



# GROUP OF TWENTY

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

2019



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INTERNATIONAL MONETARY FUND\*

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

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## EXECUTIVE SUMMARY

**The global economy is at a difficult juncture.** Growth has become fragile, with slowing momentum across most G-20 economies and stressed emerging market economies struggling to regain footing. While global growth is projected to recover somewhat next year, downside risks remain elevated—driven by unrelenting trade tensions, lingering policy uncertainty, and escalation of geopolitical strains, along with a further buildup of financial vulnerabilities adding to risks over the medium term. And this comes at a time when low policy rates and high sovereign debt have reduced policy space. Furthermore, low productivity growth and aging weigh on the medium-term outlook in many economies, and inclusiveness remains elusive as access to opportunities is not equally shared.

**Bold and broad-based policy action will put growth on a stronger, more stable path and benefit all.** Using all available tools, as appropriate, promises the greatest impact and can raise the level of G-20 GDP by more than 4 percent over the longer run.

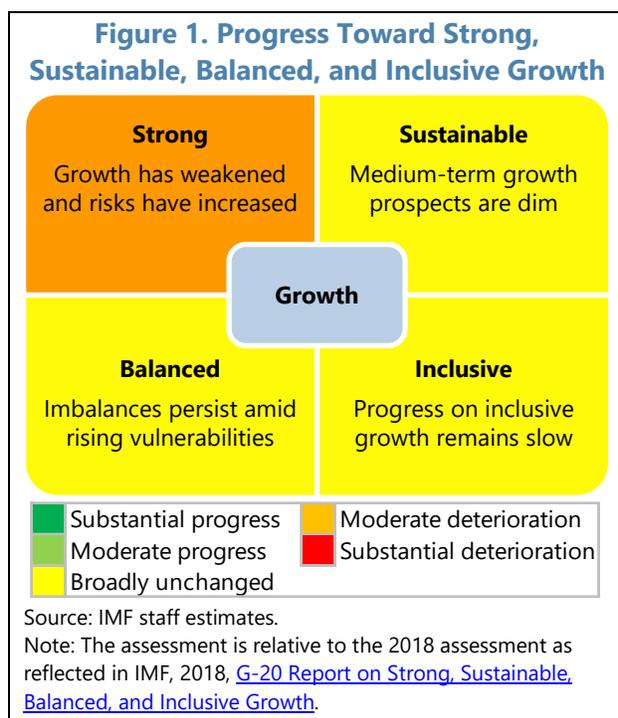
- *Well-coordinated macroeconomic and financial policies will support growth and safeguard stability in the short term.* This requires accommodative monetary policy where inflation is below target and fiscal policy successfully balancing the trade-offs between supporting demand, ensuring sustainability, and protecting vulnerable groups. Gradually strengthening balance sheets and mitigating risks from high leverage, in particular amid low (and declining) interest rates, would support stability and ensure the durability of growth. Amid fragile growth, fiscal measures should be identified to allow for their quick deployment in the event of a further growth slowdown.
- *Completing the structural reform agenda will help lift the growth trajectory going forward.* Priorities include product market reforms to foster competition, innovation, and investment—in both human and physical capital—and labor market reforms to boost labor force participation and counter the impact of aging on growth and associated fiscal costs. Where demand is lacking, macroeconomic support, as appropriate, can bring forward the growth benefits of labor market reforms. Fiscal policy and structural reforms can support each other to reduce unwanted current account imbalances and foster higher, sustainable, and more balanced global growth.
- *Carefully-targeted action will help ensure that higher growth is widely shared.* Investing in education will help lift productivity and raising labor market participation rates—in particular among youth and women—can improve market outcomes of vulnerable groups. At the same time, fiscal policy tools can ensure that everyone benefits from rising aggregate income. In turn, this will help generate support for difficult-but-needed reforms and enable even higher growth.

**Together, G-20 policymakers can contain risks, reduce uncertainty, and create new opportunities.** Reversing trade barriers and fast, tangible progress toward a better multilateral trading system are a must. Working together, policymakers can reinvigorate global trade and lift the uncertainty contributing to weak investment and growth across countries. A modernized open, stable, and transparent trading system, adjusted to the changing needs of the global economy, would bring new opportunities for growth for all involved. This would be greatly helped by efforts to strengthen the system for taxing multinational enterprises, ensure completion of post-crisis regulatory reforms, and secure progress in strengthening the global financial safety net.

# THE GLOBAL ECONOMY AT A DIFFICULT JUNCTURE

The global economy is at a difficult juncture, adding to the challenges facing the G-20's ambition to secure strong, sustainable, balanced, and inclusive growth. Growth has slowed, amidst elevated downside risks, and is set to stabilize at mediocre levels amid still-high inequality. Action is needed to put growth on a stronger and more stable path, and to ensure that its benefits are widely shared.

**1. Since the 2018 G-20 Report on Strong, Sustainable, Balanced, and Inclusive Growth, economic activity has softened, and the outlook has become increasingly uncertain.** In most G-20 economies, growth has yet to recover from the slowdown in economic activity toward the end of 2018. Many G-20 economies are set to grow at a slower pace in 2019 than last year. While global growth is expected to reach a moderately higher level in 2020, downside risks are high, and the medium-term growth outlook is insufficient to meaningfully lift living standards in many economies. Progress toward more balanced growth has been limited, and financial vulnerabilities continue to accumulate. And uneven access to opportunities has limited advancement towards more inclusive growth (Figure 1; Annexes I and II).

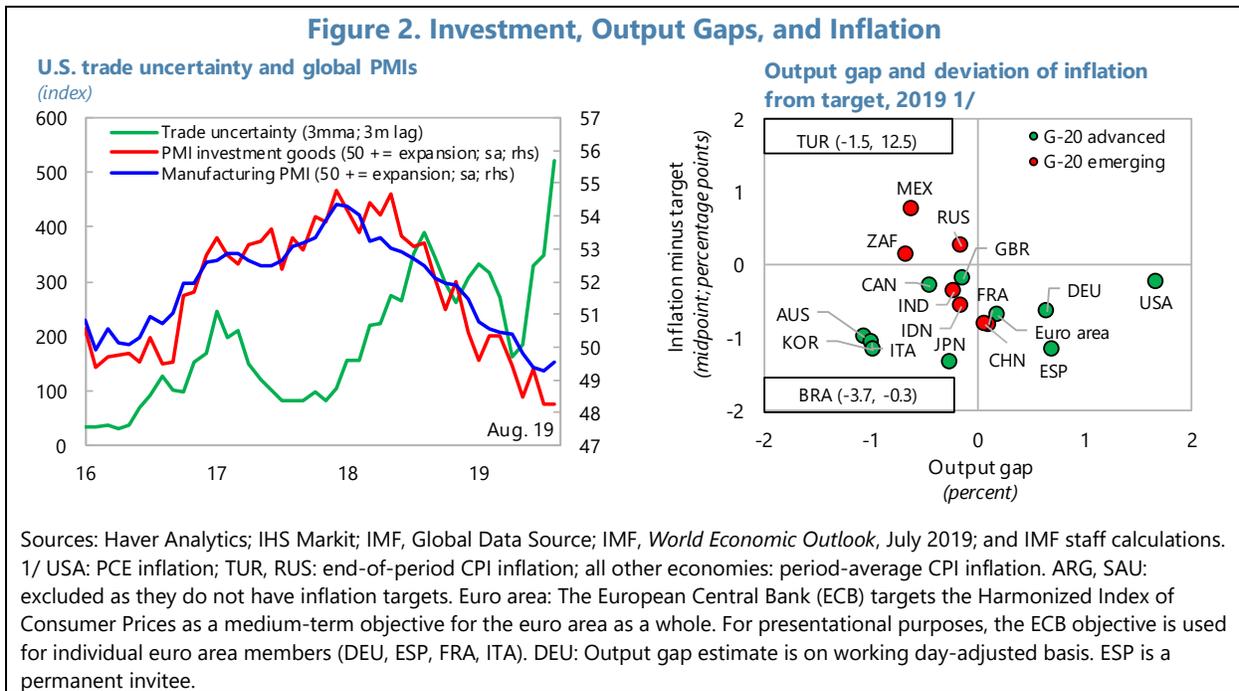


## A. Growth is Subdued, and Downside Risks have Increased

**2. Economic activity will likely remain weak.** The growth momentum across most G-20 economies has weakened so far this year, as tariff hikes and the risk of their expansion to more countries and goods contributed to lower investment, especially in manufacturing, which was also hit by other idiosyncratic factors (Figure 2). With limited expectation of an immediate, lasting reduction in trade tensions, continued pressure on stressed emerging economies, and lingering geopolitical strains, growth is expected to remain weak in 2020 and improve only moderately.

- In advanced economies, the outlook is generally for continued subdued growth.* Output gaps appear to be generally closed across most advanced economies, although activity in the *United States* still runs above capacity. Inflationary pressures remain weak, despite tight labor markets in several economies. In addition, trade tensions, which have spilled over into the technology sphere, are expected to weigh on the near-term growth outlook, with high-frequency indicators pointing to a further slowdown in investment in the *United States* and weak export prospects in many advanced economies, especially in the *euro area*. Overall, growth for G-20 advanced economies is projected to remain subdued next year.

- *In emerging market economies, the growth outlook is subject to larger-than-usual uncertainty.* Output gaps in emerging market economies appear to be generally closed—but are negative in economies that have experienced large adverse shocks (e.g., *Argentina, Brazil, Turkey*). Inflation is broadly within target ranges, although with some exception (*Turkey*). However, many economies are struggling to gain footing amid higher trade barriers, trade-related uncertainty, and various country-specific headwinds, including political uncertainty and domestic vulnerabilities. Capital flow volatility has also continued. While growth is projected at a somewhat higher level going forward, this is conditional on these headwinds receding and the global environment not getting worse.

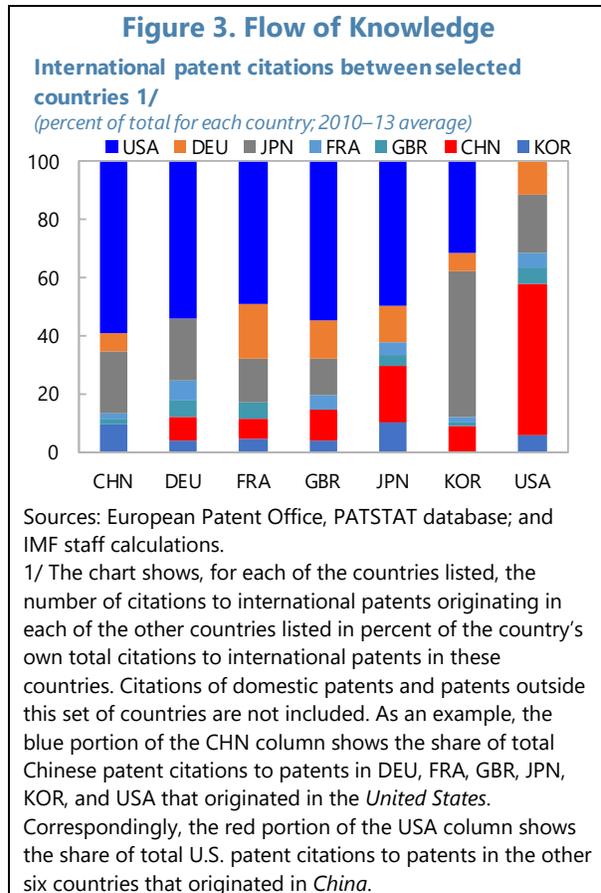


**3. The global economy is at a difficult juncture.** There are many adverse risks that, should they materialize, could hold back growth.

- *A further escalation of trade tensions is a key risk.* An imposition of new bilateral trade barriers between the *United States* and *China* would have widespread repercussions, with a lasting negative impact on global output, including through the disruption of global value chains.<sup>1</sup>

<sup>1</sup> IMF, 2019, [G-20 Surveillance Note](#), June.

- *Restrictions on the flow of technology could have wide-ranging consequences for productivity.* Should barriers on technology be imposed, diffusion of knowledge across borders would slow and productivity growth decline—both for technology-adopting and technology-producing economies (Figure 3). IMF staff analysis has shown that during 2004–14, knowledge and technology flows from the global technology frontier explained about 40 percent of average sectoral productivity growth in emerging market economies.<sup>2</sup>



- *The recovery of stressed economies may take longer than anticipated and geopolitical tensions could intensify.* The expected pickup in some emerging market economies, where growth has been weak (e.g., *Argentina, Turkey*), could be delayed and compromise the projected strengthening in global growth. Geopolitical uncertainties and associated impact on risk aversion and commodity prices could also weigh on global growth prospects—but especially in commodity importing emerging market economies.
- *Growth in China could be slower than expected.* In addition to repercussions from escalating trade and technology tensions, downside risks include a possible deterioration in asset quality of financial institutions and a sharp downturn in the property market. Over the longer term, an increasing role of the state could hamper productivity, especially if combined with a reliance on debt to hit excessively high short-term growth targets.
- *In Europe, downside risks include a disorderly Brexit.* Uncertainty remains about the modalities regarding the *United Kingdom's* expected exit from the *European Union* at end-October 2019. A no-deal Brexit could bring significant disruptions and output losses—in particular in the short run amid potential border delays, a sudden increase in tariff and nontariff costs, and disruptions to supply chains.<sup>3</sup> In some other countries, tight sovereign-bank linkages (e.g., *Italy*) could weigh on confidence and trigger stress in financial markets, should the credibility of medium-term fiscal plans be put into question.

<sup>2</sup> IMF, 2018, World Economic Outlook, [Chapter 4](#), April.

<sup>3</sup> IMF, 2019, [Euro Area Policies: 2019 Article IV Consultation](#), Country Report No. 19/219, July.

- *Disinflationary pressures could intensify.* Lower inflation and inflation expectations could become entrenched and further constrain monetary policy space to respond to weaker growth.
- *At the global level, a sudden broad-based worsening of risk sentiment could lead to an abrupt tightening of financial conditions.* The easing in financial conditions have contributed to the buildup of leverage by corporates and sovereigns. A sharp shift in financial conditions could expose these financial vulnerabilities and prompt abrupt capital flow reversals with potential repercussions for deficit financing.

## B. Medium-Term Prospects Remain for Lower Growth Than in the Past

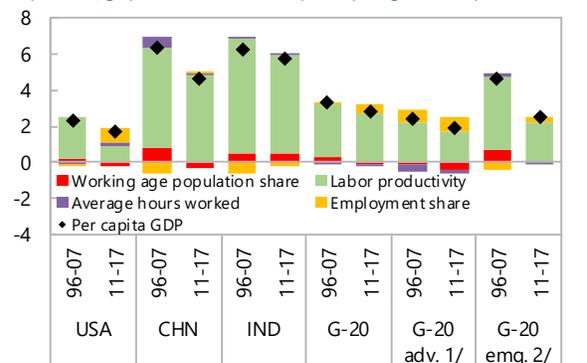
**4. Low productivity growth and demographic change are weighing on medium-term prospects in many G-20 economies.** Per-capita growth has moderated in the G-20 during recent decades, driven, in particular, by declining labor productivity growth and the labor-supply effects of aging (Figure 4). Absent forceful policy action to boost productivity and employment, per-capita GDP growth is likely to further moderate. For emerging market economies, this could slow income convergence to advanced economy levels.

- *Labor productivity growth has declined.* The average annual growth rate of output per hour worked since 2011 has declined across more than half of G-20 economies relative to before the global financial crisis.<sup>4</sup> In some G-20 advanced economies, average labor productivity growth has declined to only about 1 percent since 2011—less than half of that during the pre-crisis decade (e.g., *United Kingdom, United States*). And while labor productivity remains strong in some emerging market economies (e.g., *China, India*), most are now experiencing rates of productivity growth not much above those in advanced economies. On current policies, low productivity growth is likely to continue to hold back growth.

- *Aging is taking a toll.* Amid declining fertility and rising longevity, people of working age are accounting for an increasingly smaller share of the population in G-20 advanced economies, pulling down per-capita GDP growth.<sup>5</sup> Even among the younger G-20 emerging market

**Figure 4. Drivers of Per-Capita GDP Growth**

Contributions to average annual per capita real GDP growth, 1996–2007 and 2011–17  
(percentage point contributions; per capita growth in percent)



Sources: Penn World Tables; United Nations, Population Division 2019; and IMF staff calculations.

Note: Contributions are computed from a decomposition:  $(GDP/Pop) = (GDP/H) * (H/L) * (L/WAP) * (WAP/Pop)$ . GDP/H: labor productivity; H/L: hours worked per employed person; L/WAP: employment share in working-age population; WAP/Pop: working-age share in total population.  
1/ Incl. ESP; excl. USA. ESP is a permanent invitee.  
2/ Excl. CHN, IND, SAU. SAU: no data on labor productivity and average hours worked. ZAF: data start in 2002.

<sup>4</sup> See also IMF, 2018, [G-20 Report on Strong, Sustainable, Balanced, and Inclusive Growth](#).

<sup>5</sup> IMF, 2019, G-20 Background Note on [Macroeconomics of Aging and Policy Implications](#), June.

economies (e.g., *Indonesia, Mexico, Saudi Arabia, South Africa*), where the working-age population is still growing relative to the population, the contribution to growth from the working-age population during the past decade has declined relative to the decade prior to the crisis. Going forward, the projected further aging of populations will continue to weigh on growth.

**5. A further increase in corporate market power could also weigh on productivity.**

Corporate market power has risen in advanced economies, as reflected in an average 8 percent increase in markups during 2000–15. This increase has been broad-based across countries and sectors in advanced economies, though driven by a small fraction of highly productive and innovative firms—reflecting winner-takes-most dynamics. This may hinder the entry of new creative firms and reduce incentives for incumbent firms to innovate. In fact, increases in the market power of high-markup incumbent firms are associated with less innovation, as measured by patenting.<sup>6</sup> A further rise in market power could therefore exert a drag on investment, productivity, and growth.

## C. Building Vulnerabilities and Imbalances Pose Risks

**6. Elevated and rising financial vulnerabilities pose risks to the sustainability of growth.**

Private- and public-sector debt has risen across most of the G-20. Going forward, a prolonged period of very low or even lower interest rates could support a further buildup of debt, exposing G-20 economies to risks of sudden, disruptive adjustments with the potential to destabilize growth over the medium term.

- *Debt vulnerabilities have accumulated* (Figure 5). Non-financial corporate debt, the predominant source of private debt in the G-20, is elevated—for example, as of end-2018, it was well above pre-crisis levels in *Canada, China, France, and Turkey*. In addition, household debt is high in some advanced economies (e.g., *Australia, Canada, Korea*) and *China*. Public debt is high or rising in several economies (e.g., *Argentina, Brazil, France, Italy, Japan, South Africa, United States*), including because of aging-related fiscal pressures.<sup>7</sup> Further, banks are exposed to these vulnerabilities through the provision of credit across all sectors. Alongside, credit quality has worsened, with the stock of BBB-rated bonds (the lowest-rated investment grade bonds) increasing four-fold since the crisis in the *United States* and the *euro area*.<sup>8</sup>
- *External debt and foreign currency exposures are elevated in some vulnerable emerging market economies*. Some G-20 emerging market economies have seen a notable rise in gross external debt and gross external financing needs (e.g., *Argentina, Turkey*) (Figure 6). This partly reflects a rise in foreign-currency denominated debt of non-financial corporates and non-resident holdings of sovereign debt. To this end, sizable gross external financing needs and foreign

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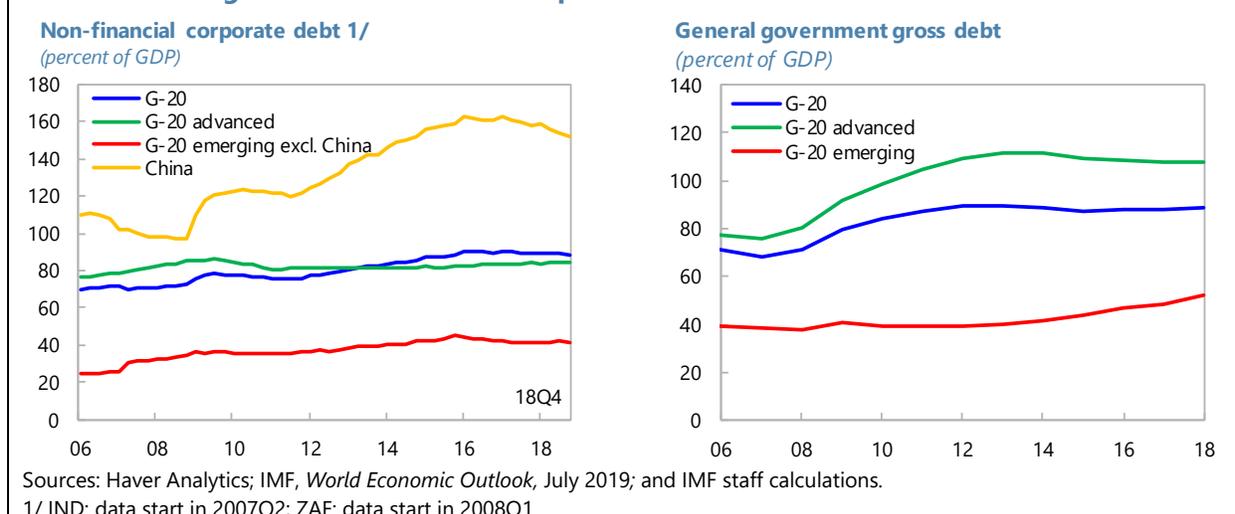
<sup>6</sup> IMF, 2019, World Economic Outlook, [Chapter 2](#), April.

