

Emerging analysis and ideas

Covid-19 economic recovery: fiscal stimulus choices for lower-income countries

lain Steel and Tom Harris

October 2020

This publication is part of ODI's series on Covid-19. It has not undergone ODI's usual rigorous peer review and design processes in the interest of rapidly contributing emerging ideas and analysis, and should be read with this in mind.





Key messages

- In the initial crisis phase of the Covid-19 pandemic, as countries used lockdowns to suppress the spread of the virus, fiscal support measures were introduced to help businesses and households keep their heads above water. As countries begin to control the spread of Covid-19 and lift lockdowns, some are likely to consider using fiscal stimulus to restore output lost due to the pandemic.
- It will not be possible or desirable for all countries to deploy fiscal stimulus. Those lower-income countries that do so will need to think carefully about how to design effective policies. This could include focusing stimulus on sectors that contribute to longer-term objectives, such as developing new domestic industries, supporting a green economic recovery, and reducing poverty, rather than simply aiming to boost short-term demand.
- The Covid-19 pandemic also presents unique policy challenges. The timing of fiscal stimulus is likely to be particularly difficult to get right, as the spread of the virus will need to be under control and lockdown measures lifted before stimulus will be effective. Even then, it could increase the risk of a resurgence of cases if it encourages activities that contribute to Covid-19 transmission.
- Targeting fiscal stimulus will also be challenging. Some sectors that have been most adversely impacted, such as exports and tourism, are not easily reached through domestic stimulus, and recovery in those areas will depend on how quickly trade and tourism partners recover. Other sectors may not fully recover due to the adjustment to a 'new normal' and stimulus here might only delay adjustment.
- Lower-income countries also face greater constraints on how to implement stimulus given their relatively small tax bases and low coverage of social assistance programmes. Spending measures can be undermined if not delivered quickly and effectively, and weaknesses in governance frameworks can undermine fiscal policy responses.
- Given these constraints, tax options with the most potential include temporary VAT cuts to stimulate consumption, cost-based business tax measures such as temporary enhanced capital allowances to stimulate investment, and reductions to local taxes. Spending measures could focus on shovel-ready public works and maintenance programmes that provide employment opportunities, or on alternative avenues to provide social assistance such as expanding ration shops, subsidised local services and cash transfers through mobile money or community groups and non-government organisations.

About this article

This paper was produced as part of the FCDO-funded Centre for Tax Analysis in Developing Countries (TaxDev) project. TaxDev aims to contribute to more effective tax policy-making in lower-middle-income countries through applied research and policy analysis, and improving the analytical capacity of partner governments.

The authors would like to thank Hazel Granger, Kyle McNabb, Mark Miller, Harshil Parekh and Chris Wales at ODI, and Anne Brockmeyer, Lucie Gadenne, David Phillips, Yani Tyskerud and Ross Warwick at IFS, for their suggestions and comments on this paper.

About the authors

Iain Steel is an ODI Research Associate providing tax policy research and technical assistance to the TaxDev programme.

Tom Harris is a Research Economist at the Institute for Fiscal Studies and Country Programme Manager for the TaxDev programme's work in Ethiopia.

Introduction

In the initial crisis phase of the Covid-19 pandemic, as countries sought to limit the spread of the virus through lockdowns and social distancing measures, governments deployed sizeable fiscal and monetary countermeasures. This included \$11 trillion of *fiscal support* measures worldwide (IMF, 2020b) intended to bolster healthcare systems and help adversely affected households and businesses keep their heads above water (Gaspar and Mauro, 2020).

Although countries are at different phases of the pandemic, with many still experiencing rising case numbers and imposing strict lockdowns, those countries that are containing the spread of the virus and easing lockdown measures will increasingly be thinking about how best to use fiscal policy to secure economic recovery. One option is to implement more broad-based *fiscal stimulus* intended to restore demand in the economy and boost output – an increasingly popular option following studies after the 2008 global financial crisis suggesting that fiscal policy has had a greater impact on short-term economic output in recent years than previously thought. However, most academic work has assessed fiscal stimulus in advanced economies, with relatively few studies specifically for lower-income countries, and none assessing fiscal stimulus specifically to restore growth during and after a global pandemic.

In this paper we look at the challenges and options for fiscal stimulus to restore growth in lower-income countries¹ after Covid-19. First, we outline the macroeconomic context for fiscal stimulus in lower-income countries during Covid-19. Second, we set out how the traditional principles of timely, targeted and temporary (the 'three Ts') may need to be adapted given the nature of the economic shock triggered by the pandemic, and the characteristics of lower-income countries. Third, we look at some of the specific policy options that are likely to be most effective in lower-income countries, and their potential advantages and disadvantages.

¹ In this paper we use the term lower-income countries to refer to low-income countries (LICs) or lower-middle-income countries (LMICs) as classified by the World Bank. Depending on the source material referred to, we also use the terms low-income developing countries (LIDCs), emerging market economies (EMEs) and advanced economies (AEs), consistent with International Monetary Fund (IMF) definitions.

1. The macroeconomic context for fiscal stimulus in lower-income countries in response to Covid-19

This section looks at the theory and empirical evidence on fiscal stimulus, identifying the key factors that determine its effectiveness. We also discuss the macroeconomic context around Covid-19, and how this potentially impacts on lower-income countries' fiscal policy choices.

1.1 Macroeconomic theory on how fiscal stimulus works (and why it might not)

Much of the literature on fiscal stimulus has tended to take a macroeconomic perspective – fiscal stimulus is equated with governments increasing overall borrowing to increase aggregate demand and support economic recovery. Governments can enact a fiscal stimulus through a combination of spending increases, transfer payments and tax cuts that act through different channels. Public spending is a component of gross domestic product (GDP), and therefore spending increases raise output, but the impact can be greater than the sum of additional spending if it stimulates additional economic activity. For example, government infrastructure projects could restore activity in the construction sector, which in turn could increase construction employment and household incomes, leading to increased household consumption. Fiscal stimulus through transfers and taxes works by influencing the behaviour of households and businesses to create demand. For example, cash transfers to households might encourage them to spend more, boosting consumption, or tax cuts for businesses might encourage additional investment.

Macroeconomic theory suggests some reasons why fiscal stimulus might not increase output:

- Households may not be responsive to short-term changes in income as they can normally use savings and borrowing to smooth their consumption over time. Rather than increase consumption in response to a temporary tax cut or transfer payment, they might save more instead. This is particularly likely if households expect the government to increase taxes after stimulus to pay down the additional public debt created to fund the stimulus (an issue known as 'Ricardian equivalence').
- Business investment may be 'crowded out' by higher interest rates. If monetary policy
 authorities expect stimulus to cause inflation or weaken external balances they may raise
 interest rates in response, or if confidence in the government's fiscal position is weak
 sovereign bond yields could increase, pushing up borrowing costs across the whole
 economy. Faced with higher borrowing costs, businesses could reduce their investment,
 offsetting any potential output gains from the stimulus.
- Supply-side constraints might prevent output from increasing to meet an increase in aggregate demand created by fiscal stimulus. This could lead to higher inflation (or an increase in interest rates leading to crowding out), or the demand might be met through increased imports, causing the stimulus to leak overseas.

Assessing whether fiscal stimulus is likely to be effective or whether the above risks are likely to prevail in the context of Covid-19 and country-specific circumstances is a key issue for policy-makers in lower-income countries, and is explored throughout this note.

