

*This chapter examines how the unprecedented ongoing global fiscal expansion and the expected consolidation in the coming years will affect economies' external positions. Based on a historical analysis of fiscal policy changes in 33 economies over the past 40 years and IMF G20 Model simulations, it finds that fiscal consolidation—tax hikes and government spending cuts—strongly and persistently raises current balances and results in real exchange rate depreciation. Most of the current account adjustment comes from a decline in economic activity, investment, and imports. At the same time, what happens to the current account and real exchange rate depends on a country's relative fiscal policy stance compared with that of its trading partners. For economies with relatively limited fiscal expansions during the COVID-19 crisis, compared with those of their trading partners, consequences include a rise in their current account balances and currency depreciation. At the global level, the highly synchronized fiscal expansions in 2020 imply a modest net impact on the global balances—the sum of absolute current account deficits and surpluses. In 2021–22, fiscal expansions are more concentrated among current account deficit economies, resulting in wider global balances. Over the medium term, current account deficit economies are expected to implement more fiscal consolidation, resulting in a reduction in global balances to below pre-COVID-19 levels. However, additional deficit-financed fiscal expansions by current account deficit economies, or a faster-than-expected pace of fiscal consolidation among current account surplus economies, could forestall this reduction. A synchronized global investment push to support the recovery would have minimal implications for global balances.*

The authors of this chapter are Gustavo Adler, Cian Allen, Giovanni Ganelli (co-lead), Keiko Honjo, and Daniel Leigh (co-lead), with support from Mariela Caycho, Jair Rodriguez, Shao Xiaohan, and Rongjin Zhang. Luisa Calixto and Jane Haizel provided editorial assistance. The chapter also benefited from discussions with Alan Taylor and Stefan Zeugner and from comments by internal seminar participants and reviewers.

## Introduction

How will the unprecedented fiscal policy expansion in response to the COVID-19 crisis and the expected fiscal consolidation over the coming years affect economies' trade balances and exchange rates? Textbook economic models, such as the Mundell-Fleming model, suggest that tax hikes or government spending cuts that reduce fiscal deficits cause a reduction in demand, an exchange rate depreciation, and a rise in the trade balance.<sup>1</sup> Despite those textbook results, there is a lack of consensus among economists on the size and persistence of the effect of fiscal policy changes. In a 2017 poll of leading economists by the University of Chicago Booth School of Business, only 33 percent agreed that a reduction in the US fiscal deficit would reduce the US trade deficit.<sup>2</sup> Several studies of the historical relationship between fiscal policy changes and external current account balances and exchange rates also find weak or inconclusive results.<sup>3</sup> A central challenge in estimating this relationship is that fiscal policy decisions are often motivated by responding to developments that also affect trade and currency movements, such as a recession, which confounds estimates of causal effects.<sup>4</sup> Another difficulty is that the relationship between the fiscal deficit and the current account depends on a country's relative fiscal policy stance compared with that of its trading partners, with potential *direct* effects on individual economies' current account balances differing from *overall* effects in cases of synchronization across economies.

<sup>1</sup>This prediction also emerges from calibrated open-economy general equilibrium models with non-Ricardian features, such as overlapping generations, as discussed in Obstfeld and Rogoff (1996).

<sup>2</sup>Economists were asked to comment on the following statement: "If the US reduced its fiscal deficit, then its trade deficit would also shrink." Of the survey participants, 33 percent agreed, 39 percent were uncertain or had no opinion, 2 percent disagreed, and 26 percent did not answer. The survey is available at <https://www.igmchicago.org/surveys/deficits>.

<sup>3</sup>See, for example, the surveys of the literature in Kim and Roubini (2008) and Abbas and others (2011).

<sup>4</sup>Additional challenges include, as discussed in Bluedorn and Leigh (2011), the potential simultaneous effect of nonpolicy developments, such as asset price booms, on investment, imports, and the current account balance—giving rise to omitted variable biases.

Moreover, with much of the policy debate currently focused on how the ongoing changes in fiscal policy will affect economic activity and inflation, there has been relatively little analysis so far of implications for the global constellation of current account deficits and surpluses. Understanding such implications is, however, important, including to anticipate the evolution of current account deficits and surpluses, which can—if they become excessive—pose challenges for policymakers. If current account balances widen excessively, they can fuel trade tensions among countries, become targets for protectionist measures, and increase the likelihood of disruptive currency and asset price adjustments. As Chapter 1 explains, many factors affect current account balances. This chapter focuses on the impact of fiscal policy changes.

To shed light on these issues, this chapter addresses the following questions:

- Do changes in fiscal policy affect an economy's external current account balance, and how persistent is the effect? Through what channels does the adjustment occur? What happens to exchange rates, exports, and imports?
- Does the impact depend on the composition of policy changes across taxes and government spending, the synchronization of the policy changes across economies, and structural economic characteristics?
- Will the recently implemented and prospective changes in fiscal policy during 2020–26 affect the global constellation of current account deficits and surpluses?
- Would alternative fiscal policy paths affect global current account balances, including different paths of fiscal consolidation than currently envisaged or additional fiscal expansions?

This chapter addresses these issues using both historical analysis of fiscal policy changes in 33 economies over the past 40 years and—to address the unprecedented nature of the ongoing changes in fiscal policy, especially its highly synchronized nature—using simulations of the IMF's multi-country general equilibrium model (the G20 Model).<sup>5</sup> For the

<sup>5</sup>The analysis focuses on changes in taxes and government spending. The relationship between such fiscal measures and trade and currency movements is conceptually more direct than for other types of public sector support, including debt guarantees, which several country authorities have also implemented during the crisis (see the April 2021 *Fiscal Monitor*).

historical analysis, the chapter addresses challenges in identifying causal effects using a Romer and Romer (2010) narrative approach. The analysis focuses on changes in fiscal policy that historical documents suggest are not motivated by responding to prospective macroeconomic conditions, building on earlier related work (for example, Chapter 3 of the October 2010 *World Economic Outlook* [WEO]) by extending the sample to include the decade since the global financial crisis as well as additional economies.

The main findings of the chapter are as follows:

- Changes in taxes and government spending strongly and persistently affect current account balances and exchange rates. A 1 percent of GDP fiscal consolidation raises the current account, on average, by about 0.6 percent of GDP, with the real effective exchange rate depreciating by about 1.8 percent. Most of the current account adjustment comes from a decline in economic activity, investment, and imports.
- The current account and exchange rate effects of fiscal policy changes are broadly comparable across tax and spending instruments, with the exception of changes in capital income taxation and public investment, which have larger effects. The effects are especially strong for economies that are more open to trade, have a greater share of liquidity-constrained households that cannot smooth consumption in response to shocks, and have less flexible exchange rates. At the same time, what happens to the current account and real exchange rate depends crucially on the *relative* fiscal policy stance compared with trading partners, given that not all economies can experience currency depreciation at the same time.
- The 2020–21 fiscal expansions had sizable *direct* effects on individual economies' current account balances but more limited *overall* effects, given the high degree of synchronization across economies. For economies with relatively limited tax reductions and spending increases compared with those of their trading partners, consequences include a rise in their current account balances and currency depreciation. At the global level, the high degree of synchronization of fiscal expansions in 2020 implies a modest net impact on the global balances—the sum of *absolute* current account deficits and surpluses. In 2021–22 fiscal expansion is more concentrated among current account deficit economies, with surplus economies withdrawing fiscal support to a greater extent, resulting in wider global balances.

- Over the medium term, current account deficit economies are currently expected to implement more fiscal consolidation, resulting in a gradual reduction in global balances to below pre-COVID-19 levels. However, additional fiscal expansions by current account deficit economies, or a faster-than-expected pace of fiscal consolidation among current account surplus economies, could forestall this reduction. A synchronized global investment push in support of the recovery would have minimal implications for global balances.

### The Impact of Fiscal Policy Changes on External Balances: Historical Evidence

This section reports new evidence on the impact of fiscal policy changes on the external sector for 33 advanced and emerging market and developing economies over the past 40 years. It starts by presenting results for the effect of fiscal consolidation on the current account and real exchange rate and then explores how the effects have evolved over time, comparing the experience of the past decade, which followed the global financial crisis, with that of earlier decades. The analysis also explores adjustment channels, including the effects on exports, imports, and overall economic activity.

