

# 2

## THE GLOBAL DEVELOPMENT OF THE COVID-19 CRISIS



### 2.1 The spread of the virus

**The SARS-CoV-2 (COVID-19) virus began in China, with the first cases detected in late 2019, expanding subsequently worldwide and turning into a pandemic.** The disease is believed to have emerged in Wuhan, the capital of the Chinese province of Hubei, in early December. The World Health Organization (WHO) was notified on 31 December. In early January, the number of infections began to grow rapidly, and a lockdown was imposed in Wuhan on 23 January. The spread of the virus outside this first location was swift, and by late January cases had been detected in all Chinese provinces. The international spread of the disease allegedly took place via international flows of tourist and business travellers. The first cases of mass contagion outside China were in Italy and South Korea, and in early March 2020 the virus spread forcefully through Europe. The WHO, after having classed the virus as an international health emergency on 30 January, declared it a pandemic on 11 March.

**The number of infections and deaths has grown worldwide in recent months.**

Despite the efforts to combat the disease, the COVID-19 pandemic poses an unprecedented public health challenge given the large number of infections and lives lost. By late June, more than nine million people worldwide had been infected and the global death count exceeded 470,000 (see Chart 2.1). Among the advanced economies, the United States had the highest number of infections and deaths, followed by the United Kingdom, Italy, France and Spain. Among the emerging regions, several Latin American countries stand out (especially Brazil). The pandemic reached this region with some delay, but it has become the epicentre, recording the highest percentage of infections worldwide in recent weeks. However, these figures mask differences in terms of cross-country data reliability, meaning that their comparability is limited.<sup>1</sup> In particular, it is very uncertain why some countries have been more affected than others, although there are factors that might explain these divergences. These include the age structure and population density,<sup>2</sup> the idiosyncrasy of health systems and their capacity to accommodate the number of hospitalised COVID-19 patients, and the degree of compliance with general diagnosis, distancing and hygiene instructions,<sup>3</sup> among others.

---

<sup>1</sup> See, for example, the study by Oke and Heneghan (2020).

<sup>2</sup> [Population Europe](#), a network of demographic research centres, has a vast list of articles in this connection.

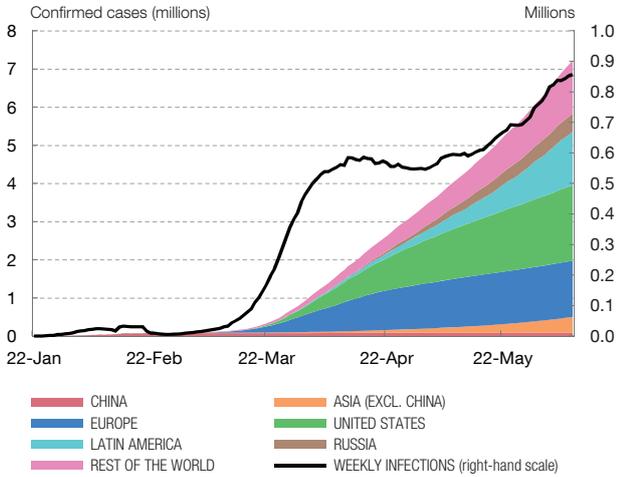
<sup>3</sup> The [Risk Assessment](#) by the European Centre for Disease Prevention and Control (ECDC) discusses these factors for the European countries.

Chart 2.1

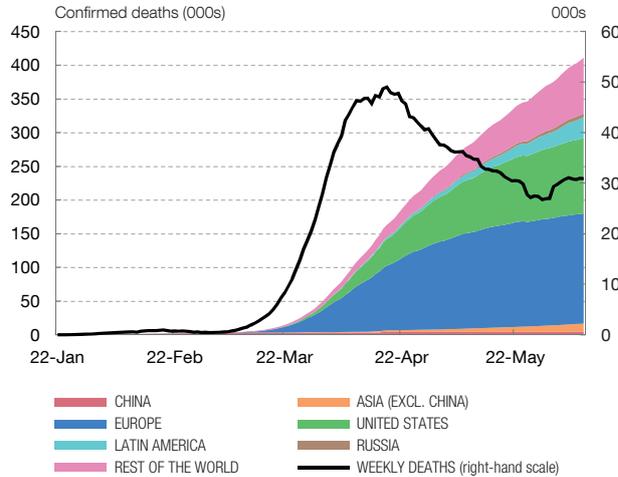
**THE COVID-19 PANDEMIC HAS SPREAD WORLDWIDE**

The COVID-19 epidemic that began in the Chinese city of Wuhan in late 2019 has become a global pandemic, requiring the introduction of containment measures worldwide.

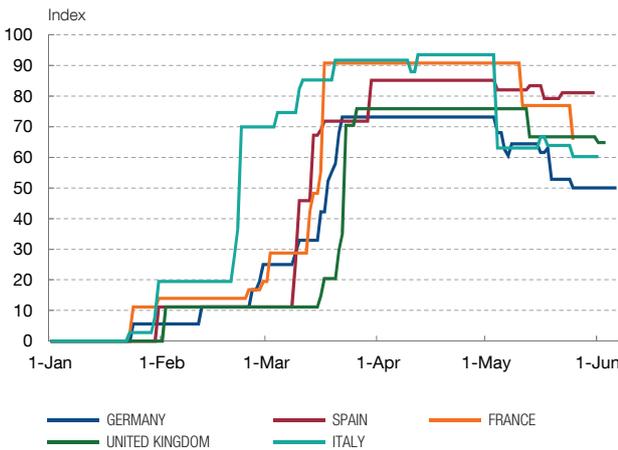
1 TOTAL INFECTIONS AND NEW CASES WEEKLY



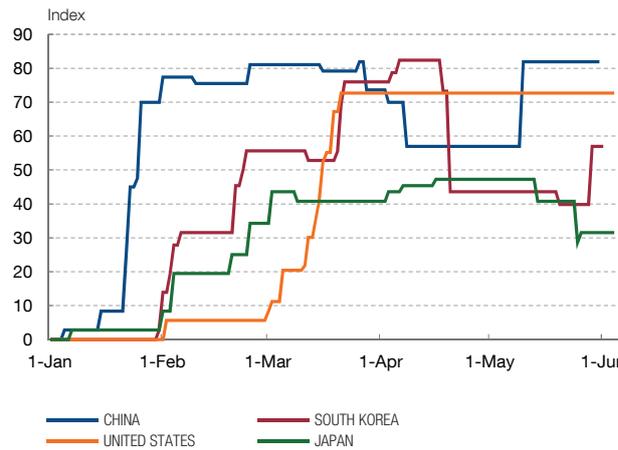
2 TOTAL AND WEEKLY DEATHS



3 GOVERNMENT RESPONSE STRINGENCY INDEX: EUROPE



4 GOVERNMENT RESPONSE STRINGENCY INDEX: REST OF THE WORLD



SOURCES: Johns Hopkins University - Coronavirus Resource Center and Oxford COVID-19 Government Response Tracker.



**In response to the rapid spread of the epidemic, the Chinese authorities adopted stringent social distancing measures.** These included the mass confinement at home of the population of Wuhan and other cities in the province of Hubei in late January, affecting around 57 million people. Subsequently, these restrictions were extended in differing degrees to other cities and provinces. Mass-attendance events and educational activity were cancelled, and tourist attractions shut down. Further, the authorities decreed that the holiday period for the Chinese New Year festivities be extended. As regards industrial activity, factories in the contagion hotspots were obliged to suspend or significantly restrict production.

Moreover, individual prevention measures, such as disinfection, the use of masks and social distancing, were set in place.

**With much unevenness, other countries subsequently adopted containment measures, although confinement at home and large-scale restrictions on movements were prevalent.** In step with the swift growth of numbers infected in other geographical areas, other countries have fully or partly replicated the measures adopted in China (see Chart 2.1).<sup>4</sup> In many European and Latin American countries, and in India, the authorities opted for strict confinement, with their citizens unable to leave their homes except to meet basic supply needs, and all non-essential economic activity was shut down. In contrast, other regions adopted an approach focusing on early detection of the disease. In South Korea, for instance, people likely to have been infected were identified following large-scale testing and were forced to go into two weeks' quarantine. The bulk of the population, however, was able to continue with their everyday activity without widespread restrictions on movement or closure of retail outlets. In any event, despite the differences from one country to another, there have in turn been common strands, such as reducing social contact, promoting teleworking and urging individual hygiene and protection measures.

**In those countries and regions in which the intensity of the pandemic has progressively subsided, the authorities have begun to set plans in motion to normalise the social and economic situation.** At the cut-off date for this Report, the lockdown measures have been gradually eased in a large number of developed countries, albeit following different strategies. Generally, these strategies are providing for a gradual recovery in economic activity, while maintaining social distancing measures, in particular those relating to restricting agglomerations. The Asian countries, the first to be affected, have also been the first to begin to ease the lockdown measures. In China, all industrial activity resumed in mid-March, and restrictions in the province of Hubei began to be lifted on 24 March. However, temperature controls remain in place on public transport, in the workplace and in primary schools, as do the habits adopted during the lockdown, such as teleworking, the use of masks and social distancing. Universities remain closed and classes are being taught online, while leisure activities entailing large gatherings continue to be restricted. In South Korea, where such drastic measures were not imposed during the spread of the disease, people likely to be infected are expected to go into “voluntary quarantine” for two weeks, controlled by mobile devices. In Latin America, even though infections continue to rise and the height of the pandemic has not yet been reached, some countries have begun to relax the lockdown. This is partly because of the high economic and social cost of keeping the economy shut down,

---

4 The lockdown stringency indices shown in the charts take values between zero (no measures) and 100 (most extreme measures). They are constructed as a simple average of nine sub-indices: public information campaigns, closure of educational centres and workplaces, cancellation of public events, restrictions on the size of meetings or gatherings, public transport closures, stay-at-home requirements, and restrictions on internal and international movements. For further information, see Hale et al. (2020).

the sizeable informal labour market and the limited fiscal space available to pursue expansionary policies.

