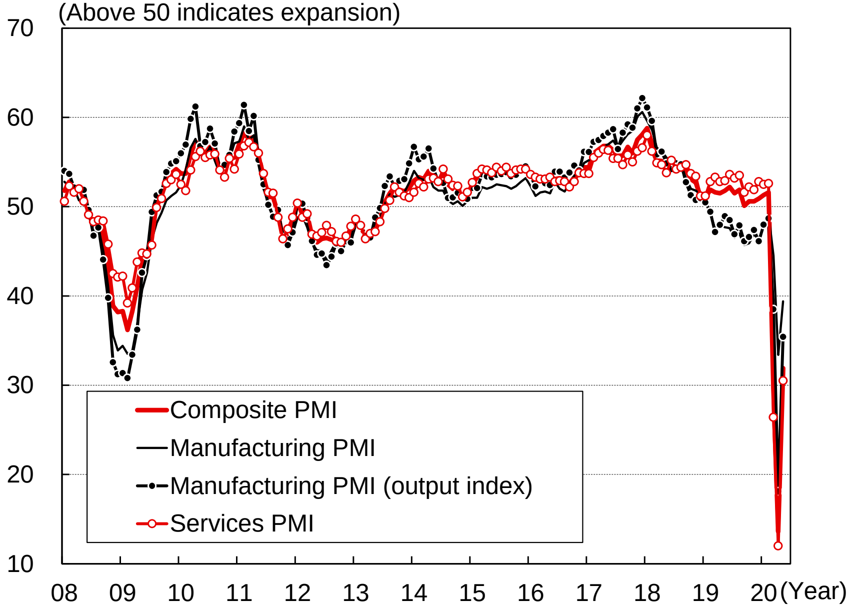
Short-term Support in the EU, Germany and Italy

	Policy summary	GFC	Current crisis
EU	Financial support for member states to cover the cost of short-time work schemes	19 billion euro	100 billion euro
Germany	Subsidise salaries for companies that furlough at least 10% staff	5 billion euro (up to 67% of salaries)	26 billion euro (up to 87% of salaries)
Italy	Subsidise 80% of salaries for companies where activity has stopped/been reduced	1.2 billion euro	10.4 billion euro

Source: National governments, News sources, MUFG Bank Economic Research Office

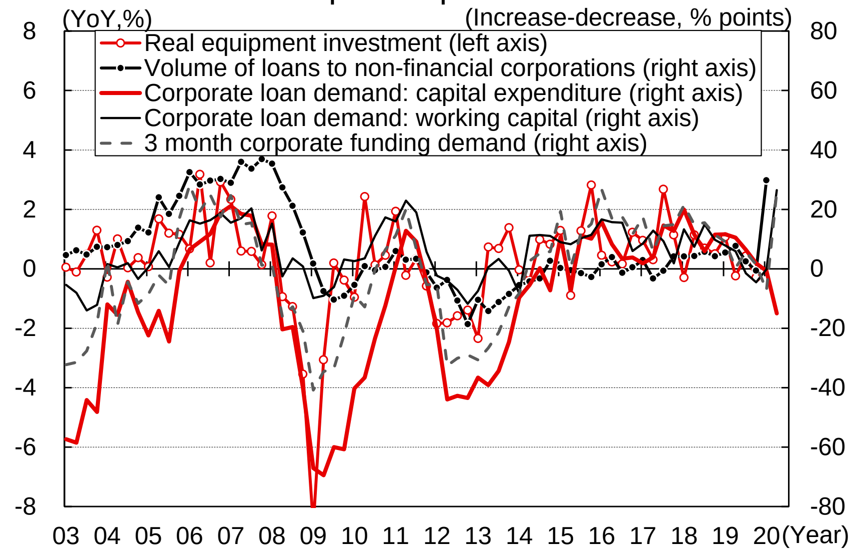
- Sentiment indicators for the Eurozone have declined sharply since public health measures brought the region's economy to a sudden stop, and various indicators hit historic lows in April. The decline in services PMI is particularly notable, and manufacturing PMI output orders slumped to a similar extent. That said, all sectors have taken a severe hit.
- PMI figures for May have recovered significantly, but remain low. Although there is still some way before economic activity is back to normal, we may now be beyond the worst point for the economy. As long as there isn't a second/third wave of infections, we expect the level of economic activity to gradually pick up.
- While corporate loan demand for capital expenditure has slumped considerably, loan demand for working capital has risen sharply. Based on the fact that national government policies to help business tend to support lending, it seems likely that future uncertainty will make businesses delay investment for the time being, and the increased debt burden on businesses will put downward pressure on capital expenditure.

Eurozone PMIs by Sector



Source: IHS Markit, MUFG Bank Economic Research Office

Eurozone Corporate Loan Demand, Capital Expenditure



Note 1: 'Corporate loan demand' based on ECB bank lending survey
Source: Eurostat, ECB, MUFG Bank Economic Research Office

- On 27th May, the European Commission proposed a EUR 750 billion aid package to support member states' recovery. This would be funded via the financial market by essentially issuing joint bonds, and the content of the package (mostly grants) would allow southern European countries to escape further deterioration of public finances. However, given that support to member states would be split over a number of years from 2021, the amount of support provided in any given year is likely to be limited.
- In terms of monetary policy, the ECB swiftly implemented measures such as quantitative easing and increased liquidity support for banks. However, interest rates were left unchanged, making it clear that the ECB wishes to avoid moving further into negative territory.
- The ECB has shown itself willing to implement additional easing measures if needed, but the only option currently available is an expansion of the pandemic emergency purchase program (PEPP), which is not subject to the same restrictions as regular asset purchases. Given the existing width of 10-year bond yield spreads between Germany and Italy, and that the PEPP is due to hit its upper limit in October at its current pace, we expect the purchase limit on the PEPP to be raised at the committee meeting on 4th June.

EU and Major Eurozone Countries' Fiscal Policies

	Fiscal support		Financial support	
	Total (% of GDP)	Specific Measures	Total	Specific Measures
EU	340 billion euro + 750 billion euro (under discussion)	■ Financial support for member states to cover the cost of short-time work schemes ■(under discussion) Recovery fund for member states funded by grants/loans	200 billion euro	■ Financial support via European Investment Bank's 'Pan-European Guarantee Fund'
Germany	150 billion euro (4.4%)	■Grants for SMEs and self-employed ■Suspension of charges for late tax payments until end-2020 ■Decreased VAT on restaurant food	600 billion euro	■Government guarantees for corporate loans via state development bank ■Corporate investment via stabilisation fund ■Increased guarantees via guarantee banks
France	150 billion euro (6.2%)	■Guarantee scheme for furloughed workers ■Deferral/postponement of corporate taxes and wage payments ■ Grants for small businesses in the tourism and hospitality sector	300 billion euro	■ Government guarantee scheme covering new loans
Italy	130 billion euro (7.3%)	■Subsidised overtime for medical staff ■Wage support for self-employed workers ■Subsidised childcare for children under 12 ■Deferral of March/April VAT payments/taxes for most affected sectors (eg. tourism) ■Tax exemption for 60% of retailers' March rent	130 billion euro	■Suspension of loan/mortgage repayments for SMEs ■ Increased centralised funding for guarantees for SMEs ■Credit guarantees for self-employed, freelancers, household ■Guarantees for emergency loans to keep businesses afloat

Source: National governments, News sources, MUFG Bank Economic Research Office

ECB Monetary Policy Decisions since March, Forecast

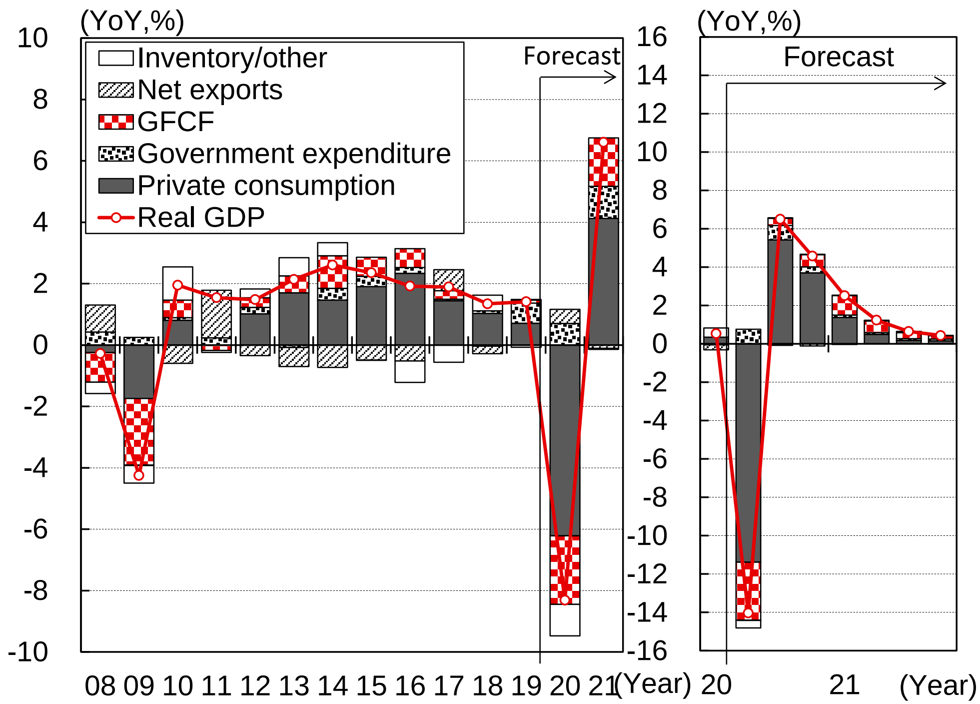
		Decision	Forecast
Quantitative easing	Increase in APP	120 billion euro corporate bond purchases by end-2020 in addition to existing 20 billion euro monthly purchases.	No change
	Pandemic emergency purchase programme (PEPP)	750 billion euro of asset purchases to be made until at least end-2020 (including Greek government bonds, capital key to be used flexibly). Due to be terminated when COVID-19 crisis phase is over.	Increase in purchases (June 2020)
Bank lending support	Changes to TLTRO3 (Jun 2020)	Interest rate fixed 50bps below main refinancing operations rate (-0.50%). Interest rate 50bps below deposit facility rate (-1.00%) for banks above lending performance threshold. Bid limit per operation removed , total borrowing allowance raised (to 50% of eligible loans)	No change
	Longer-term refinancing operations (LTRO)	LTROs settled every week (Wednesday) from 16 March-10 June. ※Temporary provision until TLTRO3 conditions eased	No change
	Pandemic emergency longer-term refinancing operations (PELTRO)	First operation settled on 21 May 2020, 7 monthly operations to conclude on 3 Dec 2020. Interest rate fixed 25bps below main refinancing operations rate (-0.25%). Fixed rate tender with full allotment (no purchase limit)	No change

Source: ECB, MUFG Bank Economic Research Office

5. European Economies (2) UK ① Economy

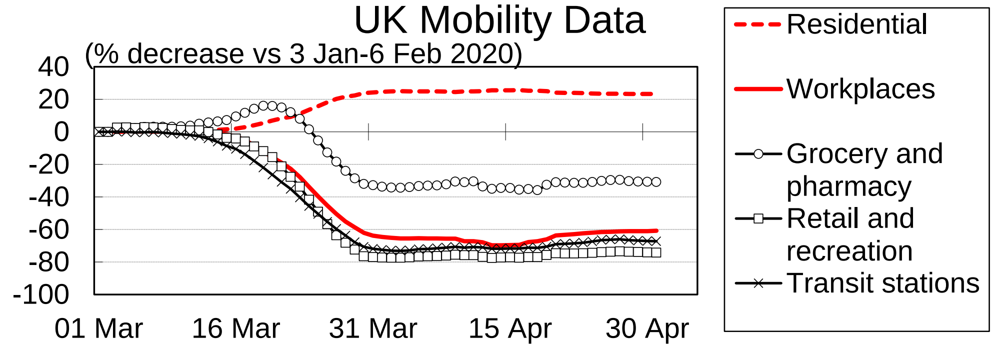
- UK real GDP growth turned negative (-2.0%) in the January-March quarter after 3 quarters of positive growth. Consumption and investment both contracted considerably due to the effects of COVID-19, particularly the slowdown in external demand and public health measures introduced to control the spread of the virus.
- Since law-enforced nationwide lockdown was introduced on 23rd March, a wide range of consumption and output activity was brought to an abrupt stop. UK PMIs declined precipitously in April: the services PMI dropped to 13.4, and manufacturing to 32.6. The marked decline in the services sector, which makes up around 80% of UK GDP, means increased downward pressure on the labour market.
- If the gradual normalisation of the economy proceeds in July-September, we expect GDP growth of -8.3% YoY in 2020, followed by recovery of 6.6% in 2021. However, real GDP is unlikely to return to its December 2019 level until at least 2023.

