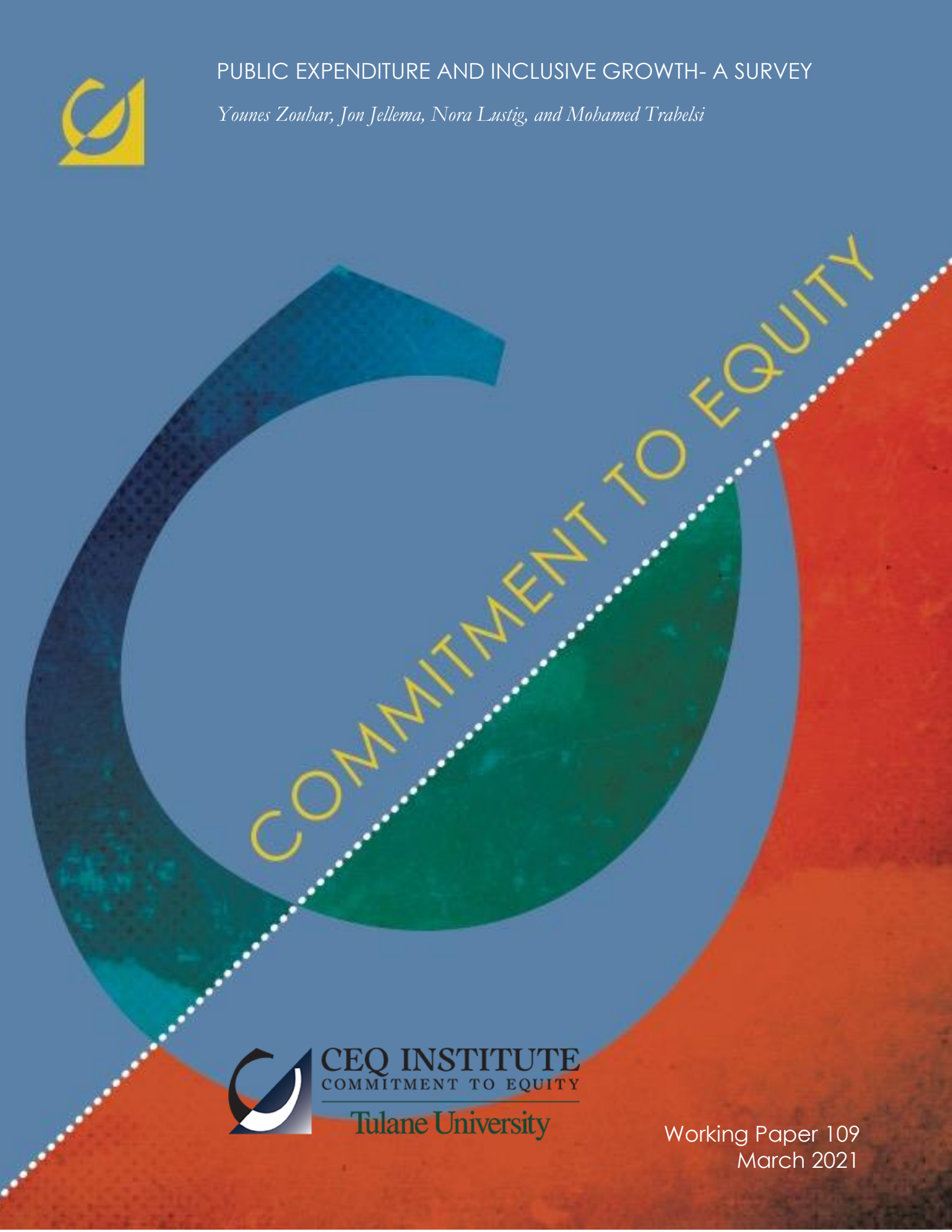
PUBLIC EXPENDITURE AND INCLUSIVE GROWTH- A SURVEY

Younes Zouhar, Jon Jellema, Nora Lustig, and Mohamed Trabelsi



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PUBLIC EXPENDITURE AND INCLUSIVE GROWTH – A SURVEY*

Younes Zouhar, Jon Jellema, Nora Lustig, and Mohamed Trabelsi†

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ABSTRACT

This paper explores the role of public expenditure in fostering inclusive growth. It starts with a presentation of salient features of public expenditure. Then, it lays out an analytical framework that describes the channels through which public expenditure affects inequality and poverty in the short and long term. Based on a review of the empirical literature, it discusses the policy options. Finally, the paper assesses the role of key factors such as the initial conditions, and the institutions, in shaping the inclusive spending policies.