**The disease continues to advance in some areas and its spread, especially in less developed countries, and possible fresh outbreaks in places where the first wave of infections had already subsided are cause for concern.** The WHO warned in late June that the pandemic was accelerating and the number of infections rising, especially in the Americas. And there is a risk that the pandemic will intensify in regions, such as Africa, whose health systems are less prepared to deal with it. Despite progress in research to find effective treatment and a vaccine for the virus, these are complex processes for which a clear time horizon is not yet discernible. Further, the experience of past pandemics suggests that the possibility of fresh outbreaks in regions where the disease was under control after containment measures were lifted, as has occurred in recent weeks in specific areas of China, South Korea and Germany, cannot be ruled out.<sup>5</sup>

## 2.2 The initial economic impact worldwide

**Global GDP grew by 2.9% in 2019, the lowest rate since the global financial crisis and 0.7 pp down on 2018.** The slowdown was across the board, largely due to trade tensions and increased uncertainty, which particularly affected trade, investment and manufacturing. The services sector and private consumption, meantime, remained more buoyant, thanks to the sound performance of employment and to the support of expansionary demand-side policies. Global economic growth has been underpinned in recent years by extraordinarily expansionary demand-side policies, against a background in which the global potential growth rate held on a declining path. Nonetheless, signs of the world economy stabilising were perceptible in late 2019, partly owing to favourable trade news following an initial US-China trade agreement.

**The expansion of the pandemic and the necessary containment measures have abruptly altered global economic developments.** The need to check the spread of the disease and prevent health systems from collapsing led most of the countries affected by the pandemic to impose severe restrictions on people's movement and on economic activity. The evidence available shows a most pronounced decline in activity and employment, practically across all geographical areas, and one that is particularly acute in the services sector (see Chart 2.2) and in those countries that introduced more stringent containment measures. In China, the first economy affected, GDP in Q1 posted a fall of 9.8% quarter-on-quarter (6.8% year-on-year, compared with growth of 6% the previous quarter). Industrial

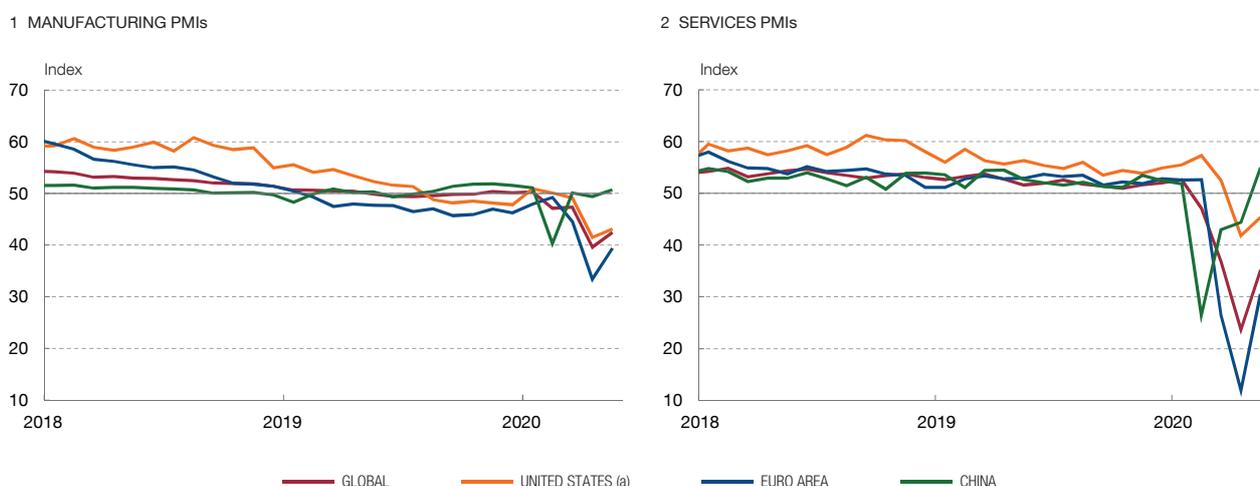
---

<sup>5</sup> Two notable examples are the 1918 flu pandemic and, more recently, the H1N1 virus in 2009. See, respectively, Jordan (2019) and Nelson et al. (2010).

Chart 2.2

## THE EFFECTS OF THE PANDEMIC BEAR DOWN ESPECIALLY ON SERVICES

Over the course of 2019, manufactures were more affected by the trade tensions, while services were more robust. Conversely, the pandemic has had a very marked impact on activity, one more pronounced in the services sector, especially in countries that have adopted more stringent lockdown measures.



SOURCE: IHS Markit.

NOTE: values below 50 denote a contraction.

a For the United States the ISM (published by the Institute for Supply Management) is shown. This is the most widely used purchasing managers' index in that country.



production, retail sales and investment declined by 15%-25% in January and February, although these indicators began to pick up in March, April and May. In the other pandemic-affected economies, and as was previously the case in China, the impact of COVID-19 and of the measures adopted has resulted in a very marked downturn in activity. This is already partly discernible in the Q1 GDP data and, especially, in the Q2 indicators, as for example in the April PMIs which posted the sharpest fall in their history, in particular in the services sector. As lockdown measures have progressively been eased, these indicators have risen in May, without yet regaining their early-2020 levels. In terms of demand components, there has been a particularly sharp fall-off in consumption and tourism indicators and, in the productive sectors, in passenger transport, leisure activities and other related services, all of which combined account for a high share of activity. Job destruction has been especially marked in the United States, whose unemployment rate rose by 10.3 pp between March and April, up to 14.7%, the highest level since 1940. This rate did, however, edge down to 13.3% in May, coinciding with the easing of the lockdown. In the other large advanced economies, with declines in activity comparable to those in the United States, there have been sizeable increases in unemployment. These have, however, been less marked than in the United States, reflecting the institutional differences in labour markets and the widespread use of short-term employment protection schemes in Europe. Turning to inflation, in the advanced economies, despite supply-side problems potentially raising certain

prices, so far the disinflationary effects of the collapse in demand continue to prevail. In combination with the fall in oil prices, this has prompted a decline in overall inflation rates.

**The scale of the economic disruption is still uncertain, given that there are different channels in play whose intensity and duration are as yet unknown.**

First, the forced shutdown of production has a negative impact on supply. This effect is amplified by the high degree of integration of the manufacturing sector worldwide and by the decline in trade. Second, the lockdown measures, the fall in household and business income, and the heightened uncertainty have all had a very severe impact on the various demand components. Third, a global financial shock is occurring, also largely associated with the rise in uncertainty, that has led to a tightening of global financial conditions, only partially mitigated by the economic policy response. Lastly, the drop in commodity prices as a result of falling demand, and in the case of oil prices of the difficulty agreeing on supply cuts, has a particularly damaging impact on commodity-producing countries, and gives rise to tensions in some of the capital market segments that are most exposed to these extractive industries.

**Despite the efforts of the economic authorities to contain the crisis, there are risks of a feedback loop between the above-mentioned factors that may depress economic activity more permanently.**

Although the effects of the pandemic on public health are, in principle, essentially temporary,<sup>6</sup> the situation created may entail more persistent economic damage in some sectors and changes in agents' behaviour. This may ultimately affect potential growth, especially if there are further outbreaks of the disease and the measures adopted in response are as drastic as those adopted in past months, and if the crisis ultimately triggers severe disruption in the financial sector. The uncertainty surrounding the economic outlook, falling consumer spending and investment and growing public and private indebtedness could result in a lower rate of activity in the future and greater destruction of businesses and jobs. This in turn could drive up defaults and prompt further tightening of financial conditions, which would have a negative impact on spending and income, in effect creating a vicious circle.<sup>7</sup>

**In the financial arena, conditions in the international capital markets deteriorated sharply towards the end of February when the health crisis became a global crisis, reversing the trend of previous months.**

The main stock indices recorded losses not seen since the global financial crisis, corporate risk premia rose sharply (especially in the high-yield segment) and price volatility

---

6 There are studies that show long-term effects on mental and physical health; see Deaton and Paxson (1998), Wu et al. (2008) or Wu et al. (2009).

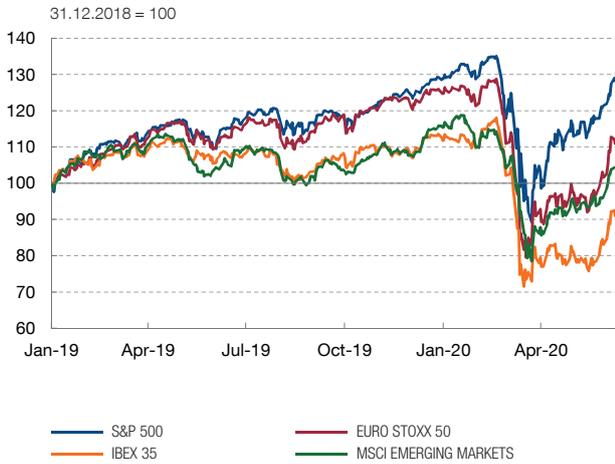
7 Mian et al. (2020) maintain, in the context of COVID-19, that higher debt may lead to lower interest rates and lower levels of activity as a result of over-indebtedness.

