

### BOX 1.3 Scenarios of possible global growth outcomes

*Since near-term global growth projections are subject to an unusual degree of uncertainty, this box presents three scenarios to illustrate possible global growth trajectories for 2020–21. In addition to a scenario consistent with baseline forecasts, a downside scenario explores the possibility of a deeper and more protracted global recession, while an upside scenario illustrates a prompt recovery. Even in the upside scenario, the 2020 global recession would be about twice as deep as the 2009 global recession. While the pandemic will have the most severe impact on advanced economies, emerging markets and developing economies (EMDEs) will also be substantially affected, with the magnitude of the downturn and subsequent recovery varying across EMDE regions.*

The range of plausible global growth outcomes remains exceptionally wide. The ultimate outcome will depend on the evolution of the pandemic, the extent and duration of measures to stem the pandemic, the size and effectiveness of policy responses, and the spillovers emanating from major economies. This box presents three alternative scenarios to help illustrate the possible growth outcomes.

The first scenario is consistent with the baseline forecast presented in Table 1.1. With risks to the baseline forecast tilted to the downside, a more adverse scenario is also examined. This *downside scenario* assumes that flareups of the virus require stringent control measures—such as lockdowns and school and business closures—to remain in place through the third quarter of 2020 in many countries and includes heightened financial stress in a number of EMDEs. In contrast, an *upside scenario* explores how rapid fiscal and monetary policy responses may succeed in supporting consumer and investor confidence, leading to a prompt normalization of domestic economic activity and financial conditions, and the unleashing of pent-up demand.

#### Methodology

Scenarios for global growth are developed by layering a set of adverse common shocks related to the COVID-19 outbreak onto the January 2020 *Global Economic Prospects* forecasts for major economies and other economic aggregates. Shocks include restrictions to slow the spread of the virus (measured as number of weeks), a sharp increase in global risk aversion proxied by an exogenous increase in the VIX, and a collapse in inbound tourism, which are cushioned in part by large-scale monetary and fiscal policy support. Moreover, each economy is expected to experience adverse spillovers from its major trading partners. The relative magnitude of each shock is scaled using a variety of quantitative tools, including a suite of global and regional vector autoregression models.<sup>1</sup>

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<sup>1</sup>Vector autoregression models based on Huidrom et al. (2020) provide well-grounded rules of thumb for the impact of financial turmoil on output and the magnitude of global spillovers from major economies.

#### Baseline scenario

##### *Growth paths*

The baseline scenario envisions that the global economy will fall into a deep global recession. Global output in 2020 would contract 5.2 percent (Figure 1.3.1). This drop would be roughly three times the rate of decline experienced during the 2009 global recession. Global trade would fall about 13 percent, in part due to the centrality of several of the economies with the largest outbreaks in global value chains (Baldwin and Tomiura 2020).

While advanced economies would be hardest hit, aggregate activity in EMDEs would also contract in 2020—for the first time in decades, in contrast to the continued expansion these economies delivered in 2009. All EMDE regions would be affected, albeit in varying degrees. The impact will be larger and the recessions deeper in EMDE regions with the most severe COVID-19 outbreaks and the most stringent restrictions to stem the pandemic, and those most susceptible to global spillovers, such as economies that are heavily dependent on tourism, economies deeply embedded in global value chains, and major exporters of industrial commodities. In particular, the largest contractions this year are foreseen to be experienced in LAC and ECA given their exposure to spillovers from major economies, followed by MNA and SSA partly reflecting the large fall in commodity prices.

A recovery would get underway in the second half of 2020 once lockdowns and other restrictions are gradually unwound; however, despite large-scale fiscal and monetary policy support, this recovery would be hesitant. Even as employment picks up, households would only slowly increase consumption—particularly when it requires social interaction—amid concerns of possible infection. Firms would hold back on increasing investment until they are confident about a vigorous rebound. International travel