The effectiveness of fiscal stimulus in boosting output has been measured in empirical work by the short-term fiscal multiplier – the ratio of change in output to a change in fiscal policy over the first one or two years.² Studies have found that fiscal stimulus is effective in some circumstances, but in others can be prone to the adverse outcomes described above. There is a growing consensus, as summarised in Izquierdo et al. (2019), that fiscal multipliers depend on:

- the cyclical state of the economy, with larger multipliers during recessions than during expansions (Auerbach and Gorodnichenko, 2012; 2013; Riera-Crichton et al., 2015)
- **the degree of monetary accommodation**, with larger multipliers when monetary policy is loose and interest rates low (Coenen et al., 2012)
- the exchange rate regime, with larger multipliers under fixed exchange rate regimes (Ilzetzki et al., 2010)
- **the level of government debt**, with smaller multipliers when debt is high (Batini et al., 2014; Corsetti et al., 2012; Huidrom et al., 2019; Ilzetzki et al., 2010; Nickel and Tudyka, 2013)
- the degree of trade openness, with smaller multipliers in economies more open to trade due to more stimulus leaking out into imports (Ilzetzki et al., 2010; Kraay, 2012).

Many recent studies of fiscal multipliers are for advanced economies, and from the literature it is not clear whether multipliers in lower-income countries should be expected to be higher or lower than in high-income ones (Batini et al., 2014). Several studies suggest that multipliers are lower. These include studies finding that multipliers in lower-income countries are half the size of advanced economies (Sheremirov and Spirovska, 2019); are smaller in sub-Saharan Africa than in advanced and emerging market economies (Arizala et al., 2017); or are effectively zero (Kraay, 2010; Ilzetzki et al., 2010). Other studies suggest that a well-designed fiscal stimulus package in lower-income countries can be effective. For example, one-time cash transfers in Kenya have been shown to have large impacts on consumption for recipients and large positive spill-overs for non-recipient households and firms (Egger et al., 2019).

1.2 The macroeconomic context of Covid-19 for lower-income countries

The Covid-19 macroeconomic shock has had a large impact on growth and fiscal balances in lower-income countries. The International Monetary Fund (IMF) forecasts growth of –3.0% in 2020 in emerging markets, and –1.0% in low-income developing countries (LIDCs) (IMF, 2020b). Lower-income countries entered the Covid-19 pandemic with more debt relative to government revenues (Figure 1), larger deficits and higher borrowing costs than high-income countries (HICs) such that interest payments take up a larger share of government revenues (Figure 2). Covid-19 has led to a further deterioration in public finances, with average deficits expected to widen from 4.1% of GDP in 2019 to 5.7% of GDP in 2020 in LIDCs, and debt to increase from 43.0% of GDP to 47.4% of GDP (IMF, 2020a). Countries that are more exposed

² For example, a fiscal multiplier of 2 would mean that an additional \$1 of increased spending or lower taxes would lead to an additional \$2 of output, whereas a multiplier of 0.2 would mean the same \$1 stimulus leads only to a 20-cent increase in output. Larger fiscal multipliers therefore mean that fiscal stimulus is more effective.

to the global shock, such as natural resource producers, exporters and countries with large tourism sectors, have been particularly adversely affected.

800 700 % of tax revenues 600 tax revenue ratio Debt-to-average 500 400 300 200 100 0 HIC LIC **LMIC UMIC** Country classification by income

Figure 1 General government debt as a proportion of average tax revenues, 2019

Note: Line shows median, box shows interquartile range, and whiskers show minimum/maximum. Outliers have been excluded for graphical clarity.

Source: World Bank Cross-Country Database of Fiscal Space

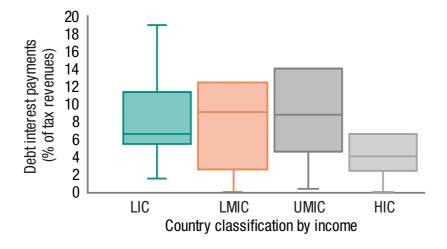


Figure 2 General government debt interest payments as a proportion of revenues, 2019

Note: Outliers omitted for graphical clarity.

Source: World Bank World Development Indicators

Access to finance is therefore likely to be a constraint on lower-income countries' ability to use deficit-financed stimulus. While \$11 trillion of fiscal measures have been deployed worldwide, the average fiscal response of 1.2% of GDP in LIDCs has been far smaller than the 20% of GDP response in advanced economies (AEs) and 5% in emerging market economies (EMEs) (IMF, 2020b). For those lower-income countries that borrow more to fund stimulus, larger debt burdens

and higher borrowing costs increase the importance of ensuring that stimulus policies are designed effectively. In lower-income countries with more binding constraints on financing, it can still be possible to redeploy resources to enact a balanced-budget stimulus. Some form of stimulus measures could even be used in the context of fiscal retrenchment, and Covid-19 might have created some opportunities for domestic revenue mobilisation (see Granger et al., 2020 for suggestions here).

Where fiscal stimulus is used, it will be more effective when monetary policy accommodates by not raising interest rates. Historically low interest rates and quantitative easing in many HICs after the global financial crisis led to larger fiscal multipliers in the last decade. In many lower-income countries it should be possible to coordinate monetary and fiscal policy in the short term, and for monetary policy to accommodate stimulus. Since the beginning of the year, for those lower-income countries where data was available, policy rates have been reduced more often than increased, and average rates were 1 percentage point lower by June (Figure 3). But some economies with weak fundamentals may have limited scope to loosen monetary policy given the need to mitigate capital account pressures and contain inflation (Gelos, 2020). Macroeconomic stability is similarly a prerequisite for effective fiscal stimulus, and in some countries fiscal consolidation to maintain stability may be a more appropriate response than stimulus.

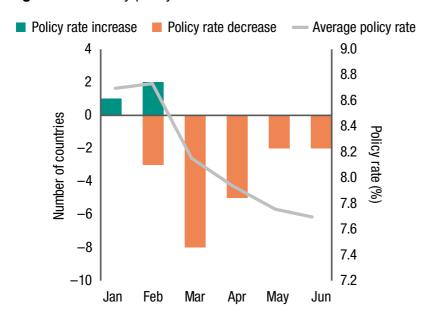


Figure 3 Monetary policy in selected lower-income countries since January 2020

Note: Countries included were Nepal, Rwanda, Sierra Leone, Tajikistan (LICs), and Angola, Bangladesh, Cabo Verde, Egypt, Ghana, Honduras, Indonesia, Kyrgyzstan, Moldova, Nigeria, Papua New Guinea, the Philippines, Uzbekistan and Vietnam (LMICs).

Source: IMF, International Finance Statistics (IFS)

Other macroeconomic factors that can influence the effectiveness of fiscal stimulus, such as the level of government debt, openness to trade and exchange rate regimes, are outside the control of governments or difficult to change, at least in the short term. Governments will need to consider how best to design fiscal stimulus in light of the wider macroeconomic context – for example, in more open economies how to minimise the amount of stimulus that leaks overseas

– and how to adapt stimulus to the specific challenges of Covid-19. Finally, macroeconomic discussions of multipliers do not capture other important elements of fiscal policy, such as distributional impacts and consequences for broader development objectives. We therefore set out in this paper how fiscal stimulus can be adapted to the challenges of Covid-19 in lower-income countries in a way that is consistent with development objectives, rather than focusing on the broader pros and cons of fiscal stimulus from a macroeconomic perspective.

The next section considers how the 'three T' principles for effective fiscal stimulus (timely, targeted and temporary) may need to be adjusted for Covid-19.

2. Adapting the three Ts for Covid-19 in lower-income countries

The standard theory for fiscal stimulus is that it should follow the 'three Ts' of timely, targeted and temporary to be effective (see, for example, Elmendorf and Furman, 2008):

- **timely** to lessen any economic downturn by not delaying too long, and by using tax cuts or spending increases that are quick to implement and feed through to output
- targeted to achieve high multipliers in the short run and, from the perspective of households, to ensure that money ends up in the pockets of families most vulnerable in a weakening economy, who are also most likely to stimulate the economy by spending it quickly
- **temporary** so that fiscal stimulus does not increase deficits beyond the short term, and to encourage households and businesses to bring forward spending.

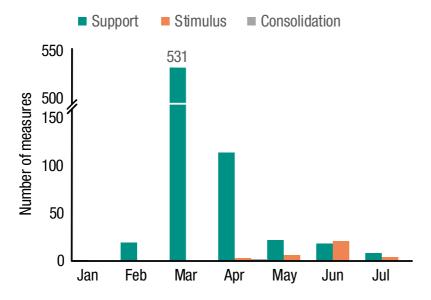
The economic shock caused by Covid-19 is not a 'normal' recession, and so the three T principles will need to be adapted for fiscal stimulus to be effective and support desired economic and health outcomes.