#### Estimation Approach

To estimate the effect of fiscal policy changes, the analysis uses a Romer and Romer (2010) type narrative approach, extending the results of recent studies that also use this approach for a range of countries.<sup>6</sup> It examines contemporaneous policy documents and identifies tax and government spending changes not motivated by a response to the near-term economic outlook but, instead, by a desire to reduce budget deficits and ensure long-term public financial sustainability. As Romer and Romer (2010) and subsequent studies explain, such fiscal actions represent a response to past decisions and economic conditions rather than to prospective conditions.<sup>7</sup> They are thus unlikely to be systematically

<sup>6</sup>See, for example, Devries and others (2011); Alesina and others (2018); and Carriere-Swallow, David, and Leigh (2021).

<sup>7</sup>The narrative approach to identifying fiscal policy shocks is preferred to the more traditional approach based on changes in the cyclically adjusted primary balance, given that the latter typically includes nonpolicy factors that may reflect other developments affecting the current account, such as asset price fluctuations, as well as discretionary policy changes motivated by responding to macroeconomic conditions.

correlated with other developments affecting the economy in the short term, and are therefore valid for estimating the short-term effects of fiscal policy changes on the current account, exchange rate, and other macroeconomic variables.<sup>8</sup> As discussed in Online Annex 2.1, to address potential remaining sources of endogeneity, the analysis conducts several robustness checks.

To implement the narrative approach, the analysis merges existing multi-country narrative databases, includes additional economies, and identifies additional fiscal policy changes up to 2019.<sup>9</sup> The historical documents examined are IMF *Staff Reports*; IMF *Recent Economic Developments* reports; Stability and Convergence Programmes submitted by the authorities to the European Commission; Organisation for Economic Co-operation and Development Economic Surveys; and, for the United States, Congressional Budget Office reports.<sup>10</sup>

Figure 2.1 shows the 342 fiscal policy changes included in the chapter's data set, which average 1.04 percent of GDP a year, with a standard deviation of 0.98 percentage point of GDP and range from -0.9 percent of GDP

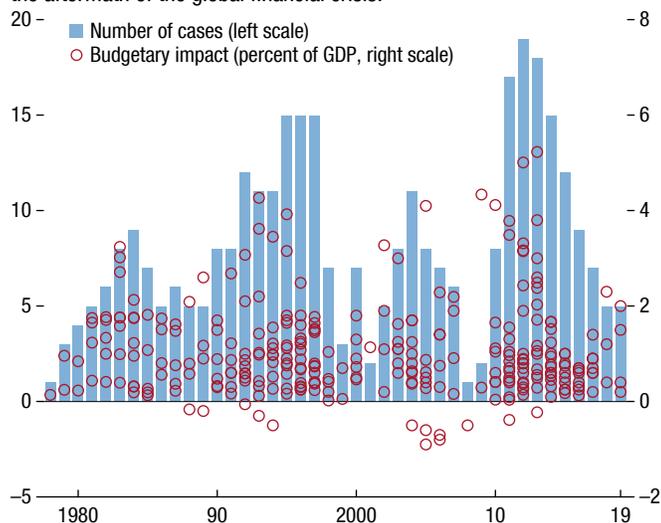
<sup>8</sup>Applications of the Romer and Romer (2010) narrative approach include, among others, Bluedorn and Leigh (2011); Cloyne (2013); Mertens and Ravn (2013); Hayo and Uhl (2014); Guajardo, Leigh, and Pescatori (2014); Jordà and Taylor (2016); Alesina and others (2018); and Cloyne, Jordà, and Taylor (2020). As in these studies, when the historical record indicates that a change in fiscal policy is motivated primarily by restraining domestic demand or in response to a contracting economy, it is not used to estimate causal effects. A potential caveat regarding this approach is that in countries embarking on fiscal consolidation, narrative fiscal shocks might not be entirely orthogonal to prospective conditions if they are predictable based on past developments. To examine and address this possibility, the analysis implements, as a robustness check, the augmented inverse propensity score weighting estimator proposed for this purpose in Jordà and Taylor (2016), with the results suggesting similar or stronger effects to the baseline approach (see Online Annex 2.1, available at [www.imf.org/en/Publications/ESR](http://www.imf.org/en/Publications/ESR)). As in these studies, the analysis assumes that the effects of positive and negative fiscal policy shocks are similar.

<sup>9</sup>The economies included are Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Denmark, the Dominican Republic, Ecuador, Finland, France, Germany, Guatemala, India, Ireland, Italy, Jamaica, Japan, Mexico, The Netherlands, Paraguay, Peru, Portugal, Spain, Sweden, the United Kingdom, the United States, and Uruguay.

<sup>10</sup>These documents provide the estimated budgetary impact of fiscal consolidation measures. Following Romer and Romer (2010), the contemporaneous estimates contained in these sources are used, given that retrospective estimates are rarely available. The budgetary effects of the fiscal consolidation measures are recorded in the year in which they go into effect. To facilitate empirical work using the series, the budgetary impact of the measures is scaled in percent of GDP. If measures were announced, but subsequent editions of the historical documents suggest that they were not implemented, they are not included in the analysis.

**Figure 2.1. Fiscal Consolidation over Time**

The number of fiscal policy changes was highest in the early 2010s in the aftermath of the global financial crisis.



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

(Uruguay, 2005) to 5.23 percent of GDP (Portugal, 2013). Negative values in the measure of policy changes reflect the expiration of temporary fiscal consolidation measures. Based on the narrative fiscal shocks, the analysis estimates the effects of fiscal policy changes using Jordà (2005) local projections.<sup>11</sup>

### Baseline Results

The estimation results suggest that the effects of fiscal policy changes on the current account and on the real effective exchange rate are strong and long-lasting.

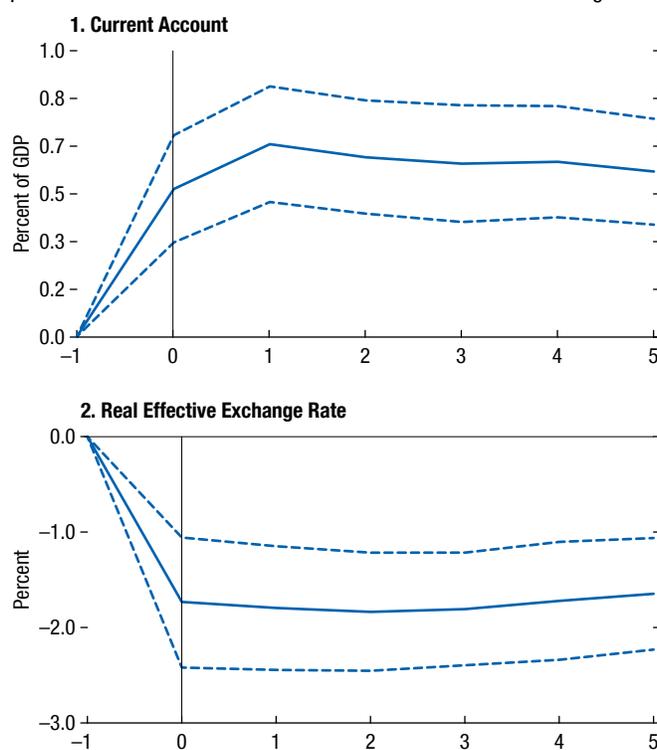
<sup>11</sup>The main equation estimated takes the following form:

$$\Delta y_{i,t+h} = \alpha_i^h + \alpha_i^h + \beta^h \Delta F_{i,t+h} + \gamma^h X_{i,t} + e_{i,t}^h \quad (2.1)$$

where  $\Delta y_{i,t+h}$  denotes the change in the variable of interest, such as the current-account-balance-to-GDP ratio, from year  $t$  to year  $t+h$  in economy  $i$ ;  $\Delta F_{i,t+h}$  denotes the sum of narrative fiscal shocks from year  $t$  to year  $t+h$ ; and  $X_{i,t}$  denotes a set of control variables, which are two lags of both the external sector variable and the narrative fiscal shock. The sequence of estimated  $\beta^h$  coefficients indicates the effects of a 1 percent of GDP fiscal adjustment over  $h$  years. Following Ramey and Zubairy (2018) and Carriere-Swallow, David, and Leigh (2021), the effect of the cumulative narrative fiscal shock over  $h$  years is estimated. The specification also includes time fixed effects ( $\alpha_i^h$ ) to account for various common shocks and economy-specific fixed effects ( $\alpha_i^h$ ) to account for differences in economies' normal external dynamics. The inclusion of time fixed effects controls for common shocks, such as the world fiscal policy changes, shocks to oil and hydrocarbon prices, and other global supply shocks. Inference is based on Driscoll-Kraay standard errors to account for potential serial correlation and spatial dependence.