UK Real GDP Growth Forecast



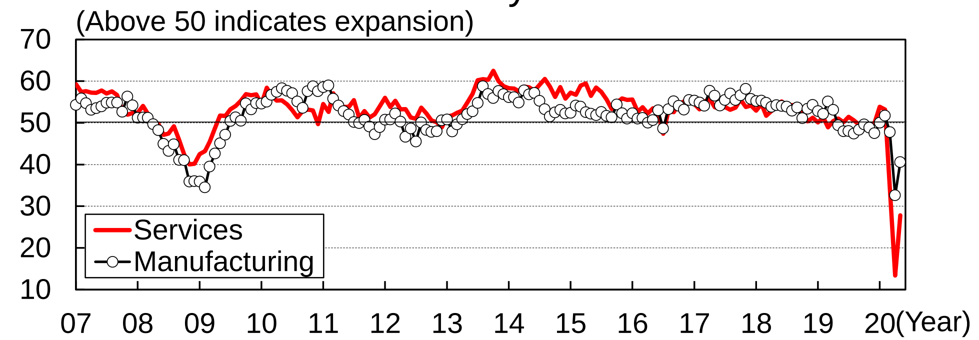
Source: ONS, MUFG Bank Economic Research Office

UK Mobility Data



Source: UK Government, MUFG Bank Economic Research Office

UK PMIs by Sector



Source: IHS Markit, MUFG Bank Economic Research Office

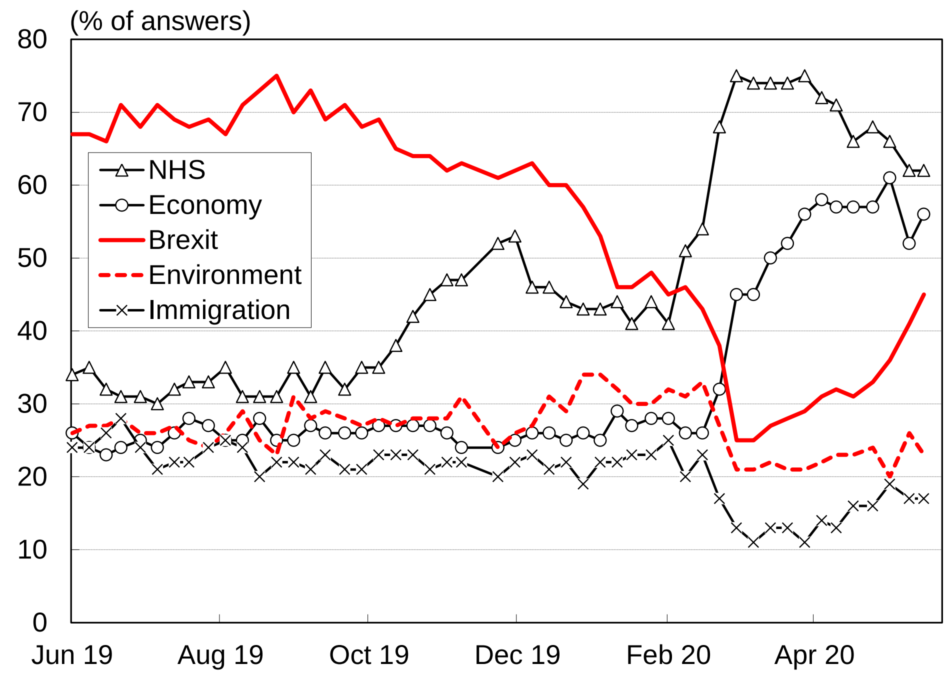
- The UK government and BoE have mobilised fiscal and monetary policy in tandem to reduce the incidence of bankruptcies and redundancies caused by the hiatus in economic activity. Support has focused on protecting household incomes and corporate financing. The scale of the policy response is far larger than during the GFC, and second only to Germany within Europe (total fiscal expenditure including tax cuts and spending on a par with Germany at around 5% of GDP). The government announced a roadmap to easing restrictions on 11th May, with certain retailers allowed to reopen from 1st June at the earliest. However, this is conditional on measures to control the virus, so economic activity is likely to take time to gradually return to normal over the coming 6 months.
- Brexit: the UK government still refuses to extend the current transition period, but there are little political resources to spare in the UK or the EU on issues beside the COVID-19 pandemic. Based both on public opinion, and that the UK is ill-equipped to deal with the extra burden of a disorderly Brexit, some form of extension to the transition period now seems likely.

UK Government Fiscal and Monetary Policy

	Policy		Details
Government	Support for households	Wage/income support	Compensation for up to 80% of lost income/wages for employees/self-employed workers
Government	Grants/tax cuts for businesses	Grant fund	Grants of £10,000 for SMEs and £10-25,000 for retail, hospitality and leisure businesses ineligible for business rates holiday
Government	Grants/tax cuts for businesses	Deferral of VAT payments	VAT payments for 20 Mar-30 Jun 2020 deferred until Mar 2021
Government	Grants/tax cuts for businesses	Business rates relief	Business rates holiday for retail, hospitality and leisure businesses
Government	Support for corporate financing	CP purchase (large firms)	BoE to purchase corporate paper of large firms (defined in terms of turnover, staff numbers, public listing) up to the value of £10 billion
Government	Support for corporate financing	Loan scheme for SMEs	Government guarantees of up to 80% on loans up to £25 million form SMEs (turnover £45 million-£5 billion) and £50 for small businesses (turnover under £45 million)
BoE	Interest rates		Policy rate cut from 0.75% to 0.10%
BoE	Asset Purchase Facility (APF)		Holdings of government and corporate bonds increased by £200 billion to £645 billion
BoE	Funding for SMEs (low interest loans)		Introduction of Term Funding Scheme with additional incentives for SMEs (TFSME)
BoE	Easing capital funding requirements for banks		Countercyclical buffer rate reduced from 1% to 0%

Source: UK Government, BoE, MUFG Bank Economic Research Office

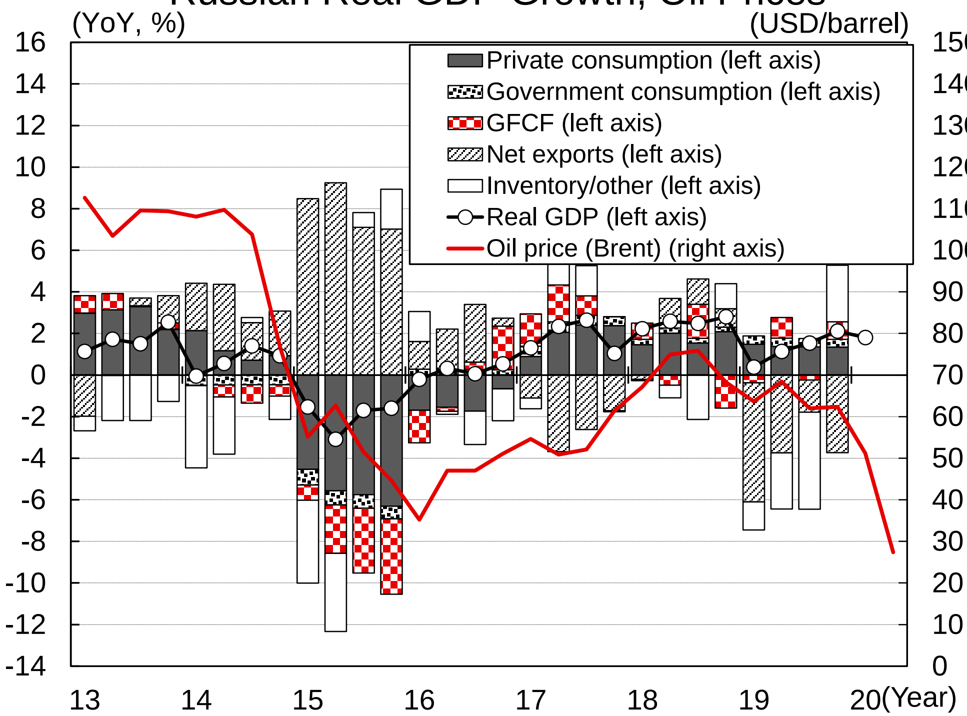
Opinion Survey on Important Issues Facing the UK



Source: YouGov, MUFG Bank Economic Research Office

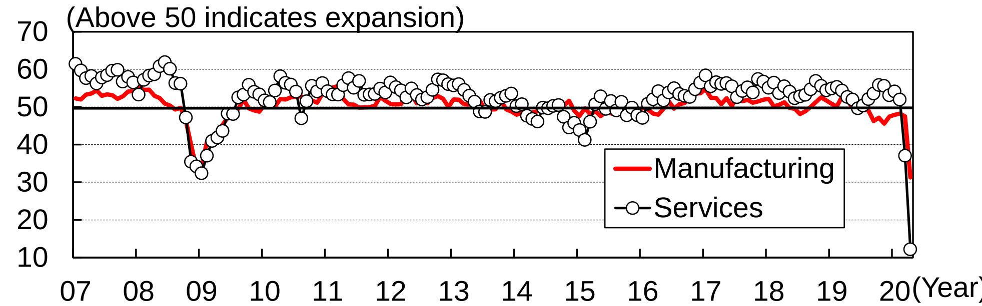
- Russian real GDP growth was 1.6% YoY in the January-March quarter. However, the effects of COVID-19 are now being felt: the slowdown in external demand and stagnant economic activity under lockdown, this combined with the drag from low oil prices resulted in April PMIs falling to historic lows far below those previously recorded during the GFC.
- The Russian government announced an end to lockdown on 12th May, but left the decision on easing of specific measures to regional governors. The virus continues to spread in Russia, meaning that normalisation of economic activity is likely to take time.
- In terms of fiscal policy, a squeeze on public finances is inevitable given that 40% of the government's annual revenue comes from oil and gas. Large-scale monetary stimulus is also challenging because the crash in oil prices has made it difficult to undertake large scale monetary easing from the point of view of inflation control and currency protection. Real GDP is expected to shrink by 6.0% YoY in 2020, with limited recovery in 2021 at 3.0% YoY.

Russian Real GDP Growth, Oil Prices



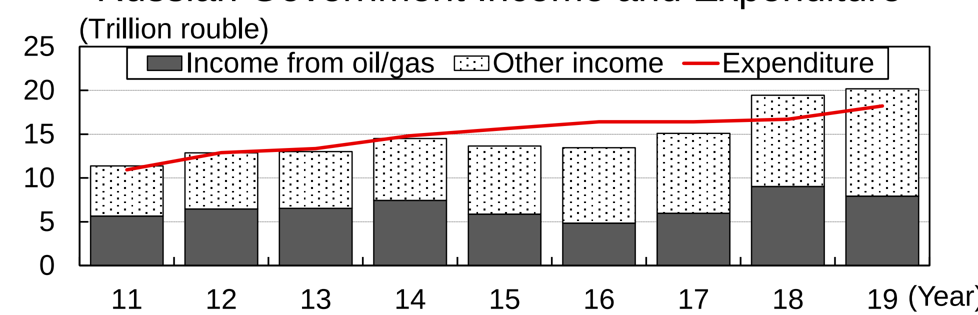
Source: Rosstat, Bloomberg, MUFG Bank Economic Research Office

Russian PMIs by Sector



Source: IHS Markit, MUFG Bank Economic Research Office

Russian Government Income and Expenditure



Source: MUFG Bank Economic Research Office

6. Asia and Australia (1) Overview of Asia

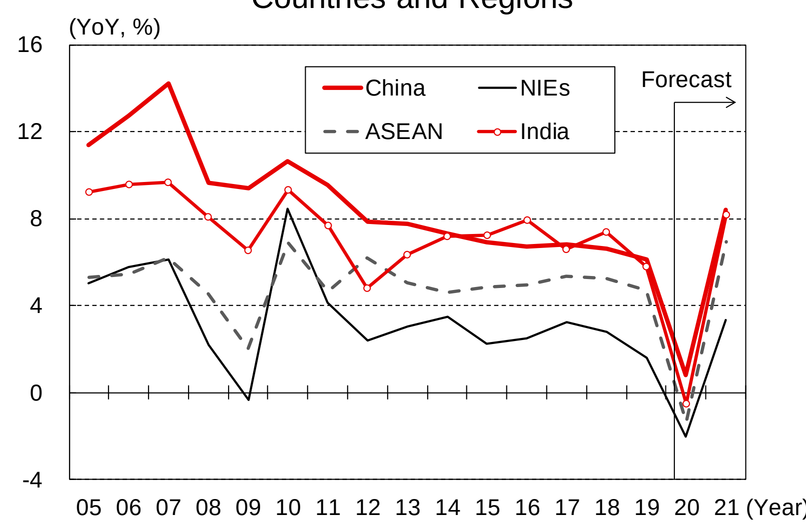
- China's real GDP growth rate in the January-March quarter fell sharply by 6.8% YoY on the back of a lockdown of some cities due to COVID-19. Looking ahead, it appears the recovery of service consumption and exports will remain gradual; nevertheless, the Chinese economy is likely to recover sooner than those of developed countries owing to the Chinese government's decision to re-start production and investment in infrastructure. The real GDP growth rate is forecast to be 0.8% YoY in 2020 and 8.4% YoY in 2021.
- The real GDP growth for both ASEAN and NIEs was 1.6% YoY and -0.1% YoY respectively. The impact of COVID-19 acted as a large headwind for both domestic and foreign demand and, as a result, growth slowed in ASEAN and turned negative in NIEs. Looking ahead, the effects of COVID-19 are expected to continue into the latter half of the year, after which a gradual recovery of the economy is likely to occur. The GDP growth rate of ASEAN and NIEs will be -1.0% YoY and -1.9% YoY respectively in 2020, and 7.0% YoY and 3.4% YoY respectively in 2021.
- It is probable that Australia's real GDP growth rate for the January-March quarter will deteriorate further owing to the negative impact from natural disasters as well as the restrictions placed on various economic activities in response to COVID-19 (GDP statistics scheduled to be released on 5th June). Up until the end of the April-June quarter, the negative effects of COVID-19 will be large, likely resulting in growth of -6.9% YoY in 2020 and 5.3% YoY in 2021, assuming there is a recovery from the July-September quarter onwards.