JEL Codes: D63, H50, H51, H52, H53, H54, H55

Keywords: public expenditure, social spending, inclusive growth, inequality, poverty

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INTRODUCTION

Public expenditure policy is a critically important tool for promoting inclusive growth. Public expenditure policy affects economic growth and the distribution of income both in the short- and the long-run. For example, social spending provides a minimum income level and increases access to valuable public services. In the short-run, public spending on cash transfers, reduces income poverty and inequality directly. In the long run, cash transfers, especially if targeted to the poor, can be both growth-enhancing and improve distributional outcomes because of their positive impact on the human capital of children from disadvantaged backgrounds. Spending on education and healthcare services improves the quality of life, is growth-enhancing (through the human capital channel) and can, if targeted to those most in need, increase equality of opportunity and social mobility, which may lead to greater equality in social outcomes. Social spending also provides a risk-mitigation tool: vulnerable segments of the population will be at least partially protected from the global or local macroeconomic, financial, social and environmental shocks that buffet them. Public investment in infrastructure is equally important as it raises long-term economic growth and overall productivity which in turn generate higher employment overall while improving living standards and reducing poverty. Furthermore, spending on certain types of infrastructure—such as water and sewerage—improves living standards in multiple dimensions in the short-term as well.

The impact of public expenditure on inequality and poverty depends on its size, composition, progressivity and the way it is funded. The redistributive impact of public expenditure tends to be lower among developing countries than among advanced countries, reflecting differences in levels of development, spending magnitudes, and the composition of spending.[2] In developing countries, social spending is generally low—with limited social protection coverage—and tends to be procyclical. Pro-poor public spending often reduces poverty and inequality, even though it is paid for with regressive taxes. However, when consumption taxes are too high, the poor can end up being net payers into the fiscal system, reducing their purchasing power and welfare (Lustig, 2018, chapter 10). The capacity of budget institutions to deliver an "inclusive" spending program varies widely among countries and across levels of development; the quality of budget institutions matters not only for the cost-effectiveness of public service delivery, but also for how well public resources are protected from corruption and waste.

Public expenditure policy is shaped by preferences with respect to the role of the government; levels of development; available fiscal space; and ability to raise taxes. In order to foster more inclusive growth in advanced economies where tax and debt burdens are already high, the focus should be on better targeting of benefits and ensuring the sustainability of the pension system (Clements et al., 2014, Clements et al., 2015). In contrast, in developing countries, given the large gaps in public services and infrastructure, the priority should be on extending the coverage of social safety nets, and improving access to basic public services. Equal emphasis should be put on reducing nonproductive spending

[2] As shown in Lustig (2015), when advanced countries were as poor as some of today's developing countries, the level of spending of the former on education or health, for example, was considerably smaller.

(such as subsidies that benefit disproportionately the nonpoor) and improving tax mobilization to preserve fiscal sustainability.

Ensuring that fiscal policies are equity-promoting can be more challenging during episodes of fiscal consolidation. Fiscal adjustment is sometimes necessary to restore macroeconomic stability, contain debt burdens, and mitigate crises that can be harmful to the population, notably the most vulnerable. Fiscal adjustment often entails an increase in tax revenue and/or a reduction in public expenditure and transfers, causing adverse effects on inequality and poverty. A careful design of public expenditure measures can help mitigate the adverse effects of fiscal reforms on the population while compensating measures should be implemented to protect the most vulnerable population during fiscal consolidation.