2.1 Timing fiscal stimulus under Covid-19

Fiscal stimulus is usually most effective when implemented early in a downturn, as this helps dampen the contraction and reduces the risk that stimulus becomes procyclical. Timing fiscal stimulus under a global pandemic is more difficult. If stimulus is implemented too soon, while lockdowns are in place and viral transmission rates are high, it will be ineffective or even counterproductive to efforts to contain the virus (Steel and Philipps, 2020). The safest approach, in terms of managing public health risks, would be to defer fiscal stimulus until after a vaccine programme has been implemented or a treatment is readily available. However, there is no guarantee that either will happen soon, if at all, and therefore governments will likely consider fiscal stimulus while there are still active Covid-19 cases if it is thought that transmission is under control and any further spikes are manageable.

Fiscal measures announced in the first half of 2020 followed the approach of crisis-phase fiscal support first, recovery-phase fiscal stimulus later (Figure 4). Only 19 countries have announced economic recovery measures (two of which, Vietnam and Cambodia, are lower-income countries) and a further two countries (Hungary and Tunisia) have announced fiscal consolidation measures (Figure 5).

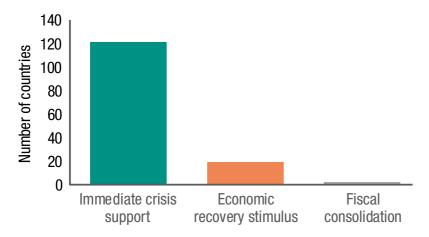
Figure 4 Support, stimulus and consolidation measures announced up to July 2020



Note: Measures recorded in the Tracker under 'immediate crisis response' are classified as support and measures recorded under 'economic recovery measure' classified as stimulus.

Source: OECD Tax Policy Tracker, updated 31 July 2020

Figure 5 Countries announcing support, stimulus and consolidation measures



Note: Measures recorded in the Tracker under 'immediate crisis response' are classified as support and measures recorded under 'economic recovery measure' classified as stimulus.

Source: OECD Tax Policy Tracker, updated 31 July 2020

Some countries have attempted to move into an economic recovery phase and have announced fiscal stimulus measures. These include several European countries that experienced higher rates of infection earlier than in other continents and had successfully brought down the number of new infections through lockdowns. In most European countries, fiscal stimulus measures were announced after numbers of new cases appeared to be relatively low and stable, and were synchronised to the easing of lockdowns (Figure 6). More recently, new cases have begun to increase again in some of these countries. This could suggest that greater caution is needed when

easing lockdowns and considering fiscal stimulus measures that encourage activities that could increase transmission risk.

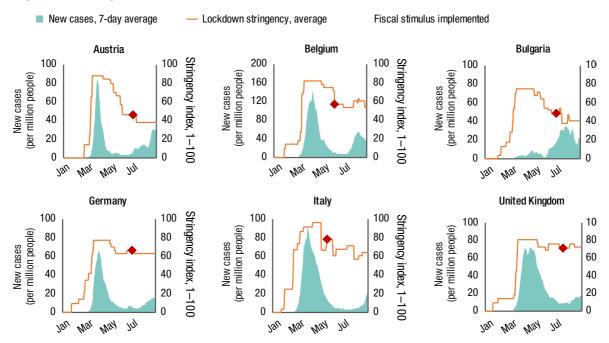
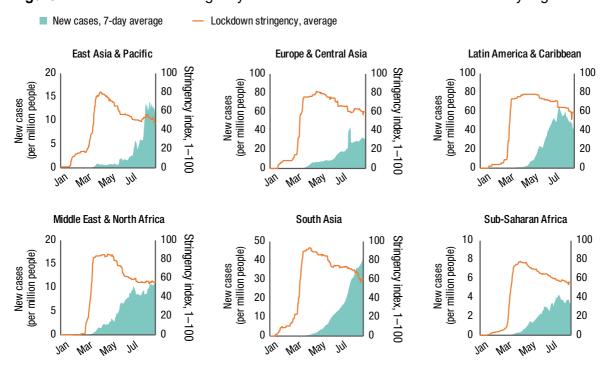


Figure 6 Timing of fiscal stimulus measures in selected European countries

Sources: WHO, Coronavirus Disease (COVID-19) Dashboard (data up to 31 August 2020); Hale et al., Oxford COVID-19 Government Response Tracker (data up to 31 August 2020); OECD Tax Policy Tracker (data up to 31 July 2020)

New cases are still increasing, on average, in lower-income countries across all regions, suggesting that it is still too soon to implement fiscal stimulus in many countries. While the average stringency of lockdowns has declined (Figure 7), this may reflect necessity more than policy choice in those countries with limited fiscal space to support businesses and households through prolonged lockdowns. Countries that are not yet ready to ease lockdowns have a window of opportunity to assess the case for fiscal stimulus and design policy measures likely to maximise impact.

Figure 7 New cases and stringency of lockdowns in lower-income countries by region



Note: Includes only low-income and lower-middle-income countries in each region.

Sources: WHO, Coronavirus Disease (COVID-19) Dashboard (data up to 31 August 2020); Hale et al., Oxford COVID-19 Government Response Tracker (data up to 31 August 2020)

Some lower-income countries are in a better position to lift lockdowns and move into an economic recovery phase than regional averages suggest. The World Health Organisation (WHO) has identified six categories of measures governments should have in place before rolling back lockdowns.³ An assessment of four of those for which data was available in June 2020 found several lower-income countries near the top of the rankings (Hale et al., 2020), including Rwanda (ranked 3rd of 170 countries with a score of 0.9 out of 1), Vietnam (10th, 0.9), Eswatini (12th, 0.8), Bhutan (16th, 0.8), Gambia (19th, 0.8) and Timor-Leste (20th, 0.8).

_

³ These are: (1) Covid-19 transmission is controlled to a level of sporadic cases and clusters of cases, all from known contacts or importations; (2) sufficient public health workforce and health system capacities are in place to enable a shift from detecting and treating mainly serious cases to detecting and isolating all cases; (3) outbreak risks in high-vulnerability settings are minimised, with appropriate measures in place to maximise physical distancing and minimise the risk of new outbreaks; (4) preventative measures are established in workplaces; (5) measures are in place to manage the risk of exporting and importing cases from communities with high risks of transmission; and (6) communities are fully engaged and understand that the transition away from large-scale movement restrictions and social measures is a 'new normal' in which prevention measures should be maintained (Hale et al., 2020).

2.2 Targeting fiscal stimulus under Covid-19

Governments have several choices to make when targeting stimulus, including whether to target consumer spending, business investment or government spending; whether to use broad-based measures or target specific households or sectors; and whether to target short-term multipliers or use stimulus to contribute to longer-term objectives, such as encouraging the shift to a low-carbon economy or rebalancing the economy to improve resilience to future shocks. Targeting fiscal stimulus to areas where demand and supply are most likely to be responsive can increase multipliers and limit costs. For example, fiscal multipliers are potentially higher when measures are targeted at lower-income households or those who are liquidity-constrained (Brinca et al., 2014) as they have a higher marginal propensity to consume (MPC).

Targeting fiscal stimulus in response to Covid-19 is likely to be particularly challenging due to the differential impacts of the pandemic externally and domestically. Some sectors that have been most adversely affected, such as exports and tourism, are not easily reached through domestic stimulus, and recovery in these areas will depend more on how quickly trade and tourism partners recover. It is possible that these sectors will remain below their potential output for some time as countries continue to use restrictions on movement to contain the spread of Covid-19, and individuals reduce travel due to fears over safety. Domestic sectors that might in theory be more responsive may not require much if any stimulus if there is pent-up demand that can be released once lockdowns are eased, especially if fiscal support measures have been used to protect household and business incomes. Other sectors may not fully recover at all due to the adjustment to a 'new normal', including potentially fossil fuels, and stimulus might be better targeted at facilitating the adjustment rather than attempting to restore output to those sectors.