Outlook for Asian Economies and Australia

	Real GDP growth rate (%)			Consumer Price Index (%)		
	2019 (Actual)	2020 (Forecast)	2021 (Forecast)	2019 (Actual)	2020 (Forecast)	2021 (Forecast)
Asia (11 countries/regions)	5.1	0.2	7.5	2.9	2.7	2.5
China	6.1	0.8	8.4	2.9	3.0	2.0
India (FY basis)	4.2	0.7	7.2	4.5	3.6	4.2
NIEs	1.7	- 1.9	3.4	0.7	0.4	1.1
South Korea	2.0	- 1.2	3.0	0.4	0.5	1.1
Taiwan	2.7	- 0.5	3.2	0.6	0.2	0.9
Hong Kong	- 1.2	- 4.8	3.5	2.9	1.3	1.8
Singapore	0.7	- 5.5	5.0	0.6	- 0.2	0.7
ASEAN 5	4.8	- 1.0	7.0	2.1	1.6	2.4
Indonesia	5.0	0.3	8.0	2.8	2.6	3.0
Thailand	2.4	- 6.0	4.5	0.7	- 0.8	0.8
Malaysia	4.3	- 2.1	7.7	0.7	- 0.3	1.5
The Philippines	5.9	- 1.5	6.5	2.5	2.1	2.5
Vietnam	7.0	2.5	6.8	2.8	2.5	3.3
Australia	1.8	- 6.9	5.3	1.6	0.8	1.5

Note: India's financial year runs from April to March the following year
Source: Each country's national statistics, MUFG Bank Economic Research Office

Real GDP Growth Rate of Major Asian Countries and Regions

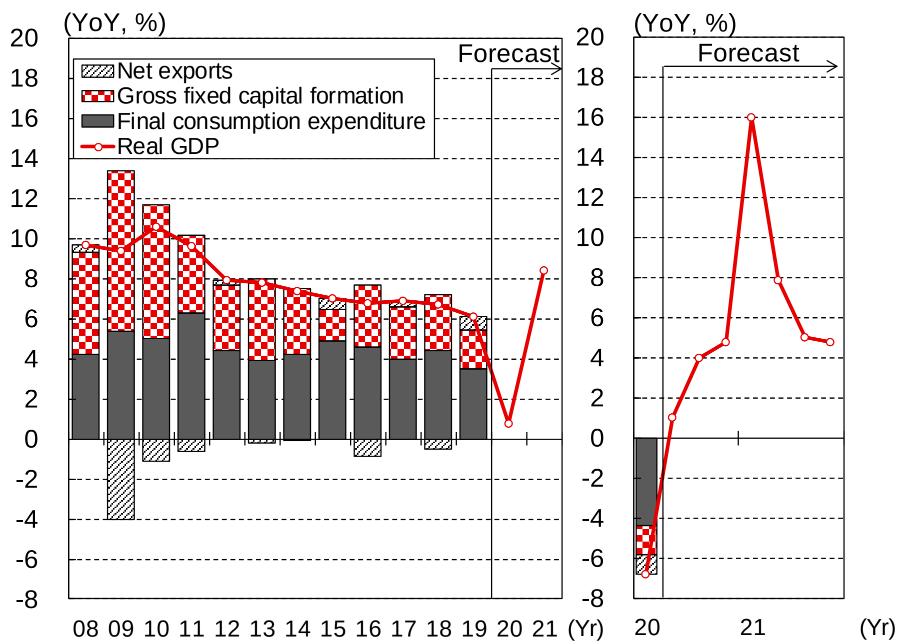


Source: Each country's national statistics, MUFG Bank Economic Research Office

6. Asia and Australia (2) China: Overview and Government Policies

- Owing to the negative impacts from COVID-19, China's real GDP growth rate fell 6.8% YoY in the January-March quarter: the first negative growth since 1992 when the country started to release quarterly data.
- The spread of infection has been curtailed for the most part thanks to strict public health measures such as city lockdowns. Since March, government policies have supported the re-starting of economic activities; corporate sector indicators show the level of production of goods and investment exceeds that of the previous year, but the recovery of the household sector – particularly service consumption – is still underway.
- At the National People's Congress (NPC) which started on 22nd May, the government did not announce its target for the economic growth rate for 2020. Under a fiscal policy which is "more proactive", the government decided to issue special government bonds for the first time in 13 years, and expanded its framework for issuing special local bonds. In addition, it decided to make exemptions for various taxes and social insurance premiums in order to support small and medium-sized businesses in particular (exemptions increased from last year). Premier Li announced that the government is prioritising labour stability and maintaining livelihoods this year.

China's Real GDP Growth Rate



Source: National Bureau of Statistics, MUFG Bank Economic Research Office

Summary of the National People's Congress

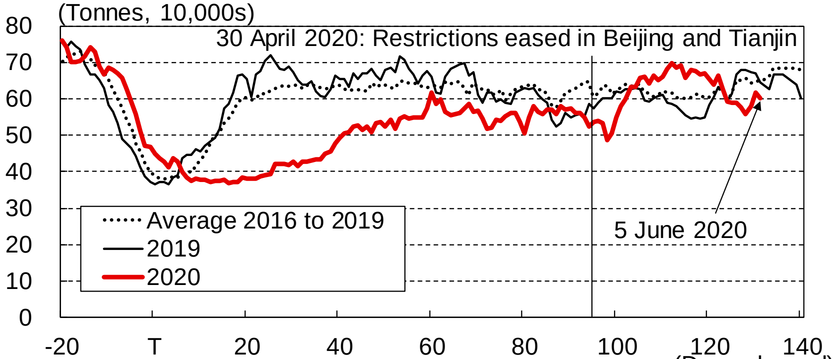
Outline for Fiscal and Monetary Policies	・Fiscal policy: Pursue a more "proactive" and impactful fiscal policy ・Monetary policy: Pursue a "prudent" monetary policy in a more flexible and appropriate way	
Numerical targets and guidelines	・Real GDP growth rate target: none set (2019: 6.0~6.5% YoY) ・Surveyed urban unemployment rate: around 6.0% (2019: around 5.5%) ・Deficit-to-GDP ratio: 3.6% (RMB 3.76 trillion). 2019: 2.8% (RMB2.76 trillion)	
Special government bonds	RMB 1 trillion (first issue since 2007, 13 years ago)	
	Build more medical facilities for epidemic control and treatment, strengthen public health and epidemic prevention	
Special local government bonds (source for infrastructure investment)	RMB 3.75 trillion (2019: RMB 2.15 trillion)	
	Prioritise construction related to boosting consumption, improving citizens' lives, structural adjustments and enhancing sustainabillity ・Step up construction of new infrastructure (5G, next-gen. information networks)	
Reduce tax and insurance contributions for businesses	RMB more than 2.5 trillion (2019: approx. RMB 2 trillion)	
	Reduce tax rates (VAT) and the share of employees' basic old-age insurance paid by enterprises	RMB 0.5t
	Tax and fee reduction policies ・Exempting micro, small and medium businesses from contributions to insurance (for the year) ・Exempting VAT on public transportation, restaurants and hotels etc. (for the year) ・Postpone payment of corporate income taxes by micro and small businesses and those self employed (until next year)	-
Financial support for micro, small and medium businesses	・Extend policy until the end of March 2021 that allows micro, small and medium businesses to postpone principle and interest repayments on loans ・Large commercial banks should increase inclusive finance lending to micro and small businesses by more than 40% YoY (2019: increase by more than 30% YoY)	

Source: Various news reports, MUFG Bank Economic Research Office

(2) China: Recovery across Data Published Daily

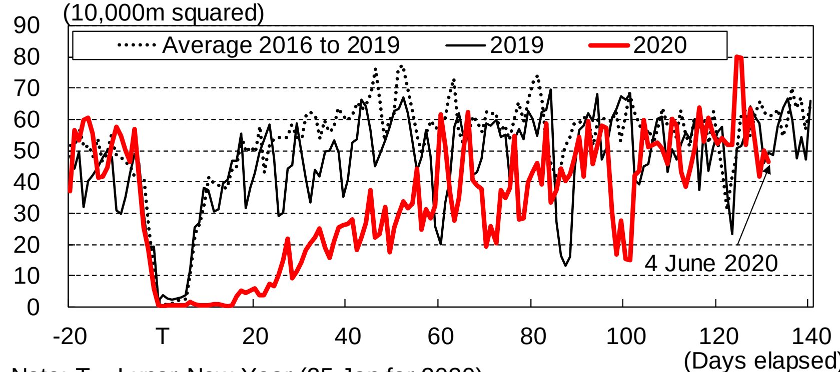
- According to indicators updated daily and weekly – namely coal consumption (total of 6 major power companies), the Traffic Congestion Index, floor area of residential property sales and passenger vehicle sales – current economic activities are either at the same level as they were last year, or they have recovered to a level slightly higher than that of last year as China stops the spread of COVID-19 within the country.

Coal Consumption of Six Major Power Companies



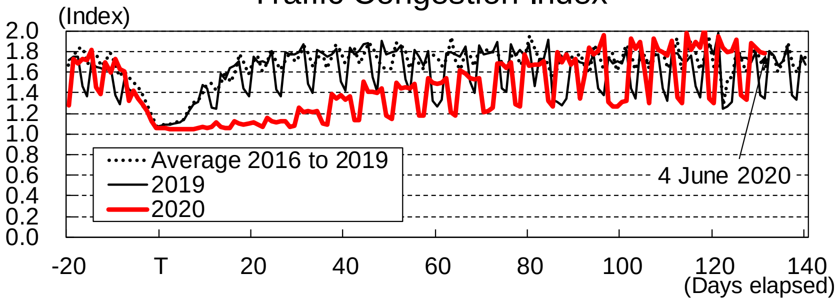
Note: T = Lunar New Year (25 Jan in 2020)
Source: Wind, MUFG Bank Economic Research Office

Floor Area of Residential Property Sales in 30 Major Cities



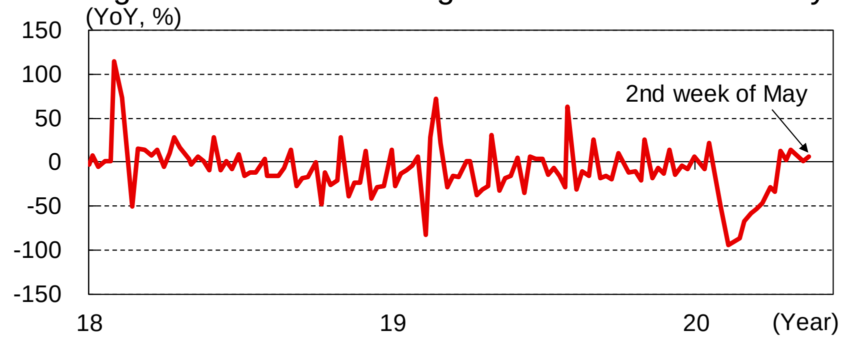
Note: T = Lunar New Year (25 Jan for 2020)
Source: Wind, MUFG Bank Economic Research Office

Traffic Congestion Index



Note: 1. Traffic Congestion Index is the typical travel time compared to the actual travel time. Subject is city residents. Average of Beijing, Shanghai, Guangzhou, Shenzhen and Wuhan)
2. T = Lunar New Year (25 Jan for 2020)
Source: Wind, MUFG Bank Economic Research Office

Average Number of Passenger Vehicle Sales Per Day

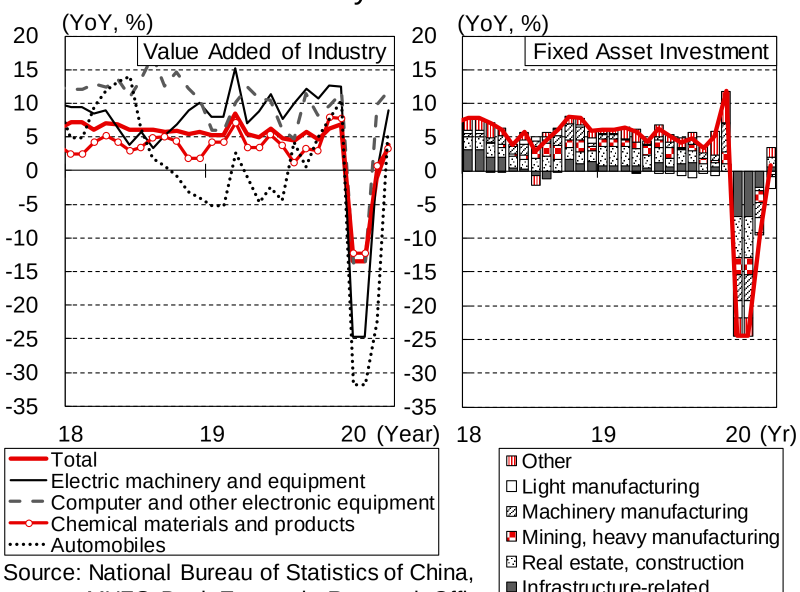


Note: Lunar New Year period is different each year
Source: Wind, China Passenger Car Association, MUFG Bank Economic Research Office

(2) China: Corporate Sector vs Household Sector

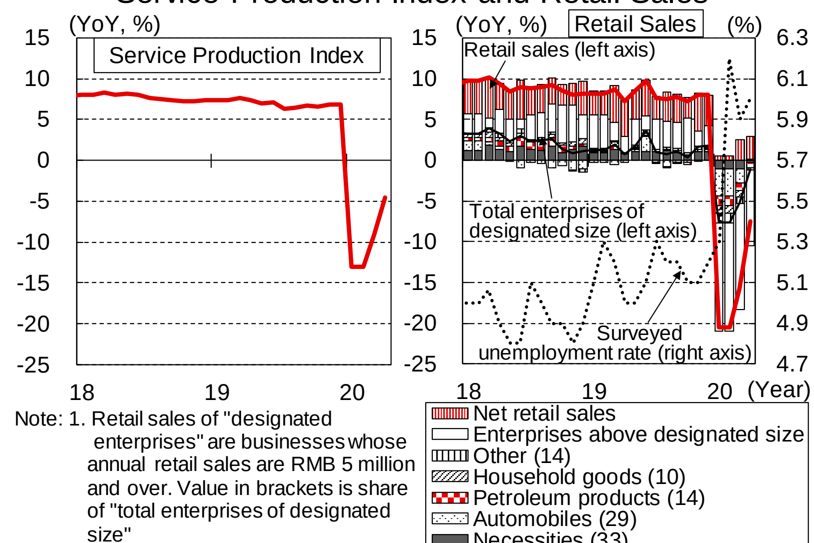
- In January and February, industrial production, service productivity, fixed asset investment and retail sales all fell sharply and registered double-digit negative growth due to COVID-19. They are currently recovering, but the pace of recovery is varied across the corporate and household sectors due to the impact of government policies on the former and the fact there is little support from policies for the latter.
- In the corporate sector, year-on-year growth of industrial production has turned positive, particularly high-tech-related production, which has received a tailwind from government support. In addition, investment has experienced a sharp recovery, supported by investment in infrastructure. Production is forecast to remain firm under government policies to “re-start production and give assistance to achieve full capacity across the board as preventing the spread of COVID-19 becomes the norm”.
- As the government promotes “new infrastructure”, especially 5G networks and the construction of smart cities, investment is predicted to remain firm, underpinned by investment in the machine industry. In 2020, RMB3.75 trillions’ worth of special local government bonds will be issued, far exceeding last year’s RMB2.15 trillion, which means infrastructure investment will likely remain firm.
- In the household sector, on the other hand, the pace of recovery in sales and service productivity is gradual. There are still concerns about another rise in COVID-19 cases bubbling under the surface and, taking into account the relatively high unemployment rate (approximately 6%), recovery is unlikely to be steady.