**Figure 2.2. Effects of a 1 Percent of GDP Fiscal Consolidation**

For a sample of 33 advanced and emerging market and developing economies spanning 1978–2019, changes in fiscal policy have strong and persistent effects on the current account and real effective exchange rate.



Source: IMF staff estimates.

Note: X-axis units are years, where  $t=0$  denotes the year of consolidation. Dashed lines indicate 90 percent confidence intervals.

As Figure 2.2 shows, a 1 percent of GDP fiscal consolidation raises the current account balance by 0.63 percent of GDP within two years, with a 90 percent confidence interval of 0.43 to 0.82 percent of GDP. It also comes with a real effective exchange rate depreciation of 1.80 percent within a year, with a 90 percent confidence interval of 1.15 to 2.45 percent. The effects persist over five years. These results suggest more powerful effects than typically found in existing studies based on more conventional approaches.<sup>12</sup>

<sup>12</sup>See the literature survey in Abbas and others (2011). The smaller estimated effects of fiscal policy on the current account in the IMF staff External Balance Assessment model (see Cubeddu and others 2019) and in other studies in part reflect these studies' focus on the role of fiscal policy while holding constant the response of economic activity (as measured by the output gap, per capita income, economic growth, and other variables)—and are thus not directly comparable with the results presented here, which focus on the overall current account effect, including the impact via changes in economic activity.

The results hold up to a number of robustness checks, as reported in Online Annex 2.1.<sup>13</sup> The results are also similar when examining advanced and emerging market and developing economies separately (the point estimates are larger for the latter group but not statistically distinguishable) and when differentiating between spending-based and tax-based fiscal adjustments.

### Adjustment Channels over Time

To investigate the channels through which fiscal policy affects external adjustment, the analysis reestimates the baseline equation (2.1) with real exports, real imports, as well as real investment and real GDP as the dependent variable. As Figure 2.3 shows, the main channel of adjustment is import compression stemming from the fall in output following fiscal consolidation. Both GDP and investment fall substantially and persistently following the fiscal consolidation. The response of exports is, on average, small and not statistically distinguishable from zero.<sup>14</sup>

Results for the past decade (2010–19), which followed the global financial crisis, suggest a strengthening of the effects of fiscal policy on external adjustment, with the current account balance rising by 0.82 percent of GDP within two years (Figure 2.3). This stronger effect mainly reflects a more pronounced reduction in aggregate demand, with real GDP falling by 1.64 percent within three years (compared with 0.51 before the global financial crisis) and larger associated declines in investment and imports. These results are consistent with those of studies that find evidence of larger fiscal multipliers in the years following the global financial crisis, reflecting substantial economic slack, a weaker financial system, and constrained monetary policy.<sup>15</sup> The real effective exchange rate depreciation following fiscal consolidation remains substantial and comparable to that estimated for earlier decades. As reported in Online Annex 2.1, the difference in estimation results for this decade compared with earlier decades is statistically

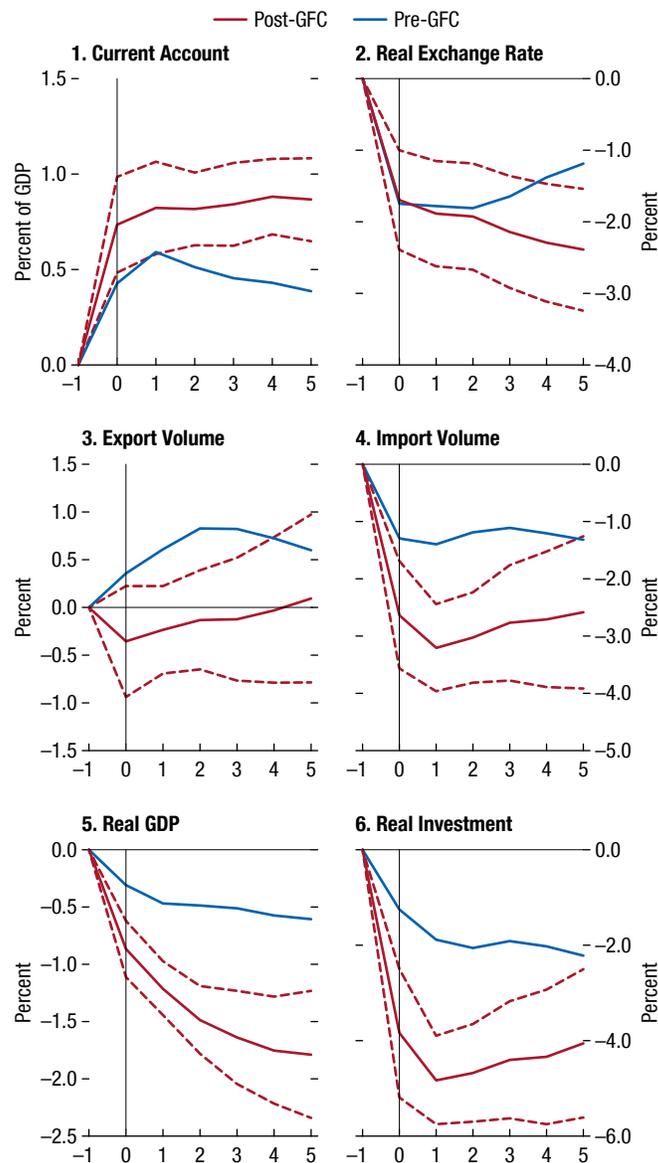
<sup>13</sup>All online annexes are available at [www.imf.org/en/Publications/ESR](http://www.imf.org/en/Publications/ESR).

<sup>14</sup>The lack of an increase in exports, on average, across the horizon considered is less consistent with conventional theoretical models but consistent with models featuring dominant currency pricing (Gopinath and others 2020).

<sup>15</sup>See, for example, Auerbach and Gorodnichenko (2012) and Blanchard and Leigh (2013).

**Figure 2.3. Channels of Adjustment: Focus on Recent Years**

The increase in the current account following a fiscal consolidation of 1 percent of GDP mainly reflects import compression and the fall in GDP and investment. This channel became especially pronounced in the past decade, following the global financial crisis.



Source: IMF staff estimates.

Note: X-axis units are years, where  $t = 0$  denotes the year of consolidation. Dashed lines indicate the 90 percent confidence interval around the point estimate. Post-global financial crisis (GFC) denotes 2010–19.

significant for all variables except exports and the real effective exchange rate. Overall, the historical evidence suggests that fiscal policy has had strong and persistent effects both on macroeconomic variables and on external adjustment.

## What Shapes the Impact? Composition, Synchronization, and Economic Characteristics: Model-Based Insights

To complement the empirical analysis and shed light on the impact of additional aspects relevant today, such as the high degree of synchronization of fiscal policy changes across countries in response to the COVID-19 shock, as well as the composition of the fiscal response and the role of countries' economic characteristics, this section examines the nexus between fiscal policy and external accounts using IMF G20 Model simulations.

The G20 Model is an annual, general equilibrium model of the global economy combining both micro-founded and reduced-form formulations of various economic sectors. It includes all Group of Twenty (G20) countries, plus five regional blocks to model the rest of the world. Ricardian equivalence is broken in the model due to the assumption of finite lifetimes, liquidity-constrained consumers, and distortionary fiscal instruments. Each country and regional block is calibrated to reflect differences in size, macroeconomic steady-state ratios, and behavioral parameters.<sup>16</sup> The model allows an analysis of the impact of globally synchronized policy actions, which is relevant in the context of the COVID-19 shock, during which many countries have expanded fiscal policy at the same time.

