

**FOR  
INFORMATION**

EBS/21/93

October 21, 2021

To: Members of the Executive Board

From: The Secretary

Subject: **G-20 Report and Online Annex on Strong, Sustainable, Balanced, and Inclusive Growth**

Board Action: Executive Directors' **information**

Publication: Publication intended after Wednesday, October 27, 2021.

Questions: Ms. Christiansen, RES (ext. 36975)  
Mr. Habib, RES (ext. 39486)





# GROUP OF TWENTY

## G-20 REPORT ON STRONG, SUSTAINABLE, BALANCED, AND INCLUSIVE GROWTH

2021



Prepared by Staff of the  
INTERNATIONAL MONETARY FUND\*

\*Does not necessarily reflect the views of the IMF Executive Board

October 2021

# CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>ECONOMIC PROSPECTS DIFFER MARKEDLY</b>	<b>4</b>
A. Uneven Vaccine Access and Policy Support are Driving Gaps in Prospects	4
B. Low Productivity and Climate Change are Weighing on Sustainability	9
C. The Growth Outlook is Highly Uncertain, and Risks are on the Downside	11
<b>COOPERATION IS NEEDED ON MULTIPLE FRONTS</b>	<b>12</b>
A. Act Together to Save Lives Now	12
B. Multilateral Solutions are Critical for Strong and Sustainable Growth	13
<b>ADJUST MACRO POLICIES FOR STRONGER GROWTH</b>	<b>16</b>
A. Domestic Policies Should be Targeted at Growth and Inclusion	16
B. Implementing Policy Recommendations Would Smooth the Path Ahead	21
<b>FIGURES</b>	
1. Progress Toward Strong, Sustainable, Balanced, and Inclusive Growth	4
2. Vaccination Rates	4
3. Projected Output Losses	5
4. Food Price Inflation	6
5. Inflation and Commodity Prices	6
6. House Prices	7
7. Global Imbalances	7
8. Public and Private Debt	8
9. Foreign Currency Debt	8
10. Labor Market Outcomes	9
11. Routine Vaccinations	9
12. Patent Applications	10
13. Emissions and NDC Targets	10
14. Vaccine Access Gaps	12
15. Potential Job Creation in Energy and Reduction in CO <sub>2</sub> Emissions	14
16. Trade Restrictions	15
17. Policy Interest Rates	16
18. Monetary Policy	17
19. Policy Space and Change in Overall Fiscal Balances	18
20. Fiscal Policy	19
21. Structural Reform Recommendations	20
22. Education Loss and Remedial Need	21
23. Impact of Adjusting Policies to Recommendations: Real GDP and Spillovers	22
24. Impact of Adjusting Policies: Debt	22
25. Impact of Adjusting Policies to Recommendations: Demand and Current Account	23
<b>TABLE</b>	
1. Real GDP Growth	24

Prepared under the guidance of Shekhar Aiyar by a team led by Lone Christiansen and comprising Jared Bebee, Ananta Dua, Chanpheng Fizzarotti, Ashique Habib (co-lead), Adil Mohommad, Augustus Pantan, and Chao Wang. Ilse Peirtsegaele provided administrative support. Prepared based on information available as of October 14, 2021. The report does not necessarily reflect the views of G-20 members. Past G-20 SSBIG reports are available at [IMF.org](https://www.imf.org).

## EXECUTIVE SUMMARY

**The global recovery is underway amid uneven prospects and substantial downside risks.**<sup>1</sup> Large-scale vaccination programs and considerable policy support have helped save lives and lift economic activity in many economies. However, while new virus variants continue to spread, access to vaccines is lagging in many poorer economies, holding back recoveries and weighing on economic prospects, including from crisis-induced increases in unemployment. In addition, a number of factors have led to a rise in inflation, elevated public and private debt levels have raised vulnerabilities, and climate change continues to threaten growth and livelihoods. Downside risks to growth dominate.

**The G-20 should take immediate joint action to save lives and support recoveries everywhere.**

- *Close financing gaps and share doses to end the pandemic.* Further action is needed to vaccinate 40 percent of the population in every country by the end of the year. Vaccine surpluses need to be urgently shared, and an additional \$20 billion of up-front grant-based financing is needed for treatments, testing, and the procurement and distribution of vaccines in developing countries.
- *Help developing countries cope financially.* Further support through grants and concessional financing is essential. Improving the implementation of the G-20 Common Framework for Debt Treatments would ensure it is available when needed. G-20 support for channeling SDRs from the strongest economies to those more vulnerable would help further strengthen liquidity.
- *Commit to a comprehensive package to reach net-zero carbon emissions by mid-century.* A G-20 agreement on a carbon price floor, with differentiated price floors and the possibility of implementation equivalents, should be urgently sought. This would be the centerpiece of a comprehensive package to reach emissions targets with manageable transition costs, encompassing green technology R&D, green infrastructure investment, and redistributive measures to compensate those most affected by the transition.
- *Address other long-standing global challenges.* A global minimum corporate tax should be speedily implemented. Resolving trade and technology tensions and agreeing on WTO reforms and new market-opening actions would ensure a more open and transparent rules-based trading system.

**Strong macroeconomic policies and reforms can help strengthen the path ahead.**

- *Carefully tailor macroeconomic policies to circumstances.* Monetary policy should see through transitory increases in inflation but be prepared to act quickly if risks of rising inflation expectations become tangible. Clear communication to avoid adverse spillovers is more important than ever. Fiscal support must be calibrated to local conditions, while ensuring adequate support for healthcare and the most vulnerable and being embedded in strong medium-term frameworks. Macroprudential tools can help mitigate macro-financial risks amid rising vulnerabilities.
- *Finetune policy settings to strengthen the growth path.* Adjusting policies can have a meaningful impact. Continued near-term macroeconomic support, as policy space allows, followed by gradual fiscal consolidation over the medium term, and combined with structural reforms, would significantly lift long-term growth and help enhance access to opportunities for everyone.

---

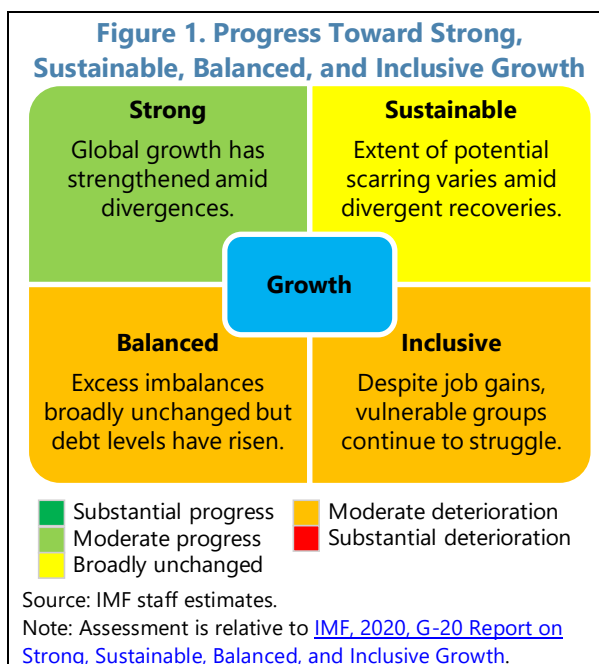
<sup>1</sup> In support of the G-20, this report discusses the G-20's progress during the past year towards the goal of strong, sustainable, balanced and inclusive growth and provides policy recommendations to help reach this goal.

# ECONOMIC PROSPECTS DIFFER MARKEDLY

Vaccine rollouts have raised prospects for global growth. Yet, vaccine access remains highly unequal, resulting in divergent prospects for different economies, and weighing on progress towards the shared goal of strong, sustainable, balanced, and inclusive growth. Meanwhile, crisis-related factors have resulted in a marked pick-up in inflation. Climate change continues to pose threats to livelihoods.

## 1. Since the 2020 G-20 Report on Strong, Sustainable, Balanced, and Inclusive Growth, the gap in economic prospects between rich and poor countries is looking more persistent.

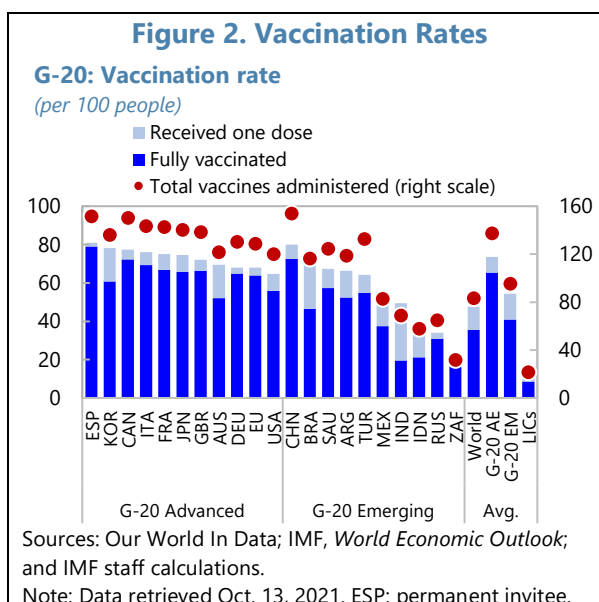
Widespread vaccinations and continuing policy support have set the stage for strong recoveries in many G-20 advanced and some emerging market economies (Figure 1). However, in many others, access to vaccines remains limited, unemployment remains significant among the most vulnerable groups—including women, youth, and the low-skilled—and potential scarring to medium-term prospects is sizable. Elevated public and private sector debt is adding to vulnerabilities, and climate change remains a threat to sustainable growth. The outlook for global growth is highly uncertain and downside risks dominate.



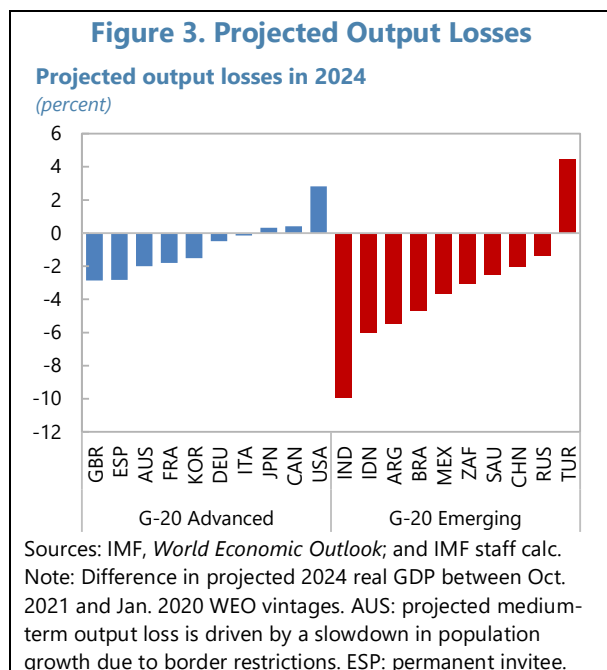
## A. Uneven Vaccine Access and Policy Support are Driving Gaps in Prospects

### 2. More than ten months since the first successful vaccines were announced, access to vaccination remains highly uneven.

Many G-20 advanced and some emerging market economies have fully vaccinated over 50 percent of their populations. However, vaccinations in low-income countries and many emerging market economies continue to lag behind (e.g., *Indonesia, South Africa*; Figure 2). As such, even as outbreaks of new COVID-19 cases have continued around the world, severe outcomes have been significantly reduced among the vaccinated, and economies with widespread vaccine coverage have seen more muted increases in deaths than economies with lower vaccination rates.



**3. While recoveries are progressing in most economies, the pace of recovery has varied markedly across countries.** After a sharp contraction of 3.1 percent in 2020, the global economy is projected to grow by 5.9 percent in 2021 and 4.9 percent in 2022 (Table 1). But the aggregate outlook masks significant cross-country differences, driven principally by differences in policy support and vaccine coverage. For example, recent indicators of manufacturing and services activity are generally stronger in economies with higher degrees of vaccinations. Relative to pre-pandemic trends, projected medium-term output losses are also largest for those economies still struggling to gain widespread access to vaccines (Figure 3).

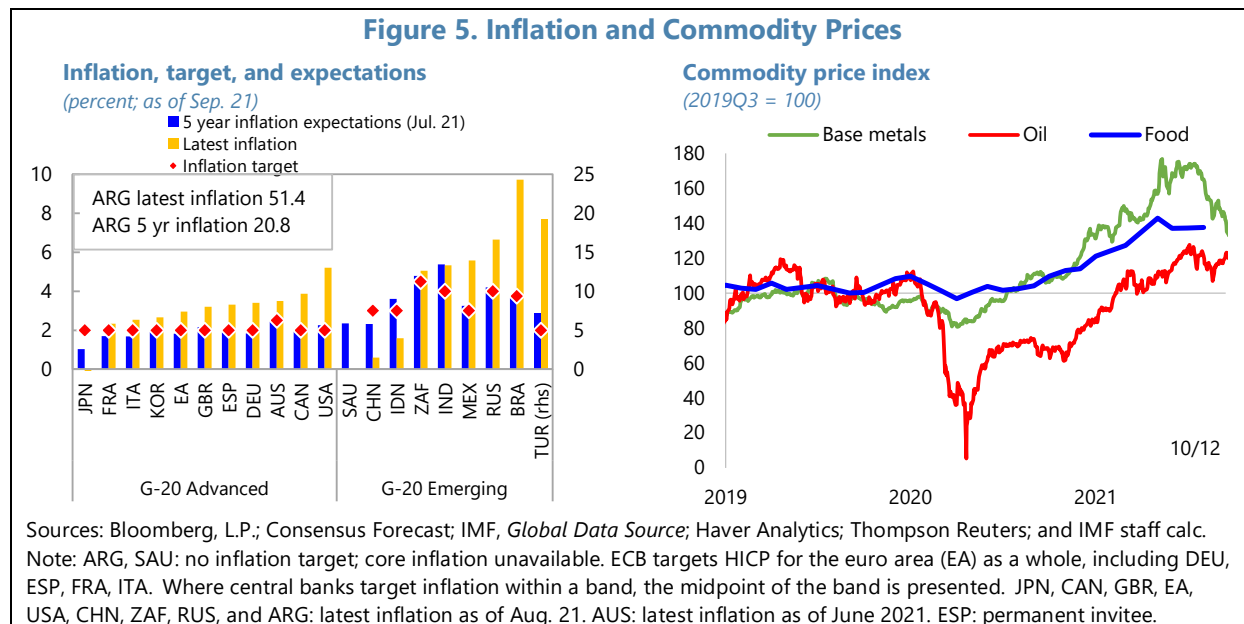
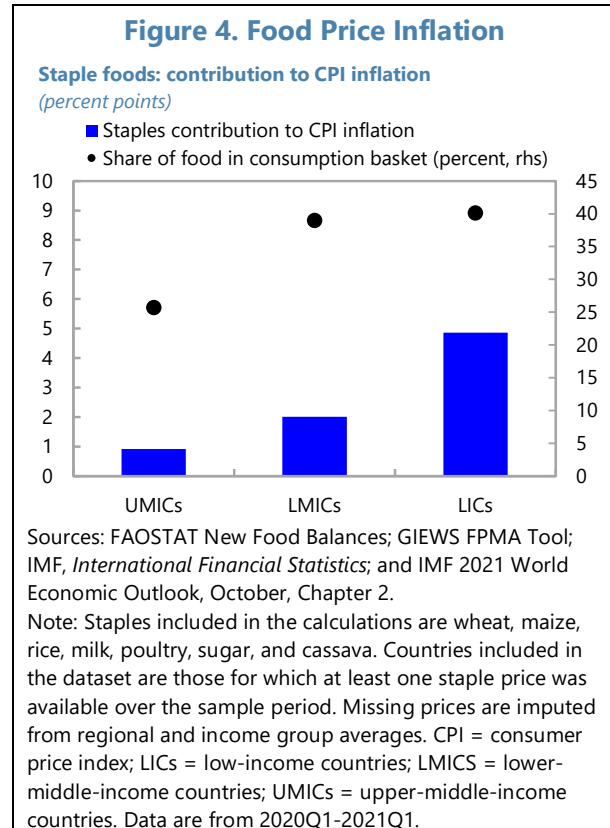


- *In many G-20 advanced economies, widespread vaccination and policy measures are supporting economic activity, though supply disruptions pose challenges.* Despite some moderation recently, high-frequency indicators point to an ongoing recovery in services, including for retail and travel, as economies re-opened (Canada, European Union, United Kingdom, United States). In some economies, output surpassed pre-pandemic levels in the second quarter (e.g., Australia, Korea, United States). However, the recovery in global manufacturing is facing headwinds amid persistent supply disruptions.
- *Activity in some emerging market economies has picked up, although relatively low rates of vaccination in many others has held back the recovery.* While the recovery in China continues and the vaccination rollout has advanced significantly, highly contagious variants of the virus have led to more frequent outbreaks and the periodic re-imposition of strict containment measures have left their mark on consumption. In addition, activity in some other economies has been somewhat stronger than anticipated, owing to greater adaptation to living with the virus and positive spillovers from major trading partners (e.g., Brazil, Mexico). However, growth this year has been set back in several emerging market economies with low vaccine coverage, amid severe COVID-19 outbreaks and necessary containment measures (e.g., India, Indonesia).