Value Added of Industry and Fixed Asset Investment



Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

Service Production Index and Retail Sales



Note: 1. Retail sales of "designated enterprises" are businesses whose annual retail sales are RMB 5 million and over. Value in brackets is share of "total enterprises of designated size"

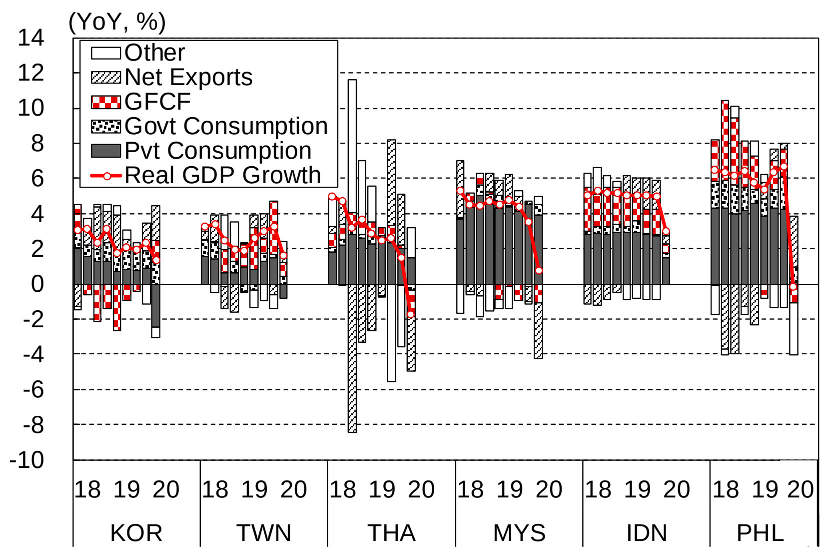
2. "Necessities" is total of food, clothes, daily goods and medicine. "Household goods" is total of household electronics, furniture and construction materials

Source: National Bureau of Statistics of China, MUFG Bank Economic Research Office

6. Asia and Australia (3) Other Asian Countries: Domestic & Foreign Demand

- Before the COVID-19 pandemic, economies in other Asian countries were underpinned by robust consumption, but domestic economic activities have slumped considerably owing to COVID-19. In the January-March quarter, growth of private consumption decelerated by a large amount in Indonesia and the Philippines, and it turned negative in South Korea and Taiwan where COVID-19 hit relatively early. Looking ahead, although a slow recovery has started due to the easing of public health measures, the pace of recovery is expected to be gradual taking into account the risk of another rise in infections.
- There were signs during the latter half of last year that foreign demand was slowly recovering, but COVID-19 interrupted this trend and exports of major Asian countries fell by 3.4% YoY in March. Exports to China will improve as the economy recovers, but those to developed countries will remain sluggish and the overall trend of recovery is expected to be a gradual one.

Real GDP Growth Rates in Major Asian Economies



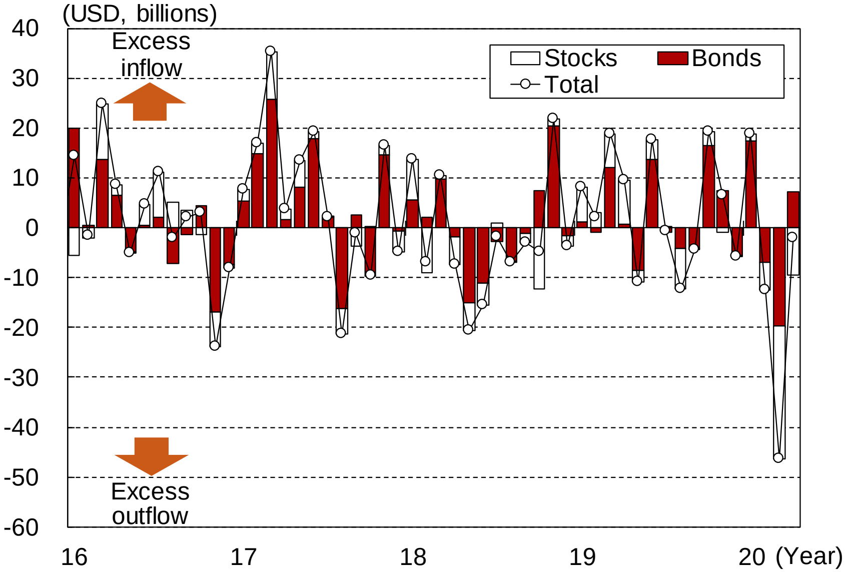
Source: Each country's national statistics,
MUFG Bank Economic Research Office

Exports of Major Asian Countries and Global Manufacturing PMI

Note: Five major Asian countries are South Korea, Taiwan, Indonesia, Thailand and Malaysia
Source: Each country's national statistics,
MUFG Bank Economic Research Office

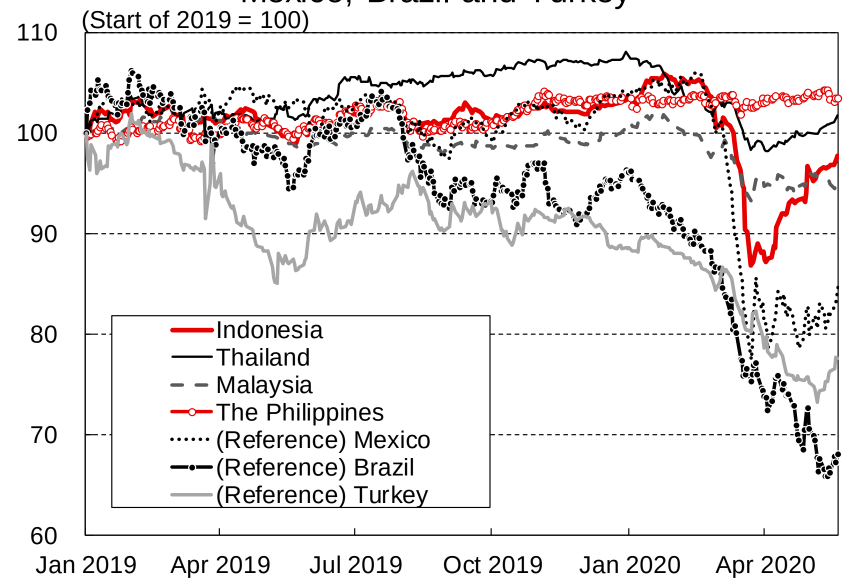
- In addition to the headwinds facing the real economy from COVID-19, it is also important to bear in mind the issues which are particular to newly emerging countries, such as the outflow of portfolio investment and currency depreciation.
- Net portfolio investment in newly emerging Asian countries (excluding China) was an excess outflow of USD 46.5 billion in March, which is the largest outflow since 2010 when the earliest data is available. When it comes to exchange rates, the depreciation of ASEAN currencies has been limited compared with that of emerging countries in other regions, such as Mexico, owing to differences in the level of freedom in trading based on economic fundamentals and various regulations. Nevertheless, there has been an overall trend of depreciation since around March, when the number of infections started to rise in Asia.
- Taking into account the signs that net portfolio investment and foreign exchange rates are bottoming out based on the economic policies of major developed countries, it is unlikely the sale of newly emerging countries' stocks and currencies will accelerate. However, in the case that the impact from COVID-19 grows more serious, emerging countries' economies may deteriorate further and uncertainty about the flow of international investment will continue.

Net Securities Investment in Newly Emerging Countries in Asia (excluding China)



Source: IIF, MUFG Bank Economic Research Office

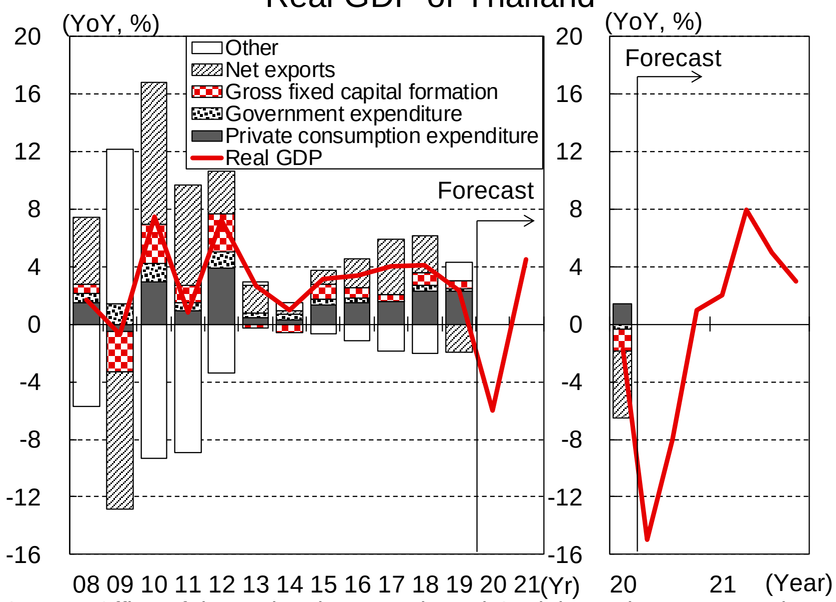
Exchange Rates of Major ASEAN Members, Mexico, Brazil and Turkey



Source: Bloomberg, MUFG Bank Economic Research Office

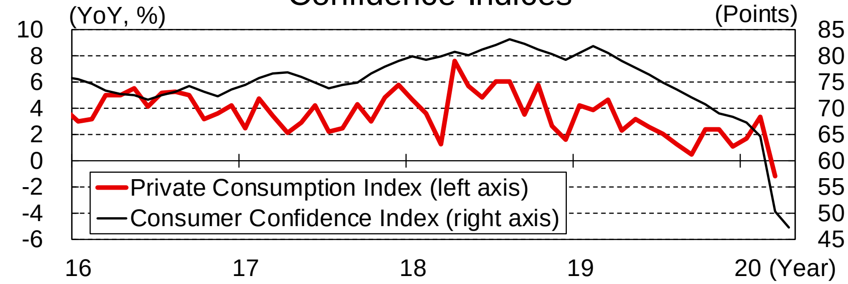
- Thailand's real GDP growth rate fell 1.8% YoY in the January-March quarter, recording negative growth for the first time in six years. According to the breakdown, private consumption remains positive at 3.0% YoY but growth did slow. Exports slowed further to -6.7% YoY mainly due to a considerable fall in the export of services (-29.8% YoY), which put downward pressure on economic growth overall.
- COVID-19 has had a big impact on Thailand's consumption activities and its tourism industry – one of its major industries – and its Private Consumption Index dropped to -1.2% YoY, turning negative for the first time in around five years. In addition, the number of foreign visitors to Thailand fell significantly by 76.4% YoY in March.
- Looking ahead, the strict public health measures that have been in place since April will continue and it is unlikely there will be a recovery in the number of foreign visitors judging by the spread of infection overseas. Taking this into account, the outlook for the real GDP growth rate in 2020 is -6.0% YoY: the largest deceleration recorded by major ASEAN countries. Growth is then predicted to recover gradually and the outlook for the real GDP growth rate in 2021 is 4.5% YoY.

Real GDP of Thailand



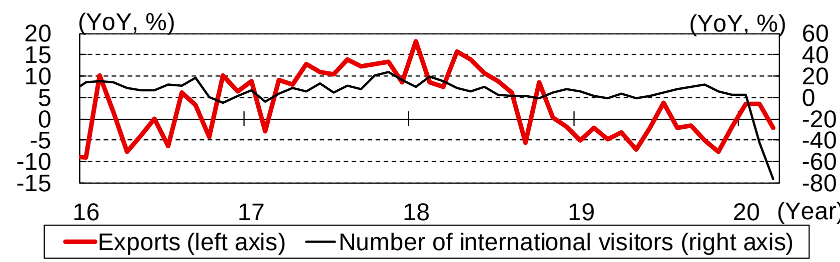
Source: Office of the National Economic and Social Development Board, MUFG Economic Reseach Office

Thailand's Private Consumption and Consumer Confidence Indices



Source: Bank of Thailand, MUFG Bank Economic Research Office

Thailand's Tourists and Number of International Visitors

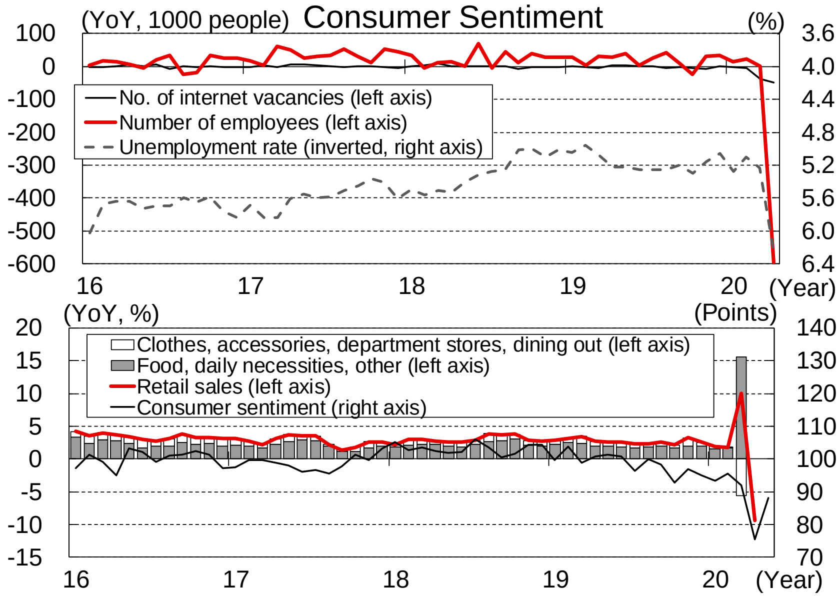


Source: Ministry of Commerce of Thailand, Ministry of Tourism and Sport, MUFG Bank Economic Research Office

6. Asia and Australia (4) Australia

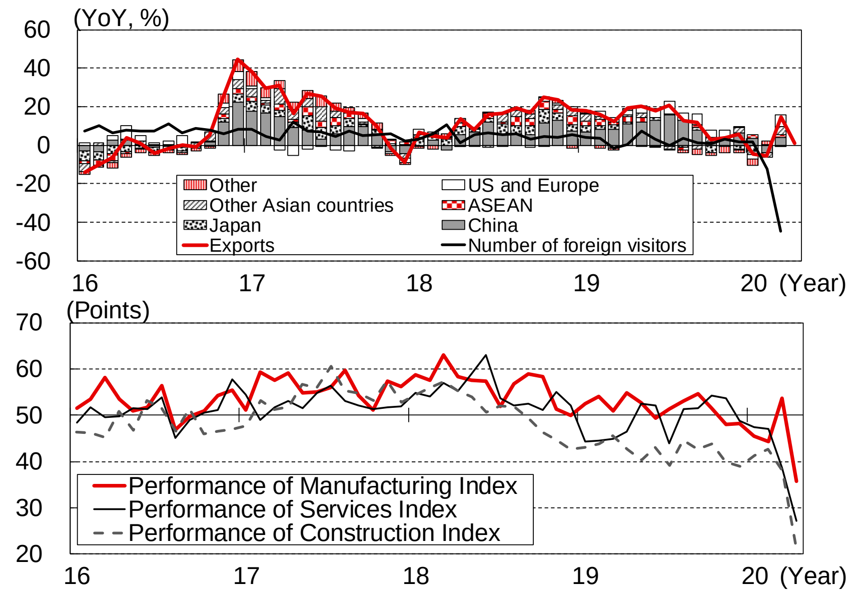
- The Australian economy continues to slow due mainly to the deceleration in the growth of private consumption in recent years. On top of this, there are the negative effects of nationwide natural disasters which continued from last year and up until February this year, as well as various economic restrictions in response to COVID-19 which have been in place since mid-March. As a result, Australia's real GDP growth rate for the January-March quarter is very likely to slow further (scheduled release date for GDP data is 5th June).
- Looking ahead, the economy will continue to plummet amid restrictions on economic activities due to various public health measures aimed at preventing the spread of COVID-19. The real GDP growth rate is forecast to record double-digit negative growth for the April-June quarter. Major monthly indicators show the labour market, consumer sentiment and private consumption have deteriorated by a large amount since April, and businesses' outlook is pessimistic due to sluggish foreign and domestic demand.
- Recently, the spread of COVID-19 has been slowing and the government aims to re-start economic activities safely by July. On 8th May, it announced a "roadmap" for easing restriction in stages. It is likely the economy will recover from the July-September quarter as restrictions are eased slowly, but the negative effects from COVID-19 are large and, as such, the real GDP growth rate is forecast to be -6.9% YoY in 2020 and 5.3% YoY in 2021.