Chart 2.3

**THE PANDEMIC HAS HAD A HARSH IMPACT ON INTERNATIONAL FINANCIAL MARKETS**

Sharp falls in stock market indices not seen since the 2008 financial crisis, an abrupt increase in corporate credit risk premia and rising volatility, which reached all-time highs in equities. The measures taken by central banks and governments, and the favourable course of the health crisis, have helped reverse much of the initial impact.

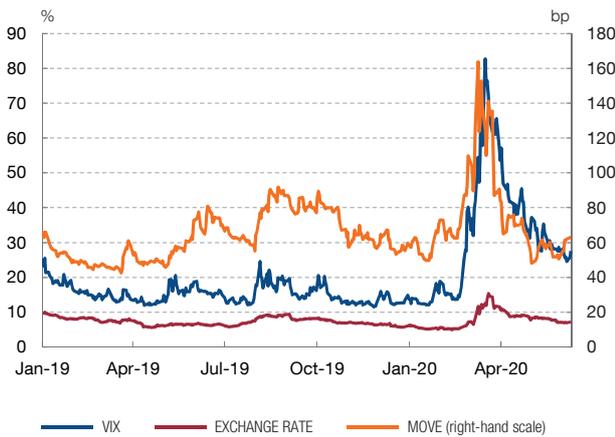
1 STOCK MARKET INDICES



2 S&P 500. PERFORMANCE IN PERIODS OF STOCK MARKET INSTABILITY



3 IMPLIED VOLATILITIES (a)



4 HIGH-YIELD BOND SPREADS OVER SWAP CURVE (b)



SOURCE: Thomson Reuters Datastream.

- a VIX: Implied volatility index based on S&P 500 options. Exchange rate: average implied volatility on dollar/euro, dollar/sterling and yen/dollar options. MOVE: Implied volatility index based on US Treasury bond options.
- b ICE Bank of America Merrill Lynch High-Yield Index.



soared, reaching record highs in the case of equities (see Chart 2.3). Thus, for example, the S&P 500, the EURO STOXX 50 and Spain’s IBEX 35 accumulated losses of 34%, 33% and 39%, respectively, in the second half of March compared with the highs recorded in February.

**The fall in the price of risk assets, which was initially more abrupt than in the global financial crisis, began to reverse towards the end of March.** The measures

taken by the economic authorities, and the subsequent improvement in the health situation, steadied the financial markets. This was reflected in strong growth in stock market indices, lower credit risk premia and lower price volatility in the most recent period. Compared with the global financial crisis that began in 2008, in the current episode asset prices have fallen much faster, but the losses recorded to date are smaller than those observed in the period 2008-09<sup>8</sup> (see Chart 2.3). Yet, given the persistent high uncertainty as to the duration and depth of the shock, further market tensions could arise, especially if the economic outlook were to be weaker than expected or if there were to be further outbreaks of the disease.

**The decline in stock market indices has affected all sectors, but especially banking, insurance and tourism.** In the case of the banking sector, which has been that most affected, despite the non-financial origin of the crisis, at the cut-off date for this Report the S&P 500 and EURO STOXX Banks indices are down by slightly more than 20% and 30%, respectively, since the spread of the virus became global at the end of February.

**Sovereign debt and foreign exchange markets have also felt the brunt of the crisis.** Highest credit quality long-term bond yields have fallen, as investors have sought out safe assets and more accommodative monetary policies have come to be expected<sup>9</sup> (see Chart 2.4). Both German and US 10-year sovereign bond yields posted all-time lows at the beginning of March (-0.84% and 0.49%, respectively). In the euro area markets, spreads over the German benchmark widened with the outbreak of the health crisis, but they narrowed again after the ECB announced a new asset purchase programme (PEPP) on 18 March (see Chart 2.4). In the foreign exchange markets, the dollar depreciated from the end of February to mid-March, possibly reflecting moves by some investors, against a backdrop of heightened risk aversion, to dispose of their investments in dollars financed with currencies from areas with lower interest rates, such as the euro area or Japan. Subsequently the US dollar appreciated, as demand rose for this global reserve currency, although the climb was short-lived (see Chart 2.4).<sup>10</sup>

**As a result of growing risk aversion in the capital markets, financial conditions have tightened.** The movements in financial asset prices described above have prompted a sharp tightening of financial conditions in the main economic areas. This development, which has reversed in part but was very intense in some segments of the US financial sector (see Chart 2.4), will foreseeably have an adverse impact on

---

8 Thus, for example, during the global financial crisis, the S&P 500 index fell by 56% over 17 months. In the case of the COVID-19 crisis, this same index fell by 34% from the high recorded on 19 February to the March low.

9 During a brief period, sovereign bond yields of countries such as the United States and Germany also rose, influenced by government announcements of tax stimulus packages and by higher demand for liquid assets, while the price of safe haven assets such as gold fell.

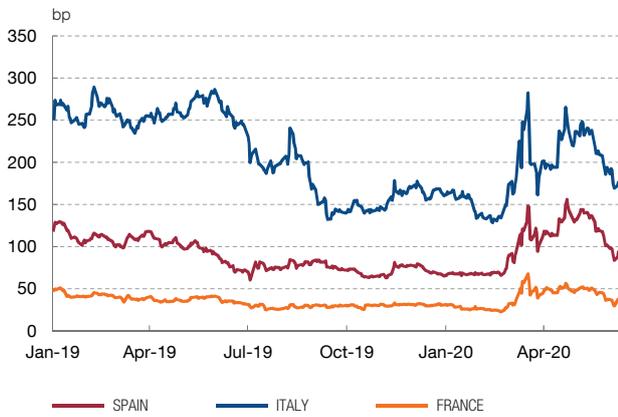
10 The high demand for dollar financing was reflected in the surge in the cost of the dollar, which triggered co-ordinated action by the main central banks to increase dollar liquidity in the international markets.

Chart 2.4

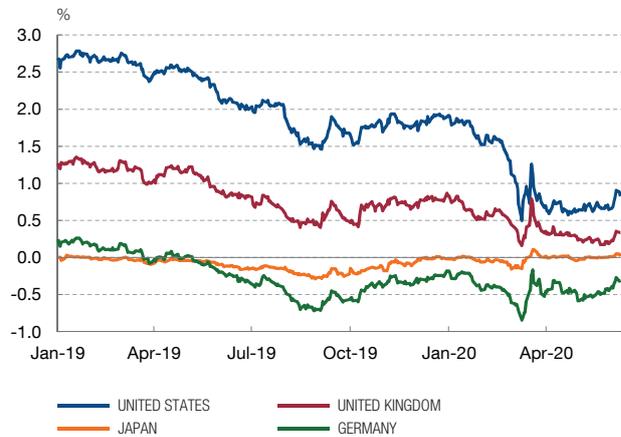
**TIGHTENING FINANCIAL CONDITIONS, GROWING SOVEREIGN BOND RISK PREMIA AND MAJOR EXCHANGE RATE FLUCTUATIONS**

Falls in highest credit quality sovereign bond yields and increases in sovereign bond risk premia in the euro area, which partially reversed following the measures taken by the ECB. The dollar has moved in different directions, initially influenced by the close of carry-trade positions, and later by risk aversion. Severe tightening of financial conditions which has partially reversed.

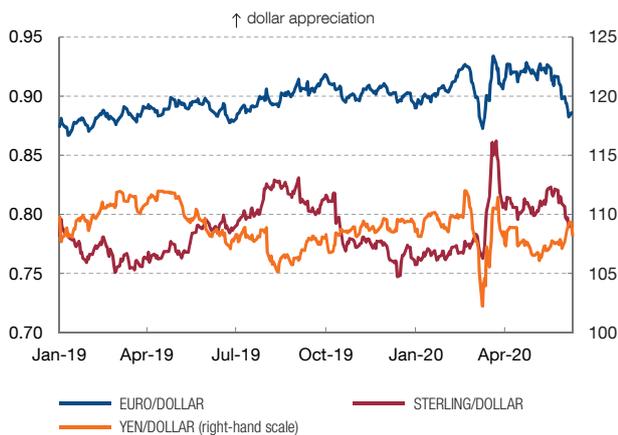
1 TEN-YEAR GOVERNMENT BOND YIELD, SPREADS AGAINST GERMANY



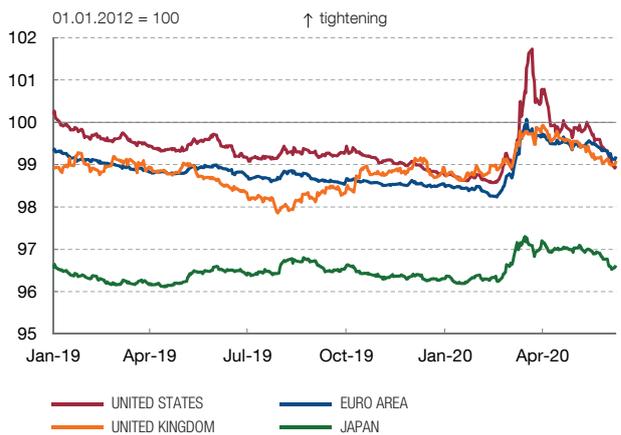
2 TEN-YEAR GOVERNMENT BOND YIELDS



3 EXCHANGE RATES



4 GOLDMAN SACHS FINANCIAL CONDITIONS INDICES



SOURCES: Thomson Reuters Datastream and Bloomberg Data License.