Countries that have already announced stimulus packages have used a mix of household consumption and business investment measures, have mostly targeted measures at specific sectors rather than implemented broad-based stimulus (aside from Germany), and have focused more on restoring demand to adversely affected sectors than using stimulus explicitly to support structural economic changes (Box 1).

Policy-makers in lower-income countries will need to be careful to align fiscal stimulus measures effectively with their specific country contexts. This does not necessarily mean enacting measures like those used elsewhere. For example, targeting hospitality, leisure and tourism might be effective in Europe given that the service sector makes a relatively large contribution to GDP and employment in many countries and businesses were disproportionately affected by lockdowns. However, lower-income countries that have relatively large tourism sectors may struggle to stimulate demand in the short term while restrictions on global travel remain in place and confidence in the safety of overseas travel is low. Similarly, a housing market stimulus is likely to be effective in countries where house prices have large impacts on consumer spending through wealth effects, and where transactions are associated with increases in broader spending on items such as building renovations, furniture and fixtures and fittings.

14

⁴ Even where they are effective, some of the stimulus could leak overseas as foreign tourists who benefit from lower vacation costs could spend the additional income in their home countries rather than while on holiday (although this may still be better than having very low numbers of tourists).

Box 1 Targeting stimulus measures in response to Covid-19

Fiscal stimulus measures announced so far have been relatively evenly split between consumption and investment, with the Organisation for Cooperation and Development (OECD) Tax Policy Tracker recording 13 investment tax stimulus measures, 11 consumption tax and eight classified as 'other'. Germany has announced a broad-based VAT cut from 19% to 16%, but most countries have targeted stimulus measures at specific sectors or activities:

Hospitality, leisure and tourism were hit particularly hard by the decline in global travel and domestic lockdowns. Austria, Belgium, the Cayman Islands, the Czech Republic, Malaysia and the UK have all introduced temporary VAT or other consumption tax reductions aimed at restoring demand in these sectors, while Italy has introduced tourism vouchers for low-income households.

Housing markets can have a large impact on household consumption in some countries. Malaysia and the UK have both introduced temporary stamp duty exemptions intended to lower housing market transaction costs to boost transactions, prevent large falls in house prices and stimulate demand in related sectors (such as building renovations).

Small companies and start-ups have been targeted in Chile using a temporary three-year corporate income tax (CIT) rate reduction for small- and medium-sized enterprises (SMEs) from 25% to 12.5%, and in in Malaysia via tax rebates for start-ups for the first three years after company formation.

Large-scale manufacturing has been targeted in Malaysia through several measures including a 10-year CIT holiday for new investment from foreign manufacturers, a reduced 15% CIT rate for new investment in manufacturing for 15 years for larger companies, accelerated capital allowances and import duty waivers on machinery and equipment in the port sector.

Research and development (R&D) has been targeted in Denmark through a temporary increase in R&D tax credits in 2020 and 2021, while Iceland has increased reimbursement ratios for R&D expense of 35% for SMEs and 25% for large companies for tax imposed in 2020 and 2021.

Green economic stimulus has formed a larger part of the rhetoric around fiscal stimulus than the reality in many countries. Italy has introduced temporary tax credits for household energy efficiency improvements and the UK has introduced temporary grants to households for the same. But across fiscal support and stimulus measures targeting the energy sector in G20 countries, 47% of support has gone to fossil fuels compared to 39% for clean energy.

Sources: OECD Tax Policy Tracker; IISD/ODI Energy Policy Tracker (energypolicytracker.org); HM Treasury

2.2.1 Choosing between tax, transfers and spending

Governments have a range of policy options across tax, transfers and public spending that they could deploy as economic stimulus, each with their own advantages and disadvantages:

• Tax stimulus can be delivered quickly (e.g. a VAT cut can be implemented as soon as legislation is passed), but benefits fewer people in lower-income countries due to narrower tax bases and a higher degree of informality. Tax stimulus could also be less effective in the current context of high uncertainty, as households and businesses might increase precautionary savings rather than spending.

- Transfer payments are potentially the most progressive option and are therefore likely to have larger multipliers than broad tax cuts if effectively targeted at low-income households. However, as with taxes, coverage of transfer payments is relatively low in lower-income countries. Expanding coverage in the short term can be difficult due to governments having limited information on household incomes and payment mechanisms for lower-income households that are often unbanked, although innovations such as mobile money have given governments more options.
- **Direct government spending** is likely to have a greater impact in principle because it does not depend as much on behavioural responses, but there is a risk that multipliers could be low (or even negative) in the short term, especially for large capital-intensive projects that can be difficult to execute quickly, and in lower-income countries are often more import-intensive, leading to stimulus leaking overseas.

2.2.2 Broad-based measures versus targeting specific households, sectors or activities

Governments often face a difficult trade-off between broad-based measures and measures targeting specific households, sectors or activities.

- **Broad-based measures** can be more expensive and less cost-effective but can be quicker and easier to implement and simpler to administer.
- **Targeted measures** can be more cost-effective and cheaper but require more complex policy design and administrative capacities and can take longer to implement.

This trade-off can be particularly difficult to navigate in lower-income countries that have limited fiscal space, suggesting that targeted measures would be more effective, but also more limited administrative capacity, which can make it more difficult to design and administer targeted measures. Political economy issues can also undermine efforts to target fiscal stimulus. For example, weaknesses in governance frameworks can mean that measures are subject to intense and successful lobbying by economic and political elites, diverting benefits towards furthering vested interests rather than advancing broader development objectives.

2.2.3 Contributing to longer-term objectives

Where lower-income countries are unsure as to how effective fiscal stimulus is likely to be in the short term, they can reduce the risk of waste by ensuring that stimulus measures contribute to longer-term objectives. These could include:

- **Developing domestic industries.** This could be particularly effective in countries that are more dependent on imports of essential goods, and could help with broader objectives such as improving food security, resilience to future shocks and diversifying the revenue base.
- Supporting a green economic recovery. Fiscal stimulus can be targeted to support the transition to a low-carbon economy and develop climate change resilience through adaptation measures such as agricultural irrigation or flood defences. This could be done through direct public investment in clean energy generation and adaptation projects, or

public grants or tax advantages for low emission businesses and activities, combined with higher taxes on carbon to help pay for stimulus measures.

- Closing the public infrastructure gap. The quality, quantity and accessibility of economic infrastructure in low-income developing countries lag considerably behind those in advanced and emerging market economies (Gurara et al., 2017). Targeting public investment in lower-income countries could be a good option as it makes a substantial contribution to economic activity, with public investment worth 7.5% of GDP in the median LIC, compared to 4.8% in EMEs and 3.2% in AEs (Tandberg and Allen, 2020). Multipliers should also be higher than in AEs because the initial capital stock is lower (Izquierdo et al., 2019) provided stimulus can be enacted effectively without delays in execution or significant leakages abroad. This form of fiscal stimulus was used more by LIDCs and EMEs during the global financial crisis than in AEs (Khatiwada, 2009).
- Investing in human capital. Increased spending on healthcare and education can in theory both stimulate economic activity in the short term and improve access to, and the quality of, public services, raising human capital in the long run.
- Reducing poverty through social transfers. Expanding social insurance and social assistance schemes can boost output in the short term if targeted at those with the lowest incomes and high MPCs. Increasing the scale of social protection programmes can also improve resilience to future shocks by increasing the size of automatic fiscal stabilisers.⁵
- Economic diversification. The collapse in oil prices and falls in the prices of some mineral commodities at the beginning of the pandemic exposed the vulnerability of some natural resource exporting countries to external shocks, especially those countries where government revenues are highly dependent on extractive industries. Fiscal stimulus could be targeted at diversifying economies (and the tax base) away from natural resource exports, although for many countries this has proved stubbornly difficult in practice.