Compensating measures are necessary to minimize not only the negative short-term effects on the poor but also the lasting impact on the accumulation of human capital of children from disadvantaged backgrounds, in particular. Modern development literature emphasizes the permanent effects that temporary shocks can have on the lives of infants, children, teenagers and women.[3] Circumstances such as child malnutrition, interruptions to schooling, and traumatic experiences occurring at some point in life, often have irreversible effects. For the poor, falling incomes have irreversible effects on nutrition, cognitive ability and years of schooling. The negative effects may even linger for decades.[4] These effects, in turn, reduce future equality of opportunity and growth.

Assessing the incidence of alternative public expenditures is key to understanding the likely impact on different population groups, particularly the poor.[5] The right policy choices require information on which groups are benefitting from public expenditure programs. Key questions to consider include the following: (i) Who benefits from existing public expenditure and by how much? (ii) What are the distributive effects of alternative spending measures? and (iii) When fiscal adjustment is necessary, what mitigating measures should be considered to minimize the impact on the vulnerable segments of the population.[6]

The distributional impact of expenditure policies must be analyzed jointly with those of revenue policy and tax collection measures.[7] The impact of revenue policy can be – and often is! – large enough to either counterbalance or enhance expenditure policy's impact. For examples, consumption taxes like VAT or excises can be regressive (when considered in a vacuum); despite this, the impact of fiscal policy *overall* may be still progressive when benefits from public expenditures are distributed in a progressive manner. Therefore, it is

---

[3] See the comprehensive summary in Heckman and Mosso (2014).

[4] See Lustig (2000) for the short and long-term effects of macroeconomic crises. See, for example, Skoufias (2003) for the effects, coping strategies, and policy implications of both economic crises and natural disasters.

[5] For a comprehensive discussion of these and other methodological aspects regarding the impact of taxes and transfers on inequality and poverty see, for example, Lustig (2018).

[6] In practice, assessing the incidence of fiscal measures is challenging. Two additional question that must be considered carefully *before* evidence is generated: (1) how will the impacts of expenditure policy on social welfare be estimated or simulated?; and (2) will impacts of public expenditure policy be estimated simultaneously with the impacts of revenue policy? Answers to these questions will shape empirical estimates of the true impact of fiscal policy – including expenditure policy – on social welfare, inequality, and poverty.

[7] Lustig (2018), chapters 1-4. Also, see Lustig (2020).

theoretically possible that increasing the revenue from regressive taxes to fund more progressive public expenditures is the best approach to supporting redistribution. On the spending side, cash transfers may seem generous and pro-poor, but if the poor pay more taxes, transfers net of taxes received by the poor could be nil or even negative. (see, for example, Lustig, 2018; chapter 10). Therefore, the design of taxes to finance social spending should ensure that the poor do not end up being net payers.[8]

Drawing from theory and empirical evidence, this paper will describe when and how public expenditure promotes inclusive growth. The central role of public expenditure has further gained prominence during the COVID-19 pandemic with the scaling up of spending to increase health capacities, mitigate the effects on the vulnerable segments of the population, and support the private sector. The COVID-19 crisis has also underscored the need to have in place adequate social safety nets and to accelerate the development agenda in order to address the large gaps in the social sector and inclusive infrastructure.[9] The first section presents stylized facts about public expenditure. In the second section, we present a conceptual framework describing the connections between public expenditure and inclusive growth, and discuss the design of "inclusive" public expenditure policies. The third section reviews evidence of the impact of public expenditure and its different components on inequality and poverty, as well as inequities in accessing public services. The last section will discuss policy options for enhancing inclusive growth via public spending.