### Role of Composition

To investigate how the impact of fiscal policy changes on the current account depends on the type of fiscal instrument, the analysis simulates the impact of fiscal consolidation on the current account, based on seven policy tools available in the G20 Model: consumption taxes, capital income taxes, labor taxes, government consumption, general transfers, targeted transfers, and government investment.<sup>17</sup> For illustrative purposes, the simulations are conducted for the Canada block of the G20 Model.

Reassuringly, the model simulation results are broadly comparable with those found in the aforementioned empirical analysis for most fiscal policy instruments.

<sup>16</sup>For a description of the structure of the G20 Model, see Andrieu and others (2015).

<sup>17</sup>The capital income tax included in the G20 Model is different from corporate income tax. As Carton, Corugedo, and Hunt (2017) explain, a capital income tax "... falls exclusively on the return to capital (which severely distorts the capital accumulation process) rather than on the return to capital as well as the rents made by corporates (which is less distortionary)."

A 1 percent of GDP fiscal consolidation raises the current account balance by 0.4 percent of GDP within three years and 0.5 to 0.6 percent within five years for all fiscal instruments except capital income taxation and government investment. When the entire fiscal consolidation package falls on either of those two fiscal tools, the impact on the current-account-to-GDP ratio is larger, reaching above 1 percent of GDP for capital income taxation. At the same time, in most cases, these two tools are not driving the unprecedented expansion in fiscal policy during 2020–21 or its expected withdrawal in the coming years.<sup>18</sup> In most cases, the budgetary fiscal expansion has focused on transfers and other support for firms and households, as well as on government consumption in the form of health spending (see the April 2021 *Fiscal Monitor* for a summary of the principal fiscal tools deployed as part of the 2020–21 fiscal expansion).<sup>19</sup>

### Role of Synchronization

In the case of globally synchronized action, the results can be different from individual cases. Panel 2 of Figure 2.4 shows the response of the current account in the case of all economies in the model consolidating together by 1 percent of GDP. In this case, Canada's current account declines modestly in response to a global fiscal consolidation. This finding of no rise in the current account following fiscal consolidation should not be surprising. Because the sum of all current accounts in the world must be zero, it is impossible for all economies to increase their current account balance at the same time. What matters for the impact on the current account is the fiscal policy change relative to other countries, as well as individual economic characteristics, such as the degree of openness and the share of liquidity-constrained households.<sup>20</sup> In addition, as

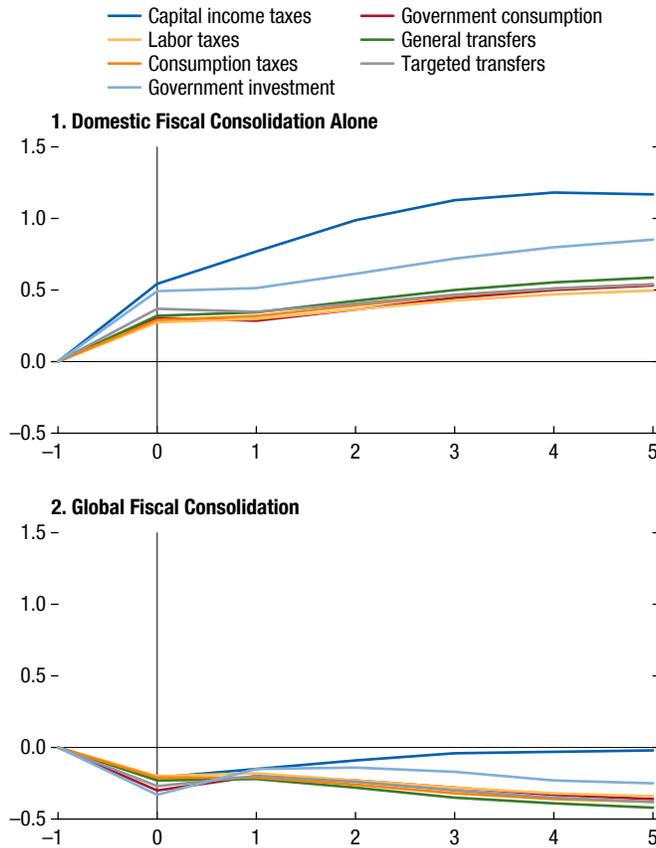
<sup>18</sup>A notable exception is China, for which investment played a substantial role in the fiscal expansion in 2020.

<sup>19</sup>Detailed data are available in the Database of Fiscal Policy Responses to COVID-19 at <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>.

<sup>20</sup>In the case of Canada, the current-account-to-GDP ratio declines modestly in response to the global fiscal consolidation. This result reflects the fact that in Canada the share of liquidity-constrained households is lower compared with the rest of the world. Given that liquidity-constrained households cannot borrow, fiscal consolidation results in a larger fall in consumption and domestic prices—and, hence, a real depreciation—on average, in the rest of the world or, equivalently, real appreciation for Canada. With this appreciation, Canada's current account declines. The global fiscal consolidation also leads to a fall in the world real interest rate (see Online Annex Figure 2.1.2).

**Figure 2.4. Impact on the Current Account Model, by Fiscal Instrument**  
(Percent of GDP; G20 Model simulations)

For most fiscal instruments, the effect of a fiscal consolidation of 1 percent of GDP on the current account based on the IMF's G20 Model simulations is close to the average empirical estimate. It is larger for cuts in government investment or based on increases in taxes on capital income. The current account does not increase following a global fiscal consolidation synchronized across all economies.



Source: IMF, G20 Model simulations.  
 Note: X-axis units are years, where  $t = 0$  denotes the year of consolidation.

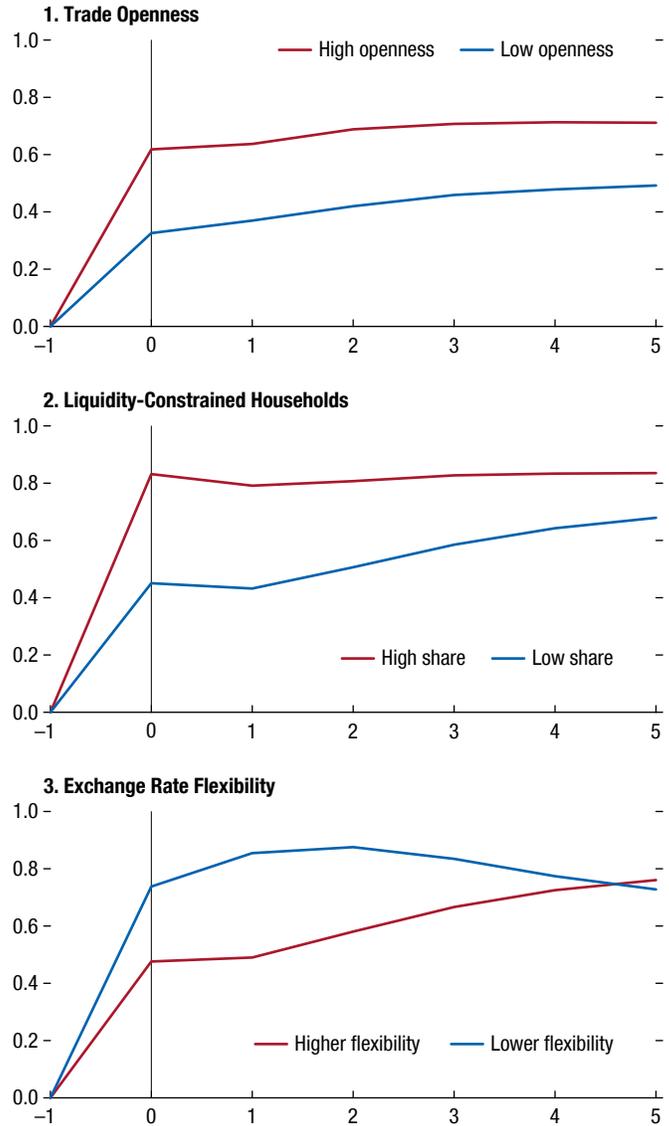
shown in Online Annex Figure 2.1.2, the impact of the global consolidation is partially absorbed by a fall in the world interest rate, which reduces the need for individual countries' private saving and investment to adjust.