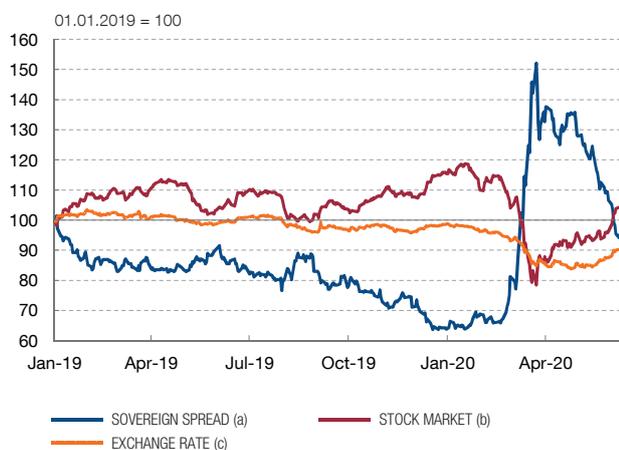
the different sectors' spending decisions, on account of the increase in the cost of funding and the consequent negative wealth effects.

**The spread of the pandemic is also affecting economic and financial developments in emerging market economies.** From the economic standpoint, in addition to the general channels of loss of domestic demand (owing to the direct impact of the lockdown measures) and external demand (including tourism), these countries have been particularly hard hit by the fall in migrant remittances, the tightening of financial conditions and, for commodity-producing countries, the drop in commodity prices. The collapse in global demand for oil is the key factor behind the

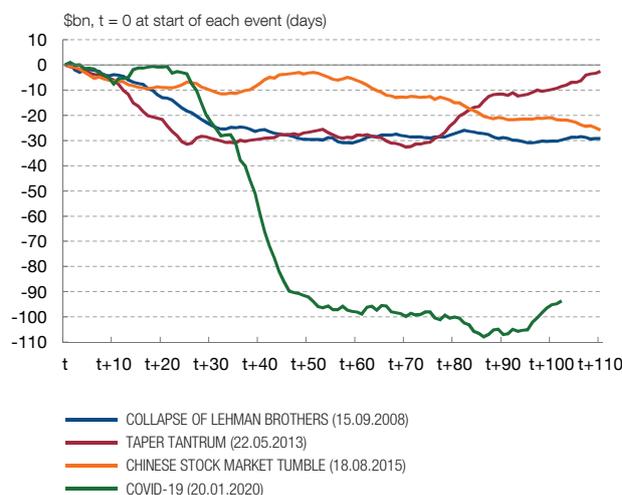
## EMERGING ECONOMY FINANCIAL MARKETS

The emerging markets were influenced, throughout 2019, by the US-China trade talks. The global spread of the pandemic triggered the largest price correction and capital outflows since the crisis of 2008. The measures taken by the authorities of advanced and emerging market economies stabilised markets at end-March.

1 FINANCIAL CONDITIONS IN EMERGING MARKETS



2 PORTFOLIO CAPITAL FLOWS TO EMERGING MARKET ECONOMIES (CUMULATIVE) (d)



SOURCES: Reuters and Institute of International Finance (IIF).

- a JP Morgan EMBI.  
b MSCI Emerging Markets (USD).  
c JP Morgan EMCI.  
d IIF daily debt and stock market outflows, which do not fully reflect balance of payment flows.



significant drop in oil prices in the first half of the year.<sup>11</sup> Emerging market financial markets deteriorated sharply from end-February to end-March: stock market prices fell, sovereign spreads widened and exchange rates depreciated as investors moved out of higher risk assets (see Chart 2.5). Portfolio debt and equity outflows from emerging market economies in that period (estimated at around \$100 billion) were much faster than those observed in other turmoil episodes in the last decade (albeit without reaching the scale of the accumulated portfolio outflows observed in the global financial crisis). These adverse developments only began to ease somewhat from the end of March, on the back of the monetary and fiscal stimulus measures approved by the authorities both in emerging market and advanced economies. These measures included the Federal Reserve's decision to restart or launch new programmes to broaden access to dollars, and also certain multilateral measures such as the IMF's credit facilities. Nevertheless, external vulnerability remains high in some emerging market economies, such as Turkey, given its high external funding requirements (especially in the private sector) and the low level of international reserves available.

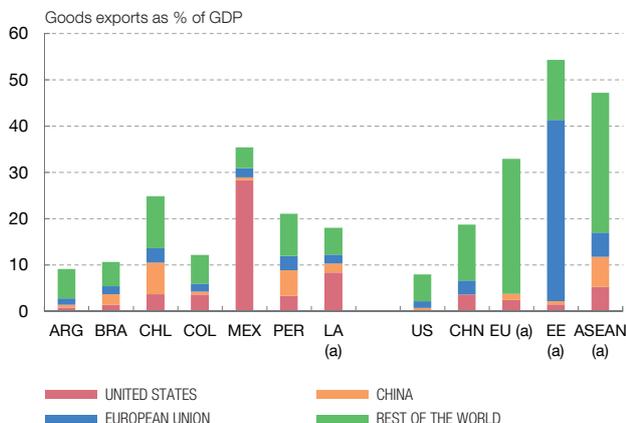
<sup>11</sup> Specifically, at the end of April, the price of West Texas Intermediate fell into negative territory, below minus \$35 per barrel, coinciding with the expiration of the May futures contract. The impact on the price of Brent was less severe, although prices also corrected substantially, to around \$20 per barrel. See Banco de España (2020a).

Chart 2.6

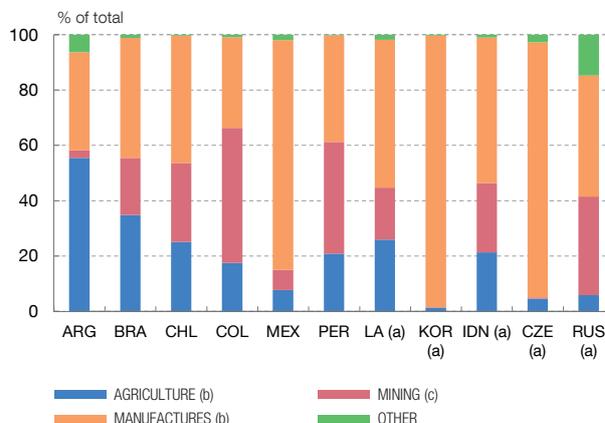
**PANDEMIC TRANSMISSION CHANNELS IN EMERGING ECONOMIES. THE EXAMPLE OF LATIN AMERICA**

Apart from the channels of loss of domestic demand (due to the containment measures) and of external demand (including tourist services), the emerging economies are affected specifically by the fall in migrant remittances, the greater tightening of financial conditions and by the decline in commodity prices for exporting countries.

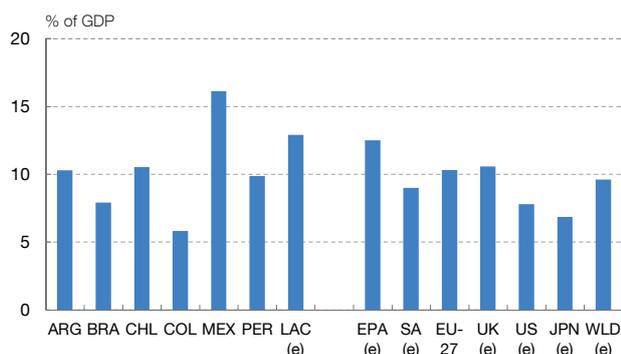
1 TRADE EXPOSURE



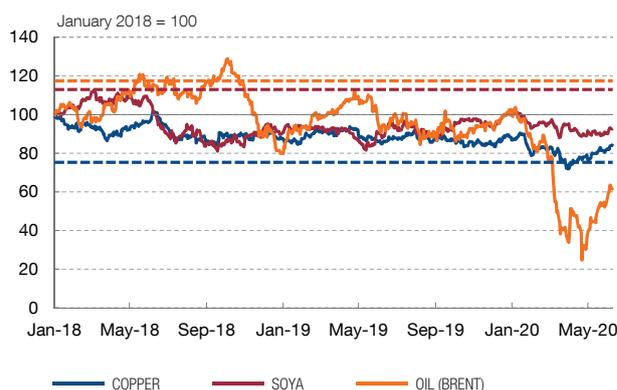
2 COMPOSITION OF EXPORTS BY TYPE OF PRODUCT



3 CONTRIBUTION OF TOURISM TO GDP (d)



4 COMMODITY PRICES (f)



SOURCES: Thomson Reuters, OECD, World Bank, UNCTAD-Eora GVC database and WTO.

- a LA: Argentina, Brazil, Chile, Colombia, Mexico and Peru. EE: eastern Europe (EU-13). ASEAN: Association of Southeast Asian Nations. EU: European Union. KOR: South Korea. IDN: Indonesia. CZE: Czech Republic. RUS: Russia.
- b The heading food, drink and tobacco is included in the agriculture aggregate and not manufactures, unlike in the original source (OECD).
- c Mining includes petroleum extraction.
- d The indicator refers to the total contribution of tourism and travel to GDP and includes its direct contribution, indirect contribution (effects arising from spending on suppliers and public and private-sector investment relating to travel activities) and induced contribution (arising from spending generated by tourist industry workers).
- e LAC: Latin America and Caribbean. EPA: east and Pacific Asia. SA: south Asia. UK: United Kingdom. US: United States. JPN: Japan. WLD: world total.
- f The coloured dotted lines are the averages of the corresponding series in the period 2005-2017.