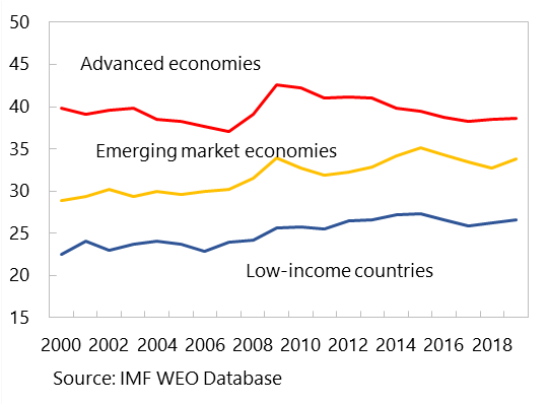
I. Public Expenditure—Stylized Facts

Government spending has expanded globally, increasing from 29 percent of GDP in 2000 to 33 percent in 2019; this overall increase hides significant differences in terms of levels and trends between advanced and developing economies (Figure 1.1). In advanced economies government spending has hovered just below 40 percent of GDP (notwithstanding a spike in 2009). The composition of spending changed slightly with the increase in social benefits being offset by wage containment and cuts in public investment (Figure 1.2). In emerging and low-income economies, government spending has by contrast risen to 34 and 27 percent of GDP, respectively, driven up by higher wage bill, social benefits, and public investment (Figures 1.3 and 1.4).

[8] See Abdelkader and de Mooji (2020) for the design elements of tax policy that fosters inclusive growth.

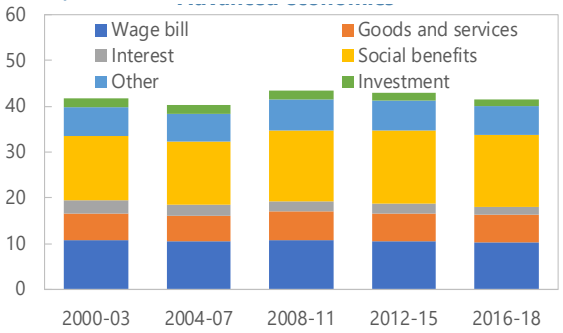
[9] The paper does not cover the COVID-19 pandemic period and its specific implications on public expenditure and inclusive growth.

Figure 1.1 General Government Expenditure
(percent of GDP)



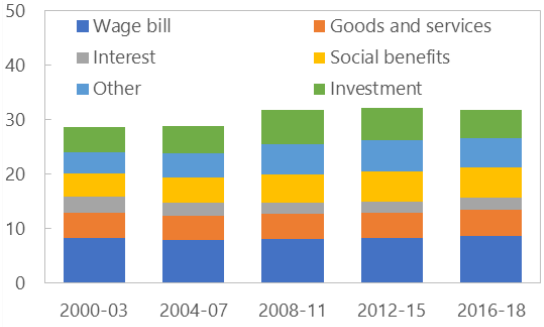
Source: IMF WEO Database

Figure 1.2 Government Expenditure by main components
(percent of GDP) - Advanced Economies



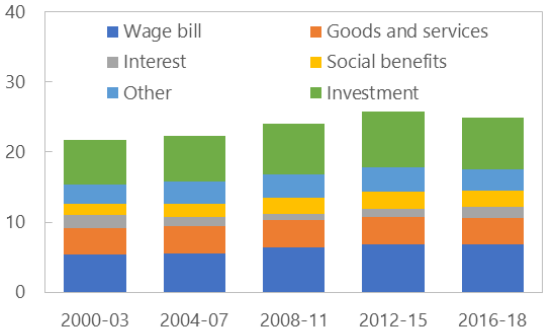
Source: IMF WEO Database

Figure 1.3 Government Expenditure by main components
(percent of GDP) - Emerging and Developing Economies



Source: IMF WEO Database

Figure 1.4 Government Expenditure by main components
(percent of GDP) - Low-Income Countries



Source: IMF WEO Database

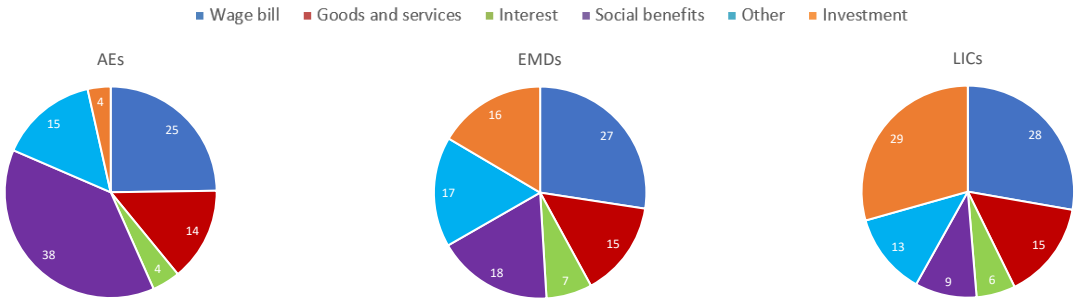
There are significant differences in the spending structure by income levels (Figure 1.5). The share of the wage bill in total spending ranges from 25 percent in advanced economies to 28 percent in low-income countries (LICs) while the relative share of goods and services tends to be about the same (14-15 percent) in both groups. However, advanced economies allocate a larger proportion of public spending to social benefits (38 percent) than emerging economies (18 percent) and LICs (9.4 percent). Conversely, the share of public investment is lower in advanced economies (4 percent) than in emerging economies (17 percent) and LICs (29 percent).