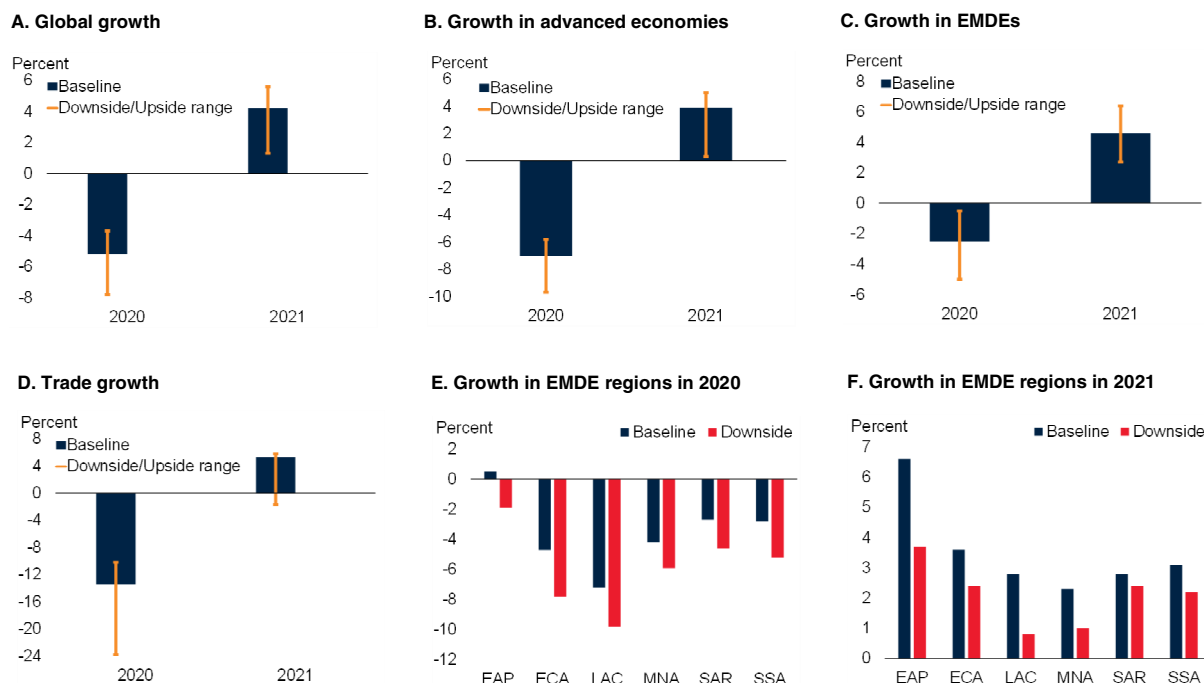
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In addition, national accounting exercises provide a regional quantification of the economic impact of domestic mitigation measures and other disruptions related to COVID-19. As discussed below, the growth impacts of fiscal and monetary policy actions are quantified using the Oxford Global Economic Model.

**BOX 1.3 Scenarios of possible global growth outcomes (continued)**

**FIGURE 1.3.1 Possible global growth outcomes**

The ultimate impact of COVID-19 on global, advanced economy, and emerging and developing economy (EMDE) growth, as well as on world trade, will depend primarily on the severity and duration of the necessary pandemic-control measures and related financial turmoil, as well as the ability of policymakers to buffer economic disruptions. All EMDE regions will be affected, albeit to varying degrees.



Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates.  
 Baseline scenario: three months of mitigation measures would be enough to stem the pandemic. A recovery would get underway once mitigation measures are lifted but would be hesitant.  
 Downside scenario: Three months of stringent lockdowns would prove insufficient and another three months of mitigation would be required before the pandemic can be brought under control.  
 Upside scenario: Mitigation measures would be lifted after three months, and all major economies would sputter back to life in the third quarter of 2020. Monetary and fiscal stimulus would remain in place and would be highly effective in supporting growth over the next 18 months.  
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would resume only slowly, weighed down by remaining travel restrictions.

Despite lingering social-distancing practices, the lifting of control measures by the end of 2020 would set the stage for a rebound in global growth in 2021. That said, the envisioned global recovery next year is moderate, with the level of global output in 2021 still 5.9 percent below that of January forecasts. This reflects various headwinds that will weigh on activity over the medium term. First, the pandemic will likely cause notable shifts in consumption and work patterns that will dampen aggregate demand. Some social-distancing habits will persist, despite the eventual development and dissemination of a vaccine.