**4. Inflation has risen amid strengthening demand and bottlenecks to production, but medium-term expectations remain well anchored.** Global food prices have risen by more than 30 percent over the past year, adding to food insecurity (Figure 4). More broadly, several pandemic-related factors have contributed to the upward pressure on headline inflation. These include base effects from subdued inflation in 2020; resurgent commodity prices; shortages of shipping containers and microchips with an impact throughout supply chains (e.g., for cars); and an increase in demand from the release of pent-up excess savings as economies reopen. In turn, some economies have seen inflation rise above their central banks' policy targets (Figure 5). In some emerging market economies, exchange rate depreciation also contributed to a rise in inflation (e.g., Brazil, Turkey). However,

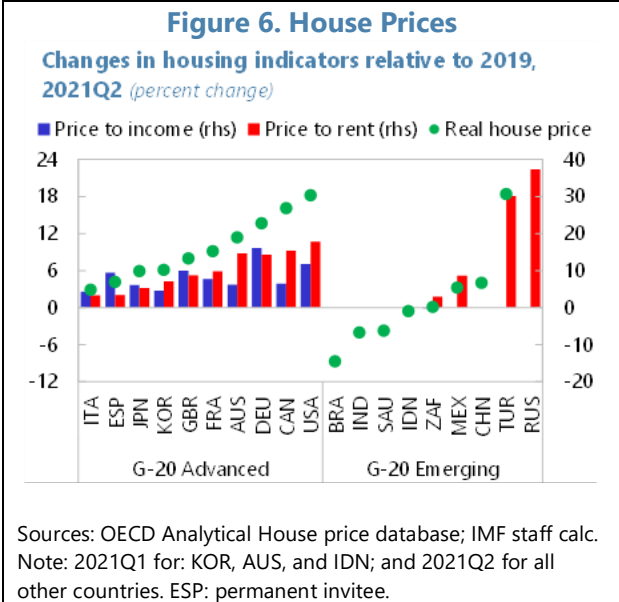
measures of core inflation remain more stable than headline inflation, and medium-term inflation expectations are generally anchored around targets.<sup>1</sup> While in some economies, elevated price pressures are likely to persist in 2022 as the higher food and oil prices continue to pass through to consumer prices, inflation in most economies is expected to return to the pre-pandemic range in 2022 as supply-demand mismatches resolve.

**5. Asset prices are buoyant and financing conditions remain easy.** House prices have risen sharply across most G-20 advanced and some emerging market economies (e.g., *Russia, Turkey*)—often faster than disposable incomes and rents—albeit in some cases from depressed levels. These increases reflect, among other factors, supply shortages and higher demand fueled by low interest rates and pandemic-induced shifts in preferences (Figure 6). Equity prices have also risen strongly on the back of accommodative policies and ongoing recoveries (e.g., *United States*). Moreover, the recovery in equity valuations has broadened across sectors. Credit conditions have generally improved in the corporate sector, helped by improved corporate balance sheets—though much variation remains across

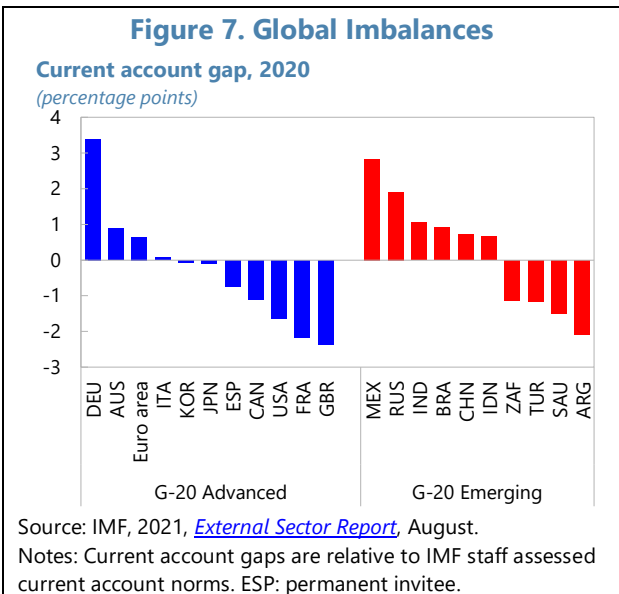


<sup>1</sup> IMF, 2021, World Economic Outlook, [Chapter 2](#), October.

countries, and tighter conditions prevail for sectors hard hit by the pandemic and for smaller firms. In *China*, financing conditions have tightened—particularly for firms with low credit ratings in light of policy efforts to reduce financial risks—and valuations of technology firms have moderated amid recent regulatory actions. Hard-currency bond issuance by sovereigns, non-financial corporations, and financials have been robust across major regions, owing to favorable external funding conditions and strong investor appetite. While hard-currency bond issuance by emerging market economies has risen sharply, local currency flows remain weak outside of *China*.



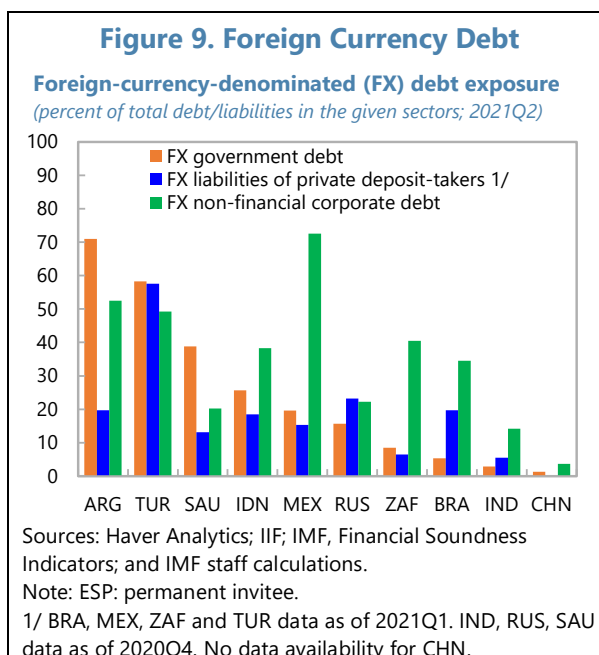
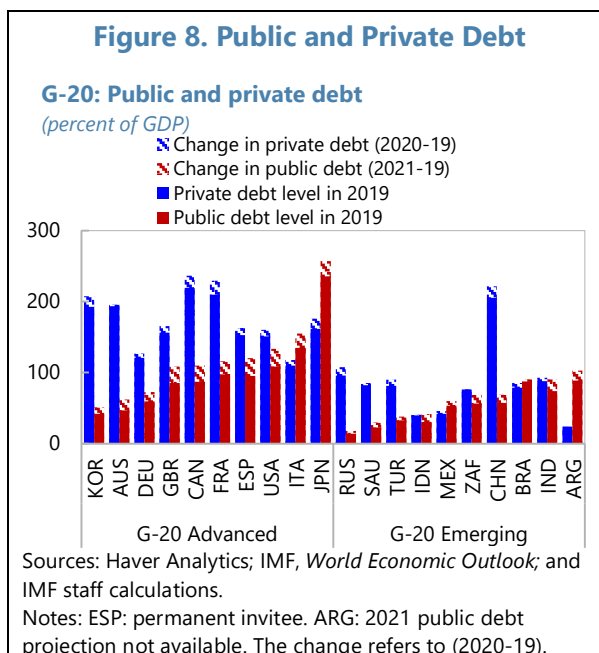
**6. Global imbalances have remained broadly unchanged.** Merchandise trade volumes have recovered alongside global growth, with demand broadening beyond pandemic-related goods as many economies reopened, though supply bottlenecks and disruptions persist. However, services trade continues to lag, with travel and tourism weighed down by ongoing COVID-19 outbreaks and cross-border restrictions. Based on the IMF’s multilateral approach to assessing external imbalances, global excessive imbalances (i.e., the sum of absolute current account gaps from desirable medium-term levels) remained broadly unchanged last year at about 1.2 percent of world GDP, after adjusting for pandemic-related factors (e.g., changes in tourism and trade in medical products triggered by the crisis).<sup>2</sup> Among the G-20 in 2020, *Canada*, *France*, the *United Kingdom*, and the *United States* had the largest excess current account deficits, while *Germany*, *Mexico*, and *Russia* had the largest excess surpluses (Figure 7). Creditor and debtor stock positions remain historically high, with valuation effects from changes in exchange rates (e.g., *Turkey*) and domestic equity prices (e.g., *Korea*, *South Africa*, *United States*) playing a meaningful role in shifting positions for some economies.



<sup>2</sup> IMF, 2021, [External Sector Report](#), August.

## 7. Debt vulnerabilities continue to build.

- Public debt has risen sharply, from already high levels for some, and is projected to remain elevated.* As of mid-2021, revenue and spending measures in G-20 economies in response to the crisis amounted to about \$9½ trillion. Another \$5½ trillion were provided in the form of equity injections and loans and guarantees. These measures were instrumental in protecting vulnerable households and firms and preventing an even worse crisis.<sup>3</sup> However, the measures—in conjunction with the underlying economic recessions—have caused sovereign debt ratios to soar to historic highs, averaging about 110 percent of GDP across the G-20 (Figure 8). While planned debt-financed public investment can help fill critical infrastructure gaps and boost growth in several economies (e.g., *European Union, United States*), and servicing costs remain contained, some face risks to debt sustainability.
- An increase in corporate sector debt has heightened fragilities.* Public sector support and low interest rates have been critical for maintaining the flow of credit and liquidity, allowing companies to take on new debt to survive lockdowns. But in consequence, corporate debt rose by about 12 percent of GDP on average across the G-20 during 2020.<sup>4</sup> In some economies, these higher debt levels may complicate the normalization of monetary policy and the withdrawal of crisis support measures, which, if not carefully carried out, could lead to a sudden wave of bankruptcies and leave corporate balance sheets impaired. In turn, this would undermine investment and weigh on medium-term growth.<sup>5</sup>
- Debt denominated in foreign currency is adding to vulnerabilities* (Figure 9). Gross external debt and financing needs remain sizable in a few economies (e.g., *Argentina*,



<sup>3</sup> IMF estimates suggest that the output decline in 2020 would have been at least three times larger in the absence of policy support. See IMF, 2021, *World Economic Outlook*, [Chapter 1](#), April.

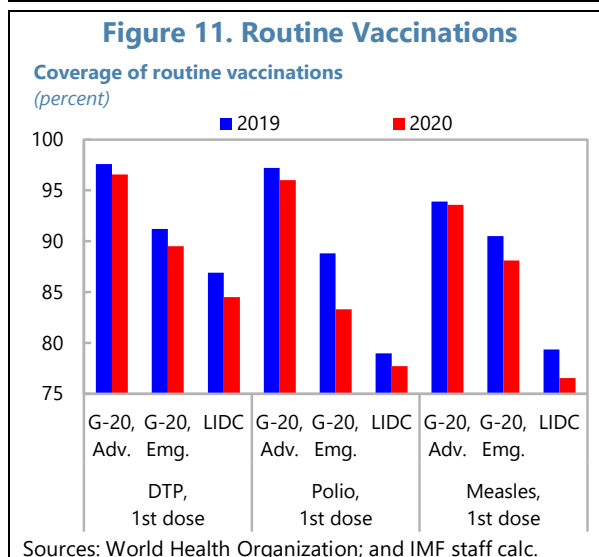
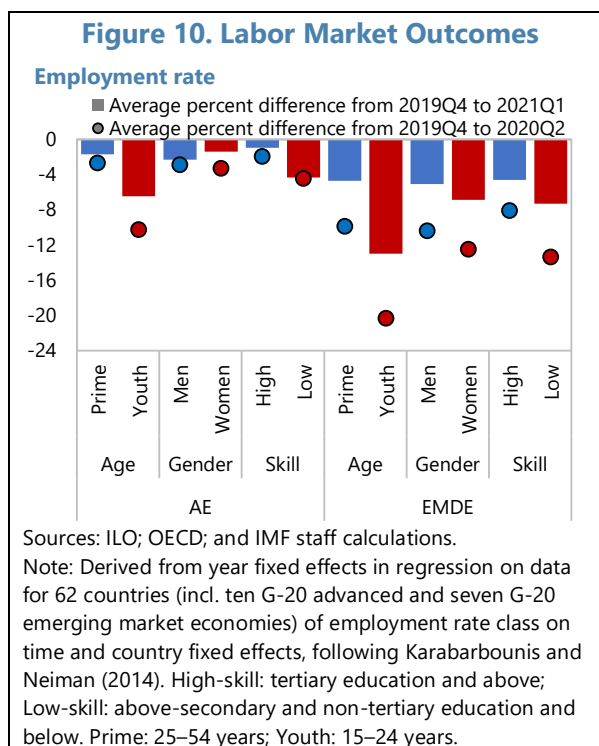
<sup>4</sup> Based on G-19 plus *Spain*.

<sup>5</sup> IMF, 2021, *Global Financial Stability Report*, [Chapter 2](#), April.

Turkey). In addition, in some economies, more than half of non-financial corporate debt is denominated in foreign currency (e.g., Argentina, Turkey). Such exposures heighten vulnerabilities to sudden capital flow reversals—a particular concern amid divergent recoveries.

**8. Despite improvements, the burden of the crisis continues to fall disproportionately on the most vulnerable groups.**

Labor market conditions have improved across G-20 economies since the height of the crisis, with unemployment rates falling across many economies. However, many people face continued challenges, including youth, women, and low-skilled people. In G-20 emerging market economies, employment rates remain well below pre-crisis levels, in particular for youth (Figure 10). Unless promptly addressed, persistent unemployment will likely erode human capital. At the same time, human capital formation is being undermined by disruptions to schooling across many G-20 economies, particularly among poorer students, and with more severe losses in economies with lower access to electricity and the internet.<sup>6</sup> In addition, the pandemic is setting back the fight against other diseases, with the number of children missing routine vaccinations (e.g., against measles) jumping by 3.7 million globally in 2020 (Figure 11).<sup>7</sup> Absent additional resources and decisive actions to remedy these health and educational losses, the long-term impacts on health and earnings will likely be severe. Going forward, elevated asset prices (e.g., of housing) may also contribute to raising inequality in some economies.



**B. Low Productivity and Climate Change are Weighing on Sustainability**

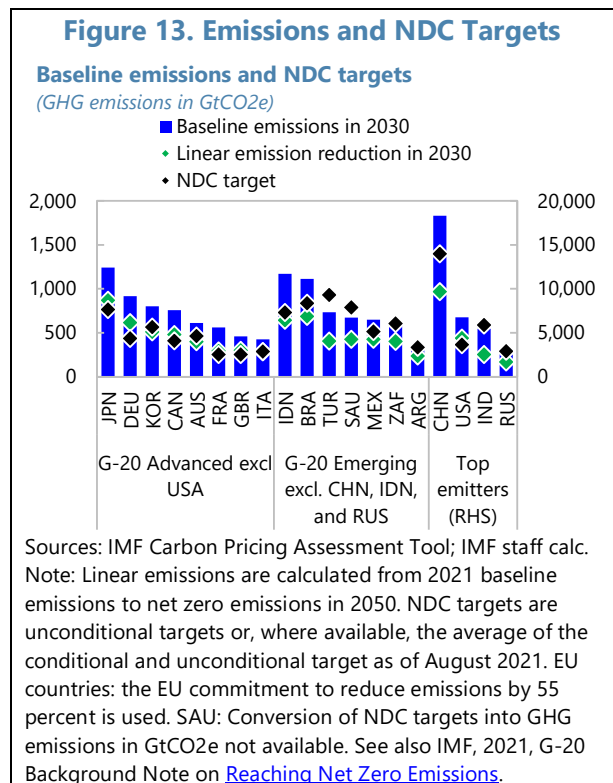
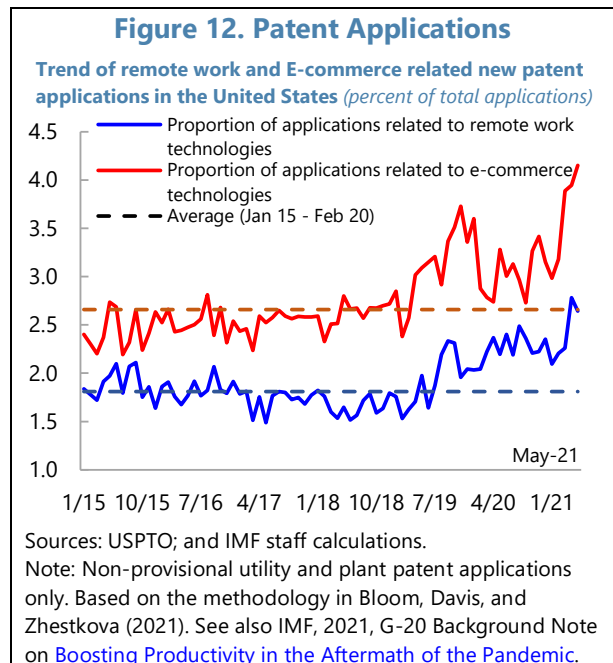
**9. Whether pandemic-induced shifts in technology adoption and resource reallocation can help reverse the pre-crisis trend of low productivity growth remains uncertain.** Across G-20 economies, and particularly in advanced ones, the pandemic has rapidly accelerated digitalization and

<sup>6</sup> IMF, 2021, World Economic Outlook, [Chapter 2](#), April.

<sup>7</sup> WHO, 2021, [Press release](#).

automation. Notably, consumers, workers, firms, and governments have tried to sustain economic activity through contactless ways of working amid social distancing and necessary lockdown measures. Moreover, new innovations, as reflected in patent statistics, have been increasingly focused on remote-work technologies and e-commerce (Figure 12). These developments carry the potential to boost productivity. Yet, investments in intangibles are particularly sensitive to financing conditions, and to the extent these conditions should tighten (e.g., if policy support measures are too hastily withdrawn), such investments may be scaled back, limiting gains to productivity. If large firms are disproportionately able to invest in intangibles, as has been the case during the pandemic, the consequent rise in their market power could also dull longer-term incentives for innovation. In addition, while policy support to firms has helped reduce the number of bankruptcies in many economies, boosts to productivity may be hindered if factor reallocation is held back and resources were to become trapped in otherwise unviable firms.<sup>8</sup> Similarly, labor market scarring, such as the adverse impact of long-term unemployment on human capital, could weigh on productivity.