There are also noticeable differences in trends and composition of social spending over the last two decades (Figure 1.6). [10] Social spending amounted to about 26.5 percent of GDP among advanced economies in 2016-18 against 25 percent of GDP in 2000-03. This increase has been driven up by social benefits and healthcare spending. Social spending is significantly lower in emerging economies and LICs. It increased in emerging economies increased from 11 percent to 13.8 percent of GDP, due to higher spending on healthcare and

[10] Social spending comprises public spending on social protection, education and health.

social protection. In LICs, social spending rose by 1.5 percentage point to 8 percent of GDP, reflecting a slight increase in spending on social protection and education while health spending stagnated. These differences in social spending mirror to some extent lower taxation and financing capacities among developing countries and translate into weaker redistributive effect of public spending in those countries. During the same period, advanced economies steadily reduced their spending on defense and security from 3.4 percent of GDP in 2000-03 to 3 percent of GDP in 2016-18. Spending on defense decreased in emerging economies but was more than offset by higher spending on public order and safety. Spending on both items rose in LICs, totaling 3.7 percent of GDP in 2016-18 against only 2.7 percent during 2000-03 (Figure 1.7).

Figure 1.5. Public Expenditure by Expenditure Category



Source: IMF WEO Database.

Figure 1.6. Social Spending
(percent of GDP)

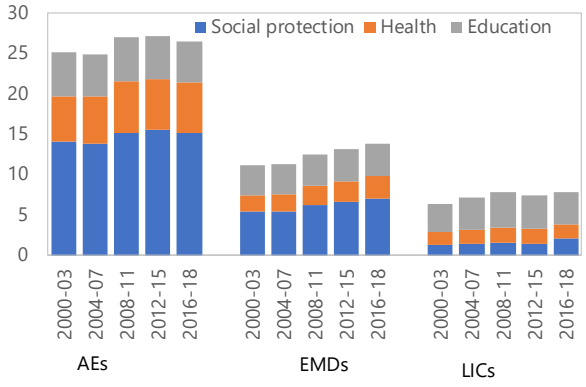
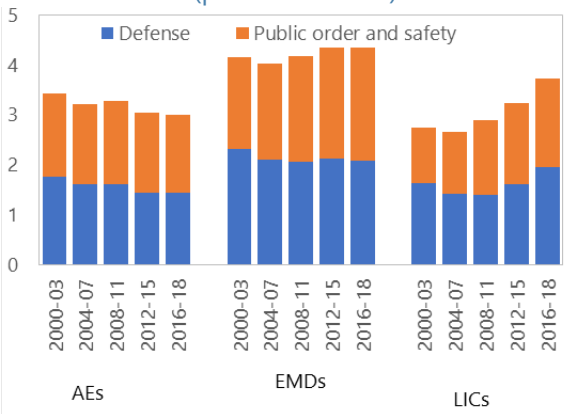


Figure 1.7. Public Spending on Defense and Security
(percent of GDP)

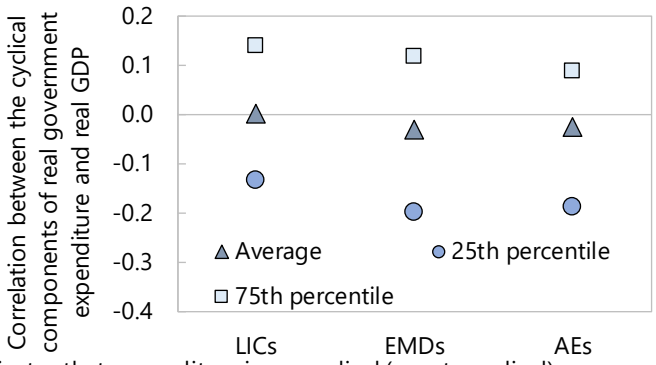


Sources: IMF, World Bank, and national authorities.