**The pandemic reached Latin America comparatively late, but the region subsequently became one of the main focal points.** The region started out from a more delicate position than other emerging market economies, on account of the weak growth observed since 2014, following the end of the favourable commodity price cycle. In addition, certain factors specific to the countries of Latin America, such as the lower level of preparedness of their health systems, the high rate of

informal employment, and the quality failings of some institutions, may have amplified the effect of the health crisis.<sup>12</sup>

**From an economic point of view, it should be noted that some of the crisis transmission channels are more important in Latin America than in other emerging regions.** Thus, for example, commodities account for a high proportion of the main economies' exports (in some cases over 50%), so the deterioration in the terms of trade has been a negative shock for the region, and some economies, such as the Mexican one, will be more damaged by the drastic reduction in tourism (see Chart 2.6) and in migrant remittances. Also, the negative effect of lockdown measures on domestic demand is more pronounced in the Latin American economies than in other emerging regions, since they are relatively more closed to foreign trade in goods and services. Most monetary and fiscal authorities in Latin America, having consolidated more robust policy frameworks in recent years, have adopted response measures rapidly, but they had much less monetary and fiscal space available than in other regions, and also than in the 2008-09 crisis. Accordingly, analysts consider that Latin America will be the emerging region to suffer the largest fall in GDP in 2020, while the rise in activity anticipated for 2021 will also be lower than in other areas, as a result of the lower potential growth of the region and its lower economic policy response capacity. In addition, negative GDP growth may particularly affect the section of the population that in recent decades has joined the ranks of the middle class, as they are highly vulnerable to sharp economic slowdowns. This deterioration in their economic situation may revive the demonstrations and social protests that occurred in various Latin American countries in 2019.

**To sum up, global GDP is expected to contract in 2020 as a whole, although activity may begin to recover gradually in the second half of the year.** Against a background of heightened uncertainty regarding the duration and intensity of the health crisis, the IMF, in line with other international institutions, is forecasting that if the pandemic subsides in the second half of the year and lockdown measures are gradually relaxed, global GDP will fall by 4.9% in 2020 (much larger than the fall of 0.1% in 2009 during the global financial crisis) (see Chart 2.7). In the near term, the main economic areas would enter into recession. However, the impact is expected to be temporary; the IMF, like most analysts, forecasts a recovery in activity as from the second half of the year and higher growth rates in 2021 (5.4% in the case of the world economy).

**Looking ahead, therefore, it is essential to understand the extent to which social and economic activity may return to normal once the epidemic is under control.** Countries that appear to have already overcome the most critical period of the health crisis, such as China, may offer some points of reference. In China,<sup>13</sup> the strict quarantine and other health measures that affected some regions have been

---

<sup>12</sup> See Banco de España (2020b).

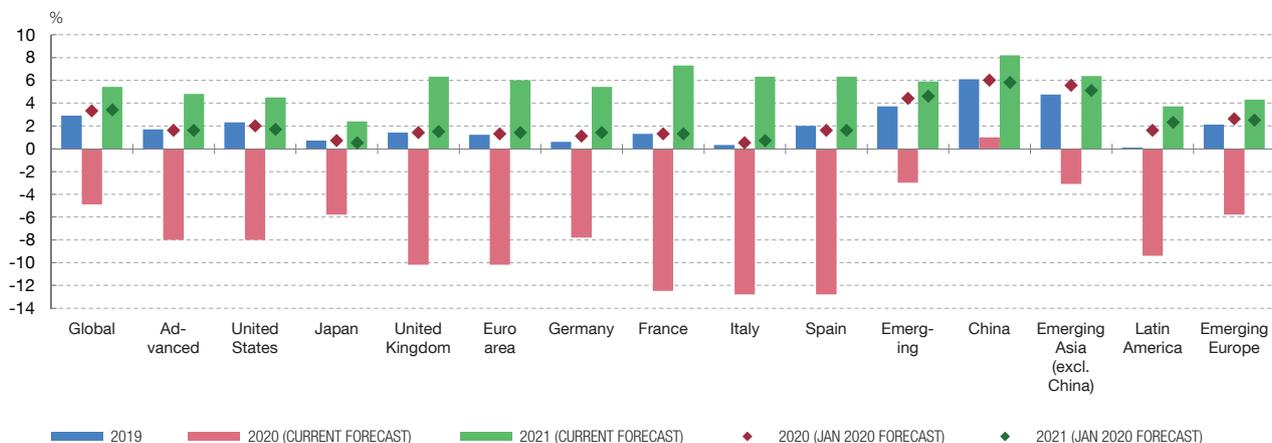
<sup>13</sup> See Banco de España (2020c).

Chart 2.7

**WORLD GROWTH IN 2020 WILL BE SEVERELY AFFECTED BY THE EXPANSION OF THE PANDEMIC**

The world economy has been drastically affected by the worldwide spread of the pandemic. The negative impact on activity and international trade in 2020, although still uncertain, is expected to be very pronounced. International organisations consider that the impact will be temporary with a notable growth recovery in 2021.

IMF GDP GROWTH FORECASTS



SOURCE: IMF (WEO January 2020 and WEO June 2020).



gradually relaxed. Against this background, those regions most exposed to the epidemic, such as Hubei, are recovering more slowly than the rest of the country. Considering the Chinese economy as a whole, industrial activity resumed in mid-March and, since then, has recovered rapidly. By the end of April, industrial output had already exceeded the level of last December, partly due to buoyant exports, which were especially strong in the electrical machinery, electronics, communication equipment and textiles sectors. This was a result of the recovery in orders, the substitution of other exporters affected by lockdown measures and China’s dominant position in the production of certain medical equipment. However, consumption and investment remain depressed, against a background of continued social distancing measures, mobility restrictions and great uncertainty. The largest fall in consumption was in sectors relating to leisure, durables (other than cars) and luxury goods, all of which declined by between 5% and 12% year-on-year, by contrast with online sales which increased substantially.

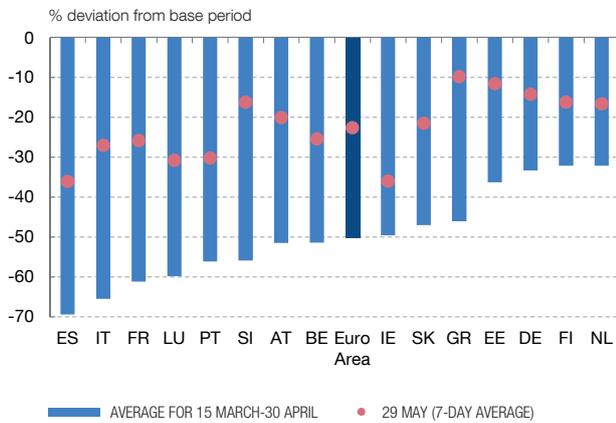
**The outlook for the world economy is subject to significant downside risks, which may lead to a considerably slower recovery than is currently expected.** Various factors whose behaviour is difficult to predict may affect the prospects for recovery of the world economy. Notable among them are the course of the pandemic itself and the possibility of further outbreaks, as well as the strength and effectiveness of the containment efforts, the effectiveness of the economic measures adopted, possible changes in agents’ behaviour and the persistence of uncertainty. With reference

Chart 2.8

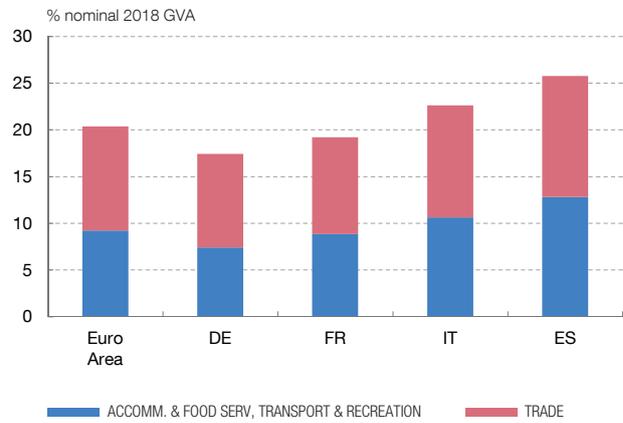
**SOCIAL DISTANCING MEASURES TO CONTAIN THE PANDEMIC**

Strict social distancing measures were adopted in all euro area countries in mid-March, and these remained in force in April. In May they began to be eased very gradually. These measures had a severe impact in sectors such as accommodation and food service activities, transport, recreation and trade.

1 GOOGLE MOBILITY INDICES (a). AVERAGE MOBILITY INDEX AT WORKPLACES AND FOOD AND RETAIL CENTRES



2 WEIGHT OF SECTORS MOST AFFECTED BY CONFINEMENT MEASURES (b)



SOURCES: Google COVID-19 Community Mobility Reports and Eurostat.

- a The base reference period is the median, for each day of the week, between 3 January and 6 February 2020. The euro area is a GDP-weighted average.
- b The transport services industry includes storage; trade includes wholesale and retail trade and repair of motor vehicles.



to this set of factors, Box 2.1 considers various simulations that approximate the degree of uncertainty surrounding the strength of the contraction and the subsequent economic recovery. The exercise also serves to illustrate that the effects of the crisis will probably not be evenly distributed across geographical areas, given the differences in pandemic containment strategies, spillovers between economies, productive structures and the magnitude and effectiveness of the responses by the economic authorities.