**10. Climate change remains a severe threat to inclusive and sustainable growth.** Weather anomalies have continued to disrupt activity, with the effect (e.g., destruction of capital, migration of workers, and weakened investment and labor productivity) often falling disproportionately on the most vulnerable. However, notwithstanding the progress made on climate change mitigation with the Paris Agreement in 2015, even if all G-20 economies were to achieve their targets for Nationally Determined Contributions (NDCs), this would still be insufficient to maintain global average temperature increases at less than 2 degrees Celsius above the pre-industrial level. Moreover, few economies have transcribed NDC



<sup>8</sup> See also IMF, 2021, G-20 Background Note on [Boosting Productivity in the Aftermath of the Pandemic](#).

targets into law or concrete policy actions. As such, 2030 baseline emissions remain above those consistent with NDC targets across most G-20 economies (Figure 13).<sup>9</sup>

## C. The Growth Outlook is Highly Uncertain, and Risks are on the Downside

**11. Downside risks to growth dominate.** Beyond risks from climate change, a diverse array of risks may impact the outlook. On the upside, expedited vaccine rollouts could lift mobility and sentiment and boost activity. Pandemic-induced shifts in production, distribution, and payment systems could also spur productivity growth; and public investment plans, if implemented faster and more effectively than anticipated, could further raise medium-term growth. However, the balance of risks is tilted to the downside:

- *The pandemic.* The emergence of new and highly infectious variants of the virus could trigger larger and more intense COVID-19 outbreaks, with containment responses disrupting supply chains and posing renewed risks to activity. Persistent barriers to global vaccine access, along with vaccine hesitancy, would amplify the chances of adverse developments materializing.
- *Inflation and financial conditions.* Continuing supply-demand mismatches could sustain price pressures longer than anticipated, triggering faster-than-expected monetary policy normalization and tighter global financial conditions. Should this occur, some emerging market and low-income economies with limited policy space could come under pressure, intensifying divergent recoveries.
- *Financial market volatility.* Given stretched asset valuations, investor sentiment could shift rapidly in response to adverse news on the pandemic, the outlook for inflation, or policy developments. While the recent short-term lift to the *United States'* debt ceiling is welcome, failure to implement a more lasting agreement in a timely fashion could have serious implications for financial markets. Similarly, large-scale disorderly corporate debt defaults or restructuring, for instance in *China's* property sector, could reverberate widely.
- *Policy support.* Smaller-than-expected fiscal packages, for example in the *United States*, could reduce global growth, while acting as an offset to inflationary pressures.
- *Unrest.* Intensifying social unrest, for example in response to high unemployment and rising food prices, could damage sentiment and set back recoveries.
- *Real estate.* A lasting shift toward more online retail and remote work could reduce demand for some segments of the commercial real estate market. A sustained period of rapid house price growth could heighten expectations of a continued increase and lead to excessive risk taking.
- *The trading system.* The international trading system remains vulnerable to the materialization of risks, including from continued trade tensions between the *United States* and *China*. These could be compounded by supply restrictions related to vaccine production and increasingly protectionist policies to protect domestic workers as pressures from the pandemic mount.

---

<sup>9</sup> See also IMF, 2021, G-20 Background Note on [Reaching Net Zero Emissions](#).

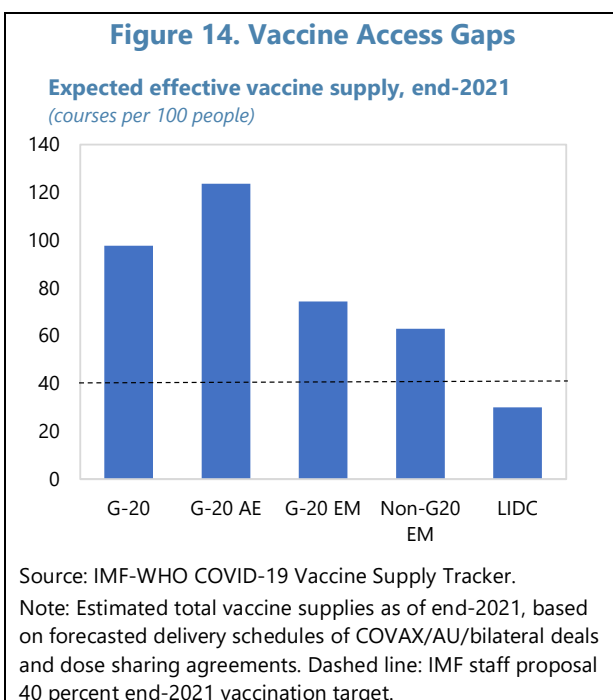
## COOPERATION IS NEEDED ON MULTIPLE FRONTS

*Urgent action by the G-20 is needed to save lives and support the global economy. This requires the sharing of surplus vaccine doses and support to the poorest economies to help close financing gaps for vaccines, testing, and therapeutics and to ensure sufficient liquidity through the crisis. In addition, decisive actions to transition towards a carbon-neutral economy must not be postponed. Implementing a global minimum corporate tax and buttressing the international trade system will also be essential.*

### A. Act Together to Save Lives Now

#### 12. G-20 leadership is promptly needed to defeat the pandemic.

Since the start of the pandemic, G-20 economies have helped provide funding for vaccines, diagnostics, and therapeutics through the ACT Accelerator and in-kind donations of vaccines to COVAX. However, as set forth in the IMF staff proposal,<sup>10</sup> endorsed by the WHO, WTO, and the World Bank, a coordinated global strategy remains critical for ending the pandemic everywhere. The key elements of the proposal's strategy include vaccinating at least 40 percent of the population in all economies by end-2021 and at least 70 percent by mid-2022;<sup>11</sup> tracking and insuring against downside risks; and addressing financing gaps to ensure widespread availability of vaccines, diagnostics, and therapeutics. Unless prompt action is taken to resolve vaccine access



and distribution challenges, many low-income and developing countries will not reach these goals (Figure 14). Notably, it remains urgent to ramp up the supply and sharing of vaccines with developing economies (including through delivery swaps with COVAX/AVAT and accelerating deliveries of existing dose sharing commitments); remove trade barriers on vaccines and related materials; and address financing gaps (including through about US\$20 billion in grants) to ensure adequate supplies of diagnostics and therapeutics, as well as support the procurement and distribution of vaccines. Beyond the near term, it will be important to diversify the production of vaccines and other health tools, including by supporting the expansion of regional manufacturing capacity of vaccines in developing economies through financing and technology transfer solutions. Swift action can help save

<sup>10</sup> Agarwal and Gopinath, 2021, [A Proposal to End the Pandemic](#).

<sup>11</sup> The 70 percent target is driven by the health and economic imperatives of stopping the pandemic as rapidly as possible. It is higher than the originally proposed 60 percent target given the rise of more infectious variants; is consistent with the downside risk scenario in the original IMF staff proposal (in which 1 billion *additional* doses were designated for low- and lower-middle income countries); and is aligned with the updated WHO global vaccination strategy. National targets may need to be adjusted based on age demographics and policy developments.

lives and boost global economic activity by trillions of dollars—many multiples of the outlays necessary to meet this objective.<sup>12</sup>

**13. Further action to strengthen the global financial safety net would help ensure that developing economies have the resources to safeguard their recoveries.** The extension of the G-20 Debt Service Suspension Initiative (DSSI) to end-2021 has freed up valuable resources for developing economies to fight the pandemic. In addition, the G-20 Common Framework for the Treatment of Debt beyond the DSSI has been a welcome step forward for addressing unsustainable debt burdens, as is the G-20's recent commitment to step up implementation efforts.<sup>13</sup> It is now critical that remaining implementation challenges be resolved. The recent \$650 billion SDR allocation will help address the long-term global need for reserves.<sup>14</sup> Notably, it has boosted the reserves of all IMF members, built confidence, and fostered the resilience and stability of the global economy. About US\$275 billion of the new allocation will go to emerging market and developing economies, including low-income countries. However, despite these efforts, financial needs in developing economies remain substantial. Going forward, G-20 backing for voluntary channeling of SDRs from economies with strong external positions to more vulnerable economies would help strengthen liquidity, meet health-related expenditures, and support more inclusive and sustainable recoveries. Additional loans and subsidies to support concessional financing for poorer economies would also be welcome.

## B. Multilateral Solutions are Critical for Strong and Sustainable Growth

**14. Decisive action to counter climate change, including at the upcoming COP26 summit, will be critical to avoid potentially disastrous consequences for people and growth.** New pledges ahead of the COP26 Summit for reaching net-zero carbon emissions are welcome. However, much remains to be done and concrete plans are essential.

- *Implement a comprehensive policy package to reach the goal of net zero emissions by 2050 in a growth and employment-friendly manner.*<sup>15</sup> Such a package should ideally encompass carbon pricing or regulatory equivalents, green R&D, green infrastructure investment, and redistribution to support vulnerable groups and workers in industries adversely impacted by the transition. Helpful investments would include those in renewable energy generation, improved energy efficiency, and infrastructure for low-carbon transport systems, including electric vehicles (e.g., encouraging the adoption of electric vehicles as done in *China, France, and Germany*; enhancing green energy production and use as done in *Korea and Saudi Arabia*). Public investment would also catalyze private investment, which could be further supported through appropriate incentives (e.g., credit enhancements, tax credits). Notably, evidence suggests that increasing the share of renewable electricity generation, and enhancing energy efficiency to reduce overall energy consumption, has the potential to create more jobs in energy generation than are lost from the reduction in fossil-fuel-based generation—as renewable technologies are more labor-intensive

---

<sup>12</sup> See for example analysis of lives saved in IMF, 2021, [G-20 Surveillance Note](#), July.

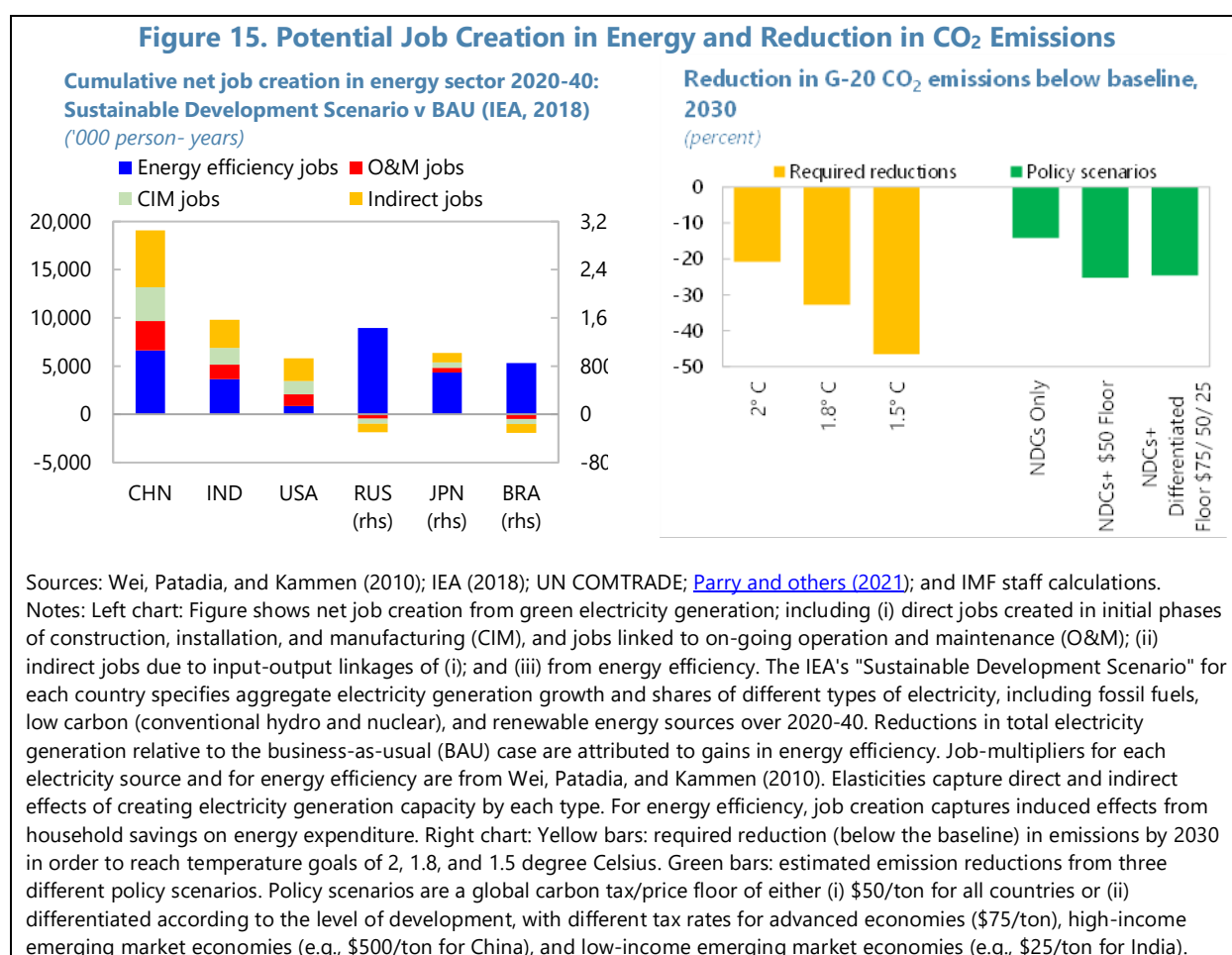
<sup>13</sup> G-20, 2021, [Communiqué](#), October.

<sup>14</sup> IMF Press Release, [IMF Governors Approve a Historic US\\$650 Billion SDR Allocation of Special Drawing Rights](#).

<sup>15</sup> IMF, 2020, [Mitigating Climate Change: Growth and Distribution-Friendly Strategies](#).

than fossil-fuel technologies (Figure 15, left panel).<sup>16</sup> The broader labor market impact during the transition would, however, also depend on the overall policy mix employed to attain the climate objectives.

- Consider an international carbon price floor to support the transition. Building consensus among the G-20 to implement a carbon price floor arrangement—potentially with a differentiated price floor by level of development and with the possibility of implementation equivalents—could be instrumental in putting the world on a stronger path toward carbon-neutrality (Figure 15, right panel).<sup>17</sup> Such a floor would facilitate transparency as well as help prevent any potential adverse impacts on competitiveness from unilateral action. Notably, internationally coordinated carbon pricing would mitigate the desire for economies with unilateral aggressive carbon pricing to implement border carbon adjustments.



- Support mitigation and adaptation efforts in emerging market and developing economies through financial and technology transfers. Emerging market and developing economies are expected to incur greater costs along the transition. Developing economies are also likely to face sizable

<sup>16</sup> IMF, 2020, World Economic Outlook, [Chapter 3](#), October.

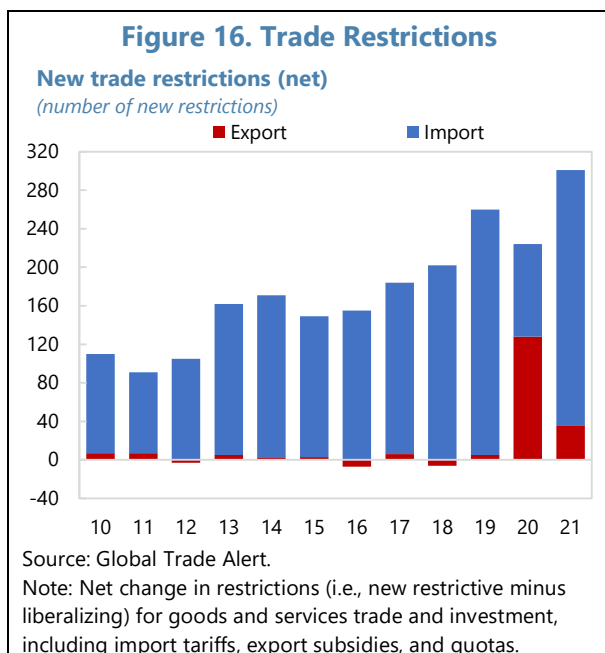
<sup>17</sup> Parry and others, 2021, [Proposal for an International Carbon Price Floor among Large Emitters](#).

investment needs for climate adaptation as well as higher costs of sovereign debt. At the same time, many of the world’s lowest-cost mitigation opportunities are in emerging market and developing economies, and it is in the global interest to make sure these are pursued. In this regard, financing under the proposed IMF-administered Resilience and Sustainability Trust could support efforts to mobilize resources for climate action.

**15. Tackling longstanding global challenges, including on corporate taxation and trade, will set the stage for a sustainable and balanced recovery.**

- *Implement a global corporate minimum tax.* The recent endorsement of G-20 Finance Ministers and Central Bank Governors<sup>18</sup> of a global minimum corporate tax is welcome. A global agreement puts a floor on tax competition, limits profit shifting, and incentivizes countries to attract investment on the basis of their structural competitiveness. It is now essential that it is speedily implemented.

- *Address existing disputes and challenges related to the international trading system (Figure 16).* The recent steps taken to resolve long-standing trade disputes (e.g., the *European Union* and the *United States* regarding aircrafts) and the reversal of many pandemic-induced restrictions on medical goods are welcome. However, much of the sharp increase in pre-pandemic trade restrictions remain in place, including the tariffs imposed in 2018–19 between *China* and the *United States*, and should be lifted. Resolving bilateral trade and technology tensions, including by strengthening WTO rules on farm and industrial subsidies, restoring effective dispute settlement, and concluding new market-opening agreements in areas such as digital trade, investment facilitation, and services would help buttress an open, stable, transparent, and rules-based trading system and help to restore its full role as an engine of prosperity.



<sup>18</sup> G-20, 2021, [Communique](#), July.

# ADJUST MACRO POLICIES FOR STRONGER GROWTH

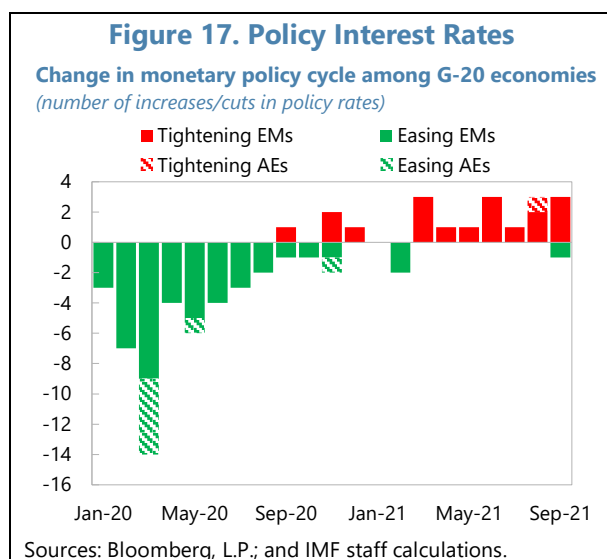
*Fiscal policy will need to be tailored to local economic and pandemic conditions. Monetary policy should be prepared to act if risks of de-anchoring of inflation expectations become tangible. As the recovery takes hold, a gradual return to rebuilding buffers will be warranted. Combined with structural reforms, implementation of IMF staff policy recommendations would facilitate a stronger, more sustainable, more balanced, and more inclusive growth.*

## A. Domestic Policies Should be Targeted at Growth and Inclusion

### Monetary Policy

#### 16. Monetary policy remains accommodative in most economies, despite some tightening.

Decisive actions by G-20 central banks and financial regulators following the onset of the crisis helped stabilize financial markets and sustain the flows of credit and liquidity to the economy. Since then, overall policy rates have generally remained low. However, pressures to gradually withdraw support are building, amid an increase in inflation and rising financial vulnerabilities (e.g., from rising house prices). Several emerging market economies have started to raise policy interest rates (Figure 17). In addition, some central banks have gradually started tapering of asset purchases (e.g., *Australia, Canada*), and in August, *Korea* became the first G-20 advanced economy central bank to raise policy interest rates since the onset of the pandemic. The *United States* Federal Reserve has also signaled that tapering of asset purchases could begin by end-2021, while keeping interest rates unchanged at current accommodative levels, and the European Central Bank has signaled a possible slowing of the pace of asset purchases, while maintaining flexibility to act, should the recovery continue to strengthen and the inflation outlook improve meaningfully toward the target.