2.3 Temporary fiscal stimulus and Covid-19 uncertainty

Making fiscal stimulus measures temporary can help ensure that deficits are not increased beyond the short term, reduce the risk that stimulus measures become procyclical by continuing to apply after growth recovers, and encourage households and businesses to bring forward spending to take advantage of temporary tax cuts and spending measures. As the future path of the Covid-19 pandemic is highly uncertain, with no guarantee that a vaccine or treatment will be successfully developed and implemented soon (especially in lower-income countries where affordability or logistical constraints make implementation even more challenging), determining when to unwind fiscal stimulus measures will be particularly difficult as both public health and confidence effects could persist.

Countries that have announced fiscal stimulus measures so far have made them explicitly temporary by reference to a fixed end point in time. Consumption measures, such as temporary

⁵ Automatic fiscal stabilisers are fiscal instruments that automatically tend to reduce the rate of economic growth during periods of high growth, and limit the fall in growth during a recession. For example, spending on unemployment benefits increases automatically during a recession as more people become unemployed and claim benefits, helping to limit income losses and consumption falls, and decrease automatically during periods of high growth as employment increases and fewer people claim.

VAT cuts, are generally expected to last for less than a year, with investment measures that lower income tax rates in place for 2–3 years (reflecting the lead-in time for those investing in response to the stimulus to benefit from lower tax rates on the profits generated). Alternatives to time-based end points include linking the end of stimulus measures to economic indicators (for example when consumption returns to a predefined level) or to pandemic events (such as the successful implementation of a vaccine programme). Both alternative approaches have drawbacks. First, by not setting a fixed end date households and businesses will not have as sharp an incentive to bring forward spending to benefit before the stimulus ends. Second, stimulus measures that are not time limited but instead linked to unknown future events run the risk of being more expensive than originally thought if those predetermined events occur later than anticipated.

When thinking about temporary policy options, governments might consider:

- How difficult it will be in practice to reverse stimulus. Some measures may be easier to end than others. For example, tax cuts are generally more difficult to reverse than a one-off transfer payment, as they require a subsequent tax increase that can be politically difficult to enact. Within taxes, direct tax cuts (e.g. personal income tax (PIT) or CIT rate cuts) are typically more salient than indirect tax cuts (e.g. VAT rate cuts), and therefore even more politically challenging to reverse. Similarly, increases in government consumption spending are typically more persistent than one-off capital spending, especially where it entails public sector pay increases or hiring additional public sector workers. Legislating for the end of temporary stimulus measures at the point they are enacted, rather than leaving the unwinding to future legislation, makes it easier to reverse stimulus and boosts credibility.
- The longer-term impact if a temporary measure is not successfully reversed. Some fiscal stimulus measures, if not reversed, could end up being detrimental to longer-term objectives. This could especially be the case for tax cuts given the importance of domestic resource mobilisation (DRM) efforts for achieving the Sustainable Development Goals (SDGs). For example, given corporate tax competition and an ongoing 'race to the bottom', temporary CIT cuts and exemptions could prove difficult to reverse and risk undermining revenue generation. Temporarily increasing the scope and generosity of social transfers would not necessarily undermine long-term efforts if subsequently made permanent, as it could improve social safety nets and resilience to future shocks through larger automatic fiscal stabilisers. Similarly, certain tax reforms that improve the simplicity or efficiency of the system and provide a short-term stimulus, such as reducing the number of smaller taxes and fees on businesses, may not need to be reversed.
- Whether framing a measure as temporary will increase impact or undermine effectiveness. Some measures, such as temporary VAT cuts, are more effective when made temporary because consumers are encouraged to bring forward spending to benefit before the rate increases. Temporary CIT reductions are unlikely to boost investment as lead-in times for firms to invest and make returns would likely mean the associated profits are taxed after the rate reduction has been reversed. The behavioural response to a temporary CIT rate cut is therefore likely to be lower, and the deadweight costs higher, as the firms that are most likely to benefit are those that had already invested before the stimulus was enacted.

3. Fiscal stimulus policy options for lower-income countries

In this section we set out some of the more promising policy options for lower-income countries to boost private consumption, encourage business investment or increase public investment and consumption.

3.1 Options to boost private consumption

Boosting private consumption through tax cuts will likely be preferable in contexts where large-scale cash transfer programmes do not exist, or where the tax base is broad and governments are confident that measures can be reversed so as not to undermine DRM efforts.

3.1.1 Tax measures to boost private consumption

Temporary cuts in consumption taxes, such as VAT, are the most promising tax option for targeting private consumption in lower-income countries. This is because they both increase household spending by raising after-tax income and encourage households to bring forward spending. Direct tax cuts only boost incomes of formal workers that are registered for and pay PIT, whereas indirect tax cuts can still reach informal workers, but only if they shop in VAT-registered stores or if prices of informal suppliers fall in line with formal (registered) ones. VAT cuts might therefore be less regressive than PIT cuts and have broader reach – VAT revenues tend to be larger than PIT revenues in lower-income countries. As many low-income workers with the highest MPCs are likely to be outside the PIT system, VAT cuts are also likely to have higher multipliers.

Temporary VAT cuts can also be targeted to specific goods that account for a higher proportion of lower-income household budgets, such as necessities, to increase multipliers and progressivity. However, if such goods are already exempt from VAT or taxed at lower rates, the scope for targeting may be limited. VAT cuts could also be targeted at specific sectors that were adversely impacted by lockdowns, such as hospitality, where demand might not return automatically after lockdowns end due to lower consumer confidence, or targeted at specific sectors to support longer-term transitions such as to a low-carbon economy.

The effectiveness of temporary VAT cuts is not guaranteed. The stimulus depends on the extent to which businesses pass VAT cuts through to lower prices. Evidence from Europe suggests that this is not always the case, with less pass-through for VAT cuts than VAT increases (Benzarti et al., 2018). Where VAT cuts are passed through to lower prices, stimulus could leak overseas if consumers increase their spending on imports rather than domestic goods. Targeting VAT cuts on goods and services that are produced and consumed domestically could reduce leakages and increase multipliers, but targeting solely on the basis of short-term multipliers risks introducing distortions that reduce allocative efficiency and have negative growth effects in the longer run.

Temporary reductions in stamp and transaction taxes, property taxes and local taxes might also be effective in lower-income countries. While these taxes tend to contribute a relatively small proportion of overall tax revenues, they could account for a large proportion of taxes paid by certain segments of the population; for example, lower-income households might pay local taxes but not PIT. Reductions therefore have the potential to be effective in terms of impact per amount of revenue foregone. Temporary reductions to local taxes would require coordination

with regional or local authorities, which often administer these taxes, and may require changes to funding arrangements to compensate local tiers of government for lost revenues and to address inequalities in losses across areas.

3.1.2 Cash transfers and social protection measures

Transfer payments may be a preferred policy route for governments looking to place greater emphasis on poverty reduction, or where tax measures are considered too risky in the context of DRM efforts.

Governments with existing cash transfer programmes could increase the generosity of payments or the scope of schemes by relaxing eligibility criteria. Alongside expansions of standard cash transfer programmes targeted at poor households, this could also entail increasing the generosity or scope of child support grants, disability grants and social pensions. These efforts should be focused on social assistance programmes rather than social insurance programmes, as the latter tend to be narrower in reach and less progressive — only 20% of registered unemployed in EMEs and less than 10% in LIDCs receive some form of unemployment benefit (Diez et al., 2020). Informal workers are also usually excluded from unemployment insurance schemes as they have no previous engagement with the formal labour force on which to base eligibility. During the global financial crisis, Ghana extended its cash transfer programme to new beneficiaries (Brahmbhatt and Canuto, 2013), and the approach has been adopted in the current crisis in South Africa, Brazil, China, India, Indonesia and Colombia.