Australia's Employment Indicators, Retail Sales and Consumer Sentiment



Source: Australian Bureau of Statistics, Department of Employment, Skills, Small and Family Business, Westpac Banking Corporation, MUFG Bank Economic Research Office

Australia's Exports and Foreign Visitors

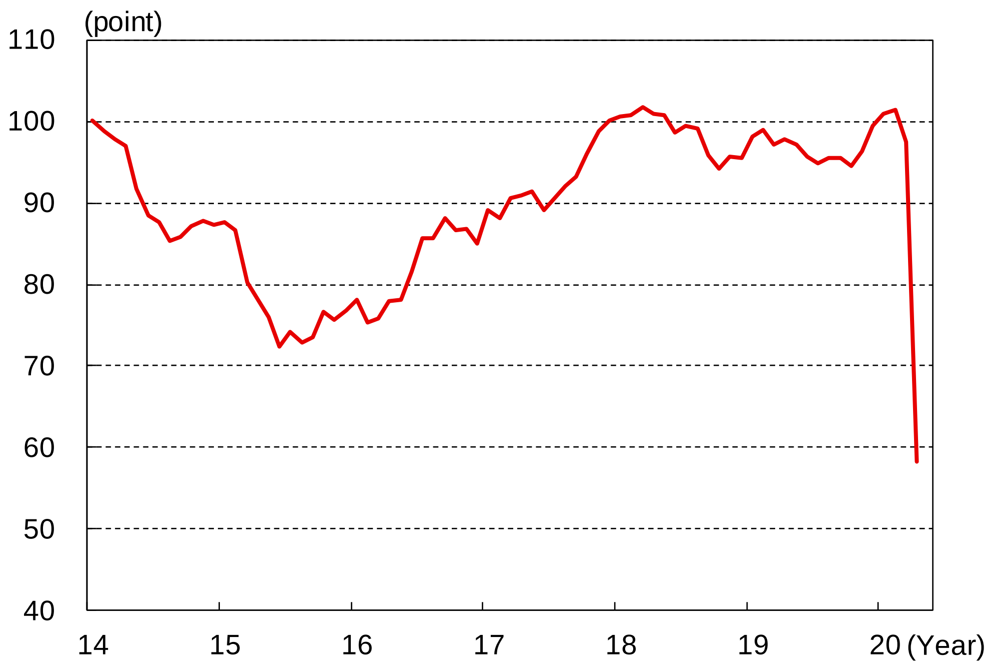


Source: Australian Bureau of Statistics, Australian Industry Group, MUFG Bank Economic Research Office

7. Central and South American Economies (1) Brazil

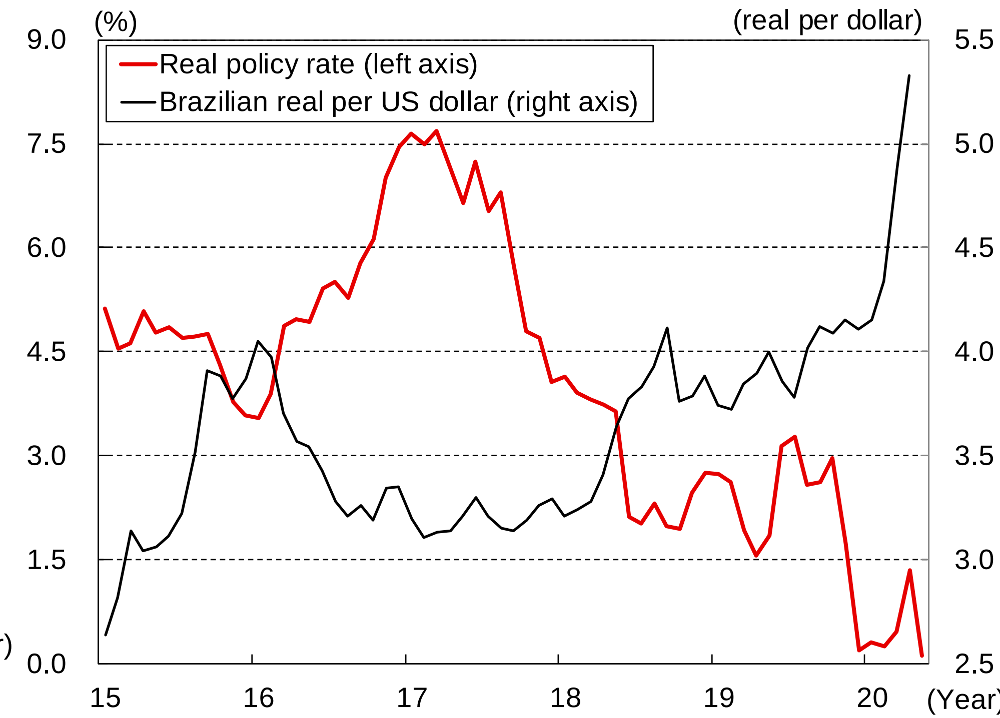
- The Brazilian economy stalled as the virus spread widely starting in March, and business sentiment worsened considerably. The government has decided to carry out emergency economic stimulus measures with a total project scale of 1.1 trillion reals (15% of nominal GDP). On the monetary policy front, the central bank lowered its policy rate to 3.00% in May.
- Ministers and state governments are at odds with President Jair Bolsonaro, who is prioritising economic recovery. The Brazilian real has weakened significantly against the dollar as financial market participants are wary that the country will be in political turmoil. In addition, inadequate public-safety measures have led to a surge in infection cases. Brazil will likely remain in economic slump for a while. We project that real GDP will decline 5.0% YoY in 2020 and increase just 1.0% YoY in 2021.

Brazil Manufacturing Confidence Index



Note: Above 100 indicates optimism, below 100 indicates pessimism.
Source: FGV, Institute for International Monetary Affairs

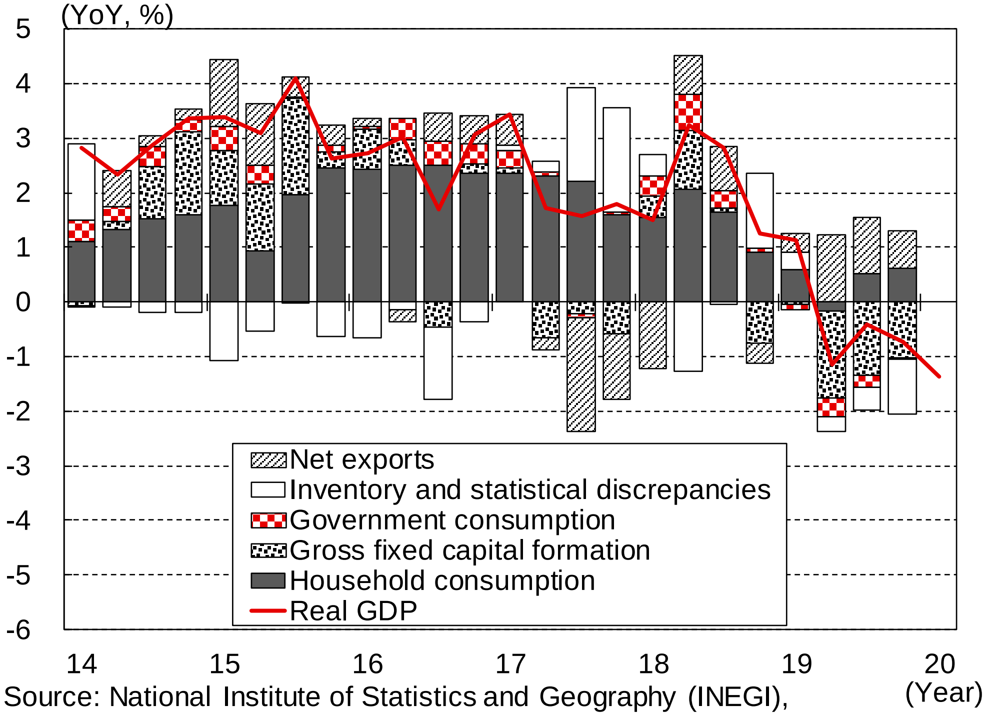
Brazil Real Policy Rate and Foreign Exchange Rate



Source: Central Bank of Brazil, Institute for International Monetary Affairs

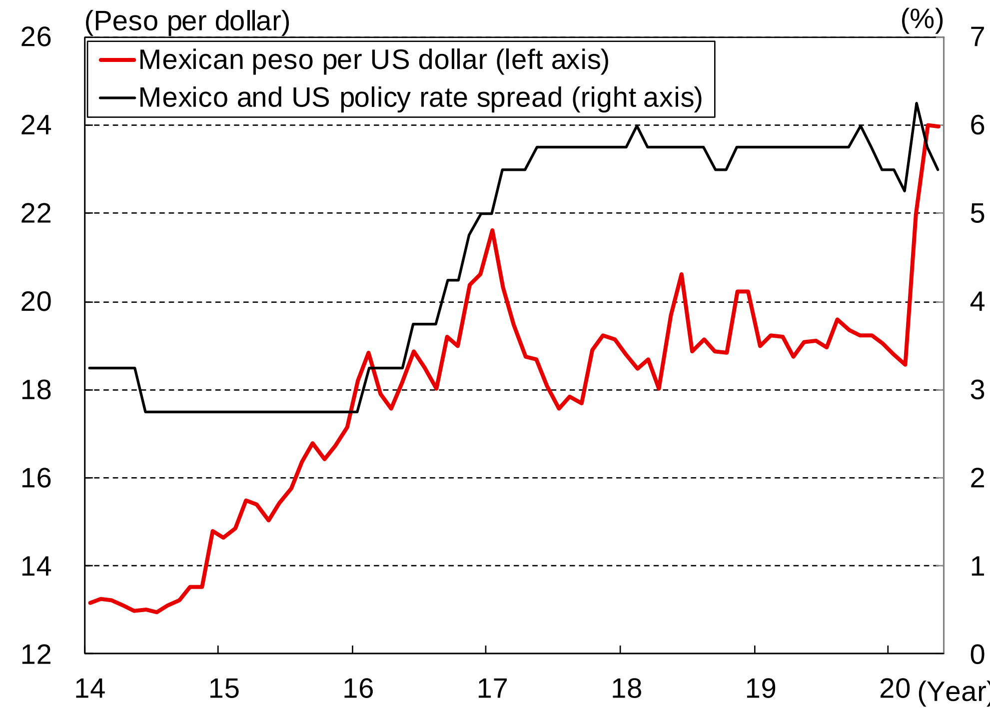
- The Mexican economy fell into a decline last year, and the January-March quarter marked a fourth straight quarter of negative YoY growth in real GDP. As the pandemic affects the country, the government declared a state of health emergency on 30th March. Most economic activity was halted through the end of May. In April, automotive production fell an unprecedented 99% YoY.
- The government plans economic and public health measures targeting mainly the low-income population. Still, due to vulnerabilities in the country's health infrastructure and healthcare systems, the impact of the pandemic is likely to weigh down the economy for a while.
- Due to concern over the weakness of the peso, room for further monetary easing is limited. We project real GDP will decline 6.5% YoY in 2020 and increase just 2.5% in 2021.