#### 17. Monetary policy is projected to remain appropriately accommodative in most economies in the near term, but central banks will need to stand ready to act according to circumstances.

In line with IMF staff recommendations, the majority of G-20 economies are projected to maintain an expansionary monetary policy stance in 2021, reflecting the need for sustained policy support amid well-anchored inflation expectations (Figure 18). In this respect, major G-20 central banks should—and are expected to—avoid raising policy rates prematurely in response to temporary spikes in inflation. But central banks should stand ready to tighten monetary policy in the event that risks of de-anchoring inflation expectations become tangible. In contrast, additional monetary policy support (relative to projected policy stances for 2021) would be beneficial where inflation is under-

shooting the target and the monetary stance is somewhat tight (e.g., *China*). Looking ahead, some economies would also benefit from a looser-than-projected stance in 2022 (e.g., *China, Korea, Mexico, Russia*). In contrast, a firmer policy stance in *Turkey* would help buttress credibility and contain inflation. Across the G-20, clear communication by central banks on the outlook for inflation and monetary policy intentions is critical to appropriately guide expectations and limit financial market volatility. Such actions by major central banks would also help minimize adverse spillover risks to emerging market economies that are lagging in their recoveries.

### Fiscal Policy

#### 18. Fiscal policy has helped support households and firms but options for further measures are increasingly constrained.

Examples of actions to provide vital support for vulnerable households include utilizing existing financial inclusion programs and institutions (e.g., *China, India*); providing targeted support to children (e.g., *Russia*); and expanding unemployment benefits and other measures to protect displaced workers (e.g., *Germany, United States*), including for informal workers (e.g., *Brazil*) and migrants (e.g., *China*). Many economies also introduced or enhanced measures to help maintain employer-employee relationships (e.g., *Australia, Germany, Japan, United States*); and provided targeted support to affected sectors and firms (e.g., *Saudi Arabia, Spain*), including in ways that pushed forward climate objectives (e.g., *France*). Looking ahead, nearly all G-20 economies are projected to maintain 2021 and 2022 fiscal balances below 2019 levels—despite some withdrawal of support as crisis measures gradually expire. As such, notable policy support remains present relative to pre-pandemic projections (Figure 19). However, fiscal space is increasingly limited and debt levels elevated in several emerging market economies.

Figure 18. Monetary Policy

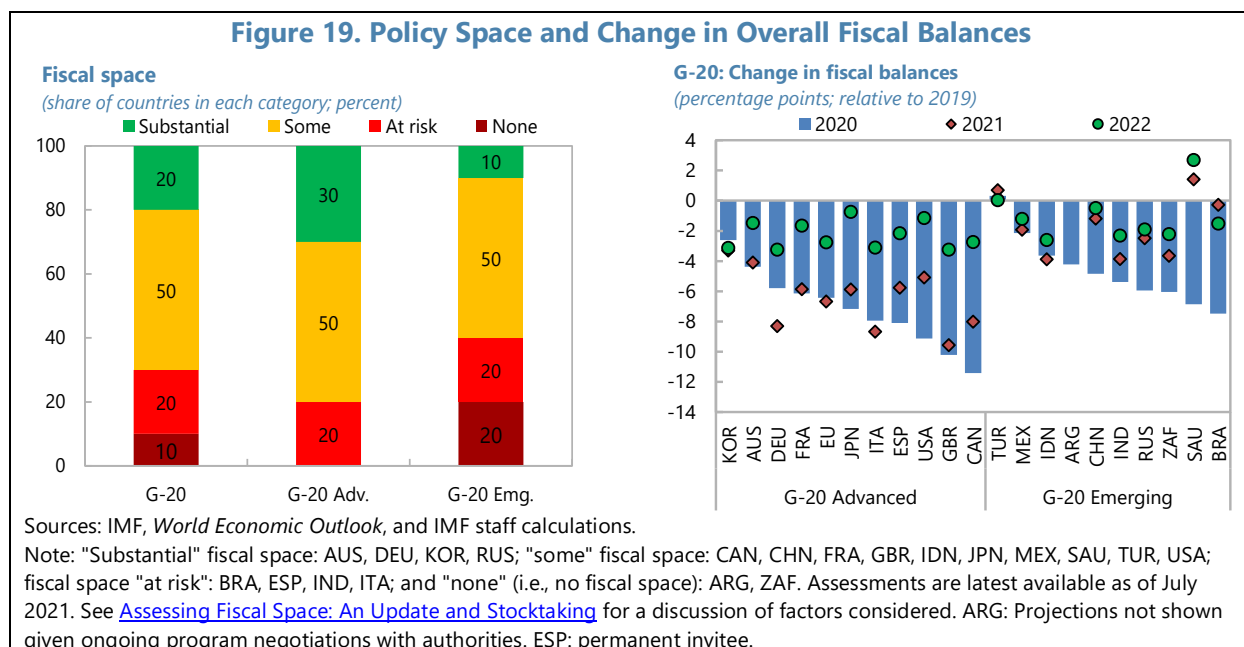
	Projected monetary stance		Difference between recommended and projected monetary stance	
	2021	2022	2021	2022
AUS	Green	Green		
CAN	Green	Green		Down arrow
Euro area	Green	Green		
GBR	Green	Green		
USA	Green	Green		
JPN	Green	Green		
KOR	Green	Yellow	Up arrow	Up arrow
BRA	Green	Orange		
ZAF	Green	Green		
TUR	Green	Green	Down arrow	Down arrow
ARG	Green	White	Down arrow	
IND	Green	Green		
MEX	Green	Yellow	Up arrow	Up arrow
IDN	Yellow	Yellow		
RUS	Yellow	Orange		Up arrow
CHN	Orange	Orange	Up arrow	Up arrow

Key (stance)		Key (difference)	
Neutral	White	Substantially more expansionary: $\Delta ir < -100$ basis points	Up arrow
Moderately expansionary	Light Green	Moderately more expansionary: $-100$ basis points $\leq \Delta ir < 0$	Green arrow
Substantially expansionary	Green	Unchanged: $\Delta ir = 0$ (approximately)	White
Moderately contractionary	Light Orange	Moderately more contractionary: $0 < \Delta ir \leq 100$ basis points	Down arrow
Substantially contractionary	Orange	Substantially more contractionary: $\Delta ir > 100$ basis points	Red arrow

Sources: IMF staff estimates and recommendations.  
 Note: Green arrow: recommendation of a more expansionary (less contractionary) stance than projected. Red arrow: recommendation of a more contractionary (less accommodative) stance than projected. Euro area: ECB conducts monetary policy for the euro area as a whole, incl. for DEU, ESP, FRA, and ITA. ARG: projections and recommendations for 2022 are not shown given ongoing program discussions with authorities. SAU: has a fixed exchange rate. ESP: permanent invitee.

**Figure 19. Policy Space and Change in Overall Fiscal Balances**



**19. Amid unique challenges, near-term policy support will need to be tailored to local conditions.** Across all economies, the priority remains to ensure adequate support for healthcare and the most vulnerable people. Strengthening medium-term fiscal frameworks, such as through a transparent set of institutions and rules that guide fiscal policy, would also help buy time and space for near-term fiscal support while rebuilding fiscal space over the longer term, as well as enhancing the scope for monetary policy to maintain support.<sup>19</sup> In some economies, job retention programs and expanded unemployment benefits may also be warranted, and support to viable firms facing temporary liquidity or solvency risks can continue to help prevent excess bankruptcies. However, differences in the stage of the pandemic and economic conditions imply that policies will need to be carefully tailored at the country level. For example, some economies would benefit from greater-than-projected fiscal support in 2021, before gradually shifting towards tighter stances later on (Figure 20). In *China*, medium-term economic rebalancing would be facilitated by a more accommodative near-term fiscal policy that is combined with a compositional shift away from investment and towards household support and strengthened social safety nets.<sup>20</sup> For some economies with limited fiscal space or high debt, a gradual withdrawal of support is projected this year, in line with recommendations (e.g., *Brazil, South Africa*).

**20. As economic recoveries progress, policy support will need to be carefully targeted to avoid hindering the post-pandemic economic transformation.** Support for firms and short-term work schemes should be gradually scaled back to preserve fiscal space and to avoid hindering the

<sup>19</sup> It should be acknowledged that estimation of output gaps, cyclically adjusted fiscal balances, and the extent of scarring to potential output is highly uncertain in the current context of large changes in growth.

<sup>20</sup> When assessing the impact of adjusting policies to IMF staff recommendations (see Section B below), simulations assume that only a quarter of the recommended 2021 fiscal impulse in *China* relative to projections is implemented as the full difference would be difficult to implement within the remaining year.

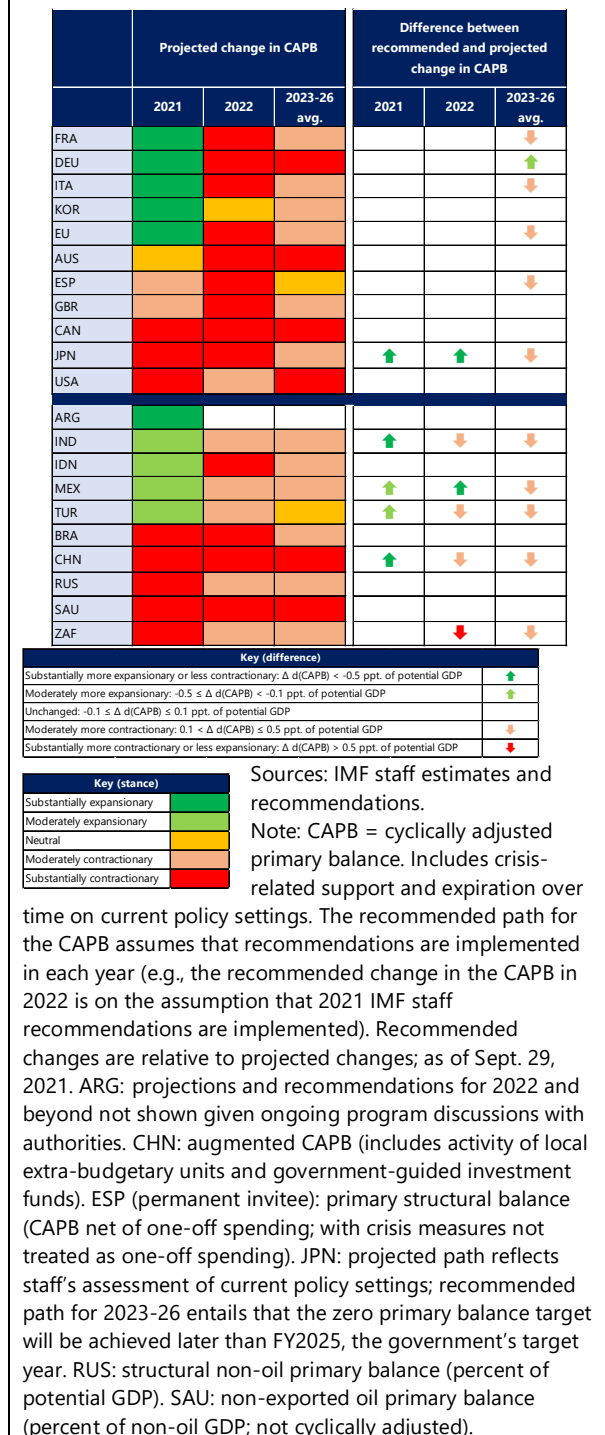
reallocation of resources to growing sectors, while ensuring adequate protection for workers in the transition to new jobs. Facilitating training and reskilling, job search and matching assistance, as well as hiring subsidies will be important to ensure that people are equipped to take on new job opportunities. As such and on the back of sizable fiscal measures in 2020, some economies are appropriately starting to scale back support this year (*Canada, United States*), and most economies are projected to scale back overall fiscal support in 2022. In some economies, additional withdrawal of support next year, beyond projections, would be warranted to help contain the increase in debt (e.g., *South Africa*). Across the G-20, incorporating green and digital investments in recovery packages can help lift demand and employment, enhance access to opportunities, and address climate change.

**21. Over the medium term, fiscal policy should aim to reinforce fiscal sustainability and contain debt.** Nearly all G-20 economies are projected to withdraw fiscal support over the medium term to help put public sector debt on a downward path. Yet, additional measures beyond those embedded in the projections are advisable in several economies (e.g., *France, India, Italy, South Africa, Spain, Turkey*). By contrast, *Germany* should use its ample fiscal space to further ramp up public investment over the medium term to help lift potential growth.

### Financial Sector Policy

**22. Financial sector policies should be focused on mitigating risks to help ensure stability.** Implementing macroprudential tools, and tightening measures where appropriate, will help contain the build-up of vulnerabilities. As policy support is withdrawn, some bankruptcies may ensue. Hence, strong corporate resolution mechanisms are essential to address non-viable and distressed firms and prevent resources from being kept idle for a prolonged period. The increase in house prices in many economies will also need to be carefully monitored (e.g., *United States*), and in some economies, macroprudential policies may need to be tightened should they continue to rise

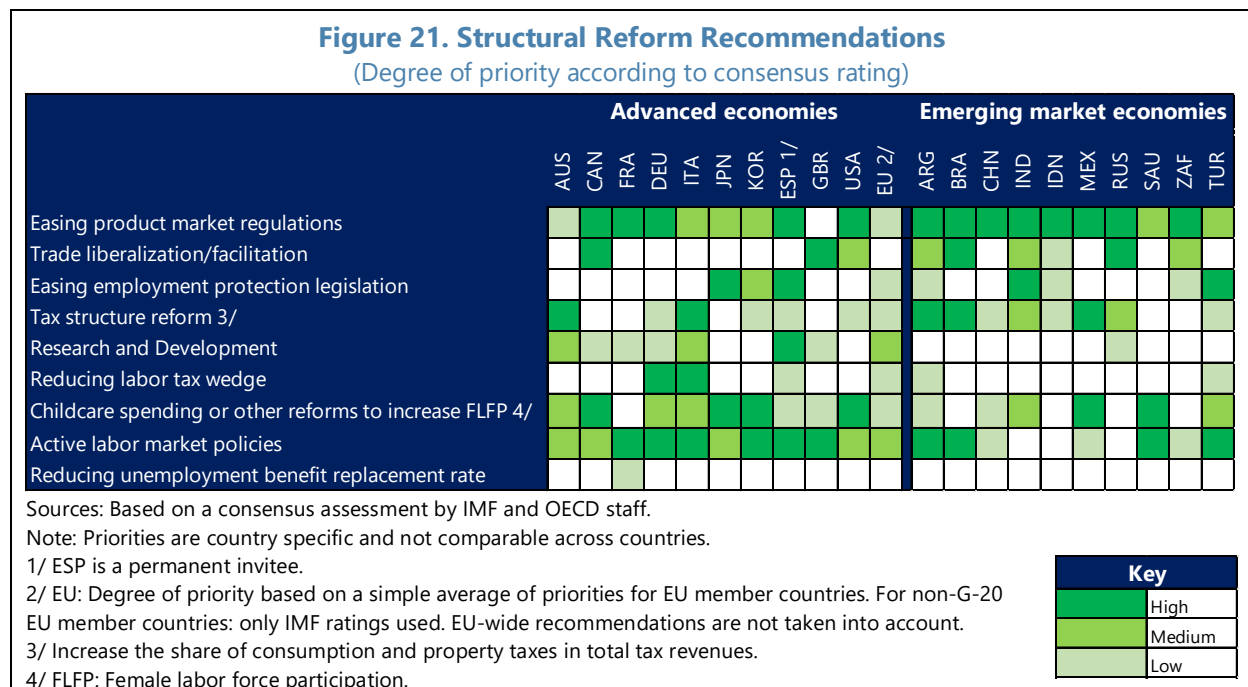
**Figure 20. Fiscal Policy**



and lending standards deteriorate. Credit risks emanating from on-going structural realignments in the commercial real-estate sector (e.g., *Germany, United States*), such as the shift to online shopping and remote work, should be monitored closely, and the introduction of appropriate macroprudential tools considered. Moreover, amid persistently low interest rates, challenges remain for the banking sector as well as nonbank financial institutions (e.g., related to nonbank mortgage lenders in the *United States*). As such, policymakers should consider if available tools are sufficient for careful monitoring and assessment of risks in the nonbank financial sector. In *China*, corporate restructuring and insolvency frameworks need to be strengthened to facilitate market-based exit of nonviable firms, while the authorities should stand ready to take the necessary steps to safeguard financial stability if signs of systemic financial stress were to develop.

## Structural Reforms

**23. Implementing growth-enhancing reforms would help boost human capital and productivity and support a sustainable recovery.** The consensus assessments by IMF and OECD staff of structural reform needs highlight several areas of focus (Figure 21). Across most economies, further easing of product market regulations and implementation of active labor market policies are needed, including to facilitate the reallocation of resources from shrinking to expanding sectors and firms. Support for childcare and other reforms to support women’s participation in the labor market would support growth and inclusion. Amid the need to strengthen fiscal balances and reduce debt, tax structure reform to help increase the share of consumption and property taxes in total tax revenue would also be beneficial. In several advanced economies, reforms to boost R&D would be desirable, not least in a context of increased demand for digitalization and a need to boost productivity and the need to develop and enhance low-carbon technologies to facilitate the green transition.