**Role of Economic Characteristics**

To shed light on how country characteristics shape the impact, Figure 2.5 shows how the response of the current account to fiscal policy changes depends on such country characteristics as openness, the share of liquidity-constrained economic agents, and the

**Figure 2.5. Effects on the Current Account, by Economic Characteristic**  
(Percent of GDP; years on x-axis; G20 Model simulations)

Fiscal consolidation has larger effects on the current account balance in economies that are more open to trade, have a greater share of liquidity-constrained households, and have fixed exchange rate regimes.



Source: IMF, G20 Model simulations.  
 Note: X-axis units are years, where  $t = 0$  denotes the year of consolidation. The responses in the figure are model simulations based on the IMF's G20 Model for selected economies differentiated by each of the three highlighted characteristics (trade openness in terms of the ratio of imports and exports to GDP, share of liquidity-constrained households, and exchange rate flexibility) that are broadly comparable along the other two characteristics. Based on the calibration in Andrieu and others (2015), it compares the following economies: for trade openness in terms of exports and imports as a share of GDP, United States (lower) and Korea (higher); for household liquidity constraints, Canada (lower) and emerging market oil exporters (higher); and for exchange rate flexibility, it compares an economy in a currency union (Germany) with other (non-euro-area) EU economies.

exchange rate regime. Fiscal consolidation has larger effects on the current account balance in economies that are more open to trade, have a greater share of liquidity-constrained households, and have fixed exchange rate regimes. Larger effects in the case of relatively open economies reflect the greater effect of the fiscal consolidation on imported than on domestically produced products. Figure 2.5 illustrates this aspect (panel 1) by comparing simulated responses for a relatively closed economy (United States) with those for one that is relatively open (Korea). In the case of economies with tighter liquidity constraints, the larger impact reflects a larger share of households that cannot smooth their consumption, which then respond more forcefully to the fiscal shock than in the case in which more households can borrow. This aspect is illustrated in panel 2 of Figure 2.5, which compares Canada, an economy with a smaller share of liquidity-constrained households, with emerging market oil exporters, which have a larger share of liquidity-constrained households. The larger impact in the case of economies with less flexible exchange rate regimes reflects the relative lack of a country-specific monetary policy response. This is illustrated in panel 3 of Figure 2.5, which compares Germany, an economy in a currency union without a country-specific monetary policy response, with non-euro-area EU economies.

Additional special factors beyond those reflected in these model simulations may have shaped the impact of fiscal policy on the current account during the COVID-19 crisis. Such factors include, notably, government-imposed lockdown measures that may have tempered the impact of fiscal policy changes on economic activity, exports, and imports. Government lockdowns, voluntary reduced mobility due to pandemic concerns, and uncertainty regarding future economic prospects related to the crisis may have limited both the ability and the willingness of households that received fiscal support to spend it. Those factors may have limited the impact on aggregate demand and imports of the recent fiscal expansions, as also suggested by increases in precautionary savings in major economies, which resulted in exceptionally high saving compared with other recessions (see the discussion in Chapter 1). In this regard, the impact of fiscal policy changes in 2020–21 may be smaller than in normal times. At the same time, as the pandemic is brought under

control and lockdown measures ease, the associated influence on the transmission of fiscal policy should fade accordingly.

### Implications of Fiscal Policies during 2020–26 for External Balances

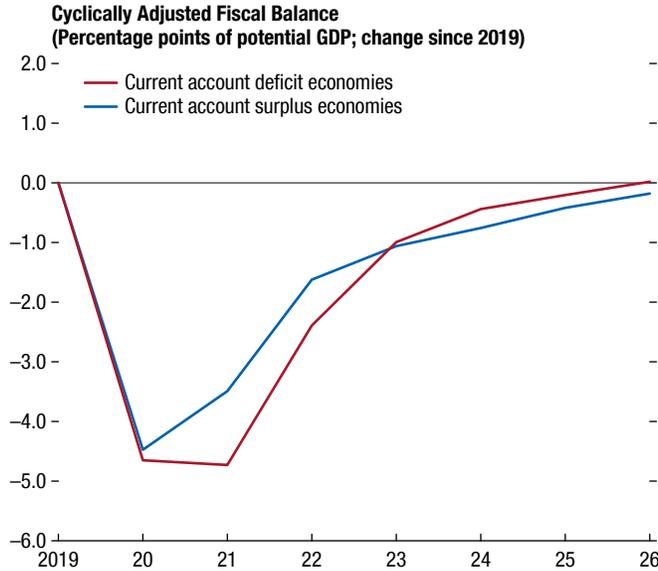
The analysis now assesses how fiscal policy changes implemented and currently expected to be implemented have affected current account balances so far and how they are expected to affect them up to 2026.<sup>21</sup> The analysis examines the impacts both of individual economies' policy changes in isolation and the combined effects of policy changes taken globally. The focus is on changes in taxes and government spending. The relationship between such fiscal measures and trade and currency movements is conceptually more direct than for other types of public sector support, including debt guarantees, which several country authorities also implemented during the crisis. Figure 2.6 shows a summary measure of the fiscal policy changes implemented and expected under the baseline path—the cumulative change in the cyclically adjusted fiscal balance compared with 2019—for current account surplus and current account deficit economies.<sup>22</sup> The expected path of fiscal policy is based on the July 2021 WEO *Update* forecast, which incorporates the IMF staff's fiscal projections regarding the American Jobs Plan and the American Families Plan under discussion in the United States. As Figure 2.6 suggests, the budgetary fiscal response to the COVID-19 shock was greater for current account deficit economies in the immediate aftermath of the COVID-19 shock. For those economies, the GDP-weighted average of the change in the cyclically adjusted fiscal balance is close to 5 percent in 2020 and 2021. This reflects especially fiscal action by

<sup>21</sup>Forecasts of fiscal policy changes are based on the July 2021 WEO *Update*. Projections are formulated on a “current policy” basis. In the case of European Union (EU) countries, the WEO projections reflect the expected withdrawal of extraordinary fiscal support as well as increases in government investments financed with the EU Next Generation grants.

<sup>22</sup>Among advanced economies included in the model, those with current account deficits (based on 2019 data) comprise Canada, France, the United Kingdom, and the United States; current account surplus economies comprise Australia, Belgium, Germany, Italy, Japan, Korea, The Netherlands, Spain, Sweden, and Switzerland. An overwhelming majority of economies in the world have maintained an expansionary fiscal stance in 2020–21 (see also Figures 2.7 and 2.8).

**Figure 2.6. Fiscal Policy Changes, 2020–26**

Economies with current account deficits had, on average, larger fiscal expansions based on the change in the cyclically adjusted general government budget balance during 2020–21 and a larger fiscal withdrawal over the medium term.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff calculations. Note: Fiscal policy changes in 2020–26 are based on July 2021 WEO *Update* forecasts. Current account deficits and surpluses are based on 2019 data. Average is weighted by GDP.

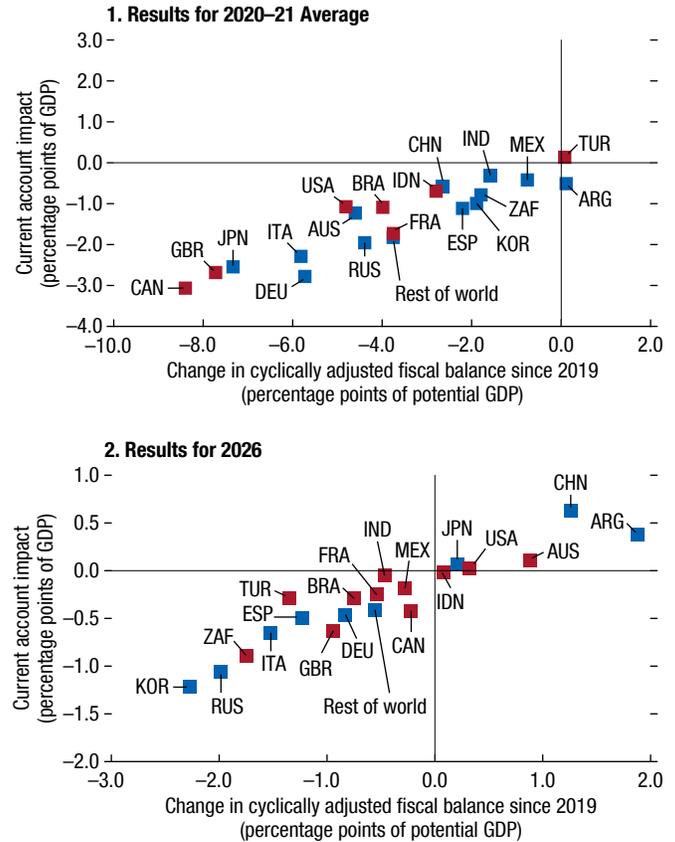
advanced economies—the United States in particular. The opposite is true in the medium term, with current account deficit economies undertaking relatively greater withdrawal of the temporary fiscal support under current forecasts.