<sup>7</sup> IMF, 2019, G-20 Background Note on [Macroeconomics of Aging and Policy Implications](#), June; OECD, 2019, Fiscal Challenges and Inclusive Growth in Ageing Societies.

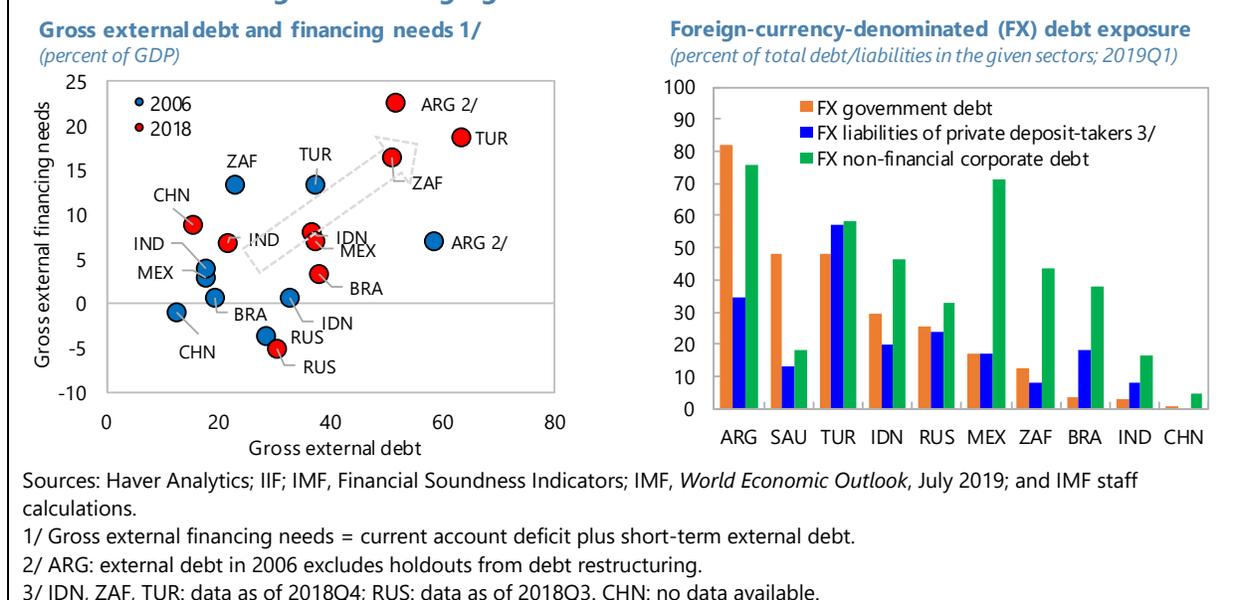
<sup>8</sup> IMF, 2019, Global Financial Stability Report, [Chapter 1](#), April.

currency debt can expose economies to pressures from sudden capital flow reversals and asset price volatility, which could destabilize growth.

**Figure 5. Non-Financial Corporate and General Government Debt**



**Figure 6. Emerging Market External Sector Vulnerabilities**



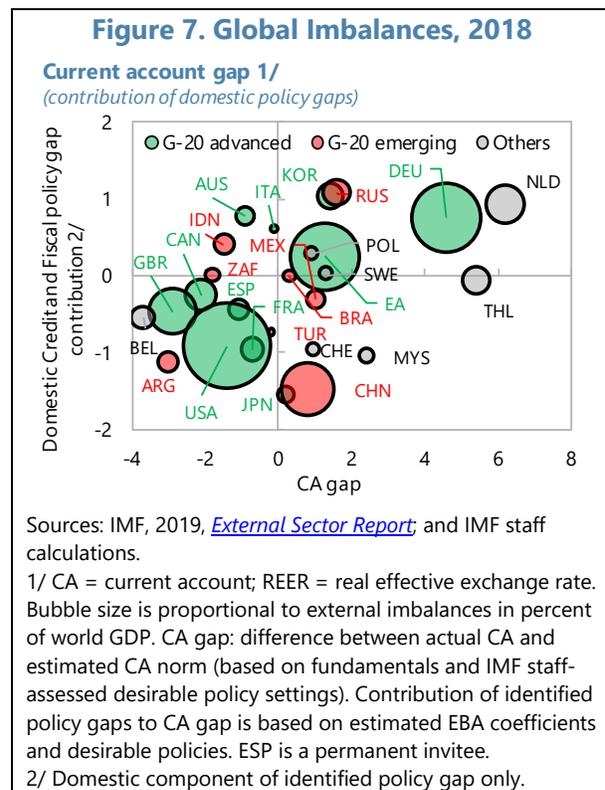
**7. While global current account imbalances have narrowed somewhat in recent years, international stock positions have continued to diverge.** Overall current account surpluses and deficits have narrowed markedly since the peak in the run-up to the global financial crisis, although progress has been slower in recent years, with imbalances rotating toward advanced economies. Yet, net creditor and debtor positions have continued to widen, as most creditor (debtor) economies

continue to run surpluses (deficits), and the sum of these positions now represents about 40 percent of world GDP—a quadrupling since the early 1990s.

### 8. External imbalances can become excessive when they relate to undesirable policy settings.

It is important to note that some imbalances are perfectly adequate and beneficial—for example, current account surpluses may be necessary when they reflect the accumulation of savings in aging economies; and current account deficits can be helpful for young and rapidly growing economies when they help finance investment to durably raise growth. The challenge lies in disentangling the portion that is risky and excessive. According to the IMF’s External Sector Report, excess current account imbalances in 2018 accounted for 35–45 percent of global current account surpluses and deficits, driven partly by tighter-than-desirable fiscal stances among current account surplus economies (e.g., *Germany, Korea*) and looser-than-desirable fiscal stances among current account deficit economies (e.g., *Spain, United States*) (Figure 7).<sup>9</sup> In addition, structural and other

macroeconomic policies played a role, including barriers to innovation and entrepreneurship, which held back private investment in some surplus economies (*Germany, Korea*), and easy credit conditions, which led to excessive demand in deficit economies (*Canada, Turkey*). Furthermore, as highlighted in the IMF’s 2019 External Sector Report, a better understanding of the link between current account surpluses and net corporate saving is of the essence to formulate appropriate policy responses. An updated assessment of the G-20 Indicative Guidelines points to macroeconomic imbalances in the same nine economies identified in 2018 (Annex IV).



## D. Income Inequality Remains Stubbornly High

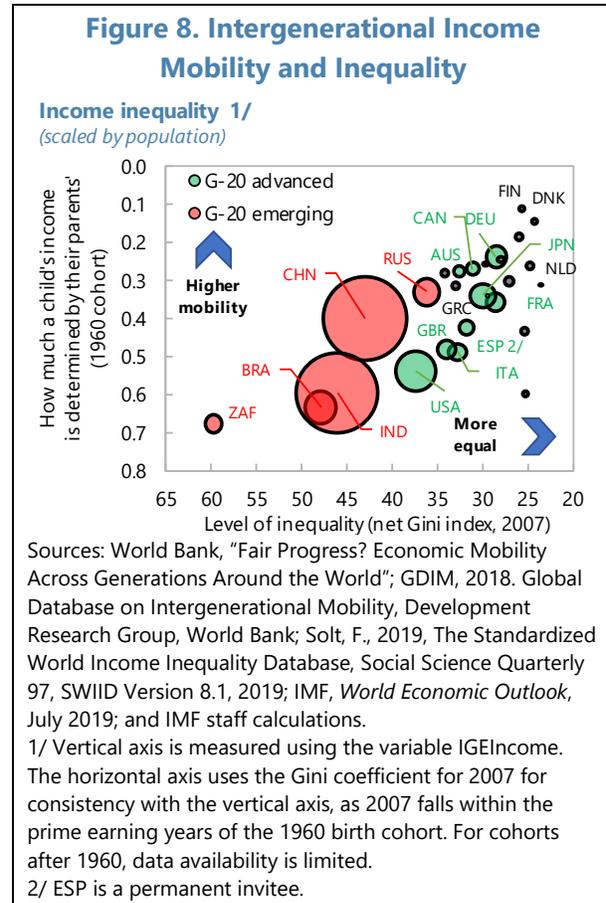
**9. Inequality has proven hard to reduce, holding risks for social cohesion.** Income inequality remains widespread. As measured by the Gini coefficient, it has declined only slightly from pre-crisis levels in some economies (e.g., *Canada, United Kingdom*) and is particularly notable in many emerging economies (e.g., *Brazil, China, India, Indonesia, South Africa*) and the *United States*. In addition, on average across the G-20, as of 2015, the income share of the poorest decile corresponded to less than 9 percent of the income share of the richest decile—partly reflecting relatively larger income gains

<sup>9</sup> IMF, 2019, [External Sector Report](#), July. Policies in the External Sector Report are assessed relative to their medium-term desirable levels.

since the global financial crisis among the top 10 percent of income earners than among the bottom 10 percent of income earners. If not addressed, persistent inequality risks undermining social cohesion and support for growth-oriented reforms, thereby putting a damper on the level and durability of growth.<sup>10</sup>

**10. Unequal access to opportunities, often passed down through generations, is associated with income inequality.** The persistence in high income inequality in a number of G-20 economies across generations (Figure 8) points to inequality in access to opportunities, including regarding education, healthcare, and finance, which restricts labor market prospects.

- *Lack of access to education and healthcare hinders human capital accumulation and holds back the reduction in inequality.* Insufficient access to education prevents potential entry of vulnerable groups into high-paid jobs and a meaningful step up the income ladder and towards economic security. At the same time, the changing technological landscape may raise the rewards from holding high-skill occupations. The changing nature of work, with more frequent job changes and the rising importance of the “gig economy,” could also add to existing constraints regarding access to healthcare and other benefits linked to more traditional, steadier forms of employment.<sup>11</sup>



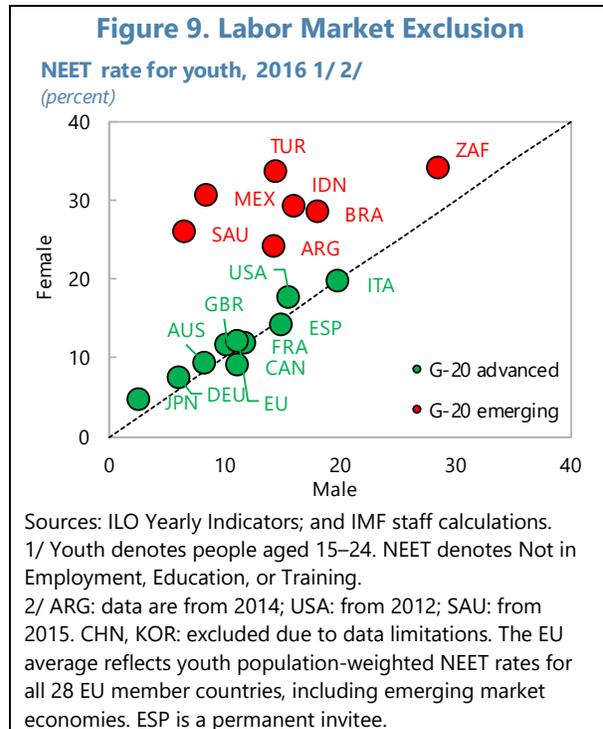
- *Lack of access to finance impedes access to employment opportunities.* Insufficient financial inclusion may constrain the expansion of labor market opportunities, for example by preventing new, otherwise viable, firms from entering the market or existing firms from expanding their business. Lack of access to finance may also directly exclude lower-income groups from affording higher levels of education, with resulting knock-on effects on productivity and growth.

<sup>10</sup> See for example Berg, A. and J. Ostry, 2011, “[Inequality and Unsustainable Growth: Two Sides of the Same Coin?](#)” IMF Staff Discussion Note No. SDN/11/08, April.

<sup>11</sup> IMF, 2018, G-20 Background Note on [Future of Work: Measurement and Policy Challenges](#).

**11. Exclusion from economic prosperity is also reflected in adverse labor market outcomes, particularly for youth and women in emerging market economies.** At 38 percent, the average youth labor force participation rate in emerging market economies is about 8 percentage points lower than in advanced economies. Furthermore, an average 22 percent of working-age youth in emerging market economies is not engaged in education, employment, or training (NEET)—about twice the level observed in advanced economies (Figure 9).

This disparity is accompanied by wide and persistent gender gaps. For example, youth female labor force participation is between 15 and 25 percentage points below that of male participation in some emerging market economies (*Argentina, Indonesia, Mexico, Turkey*), and NEET is more than two times higher among young women than men in *Mexico, Turkey, and Saudi Arabia*. Such adverse labor market outcomes reduce income and savings and can weaken incentives to accumulate human capital, thereby further contributing to inequality and low growth. Structural rigidities in the labor market (e.g., *Italy*) may also prevent “outsiders” from recovering from adverse income shocks, adding further to inequality. In addition, rising corporate market power may have contributed to the decline in labor income shares and added to inequality, as wage growth has not kept up with the increase in profits.<sup>12</sup>



<sup>12</sup> IMF, 2019, World Economic Outlook, [Chapter 2](#), April.

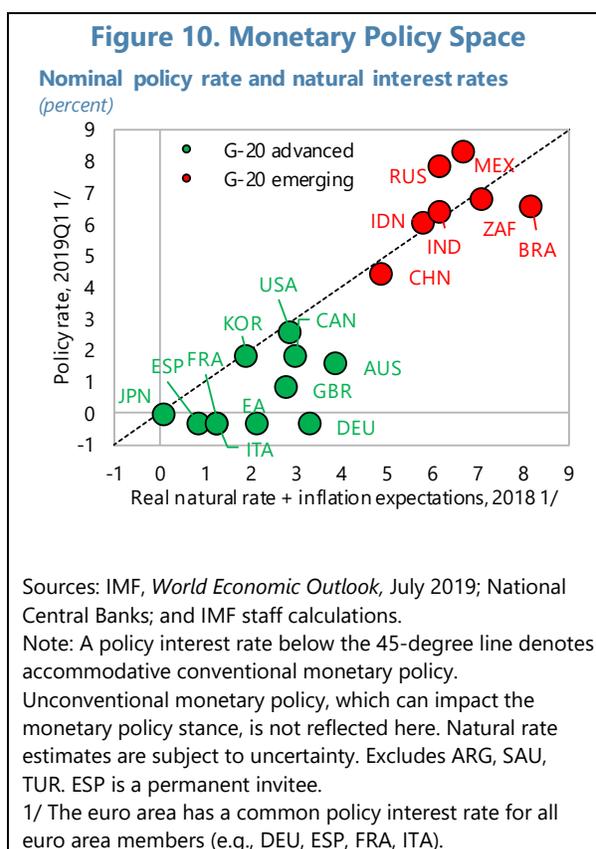
## NO TIME TO WASTE FOR POLICYMAKERS

Well-coordinated policy efforts across available tools, as appropriate, would put growth on a stronger path and make the most of the available policy space. Monetary and fiscal policies can not only support growth and help reduce imbalances, they can also help each other under the right circumstances; macroprudential tools to safeguard financial stability would reinforce the durability of strong growth; structural reforms to lift growth tomorrow will spur investment today; reforms to broaden education can simultaneously boost productivity and reduce inequality; and policies to reduce debt also mitigate risks from imbalances. At the same time, the global economy needs multinational action to reduce uncertainty and risks. Working together, policymakers can reinvigorate global trade and lift the uncertainty contributing to weak investment and growth across countries.

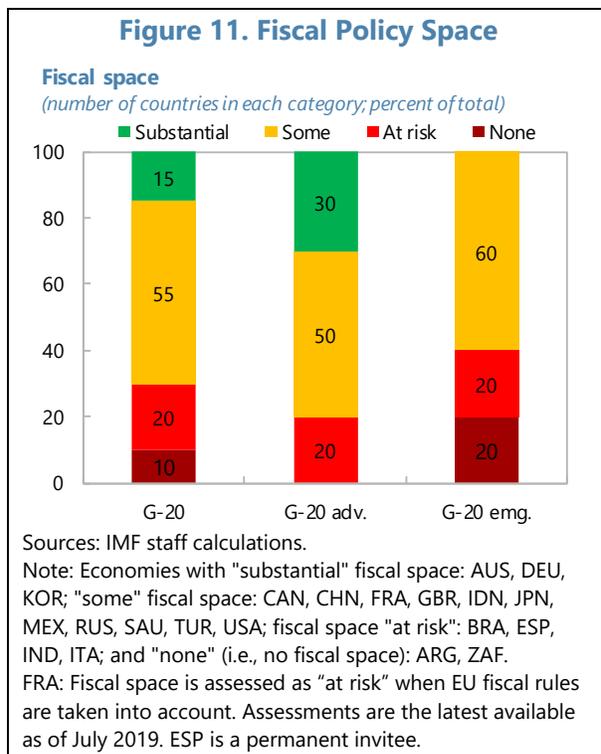
### A. Action Across All Policy Levers Can Support Growth and Stability

#### 12. Macroeconomic policy space is limited in many G-20 economies.

- *Already low or falling interest rates mean less room for monetary policy.* While unconventional monetary policy can provide stimulus, in several advanced G-20 economies, the monetary policy interest rate is at or close to zero, limiting space for conventional monetary policy to stabilize output and employment in the event of a further decline in growth and inflation (Figure 10). In addition, relatively low estimated neutral interest rates in some countries may mean that even very low policy rates might provide less monetary support than otherwise. In emerging market economies, conventional monetary policy space is generally larger, though some face challenges of pressures on the exchange rate from capital flows that feed into inflation.



- *Fiscal policy space differs markedly across the G-20. The recent trend towards lower interest rates has helped reduce public debt financing burdens which, on balance, has the potential to add to fiscal space. However, in many economies, already very high or quickly rising levels of sovereign debt effectively limit the room for possible fiscal expansion, as deficit-financed stimulus may be met with sizable risk premia. This is particularly the case where there are close sovereign-bank linkages that in a downside scenario can prompt adverse feedback effects on growth. Across the G-20, only three economies have substantial fiscal space (Australia, Germany, Korea), while several economies have either fiscal space at risk or no fiscal space (Argentina, Brazil, India, Italy, South Africa) (Figure 11).*



**13. In line with IMF staff advice, monetary policy is set to stay accommodative in most advanced G-20 economies, but less so in some emerging market economies.**

- *In most advanced economies, monetary policy is already helpfully accommodative. As subdued inflation threatens to entrench inflation expectations below central bank targets, monetary policy in most advanced G-20 economies is projected to remain accommodative this year and next (e.g., Australia, Canada, euro area, Japan, United Kingdom), consistent with IMF staff advice (Figure 12). In the United States, the Federal Reserve has lowered its policy rate target range, citing the need to guard against downside risks as well as muted inflationary pressures. In Korea, further monetary easing would be beneficial to boost demand, while macroprudential tools should be used to manage financial-sector risks—with the latter recommendation also applying to other advanced economies (see ¶15).*
- *In emerging market economies, monetary policy settings reflect a diverse set of country-specific factors, with room for a more accommodative stance in some. A more expansionary monetary stance than currently projected would be beneficial in India, where inflation pressures have abated. In contrast, economies that have been subject to market pressure will need a moderately tight monetary policy stance to counter potential pressure on the exchange rate from capital outflows (Argentina) or to rein in inflation and inflation expectations and rebuild reserves (Turkey). For Turkey, this means higher real interest rates. Overall, flexible exchange rates should be allowed to fluctuate to cushion against shocks and shifts in capital flows to the extent the pass-through to inflation and negative balance sheet effects are contained.*

**Figure 12. Monetary Policy Stance and Recommendations**

		Projected monetary stance		Difference between recommended and projected monetary stance	
		2019	2020	2019	2020
Advanced economies	Euro area 1/				
	AUS				
	CAN				
	JPN 2/				
	GBR				
	USA				
	KOR	Neutral	Neutral	↑	↑
Emerging market economies	BRA				
	CHN				
	ZAF				
	TUR 3/			↓	↓
	IDN	Neutral	Neutral		
	IND		Neutral	↑	
	RUS		Neutral	↑	
	MEX				
	ARG 4/				
	SAU 5/				

Key (stance)		Key (difference)	
Substantially expansionary		Substantially more expansionary: $\Delta ir < -100$ basis points	↑
Moderately expansionary		Moderately more expansionary: $-100 \text{ basis points} \leq \Delta ir < 0$	↑
Neutral		Unchanged: $\Delta ir \approx 0$ (approximately)	
Moderately contractionary		Moderately more contractionary: $0 < \Delta ir \leq 100$ basis points	↓
Substantially contractionary		Substantially more contractionary: $\Delta ir > 100$ basis points	↓

Sources: IMF staff estimates and recommendations.

1/ Euro area: the European Central Bank conducts monetary policy for the euro area as a whole, incl. for DEU, ESP, FRA, and ITA.

2/ JPN: while no changes to the quantitative or interest rate targets are recommended at this point, improvements in the monetary policy communication framework could help lift inflation expectations and thus widen the gap between the natural and actual real interest rate.

3/ TUR: Recommendation reflects the need for higher real interest rates.

4/ ARG: projections and recommendations are not shown given ongoing discussions with the authorities.

5/ SAU: has a fixed exchange rate.