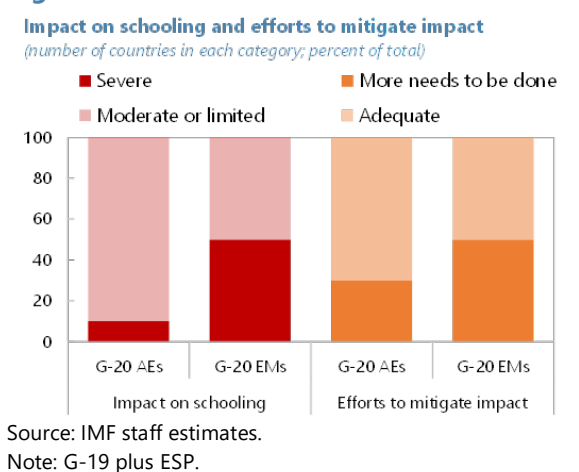


**24. Policies that minimize pandemic-related learning losses and adverse health outcomes are critical to promote human capital accumulation, productivity, and inclusion.**

Amid severe schooling losses in many G-20 economies, especially among emerging market economies, additional action is needed to repair the damage (Figure 22). Economies will need to implement further measures (e.g., remedial training for teachers, tutoring for students, adjusting school years) to help mitigate the losses to student learning.<sup>21</sup> To minimize the damage to health outcomes, many countries will

need further investments to restore health care services, including programs for routine immunizations.<sup>22</sup> To build more inclusive post-pandemic economies, increased funding to the education sector is essential in many economies for ensuring that all children have access to basic education, buttressed by investments in early childhood education programs and better health care.<sup>23</sup> In addition, greater access to digital infrastructure, including the provision of internet access, remains important for enhancing access to opportunities for everyone—not least in an increasingly digital world where online learning for many children has been the only means of schooling during the pandemic. At the same time, some economies will need to expand the coverage of benefits and transfers (e.g., *China, Mexico*) and undertake reforms aimed at job creation (e.g., *Argentina, Brazil, South Africa*).

**Figure 22. Education Loss and Remedial Need**



**B. Implementing Policy Recommendations Would Smooth the Path Ahead**

**25. Adjusting policies to align with IMF staff recommendations across the G-20, would help strengthen the future of the global economy.<sup>24</sup>**

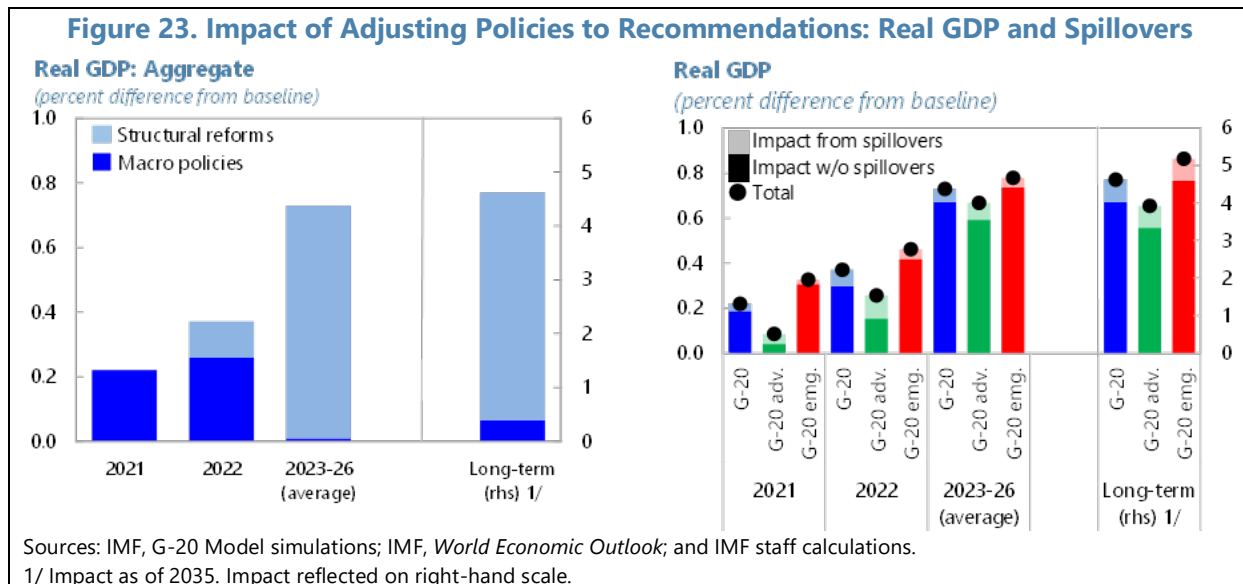
- *Over the near term, adjusting policies from their current settings to IMF staff recommendations would help lift aggregate real GDP in the G-20.* Additional fiscal support (relative to projections on current policy settings) in *China* and some other emerging market economies (e.g., *India, Mexico*), in addition to looser monetary policy in a few economies (e.g., *China, Mexico*), would help provide a sizable impetus to growth this year and next, despite some policy tightening elsewhere (Figure 23). Aggregate GDP would rise further above the baseline as the benefits of structural reforms also begin to materialize.

<sup>21</sup> IMF, 2021, World Economic Outlook, [Chapter 2](#), April.

<sup>22</sup> UNICEF, 2021, [Press release](#), July.

<sup>23</sup> IMF, 2021, Fiscal Monitor, [Chapter 2](#), April.

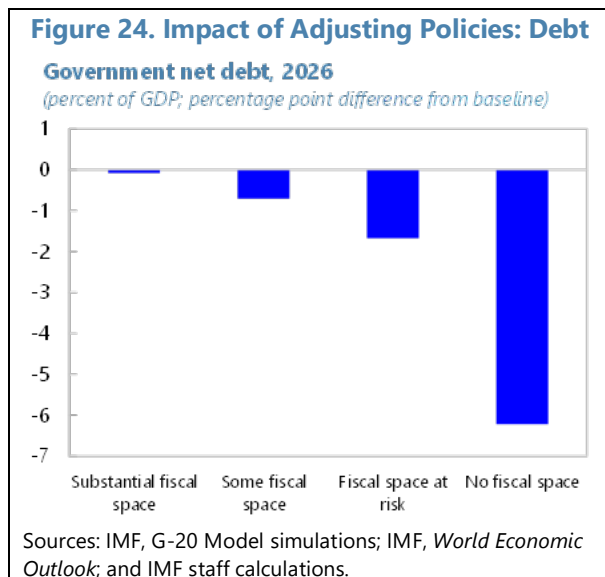
<sup>24</sup> The macroeconomic impact of adjusting policy settings is assessed using the IMF’s G-20 Model. Details of the model are described in Andrie and others, 2015, “[The Flexible System of Global Models—FSGM](#)”, IMF Working Paper.



- Over the medium and long terms, gains from structural reforms would carry growth forward, while fiscal policy would focus on rebuilding buffers. Going forward, the need for additional fiscal consolidation to contain debt levels and reduce sovereign risk across several G-20 economies will likely dampen macroeconomic support for activity. However, sizable gains from structural reform efforts would gradually materialize. At the same time, spillovers from implementing the recommended policies across the G-20 will add to the boost in activity. As such, the additional growth induced by the recommended policies would allow governments to expand resources devoted to tackling inequality.

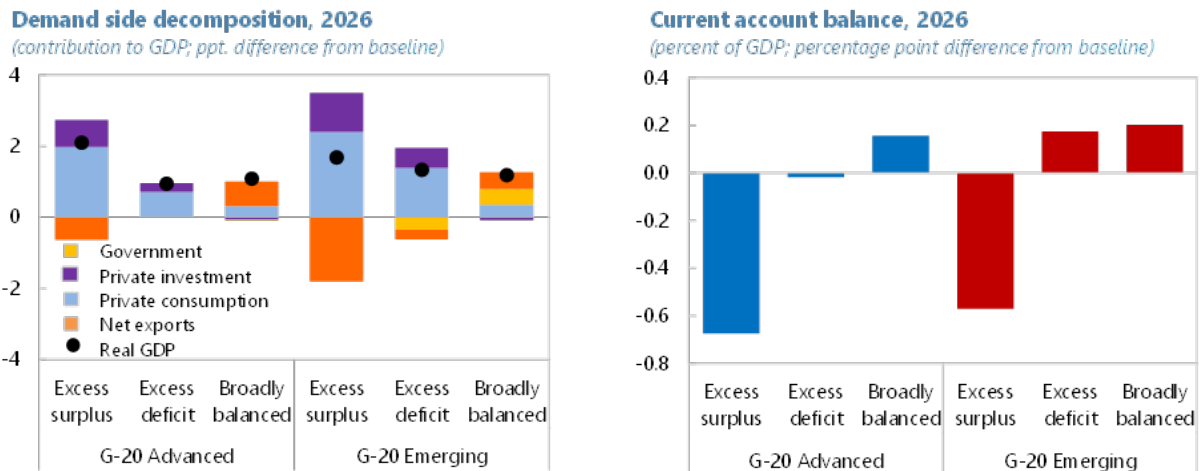
**26. Implementing the recommended policies would improve the debt outlook for the most constrained G-20 economies and help reduce external imbalances.**

- The recommended actions would enhance debt sustainability. The boost to growth in economies with some degree of fiscal space, including from growth-enhancing structural reforms, would lower debt ratios in the medium term, despite the recommendation for more near-term fiscal support in a few such economies (e.g., *China*). Moreover, the gradual consolidation of fiscal balances over the medium term in economies with no fiscal space or fiscal space at risk (e.g., *Italy, South Africa, Spain*), combined with growth benefits from structural reforms, would allow for a significant reduction to debt levels as a share of GDP, thereby helping to strengthen fiscal buffers (Figure 24).



- *The resulting shifts in the composition of demand will help support rebalancing.* The overall impetus to growth would help lift demand, including through increased incentives for additional private investment (Figure 25). Among advanced economies with excess current account surpluses, additional fiscal support in *Germany*, where fiscal space is substantial, would further lift demand and help reduce trade and current account balances. Conversely, medium-term fiscal consolidation in some economies with excess current account deficits (e.g., *South Africa, Turkey*) would moderately increase current account balances.

**Figure 25. Impact of Adjusting Policies to Recommendations: Demand and Current Account**



Sources: IMF, G-20 Model simulations; IMF, *World Economic Outlook*; and IMF staff calculations.

Groupings are based on external balance assessments in IMF, 2021, [External Sector Report](#): Economies with excess surpluses (i.e., "stronger" or "moderately stronger" external balances): DEU, MEX, RUS; excess deficits (i.e., "weaker" or "moderately weaker"): ARG, CAN, FRA, SAU, ZAF, TUR, GBR, USA; broadly balanced (i.e., "broadly in line"): AUS, BRA, CHN, IDN, IND, ITA, JPN, KOR, ESP.

**Table 1. Real GDP Growth**  
(percent change)

	Year over Year							
	Projections (Oct. 2021)					Deviations (from Jul. 2021)		
	2019	2020	2021	2022	2026	2021	2022	2026
<b>World</b>	<b>2.8</b>	<b>-3.1</b>	<b>5.9</b>	<b>4.9</b>	<b>3.3</b>	<b>-0.1</b>	<b>0.0</b>	<b>0.0</b>
Advanced Economies	1.7	-4.5	5.2	4.5	1.6	-0.4	0.1	0.0
Euro area	1.5	-6.3	5.0	4.3	1.4	0.4	0.0	0.0
Emerging Market and Developing Economies	3.7	-2.1	6.4	5.1	4.4	0.1	-0.1	0.0
G-20 1/	2.9	-2.9	6.3	5.0	3.2	-0.2	0.0	0.0
Advanced G-20 2/	1.7	-4.6	5.2	4.6	1.5	-0.6	0.2	0.0
Emerging G-20 3/	4.0	-1.5	7.3	5.4	4.5	0.1	-0.1	0.1
Argentina	-2.1	-9.9	7.5	2.5	1.8	1.1	0.1	0.0
Australia	1.9	-2.4	3.5	4.1	2.6	-1.8	1.1	0.0
Brazil	1.4	-4.1	5.2	1.5	2.1	-0.1	-0.4	0.0
Canada	1.9	-5.3	5.7	4.9	1.5	-0.6	0.4	0.0
China	6.0	2.3	8.0	5.6	4.9	-0.1	-0.1	0.0
France	1.8	-8.0	6.3	3.9	1.4	0.5	-0.3	0.0
Germany	1.1	-4.6	3.1	4.6	1.1	-0.5	0.5	0.0
India 4/	4.0	-7.3	9.5	8.5	6.1	0.0	0.0	0.0
Indonesia	5.0	-2.1	3.2	5.9	5.2	-0.7	0.0	0.0
Italy	0.3	-8.9	5.8	4.2	1.0	0.9	0.0	0.0
Japan	0.0	-4.6	2.4	3.2	0.5	-0.4	0.2	0.0
Korea	2.2	-0.9	4.3	3.3	2.4	0.0	-0.1	0.0
Mexico	-0.2	-8.3	6.2	4.0	2.0	-0.1	-0.2	0.0
Russia	2.0	-3.0	4.7	2.9	1.6	0.3	-0.2	0.0
Saudi Arabia	0.3	-4.1	2.8	4.8	2.8	0.4	0.0	0.0
South Africa	0.1	-6.4	5.0	2.2	1.3	1.0	0.0	0.0
Spain 5/	2.1	-10.8	5.7	6.4	1.5	-0.5	0.6	0.0
Turkey	0.9	1.8	9.0	3.3	3.3	3.2	0.0	0.0
United Kingdom	1.4	-9.8	6.8	5.0	1.5	-0.2	0.2	0.0
United States	2.3	-3.4	6.0	5.2	1.7	-1.0	0.3	0.0
European Union	1.9	-5.9	5.1	4.4	1.7	0.4	0.0	0.1

Source: IMF, *World Economic Outlook*, October 2021.

1/ G-20 aggregations exclude European Union.

2/ Includes Australia, Canada, France, Germany, Italy, Japan, Korea, United Kingdom, and United States.

3/ Includes Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, and Turkey.

4/ India's real GDP growth rates are calculated as per national accounts: with base year 2011/12.

5/ Permanent invitee.



# GROUP OF TWENTY

## G-20 REPORT ON STRONG, SUSTAINABLE, BALANCED, AND INCLUSIVE GROWTH— ONLINE ANNEX

2021



Prepared by Staff of the  
**INTERNATIONAL MONETARY FUND\***

\*Does not necessarily reflect the views of the IMF Executive Board

October 2021



## Annex I. Concepts, Definitions, and Measurement

**1. This annex presents concepts, definitions, and measurement relevant for the assessment of the quality of growth and policies.** Detailed charts for the four dimensions of strong, sustainable, balanced, and inclusive growth (SSBIG) are presented in Annex II.

### A. Strong, Sustainable, Balanced, and Inclusive Growth

**2. This section describes how strong, sustainable, balanced, and inclusive growth is operationalized across the four dimensions.** While indicators for each of the four individual aspects of growth are listed below, there are important areas of overlap across these four dimensions. For example, the sustainability of growth ultimately depends on growth also being balanced, and vice versa.

- *Strong growth.* This dimension refers to short-term, cyclical growth. Indicators include GDP growth, the output gap, and inflation (in levels and in deviations from inflation targets, where applicable).
- *Sustainable growth.* This dimension refers to medium- and long-term growth. Indicators include potential growth, total factor productivity growth, labor productivity growth, and progress towards tackling climate change.
- *Balanced growth.* This dimension refers to the composition of growth (e.g., domestic versus external demand) and whether there is a build-up of external and domestic imbalances. *External excess imbalances* are derived from the IMF's External Sector Report, which provides estimates of the extent to which current accounts and real effective exchange rates differ from those warranted by fundamentals and desired policies, while taking into account reserve coverage and international investment position indicators. Indicators of *domestic private imbalances* include (non-financial) private sector debt, the debt service ratio for the private non-financial sector, and asset quality ratios. *Domestic public* imbalances are measured by the level of general government gross debt.
- *Inclusive growth.* This dimension refers to the degree of inequality in *outcomes* and in *opportunities*. Indicators of inequality in *outcomes* include the Gini coefficient and the ratio of the bottom income decile to the top income decile (i.e., the average income of the lowest 10 percent of earners relative to the average income of the top 10 percent of earners). The Gini coefficient captures inequality of outcomes in the broadest sense but is highly sensitive to changes in the middle of the income distribution and is less sensitive to changes in the tails of the distribution. The second measure can capture changes in the extreme ends of the income distribution. Indicators of inequality in *opportunities* include measures of access to education and health (e.g., public expenditure on education and health can be an indicative measure of quality and access).

## B. Policies

### 3. This section discusses the indicators used for assessing the policy stances across the fiscal, monetary, and structural reform policy areas.

- *Fiscal policy.* The fiscal policy stance is measured as the change in the cyclically adjusted primary balance (CAPB), where the balance is computed in percent of potential GDP. A contractionary (expansionary) fiscal policy stance reflects a positive (negative) change in the CAPB. The current and projected fiscal policy stance reflects the WEO baseline projections. The deviation of the recommended from the projected stance is expressed as the difference between IMF staff's recommended versus projected change in the CAPB. Therefore, IMF staff recommends a more contractionary (expansionary) fiscal stance than the projected one where the deviation of the recommended from the projected change is positive (negative).
- *Monetary policy.* The monetary policy stance is measured as the difference between the actual real policy interest rate and approximations/estimates of the (unobservable) natural real interest rate. A contractionary (expansionary) or tight (accommodative) monetary policy stance reflects an actual real policy interest rate above (below) the natural rate. Given the uncertainty surrounding these measures, the projected baseline path in the heatmaps in the main text is based on IMF staff's assessments, and policy recommendations are expressed as deviations from this path.
- *Structural reforms.* The structural reform policy areas considered are those for which there are quantifiable indicators of structural reforms. These include (i) product market regulation; (ii) trade liberalization; (iii) employment protection legislation; (iv) tax structure reform (direct vs. indirect taxes); (v) Research and Development (R&D) spending; (vi) labor tax wedge; (vii) childcare spending (or other reforms to increase female labor force participation); (viii) active labor market policies; and (ix) unemployment benefit replacement rates. While this set of indicators captures key structural reform needs, it does not necessarily provide a complete description of the structural reform agenda for every country. Structural reform recommendations reflect consensus assessments of the IMF and the OECD and are expressed in terms of reform priorities ("high", "medium", or "low").<sup>1</sup>

---

<sup>1</sup> IMF and OECD recommendations are based on priorities for additional reforms (relative to reforms already incorporated in the baseline), aggregated based on a simple rule. For example, a "high" priority rating requires that both IMF and OECD staff found reforms in a certain area to be very urgent.