**Individual Impact**

Simulations based on the G20 Model indicate that the *direct* effect of fiscal expansions during 2020–21 on current account balances was to reduce them by an average of about 1.5 percent of GDP. Figure 2.7 shows those effects for 2020–21, as well as the medium-term impact of the currently expected fiscal path, for the case of individual fiscal action by each economy. The results highlight the importance of trade openness. For example, in 2020–21 the negative impact on Germany’s current account is larger than for Italy, despite a broadly similar change in the cyclically adjusted fiscal balance in the two economies. Given that Germany’s trade openness is greater than that of Italy, this result is in line with the larger impact of fiscal shocks on the

**Figure 2.7. Individual Direct Impact of Fiscal Policy Changes on the Current Account, 2020–26**

The direct effect of fiscal policy actions in 2020–21 on current accounts is generally negative. Over the medium term, some economies’ medium-term fiscal consolidations are larger than the fiscal expansion of 2020–21, resulting in a positive direct effect on the current account.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff estimates. Note: The figure reports IMF G20 Model simulations. Red (blue) squares indicate economies with a current account deficit (surplus). Fiscal policy changes in 2020–26 are based on July 2021 WEO *Update* forecasts. The figure uses International Organization for Standardization (ISO) country codes.

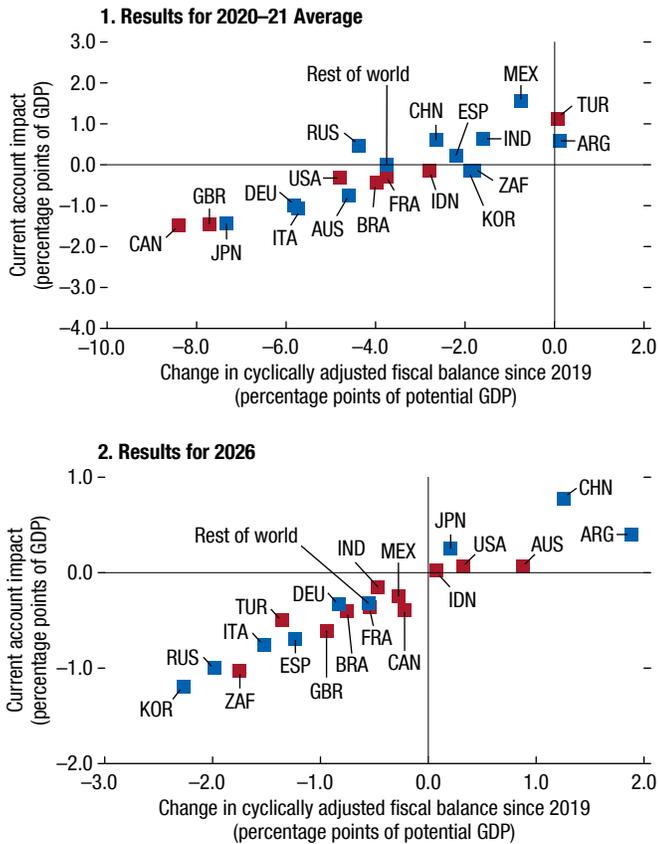
current account in more open economies, also shown in Figure 2.5.

**Global Impact**

The case of global action captures the total effects stemming from changes in fiscal policy both domestically and in the rest of the world. A comparison of the global action simulations (Figure 2.8) with the individual action simulations (Figure 2.7) illustrates how *relative* fiscal policy changes matter for the ultimate impact. The case of Mexico is instructive. The impact on Mexico’s current account in 2020–21 is about 1.5 percent of GDP for the

**Figure 2.8. Global Impact of Fiscal Policy Changes on the Current Account, 2020–26**

The effect of fiscal policy actions taken globally on current accounts depends on the relative size of the fiscal policy change as well as economies’ structural features, both during 2020–21 and over the medium term.



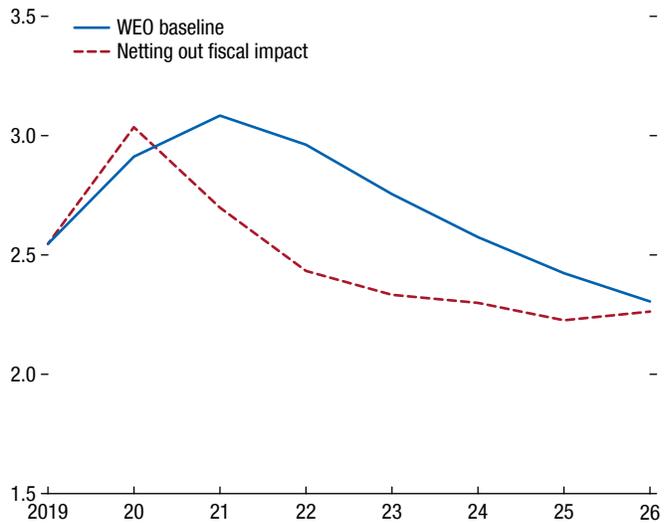
Sources: IMF, *World Economic Outlook* (WEO); and IMF staff estimates. Note: The figure reports IMF G20 Model simulations. Red (blue) squares indicate economies with a current account deficit (surplus). Fiscal policy changes in 2020–26 are based on July 2021 WEO *Update* forecasts. The figure uses International Organization for Standardization (ISO) country codes.

global fiscal action simulation, compared with -0.4 percent of GDP in the individual case. Given that Mexico is a relatively open economy, its current account benefits from the larger fiscal support carried out in the rest of the world.<sup>23</sup> As shown in Figure 2.9, fiscal policy contributes to a widening of global current account balances for most of the projection period under the baseline, largely driven by the US fiscal expansion, although this widening effect dissipates by 2026. The widening effect is particularly marked in 2021. In the absence of the fiscal

<sup>23</sup>Both exports and imports are parameterized close to 40 percent of GDP for Mexico in the G20 Model, based on 2020 data.

**Figure 2.9. Impact of Fiscal Policy on Global Absolute Current Account Balances, 2020–26 (Percent of world GDP)**

Fiscal policy contributes to a widening of global current account balances for most of the projection period under the baseline, largely driven by the US fiscal expansion, but this widening effect dissipates by 2026.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff estimates (G20 Model simulations).

Note: The figure reports IMF G20 Model simulations. Fiscal policy changes in 2020–26 are based on July 2021 WEO *Update* forecasts.

policy response to COVID-19, global balances would have already been on a steep narrowing path beginning in 2021, instead of widening as in the baseline.<sup>24</sup>

### Alternative Fiscal Policy Paths and Global Current Account Balances

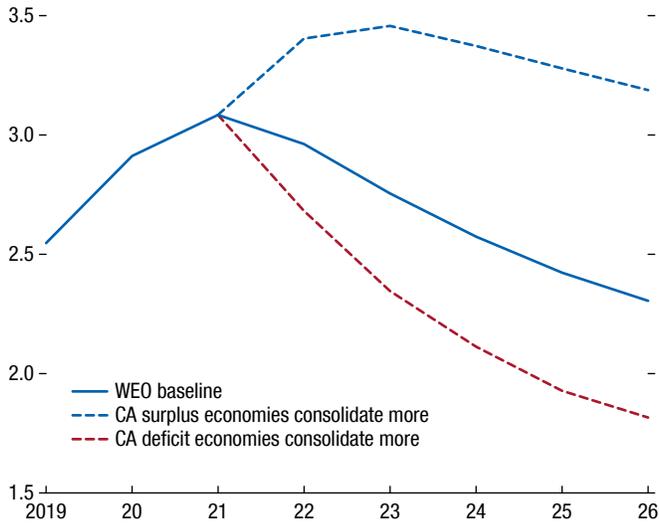
#### Additional Fiscal Consolidation or Fiscal Expansion

In Figure 2.10, global current account balances under the current baseline (solid blue line) are compared with two alternative scenarios. The dashed blue line shows how global current account balances would evolve if current account surplus economies implemented an additional gradual 3 percent of GDP fiscal consolidation, starting in 2022, compared with the baseline.