**14. Fiscal policy must balance the tradeoffs between supporting demand, ensuring sustainability, and protecting vulnerable groups.** Based on current policy settings, more than half of G-20 economies are projected to ease fiscal policy this year (Figure 13), and most economies are expected to carry out a neutral or contractionary fiscal stance in 2020. Going forward, fiscal policy recommendations will need to be carefully tailored to growth developments and country-specific circumstances.

- *A number of economies would benefit from further efforts to reduce debt, while a few have space to provide additional support for growth.* Where fiscal space is a constraint, a somewhat tighter-than-projected stance would be beneficial. Notably, further efforts are needed going forward to gradually reduce public debt (e.g., *France, Italy, South Africa, Spain, United States*) or to continue the transition toward a more sustainable growth path (*China*). Yet, economies with sufficient fiscal space could benefit from additional support for domestic demand (e.g., *Germany, Korea*).
- *Preparations should be made to be prepared for an eventual further downturn.* Consideration could be given to improve the design of automatic stabilizers and social assistance programs and identifying potential discretionary measures and productivity-enhancing public investment plans that could be quickly implemented in the event of weaker demand. Should global growth further disappoint, use of available conventional and unconventional monetary policy space should be accompanied, where space is available, by fiscal stimulus, including through an acceleration or expansion of already planned measures. Where fiscal space is constrained, the pace of fiscal consolidation may need to slow to the extent that financing conditions remain amenable and debt sustainability is assured. Automatic stabilizers should be allowed to work. Should it become warranted, a well-coordinated, joint policy response would provide positive spillovers and give the most impetus to growth.<sup>13</sup>

**15. Financial sector policy that strengthens balance sheets and mitigates risks from high leverage would also support stability.** Authorities in some economies have tightened financial-sector policies to mitigate risks, including from high leverage. This involves a strengthening of financial regulation and supervision (*China*), the activation or tightening of countercyclical capital buffers for banks (*France, Germany, United Kingdom*), and targeted macroprudential measures to address fast credit growth in certain sectors (*Canada, Russia*). Still, more needs to be done across the G-20 in light of elevated vulnerabilities that may further add to medium-term risks. This includes thoroughly assessing banking system health through third-party asset quality review and rigorous stress tests (*Turkey*), repairing balance sheets and improving banking sector efficiency (e.g., *Italy*), and looking for ways to develop and strengthen macro-prudential tools to address balance sheet vulnerabilities related to leverage and maturity and foreign currency mismatches. Finally, further efforts are needed in addressing data gaps to allow for a better assessment of vulnerabilities, especially in sectors outside the perimeter of regulation.

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<sup>13</sup> IMF, 2019, [G-20 Surveillance Note](#), June.

Figure 13. Fiscal Policy Stance and Recommendations

		Projected change in CAPB			Difference between recommended and projected change in CAPB		
		2019	2020	2021-24 avg.	2019	2020	2021-24 avg.
		Advanced economies	DEU	Green	Yellow	Yellow	
KOR	Green		Green	Yellow	Green		
CAN	Light Green		Light Green	Yellow		Red	
ESP 1/	Light Green		Yellow	Yellow	Red	Red	Red
USA	Light Green		Yellow	Yellow	Red	Red	Red
EU 2/	Light Green		Light Green	Yellow	Red	Red	Red
FRA	Yellow		Yellow	Yellow		Red	Red
JPN	Yellow		Red	Yellow		Green	Red
GBR	Yellow		Light Green	Yellow			
AUS	Yellow		Yellow	Yellow			
ITA	Yellow		Green	Light Green	Red	Red	Red
Emerging market economies	CHN	Green	Yellow	Yellow		Red	Red
	IND	Green	Yellow	Yellow	Red	Red	Red
	MEX	Green	Yellow	Yellow			
	ZAF	Green	Yellow	Yellow		Red	Red
	BRA	Light Green	Yellow	Yellow			
	IDN	Light Green	Yellow	Yellow			
	TUR	Light Green	Light Green	Yellow		Red	Red
	RUS	Yellow	Yellow	Yellow			
	ARG 3/	Red					
	SAU	Red	Red	Red		Red	Red

Key (stance)		Key (difference)	
Substantially expansionary	Green	Substantially more expansionary or less contractionary: $\Delta d(\text{CAPB}) < -0.5$ ppt. of potential GDP	Green
Moderately expansionary	Light Green	Moderately more expansionary: $-0.5 \leq \Delta d(\text{CAPB}) < -0.1$ ppt. of potential GDP	Green
Neutral	Yellow	Unchanged: $-0.1 \leq \Delta d(\text{CAPB}) \leq 0.1$ ppt. of potential GDP	
Moderately contractionary	Light Orange	Moderately more contractionary: $0.1 < \Delta d(\text{CAPB}) \leq 0.5$ ppt. of potential GDP	Red
Substantially contractionary	Red	Substantially more contractionary or less expansionary: $\Delta d(\text{CAPB}) > 0.5$ ppt. of potential GDP	Red

Sources: IMF staff estimates and recommendations.

Note: CAPB = cyclically-adjusted primary balance. Projections and recommendations are the latest as of September 20, 2019. Projections are based on announced fiscal measures only. FRA: structural adjustment in 2019–20 is net of the effect of conversion of the CICE into a tax break. ESP: primary structural balance (CAPB net of one-off spending) is used. RUS: non-oil cyclically-adjusted structural primary balance in percent of potential GDP is used. SAU: non-oil primary balance in percent of non-oil GDP is used (not cyclically adjusted).

1/ ESP is a permanent invitee.

2/ EU: The IMF does not prescribe recommendations for the EU-wide fiscal stance. The entries for the EU thus represent the GDP-weighted average of the projected change and the difference between the recommended and projected changes in the CAPB in each EU country (excluding Greece).

3/ ARG: projections and recommendations for 2020 and onwards are not shown given ongoing discussions with the authorities.

**16. A broad-based effort that takes advantage of the complementarities between policy instruments will maximize their impact and foster growth.** For example, where appropriate, accommodative monetary policy can reinforce positive growth effects of fiscal policy as lower interest rates mitigate the crowding out of private demand that expansionary fiscal policy may generate. Implementing financial sector policies to contain a further buildup in debt and reduce vulnerabilities from foreign currency mismatches can limit risks from prolonged low interest rates and provide space for monetary policy to focus on meeting its inflation objective. And a well-capitalized banking system will reduce potential spillovers from a crystallization of sectoral vulnerabilities to the rest of the economy (e.g., sovereign-bank linkages) and reinforce the stability of growth.

## **B. Structural Reforms are Needed to Reach a Higher Growth Path**

**17. Despite recent progress, there is ample scope for structural reforms.** Under the Brisbane Initiative, the G-20 has committed to broad-based reforms that continue to be implemented.<sup>14</sup> New structural reform efforts include progress in strengthening competition and lifting product market regulations (*Mexico*) as well as reducing the labor tax wedge and implementing labor code reforms (*France*). Yet, reform gaps persist across most sectors in the G-20 and closing these gaps would materially lift the growth trajectory. Ensuring that the benefits of reforms are widely shared will support the goal of inclusive growth and, at the same time, shore up the political support for the required measures.

**18. The joint IMF-OECD assessment of structural reform needs among G-20 economies highlights key reform areas.** Many economies would do better by easing product market regulations, promoting greater labor force participation, and further liberalizing and facilitating trade—including, in some key cases, the unwinding of recently-imposed trade barriers (Figure 14 and ¶25). Implementing these reforms would not only lift medium-term growth but can also spur new investment and growth today and strengthen resilience. Boosting labor force participation would alleviate the drag on growth from aging populations and help mitigate aging-related fiscal costs.<sup>15</sup> A renewed push for reforms in emerging market economies would help speed up convergence to living standards in advanced economies.<sup>16</sup>

- *For most advanced economies, product and labor market reforms remain essential.* Product market reforms to ease barriers to entry for new firms or the regulatory protection of incumbents would boost competition, help reduce market power, and provide a much-needed push for productivity by fostering investment and innovation. Among other things, this would entail the removal of excessively restrictive regulations, including for professional services (*France, Germany, Italy, Japan*). In rapidly aging economies, labor market reforms are needed to boost labor supply—for example by ensuring the availability of adequate childcare to support higher female labor force participation (*Canada, Germany, Japan, Korea*). More support for research and development

<sup>14</sup> IMF, 2018, [G-20 Report on Strong, Sustainable, Balanced, and Inclusive Growth](#), November.

<sup>15</sup> IMF, 2019, G-20 Background Note on [Macroeconomics of Aging and Policy Implications](#), June.

<sup>16</sup> IMF, 2019, World Economic Outlook, [Chapter 3](#), October.

activity remains a priority (e.g., *Spain, United Kingdom*), especially to the extent that innovation has lagged or investment is weak. Ensuring that intellectual property rights regimes reward major innovations more than incremental ones would also support growth.

- *In many emerging market economies, key reform priorities comprise an easing of product market regulations and reform of the tax system.* On the product market side, this includes encouraging private sector activity and reforming state-owned enterprises to facilitate greater competition (*China, Indonesia, Russia, South Africa*). There is also room to further liberalize restrictions on foreign direct investment and trade (*China, India*), including in services (*Mexico*). Easing employment protection legislation would help boost growth while also enhancing inclusiveness by improving labor market outcomes for vulnerable groups such as youth (*Argentina, China, India, Indonesia, Turkey*). It is estimated that reducing youth inactivity rates in emerging market and developing economies to levels observed in advanced economies by bringing them into employment could lift the level of output among these economies by 5 percent.<sup>17</sup> Many of these reforms should be complemented by efficiency-enhancing tax reforms—for example, a shift toward higher reliance on consumption and property taxes—to increase their impact on productivity.

**19. Macroeconomic policy that supports otherwise weak demand, where applicable, can help bring forward the growth benefits of labor market reforms.** For both advanced and emerging market economies, some reforms, such as easing job protection legislations for regular workers or liberalizing domestic finance, pay off more when economic conditions are supportive.<sup>18</sup> Therefore, where growth is currently lacking, the recommended supportive macroeconomic policies to raise aggregate demand—including fiscal expansion where space is available—can help offset potential negative near-term employment effects from easing job protection. Bundling such reforms with more generous unemployment benefits, higher spending on active labor market policies, and labor tax cuts can help mitigate any distributive effects, while also creating more traction for reforms. Over the medium term, the growth-enhancing effects of such reforms would also help increase policy space for both fiscal and monetary policy.<sup>19</sup>

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<sup>17</sup> Ahn, J., Z. An, J. Bluedorn, G. Ciminelli, Z. Kóczán, D. Malacrino, D. Muhaj, and P. Neidlinger, 2019, "[Work in Progress: Improving Youth Labor Market Outcomes in Emerging Market and Developing Economies](#)," IMF Staff Discussion Note No. SDN/19/02, January.

<sup>18</sup> IMF, 2019, World Economic Outlook, [Chapter 3](#), October.

<sup>19</sup> Gaspar, V., M. Obstfeld, and R. Sahay, D. Laxton, D. Botman, K. Clinton, R. Duval, K. Ishi, Z. Jakab, L. J. Mayor, C. L. Ngouana, T. M. Griffoli, J. Mongardini, S. Mursula, E. Nier, Y. Ustyugova, H. Wang, and O. Wuensch, 2016, "[Macroeconomic Management When Policy Space is Constrained: A Comprehensive, Consistent, and Coordinated Approach to Economic Policy](#)," IMF Staff Discussion Note No. SDN/16/09, September.

**Figure 14. Structural Reform Recommendations**  
(Degree of priority according to consensus rating)

Advanced economies											
	AUS	CAN	FRA	DEU	ITA	JPN	KOR	ESP 1/	GBR	USA 2/	EU 3/
Easing product market regulations	Low	High	High	High	High	Medium	High	High	Low	High	Low
Trade liberalization/facilitation	Low	Medium	Low	Medium	Low						
Easing employment protection legislation	Low	Low	Low	Low	Low	High	High	High	Low	Low	Low
Tax structure reform (increase share of consumption and property taxes in total tax revenues)	High	Medium	Low	Medium	High	Medium	Medium	Medium	Low	Low	Low
Research and Development	Low	Medium	Low	Medium	Low	Low	Low	High	High	Low	Medium
Reducing labor tax wedge	Low	Low	Low	High	High	Low	Low	Medium	Low	Low	Low
Childcare spending or other reforms to increase female labor force participation	Low	High	Low	High	High	Medium	High	Low	Low	High	Low
Active labor market policies	Low	Medium	Medium	High	High	High	Medium	Medium	High	High	Medium
Reducing unemployment benefit replacement rate	Low										
Emerging market economies											
	ARG	BRA	CHN 2/	IND	IDN	MEX	RUS	SAU	ZAF	TUR	
Easing product market regulations	Medium	Low	High	High	High	High	High	Low	High	Medium	
Trade liberalization/facilitation	Low	High	Medium	Medium	Medium	Low	High	Low	Medium	Low	
Easing employment protection legislation	Medium	Low	High	High	Medium	Low	Low	Low	Low	High	
Tax structure reform (increase share of consumption and property taxes in total tax revenues)	Medium	High	High	High	Low	Medium	High	Low	Low	Low	
Research and Development	Low	Low	Low	Low	Low	Low	Medium	Low	Low	Low	
Reducing labor tax wedge	Medium	Low	Low	Low	Low	Low	High	Low	Low	Medium	
Childcare spending or other reforms to increase female labor force participation	High	Low	Low	Medium	Low	Medium	Low	High	Low	Low	
Active labor market policies	Medium	Low	Low	Low	Low	Low	Low	High	Low	High	
Reducing unemployment benefit replacement rate	Low										

Sources: Based on a consensus assessment by IMF and OECD.

Note: Priorities are country specific and should not be compared across countries. SAU: only IMF rating is used for the consensus rating.

1/ ESP is a permanent invitee.

2/ USA, CHN: degree of priority regarding trade liberalization/facilitation does not reflect the need to also reverse recently imposed tariff hikes.

3/ EU: degree of priority based on a simple average of priorities for European Union member countries. For non-G-20 EU member countries, only IMF ratings are used for the consensus rating. EU-wide recommendations are not taken into account.

Key	
High	High
Medium	Medium
Low	Low

## C. Sound Policies Would Help Reduce Global Imbalances

### 20. Fiscal policy combined with structural reforms can help reduce excess imbalances both in surplus and deficit economies.

- *In many current account surplus economies, encouraging investment and discouraging excess saving should be a priority.* For example, boosting investment and potential growth through infrastructure spending in countries with fiscal space (*Germany*) and deregulating the service sector (*Germany, Korea*) would be key. Depending on circumstances, excess saving could also be mitigated by expanding the social safety net and prolonging working lives.
- *Several excess current account deficit economies would benefit from increasing labor market flexibility and improving competitiveness.* In addition to a tighter fiscal policy stance in some economies, priorities include improving access to and quality of education (*Indonesia, South Africa, United States*), supporting investment in research and development and physical capital (*Canada*), and enhancing labor market flexibility (*South Africa*). Such reforms would raise productivity and strengthen competitiveness, thereby assisting in narrowing excess deficits and engendering a more sustainable growth outlook.
- *Even where external positions are already near balance, structural reforms are of the essence.* In economies with near-balanced positions (e.g., *China, Japan*), structural reforms are needed to ensure a durable external rebalancing, while domestic vulnerabilities are addressed.

**21. Reforms to raise medium-term growth can also help reduce existing imbalances and prevent the buildup of new ones, thereby containing risks.** For example, in *China*, policies to reduce leverage and limit a further buildup of financial sector risks, accompanied by efforts to strengthen the social safety net and reduce subsidies to state-owned enterprises, would help prevent a resurgence of excess current account surpluses. In other countries (e.g., *Brazil, France, Italy, Turkey*), policies aimed at enhancing the business climate to encourage investment, combined with measures to build fiscal space and increase human capital, will boost competitiveness, increase savings, and help prevent the reemergence of excess current account deficits.

## D. Reforms to Support More Equal Societies Also Help Growth

**22. Expanding access to opportunities can contribute to both reducing inequality and strengthening the growth trajectory.** Reforms with such dual impact include investing in education and health, broadening access to finance, and reforming labor and product markets. Over the medium term, a more equal society can also generate support for reforms in places where fiscal adjustment or other reforms are needed. Hence, when combined, reforms that help both equality and growth would support a more favorable, more sustainable, and more inclusive growth trajectory.

- *Investing in education is key to level the playing field and provide opportunities for all.* Ensuring access to high-quality basic and secondary education and expanding tertiary education is critical. This would enhance the adaptability to and creation of new ideas and technologies and

strengthen individual labor market outcomes and raise growth. In addition, there is room to make education spending more efficient given the cross-country dispersion in education outcomes for a given level of education spending.<sup>20</sup>

- *Facilitating access to health services would support healthier lives and help lift productivity and growth.* Access to high-quality health care services is essential. In addition, more fragmented working careers call for more flexibly designed social insurance systems, including healthcare systems, to ensure continued coverage.
- *Greater financial inclusion would facilitate participation in economic activity.* Greater financial inclusion can strengthen gender equality by enhancing female entrepreneurship and labor force participation.<sup>21</sup> It may also encourage additional saving among low-income households, helping to reduce wealth inequality over the longer term. Care must be given, however, not to undermine financial stability, including by strengthening legal and regulatory frameworks, enhancing transparency, and raising consumer education and awareness.
- *Labor market reforms should be implemented to support participation across age and gender.* While minimum wages and severance legislation are important to protect workers, if set too high or too restrictive, they can deter employment opportunities, including for the youth. IMF research shows that less restrictive minimum wage and severance rules and higher legal protection for women can help raise labor force participation and employment rates—in particular for young women.<sup>22</sup> In addition, strengthening legal protection for women in employment is associated with higher female employment and labor force participation rates at all ages, with no adverse effects on young men—thus helping to reduce gender gaps and improve youth labor market outcomes.
- *Product market reforms to curb corporate market power can help render growth more inclusive.* Reforms to strengthen competition would not only help boost innovation and raise growth, they would likely also help counter the decline in the labor income share, which is partly driven by higher corporate market power.<sup>23</sup> In turn, such reforms can support a reduction in inequality.

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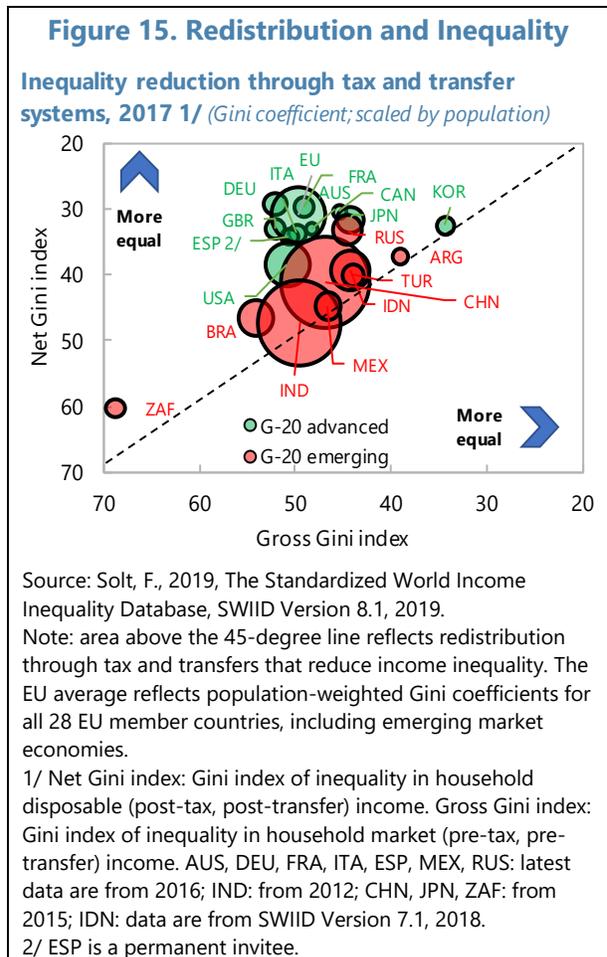
<sup>20</sup> IMF, 2018, G-20 Background Note on [Future of Work: Measurement and Policy Challenges](#).

<sup>21</sup> See, for example, IMF, 2017, "[India: 2017 Article IV Consultation](#)," IMF Country Report No. 17/54, February.

<sup>22</sup> Ahn, J., Z. An, J. Bluedorn, G. Ciminelli, Z. Kóczán, D. Malacrino, D. Muhaj, and P. Neidlinger, 2019, "[Work in Progress: Improving Youth Labor Market Outcomes in Emerging Market and Developing Economies](#)," IMF Staff Discussion Note No. SDN/19/02, January.

<sup>23</sup> IMF, 2019, World Economic Outlook, [Chapter 2](#), April.

**23. Well-designed redistributive policies remain an important tool to ensure that the benefits from growth are widely shared.** Strong social protection systems help cushion the most vulnerable and generate support for growth-promoting reforms. Yet, while—especially in advanced G-20 economies—tax and benefit systems are widely used to redistribute income to reduce inequality, there is room to take additional steps to support inclusiveness (Figure 15). Depending on country circumstances, potential measures that can be helpful in this regard include enhancing the progressivity of taxation (in a way that minimizes the efficiency losses that progressive income and labor taxation might cause); strengthening social protection systems, including by improving the targeting of cash transfers; reducing tax-expenditures that benefit the rich; and boosting revenue mobilization, especially in emerging market economies.<sup>24</sup>



<sup>24</sup> IMF, 2017, G-20 Background Note on [Fostering Inclusive Growth](#); and IMF, 2017, Fiscal Monitor, [Chapter 1](#), October.