## Annex II. Supplementary Charts

**1. This annex presents statistics on Strong, Sustainable, Balanced, and Inclusive Growth (SSBIG).** The indicators for SSBIG correspond to those described in Annex I: (i) strong growth; (ii) sustainable growth; (iii) balanced growth; and (iv) inclusive growth. Data are mainly from the October WEO database, complemented with other sources where needed and as specified in footnotes to the charts. Aggregates include the European Union, unless otherwise specified. While the European Union includes both advanced and emerging market economies, for presentational purposes, it is depicted in charts among advanced economies.

### A. Dimension: Strong Growth

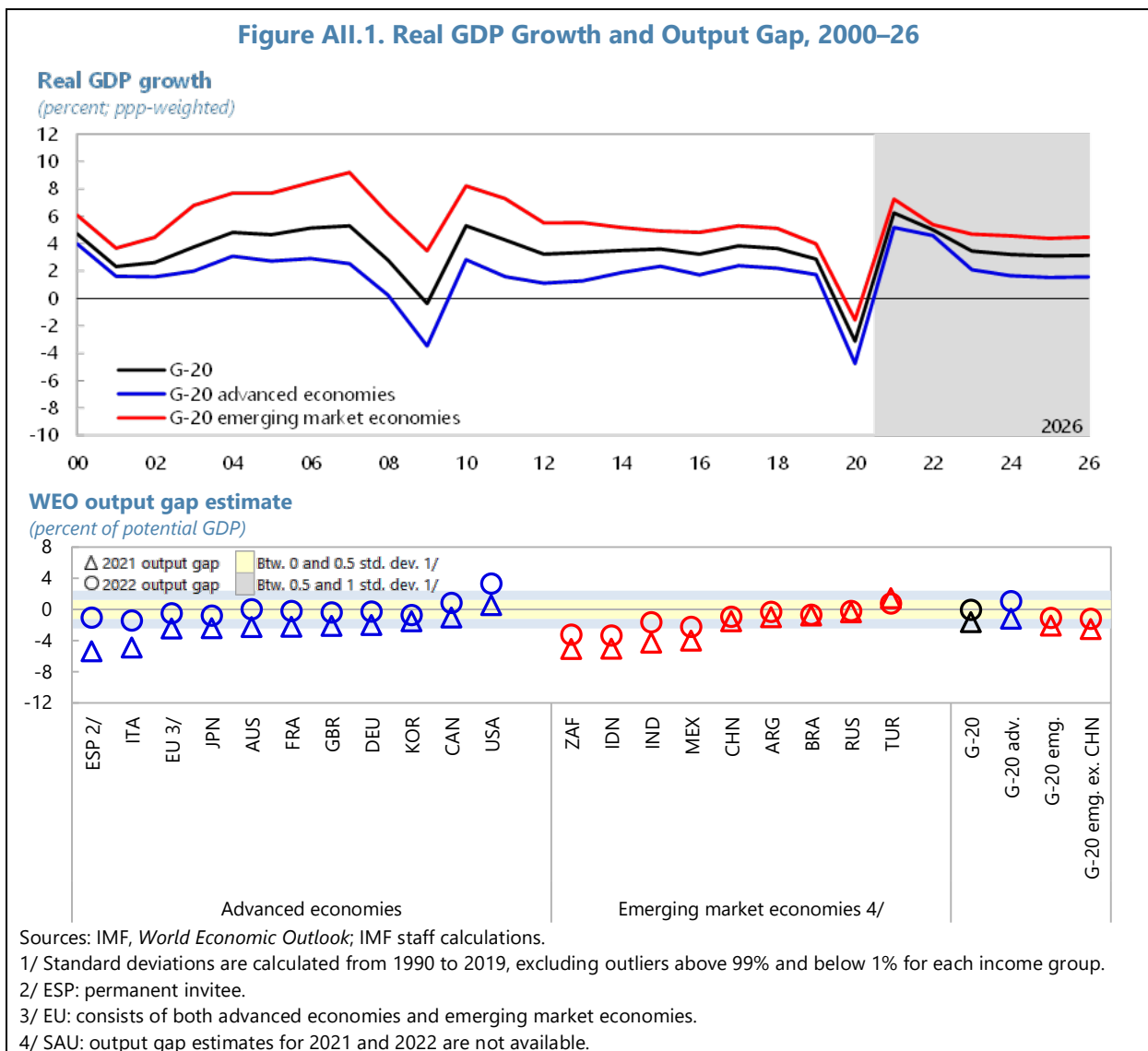
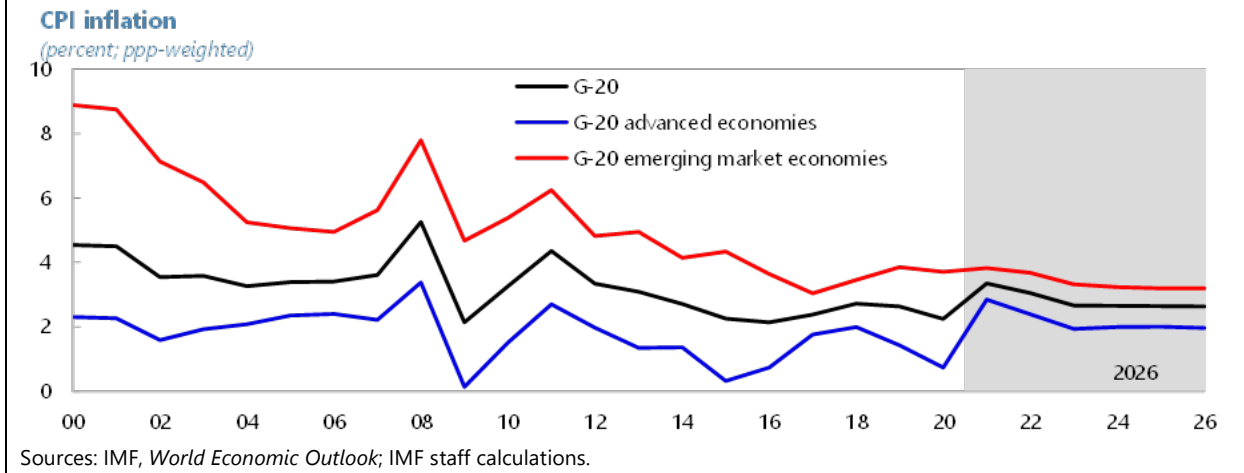
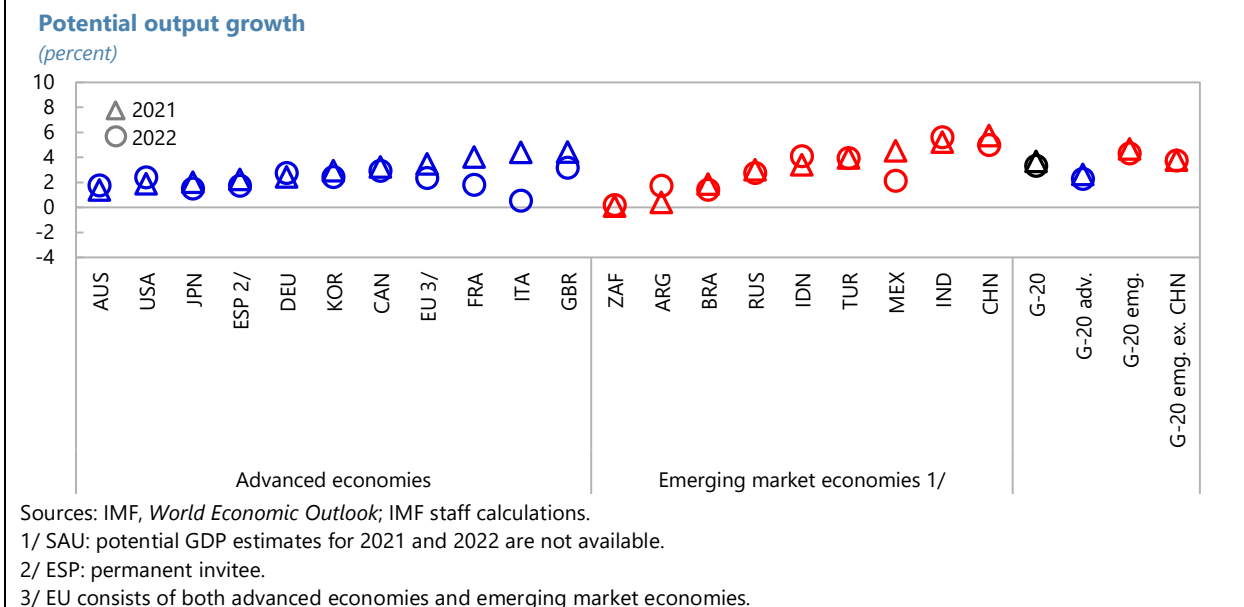


Figure AII.2. Inflation, 2000–26

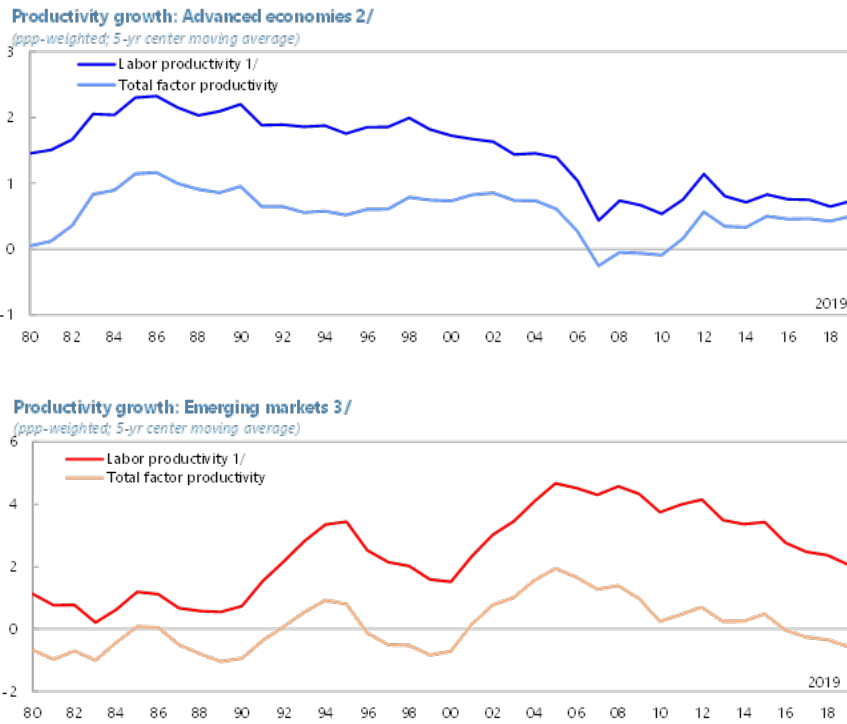


## B. Dimension: Sustainable Growth

Figure AII.3. Potential Growth, 2000–26



**Figure AII.4. Productivity Growth, 1980–2019**



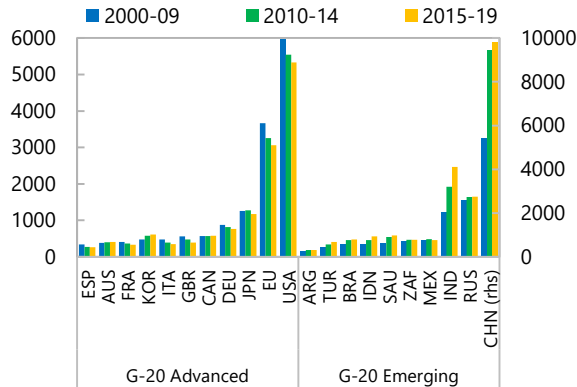
Sources: Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), "The Next Generation of the Penn World Table" American Economic Review, 105(10), 3150–3182, available for download at [www.ggd.net/pwt](http://www.ggd.net/pwt); IMF, *World Economic Outlook*; IMF staff calculations.

- 1/ Labor productivity is calculated as real GDP per person employed.
- 2/ Includes ESP, but not other EU advanced economies due to data limitations.
- 3/ Excludes RUS, SAU, and other EU emerging market economies due to data limitations.

**Figure AII.5. Climate, 2000–19**

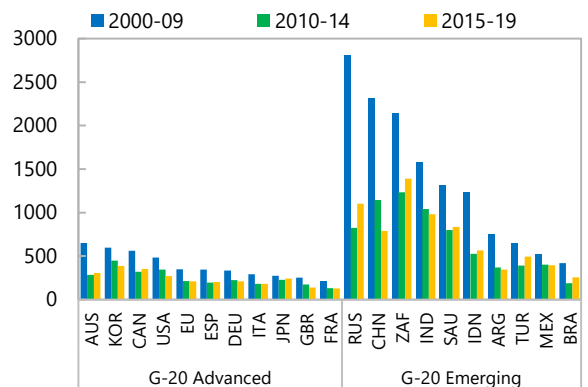
**G-20: Total emissions**

(Average; metric ton of CO2 equivalent of GHGs)



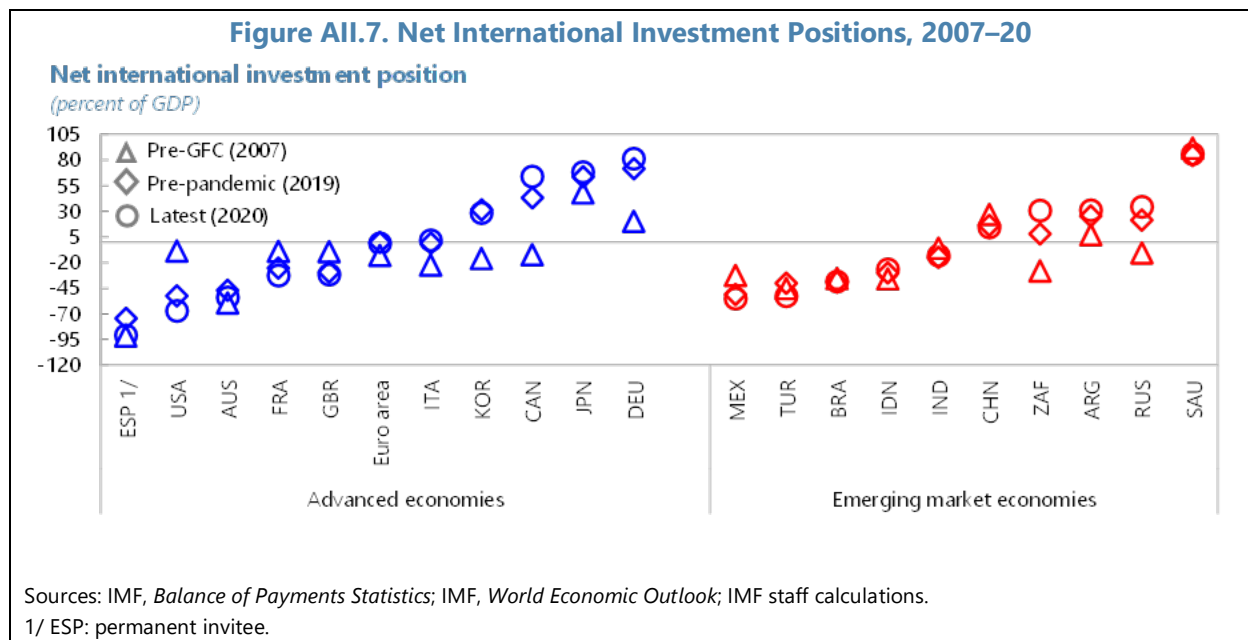
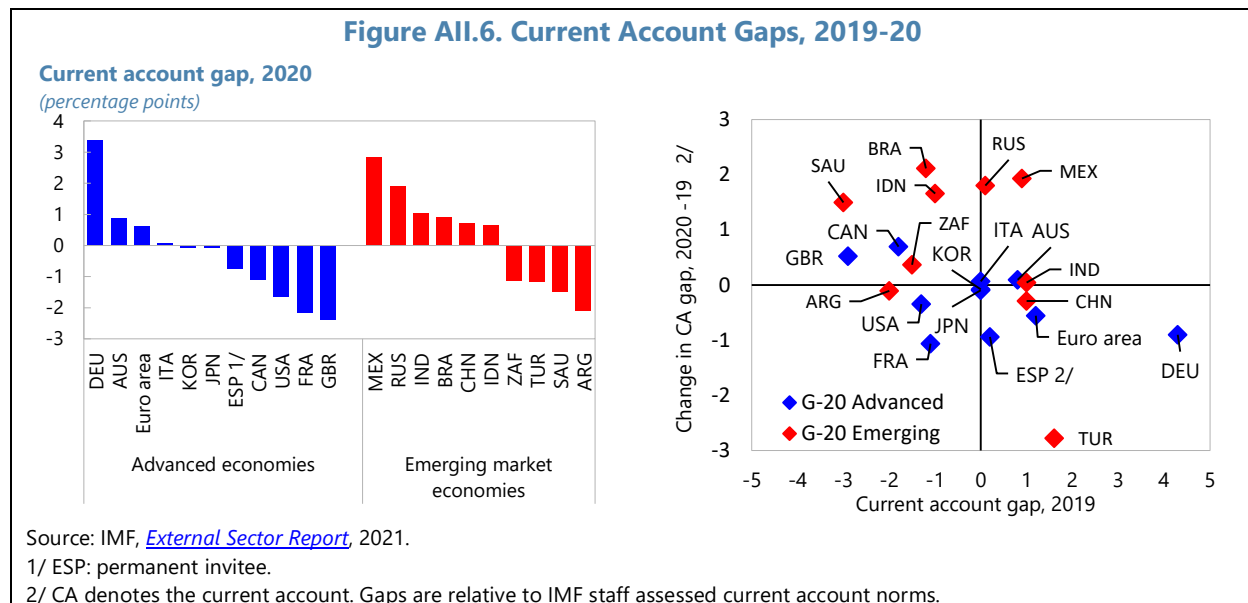
**G-20: Emissions intensity of output**

(Average; total CO2 equivalent of GHGs/ million dollar GDP)

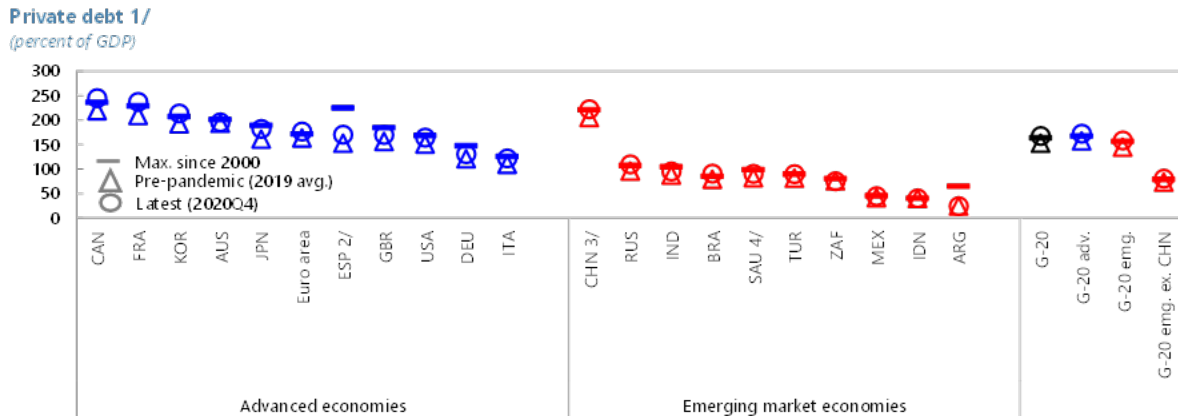


Sources: Global Carbon Project/ClimateWatch; and IMF staff calculations.