1/ Government expenditure on social protection includes sickness and disability benefits, old age pensions, benefits to family and children, and unemployment benefits.

Public spending tends to be procyclical. [11] Public expenditures should be contained during good times in order to build fiscal buffers so that increased spending can boost aggregate demand and foster macroeconomic stability during downturns or in the face of unanticipated shocks. Empirical evidence shows, however, that public spending and social spending are subject to procyclicality in most countries (Figure 1.8). The issue is more pronounced for developing countries, reflecting the notably smaller size of automatic stabilizers (e.g., unemployment benefits) as well as political economy factors such as the common pool problem and policy myopia (Del Granado et al. (2010) and Frankel et al. (2011)). [12] By exacerbating economic fluctuations, procyclical spending has adverse effects on both growth and equity objectives. In some developing countries and especially in resource-rich countries, the cyclicality of public spending can be asymmetric (Abdih et al., 2010) with spending procyclical during good times as windfalls are shared with the population in the form of higher wages, increased public sector employment, and larger subsidies; and counter-cyclical or neutral during bad times. When persistent, this often leads to excessive debt accumulation and breeds macroeconomic instability and with it higher inflation and a reduction in the purchasing power of the most vulnerable.

Figure 1.8 Cyclicality of Public Expenditure* over the period 1980-2019



* a + (-) sign indicates that expenditure is procyclical (countercyclical).
Sources: IMF and authors' calculations

There are significant inefficiencies in public spending, particularly among developing countries. [13] For example, at least 20-40 percent of health spending is typically wasted (the World Health Organization, 2010). Grigoli and Ley (2012) estimated that GDP losses due to

[11] When analyzing procyclicality, one should look at the overall stance of the fiscal policy. However, and following many studies, we focus here on the cyclicality of public spending, because tax receipts tend to be endogenous with respect to the business cycle (Frankel et al., 2011).

[12] Capital spending is often the first item to be curtailed in the face of rising fiscal pressures during downturns, reflecting an anti-investment bias. For more detail, see Essama-Nssah and Moreno-Dodson (2011).

[13] Efficiency means the adequate use of the available resources in order to obtain the maximum outcome. Inefficiencies of public spending are measured as a difference between the actual spending and the theoretically possible minimum spending that is sufficient to produce the same level of actual outcome. In practice, identifying the extent of spending inefficiency is difficult. For example, measuring inefficiencies in the health sector typically involves comparing a particular health system to an "efficient" one. However, because many factors other than spending affect health, and they vary across countries, it is difficult to identify the minimum spending required to achieve given health outcomes (Coady et al., 2014).

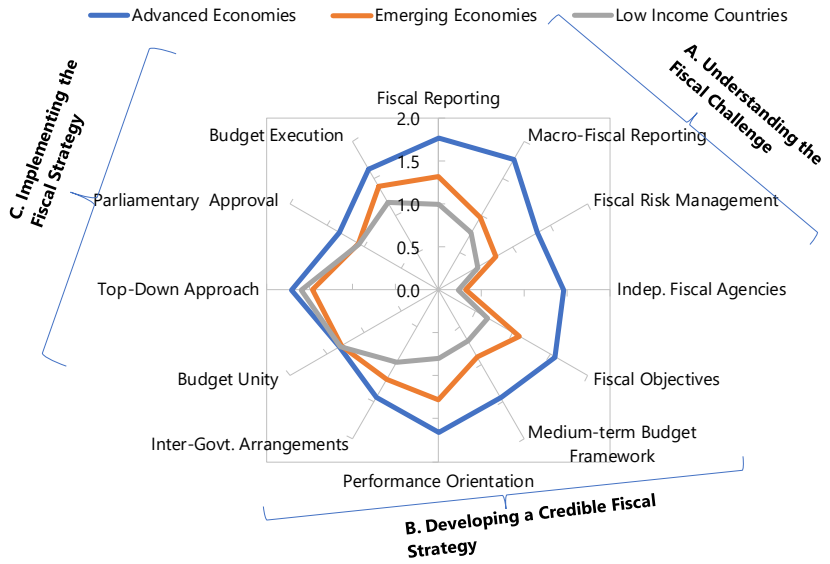
wasteful spending on education and health were substantial, reaching more than 4 percent of GDP, among a set of 24 advanced and emerging economies. An IMF study has estimated that the average country loses about 30 percent of the value of its public investment due to inefficiencies (IMF, 2015). Examples of prevalent inefficiencies include quasi-fiscal activities related to inefficient and unprofitable state-owned enterprises and generalized energy subsidies.