<sup>24</sup>Figure 2.9 also shows that fiscal policy slightly narrowed current account imbalances in 2020. This result is driven by the fact that, given that major current account surplus economies tend to be more open (the GDP-weighted average of imports to GDP is 34.6 percent for current account surplus countries and 23.2 percent for current account deficit countries in the model calibration), the negative impact of fiscal support on their current account balance in 2020 was greater than for current account deficit economies.

**Figure 2.10. Scenario with Additional Fiscal Consolidation: Impact on Global Absolute Current Account Balances, 2020–26**  
(Percent of world GDP)

Additional fiscal consolidation by economies with current account surpluses would substantially widen global balances over the medium term, while more fiscal consolidation by current account deficit economies would contribute to a further narrowing in global balances.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff estimates (G20 Model simulations).

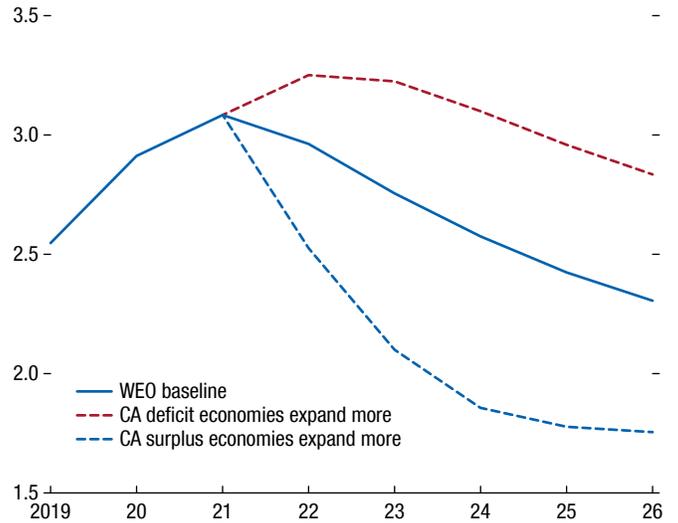
Note: The figure reports the absolute sum of global current account deficits and surpluses under different fiscal policy scenarios, including an additional 3 percent of GDP in fiscal consolidation starting in 2022. The WEO baseline scenario is based on July 2021 WEO *Update* forecasts. CA = current account.

The dashed red line shows how global current balances would evolve if current account deficit economies implemented the same additional consolidation.

The impact of the additional consolidation is larger for current account surplus economies than for deficit economies because surplus economies are currently, on average, more open than deficit economies. As a result, the same amount of fiscal consolidation reduces imports more in current account surplus economies than in current account deficit economies, thus increasing surpluses in current account surplus economies more than it reduces deficits in current account deficit economies undertaking additional fiscal consolidation. Importantly, Figure 2.10 also shows how, if current account surplus economies implement more fiscal consolidation (or less persistent fiscal support) than currently expected, global current account balances could widen substantially compared with the baseline scenario.

**Figure 2.11. Scenario with Additional Fiscal Expansion: Impact on Global Absolute Current Account Balances, 2020–26**  
(Percent of world GDP)

Additional fiscal expansion by economies with current account deficits would substantially widen global balances over the medium term, while additional fiscal expansion by current account surplus economies would contribute to a further narrowing in global balances.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff estimates (G20 Model simulations).

Note: The figure reports the absolute sum of global current account deficits and surpluses under different fiscal policy scenarios, including an additional 3 percent of GDP in fiscal expansion starting in 2022. The WEO baseline scenario is based on July 2021 WEO *Update* forecasts. CA = current account.

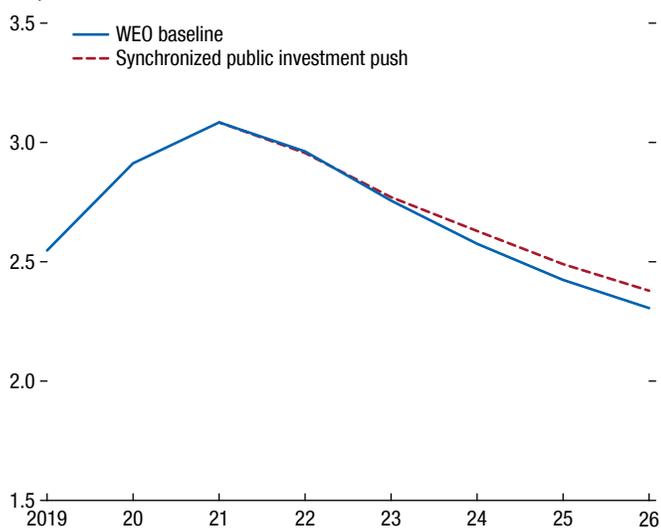
The case of additional fiscal expansion compared with the baseline—or, equivalently, a more persistent fiscal expansion than currently expected—is also worth considering. Figure 2.11 shows that in an alternative scenario under which current account deficit economies expand fiscal policy by an additional 3 percent of GDP, global current account balances widen substantially compared with the baseline. By the same token, under a scenario in which current account surplus economies provide more fiscal support compared with the baseline, global current account balances would be substantially reduced. The simulation is based on an illustrative 3 percent of GDP gradual additional fiscal support starting in 2022.

### Synchronized Public Investment Push

In Figure 2.12, the evolution of global current account balances under the baseline is compared with an alternative scenario of a synchronized global

**Figure 2.12. Scenario with Synchronized Public Investment Push: Impact on Global Absolute Current Account Balances, 2020–26**  
(Percent of world GDP)

A synchronized public investment expansion to support the recovery would have modest effects on global current account deficits and surpluses.



Sources: IMF, *World Economic Outlook* (WEO); and IMF staff estimates (G20 Model simulations).

Note: The figure reports the absolute sum of global current account deficits and surpluses under different fiscal policy scenarios. The WEO baseline scenario is based on April 2021 WEO forecasts.

investment push. Under this alternative scenario, it is assumed that G20 economies that have fiscal space increase public investment. The simulation assumes—following IMF (2020a), which focuses on the impact on real GDP—that in G20 economies with ample or some fiscal space, public infrastructure investment increases by ½ percent of GDP in 2021, rises to 1 percent of GDP in 2022, and stays at that elevated level until 2025. In G20 economies deemed at risk with respect to fiscal space, public infrastructure spending increases by one-third of the amount in countries with ample or some fiscal space. There is no increase in public infrastructure spending in countries with no fiscal space.<sup>25</sup>

Figure 2.12 suggests that the synchronized investment increases global current account balances only marginally (the deviation of the red dashed line from the blue line is very small). This is because the increase in investment

is *synchronized* across various current account surplus and current account deficit economies. A synchronized global investment push, or a synchronized health spending push to end the pandemic and support the recovery, could have large effects on GDP, with limited effects on global balances (the sum of absolute current account deficits and surpluses).<sup>26</sup> The result that synchronized fiscal policy changes imply limited effects on global balances suggests that some of the global reforms currently being considered, such as a global synchronized increase in capital taxation and an international agreement for taxation of multinationals, could also have limited implications for overall global imbalances.

### Implications for the External Outlook

After declining over the past several years, global current account deficits and surpluses increased during 2020–21, as discussed in Chapter 1. The analysis in this chapter suggests that the evolution of global balances over the medium term will depend crucially on the conduct of fiscal policy and on the progression of the COVID-19 virus, which remains highly uncertain. Policies should remain focused on ending the pandemic, as discussed in Chapter 1.