Governments could also look to leverage existing non-government cash transfer programmes run by non-state actors. Many countries have smaller-scale cash transfer programmes that are funded, managed and distributed by non-government entities such as non-governmental organisations, civil society organisations and non-profits. Governments could explore ways of distributing cash through these mechanisms or utilising their networks to expand existing cash transfer programmes (see Gerard et al., 2020).

In-kind transfers offer a good alternative where cash transfer programmes are limited. Coverage of in-kind social assistance programmes is 50% in LMICs, much higher than the 4% coverage for cash transfers, so governments in LMICs in particular could expand in-kind programmes rather than use cash transfers. This could include increasing the generosity or scope of school feeding programmes, which would generate additional spending via income effects.⁶

Where no cash transfer programmes exist, governments could also consider a one-off universal cash transfer. This would avoid many of the difficulties involved in setting up a new targeted transfer scheme, but would be more expensive and likely have lower multipliers than a targeted measure. While less progressive than a targeted transfer, it would be more progressive than a tax cut of similar cost. This is because cash gains would be universal across all households, whereas tax cuts would yield larger gains for richer households that are within the tax system and exclude the poorest households that are outside the tax system. As households would get to choose what to spend the additional income on, it could potentially reduce the risk of misallocation from in-kind programmes and generate more stimulus. Universal transfers have been used in response to Covid-19 in Hong Kong and the US, although evidence from the latter

-

⁶ For LICs, coverage of in-kind programmes is only 3.5% on average, compared to less than 1% for cash transfers. Coverage figures are taken from the World Bank Atlas of Social Protection.

shows that higher-income households saved more of their stimulus cheques, with consumption increasing less in higher-income areas than lower-income areas (Badger and Parlapiano, 2020).

Distributing cash transfers in lower-income countries could be more complex, especially as many households are unbanked. Governments could address this by leveraging new technologies or encouraging collaboration between different levels of government and with non-state actors. For example, mobile money payments present a good option for disbursing such payments – mobile phone ownership of 60% is not unusual in the poorest countries, compared to 30% holding a financial account (Gelb et al., 2020), but even so this remains far below universal coverage in many countries. Governments could look to distribute payments through local authorities, community organisations or other non-state actors. Gerard et al. (2020) provide a useful starting-point for thinking about these sorts of collaborations.

Where cash or in-kind transfers are not feasible, targeted subsidies of public services offer an alternative option. Programmes that provide free or subsidised electricity, water, transport or healthcare through local authorities or state-owned enterprises could be expanded, as this support could make use of local information and community targeted approaches. This would generate additional spending through income effects and could boost productivity, for example due to better health outcomes, reduced travel times and more access to electricity. However, in many lower-income countries the poorest households do not have access to these services, especially in rural areas, and public service subsidies are therefore likely to be more regressive. EMEs and LIDCs made use of both direct provision of basic goods and subsidies in the wake of the global financial crisis. For example, South Africa increased allocations to regional governments to fund basic services, while Indonesia increased subsidies on cooking oil and generic medicine (Zhang et al., 2010).

Subsidies could also be made more progressive by using ration shops. As ration shops give households the right to purchase some goods at a fixed subsidised price up to a quota level, they are more progressive than broad subsidies that can provide large giveaways to the rich. They can be effective where there is limited government capacity to observe household incomes or target transfers, or where income taxes and transfers are costly to implement (Gadenne, 2019). For example, India has greatly expanded its ration shop system, which is arguably its best transfer policy option.

3.2 Options to encourage business investment

Fiscal stimulus measures to boost business investment can be targeted towards sectors that were adversely impacted by Covid-19, or to sectors that the government wants to see grow for longer-term objectives such as economic rebalancing. Tax measures could be an important way to stimulate business investment, though this will depend on the generosity of tax holidays and exemptions that have already been provided. Where there is space for further incentives, these can be delivered through two broad categories of measures: cost-based or profit-based.

3.2.1 Cost-based tax measures to stimulate business investment

Cost-based tax measures, such as temporary enhanced capital allowances, are the most promising option to stimulate business investment. These work by reducing the after-tax cost of investment for businesses and, when made explicitly temporary, can encourage businesses to bring forward investment (similar to a temporary VAT cut for consumers). As well as boosting

output in the short term, business investment can also improve firms' productivity and have long-term growth benefits.

Temporarily enhanced capital allowances or investment tax credits could stimulate business investment. Enhanced capital allowances enable businesses to deduct more (or all) of the costs of investment from taxable income in the first year, rather than over several years through depreciation, and therefore reduce up-front costs and generate cash flow benefits. Tax credits enable firms to reduce income tax liabilities rather than taxable income, and tend to be more generous than allowances provided firms are profitable. Evidence has shown that fiscal multipliers on temporary enhanced capital allowances can be large (House and Shapiro, 2008), and that the additional investment gained per unit of revenue foregone is higher for cost-based incentives than profit-based incentives, since the former only benefit firms that invest (Abramovsky et al., 2018).

3.2.2 Profit-based tax measures to stimulate business investment

There is a weaker case for profit-based measures for short-term stimulus. Profit-based measures work by temporarily increasing the after-tax return on investment, for example through temporarily lower rates of CIT or tax holidays. As they do not directly target investment spending, they entail greater deadweight costs, rewarding firms that did not invest and those that have managed to remain profitable through the crisis and are therefore in least need of government support. Due to the lead-in time for investment decisions to feed through to higher profits, they also need to remain in place for longer than temporary cost-based incentives if firms that invest are to benefit from them. As a result, they tend to be more expensive and less effective than cost-based measures.

Temporary tax cuts targeted at small and micro (unincorporated) businesses could still play an important, albeit small, role in fiscal stimulus packages. Credit markets in lower-income countries are typically constrained, especially for smaller firms. Temporary tax cuts can therefore ease cash flow issues and allow firms to invest in capital and scale up operations to meet rising demand. This could include targeted cuts to national income taxes for SMEs, but also reductions or exemptions from other local taxes and charges that small (and often informal) firms are usually required to pay to local governments or municipalities. Permanently reducing the number of different local tax payments could also help simplify the tax system and reduce administrative burdens, making it easier to do business. As these changes could affect the finances of local authorities, national government might need to consider complementary changes to inter-governmental funding arrangements at the same time.

Temporarily increasing the generosity of loss carry back or loss carry forward provisions can also support business cash flow and facilitate a quicker return to investment. Loss carry forward and back provisions are targeted to loss-making firms, and therefore have lower deadweight costs than CIT rate cuts. While there is a small risk of supporting firms that would have failed without the Covid-19 shock, preventing those resources from being allocated more efficiently across the economy and holding back longer-term growth, allowing short-term carry back is more likely to help those firms that had previously been profitable, but which have temporarily become loss-making due to Covid-19 or some other short-term factor.

Tax incentives offered specifically to attract foreign direct investment (FDI) could do more harm than good. While there is evidence that FDI brings wider efficiency gains, the evidence

that reducing tax is important for attracting FDI is weak. Survey evidence often shows that taxation is not an important factor in FDI decisions relative to other factors such as political stability and security, the regulatory environment, domestic market size, macroeconomic stability and exchange rates, the availability of skilled labour and the quality of physical infrastructure (World Bank, 2018). Tax incentives to attract FDI are often redundant as the investment would have occurred even if the incentive had not been granted (James, 2014); can create distortions between domestic and international firms; provide opportunities for rent-seeking and corruption (especially where discretionary and negotiated bilaterally with investors); and undermine fairness in the tax system. In any case, as their use is already pervasive, there may be limited room to go further in many countries. Governments considering introducing new incentives could follow guidance from the Platform for Collaboration on Tax on effective and efficient use of tax incentives for investment in low-income countries (IMF et al., 2015).

3.3 Government spending options

Direct increases in government spending will likely be the most important component of fiscal stimulus packages in lower-income countries that have relatively small tax and transfer systems. Governments could increase either investment or consumption spending, with the former likely to be more effective provided capital spending can be mobilised quickly enough.