## 2.3 The spread of the crisis in the euro area

**COVID-19 spread rapidly through the euro area countries, which introduced severe lockdown measures to contain the pandemic.** Italy was the first European country to be widely affected by the virus, which then spread rapidly to the other countries, albeit with varying intensity. By mid-March, stringent measures restricting individual mobility and economic activity had generally been applied, and they remained in force throughout April. The severity of the measures varied from one country to another, as reflected, for example, in human mobility indicators, which record the sharpest falls in Spain, Italy and France during the period of strictest lockdown (see Chart 2.8). In May, a very gradual easing of the lockdown commenced, at different rates across the euro area countries, although the situation remained distant from that existing prior to the health crisis.

**These measures entailed a sudden very severe fall in activity, especially in the most directly affected sectors, generally those linked to certain services.**<sup>14</sup>

Some industries, such as accommodation and food services, transport and leisure have been critically affected. These sectors represent around 9% of the euro area economy, although their weight is higher in countries such as Spain and Italy (see Chart 2.8). Activity in other services, such as wholesale and retail trade, and in other industries, such as machinery and equipment, vehicles, textiles, and construction, was also severely reduced as a result of the pandemic containment measures. Overall, those industries most directly affected by the lockdown measures represent around 30% of euro area activity. According to the National Accounts figures for the first quarter, the crisis led to a decline in euro area activity of around 20% during the period of strictest quarantine, with an impact that varied by country and sector.<sup>15</sup>

**Although it was mid-March before the brunt of the crisis was felt, the contraction in euro area activity was already very marked in the first quarter of the year.** As the international comparison presented in Chart 2.9 shows, the decline in services PMI indices in March was especially severe in the euro area countries, where the lockdown measures have generally been relatively stricter than in other regions. The GDP estimate for Q1 shows this clearly (see Chart 2.9). Thus, euro area GDP contracted by 3.6% in Q1, as compared with an expected increase before the spread of the pandemic of 0.1%. Among the largest euro area economies, the fall was less marked in Germany (2.2%), where the incidence of the disease and the severity of the lockdown measures have been relatively lighter. In contrast, the contraction of activity in France, Italy and Spain exceeded 5% quarter on quarter.

**The decline in activity will be considerably more marked in Q2.** The general social distancing and lockdown measures only began to be relaxed gradually in May, as the pandemic became less virulent. Although economic activity recovered somewhat in May and June, the economic impact in Q2 will be substantial, and the contraction may be as much as 13% in the euro area as a whole, according to the Eurosystem's June forecasts.<sup>16</sup>

**At this exceptionally uncertain juncture, the outlook is for a severe contraction in activity in 2020 as a whole, of greater magnitude than in the global financial crisis.** The euro area started out from a situation of low economic growth, following a slowdown to 1.2% in 2019 (0.8 pp less than in the previous year), owing to the weakness of foreign trade and the notable contraction in manufacturing. At the end of 2019, the projections maintained this scenario of weakness in 2020, with expected GDP growth for the euro area of around 1%. With the outbreak of the pandemic, the forecasts of private analysts and official agencies anticipate a severe contraction of

---

14 See Prades and Tello (2020).

15 See Banco de España (2020d).

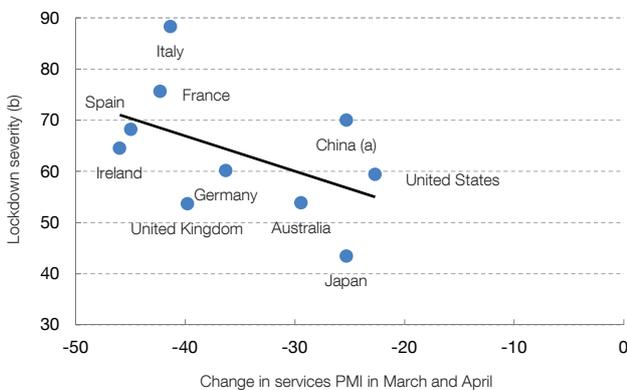
16 See Eurosystem staff macroeconomic projections for the euro area, June 2020.

Chart 2.9

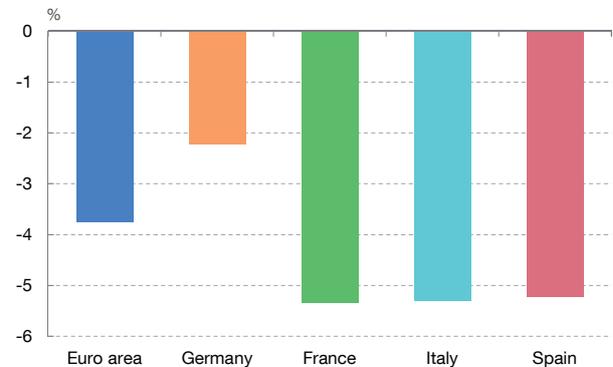
**THE HEALTH CRISIS WILL CAUSE A SEVERE ECONOMIC CONTRACTION OF STILL UNCERTAIN MAGNITUDE**

The contraction in euro area activity will be very pronounced in the first half of the year, the short-term impact being a reflection of the stringency and duration of the pandemic containment measures. Despite the recovery in activity in the second half of the year, forecasts anticipate a severe contraction in GDP in 2020, as well as lower inflationary pressures.

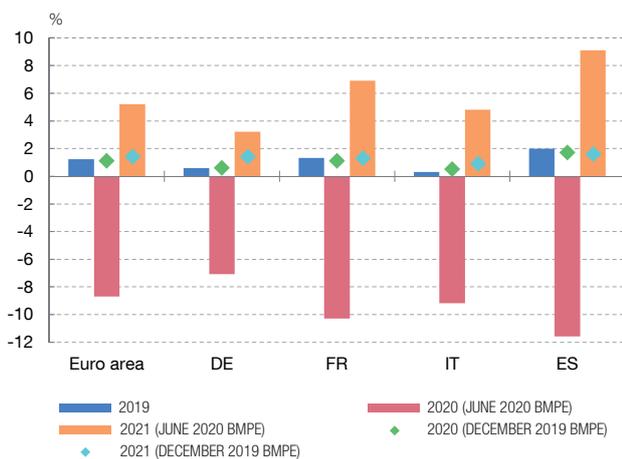
1 FALL IN PURCHASING MANAGERS' INDICES (PMIs) AND LOCKDOWN SEVERITY INDEX



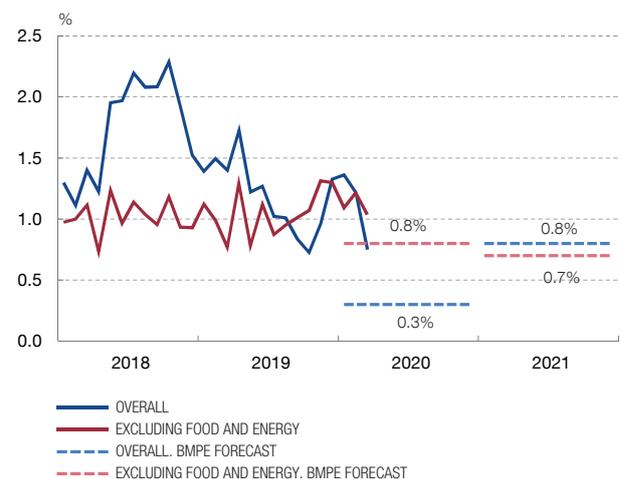
2 GDP IN 2020 Q1 QUARTER-ON-QUARTER GROWTH



3 EURO AREA GDP GROWTH FORECASTS (c)



4 EURO AREA INFLATION AND JUNE BMPE FORECASTS (c)



SOURCES: Eurostat, Markit, University of Oxford and ECB.

- a For China the change refers to February.
- b Average for March and April of the University of Oxford's daily index of the severity of the pandemic containment measures.
- c BMPE is the Eurosystem's Broad Macroeconomic Projection Exercise.



GDP in 2020 across the board, albeit most pronounced in some of the main euro area economies such as Spain, Italy and France (see Chart 2.9). According to the baseline scenario of the Eurosystem's June projections exercise, euro area GDP may contract by 8.7% in 2020. The euro area unemployment rate is expected to rise sharply, to around 10% of the labour force in 2020 (as against 7.4% at the end of 2019).

**The crisis is also exerting downward pressure on the euro area inflation rate.** Having remained at the moderate level of 1.2% on average in 2019, the Eurosystem's June projections point to a decline to 0.3% in 2020, largely as a result of the sharp

fall in commodity prices, compounded by the effects of a less pronounced fall in household spending and agents' inflation expectations (see Chart 2.9).

**In 2021, a strong recovery is expected, although a high degree of uncertainty remains regarding the persistence of the effects of the pandemic.** On the assumption that the pandemic will subside in the second half of the year and that the economic policy measures adopted will be effective, the Eurosystem's June projections are for a 5.2% increase in GDP in the euro area in 2021. However, the uncertainty regarding the shape of the recovery is high, given the risks to global economic growth mentioned above, which would also be present in the case of the euro area.

**The uncertainties that surround the economic outlook arising from the pandemic are compounded by the risk of a scenario of no agreement between the United Kingdom and the EU at the end of this year.** In the event that there is no agreement, there will be no framework to regulate the future relations between these two parties following the expiry, on 31 December 2020, of the current transition period. In recent weeks, there has been an absence of substantial progress in the negotiations for this agreement. The EU-UK high-level conference of 15 June 2020 confirmed the United Kingdom's decision not to request any extension to the transition period, highlighting the need for intensification of the negotiations over the coming months to enable an agreement to be concluded and ratified by the end of the year.