Mexico Real GDP



Source: National Institute of Statistics and Geography (INEGI), Institute for International Monetary Affairs

Mexico Policy Rate Spread and Foreign Exchange Rate

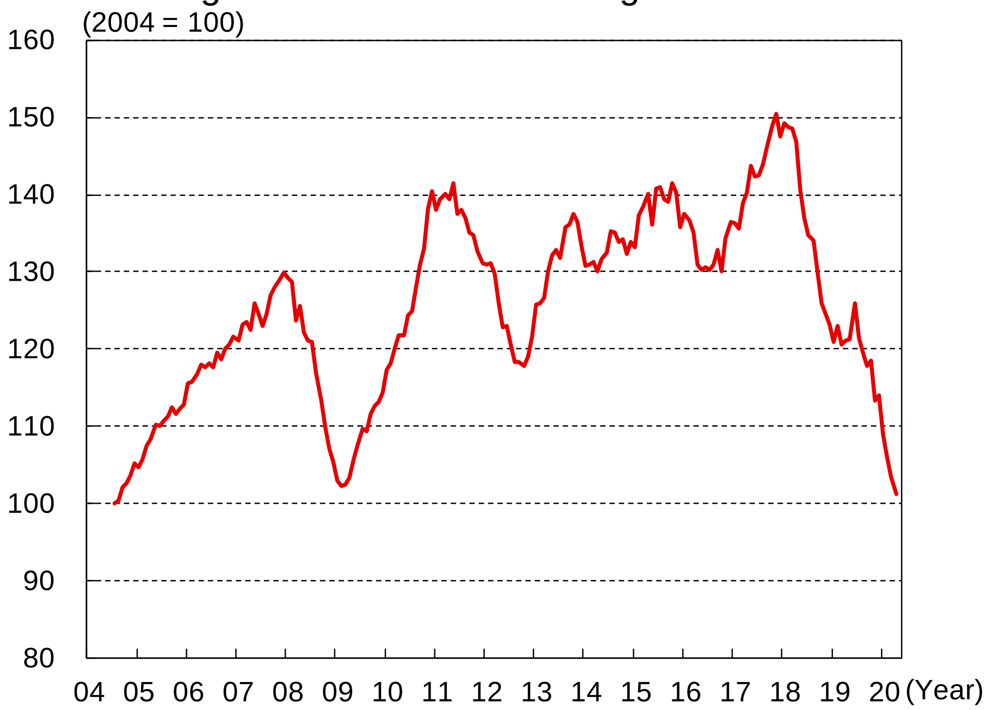


Source:Bank of Mexico, Institute for International Monetary Affairs

7. Central and South American Economies (3) Argentina

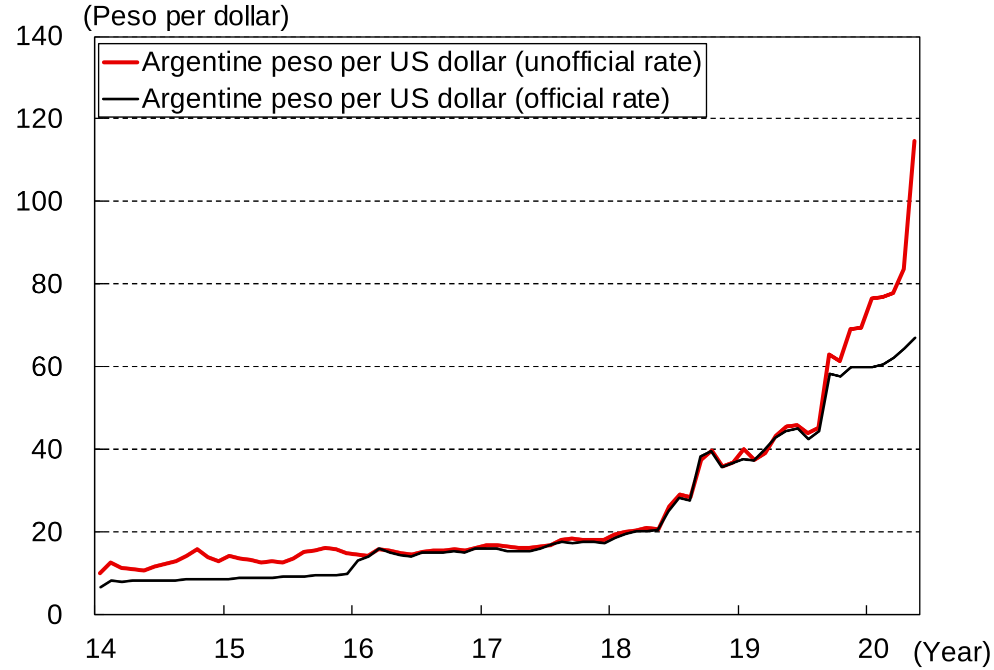
- The Argentine economy was in serious turmoil even before the pandemic due to a recession and high inflation. Real GDP declined 1.1% YoY in the October-December 2019 quarter, and the economic leading indicator has been falling steadily.
- In terms of its national debt, the government has not succeeded in negotiating with creditors. The country's foreign currency reserve has been chronically low and now stands below 20% of its foreign debt. The country entered a technical default on May 22, and the Argentine peso (unofficial exchange rate) depreciated to less than a tenth of 2014 levels.
- The virus spread in Argentina has been relatively limited, but economic turmoil from stagflation is expected to remain. We project that real GDP will decline 8% YoY in 2020 (sharper decline than in 2019), and that the growth rate will be 0% in 2021.

Argentina Economic Leading Indicator



Source: Torcuato di Tella University, MUFG Bank Economic Research Office

Argentina Foreign Exchange Rates

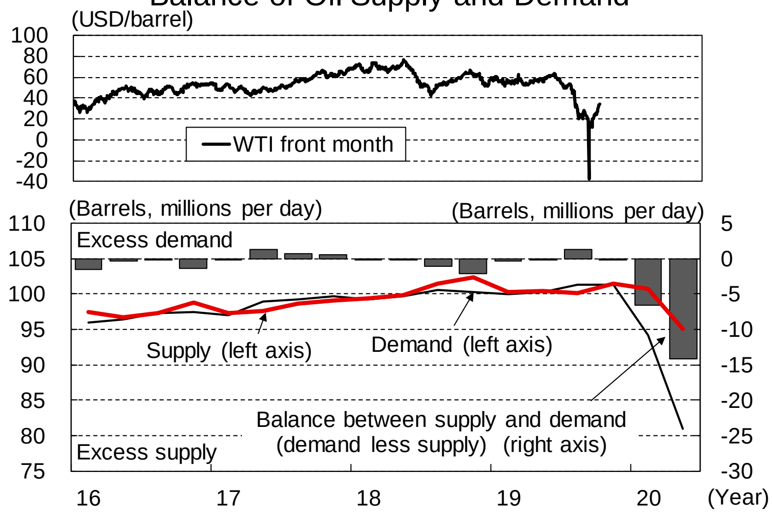


Source: National Institute of Statistics and Censuses (INDEC), Institute for International Monetary Affairs

- Oil prices (WTI front month) fell due to concerns about a global recession brought about by COVID-19 and they hovered between USD20 and USD30 per barrel from late March and into the first half of April. On 12th April, OPEC+ agreed to reduce their oil production by 9.7 million barrels per day in May and June – historically their largest cut.
- However, as movement was restricted due to public health measures and demand slumped by an unprecedented amount, the prevailing view in markets was that the scale of oil production cuts was not large enough. Furthermore, a sharp rise in oil stocks resulted in worries about storage capacity and negative oil prices were recorded for a short while for the first time in history (USD -37 per barrel).

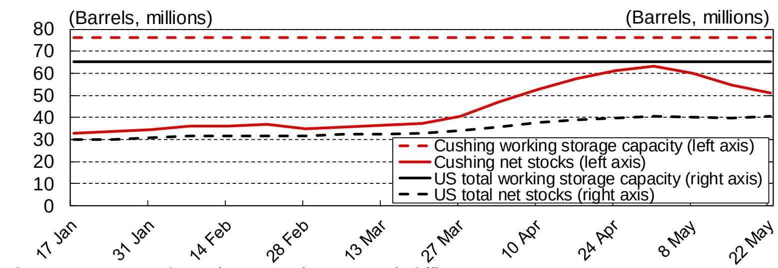
  Note: When oil futures expired on 20th April, it is thought that investors dumped contracts as they did not want to take delivery of oil.
- Since the end of April, oil prices have been recovering due to expectations that demand will improve as some parts of Europe and the US start to make progress towards re-starting economic activities. When oil contracts expired on 19th May, a situation like the one which occurred in April did not happen, and oil is trading at between USD30 and USD40 per barrel at present.
- The working storage capacity rate of Cushing in Oklahoma - the delivery point for WTI oil contracts – is at a high level (68%), yet the oil stocks which rose sharply in April are now slowly falling. In addition, there was a rapid increase in OECD stocks of oil and petroleum products in March, but stocks are now roughly in line with their 5-year average and concerns about storage capacity are fading.

Oil Prices (Front Month) and the Balance of Oil Supply and Demand



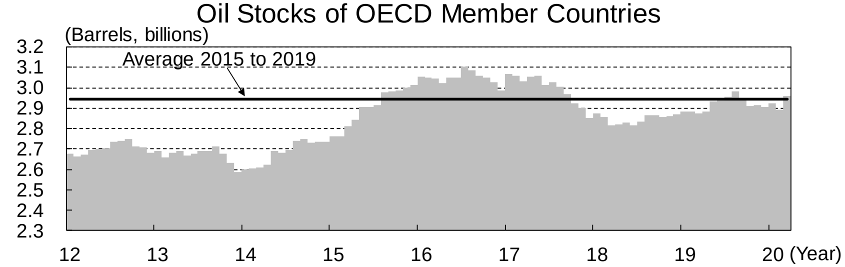
Note: The latest figure for 2020 is April.
Source: IEA, Bloomberg, MUFG Bank Economic Research Office

US and Cushing Oil Stocks



Source: EIA, MUFG Bank Economic Research Office

Oil Stocks of OECD Member Countries

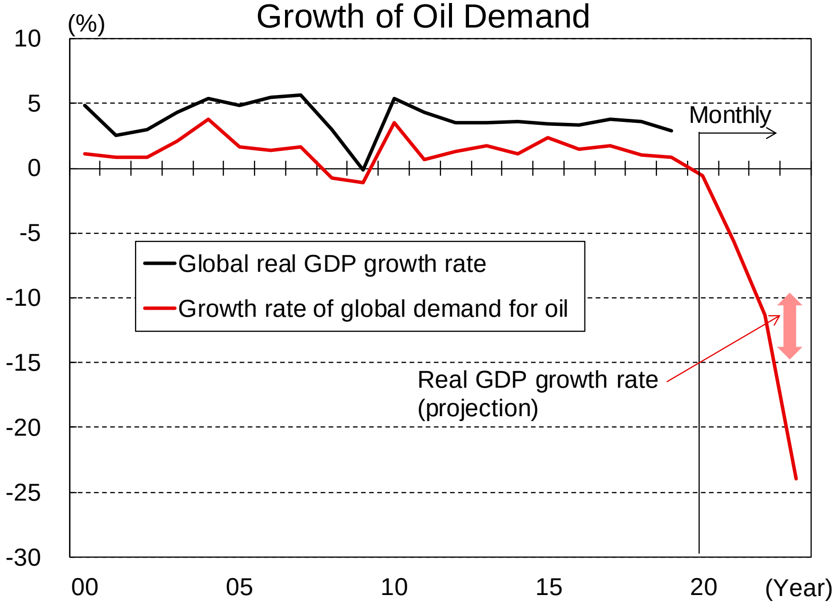


Source: IEA, MUFG Bank Economic Research Office

8. Oil Prices (2) Demand

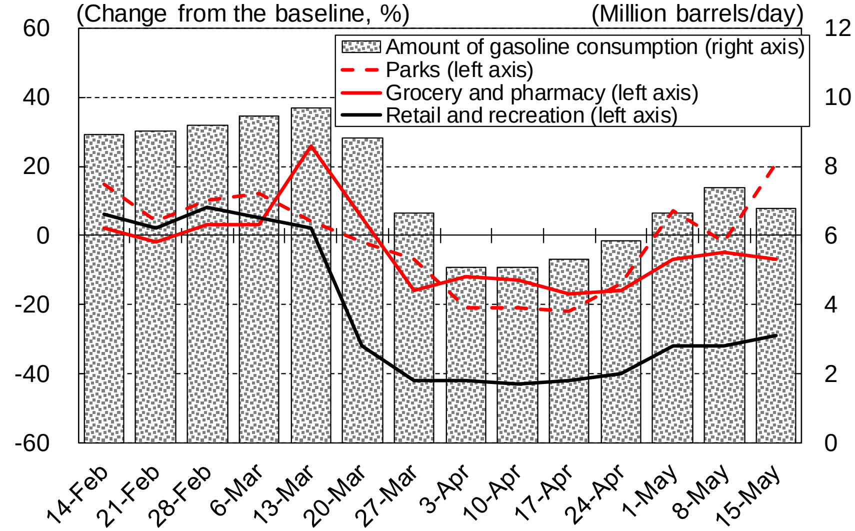
- Due the impact of COVID-19, the global economic growth rate is forecast to slump by 3% YoY, surpassing the fall experienced during the global financial crisis in 2008 (IMF). Although the global economic slowdown is large, oil demand is falling more than would be expected judging by its correlation to the economy and it is thought that it has been affected greatly by the loss of demand for transport due to travel restrictions.
- However, as many countries are easing their restrictions on going outside, the concerns about oil demand that appeared for a while have lessened somewhat. In the US, the amount of mobility by destination shows a sharp drop in mid-March, but it has been recovering slowly since mid-April as restrictions are eased. Gasoline consumption slumped considerably during the week commencing 3rd April, falling 48% YoY, but has been recovering from late April in line with the substantial rise in travel.

Global Real GDP Growth Rate and Growth of Oil Demand



Source: IMF, IEA, EIA, MUFG Bank Economic Research Office

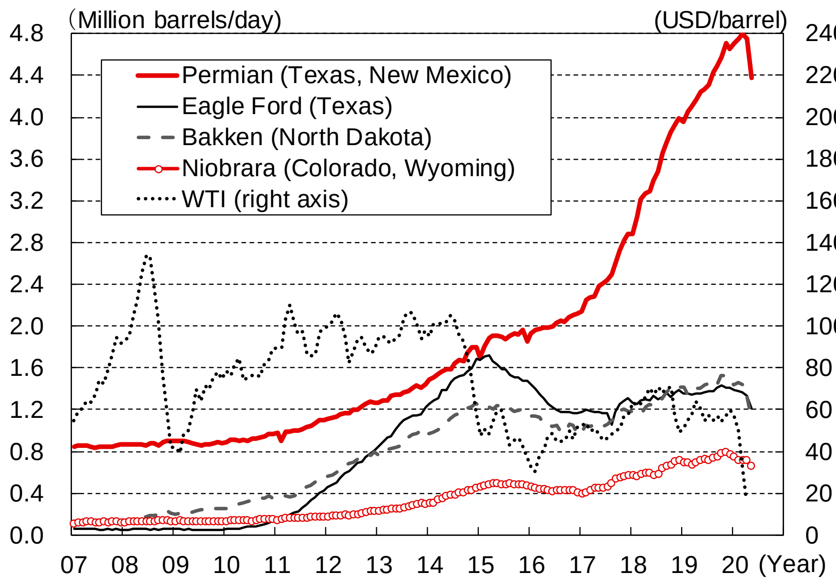
Amount of US Gasoline Consumption and Mobility by Destination



Note: The "baseline" is the median amount between 3rd Jan and 6 Feb 2020
Source: Google, MUFG Bank Economic Research Office

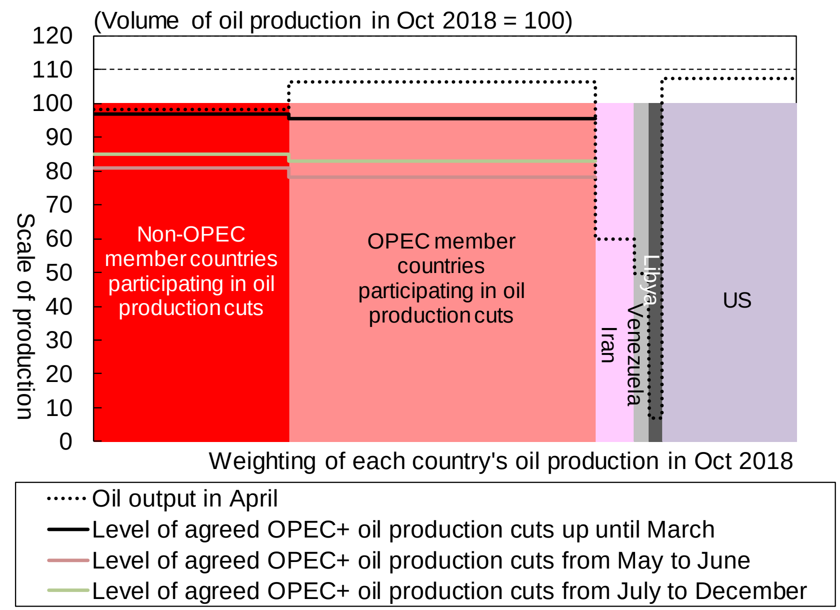
- The quantity of oil output by Permian – the largest shale oil-producing area in the US – started to fall in April. Shale oil output is forecast to fall year on year both this year and next in light of the reduced capital expenditure by large petroleum companies, the decline of shale oil companies' business and fact that the cost of US shale oil production falls between USD40 and USD50 per barrel on the whole.
- On 12th April, OPEC+ agreed to cut its oil production by the largest amount ever in May and June: 9.7 million barrels per day. On 11th May, Saudi Arabia, the UAE and Kuwait announced they will carry out additional production cuts voluntarily from June.
- Major oil-producing countries have taken a firm stance when it comes to achieving oil market stability and supply-demand equilibrium as their fiscal health is greatly affected by oil stability. Taking this and Saudi Arabia's calls for further additional oil production cuts into account, the system of co-operative oil cuts is likely to continue, which will underpin oil prices.