3.3.1 Government investment stimulus

Governments considering public investment stimulus could first look to maximise shortterm multipliers and long-run growth effects by fast-tracking projects already in the pipeline. Such projects are likely to have been selected based on development goals, be costeffective, and be quicker to implement than new projects. Priority could be given to projects that are likely to use local labour and supply chains to reduce leakages, and projects that create temporary jobs and therefore boost consumption through household income effects, although care would need to be taken not to sacrifice the efficiency of public infrastructure given the efficiency gap is already higher on average in LIDCs and EMEs than AEs (IMF, 2015). Projects could be selected to target job creation at groups most at risk of economic scarring from unemployment, as Kenya did when it introduced a youth-targeted public works programme during the global financial crisis (Brahmbhatt and Canuto, 2013). Fast-tracking less technical projects, such as road development, may make better use of local skills than more technical infrastructure projects such as electricity generation. Social housing projects might also have shorter lead times than large-scale infrastructure and can be important in contexts where the construction sector has large multiplier effects, or where such policies align with development targets. During the financial crisis, social housing development was undertaken in South Africa, Thailand, Vietnam and Honduras (Zhang et al., 2010).

Increasing allocations to local governments for small-scale projects could be an effective channel for stimulus. If local authorities can mobilise more quickly and include greater local content than expansive national projects, short-term multipliers could be higher. For example, Tanzania expanded support to community-based works programmes in response to the global financial crisis (Brahmbhatt and Canuto, 2013).

Governments could also focus on investment in education, skills development, healthcare or R&D. Investment in these areas is thought to have high long-run multiplier effects through

raising human capital, improving health outcomes and encouraging the adoption of new technologies, all of which increase productivity and economic performance. These spending options are also aligned to strategies to make progress towards the SDGs. This was a common avenue for spending during the financial crisis. For example, Kenya increased allocations to the health sector – both for construction and the equipping of health centres – while the Philippines invested in the construction of new schools and hospitals (Zhang et al., 2010).

Countries with limited fiscal space could look at options to maximise the impact of capital projects funded by development partners. This could include front-loading donor-funded projects that are already in the pipeline and exploring ways to reduce lags between allotments and disbursements for such projects. As external financing from development partners increases the resource envelope, it also mitigates the crowding out effects of government spending and produces larger multipliers than domestic financing (Shen et al., 2018). However, many development partner country budgets have also been affected by the Covid-19 pandemic, and they might therefore be unwilling or unable to increase development assistance in the short term.

3.3.2 Government consumption stimulus

Increased maintenance spending⁷ is likely to be the best government consumption option as it could create jobs (with corresponding income effects) and maintain the capital stock. There is likely to be substantial room for this across many lower-income countries as maintenance spending tends to be chronically under-budgeted. Maintenance spending is also one of the few areas of government consumption spending where increases can easily be made temporary without risking raising the long-term level of government spending.

As with public investment spending, increases in government consumption spending on health and education could yield high multipliers. These should be explicitly focused on non-wage allocations, such as increases in capitation grants used to buy books and classroom equipment or increases in funding for hospitals and health centres to purchase medical equipment, as these would stimulate business activity (where provided by domestic markets), have potential knock-on effects for productivity and reduce the risk of locking-in permanently higher wage bill spending.

Another promising option would be to increase spending on programmes to address labour market frictions. This could be focused on employment matching and job search programmes that aim either to reduce friction in the labour market by helping to link employers and employees, or to assist applicants in the job search process, thus reducing unemployment and improving overall productivity within the economy. It could also include 'training oriented' jobs that aim to upskill candidates and enable them to move on to other jobs in the private sector at a later stage. Such activities might be particularly important if the structure of the economy changes in the wake of the crisis, or if the government wants to support a structural change, and workers need to be reallocated across sectors. This type of support was utilised by several countries during the financial crisis.

24

⁷ Maintenance spending is the costs incurred to keep an item in good condition or working order, such as repairs to buildings or filling in potholes in roads.

Conclusions

Governments that are considering fiscal stimulus to restore output lost due to the Covid-19 pandemic will need to make several difficult decisions to ensure it is effective. First, governments will need to assess whether fiscal stimulus is likely to be effective in their current macroeconomic context, considering the potential for monetary policy accommodation, the level of government debt, the degree of trade openness, the exchange rate regime and the channels through which Covid-19 is reducing economic output. Second, they will need to consider how to make stimulus timely, targeted and temporary, under huge uncertainty over the future of the Covid-19 pandemic. Timing is likely to be particularly difficult, unless and until an effective vaccine or treatment is developed and widely deployed. Finally, lower-income countries face constraints on the use of tax, spending and transfer policies that can make it particularly difficult to deploy stimulus effectively. Given some of these concerns, fiscal stimulus packages can be designed to contribute to longer-term goals and the achievement of the SDGs, so that even if the impact on output in the short term is lower than hoped, scarce fiscal resources are not wasted.

References

Abramovsky, L., Bird, N., Harris, T. et al. (2018) Are corporate tax incentives for investment fit for purpose? Revisiting economic principles and evidence from low- and middle-income countries. London: Institute for Fiscal Studies (www.ifs.org.uk/publications/12875).

Arizala, F., Gonzalez-Garcia, J., Tsangarides, C.G. and Yenice, M. (2017) *The impact of fiscal consolidation on growth in sub-Saharan Africa*. IMF Working Paper WP/17/281. Washington DC: International Monetary Fund (www.imf.org/en/Publications/WP/Issues/2017/12/15/The-Impact-of-Fiscal-Consolidations-on-Growth-in-Sub-Saharan-Africa-45483).

Auerbach, A.J. and Gorodnichenko, Y. (2012) 'Measuring the output responses to fiscal policy'. *American Economic Journal: Economy Policy* 4(2): 1–27 (www.aeaweb.org/articles?id=10.1257/pol.4.2.1).

Auerbach, A.J. and Gorodnichenko, Y. (2013) Fiscal multipliers in recession and expansion. Fiscal policy after the financial crisis. National Bureau of Economic Research. Chicago, IL: University of Chicago Press.

Badger, E. and Parlapiano, A. (2020) 'The rich cut their spending. That has hurt all the workers who count on it'. *New York Times* 17 June (www.nytimes.com/2020/06/17/upshot/coronavirus-spending-rich-poor.html).

Batini, N., Eyraud, L., Forni, L. and Weber, A. (2014) *Fiscal multipliers: size, determinants, and use in macroeconomic projections*. Washington DC: International Monetary Fund (www.imf.org/en/Publications/TNM/Issues/2016/12/31/Fiscal-Multipliers-Size-Determinants-and-Use-in-Macroeconomic-Projections-41784).

Benzarti, Y., Carloni, D., Harju, J. and Kosonen, T. (2018) What goes up may not come down: asymmetric incidence of value-added taxes. NBER Working Paper No. 23849. Cambridge, MA: National Bureau of Economic Research (www.nber.org/papers/w23849).

Brahmbhatt, M. and Canuto, O. (2013) 'Fiscal policy for growth and development' in *Is fiscal policy the answer? A developing countries perspective*. Washington DC: World Bank Group.

Brinca, P., Holter, H.A., Krusell, P. and Malafry, L. (2014) *Fiscal multipliers in the 21st century*. EUI Working Papers RSCAS 2014/119. European University Institute. Robert Schuman Centre for Advanced Studies (https://cadmus.eui.eu/handle/1814/33771).

Coenen, G., Erceg, C., Freedman, C. et al. (2010) *Effects of fiscal stimulus in structural models*. IMF Working Paper WP/10/73. Washington DC: International Monetary Fund (www.imf.org/en/Publications/WP/Issues/2016/12/31/Effects-of-Fiscal-Stimulus-in-Structural-Models-23671).

Corsetti, G., Kuester, K., Meier, A. and Mueller, G.J. (2012) *Sovereign risk, fiscal policy, and macroeconomic stability*. IMF Working Paper WP/12/33, Monetary and Capital Markets Department. Washington DC: International Monetary Fund (https://doi.org/10.1111/ecoj.12013).