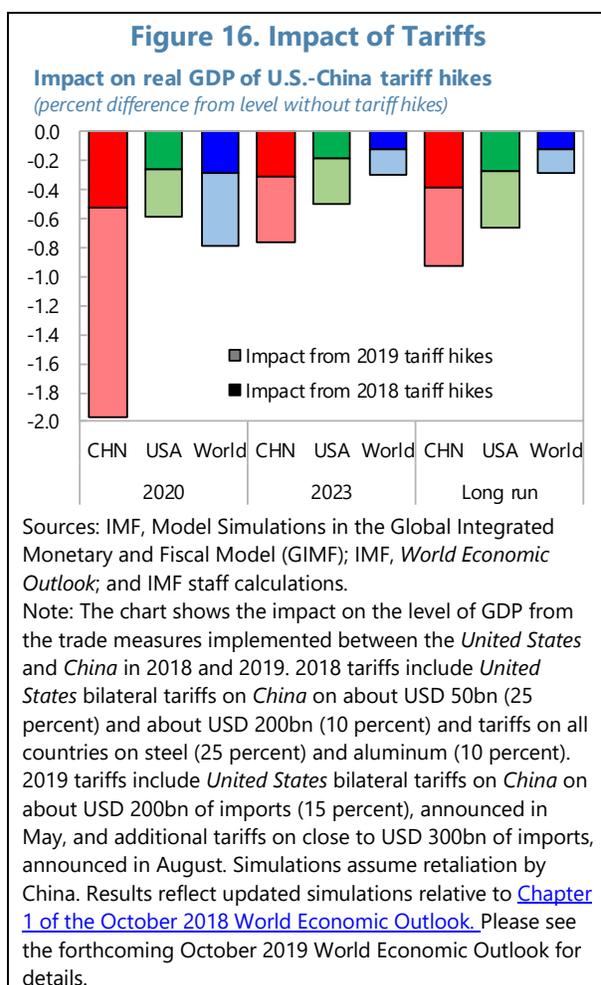
## BOLD AND BROAD-BASED ACTION WILL BENEFIT ALL

Working together, the G-20 can help lift growth and reduce risks. This means combining well-coordinated national policies with joint measures at the global level. Among the latter, reversing trade tensions and fast, tangible progress toward a better multilateral trading system will go a long way toward reinvigorating global trade and lifting the uncertainty contributing to weak investment and growth. A modernized open, stable, and transparent trade system, adjusted to the changing needs of the global economy, would bring new opportunities for growth for all involved. Bold and broad-based action, both at home and at the international level will facilitate stronger, more sustainable, more balanced, and more inclusive growth.

### A. Multilateral Action is Essential for Reaching the First-Best Outcome

**24. A key priority is to reverse recently imposed tariffs to boost global GDP.** Reversing tariff hikes between the *United States* and *China* imposed this year and last would reduce trading costs, help support the efficient allocation of resources, and reduce investor uncertainty and financing costs. Updated staff simulations show that the 2018 and 2019 tariff hikes are likely reducing the level of world GDP by about 0.8 percent by 2020 (Figure 16). However, amid concerns about an uneven playing field, durably deescalating and resolving trade tensions require close cooperation among all G-20 economies.

**25. Creating a more open, stable, and transparent trade system would support these efforts.** To re-establish mutual trust and build a trading system fit for an ever-changing global economy, important gaps in the international rule book need to be tackled, involving areas such as agricultural and industrial subsidies, investment facilitation, and the links between technology transfer policies and intellectual property protection (e.g., related to approvals of foreign direct investments). It would also require opening markets for services and e-commerce. Crucial to strengthening the trade system to the benefit of all economies are also needed efforts to reform the WTO, in particular to ensure the enforceability of WTO commitments. G-20 leaders have a critical role in providing the political leadership needed to make this happen.



**26. Cooperation is also needed on a broader set of reforms that would strengthen the global economy.** These pertain to the areas of taxation, regulation, and financial stability.

- *The system for taxing multinational enterprises should be reformed.* Annual tax revenues lost to base erosion and profit shifting have been estimated at about 1 percent of GDP in the OECD and 1.3 percent for non-OECD economies.<sup>25</sup> Efforts within the OECD/G-20 Inclusive Framework on Base Erosion and Profit Shifting is therefore welcome. However, more needs to be done considering continued opportunities for profit-shifting, concerns regarding tax competition, and their negative impact on low-income and emerging market economies.<sup>26</sup> Digitalization also has repercussions for international corporate taxation, including as the global aspects of digitalization add challenges for determining the location of value creation.
- *The post-crisis regulatory financial reform agenda should be completed and fully implemented.* After the global financial crisis laid bare the deficiencies of the financial market regulatory and supervisory architecture, an ambitious reform agenda was developed, and new standards implemented (e.g., Basel III capital and liquidity accords). Yet, it will be important to guard against regulatory rollback and address remaining issues, including by addressing systemic risk from centralized counterparties and improving cross-border cooperation in crisis prevention and management.<sup>27</sup> Oversight in continuously expanding areas such as fintech and cybersecurity should also be a priority, and implications of the rising importance of crypto-currencies would need to be assessed and policies to contain associated risks developed.
- *The global financial safety net needs to be strengthened.* This would include concluding the 15<sup>th</sup> General Review of Quotas for the IMF to ensure it remains adequately resourced. Continued work to strengthen coordination between the various layers of the global financial safety net would also be essential, including as some countries have resorted to costly buildup of large international reserve holdings. In this respect, regional financing arrangements and lending arrangements with the IMF are important complements to international reserves and bilateral swap lines, not least as vulnerable emerging market economies may face sizable financing gaps in the event of a sudden stop.

## **B. A Joint Effort Will Lift Growth and Reduce Vulnerabilities**

**27. Adjusting policies to the recommended settings in all economies would facilitate reaching a stronger growth path.** Simulations using the IMF's G-20 model show that implementing the monetary and fiscal policy recommendations and structural reform priorities, beyond what is already reflected in baseline policy projections, as laid out in Figures 12–14, would make a significant difference (Annex III).

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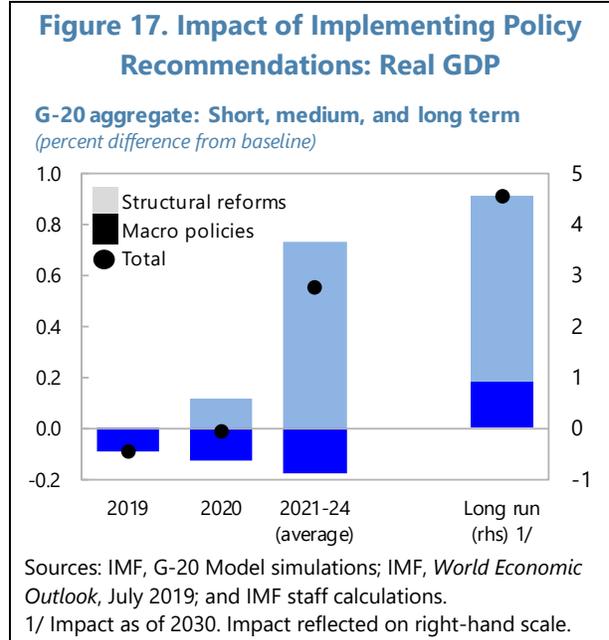
<sup>25</sup> IMF, 2019, "[IMF Policy Paper: Corporate Taxation in the Global Economy](#)," March.

<sup>26</sup> IMF, 2019, Fiscal Monitor, [Chapter 1, Box 1.3](#), April.

<sup>27</sup> For an assessment of the reform agenda, see IMF, 2018, Global Financial Stability Report, [Chapter 2](#), October.

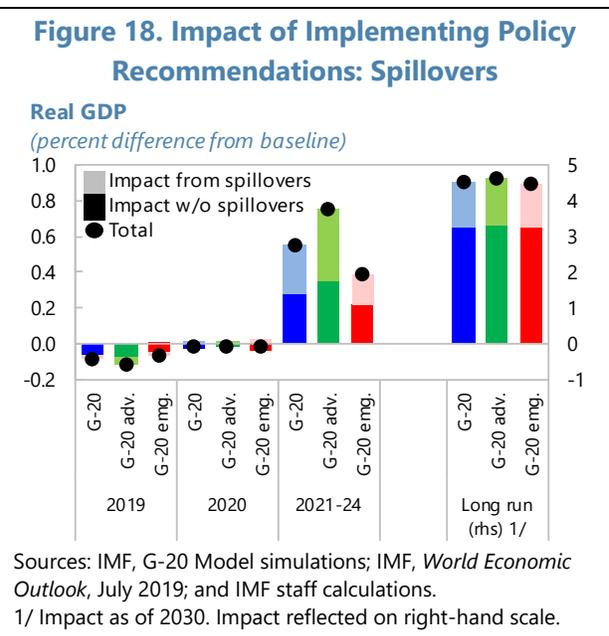
**28. Over the near term, adjusting policies to the recommended settings would be broadly neutral for aggregate G-20 growth, albeit amid notable cross-country differences.**

While needed fiscal consolidation in some economies (e.g., *China, Italy, South Africa, Spain, United States*) would dampen growth in the near term, the call for a looser-than-projected fiscal stance in some advanced economies (e.g., *Germany, Japan, Korea*) and a more expansionary monetary policy in some G-20 emerging market economies (e.g., *India, Russia*) and *Korea* would help counter these effects. Combined with the implementation of structural reforms—assumed to take effect starting in 2020—the level of GDP would be broadly unchanged in the near term (Figure 17).



**29. Over the medium and long term, structural reforms promise sizable gains, as fiscal buffers are being rebuilt.** Fiscal tightening in some economies (e.g., *China, Italy, South Africa, Turkey, United States*) would help reduce sovereign risk but, at the same time, put an added damper on aggregate G-20 GDP. However, as the structural reform agenda is implemented—affecting all countries and most sectors, particularly in labor and product markets and through tax reform—productivity gains provide a significant overall boost to the level of GDP, which more than compensates for the temporary negative demand impact of fiscal consolidation. Over the long run, global GDP benefits from the aggregate reduction in sovereign net debt relative to GDP as interest rates fall in several economies and investment increases (Figure 19; Annex III). However, the main force behind the increase in long-run GDP are the accumulating effects of structural reforms, which contribute about 3½ percentage points of the expected increase of more than 4 percent relative to the baseline without the recommended policy changes.

**30. Positive spillovers among G-20 economies reinforce the positive effects of joint action.** These spillovers are relatively small in the short term, owing to the relatively small size of the recommended monetary and fiscal policy actions and the fact that policy actions by all countries would not be working in the same direction (Figure 18). However, spillovers play a



more sizable role over the medium and long terms, as all countries implement structural reforms and the associated boost to productivity spreads to others, allowing GDP and consumption to further rise.<sup>28</sup> On average, spillovers over the longer run account for about one quarter of the total boost to G-20 GDP.

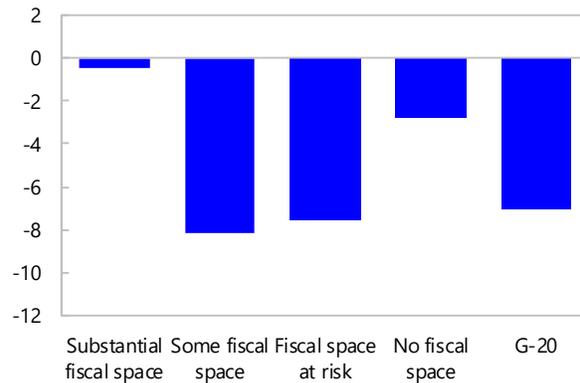
**31. Implementation of the recommended policies would not only render growth stronger and more sustainable, it would also reduce vulnerabilities and imbalances.** The recommended fiscal consolidation in many G-20 economies allows for a notable reduction in sovereign debt and supports a shift of aggregate demand from excess current account deficit to excess current account surplus economies, rendering G-20 growth more balanced overall.

- *Government debt declines across most G-20 economies.* The recommended fiscal consolidation where needed—and supported by a comprehensive policy and reform package and synchronized action across the G-20—helps reduce the government debt burden relative to GDP (Figure 19). This is particularly the case for economies with some fiscal space or fiscal space at risk, where the combined effect of fiscal consolidation and structural reforms allows for a more than 6 percentage point of GDP reduction in government net debt on average over the medium term. In countries with substantial fiscal space that increase fiscal spending (e.g., *Germany*), the growth benefits of structural reforms work to counter the upward pressure on the debt level.

**Figure 19. Impact of Implementing Policy Recommendations: Government Debt**

**Government net debt, 2024**

(percent of GDP; percentage point difference from baseline)



Sources: IMF, G-20 Model simulations; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

Note: For most countries, a decrease in government net debt corresponds to a reduction in gross debt in percent of GDP; for some, it corresponds to an increase in government assets in percent of GDP.

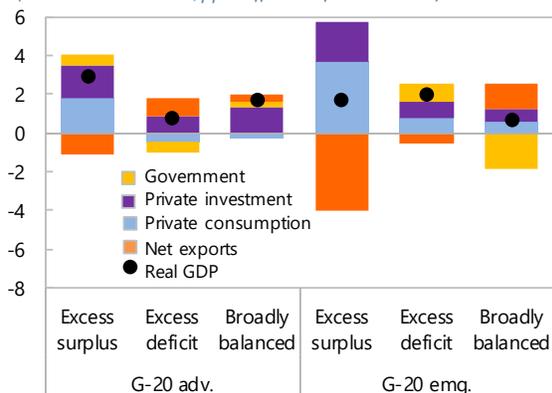
- *The changing composition of demand supports rebalancing.* Overall, structural reform efforts increase incentives to invest (Figure 20), but fiscal policy also has an important role to play. Expansionary fiscal policy in advanced excess current account surplus economies (e.g., *Germany*) prompts a shift from net exports to consumption and investment demand and a reduction in the surplus. In advanced excess current account deficit economies, the impact of fiscal consolidation (e.g., *United States*) has a corresponding effect in the opposite direction and helps narrow the current account deficit. In countries with broadly balanced external positions (e.g., *China, Japan*), implementing the recommended policies, including structural reforms, helps prevent a resurgence of excess imbalances.

<sup>28</sup> For the impact of technology spillovers on productivity, see IMF, 2018, *World Economic Outlook*, [Chapter 4](#), April.

**Figure 20. Impact of Implementing Policy Recommendations: Demand and Current Account**

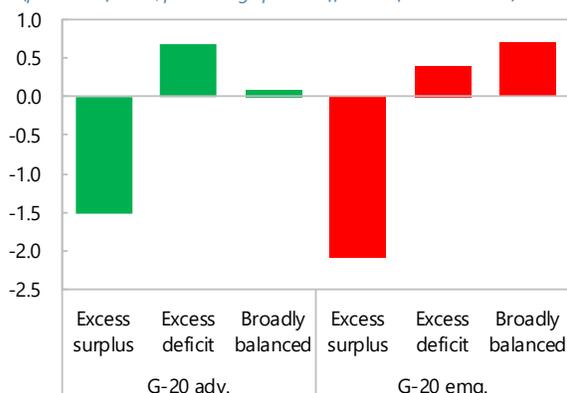
**Demand side decomposition, 2024**

(contribution to GDP; ppt. difference from baseline)



**Current account balance, 2024**

(percent of GDP; percentage point difference from baseline)



Sources: IMF, G-20 Model simulations; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

Note: Country groups are based on overall external balance assessments in IMF, 2019, [External Sector Report](#) as follows: Economies with excess surpluses (i.e., “stronger” or “moderately stronger” external balances): DEU, KOR, RUS; excess deficits (i.e., “weaker” or “moderately weaker” external balances): ARG, CAN, IDN, SAU, ZAF, ESP, GBR, USA; and broadly balanced (i.e., external balances are “broadly in line”): AUS, BRA, CHN, FRA, IND, ITA, JPN, MEX, TUR.

**32. The recommended policies would create space to put additional focus on making growth more inclusive.** As discussed, some structural reforms are likely to simultaneously strengthen equality and raise GDP. In addition, stronger, more sustainable, and more balanced growth also generates higher income and more resources. This allows policymakers to more actively pursue policies to ensure that growth dividends that are created by macroeconomic and structural policies accrue across all parts of society. If successful, this can create positive feedback effects and help generate support for additional reforms, which can result in even stronger growth.

## 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 as well as for policy settings are presented in Annex II.

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

2. This section describes how **Strong, Sustainable, Balanced, and Inclusive Growth (SSBIG) is operationalized across the four dimensions**. While indicators for each of the four individual aspects of growth are listed below, as discussed in the main text, 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, and labor productivity growth. The report does not cover other aspects of sustainability, such as the repercussions of 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 presents the indicators used for assessing the current, projected, and recommended 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 policy 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>

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<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 macroeconomic policy stance, and the impact of policy recommendations.

Indicators for SSBIG are presented in section A of this Annex. They correspond to those described in Annex I: (i) strong growth (e.g., GDP growth, output gap, inflation); (ii) sustainable growth (e.g., potential output growth, productivity growth); (iii) balanced growth (e.g., external balance, private and public debt); and (iv) inclusive growth (e.g., inequality in outcomes and opportunities). Details of IMF staff's assessment of the policy stance is presented in section B of this Annex. Data are mainly from the July WEO database, complemented with other sources where needed and as specified in footnotes to the charts. Aggregates include the European Union, unless otherwise specified.

### 2. The size of output and inflation gaps as well as the assessment of policy stances are qualified relative to historical fluctuations.

In particular, the standard deviation of historical realizations across G-20 economies are added to several charts. Differentiation by advanced and emerging market economies is used where helpful. Where relevant, shadings in the charts indicate the following ranges: within  $\frac{1}{2}$  standard deviation from 0; within  $\frac{1}{2}$  and 1 standard deviation from 0; and outside the 1 standard deviation interval.

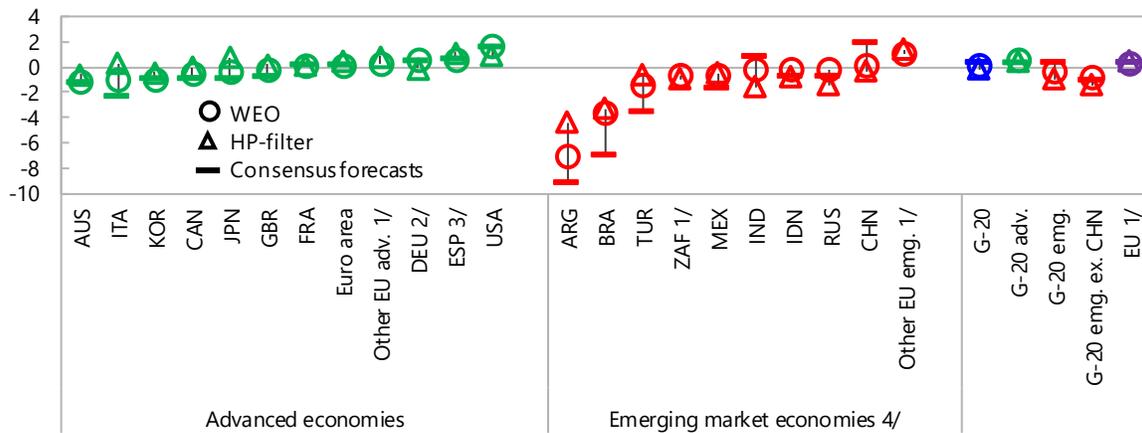
### 3. Measurement uncertainty is illustrated for the output gap and the fiscal and monetary policy stances.

- *Potential output.* The charts show three different methods for estimating potential output and the output gap: one method where the estimates and projections are from the WEO database and two alternative methods to illustrate measurement uncertainty. The alternative methods include (i) one where potential output is derived from a simple HP filter; and (ii) one which is based on consensus forecasts of 1-, 2-, and 5-year-ahead growth rates.
- *Fiscal policy.* The three different measures of potential output and the output gap (see previous bullet) imply different estimates of the change in the cyclically-adjusted primary balance (CAPB). These resulting estimates of the CAPB are illustrated.
- *Monetary policy.* Given that the natural real interest rate is not observable, it is approximated by two different measures: (i) the potential growth rate from the WEO database; and (ii) estimates from a semi-structural model.



**Figure AII.3. Output Gap: Alternative Estimates, 2019**

**Different measures of output gap, 2019**  
(percent of potential GDP)



Sources: IMF, *World Economic Outlook*, July 2019; Consensus Forecasts; and IMF staff calculations.

Note: As time-series estimates for potential growth are not available from Consensus Economies, output gap estimates based on Consensus forecasts use real and potential GDP projections based on current year and 5-year-ahead growth rates from Consensus Economies, July 2019 and 2019Q2, respectively.

1/ Other EU advanced and emerging market economies: data to calculate output gap estimates based on Consensus forecasts are unavailable for about 40 percent of the countries. ZAF: data to calculate output gap estimates based on Consensus forecasts are unavailable.