In the medium term, under currently expected policies, current account deficit economies implement more fiscal consolidation than current account surplus economies, contributing to a gradual reduction in global balances to below pre-COVID-19 levels. However, additional deficit-financed fiscal expansions by current account deficit economies, beyond what is currently expected, or a faster-than-expected pace of fiscal consolidation among current account surplus economies, could forestall this reduction and even widen current account balances, potentially fueling trade tensions and protectionist measures and increasing the likelihood of disruptive currency and asset price adjustments down the road.

For individual economies, what happens to the current account and real exchange rate will also depend critically on their relative fiscal policy stance compared with that of their trading partners. For economies that implemented less fiscal support than their trading partners during the COVID-19 crisis, even if the policy

<sup>25</sup>Fiscal space is defined as in IMF (2020b) and is based on pre-pandemic assessments during Article IV consultations.

<sup>26</sup>According to IMF (2020a), the level of global real GDP would increase by almost 2 percent by 2025 under a global synchronized investment push.

support was calibrated to their domestic economic needs, implications include rising current account balances and currency depreciation. This result highlights the importance of spillovers from the policy actions of advanced economies—where, as Chapter 1 highlights, fiscal expansions have been especially large—to emerging market and developing economies. The case of Mexico provides an example: the external current account increased sharply in 2020, in part reflecting the impact of fiscal expansions in major trading partners that were larger compared with Mexico's relatively muted fiscal response to the pandemic, as well as other factors (see Chapter 3). Similar consequences may apply for economies considering withdrawing fiscal support more rapidly than their trading partners. By the same token, for economies introducing greater fiscal expansions than their trading partners, a possible consequence is a widening trade deficit and a strengthening currency. At the same time, fiscal policies synchronized across many economies, such as a global push to

upgrade public infrastructure and end the pandemic, support for the recovery, and enhanced resilience to climate change, are likely to have limited implications for individual economies' current account balances.

Given uncertainties and risks surrounding the baseline external sector outlook discussed in Chapter 1, ensuring a narrowing of excessive surpluses and deficits will also require a broader set of measures beyond fiscal policy. As discussed in Chapter 3, these include policies and structural reforms that promote the recovery in the near term and external rebalancing over the medium term in a manner supportive of growth. Specific policies discussed in Chapter 3 include medium-term fiscal consolidation in economies with excessive current account deficit balances, such as the United States, as well as policies aimed at promoting investment and diminishing excess saving in economies with excessive current account surpluses, such as Germany. Such policies will be critical to support external rebalancing over the medium term.

## References

- Abbas, S. M. Ali, Jacques Bouhga-Hagbe, Antonio Fatás, Paolo Mauro, and Ricardo C. Velloso. 2011. "Fiscal Policy and the Current Account." *IMF Economic Review* 59 (4): 603–29.
- Alesina, Alberto, Gualtiero Azzalini, Carlo Favero, Francesco Giavazzi, and Armando Miano. 2018. "Is It the 'How or the When' That Matters in Fiscal Adjustment?" *IMF Economic Review* 66:144–88.
- Andrle, Michal, Patrick Blagrove, Pedro Espallat, Keiko Honjo, Benjamin Hunt, Mika Kortelainen, René Lalonde, Douglas Laxton, Eleonora Mavroeidi, Dirk Muir, Susanna Mursula, and Stephen Snudden. 2015. "The Flexible System of Global Models—FSGM." IMF Working Paper 15/64, International Monetary Fund, Washington, DC.
- Auerbach, Alan J., and Y. Gorodnichenko. 2012. "Measuring the Output Responses to Fiscal Policy." *American Economic Journal: Economic Policy* 4 (2): 1–27.
- Blanchard, Olivier, and Daniel Leigh. 2013. "Growth Forecast Errors and Fiscal Multipliers." IMF Working Paper 13/1, International Monetary Fund, Washington, DC.
- Bluedorn, John, and Daniel Leigh. 2011. "The Effect of Fiscal Consolidation on the Current Account." *IMF Economic Review* 59 (4): 582–602.
- Carriere-Swallow, Yan, Antonio David, and Daniel Leigh. 2021. "Macroeconomic Effects of Fiscal Consolidation in Emerging Economies: New Narrative Evidence from Latin America and the Caribbean." *Journal of Money, Credit and Banking*.
- Carton, Benjamin, Emilio Fernandez Corugedo, and Benjamin L. Hunt. 2017. "No Business Taxation without Model Representation: Adding Corporate Income and Cash Flow Taxes to GIMF." IMF Working Paper 17/259, International Monetary Fund, Washington, DC.
- Cloyne, James. 2013. "Discretionary Tax Changes and the Macroeconomy: New Narrative Evidence from the United Kingdom." *American Economic Review* 103:1507–28.
- Cloyne, James, Òscar Jordà, and Alan M. Taylor. 2020. "Decomposing the Fiscal Multiplier." NBER Working Paper 26939, National Bureau of Economic Research, Cambridge, MA.
- Cubeddu, Luis, Signe Krogstrup, Gustavo Adler, Pau Rabanal, Mai Chi Dao, Swarnali Ahmed Hannan, Luciana Juvenal, Nan Li, Carolina Osorio Buitron, Cyril Rebillard, Daniel Garcia-Macia, Callum Jones, Jair Rodriguez, Kyun Suk Chang, Deepali Gautam, and Zijiao Wang. 2019. "The External Balance Assessment Methodology: 2018 Update." IMF Working Paper 19/65, International Monetary Fund, Washington, DC.
- Devries, Pete, Jaime Guajardo, Daniel Leigh, and Andrea Pescatori. 2011. "A New Action-Based Dataset of Fiscal Consolidation in OECD Countries." IMF Working Paper 11/128, International Monetary Fund, Washington, DC.
- Gopinath, Gita, Emine Boz, Camila Casas, Federico Diez, Pierre-Olivier Gourinchas, and Mikkel Plagborg-Møller. 2020. "Dominant Currency Paradigm." *American Economic Review* 110 (3): 677–719.
- Guajardo, Jaime, Daniel Leigh, and Andrea Pescatori. 2014. "Expansionary Austerity? International Evidence." *Journal of the European Economic Association* 12:949–68.
- Hayo, Bernd, and Matthias Uhl. 2014. "The Macroeconomic Effects of Legislated Tax Changes in Germany." *Oxford Economic Papers* 66 (2): 397–418.
- International Monetary Fund (IMF). 2020a. G20 Surveillance Note. Washington, DC. <https://www.imf.org/external/np/g20/111920.htm>.
- International Monetary Fund (IMF). 2020b. Group of Twenty IMF Report—IMF Annual Meetings G20. "2020 Report on Strong, Sustainable, Balanced, and Inclusive Growth." Washington, DC. <https://www.imf.org/external/np/g20/pdf/2020/110220.pdf>.
- Jordà, Òscar. 2005. "Estimation and Inference of Impulse Responses by Local Projections." *American Economic Review* 95 (1): 161–82.
- Jordà, Òscar, and Alan M. Taylor. 2016. "The Time for Austerity: Estimating the Average Treatment Effect of Fiscal Policy." *Economic Journal* 126 (590): 219–55.
- Kim, Soyoun, and Nouriel Roubini. 2008. "Twin Deficit or Twin Divergence? Fiscal Policy, Current Account, and Real Exchange Rate in the U.S." *Journal of International Economics* 74 (2): 362–83.
- Mertens, Karel, and Morton O. Ravn. 2013. "The Dynamic Effects of Personal and Corporate Income Taxes in the United States." *American Economic Review* 103:1212–47.
- Obstfeld, Maurice, and Kenneth Rogoff. 1996. *Foundations of International Macroeconomics*. Cambridge, MA: MIT Press.
- Ramey, Valerie, and Sarah Zubairy. 2018. "Government Spending Multipliers in Good Times and in Bad: Evidence from US Historical Data." *Journal of Political Economy* 126 (2): 850–901.
- Romer, Christina D., and David H. Romer. 2010. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks." *American Economic Review* 100 (3): 763–801.