Major US Shale Oil Production Regions and Oil Prices



Note: Includes conventional forms of oil production
Source: EIA, MUFG Bank Economic Research Office

Scale of Oil Output by OPEC+

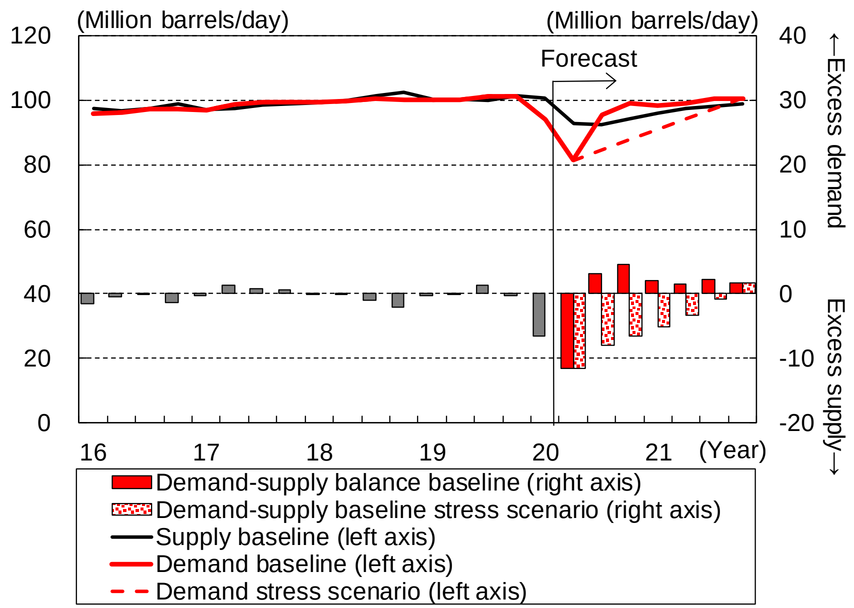


Source: OPEC, IEA, EIA, MUFG Bank Economic Research Office

8. Oil Prices (4) Outlook

- Demand for oil will decrease substantially this year on the back of the global economic recession and a sudden fall in demand for transport owing to restrictions on movement as a result of the COVID-19 pandemic. However, demand for oil will return to some extent as countries re-start their economic activities from the latter half of this year and travel restrictions are eased. Consequently, the view that demand for oil will decrease is less prevalent than before. Since the global economy is forecast to slowly recover during the latter half of the year, oil demand is starting to improve gradually.
- In terms of supply, OPEC+ is expected to make cooperative cuts, Middle Eastern oil-producing countries may make voluntary cuts and US shale oil production is forecast to decrease due to the shock to the oil industry. As a result, it is thought the oil supply-demand balance will shift to an excess of demand in the July-September quarter and oil prices will slowly increase; however, the economy has a long way to go before it completely returns to normal and there are still downside risks to prices. The average oil price for 2020 is forecast to be between USD30 and USD35, and USD40 and USD45 for 2021.

Outlook for the Balance of Oil Supply and Demand



Source: EIA, MUFG Bank Economic Research Office

Oil Price Forecast

	WTI future (USD/barrel)	YoY (%)	Brent future (USD/barrel)	YoY (%)
2019 Q1	54.9	-12.7%	63.8	-5.1%
Q2	59.9	-11.8%	68.5	-8.7%
Q3	56.4	-18.7%	62.0	-18.2%
Q4	56.9	-4.2%	62.4	-9.0%
2020 Q1	45.8	-16.6%	50.8	-20.4%
Q2	22.6	-62.3%	24.1	-64.8%
Q3	30.0	-46.8%	31.5	-49.2%
Q4	35.0	-38.5%	36.5	-41.5%
2021 Q1	40.0	-12.6%	43.0	-15.4%
Q2	40.0	77.0%	43.0	78.4%
Q3	45.0	50.0%	48.0	52.4%
Q4	45.0	28.6%	48.0	31.5%

Forecast

2019	57.0	-12.1%	64.2	-10.5%
2020	33.3	-41.5%	35.7	-44.3%
2021	42.5	27.5%	45.5	27.3%

Note: Prices shown are average of period

Source: Bloomberg, MUFG Bank Economic Research Office

9. “Post-Corona” Issues

- Governments, supply and demand will undergo unavoidable structural changes brought about a transformation in the sentiment and actions of government, businesses and individuals, reflecting the fragility of the economy and society brought to light by COVID-19.
- Key points: “guaranteeing stable livelihoods”, “new crisis management and globalisation” and “faster digitalisation”.

Realisations owing to the COVID-19 pandemic

- Fragility of economy and society (unexpected situation, such as restrictions on economic activities e.g. city lockdowns)
- Importance of methods of non-direct contact (online/remote) in cases where direct travel is disrupted to avoid a complete lockdown which is made possible due to internet society
- Importance of enhancing health care systems (to respond to crises)
- Necessity of reforming supply chains to deal with pandemics
- Renewed sense of caution about pandemics amongst governments, businesses and individuals (hygiene awareness)

Policy and government

- Improve systems for responding to crises (including long-term response) and socially vulnerable people (domestically and internationally)
- Possibly improve public health policies (domestically and internationally)
  - ✓ Need for surveillance and the impact on globalisation of people and immigration policies
  - ✓ Using big data in health care
  - ✓ Development of vaccines and medical treatment, stockpiling and appropriate allocation of medical resources
- Discuss how to slowly return to normal after dealing with the crisis
- Possible changes to the international order (US-China tensions re-ignite, ideal methods for international cooperation)

Businesses

- Accelerate process of enhancing methods to deal with crises and drawing up business continuity plans (domestic and international)
  - ✓ Reform supply chains (avoid dependence of supply from one region)
  - ✓ Avoid reliance on specific demand (e.g. inbound)
  - ✓ Encourage non face-to-face/unmanned/remote systems (enhance IT, digitalisation)
  - ✓ Address logistics and financial market disruption resulting from explosions in demand due to anxiety, rumours and false information
- Possible reorganisation of industries in line with structural increases and decreases in demand

Individuals

- Possible changes in consumer behaviour
  - ✓ Restrictions on travel and going outside
  - ✓ Preference for online and non-face-to-face services
- Consider changes to way of life, such as lifestyle changes (avoid densely populated areas) and increased rate of saving (importance of saving for a rainy day)
  - ✓ Work-style reforms
  - ✓ Changes to birth and death rates

Appendix: Global Economic Outlook

Global Economic Outlook

			World (weighted average of nominal GDP)				Japan (FY)	Americas					Europe					
				Developed countries	Emerging countries	Other		US	Central and South America (6 countries)				Eurozone (19 countries)				UK	Russia
										Brazil	Mexico	Argentina		Germany	France	Italy		
Nominal GDP	USD trillions		142.0	52.3	59.7	30.0	5.7	21.4	8.8	3.5	2.6	0.9	15.9	4.4	3.1	2.5	3.2	4.4
(2019)	Japan = 100		2,486	916	1,046	525	100	375	153	61	46	16	279	78	54	43	55	77
Real GDP	2019	Actual	2.9	1.7	4.7	1.4	-0.1	2.3	0.7	1.1	-0.1	-2.2	1.2	0.6	1.3	0.3	1.4	1.3
YoY, %	2020	Forecast	-3.1	-6.1	-1.0	-2.1	-4.9	-5.5	-5.0	-5.0	-6.5	-8.0	-8.0	-7.3	-8.2	-9.4	-8.3	-6.0
	2021	Forecast	5.5	4.4	6.8	4.7	3.8	4.1	1.4	1.0	2.5	0.0	5.1	5.2	7.3	5.0	6.6	3.0
CPI	2019	Actual	3.6	1.4	3.9	6.8	0.6	1.8	8.7	3.7	3.6	53.5	1.2	1.3	1.3	0.6	1.8	4.5
(YoY, %)	2020	Forecast	3.0	0.5	3.7	6.0	-0.7	0.8	8.5	3.0	3.0	50.0	0.2	0.3	0.3	0.1	0.8	3.2
	2021	Forecast	3.2	1.0	3.7	5.9	-0.3	1.4	10.0	6.0	5.0	60.0	1.0	1.1	0.8	0.7	1.4	3.3

			Asia and Oceania														
			Asia (11 countries and regions)														Australia
				China	India (FY)	NIEs (4 countries and regions)					ASEAN (5 countries)						
							S. Korea	Taiwan	Hong Kong	Singapore		Indonesia	Thailand	Malaysia	Philippines	Vietnam	
Nominal GDP	USD trillions		51.3	27.3	11.0	4.7	2.3	1.3	0.5	0.6	8.2	3.7	1.4	1.1	1.0	1.0	1.4
(2019)	Japan = 100		898	478	193	83	41	23	8	10	144	65	24	19	18	18	24
Real GDP	2019	Actual	5.1	6.1	4.2	1.7	2.0	2.7	-1.2	0.7	4.8	5.0	2.4	4.3	5.9	7.0	1.8
(YoY, %)	2020	Forecast	0.2	0.8	0.7	-1.9	-1.2	-0.5	-4.8	-5.5	-1.0	0.3	-6.0	-2.1	-1.5	2.5	-6.9
	2021	Forecast	7.5	8.4	7.2	3.4	3.0	3.2	3.5	5.0	7.0	8.0	4.5	7.7	6.5	6.8	5.3
CPI	2019	Actual	2.9	2.9	4.5	0.7	0.4	0.5	2.9	0.6	2.1	2.8	0.7	0.7	2.5	2.8	1.6
(YoY, %)	2020	Forecast	2.7	3.0	3.6	0.4	0.5	0.2	1.3	-0.2	1.6	2.6	-0.8	-0.3	2.1	2.5	0.8
	2021	Forecast	2.5	2.0	4.2	1.1	1.1	0.9	1.8	0.7	2.4	3.0	0.8	1.5	2.5	3.3	1.5

Note: 1. "Nominal GDP" is based on purchasing power parity

2. For "CPI", Japan is composite figure excluding fresh food, Eurozone and the UK are the EU standardised inflation rate (HICP)

3. Figures for Japan and India based on their financial years (April to following March) except Japan's nominal GDP

4. "World", "developed countries", "emerging countries" calculated using Japan data based on the calendar year, India data based on the fiscal year for nominal GDP only and other countries' data based on the calendar year

5. "Developed countries" is a total of Japan, NIEs (4 countries and regions), Australia, US, Eurozone (19 countries) and the UK. "Emerging countries" is a total of China, India, ASEAN (5 countries), Central and South America (6 countries) and Russia

6. "Central and South America (6 countries)" is a total of Brazil, Mexico, Argentina, Colombia, Chile and Peru

7. "Other" uses the IMF forecast for April as reference

Source: National statistics of each country, MUFG Bank Economic Research Office

Appendix: Japanese Economic and Financial Market Outlook

Outlook for the Japanese Economy

Reflecting Jan-Mar 2020 GDP (the first preliminary estimates)