## C. Dimension: Balanced Growth



**Figure AII.8. Private Non-Financial Sector Debt, 2000–20**



Sources: BIS; Haver Analytics; IMF, *World Economic Outlook*; IMF staff calculations.

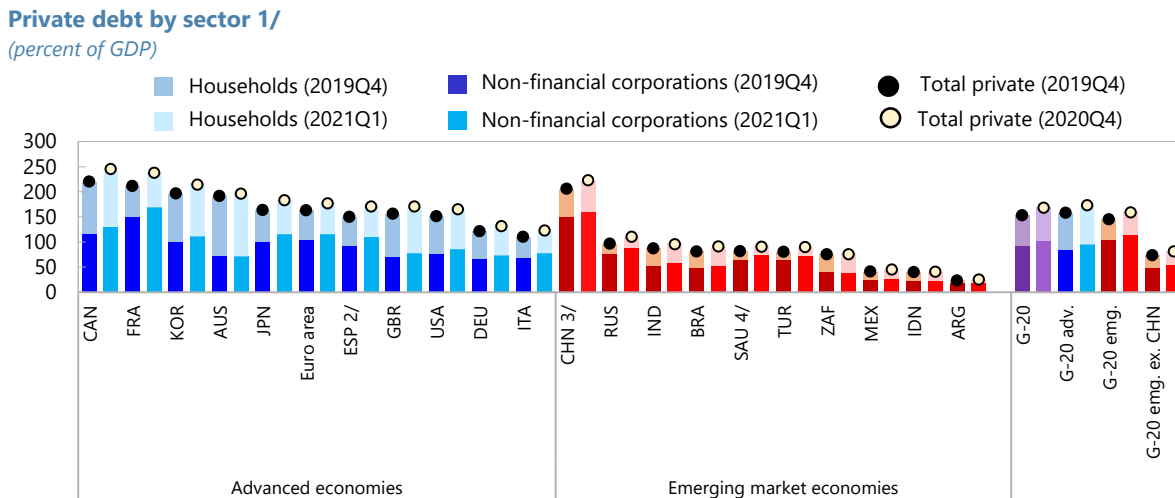
1/ Credit to the private non-financial sector, which includes borrowing by non-financial corporations and households and reflects lending by domestic and foreign banks, as well as holdings of debt securities.

2/ ESP: permanent invitee.

3/ CHN: private debt includes local government financing vehicles (LGFV) debt.

4/ SAU: data expressed in percent of non-oil GDP.

**Figure AII.9. Private Non-Financial Sector Debt by Sector, 2019–21**



Sources: BIS; Haver Analytics; IMF, *World Economic Outlook*; IMF staff calculations.

Note: For the legend, blue: advanced economies, red: emerging economies, and purple: G-20.

1/ Credit to the private non-financial sector, which includes borrowing by non-financial corporations and households and reflects lending by domestic and foreign banks, as well as holdings of debt securities.

2/ ESP: permanent invitee.

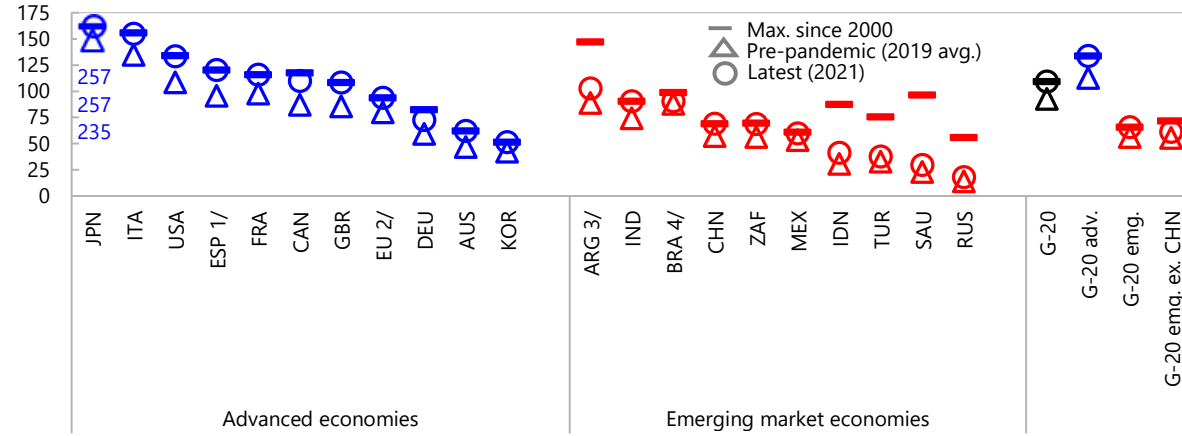
3/ CHN: private debt includes local government financing vehicles (LGFV) debt.

4/ SAU: data expressed in percent of non-oil GDP.

**Figure All.10. Public Sector Debt, 2000–21**

**General government gross debt**

(percent of GDP)



Sources: IMF, *World Economic Outlook*; IMF staff calculations.

1/ ESP: permanent invitee.

2/ EU: consists of both advanced economies and emerging market economies.

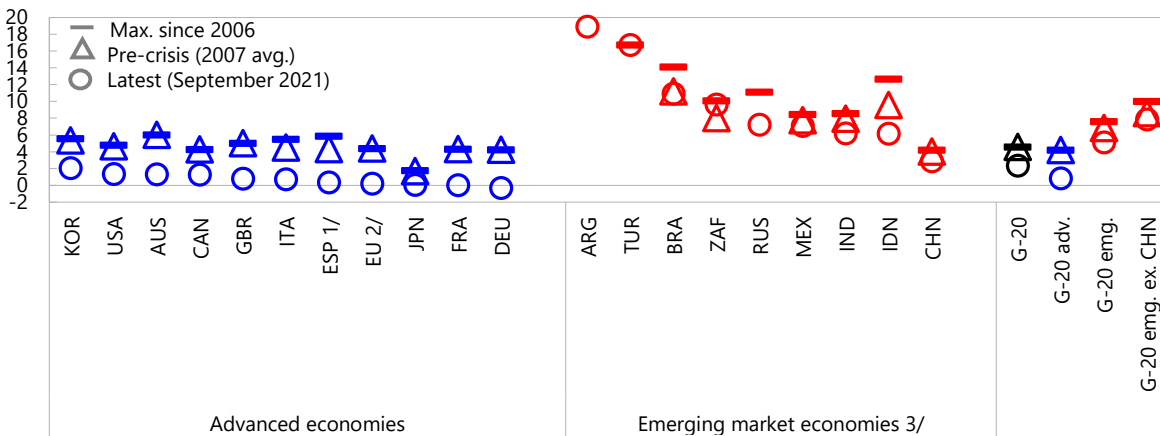
3/ ARG: data cover federal government gross debt in percent of GDP. Latest data is 2020.

4/ BRA: general government data refer to the nonfinancial public sector.

**Figure All.11. Sovereign Bond Yields, 2006- 21**

**10Y sovereign bond yield**

(percent)



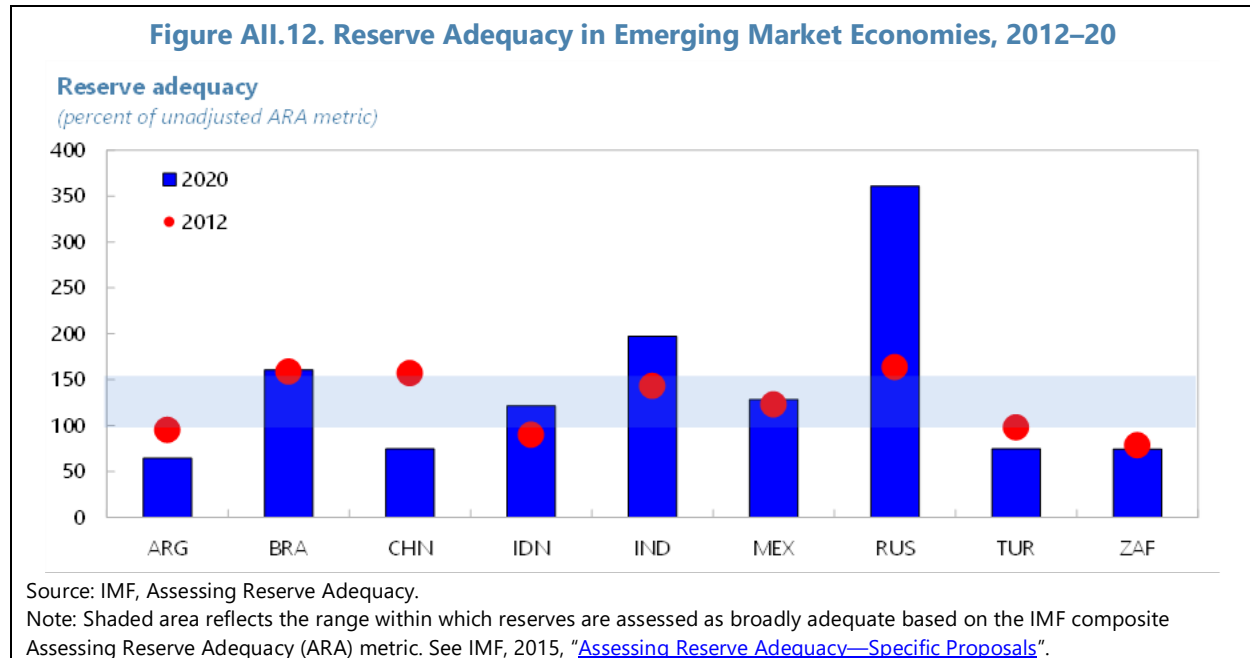
Sources: Bloomberg L.P.; Haver Analytics; European Central Bank; IMF, *World Economic Outlook*; and IMF staff calculations.

1/ ESP: permanent invitee.

2/ EU: consists of both advanced economies and emerging market economies.

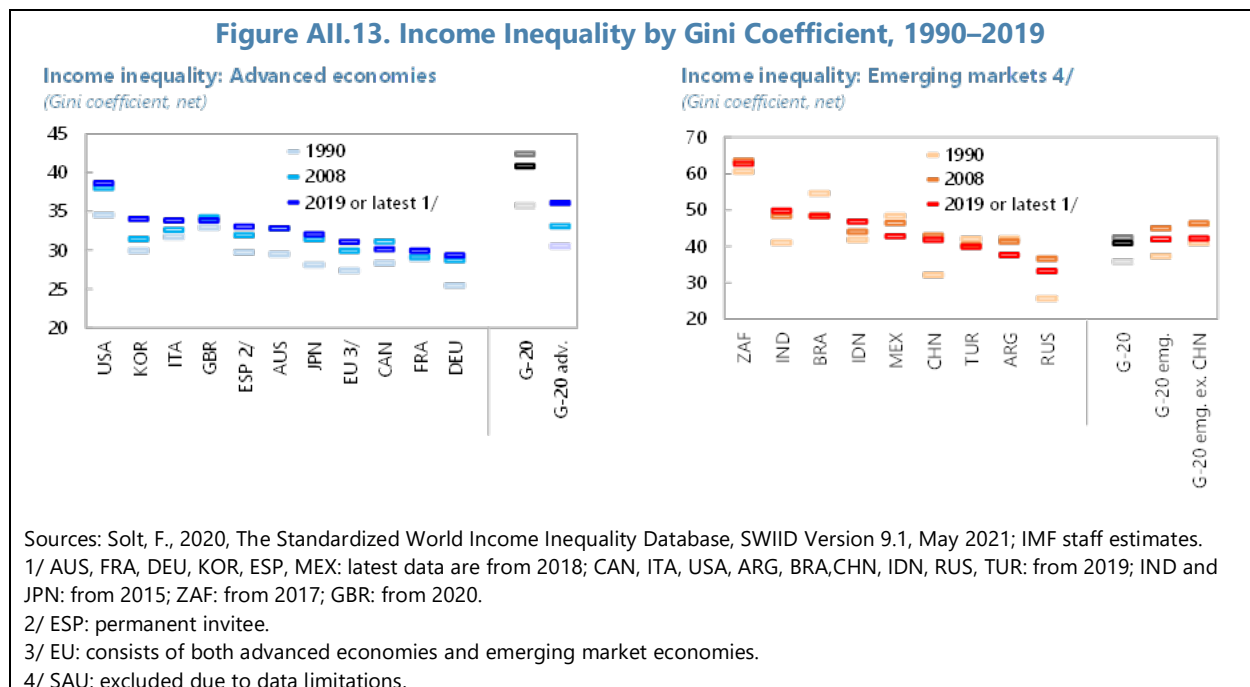
3/ ARG: missing historical data due to data limitations; RUS and TUR: data start from 2010; SAU: data start from Oct. 2016. ZAF: latest is July 2021.

## International Reserves



## D. Dimension: Inclusive Growth

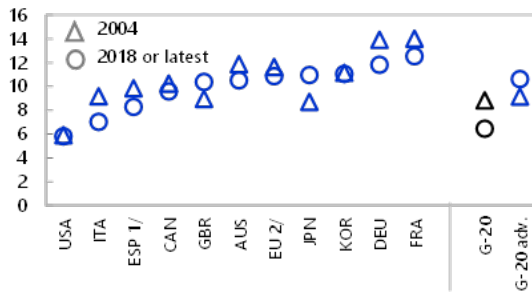
### Income Inequality Trends (pre-pandemic)



**Figure AII.14. Income Inequality by Income Decile, 2004–18**

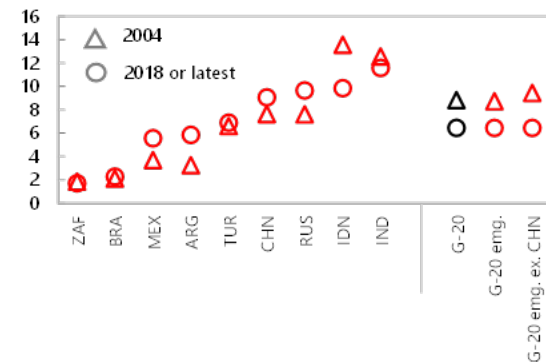
**Income inequality: Advanced economies**

(ratio between bottom and top income decile in percent)



**Income inequality: Emerging markets**

(ratio between bottom and top income decile in percent)



Sources: UNU-WIDER, World Income Inequality Database (WIID), May 2021; IMF, *World Economic Outlook*; and IMF staff calculations.

Note: Given data limitations, different concepts and coverage to assess inequality are used across countries: CHN, IDN, IND, RUS, ZAF, TUR: Resource concepts – consumption, area coverage – all; ARG: resource concept – (net/gross) income, area coverage – urban; Other countries: resource concepts – (net/ gross) income, area coverage – all. When 2004 numbers are not available, the following are: CHN, IND, ZAF: 2005; KOR: 2006; JPN: 2008. When 2018 numbers are not available, the following are used: AUS: 2014; IND, KOR: 2012; CAN, JPN: 2013; ZAF: 2015; CHN, DEU, GBR, USA: 2016; FRA, ITA, ESP: 2017. No data availability for SAU.

1/ ESP: permanent invitee.

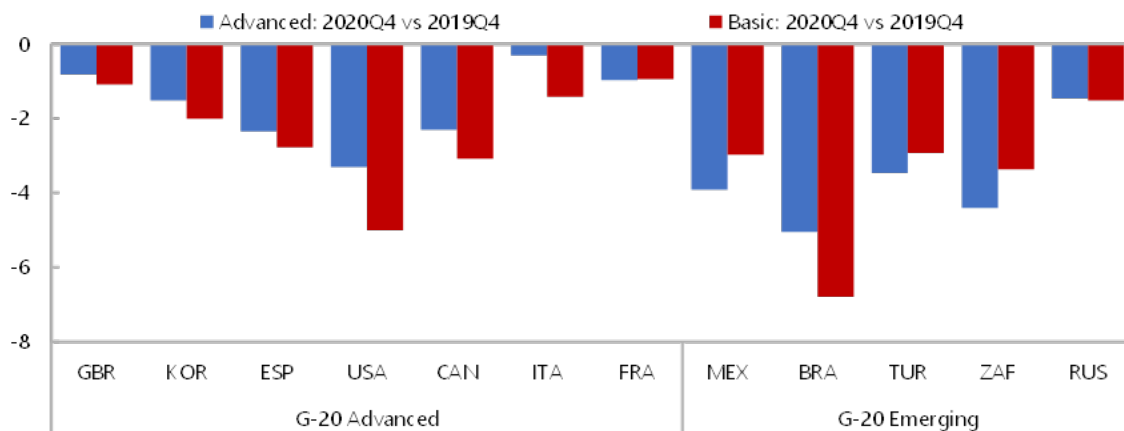
2/ EU: consists of both advanced economies and emerging market economies.