Households will be reluctant to undertake many activities that require face-to-face interaction, such as tourism. Where possible, workers will make greater use of teleworking arrangements, reducing the discretionary consumption that arises from daily professional interactions.

Second, households and firms will strive to rebuild precautionary savings and strengthen balance sheets next year, following the precipitous declines in incomes experienced in 2020. Low-income households—which have the highest marginal propensity to consume—will be particularly cautious, as they grapple with lingering unemployment and precarious financial situations. Many

### BOX 1.3 Scenarios of possible global growth outcomes (continued)

firms, facing sharply higher debt and persistent uncertainty, will opt to cut costs, delay expansion plans, and invest in labor-saving technologies. Moreover, the positive effects from fiscal support to households and firms is expected to fade, as existing stimulus measures are phased out.

#### Assumptions

The baseline scenario is predicated on several assumptions about the evolution of activity, financial and commodity markets, and policy responses.

**Activity.** Outbreaks in advanced economies continue to slow, allowing most countries to continue to lift lockdown measures through 2020Q2; however, some control measures remain in place during the third quarter in order to prevent flare-ups. Outbreaks in EMDEs and the stringency of related lockdown measures reach their peaks somewhat later. During the lockdown period, all economies experience a precipitous collapse in a substantial share of domestic private consumption that requires social interactions, as well as of business investment and employment.<sup>2</sup>

For example, even in EMDEs excluding China that are in the least open quartile by trade openness would see output losses of about 8 percent, on average, in 2020—about one-third less than the output losses of those in the most trade-open quartile. These impacts, however, do not yet take into account the extraordinary policy stimulus being implemented, nor any additional spillovers from turmoil in financial or commodity markets as well as country-specific factors.

This would put considerable strain on balance sheets of households and smaller firms that do not have access to capital markets (Islam and Maitra 2012). Moreover, activity is further hampered by a global collapse in tourism. In general, domestic disruptions in EMDEs are magnified by large spillovers from the sharp decline in activity in major economies.

**Financial markets.** Despite interventions by central banks, bouts of financial market stress persist; financial market volatility is expected to largely subside in the second half of

2020. Past increases in borrowing costs and financial market stress are assumed to weigh on activity throughout the remainder of 2020.

**Commodity markets.** Amid plunging global growth and financial market stress, oil prices are likely to further decline, on net, reaching a trough in the second quarter, before recovering as activity stabilizes. Non-energy commodity prices would also fall, with a particularly large decline in metals prices.

**Policy responses.** In most countries, stringent control measures and large-scale support to the health sector should help slow the pandemic but will also accentuate the pandemic's heavy toll on economic activity. Large fiscal support is provided to liquidity-constrained households and firms, but the effectiveness of policy measures is hampered in part by delays and elevated uncertainty.<sup>3</sup> This will help avoid lasting damage from the economic downturn even if it provides only limited immediate boost to output growth. Aggressive monetary and financial sector policy interventions, including conventional and unconventional monetary measures, are expected to alleviate financial market volatility, but not fully control it until outbreaks subside.

#### Downside scenario: More stringent lockdown measures

In this scenario, global output would shrink by almost 8 percent in 2020, as an additional three months of stringent lockdown measures are assumed to be required before the pandemic can be brought under control, increasing the severity of the impact on global growth. During these additional three months, measures that had previously begun to ease are quickly and aggressively re-introduced. Despite additional fiscal policy support, vulnerable firms would exit, vulnerable households would sharply curtail consumption, and travel would remain deeply depressed. Disruptions to global value chains would exacerbate the collapse in global trade, which is envisioned to contract by about a quarter. These disruptions would also magnify the size of cross-border spillovers and lead to widespread

<sup>2</sup> Simulations of a large-scale global macroeconomic model suggest that the impact of a coincidence of such domestic shocks around the world will be large (Oxford Economics 2019). Relative to the baseline, global output in 2020 would collapse by 12 percent, while that of EMDEs would fall by about 9 percent. In 2020, the impact of these domestic policy shocks would be considerably larger than spillovers from external shocks.