**Reaching an agreement before the end of the year to avoid disruptive effects for these two economies would be highly desirable.** Both the EU and the United Kingdom face the risk of absence of a bilateral legal framework, in which case their relations would be governed by the international rules of the World Trade Organization (WTO), under the "most-favoured-nation" principle (each member of the WTO has to apply to all other members the most favourable tariff applied to the countries with which it maintains trade agreements).<sup>17</sup> Although progress has been made over the last year and a half, both at national and EU level, to address the most disruptive effects of this scenario in some sectors, including the financial sector, it would be desirable to avoid the arrival of January 2021 without at least a minimal trade agreement to regulate relations between the EU and the United Kingdom. Given the short timeframe available, it is unlikely that this agreement will be able to foresee all aspects of future relations between the two parties. Accordingly, supplementary agreements will need to be forged in future in those areas not considered essential for an agreement to be reached by the end of the year.

---

<sup>17</sup> See Vega (2019).

## REFERENCES

- Banco de España (2020a): "Supply and demand-side factors in determining oil prices against the background of the COVID-19 crisis", Box 2, *Economic Bulletin*, 2/2020.
- (2020b). "Report on the Latin American economy. First half of 2020". Analytical Articles. *Economic Bulletin*, 2/2020.
  - (2020c). "The recent recovery of the Chinese economy during the gradual lifting of the COVID-19 lockdown", Box 1, *Economic Bulletin*, 2/2020, forthcoming.
  - (2020d). "The initial economic impact of the health crisis and the lockdown measures on the euro area countries", Box 3, *Economic Bulletin*, 2/2020.
- Deaton, A. S., and C. H. Paxson (1998). "Aging and Inequality in Income and Health", *The American Economic Review*, vol. 88, No. 2, May, pp. 248-253.
- Hale T., Angrist N., Kira B., Petherick A., Phillips T. and Webster S. (2020). "Variation in Government Responses to COVID-19", Working Paper, Version 5.0., Blavatnik School of Government.
- Jordan D. (2019). "The Deadliest Flu: The Complete Story of the Discovery and Reconstruction of the 1918 Pandemic Virus", Center for Disease Control and Prevention
- Mian, A., L. Straub and A. Sufi (2020). *The saving glut of the rich and the rise in household debt*, Working Papers 26941, NBER.
- Nelson M. and co-authors (2010). "Phylogeography of the Spring and Fall Waves of the H1N1/09 Pandemic Influenza Virus in the United States", *Journal of Virology* 85(2): pp. 828-834.
- Oke J., and Heneghan C. (2020). *Global Covid-19 Case Fatality Rates*, Centre for Evidence-based Medicine, University of Oxford.
- Prades E., and Tello P. (2020). "The heterogeneous economic impact of COVID-19 among euro area regions and countries", Analytical Articles, *Economic Bulletin* 2/2020, Banco de España.
- Vega, J.L., coord. (2019). *Brexit: current situation and outlook*, Occasional Papers, No 1905, Banco de España.
- Wu P., X. Liu, Y. Fang, B. Fan, C. J. Fuller, Z. Guan, Z. Yao, J. Kong, J. Lu and I. J. Litvak (2008). "Alcohol abuse/dependence symptoms among hospital employees exposed to a SARS outbreak", *Alcohol and Alcoholism*, November-December 2008, 43(6), pp.706-712.
- Wu P., Y. Fang, Z. Guan, B. Fan, J. Kong, Z. Yao, X. Liu, C. J. Fuller, E. Susser, J. Lu and C. W. Hoven (2009). "The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk", *Canadian Journal of Psychiatry*, May, 54(5), pp. 302-311.

**GLOBAL ECONOMIC EFFECTS OF THE HEALTH CRISIS**

Based on various simulations, this box illustrates the potential adverse effects of the COVID-19 pandemic and the measures to contain the spread of the virus on the world's main economic areas. In the simulations, emphasis is placed on identifying and quantifying the channels through which these effects are produced (domestic demand, tourism, financial and commodity markets, and supply-side disruptions), the economic policy response under way and the spillovers among countries.

At present, there is significant uncertainty surrounding the ultimate scale of the disruption that this episode may cause. This stems not only from the duration of the pandemic itself and the containment-measure and economic-policy-response implications, but also from the fact that several different economic shocks are simultaneously in play. First, the forced disruption of production has an adverse impact on supply. This phenomenon is amplified by the high level of integration of the manufacturing sector at the global level and may exert persistent effects on potential output. Second, the sharp contraction in demand is reflected in lower household consumption and a decline in business investment. Third, the global financial shock may also have sizeable adverse effects on financing conditions and on economic agents' wealth. This would afflict consumption and investment decisions. Fourth, the drop in commodity prices is detrimental to the countries producing these goods (although it has a positive impact on the income of consumers) and may give rise, as observed in recent months, to tensions in certain segments of the financial markets that are most exposed to fluctuations in commodity prices. Lastly, there are risks of these shocks creating a feedback loop that could depress economic activity on an ongoing basis. The uncertain outlook could reduce consumer spending and investment even after the health crisis itself, ultimately destroying businesses and jobs, increasing defaults and tightening certain economic agents' financing conditions. This could fuel a vicious circle and further prolong the crisis.

To illustrate the potential scale of the impact of the pandemic and the containment measures on economic activity, the results of a series of simulations performed on the basis of various hypothetical scenarios from NiGEM,<sup>1</sup>

the global macroeconomic model, are presented below. This model's simplified framework captures mainly the channels operating through domestic demand, tourism, the effects of financial variables and commodity prices, although it also partially includes some supply-side effects. The simulations assume that economic policies react according to conventional historical patterns,<sup>2</sup> although the budgetary measures adopted and announced that are detailed in Section 3 of this chapter are also included.

Three hypothetical scenarios, dubbed "limited", "persistent" and "prolonged confinement", are considered. They differ in terms of the assumed duration of the period of confinement, the speed at which demand is assumed to recover and the possibility that global financial conditions may tighten. The technical assumptions of the exercise are detailed in Table 1. These scenarios assume that the crisis pervades all geographical areas and that the pandemic's direct adverse effects are confined to 2020 H1; however, there continues to be significant uncertainty surrounding the pandemic's future pathway, as argued in Section 2.1 of this chapter. The first two scenarios consider a lockdown lasting a total of eight weeks, whereas in the case of the "prolonged confinement" scenario, the stricter containment measures last up to twelve weeks. These durations are assumed consistently across all the simulated economies, given the difficulty of identifying specifically the severity of the restrictions on people's freedom of movement and business activity, in addition to the timing of their implementation and easing by the authorities, which has varied significantly across jurisdictions. As regards the speed of the recovery, in the "limited" scenario, a more dynamic profile for activity associated with a swift recovery in the financial conditions and in major purchases postponed during the lockdown is taken into consideration. This would materialise from the end of Q2. However, the other two scenarios include further adverse effects, stemming from the possibility that the initial decline in activity ultimately proves more persistent due to a potential tightening of financial conditions, making some of the pandemic's contractionary elements last longer. The scale of the shocks applied to these scenarios is calibrated using the data available on the decline in activity in China in 2020 Q1, the drops observed in the financial and commodity markets as at

1 Documentation on the model, devised by the National Institute of Economic and Social Research, is available at <https://nimodel.niesr.ac.uk/>.

2 Specifically, it is considered that monetary policy is endogenous based on a Taylor rule (and the unconventional measures make up for the negative nominal rates constraint) and that fiscal policy acts through automatic stabilisers (simultaneously maintaining a medium-term budget balance target).

## GLOBAL ECONOMIC EFFECTS OF THE HEALTH CRISIS (cont'd)

mid-March and the trend in potential output witnessed following the global financial crisis triggered in 2008.

Based on the simulations performed, global growth would fall, compared with the outlook prior to the outbreak of the pandemic,<sup>3</sup> by around 7 pp, 9 pp and 12 pp in 2020 in the limited, persistent and prolonged confinement scenarios, respectively. The world economy would therefore shrink by -3.7%, -6.1% and -8.9%,

respectively, in 2020 (see Chart 1).<sup>4</sup> The most adverse effects would arise through the domestic demand channel, followed by the collapse of the tourism sector, whereas the contractionary effects of the financial shock are smaller. By geographical area, the impact is somewhat more severe in emerging market economies than in advanced economies, owing to the domestic demand channel having a greater impact and a slightly contractionary effect associated with the drop in commodity prices, the producers of which

Table 1  
SCENARIO CALIBRATION

Shock	Calibration	Scenario 1 Limited			Scenario 2 Persistent			Scenario 3 Prolonged confinement		
		China	Advanced economies	Other emerging market economies	China	Advanced economies	Other emerging market economies	China	Advanced economies	Other emerging market economies
Domestic demand	Estimates of Chinese GDP growth in Q1: -10% quarter-on-quarter	-10% during the three months following the imposition of containment measures, 40% of the shock is recovered in the following quarter			-10% during the three months following the imposition of containment measures, domestic demand recovers slowly			-15% during the three months following the imposition of containment measures, domestic demand recovers slowly		
Supply	Potential GDP reduction in financial crises + fall in investment + hours worked	The fall in investment and hours worked affects potential GDP			Potential GDP is further affected by a financial crisis					
Tourism	Severe restrictions on movement of people	-100% in 2020 Q2 and gradual recovery to 2021 Q3								
Financial markets	Stock markets	MSCI World Index since the start of the epidemic			-25% in Q2; rapidly returns to prior levels			-25% in Q2; returns to prior levels very slowly		
	Risk premium on investment	Corporate spread (average of investment grade and high yield)			+250 bp in Q2; rapidly returns to prior levels			+250 bp in Q2; returns to prior levels very slowly		
Commodities	Oil futures market	Change in Brent crude prices implicit in the futures curve								
Discretionary fiscal policy	Budgetary measures adopted and announced	The budgetary measures considered are those detailed in Section 3.4 of this chapter. The average discretionary fiscal impulse is greater in the advanced economies than in the emerging market economies  2/3 are deployed in 2020 and 1/3 in 2021 H1 These measures have generally been implemented through transfers								

SOURCE: Banco de España.