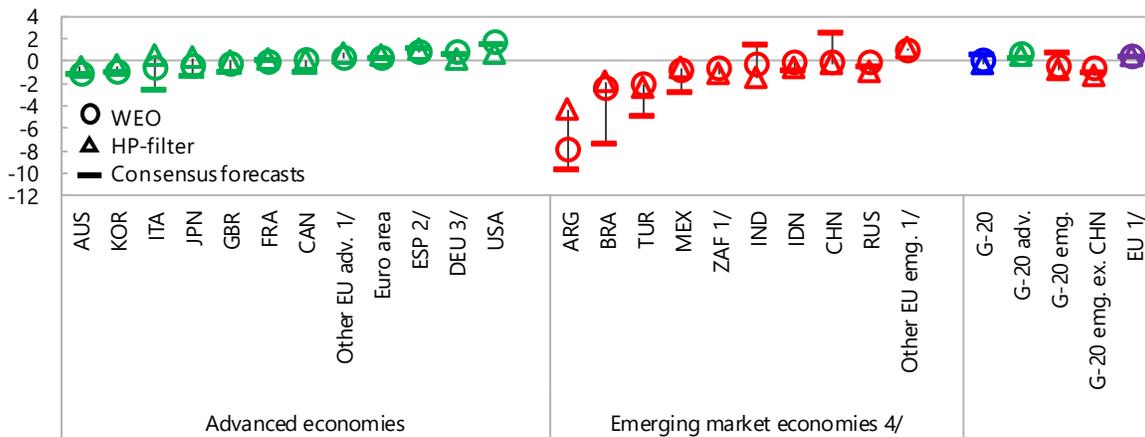
2/ DEU: WEO estimate is on working day-adjusted basis.

3/ ESP is a permanent invitee.

4/ SAU: output gap estimates are not available.

**Figure AII.4. Output Gap: Alternative Estimates, 2020**

**Different measures of output gap, 2020**  
(percent of potential GDP)



Sources: IMF, *World Economic Outlook*, July 2019; Consensus Forecasts; and IMF staff calculations.

Note: As time-series estimates for potential growth are not available from Consensus Economies, output gap estimates based on Consensus forecasts use real and potential GDP projections based on 1- and 5-year-ahead growth rates from Consensus Economies, July 2019 and 2019Q2, respectively.

1/ Other EU advanced and emerging market economies: data to calculate output gap estimates based on Consensus forecasts are unavailable for about 40 percent of the countries. ZAF: data to calculate output gap estimates based on Consensus forecasts are unavailable.

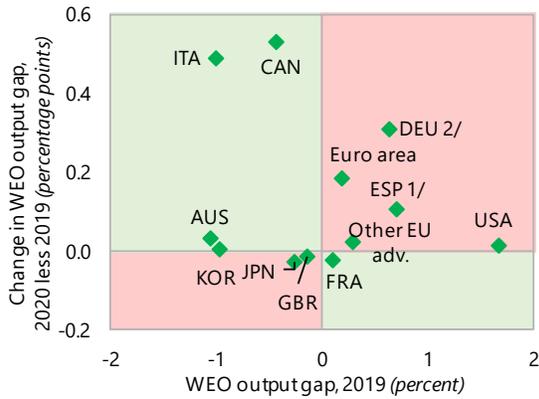
2/ ESP is a permanent invitee.

3/ DEU: WEO estimate is on working day-adjusted basis.

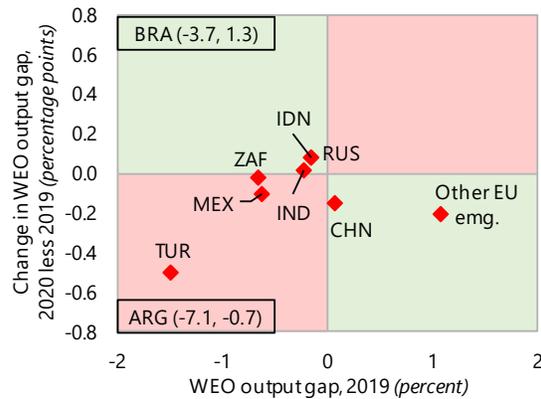
4/ SAU: output gap estimates are not available.

**Figure AII.5. Output Gaps and Changes in Output Gaps, 2019–20**

**Output gap and change in output gap:  
Advanced economies**



**Output gap and change in output gap:  
Emerging market economies 3/**



Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

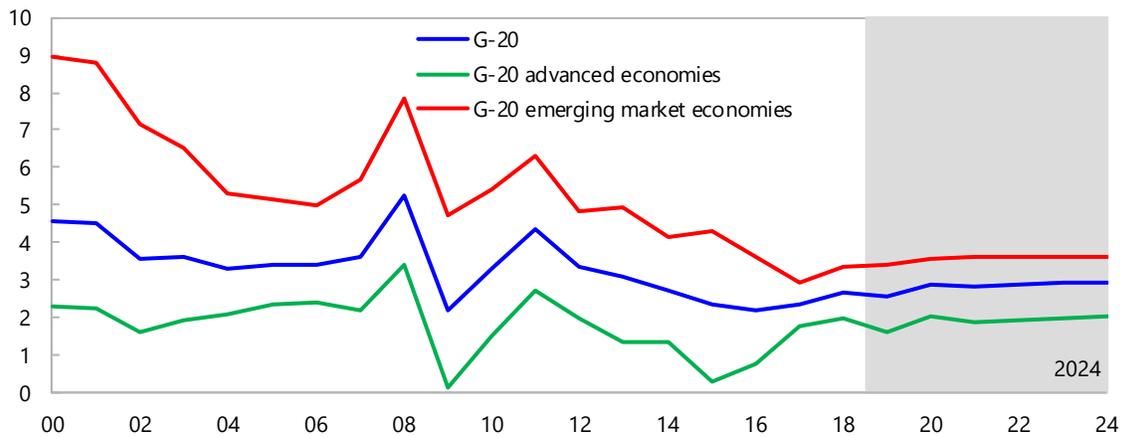
1/ ESP is a permanent invitee.

2/ DEU: Estimate is on working day-adjusted basis.

3/ SAU: Output gap estimates for 2019 and 2020 are not available.

**Figure AII.6. Inflation, 2000–24**

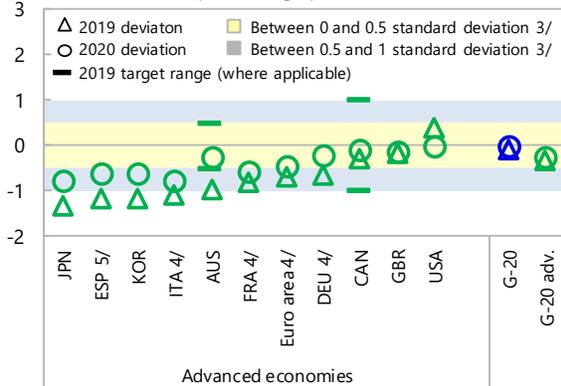
**CPI inflation**  
(percent; ppp-weighted)



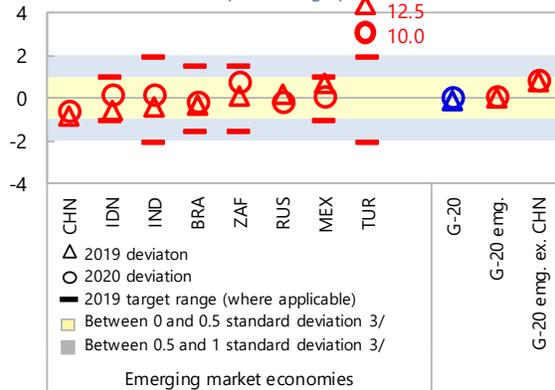
Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

**Figure AII.7. Deviation from Inflation Targets, 2019–20**

**Deviation from inflation target: Advanced economies 1/ 2/ (percentage points)**



**Deviation from inflation target: Emerging market economies 1/ 2/ 6/ (percentage points)**



Sources: IMF, *World Economic Outlook*, July 2019; National Central Banks; and IMF staff calculations.

1/ For countries that have an inflation target range: deviations of inflation and the target range are expressed as deviations relative to the mid-point of the target range.

2/ USA: deviations based on PCE inflation projections; all other countries: period-average CPI inflation projections.

3/ Standard deviations are calculated from 2007 to 2016, excluding outliers above 95 percent and below 5 percent for each income group.

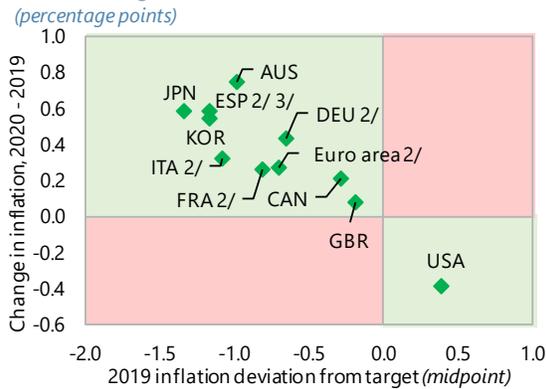
4/ Euro area: the European Central Bank (ECB) targets the Harmonized Index of Consumer Prices as a medium-term objective for the euro area as a whole. For presentational purposes, the ECB objective is also used for individual euro area members.

5/ ESP is a permanent invitee.

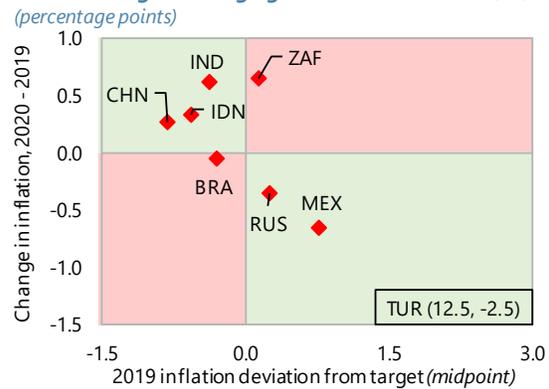
6/ SAU, ARG: excluded as they do not have an inflation target.

**Figure AII.8. Change in Inflation, 2019–20**

**Change in annual inflation and deviation from inflation target: Advanced economies 1/ (percentage points)**



**Change in annual inflation and deviation from inflation target: Emerging market economies 4/ 5/ (percentage points)**



Sources: IMF, *World Economic Outlook*, July 2019; National Central Banks; and IMF staff calculations.

1/ USA: PCE inflation; all other advanced economies: period-average CPI inflation.

2/ Euro area: the European Central Bank (ECB) targets the Harmonized Index of Consumer Prices as a medium-term objective for the euro area as a whole. For presentational purposes, the ECB objective is also used for individual euro area members.

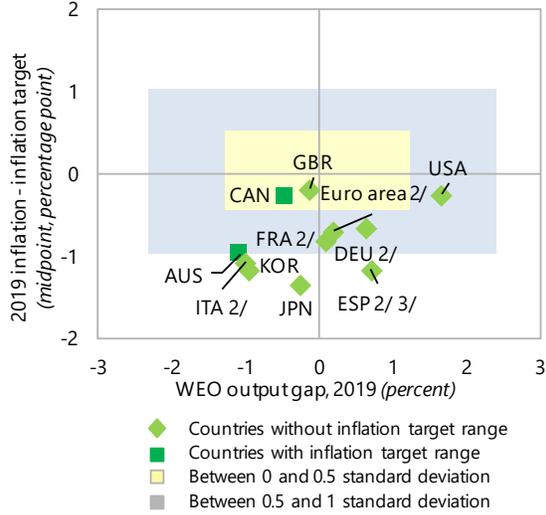
3/ ESP is a permanent invitee.

4/ TUR, RUS: end-of-period CPI inflation; all other emerging market economies: period-average CPI inflation.

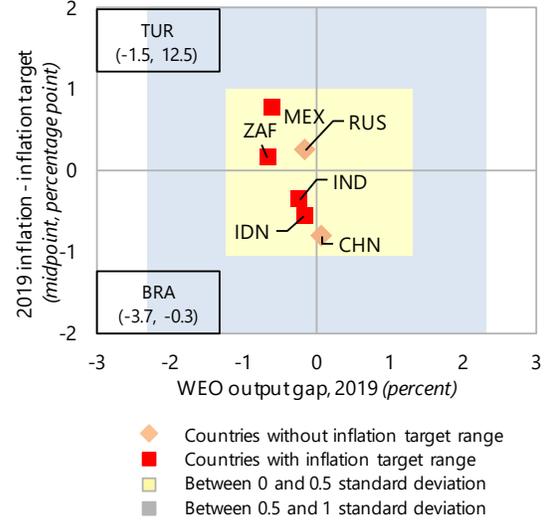
5/ SAU, ARG: excluded as they do not have an inflation target.

**Figure AII.9. Output Gaps and Deviations from Inflation Targets, 2019**

**WEO output gap and deviation from inflation target: Advanced economies 1/**



**WEO output gap and deviation from inflation target: Emerging market economies 4/ 5/**



Sources: IMF, *World Economic Outlook*, July 2019; National Central Banks; and IMF staff calculations.

1/ USA: PCE inflation; all other countries: period-average CPI inflation.

2/ Euro area: the European Central Bank (ECB) targets the Harmonized Index of Consumer Prices as a medium-term objective for the euro area as a whole. For presentational purposes, the ECB objective is also used for individual euro area members. DEU: output gap estimate is on working day-adjusted basis.

3/ ESP is a permanent invitee.

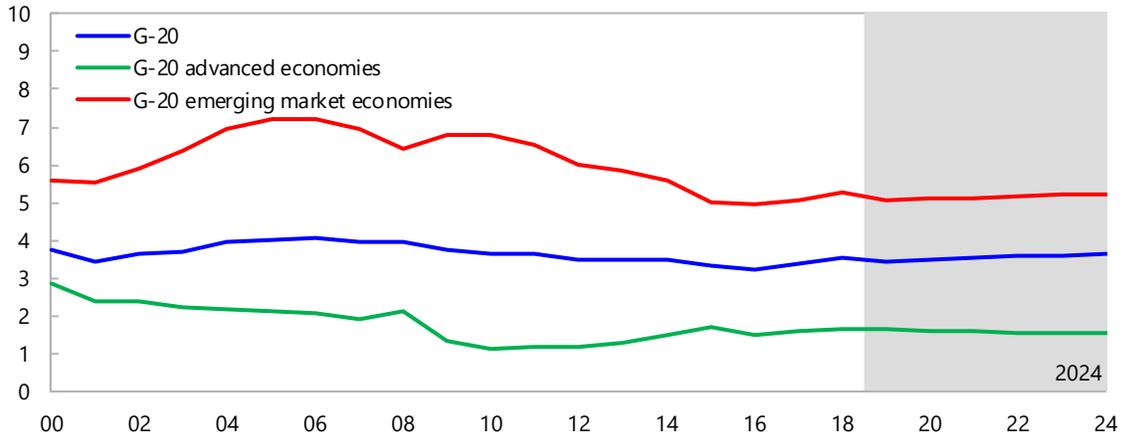
4/ TUR, RUS: end-of-period CPI inflation; all other countries: period-average CPI inflation.

5/ SAU, ARG: excluded as they do not have an inflation target.

(ii) Sustainable Growth

Figure All.10. Potential Growth, 2000–24

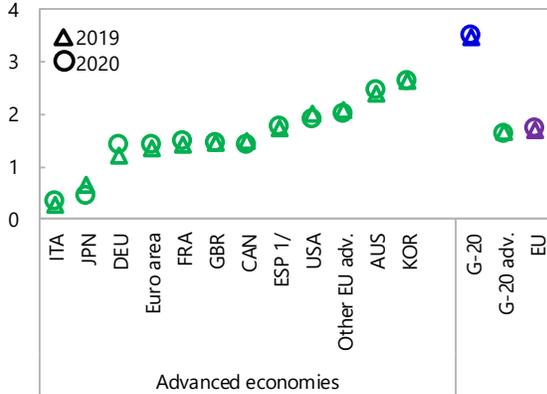
Potential output growth 1/  
(percent; ppp-weighted)



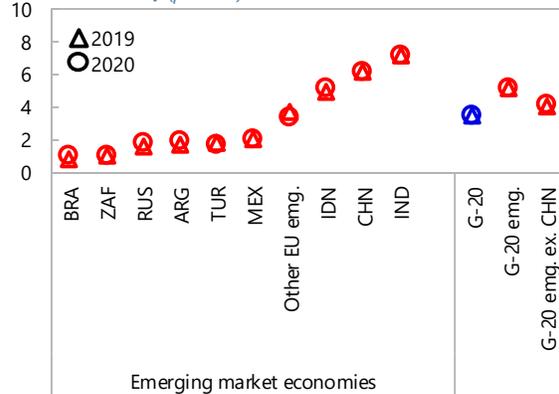
Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.  
1/ SAU: Not included due to data limitations.

Figure All.11. Potential Growth, 2019–20

Potential output growth: Advanced economies  
(percent)



Potential output growth: Emerging market economies 2/  
(percent)

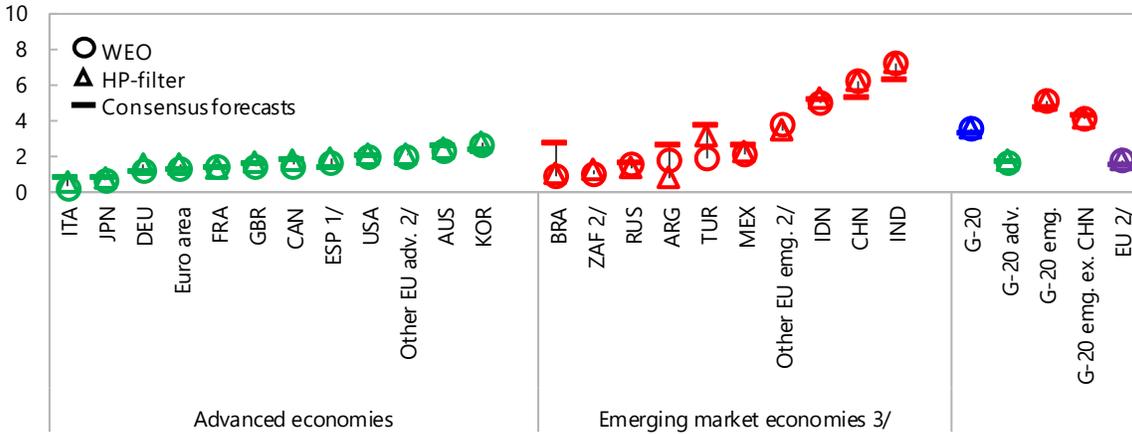


Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.  
1/ ESP is a permanent invitee.  
2/ SAU: potential GDP estimates for 2019 and 2020 are not available.

**Figure All.12. Alternative Estimates: Potential Growth, 2019–20**

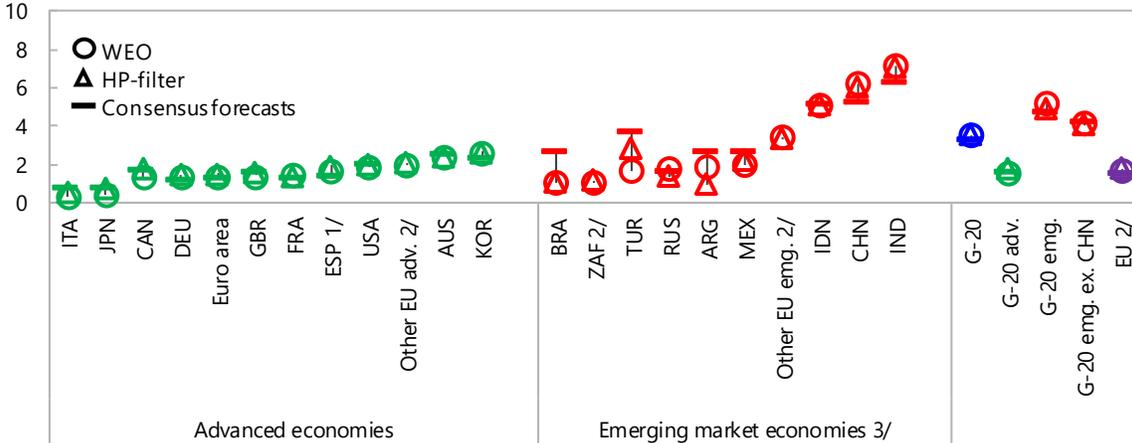
**Different measures of potential output growth, 2019**

(percent)



**Different measures of potential output growth, 2020**

(percent)



Sources: IMF, World Economic Outlook, July 2019; Consensus Forecasts; and IMF staff calculations.

Note: As time-series estimates for potential growth are not available from Consensus Economies, potential output growth estimates based on Consensus forecasts are based on 5-year-ahead growth projections from Consensus Economics, 2019Q2.

1/ ESP is a permanent invitee.

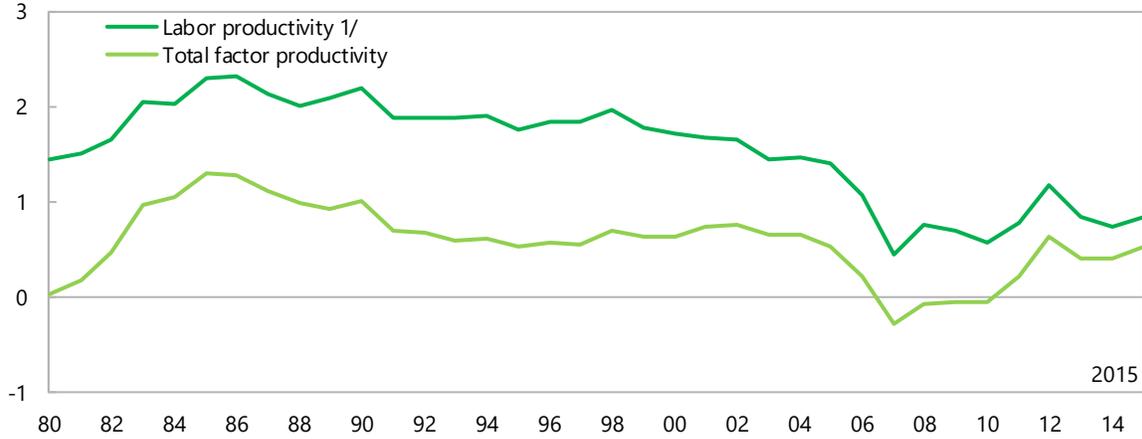
2/ Other EU advanced and emerging market economies: data to calculate potential output growth estimates based on Consensus forecasts are unavailable for about 40 percent of the countries. ZAF: data to calculate potential output growth estimates based on Consensus forecasts are unavailable.