**Indicative Measures for Inequality in 2020**

**Figure AII.15. Employment Rate by Skill Level, 2020**

**Change in employment rate by skill 1/**

(percentage point)



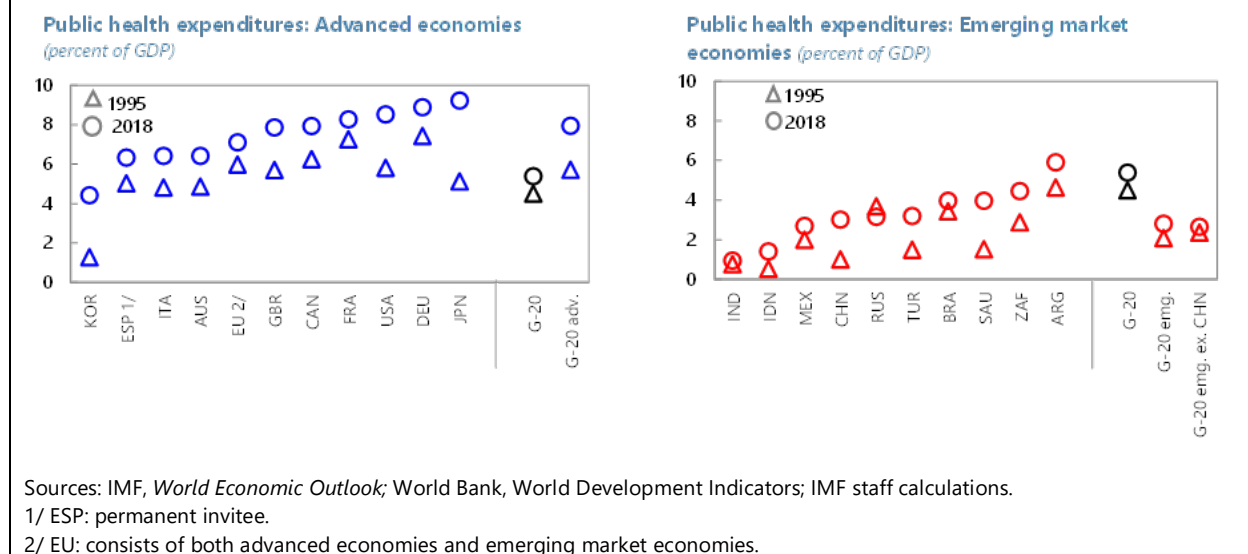
Sources: International Labor Organization; Country authorities; and IMF staff calculations.

Note: Basic: Lower secondary education and below. Advanced: Tertiary education and above.

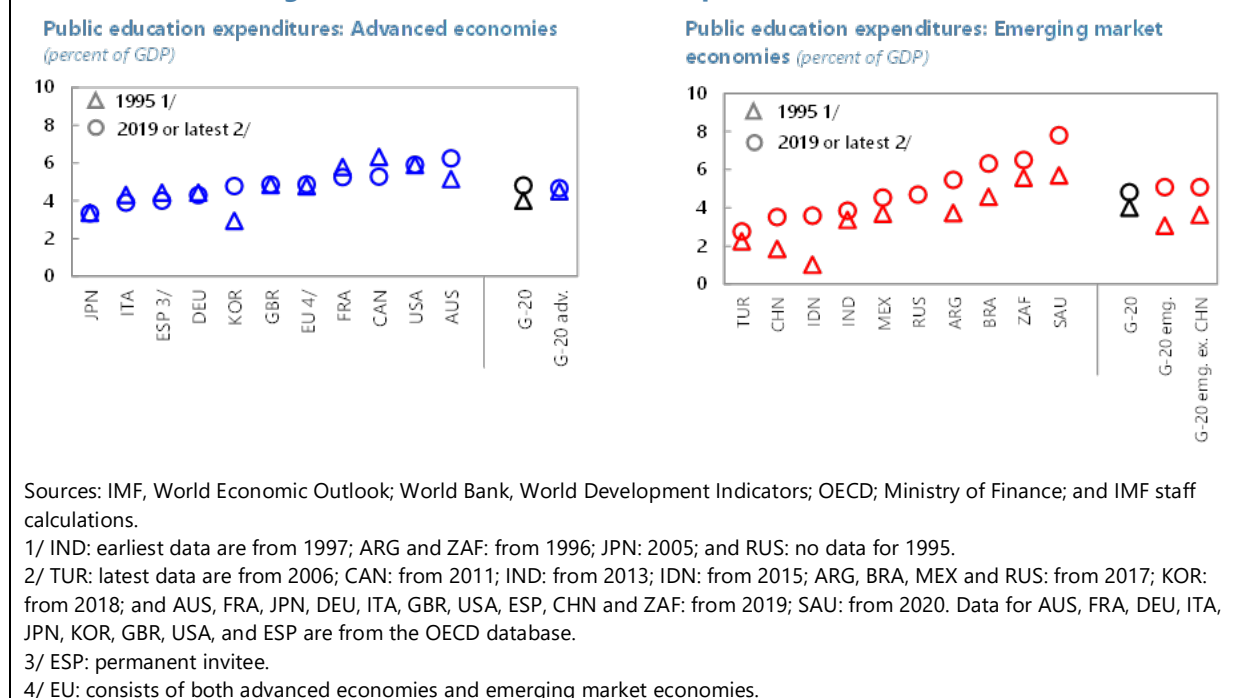
1/ 2019Q3 and 2020Q3 data are used for GBR due to data limitation.

## Health and Education Spending Trends (pre-pandemic)

**Figure AII.16. Public Health Expenditures, 1995–2018**



**Figure AII.17. Public Education Expenditures, 1995–2019**



## Annex III. Simulations: Impact of Policy Recommendations

1. **This annex describes how the impact of implementing recommended policies is estimated and presents simulation results.** The impact on Strong Sustainable, Balanced, and Inclusive Growth is computed using the IMF's G-20 model.<sup>1</sup> The model evaluates the economic impact of a change in policies to reflect IMF staff's recommendations relative to those projected under the current baseline projections in a dynamic general equilibrium setting. The quantification of specific policies is described in section A of this annex. Simulation results are shown in section B.

### A. Quantifying Policy Recommendations

2. **The simulations are based on a quantification of policy recommendations as follows:**

- *Fiscal policy.* A more contractionary (expansionary) fiscal policy corresponds to a positive (negative) deviation between the recommended and projected changes in the cyclically adjusted primary balance (CAPB). The deviation is quantified by IMF staff's recommendations for the changes in the CAPB.
- *Monetary policy.* A moderately more contractionary (expansionary) monetary stance corresponds to a 75 basis points increase (decrease) in the policy rate relative to the baseline. A substantially more contractionary (expansionary) corresponds to a 150 basis points increase (decrease).
- *Structural reforms.* The simulations assume that recommended structural reforms are gradually implemented over 10 years, starting in 2022. The magnitude of the changes in the structural reform indicators is based on historical episodes of major reforms, with the speed of implementation reflecting the behavior exhibited by G-20 countries in the implementation of their growth strategies so far. Policy recommendations are expressed in terms of reform priorities: "high" priority reforms are implemented as  $\frac{3}{4}$  of the historical magnitude of major reforms; "medium" priority reforms as  $\frac{1}{2}$  of the historical magnitude; and "low" priority reforms as  $\frac{1}{3}$  of the historical magnitude. Reform priorities reflect a consensus assessment by IMF and OECD staff. The quantitative evaluation of the impact of structural reforms on productivity and labor markets is based on a series of OECD analytical papers.<sup>2</sup>

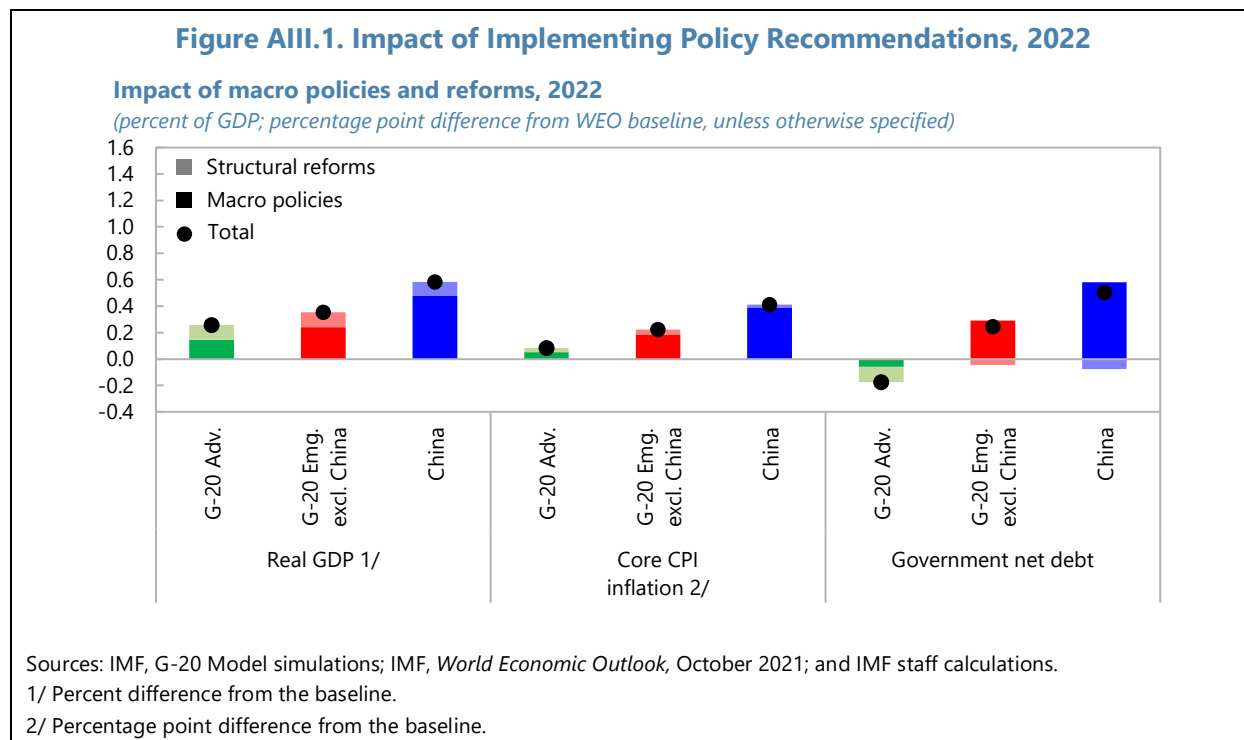
---

<sup>1</sup> Andrieu, M., P. Blagrove, P. Espaillat, K. Honjo, B. Hunt, M. Kortelainen, R. Lalonde, D. Laxton, E. Mavroeidi, D. Muir, S. Mursula, and S. Snudden, 2015, [The Flexible System of Global Models – FSGM](#), IMF Working Paper No. 15/64.

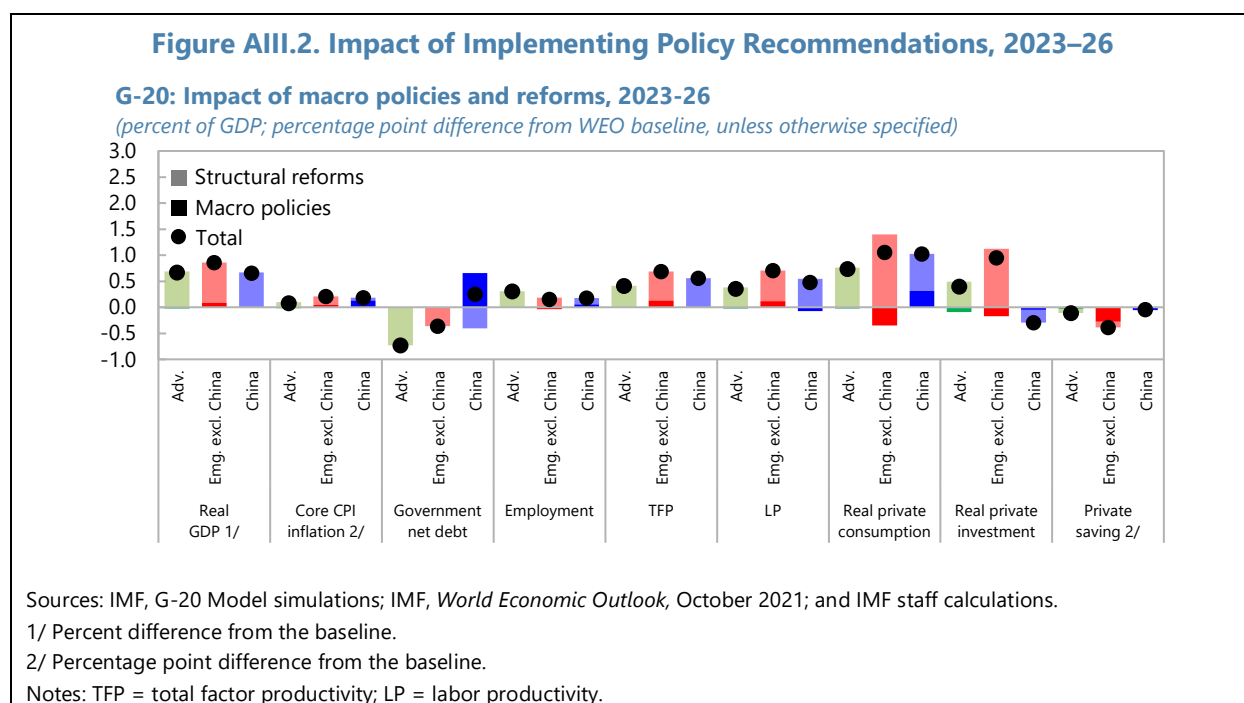
<sup>2</sup> Examples include Egert, B. and P. Gal, 2017, [The Quantification of Structural Reforms in OECD Countries: A New Framework](#), OECD Economics Department Working Paper No. 1354; Bouis, R. and R. Duval, 2011, [Raising Potential Growth After the Crisis: A Quantitative Assessment of the Potential Gains from Various Structural Reforms in the OECD Area and Beyond](#), OECD Economics Department Working Papers No. 835.

## B. Simulation Results: Impact of Policy Recommendations

### (i) Short-Term Impact



### (ii) Medium-Term Impact



## Annex IV. Survey: Policy and Reform Needs for the Recovery

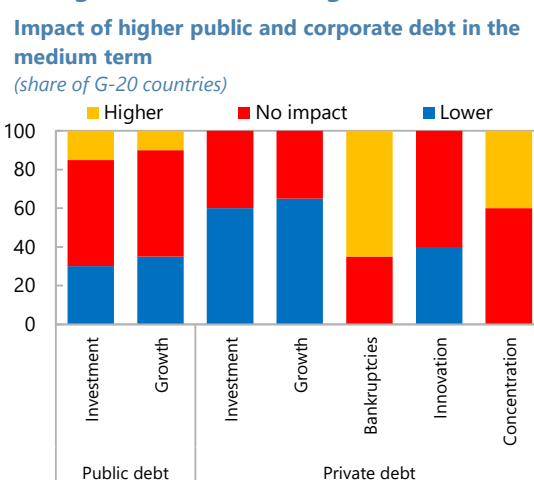
A survey of IMF country teams highlights the significant efforts undertaken by G-20 economies to combat the twin health and economic crises. Yet, the challenges remain, including from elevated debt levels, scars to human capital, and the need to safeguard financial stability.

**1. Across much of the G-20, fiscal, monetary, and financial policy responses during the pandemic rose to meet the challenges faced.** A survey of IMF country teams highlights that both the amount, design, and implementation of measures was broadly adequate in most economies. For example, while some weaknesses in the support to households were noted (reflecting areas such as insufficient amounts, slow rollouts), particularly in several G-20 emerging market economies, country teams pointed to substantial efforts to protect the most vulnerable.

**2. Teams noted the challenges associated with the rise in debt.** While fiscal support was instrumental in avoiding an even worse slowdown after the onset of the crisis and the majority of G-20 country teams do not expect adverse impacts from the rise in public debt, some teams anticipate that it may weigh on growth and investment over the medium term (Figure 1). In addition, across a majority of economies—in particular advanced economies—higher corporate-sector debt is expected to lead to lower investment, lower growth, and higher bankruptcies. Several teams also expect lower innovation and higher market concentration.

**3. Additional action is needed to ensure a smooth transition from crisis support, as well as to tackle long-standing challenges.** According to IMF country teams, gaps in current plans are particularly salient in emerging market economies, including related to exiting from crisis support, supporting the reallocation of capital and labor, and promoting inclusive and green recoveries (Figure 2). In addition, across a majority of G-20 economies, more action is needed to strengthen the financial sector, including by improving supervision and resolution frameworks, addressing elevated non-performing loans, and enhancing macro-prudential toolkits.

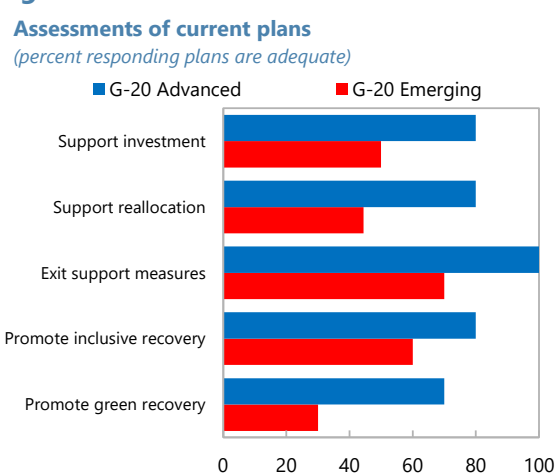
**Figure AIV.1. Challenges from Debt**



Source: IMF staff estimates.

Note: Impact on investment, growth, bankruptcies, innovation, and market concentration as listed along the horizontal axis. Based on responses for G-19 and *Spain*.

**Figure AIV.2. Assessments of Current Plans**



Source: IMF staff estimates.

Note: Based on responses for G-19 and *Spain*.