Forecast →

	2019				2020				2021				FY2019	FY2020	FY2021
	1Q	2Q	3Q	4Q	Q1	2Q	3Q	4Q	Q1	2Q	3Q	4Q			
1. The Real Economy (QoQ annualized change)															
Real GDP	2.6	2.1	0.0	-7.3	-3.4	-26.8	16.8	10.2	2.1	2.0	1.9	1.8	▲ 0.1	▲ 4.9	3.8
Private Consumption	0.3	2.2	1.8	-11.1	-2.8	-37.5	23.4	10.4	4.3	4.1	3.9	3.7	-0.6	-7.8	5.8
Housing Investment	6.0	-1.0	5.0	-9.6	-16.9	-1.2	-11.1	5.7	-0.8	-0.8	-0.8	-0.8	0.3	-6.2	-0.7
Private Business Fixed Investment	-1.9	3.5	0.8	-17.7	-2.1	-19.2	6.1	4.5	3.8	3.0	2.2	1.2	-0.9	-5.8	3.0
Business Inventory (Contribution)	0.2	0.0	-1.0	0.0	-0.2	1.5	-2.0	0.8	-0.3	-0.5	-0.3	-0.1	-0.1	0.0	-0.3
Government Expenditures	1.0	6.6	3.1	1.2	0.0	-0.3	1.4	1.0	1.0	1.0	1.0	0.9	2.6	0.9	1.0
Public Investment	9.5	7.0	4.0	2.1	-1.6	-5.9	2.8	2.0	1.6	0.8	0.4	-0.4	3.3	-0.4	0.8
Net Exports (Contribution)	2.1	-1.2	-1.0	2.1	-0.8	-3.3	5.5	2.6	-0.6	-0.4	-0.5	-0.5	-0.2	0.4	0.2
Exports	-7.0	0.8	-2.4	1.7	-21.8	-54.8	63.0	31.1	6.1	5.3	4.1	2.8	-2.7	-10.5	10.2
Imports	-16.9	7.6	2.9	-9.3	-18.4	-41.4	14.8	12.6	10.4	8.2	7.2	6.1	-1.7	-12.6	8.9
Nominal GDP	4.6	2.5	1.6	-6.0	-3.1	-26.6	30.1	5.0	4.5	1.3	1.6	-4.2	0.7	-3.0	3.3
GDP Deflator (YoY)	0.2	0.4	0.6	1.2	0.9	1.2	3.2	1.7	2.0	1.8	-0.9	-1.2	0.7	2.0	-0.4
Industrial Production Index (QoQ)	-2.1	0.0	-1.1	-3.6	0.4	-10.0	4.0	5.1	1.2	0.7	0.9	0.5	-3.8	-6.3	6.0
Domestic Corporate Goods Price Index (YoY)	0.9	0.6	-0.9	0.3	0.6	-2.5	-2.5	-2.0	-1.0	1.5	2.0	2.0	0.2	-2.0	1.8
Consumer Price Index (excl. fresh food, YoY)	0.8	0.8	0.5	0.6	0.6	0.1	-0.5	-1.5	-0.9	-0.4	-0.3	-0.2	0.6	-0.7	-0.3
2. Balance of Payments															
Trade Balance (billion yen)	69	-307	78	388	599	-587	1,041	1,557	988	641	794	592	648	2,999	2,105
Current Balance (billion yen)	4,961	4,852	4,708	5,312	4,916	3,203	4,815	5,314	4,658	4,285	4,443	4,246	19,761	17,990	16,710
3. Financial															
Uncollateralized overnight call rate	0.0	-0.1	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Euro-Yen TIBOR (3-month rate)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Newly Issued 10-Year Government Bonds Yield	0.0	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	0.0	0.0
Exchange Rate (USD/JPY)	110	110	107	109	109	108	107	107	107	106	106	106	109	107	106

Note: *Uncollateralized overnight call rate* is the average rate during the last month of the period. *Euro-Yen TIBOR (3-month rate)*, *Newly Issued 10-Year Government Bonds Yield* and *Exchange Rate (USD/JPY)* are averages during the period.

Source: Various statistics, Bloomberg, MUFG Bank Economic Research Office

Appendix: US Economic and Financial Market Outlook

Forecast for the U.S. Economy

Forecast

	2019				2020				2021				2019	2020	2021
	1～3	4～6	7～9	10～12	1～3	4～6	7～9	10～12	1～3	4～6	7～9	10～12	(Actual)	(Forecast)	(Forecast)
1. Main Economic Indicators															
Real GDP (QoQ annualized, %)	3.1	2.0	2.1	2.1	-5.0	-32.9	15.1	8.0	6.3	5.4	4.7	3.8	2.3	-5.5	4.1
Personal Consumption Expenditures	1.1	4.6	3.2	1.8	-6.8	-39.5	18.4	13.9	7.6	7.1	6.3	4.6	2.6	-6.9	5.6
Fixed Investment (Residential)	-1.0	-3.0	4.6	6.5	18.5	-52.6	20.5	11.4	7.3	3.5	3.5	3.5	-1.5	-4.8	2.5
Fixed Investment (Nonresidential)	4.4	-1.0	-2.3	-2.4	-7.9	-27.4	22.9	7.9	7.8	4.5	3.0	3.0	2.1	-5.6	5.4
Changes in Business Inventories (Contribution)	0.5	-0.9	0.0	-1.0	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.7	0.0
Government Expenditures	2.9	4.8	1.7	2.5	0.8	9.9	2.4	-11.1	0.0	0.0	0.0	0.0	2.3	2.5	-1.3
Net Exports (Contribution)	0.7	-0.7	-0.1	1.5	1.3	-0.3	-1.4	-0.4	-0.2	-0.2	-0.2	0.0	-0.2	0.5	-0.4
Exports	4.1	-5.7	1.0	2.1	-8.7	-29.7	22.9	8.6	6.7	4.9	3.2	3.2	0.0	-5.5	5.1
Imports	-1.5	0.0	1.8	-8.4	-15.5	-21.8	25.3	8.8	6.1	4.8	3.5	2.3	1.0	-6.6	5.9
Domestic Private End User Demand	1.6	3.3	2.3	1.3	-6.1	-38.2	19.2	12.8	7.6	6.5	5.7	4.3	2.4	-6.6	5.5
Nominal GDP (QoQ annualized, %)	3.9	4.7	3.8	3.5	-3.5	-31.6	17.4	10.1	8.4	7.5	6.7	5.7	4.1	-3.9	6.1
Industrial Production (QoQ annualized, %)	-1.9	-2.3	1.1	0.4	-7.1	-56.7	34.5	5.2	9.4	9.2	2.5	3.7	0.8	-12.3	3.6
Unemployment Rate (%)	3.9	3.6	3.6	3.5	3.8	23.8	22.3	14.8	11.8	9.3	7.3	5.8	3.7	16.2	8.6
Producer Price Index (YoY, %)	1.9	2.0	1.7	1.1	1.3	0.1	0.2	0.5	0.8	1.0	1.2	1.5	1.7	0.5	1.1
Consumer Price Index (YoY, %)	1.6	1.8	1.8	2.0	2.1	0.1	0.3	0.7	1.0	1.2	1.5	1.7	1.8	0.8	1.4
2. Balance of Payments															
Trade Balance (hundred million dollars)	-2,180	-2,245	-2,226	-2,272	-2,317	-2,362	-2,408	-2,453	-2,499	-2,544	-2,590	-2,636	-8,662	-8,716	-8,816
Current Account (hundred million dollars)	-1,369	-1,263	-1,229	-1,259	-1,289	-1,319	-1,349	-1,379	-1,408	-1,437	-1,466	-1,495	-4,984	-4,958	-5,008
3. Financial Indicators															
FF Rate Target (%)	2.25-2.50	2.25-2.50	1.75-2.00	1.50-1.75	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	0.00-0.25	1.50-1.75	0.00-0.25	0.00-0.25
Euro Dollar (3M) (%)	2.7	2.5	2.2	1.9	1.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	2.3	0.6	0.1
10-year Treasury Note's Yield (%)	2.7	2.3	1.8	1.8	1.4	0.7	0.7	0.7	0.8	0.8	0.9	0.9	2.1	0.8	0.8

Note: FF Rate Targets is end-of-period figures, Euro Dollar (3M) and 10-year Note's Yield are averages for periods.
Source: Compiled by MUFG Bank Economic Research Office from various reports and Bloomberg

Appendix: European Economic and Financial Market Outlook

Table of European Forecasts

(1) Summary

	Real GDP Growth (YoY, %)			CPI (YoY, %)			Current account (billion USD)		
	2019 (actual)	2020 (forecast)	2021 (forecast)	2019 (actual)	2020 (forecast)	2021 (forecast)	2019 (actual)	2020 (forecast)	2021 (forecast)
Eurozone	1.2	-8.0	5.1	1.2	0.2	1.0	359	253	371
Germany	0.6	-7.1	5.2	1.4	0.3	1.1	275	196	275
France	1.5	-8.2	7.3	1.3	0.3	0.8	-18	-35	-19
Italy	0.3	-9.4	5.0	0.6	0.1	0.7	59	41	59
UK	1.4	-8.3	6.6	1.8	0.8	1.4	-107	-89	-94
Russia	1.4	-6.0	3.0	4.5	3.2	3.3	65	21	6

(2) Breakdown by component (YoY,%)

	Eurozone			UK		
	2019 (actual)	2020 (forecast)	2021 (forecast)	2019 (actual)	2020 (forecast)	2021 (forecast)
Nominal GDP	3.0	-7.1	6.3	3.3	-7.2	7.4
Real GDP	1.2	-8.0	5.1	1.4	-8.3	6.6
Domestic demand contribution	1.7	-8.6	7.0	1.4	-8.8	6.7
External demand contribution	-0.4	0.6	-1.9	0.0	0.5	-0.1
Private consumption	1.3	-11.7	9.6	1.1	-9.5	6.4
Government consumption	1.7	3.4	2.3	3.5	3.7	4.9
Gross fixed capital formation	5.5	-11.7	5.7	0.6	-13.3	9.9
Inventory investment (contribution)	-0.5	-0.5	0.3	0.2	-1.1	0.0
Exports	2.5	-11.8	15.2	4.8	-10.3	5.9
Imports	3.8	-14.3	21.6	4.6	-11.4	6.2

Note 1. Eurozone consists of Germany, France, Italy, Ireland, Estonia, Austria, Netherlands, Cyprus, Greece, Spain, Slovakia, Slovenia, Finland, Belgium, Portugal, Malta, Luxemburg, Latvia, Lithuania
Note 2. EU CPI is based on the Harmonised Indices of Consumer Prices (HICP)
Source: Eurostat, ONS, MUFG Bank Economic Research Office

Appendix: Public Health Measures

- In the US, economic activities were re-started in stages across 30 states from 1st May, and restrictions started to be eased step by step in many countries in Europe from the start of May. However, there are concerns that the number of cases may rise again and there may be a second wave of infection.
- In Japan, a state of emergency was declared in all 47 prefectures (7 prefectures on 7th April, others on 16th April). However, unlike Europe and the US, the Japanese government did not forcefully impose measures with penalties. Even though the state of emergency was lifted nationwide on 25th May, to what extent businesses have been re-opened has varied depending on the industry.
- In emerging countries, strict public health measures were imposed from around the latter half of March in general owing to the spread of COVID-19 in each country. Currently, some countries are easing restrictions, such as re-opening businesses (e.g. bars and restaurants) and re-starting economic activities, as well as ascertaining how to return economic activities to normal.

Public Health Measures Adopted by Major Developed Countries to Prevent the Spread of COVID-19

	Public Health Measures, their Introduction and Easing
US	■Request for restrictions on gatherings and travel to be imposed nationwide ■From 16 April, guidelines published on re-starting economic activities. Around 1 May, approximately 30 states partially re-started economic activities, including lifting bans on going outside. As of 20 May, restrictions lifted in 34 states
Germany	■Nationwide travel restrictions, closure of non-essential businesses, school closures ■From 20 April, re-open small shops and salons in stages. Elementary and middle schools re-start from the final grade in order
France	■Nationwide travel restriction, closure of shops and schools ■From 12 May, travel permitted within 100km of home, small shops and small schools re-open. From 2 June, re-open bars and restaurants and plans to lift travel restrictions
Italy	■Nationwide lockdown, stop business activities, shop closures, close all education institutions ■From 3 May, partial easing of travel restrictions, re-start business activities and re-open all small shops. From 1 June, re-open bars and restaurants. From 3 June, plans to lift travel restrictions
Spain	■Nationwide lockdown, stop business activities, shop closures and closure of all education institutions ■From 13 April, ease travel restrictions, re-start business activities and re-open small shops, bars and restaurants (conditionally - out dining and on small scale)
UK	■Nationwide lockdown, closure of shops and schools ■From 11 May, going outside for commuting (except via public transport) and for recreation permitted. From 1 June, plan to re-open all small shops and schools
Japan	■State of emergency called nationwide (7 prefectures on 7 April, others on 16 April), but was lifted on 25 May. However, re-starting of businesses varied depending on industry ■Under the state of emergency, citizens asked to refrain from going outside but no fines imposed

Source: Each country's government, news reports, MUFG Bank Economic Research Office

Public Health Measures Adopted by Emerging Countries to Prevent the Spread of COVID-19

	Public Health Measures, their Introduction and Easing
China	■Nationwide closure of businesses and schools ■From 10 February, businesses re-start in stages in most provinces. In Wuhan, the epicentre of the pandemic, the lockdown was listed on 8 April. Some regions have adopted a heath code (prevent the spread of infection)
Indonesia	■Large-scale social restrictions announced from 10 April in Jakarta and strict restrictions on travel remain in place ■Plan to systematically ease restrictions from June
Thailand	■Strict state of emergency called on 26 March. Subsequent restrictions on going outside and closure of various establishments ■From 3 May, easing of restrictions on some establishments
India	■Nationwide lockdown imposed 25 March ■From 20 April, re-start some corporate and production activities in areas where cases are not concentrated
Australia	■Various restrictions imposed on all states nationwide from March ■On 8 May, government announced road map for easing restrictions in three stages. From mid-May, partial re-start of economic activities in some states. Decisions based on situation in each state
Brazil	■Since state of emergency declared in March, there has been a series of decisions to strengthen restrictions on going outside in all states and cities ■Decision to extend restrictions in State of Sao Paulo and State of Rio de Janeiro until the end of May
Mexico	■From 30 March, self-imposed restrictions on going outside and school closures, business activities restricted with some exceptions ■From 18 May, re-start economic activities systematically in cities and towns with zero cases

Source: Each country's government, news reports, MUFG Bank Economic Research Office

Contact Information

MUFG Bank, Economic Research Office

Authors:	**Rei Tsuruta (overview)**	**e-mail : rei_tsuruta@mufg.jp**
	Kazufumi Keshi (Japan)	**e-mail : kazufumi_keshi@mufg.jp**
	Takasuke Tanaka (US)	**e-mail : takasuke_tanaka@mufg.jp**
	Ryo Yamada (Europe)	**e-mail : riyou_yamada@mufg.jp**
	Takayuki Miyado (Europe)	**e-mail : takayuki.miyado@uk.mufg.jp**
	Shohei Takase (Asia, and Australia)	**e-mail : shiyouhei_takase@mufg.jp**
	Yuri Ise (Asia and Australia)	**e-mail : yuri_ise@mufg.jp**
	Yuma Tsuchiya (Asia and Australia)	**e-mail : yuma_tsuchiya@sg.mufg.jp**
	Hiroshi Morikawa (Central and South America)	**e-mail : morikawa@iima.or.jp**
	Reiko Shinohara (oil prices)	**e-mail : reiko_shinohara@mufg.jp**

Translators: Elizabeth Foster (Tokyo)
Imogen Wright (London)
Chie Okada-Wighe (New York)