Diez, F., Duval, R., Maggi, C. et al. (2020) Options to support the incomes of informal workers during COVID-19. Special Series on COVID-19. Washington DC: International Monetary Fund.

Egger, D., Haushofer, J., Miguel, E. et al. (2019) General equilibrium effects of cash transfers: experimental evidence from Kenya. NBER Working Paper No. w26600 (www.nber.org/papers/w26600).

Elmendorf, D.W. and Furman, J. (2008) *If, when, how: a primer on fiscal stimulus*. Washington DC: The Brookings Institution.

Gadenne, L. (2018) Can rationing increase welfare in developing countries? Theory and an application to India's ration shop system. IFS Working Paper No W18/21. University of Warwick, IFS and CEPR (www.ifs.org.uk/publications/13387).

Gaspar, V. and Mauro, P. (2020) 'Fiscal policies to protect people during the coronavirus outbreak'. Blog. International Monetary Fund, 5 March (https://blogs.imf.org/2020/03/05/fiscal-policies-to-protect-people-during-the-coronavirus-outbreak/).

Gelb, A., Mukherjee, A. and Navis, K. (2020) *Citizens and states. How can digital ID and payments improve state capacity and effectiveness?*. Washington DC: Center for Global Development (www.cgdev.org/publication/citizens-and-states-how-can-digital-id-and-payments-improve-state-capacity).

Gelos, G. (2020) *Monetary and financial policy responses for emerging market and developing economies*. Special Series on COVID-19. Washington DC: International Monetary Fund.

Gerard, F., Imbert, C. and Orkin, K. (2020) *Social protection response to the COVID-19 crisis: options for developing countries.* Economics for Inclusive Prosperity Policy Brief (https://econfip.org/policy-brief/social-protection-response-to-the-covid-19-crisis-options-for-developing-countries/).

Granger, H., Steel, I., McNabb, K. et al. (2020) *Mobilising revenue: opportunities for lower-income countries during the pandemic*. ODI Briefing Note. London: ODI (www.odi.org/publications/16950-mobilising-revenue-opportunities-lower-income-countries-during-pandemic).

Gurara, D., Klyuev, V., Mwase, N. et al. (2017) *Trends and challenges in infrastructure investment in low-income developing countries*. IMF Working Paper WP/17/233. Washington DC: International Monetary Fund (www.imf.org/en/Publications/WP/Issues/2017/11/07/Trends-and-Challenges-in-Infrastructure-Investment-in-Low-Income-Developing-Countries-45339).

Hale, T., Phillips, T., Petherick, A. et al. (2020) *Lockdown rollback checklist: do countries meet WHO recommendations for rolling back lockdown?*. Version 4.0. Research note, 1 June 2020. University of Oxford, Blavatnik School of Government (www.bsg.ox.ac.uk/research/publications/lockdown-rollback-checklist).

House, C.L. and Shapiro, M.D. (2008) 'Temporary investment tax incentives: theory with evidence from bonus depreciation'. *American Economic Review* 98(3): 737–768 (www.nber.org/papers/w12514).

Huidrom, R., Kose, M.A., Lim, J.J. and Ohnsorge, F.L. (2019) *Why do fiscal multipliers depend on fiscal positions?*. Policy Research Working Paper 8784. Washington DC: World Bank Group (https://openknowledge.worldbank.org/handle/10986/31432).

Ilzetzki, E., Mendoza, E.G. and Vegh, C.A. (2010) *How big (small?) are fiscal multipliers?* Centre for Economic Performance Discussion Paper No. 1016 (https://doi.org/10.1016/j.jmoneco.2012.10.011).

IMF – International Monetary Fund (2015) *Making public investment more efficient*. IMF Staff Report. Washington DC: International Monetary Fund (www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Making-Public-Investment-More-Efficient-PP4959).

IMF (2020a) 'Fiscal monitor. Policies to support people during the COVID-19 pandemic'. April. Washington DC: International Monetary Fund (www.imf.org/en/Publications/FM/Issues/2020/04/17/Fiscal-Monitor-April-2020-Chapter-1-Policies-to-Support-People-During-the-COVID-19-Pandemic-49278).

IMF (2020b) 'A crisis like no other, an uncertain recovery'. World Economic Outlook Update. June. Washington DC: International Monetary Fund (www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020).

Izquierdo, A., Lama, R., Medina, J.P. et al. (2019) *Is the public investment multiplier higher in developing countries? An empirical exploration*. IMF Working Paper No. 19/289. Washington DC: International Monetary Fund (www.imf.org/en/Publications/WP/Issues/2019/12/20/Is-the-Public-Investment-Multiplier-Higher-in-Developing-Countries-An-Empirical-Exploration-48836).

James, S. (2013) *Tax and non-tax incentives and investments: evidence and policy implications*. Investment Climate Advisory Services. Washington DC: World Bank Group (www.estimacionestributarias.com/archivos/Effectiveness.pdf).

Khatiwada, S. (2009) *Stimulus packages to counter global economic crisis: a review*. Discussion Paper. Geneva: International Institute for Labour Studies (http://gesd.free.fr/dp19609.pdf).

Kraay, A. (2010) How large is the government spending multiplier? Evidence from World Bank lending. Policy Research Working Paper 5500. Washington DC: World Bank Group (https://openknowledge.worldbank.org/handle/10986/3983).

Kraay, A. (2012) Government spending multipliers in developing countries: evidence from lending by official creditors. Policy Research Working Paper No. 6099. Washington DC: World Bank Group (https://openknowledge.worldbank.org/handle/10986/931).

Nickel, C. and Tudyka, A. (2013) Fiscal stimulus in times of high debt. Reconsidering multipliers and twin deficits. Working Paper Series No. 1513. Frankfurt: European Central Bank (https://doi.org/10.1111/jmcb.12148).

Riera-Crichton, D., Vegh, C. and Vuletin, G. (2015) 'Procyclical and countercyclical fiscal multipliers: evidence from OECD countries'. *Journal of International Money and Finance* 52: 15–31 (https://doi.org/10.1016/j.jimonfin.2014.11.011).

Shen, W., Yang, S.-C.S. and Zanna, L.-F. (2018) 'Government spending effects in low-income countries'. *Journal of Development Economics* 133: 201–219 (https://doi.org/10.1016/j.jdeveco.2018.02.005).

Sheremirov, V. and Spirovska, S. (2019) *Fiscal multipliers in advanced and developing countries: evidence from military spending*. FRB of Boston Working Paper No. 19-3. Federal Reserve Bank of Boston (https://doi.org/10.29412/res.wp.2019.03).

Steel, I. and Phillips, D. (2020) *How tax officials in lower-income countries can respond to the coronavirus pandemic*. ODI Briefing Note. London: ODI (www.odi.org/publications/16816-how-tax-officials-lower-income-countries-can-respond-coronavirus-pandemic).

Tandberg, E. and Allen, R. (2020) *Managing public investment spending during the crisis*. Special Series on COVID-19. Washington DC: International Monetary Fund.

World Bank (2020) 'Global economic prospects'. June. Washington DC: World Bank Group (http://hdl.handle.net/10986/33748).

Zhang, Y., Thelen, N. and Rao, A. (2010) *Social protection in fiscal stimulus packages: some evidence*. New York: United National Development Program (www.undp.org/content/dam/undp/library/corporate/Development%20Studies/socialprotection fiscalstimulus march2010.pdf).



ODI

203 Blackfriars Road London SE1 8NJ

+44 (0)20 7922 0300 info@odi.org

odi.org odi.org/facebook odi.org/twitter

Evidence. Ideas. Change.

ODI is an independent, global think tank, working for a sustainable and peaceful world in which every person thrives. We harness the power of evidence and ideas through research and partnership to confront challenges, develop solutions, and create change.

Readers are encouraged to reproduce material for their own publications, as long as they are not being sold commercially. ODI requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ODI website. The views presented in this paper are those of the author(s) and do not necessarily represent the views of ODI or our partners.

This work is licensed under CC BY-NC-ND 4.0.