3/ SAU: potential output growth, HP-filter estimate, and 5-year ahead Consensus Forecast data are not available.

**Figure All.13. Productivity Growth, 1980–2015**

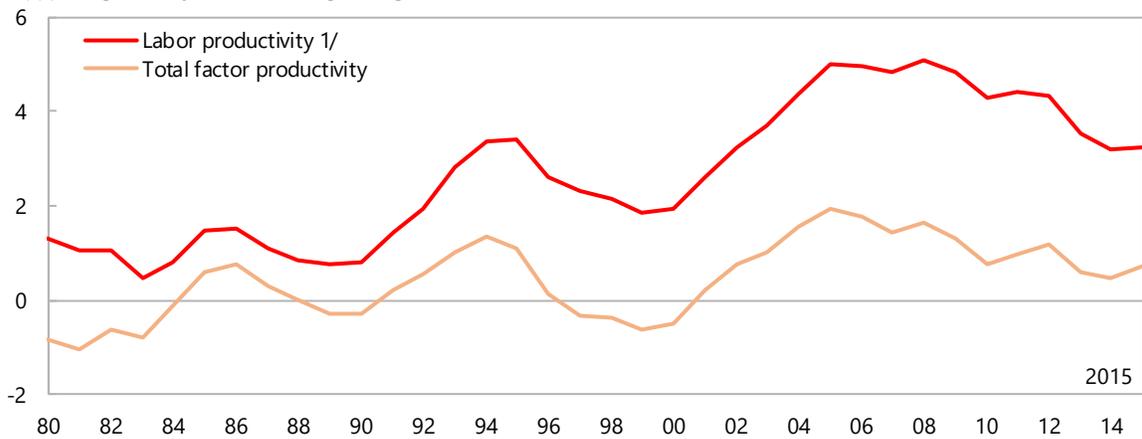
**Productivity growth: Advanced economies 2/**

(ppp-weighted; 5-yr center moving average)



**Productivity growth: Emerging markets 3/**

(ppp-weighted; 5-yr center moving average)



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.ggdcc.net/pwt](http://www.ggdcc.net/pwt); IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ Labor productivity is calculated as real GDP per person employed.

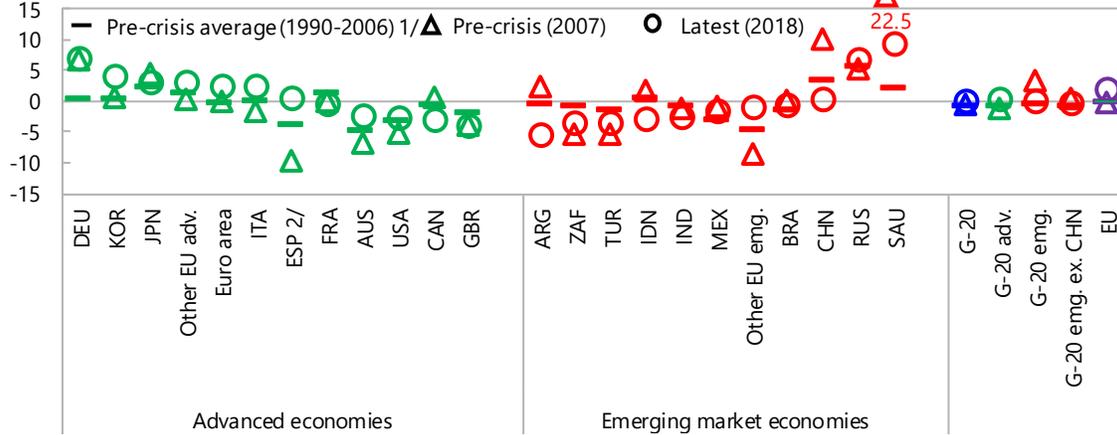
2/ Includes ESP, but not other EU advanced economies due to data limitations.

3/ Excludes RUS, SAU, and other EU emerging market economies due to data limitations.

(iii) Balanced Growth

Figure All.14. Current Accounts, 1990–2018

Current account balance  
(percent of GDP)



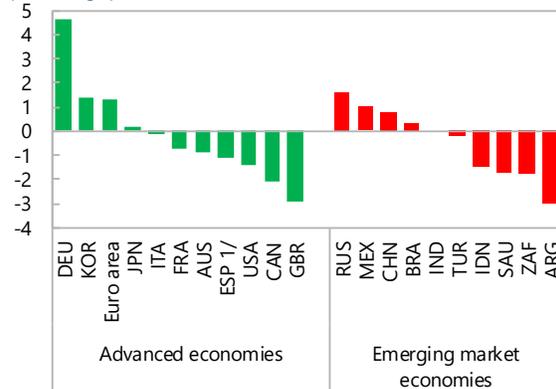
Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ RUS: earliest data from 1992; other EU advanced and emerging market economies: from 1995; CHN and euro area: from 1997.

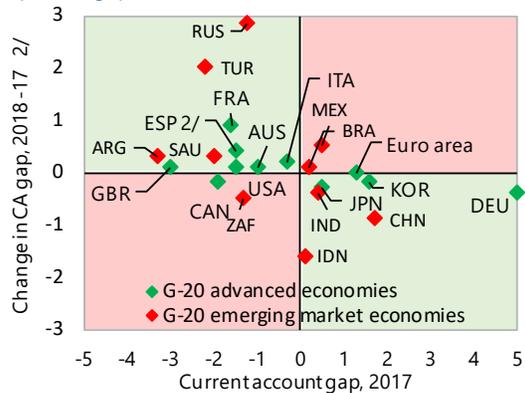
2/ ESP is a permanent invitee.

Figure All.15. Current Account Gaps, 2017–18

Current account gap, 2018  
(percentage points)



Current account gap assessment, 2017–18  
(percentage points)



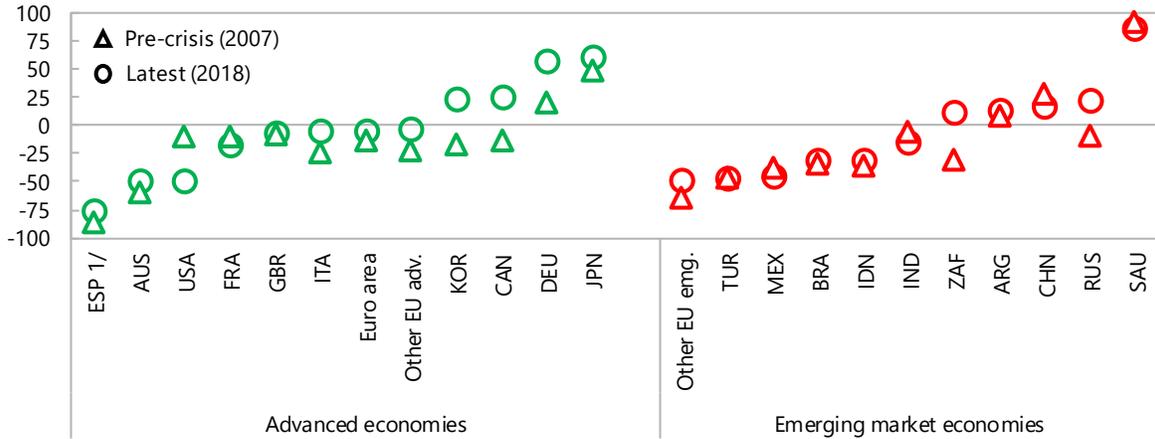
Source: IMF, *External Sector Report*, 2019.

1/ ESP is a permanent invitee.

2/ CA denotes the current account. Gaps are relative to IMF staff assessed current account norms.

**Figure All.16. Net International Investment Positions, 2007–18**

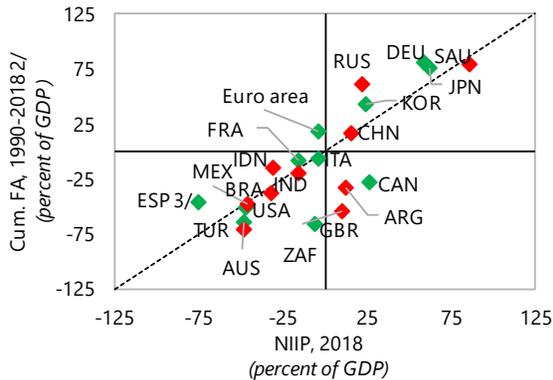
**Net international investment position**  
(percent of GDP)



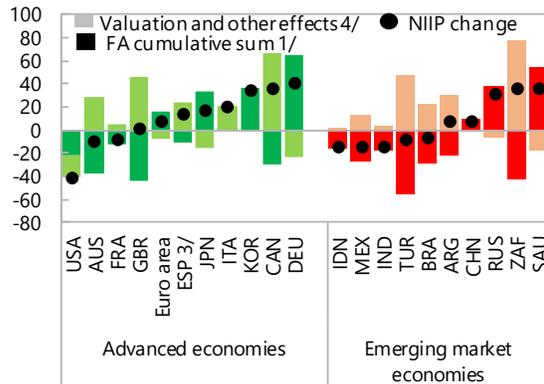
Sources: IMF, *Balance of Payments Statistics*; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.  
1/ ESP is a permanent invitee.

**Figure All.17. Net International Investment Position and the Financial Account, 1990–2018**

**Net international investment position (NIIP) and cumulative financial account (FA) 1/**



**Change in net investment position, 2007–18**  
(percent of 2018 GDP)



Sources: IMF, *Balance of Payments Statistics*; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ The cumulative financial account (FA) is computed as the sum of the current account balance, the capital account balance, and net errors and omissions. For more information, please refer to IMF, October 2014, *World Economic Outlook*, [Chapter 4](#). The cumulative FA and NIIP are shown in percent of GDP in 2018.

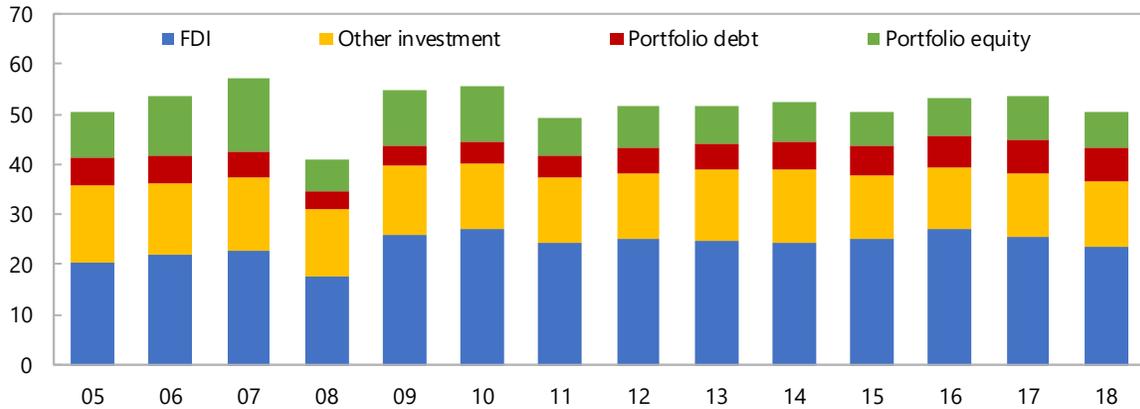
2/ RUS: earliest data from 1992; CHN and euro area: from 1997.

3/ ESP is a permanent invitee.

4/ Valuation effects from currency and asset price shifts and other effects (e.g., residual estimate).

**Figure AII.18. Emerging Market Economies: Investment Liabilities, 2005–18**

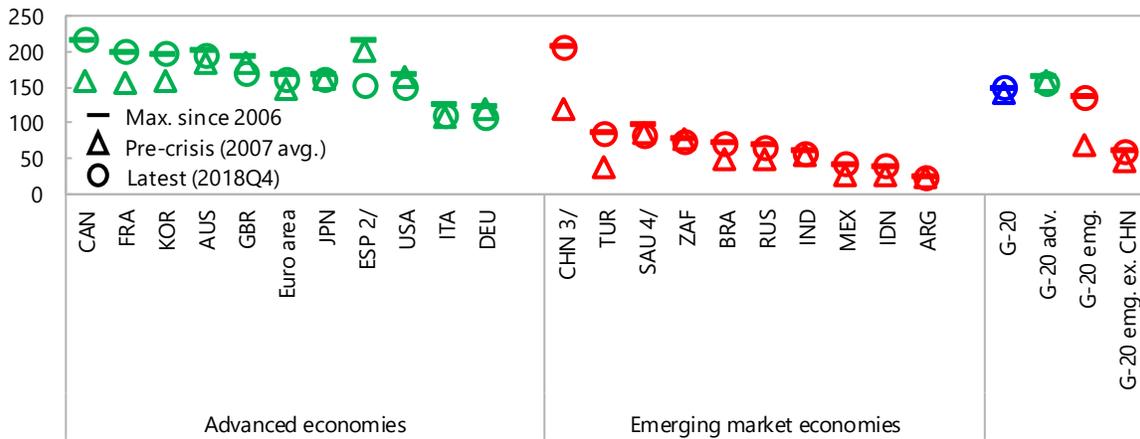
**Investment liabilities stock**  
(percent of GDP)



Sources: IMF, *Balance of Payments*; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

**Figure AII.19. Private Non-Financial Sector Debt, 2006–18**

**Private debt 1/**  
(percent of GDP)



Sources: BIS; Haver Analytics; IMF, *World Economic Outlook*, July 2019; and 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.

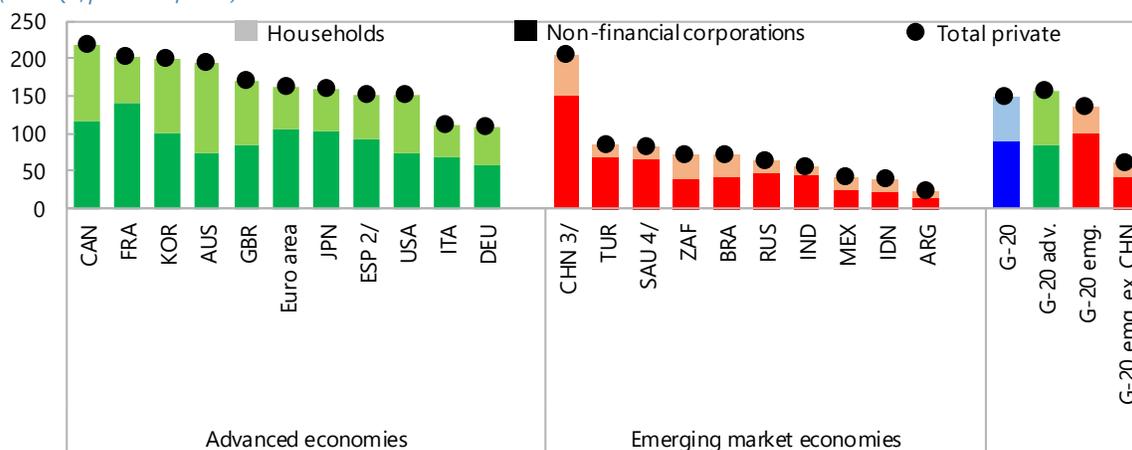
2/ ESP is a permanent invitee.

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

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

**Figure All.20. Private Non-Financial Sector Debt by Sector, 2018**

**Private debt by sector 1/**  
(2018Q4; percent of GDP)



Sources: BIS; Haver Analytics; IMF, *World Economic Outlook*, July 2019; and 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.

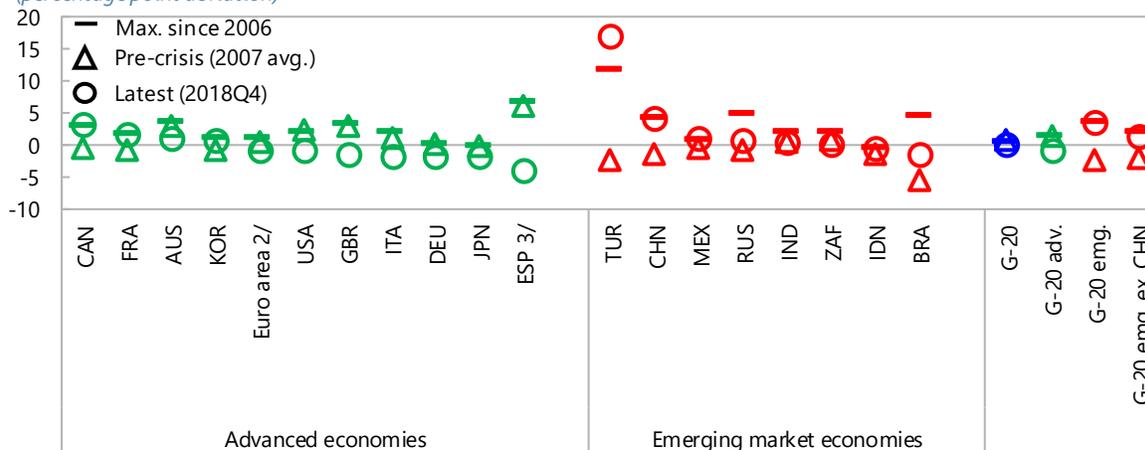
2/ ESP is a permanent invitee.

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

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

**Figure All.21. Private Non-Financial Sector Debt Service, 2006–18**

**Debt service ratio for private non-financial sector, difference from 1999–2018 average 1/**  
(percentage point deviation)



Sources: BIS; Haver Analytics; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

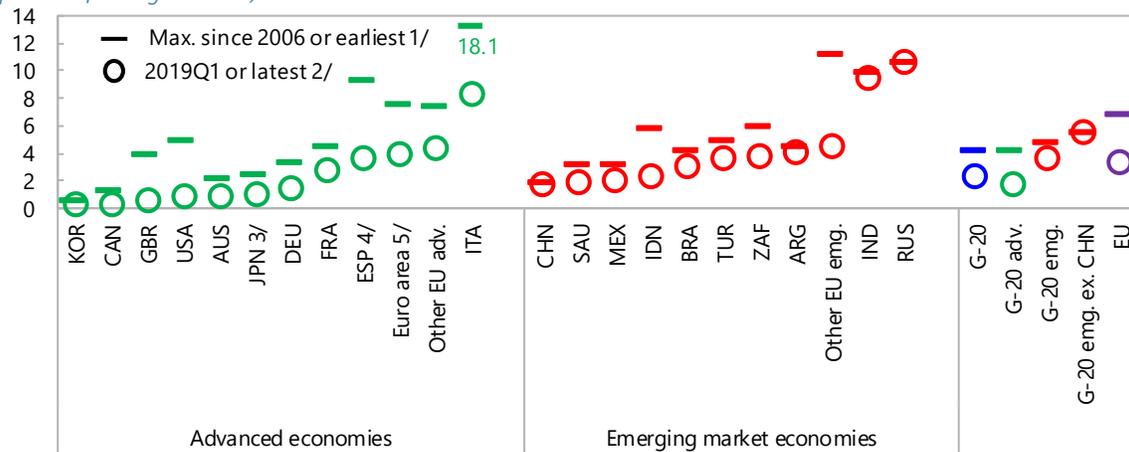
1/ Debt service ratio computed as interest payments plus amortization relative to income. 1999–2018 average calculated for each country separately; for Turkey, the sample period is 2002–18. ARG and SAU: not shown due to data limitations.

2/ Euro area: data on debt service available for 40 percent of euro area countries, covering about 90 percent of euro area GDP.

3/ ESP is a permanent invitee.

**Figure AII.22. Non-Performing Loans, 2006–19**

**Non-performing loans**  
(percent of total gross loans)



Sources: IMF, *Financial Soundness Indicators*; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ FRA, GBR, IND, KOR, RUS, ZAF: data available from 2008; JPN, SAU, USA: from 2009; CHN: from 2010. Other EU advanced and emerging market economies and the euro area: maximum is calculated since 2008 due to data limitations.

2/ CAN, DEU, JPN: latest data are from 2017; KOR: latest data from 2016.

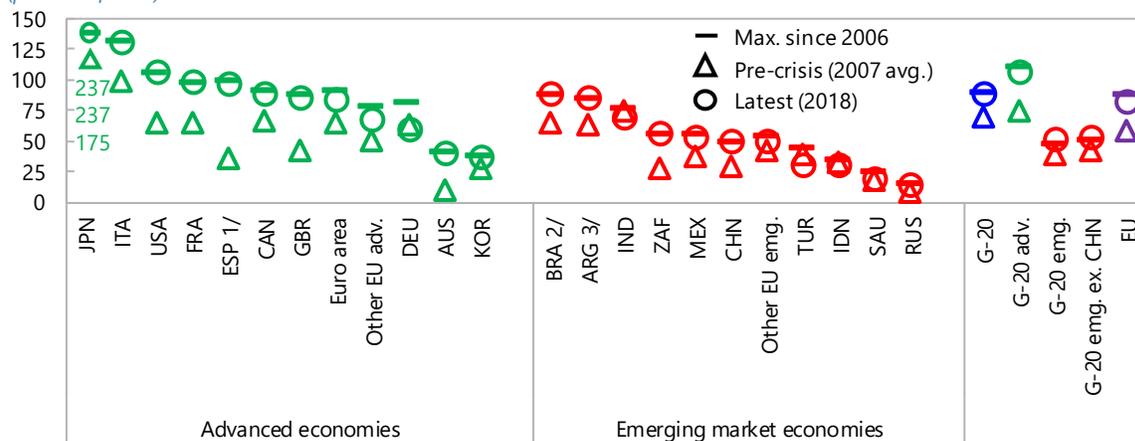
3/ JPN: Q3 data for every year as annual data are not available.