<sup>3</sup> Despite monetary policy at or near the zero-lower bound, fiscal stimulus may be less effective when some sectors are completely shut down (Guerrieri et al. 2020). Fiscal multipliers may be lower due to high debt levels across many advanced and EMDE economies (Huidrom et al. 2019). The effectiveness of fiscal policy may also be hampered by high levels of informality, which can complicate the delivery of supportive measures (Chapter 3). Widespread informality, coupled with low financial inclusion, can also reduce the effectiveness of monetary policy (Alberola-Ila and Urrutia 2019).

### BOX 1.3 Scenarios of possible global growth outcomes (continued)

interruptions in production. Persistent and severe financial market turmoil would cause a notable spike in bankruptcies worldwide and trigger serious bouts of financial distress in many EMDEs. Simultaneously, a long period of low oil prices would lead to elevated financial stress in some vulnerable oil exporters.

The prolonged period of stringent lockdowns would weigh heavily on advanced economies, with output contracting by nearly 10 percent in 2020. Output in EMDEs would contract by almost 5 percent, with the largest declines in commodity-exporting EMDEs, including those located in the LAC and ECA regions. The recovery that follows would be markedly sluggish, hampered by severely impaired balance sheets, heightened financial market stress and widespread bankruptcies in EMDEs. In 2021, global growth would barely begin to recover, increasing to 1.3 percent, while growth in EMDEs would rise to a modest 2.7 percent.

#### Upside scenario: Prompt recovery

In this scenario, as in the baseline, pandemic-control measures would be largely lifted by the end of the second

quarter in advanced economies, and somewhat later in EMDEs. All major economies would sputter back to life in the third quarter of 2020. During the lockdown period, most of the consumption that requires any social interaction would be suspended, and external tourism would collapse amid temporary border restrictions, as in the baseline case (OECD 2020). Nevertheless, and in contrast to baseline projections, a sharp economic rebound would promptly get underway as businesses re-open, trade and travel barriers are lifted, and confidence rebounds. Financial conditions would ease substantially, and capital would quickly flow back into EMDEs, resuming its pre-pandemic search for yield. Extraordinary monetary and fiscal stimulus would remain in place and, once activity resumes, would be highly effective in supporting growth over the next 18 months. That said, even in this upside scenario, global output would contract in 2020 by about 4 percent—more than twice the pace registered in the 2009 global recession—and EMDE growth would also be negative. Global trade would fall by almost 10 percent, also worse than 2009. Once mitigation measures are fully lifted, global growth would rebound markedly in 2021, above 5 percent.

weakness in private investment that has been a feature of the past decade (Figure 1.11.D; World Bank 2018a). In previous epidemics, investment declined by nearly 10 percent five years following the event, reflecting substantial risk aversion amid heightened economic uncertainty. In many EMDEs, deep recessions will weigh on potential output for a prolonged period (Figure 1.11.E; Chapter 3).

The pandemic has also disrupted schooling at all levels, with many EMDEs having fully or partially closed their education systems in an effort to contain its spread (UNESCO 2020). Extended school closures, along with disruptions to early childhood development programs, are expected to set back learning, raise dropout rates, and slow human capital development (Figure 1.11.F; Armitage and Nellumns 2020; Burgess and Sievertsen 2020; Wang et al. 2020; World Bank 2020k, 2020l). Growing food insecurity, including disruptions to school feeding programs, could also lower long-term productivity, as

malnutrition early in life can permanently impair learning abilities.

The fallout from COVID-19 will be particularly severe in countries with widespread informality and limited safety nets (ILO 2020a). In the average EMDE, informal activity accounts for one-third of output and two-thirds of employment. In EMDEs with large informal sectors, workers and firms have limited options to buffer temporary income losses, while also being more vulnerable to adverse health impacts. Additionally, temporary workers in the formal economy suffer from gaps in social safety nets and social protection.

Growth in LICs is projected to fall to 1 percent in 2020—the lowest rate in more than 25 years. Among fragile LICs, activity will slow to a crawl, reflecting the pandemic's severe disruption to activity in countries least equipped to lessen its impact. The expected growth pickup in LICs in 2021 assumes that both domestic activity and external demand recover as the pandemic fades,