3 The IMF's forecasts are used as reference, see *World Economic Outlook: Tentative Stabilization, Sluggish Recovery?*, IMF, January 2020.

4 The IMF forecasts that the pandemic's effect on global growth will amount to -6.3 percentage points in 2020, assuming that the strictest containment measures last a total of eight weeks and the restrictions are gradually lifted throughout 2020 H2, see, *World Economic Outlook: The Great Lockdown*, IMF, April 2020. In turn, the scenarios considered by the OECD reflect a drop in global GDP in 2020 of between 6 (single-hit scenario) and 7.6 (double-hit scenario) percentage points, see *OECD Economic Outlook, The world economy on a tightrope*, OECD, June 2020. Lastly, the World Bank's June projections consider that global growth will fall by 7.7 percentage points, see *Pandemic, Recession: The Global Economy in Crisis*, World Bank, June 2020.

**GLOBAL ECONOMIC EFFECTS OF THE HEALTH CRISIS (cont'd)**

generally belong to this group.<sup>5</sup> As regards the world's main economies, growth in the United States would suffer an adverse impact of 5.7 pp, 8.2 pp and 11.5 pp in each of the three scenarios, respectively. These declines are

similar to those experienced in the euro area, of 6.3 pp, 8.4 pp and 11.2 pp, respectively. In turn, the impacts in China would stand at 5.6 pp, 7.7 pp and 10.1 pp, respectively. The real and financial spillovers<sup>6</sup> among the

Chart 1  
GLOBAL IMPACT OF THE HEALTH CRISIS IN 2020

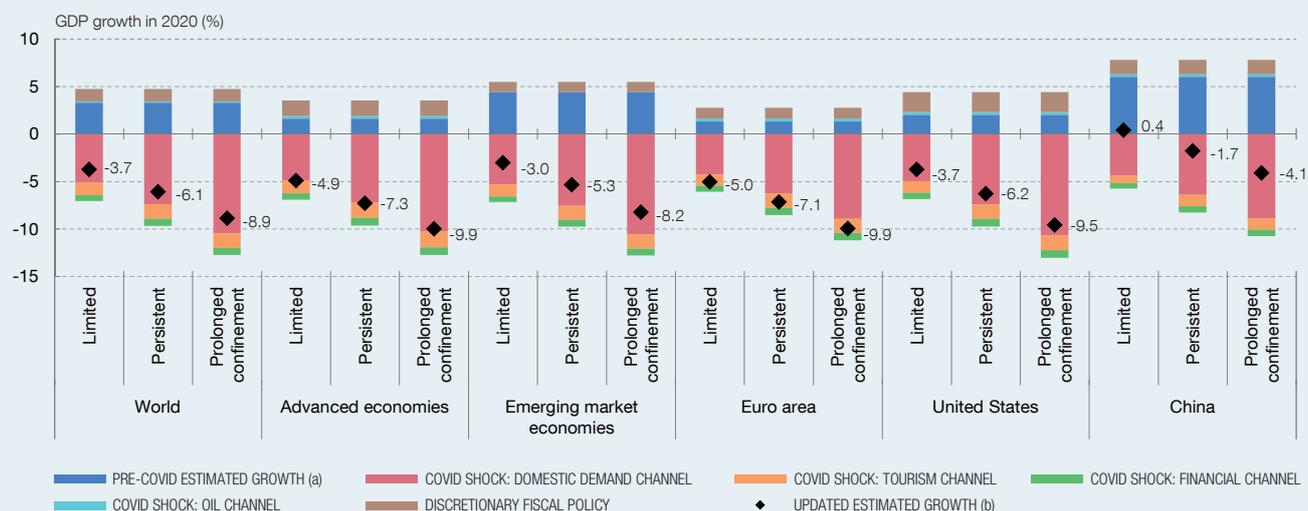


Chart 2  
EFFECT OF THE SPILLOVERS AMONG ECONOMIES ON GDP GROWTH IN 2020

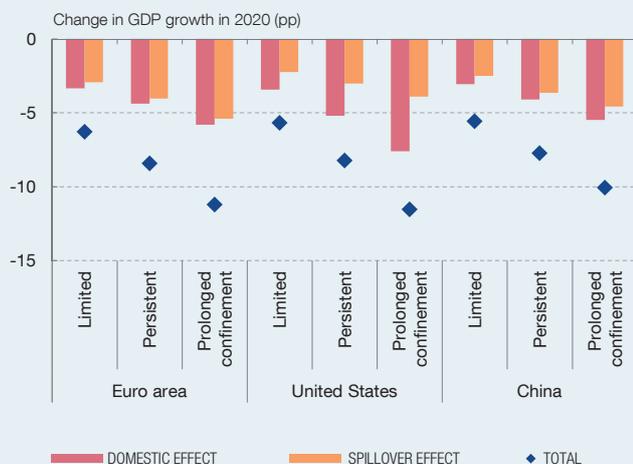
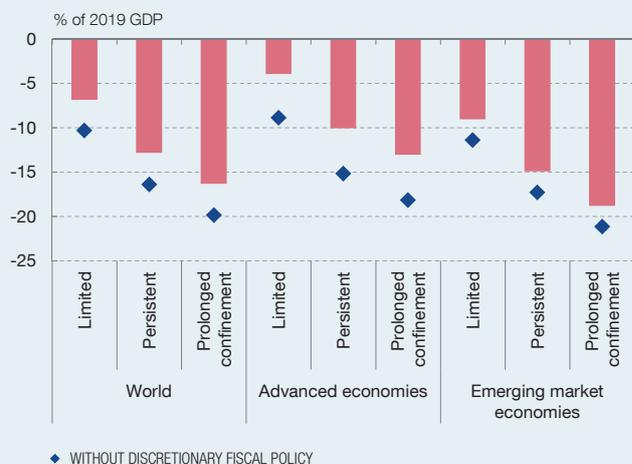


Chart 3  
CUMULATIVE LOSS OF GDP BETWEEN 2020 Q1 AND 2021 Q4



SOURCES: Banco de España and IMF.

- a The pre-COVID forecasts considered are those of the IMF published in the January 2020 WEO Update.
- b Sum of the impact of the channels taken individually and the composition effect (interaction between channels).

5 Some factors could cause the impact on emerging market economies to be even more severe. First, in the simulations it is assumed that the drops in stock market indices and the increases in risk premia in the emerging market economies are identical to those in the advanced economies. It is also assumed that the emerging market economies have monetary policy leeway that is comparable with that of the advanced economies. Lastly, the model includes lower commodity price elasticity with respect to GDP than that estimated in the empirical literature for some commodity exporters. The drops in GDP could therefore be greater than those considered in this exercise.

6 These spillover effects are calculated as the difference between the impact on GDP considering all the economies in the model and the impact if the spillover of each economy to third countries is excluded.

**GLOBAL ECONOMIC EFFECTS OF THE HEALTH CRISIS** (cont'd)

various economies lie behind between one-third and almost one-half of these impacts on growth, and are higher in regions, such as the euro area, characterised by greater openness (see Chart 2). On the assumption that the health crisis and the measures to contain it are temporary in nature, economies would start to recover from 2020 H2; accordingly, the world economy would grow significantly in 2021. Nevertheless, the cumulative loss of income between 2020 and 2021 would stand, depending on the scenario, at between 7% and 16% of global GDP (see Chart 3).

Discretionary fiscal policy plays a decisive role when tempering the impact of the shock and supporting the recovery in activity following the health crisis. The budgetary measures adopted, common across the three scenarios, help to mitigate by approximately 1.2 percentage points the decline in global economic growth in 2020 (see Chart 1). The impact is stronger in advanced economies, due to the greater fiscal impulse deployed, than in the emerging market economies, which have less fiscal space. These measures help to limit the cumulative

loss of global income in 2020 and 2021 by around 3.5 percentage points of GDP (see Chart 3).

The as yet limited information on activity in the current circumstances, the speed at which events are unfolding and the lack of comparable episodes in recent decades mean that these simulations are subject to an unusually high level of uncertainty. In particular, the duration of the pandemic and the medium-term implications of the containment measures for the economy are particularly uncertain. Should they remain in force beyond the timeframes considered in these simulations or should there be a significant renewed outbreak of the virus triggering the implementation of quarantine measures similar to those adopted in recent months, the adverse impact on the global economy would be even more severe.<sup>7</sup> Against this background, the coordinated application of economic policies, such as those deployed in recent months, is necessary to soften the adverse effects on households and businesses, and to put the global economy back on the path of sustained growth and job creation as soon as possible.

---

7 For illustrative examples of more adverse scenarios, with further outbreaks of the pandemic occurring in 2021, see *World Economic Outlook: The Great Lockdown*, IMF, April 2020.