4/ ESP is a permanent invitee.

5/ Euro area: average of non-performing loans of 17 countries, weighted by nominal GDP. FIN, LUX: excluded due to data limitations.

**Figure AII.23. Public Sector Debt, 2006–18**

**General government gross debt**  
(percent of GDP)



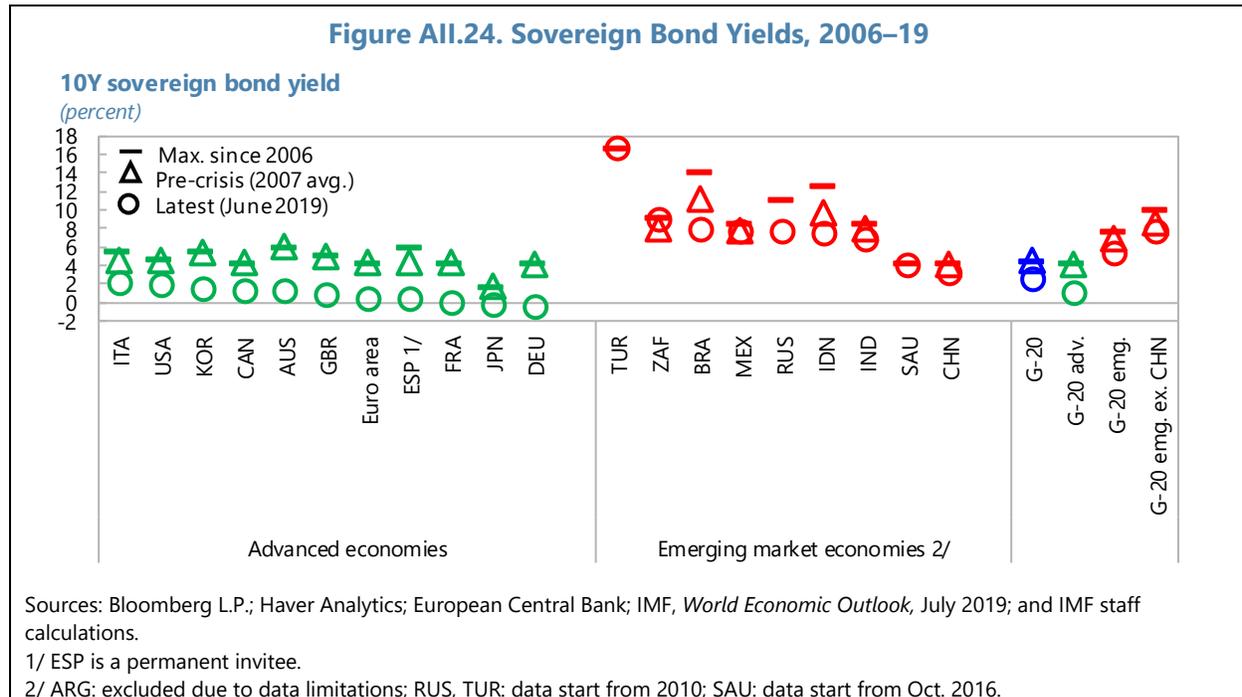
Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ ESP is a permanent invitee.

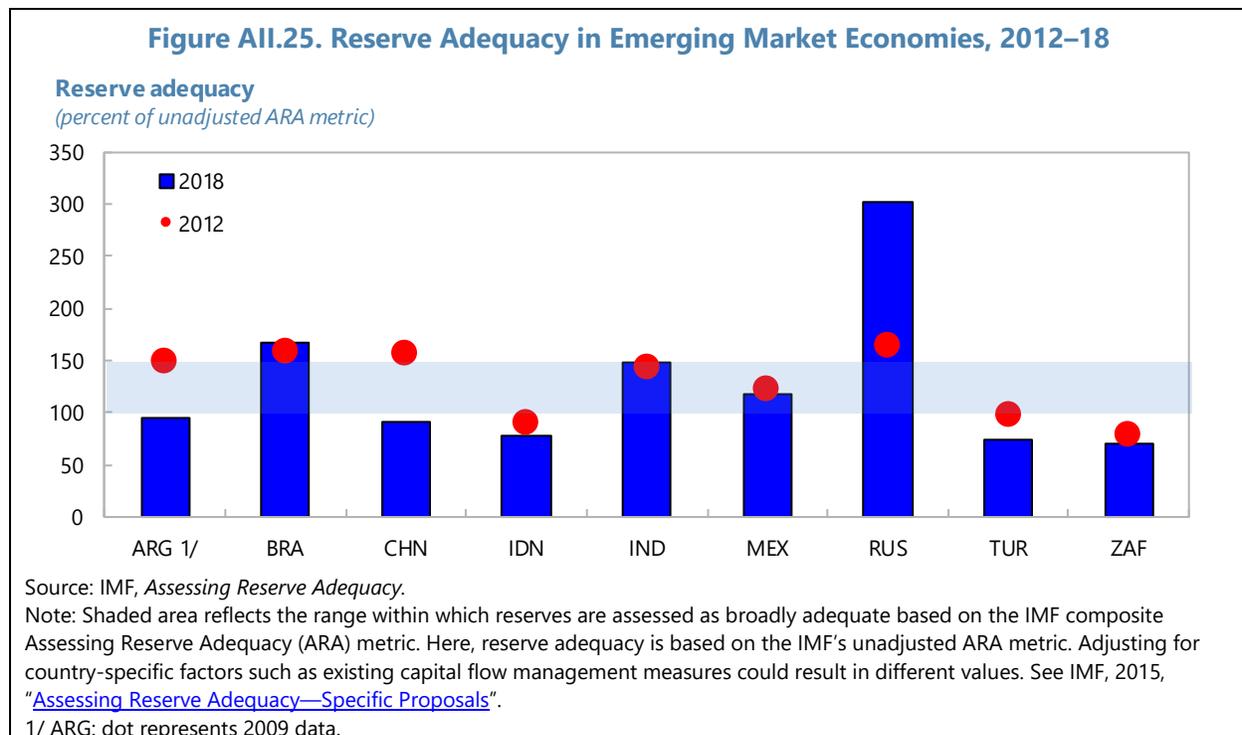
2/ BRA: General government data refer to the nonfinancial public sector.

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

## Bond Yields



## International Reserves



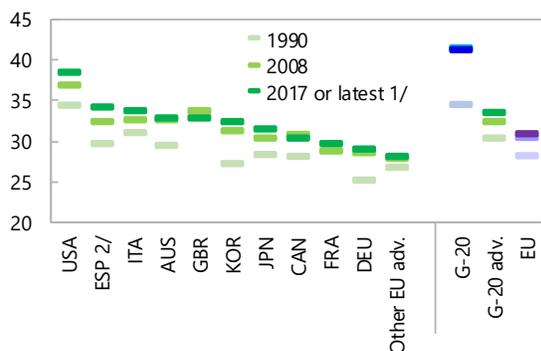
(iv) Inclusive Growth

Income Inequality

Figure AII.26. Income inequality by Gini Coefficient, 1990–2017

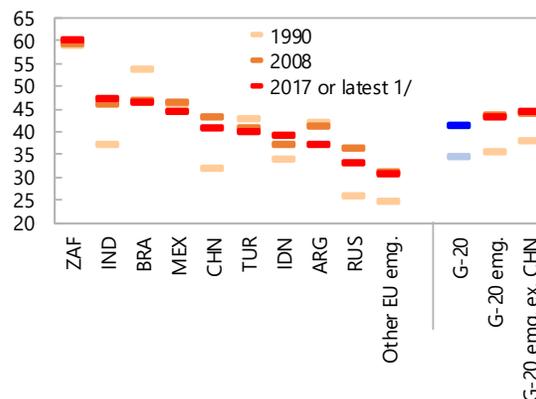
Income inequality: Advanced economies

(Gini coefficient, net)



Income inequality: Emerging markets 3/

(Gini coefficient, net)



Sources: Solt, F., 2019, The Standardized World Income Inequality Database, SWIID Version 8.1, 2019; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

Note: Only countries with both 1990 and 2017 data are included in the aggregations.

1/ AUS, DEU, FRA, ITA, ESP, MEX, and RUS: latest data are from 2016; IND: from 2012; CHN, JPN and ZAF: from 2015; IDN: from SWIID Version 7.1, August 2018.

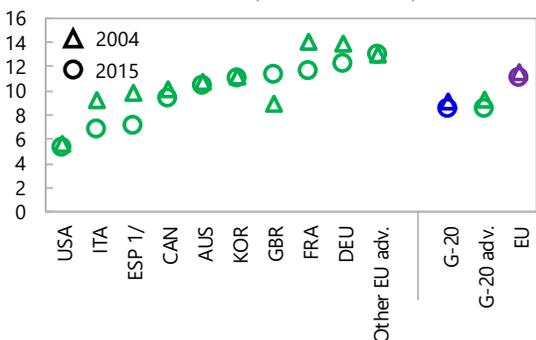
2/ ESP is a permanent invitee.

3/ SAU: excluded due to data limitations.

Figure AII.27. Income inequality by Income Decile, 2004–15

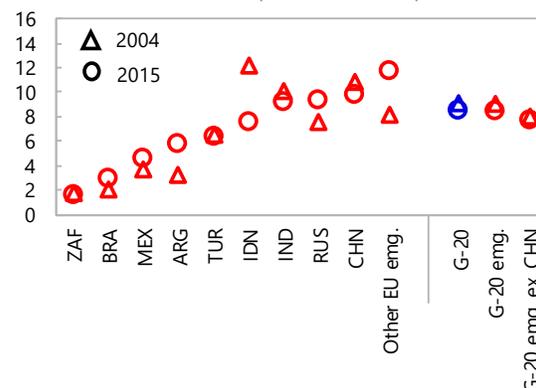
Income inequality: Advanced economies

(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 (WIID4); IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

Note: Given data limitations, different resource and coverage concepts to assess inequality are used across countries: CHN, IDN, IND: resource concepts – consumption, area coverage – urban; RUS, ZAF, TUR: resource concepts – consumption, area coverage – all; other countries: resource concepts – (net/ gross) income, area coverage – all. When 2004 numbers are not available, the following are used: AUS: 2003; CHN, IND, ZAF: 2005; KOR: 2006. When 2015 numbers are not available, the following are used: AUS: 2010; IND, KOR: 2012; CAN: 2013; ARG, MEX, USA: 2016.

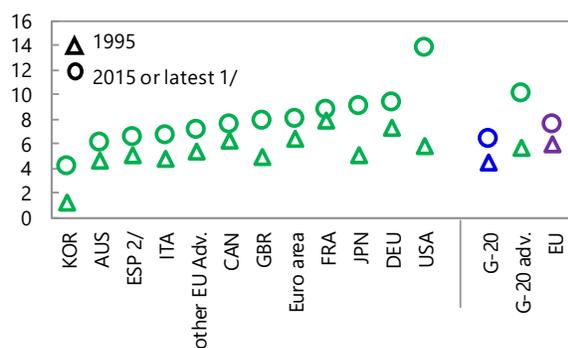
1/ ESP is a permanent invitee.

## Health and Education Spending

**Figure AII.28. Public Health Expenditures, 1995–2015**

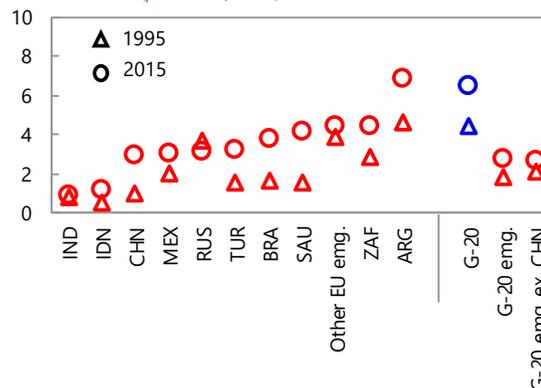
**Public health expenditures: Advanced economies**

(percent of GDP)



**Public health expenditures: Emerging market economies**

(percent of GDP)



Sources: IMF, *World Economic Outlook*, July 2019; World Bank, *World Development Indicators*; and IMF staff calculations.

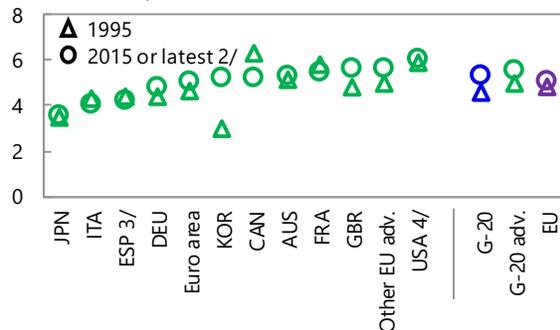
1/ AUS, JPN: latest data are from 2014.

2/ ESP is a permanent invitee.

**Figure AII.29. Public Education Expenditures, 1995–2015**

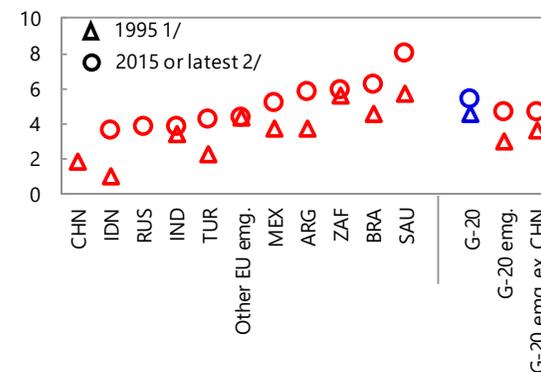
**Public education expenditures: Advanced economies**

(percent of GDP)



**Public education expenditures: Emerging market economies**

(percent of GDP)



Sources: IMF, *World Economic Outlook*, July 2019; World Bank, *World Development Indicators*; OECD; and IMF staff calculations.

1/ IND: earliest data are from 1997; ARG, ZAF: from 1996; RUS: no data for 1995.

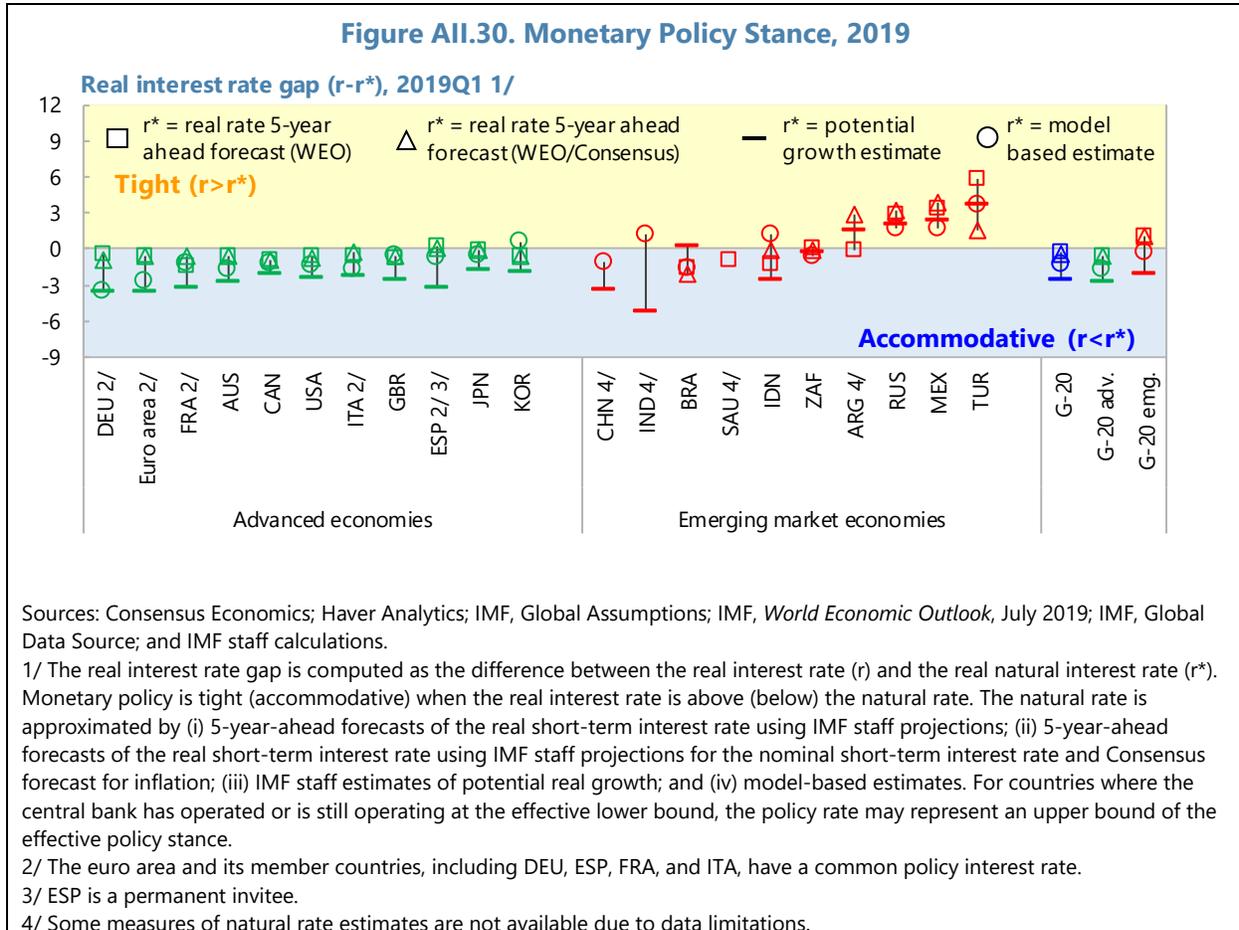
2/ CAN: latest data are from 2011; JPN: from 2014; IND: from 2013; CHN, SAU: from 2017; CHN: no data for 2015.

3/ ESP is a permanent invitee.

4/ Data are from the OECD database.

## B. Macroeconomic Policy Settings

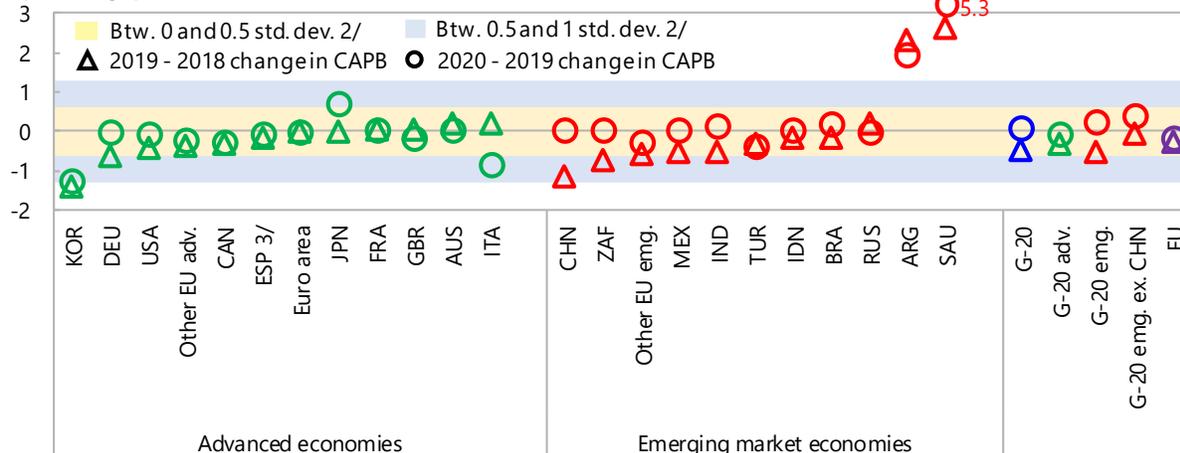
### (i) Monetary Policy



## (ii) Fiscal Policy

### Figure AII.31. Projected Fiscal Policy Stance, 2019–20

Change in cyclically-adjusted primary balance 1/  
(percentage points)



Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations and updates.

1/ RUS: non-oil primary balance in percent of potential GDP. SAU: non-exported oil primary balance in percent of non-oil GDP.

2/ Standard deviations are computed over 1990–2018, excl. outliers outside the 1 to 99 percent interval for each income group.

3/ ESP is a permanent invitee.

### Figure AII.32. Projected Fiscal Policy Stance: Alternative Measures, 2019

Different measures of change in cyclically-adjusted primary balance 1/  
(percent)



Sources: IMF, *World Economic Outlook*, July 2019; Consensus Economics; and IMF staff calculations and updates.

1/ All approaches based on WEO fiscal projections. The three different measures reflect different cyclical adjustments based on (i) IMF country teams' cyclical adjustment and potential output estimate; (ii) consensus forecasts of potential and actual growth; and (iii) potential output estimates using an HP-filter.

2/ 5-year-ahead Consensus Forecast data are not available.

3/ ESP is a permanent invitee.

4/ RUS: non-oil primary balance in percent of potential GDP.

5/ SAU: non-exported oil primary fiscal balance in percent of non-oil GDP for the WEO measure; HP-filter estimate and 5-year-ahead Consensus Forecast data are not available.

**Figure AII.33. Projected Fiscal Policy Stance: Alternative Measures, 2020**

Different measures of change in cyclically-adjusted primary balance 1/

(percent)



Sources: IMF, *World Economic Outlook*, July 2019; Consensus Economics; IMF country reports; and IMF staff calculations.

1/ All approaches based on WEO fiscal projections. The three different measures reflect different cyclical adjustments based on (i) IMF country teams' cyclical adjustment and potential output estimate; (ii) consensus forecasts of potential and actual growth; and (iii) potential output estimates using an HP-filter.

2/ 5-year-ahead Consensus Forecast data are not available.

3/ ESP is a permanent invitee.

4/ RUS: non-oil primary balance in percent of potential GDP.

5/ SAU: non-exported oil primary fiscal balance in percent of non-oil GDP for the WEO measure; HP-filter estimate and 5-year-ahead Consensus Forecast data are not available.

## 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

- *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 reforms are gradually implemented over 10 years, starting in 2020. 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. 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>

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<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.

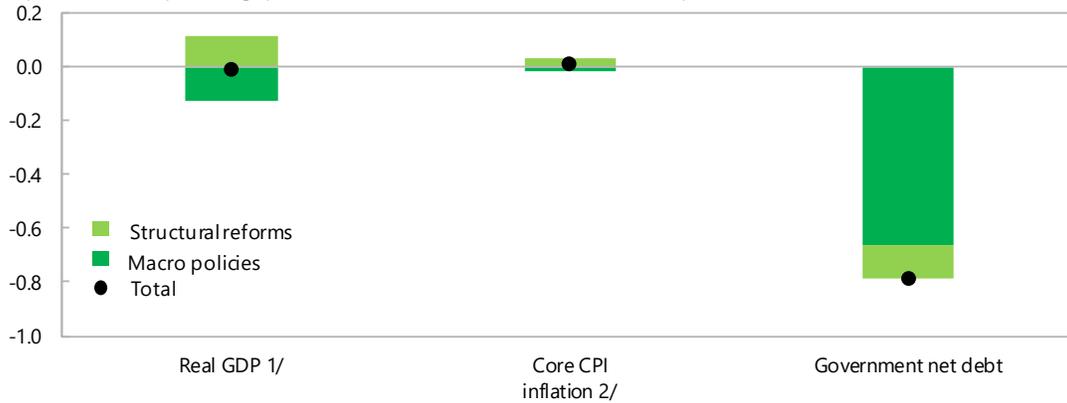
## B. Simulation Results: Impact of Policy Recommendations

### (i) Short-Term Impact

**Figure AIII.1. Impact of Implementing Policy Recommendations, 2020**

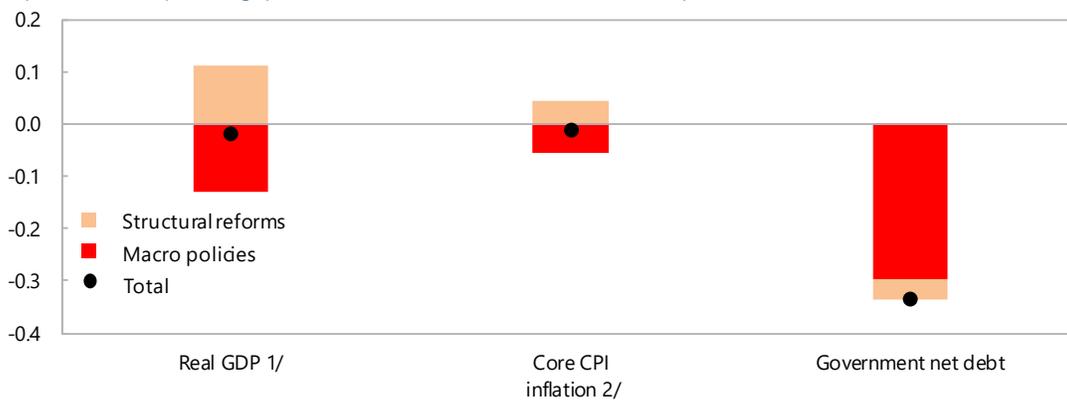
**G-20 advanced economies, 2020**

*(percent of GDP; percentage point difference from baseline, unless otherwise specified)*



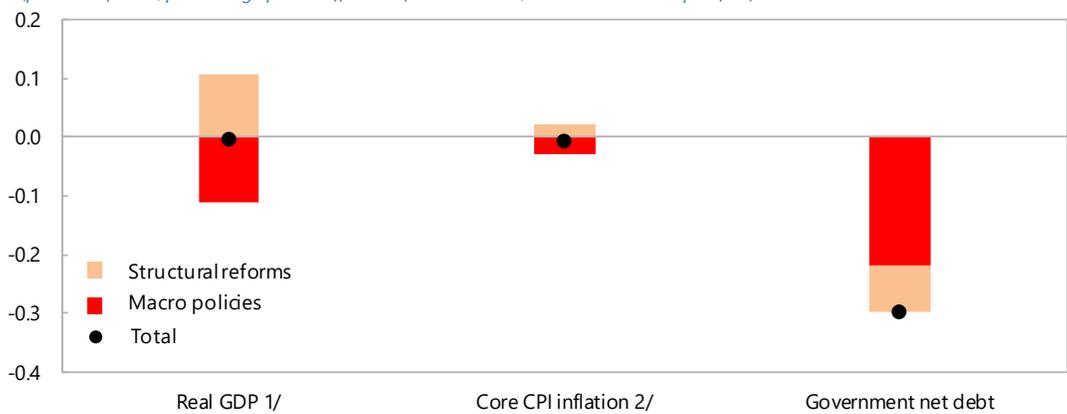
**G-20 emerging market economies, excluding China, 2020**

*(percent of GDP; percentage point difference from baseline, unless otherwise specified)*



**China, 2020**

*(percent of GDP; percentage point difference from baseline, unless otherwise specified)*



Sources: IMF, G-20 Model simulations; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ Percent difference from the baseline.

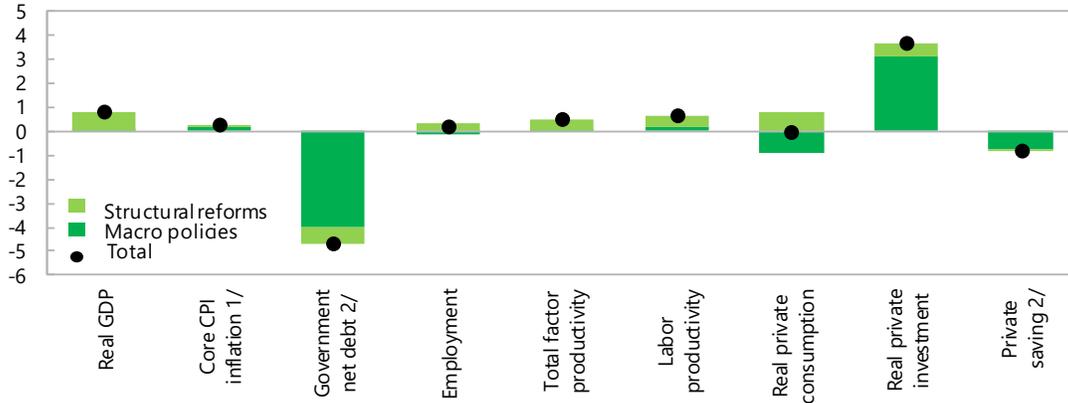
2/ Percentage point difference from the baseline.

## (ii) Medium-Term Impact

**Figure AIII.2. Impact of Implementing Policy Recommendations, 2021–24**

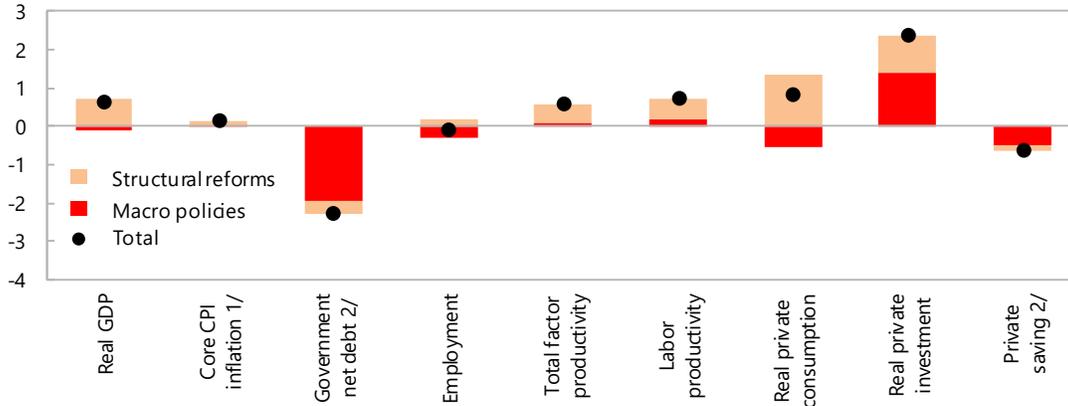
**G-20 advanced economies, 2021–24 average**

(percent difference from baseline, unless otherwise specified)



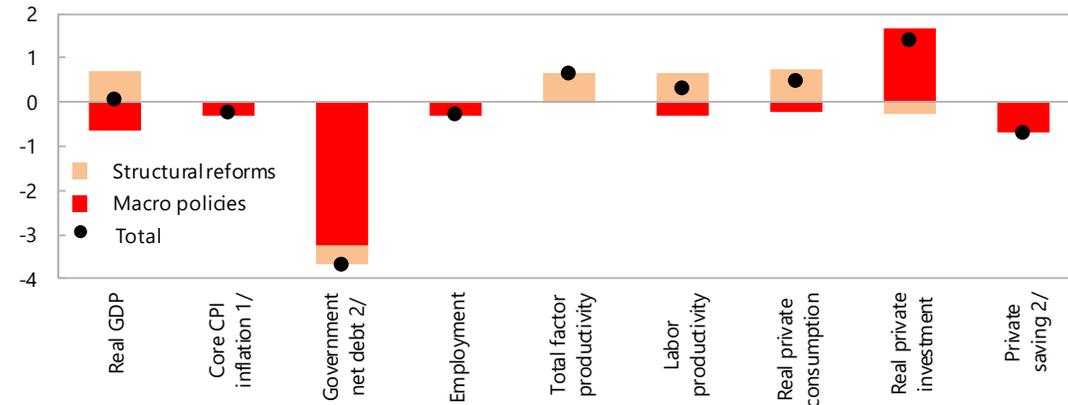
**G-20 emerging market economies, excluding China, 2021–24 average**

(percent difference from baseline, unless otherwise specified)



**China, 2021–24 average**

(percent difference from baseline, unless otherwise specified)



Sources: IMF, G-20 Model simulations; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ Percent difference from the baseline.

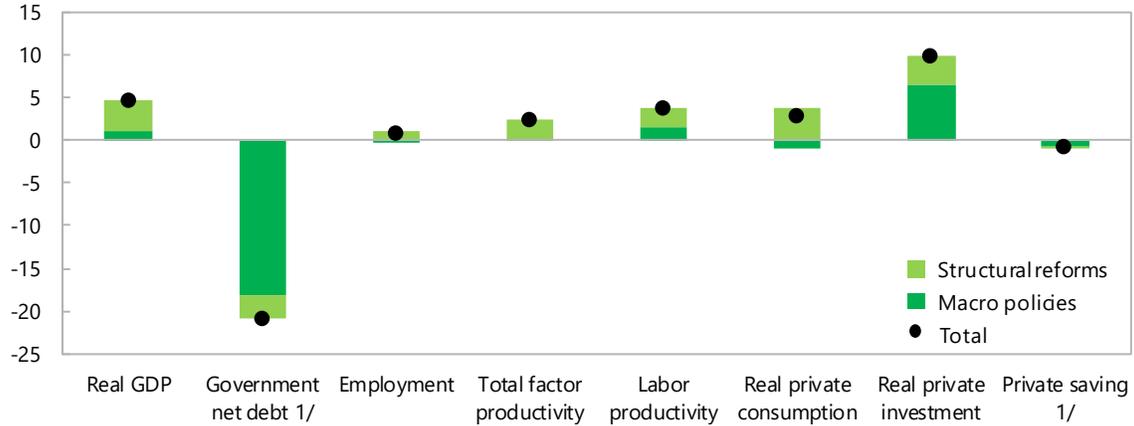
2/ Percent of GDP; percentage point difference from the baseline.

(iii) Long-Term Impact

**Figure AIII.3. Impact of Implementing Policy Recommendations, 2030**

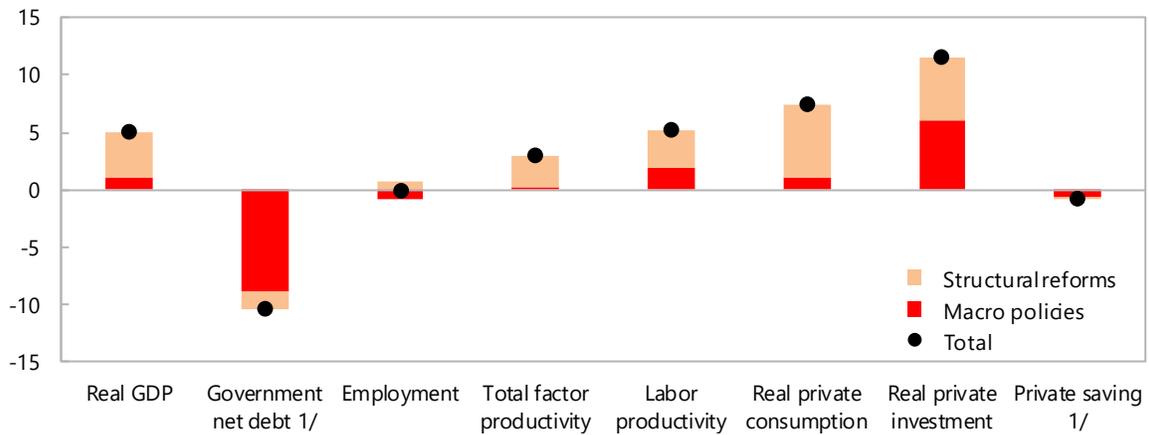
**G-20 advanced economies, 2030**

(percent difference from baseline, unless otherwise specified)



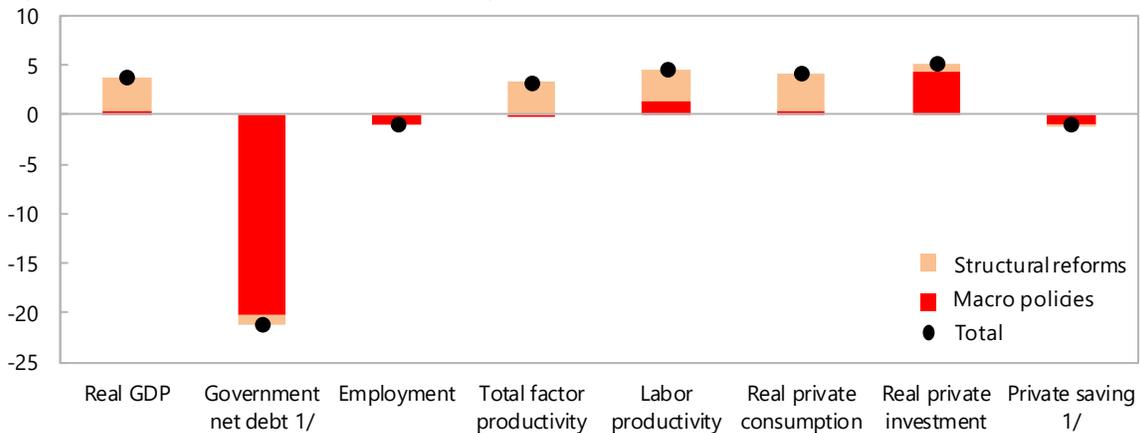
**G-20 emerging market economies, excluding China, 2030**

(percent difference from baseline, unless otherwise specified)



**China, 2030**

(percent difference from baseline, unless otherwise specified)



Sources: IMF, G-20 Model simulations; IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

1/ Percent of GDP; percentage point difference from the baseline.

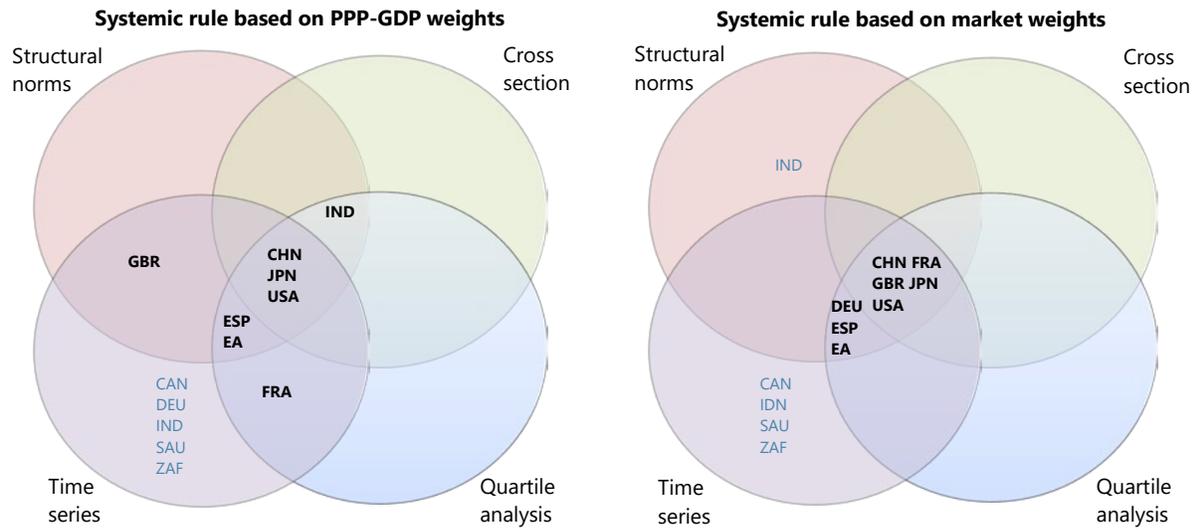
## Annex IV. G-20 Indicative Guidelines

- 1. This Annex presents the update of the G-20 Indicative Guidelines, following the methodology agreed by the G-20 in April 2011.** The G-20 methodology assesses a set of indicators mechanically, without normative implications, against reference values.<sup>1</sup> This assessment is then used to identify members with large imbalances that would require further analysis under the sustainability updates of the G-20 Mutual Assessment Process (MAP).
- 2. The Indicative Guidelines use indicators across three broad areas to evaluate imbalances.** These indicators include (i) the external position, comprising the trade balance, net investment income flows, and transfers; (ii) public debt and fiscal deficits; and (iii) private saving and private debt. The indicators are based on average projected values for 2020–22 from the IMF’s April 2019 WEO, except for private debt, where the latest available data are used.
- 3. Reference values, against which the indicators are compared, are derived from four approaches.** The four approaches cover (i) a structural approach based on economic frameworks to calculate “norms” (e.g., for the external position, the norm is based on staff’s ESR methodology); (ii) a time series approach to provide historical trends; (iii) a cross-section approach to identify benchmarks based on averages of countries at similar development stages; and (iv) a quartile analysis to provide median values for the full G-20 distribution.
- 4. Selection criteria are used for determining countries with relatively large imbalances.** Members are selected if at least 2 of the 4 approaches show “large” imbalances (i.e., significant deviations of indicators from their reference values) in 2 out of 3 sectors (external, public, and private). For “systemic” economies (i.e., those whose share in total G-20 GDP is 5 percent or more), a “moderate” imbalance is used for selection to account for their systemically important roles.
- 5. The methodology identifies the same 9 economies as last year as having relatively large imbalances, which would have warranted an in-depth analysis under the G-20 MAP sustainability updates (Figure AV.1).** The main sectoral sources of imbalances for the various economies are *China* (external, fiscal, and private imbalances); *euro area* (external and public debt imbalances); *India* (external, fiscal, and private saving imbalances); *Japan* (external, public debt, and private imbalances); *United Kingdom* (external, public debt, and private imbalances); *United States* (external, fiscal, and private imbalances); *France* (external, public debt, private debt imbalances); *Germany* (external and private saving imbalances); and *Spain* (external, public debt, and private imbalances).

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<sup>1</sup> The approach and indicators used are specific to the Indicative Guidelines methodology and are not necessarily the same as those used elsewhere in the G-20 Report on Strong, Sustainable, Balanced, and Inclusive Growth.

**Figure AV.1. Indicative Guidelines: Comparison of Approaches, 2019**



Sources: IMF, *World Economic Outlook*, July 2019; and IMF staff calculations.

Note: In the left-hand chart, a country is considered systemic if the PPP-GDP weight in G-20 PPP-GDP is larger than 5 percent. In the right-hand chart, the corresponding selection of systemic countries is based on nominal GDP weights. Selection in each of the two charts is based on four different approaches: (i) structural norms; (ii) cross section; (iii) time series; and (iv) quartile analysis. Members are selected if at least two of the four approaches show “large” imbalances. Black and bold indicate selected countries. ESP is a permanent invitee.