The capacity of budget institutions to deliver efficient public spending varies widely across countries.[14] The effectiveness of public spending—the efficiency with which revenues are raised, the cost-effectiveness of public service delivery, or how well public resources are protected from corruption and waste—all depend crucially on the quality of public financial management institutions. Strong budget institutions reinforce the sustainability of fiscal policy and the country's ability to implement sound fiscal policies. Figure 1.9 shows the IMF's assessment of the quality of budget institutions based on 12 indicators that fall under three broad areas: (i) understanding the fiscal challenge, (ii) developing a credible fiscal strategy, and, (iii) implementing the fiscal strategy (IMF, 2014a). The quality of budget institutions tends to be associated with income levels: advanced economies score consistently high in all three areas, while emerging economies and LICs tend to lag—albeit at different degrees—in the capacity to understand fiscal challenges and develop a credible fiscal strategy. The assessment of the quality of public investment management (PIMA) shows similar patterns (IMF, 2015). Government effectiveness is stronger in advanced economies than in emerging economies, with LICs lagging significantly (Figure 1.10).[15] While public spending (as a share of GDP) rose over the last decade, effectiveness ratings have slightly receded.

[14] Budget institutions refer to the standing requirements, procedures and processes applied when deciding and implementing public policies.

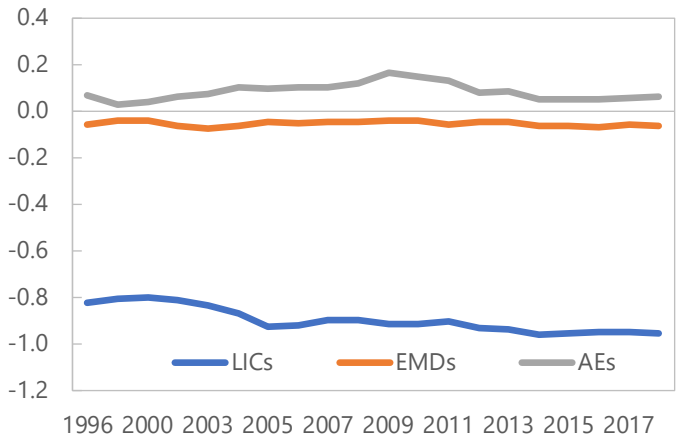
[15] The government effectiveness indicator compiled by the World Bank captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. It ranges from -2 to 2, with 2 being the most effective.

Figure 1.9. Quality of Budget Institutions in AEs, EMs, and LICs – 2010s



Sources: IMF (2014), Sanjeev and Ylaoutinen (2014), and Olden (2012).

Figure 1.10 Government Effectiveness



Source: World Bank.

II. Public Spending and Inclusive Growth—An Analytical Framework

It is useful to start with a framework that lays out the channels through which public spending can help achieve inclusive growth objectives. The broader concept of inclusive growth encompasses dimensions such as equity, poverty reduction, and inclusion in the labor market. It emphasizes generation of productive employment and the accumulation of human capital over time, rather than solely direct short-term income redistribution, as a means of increasing incomes. Promoting inclusiveness means also that the government should provide a risk management mechanism to help individuals absorb risks to income or welfare that

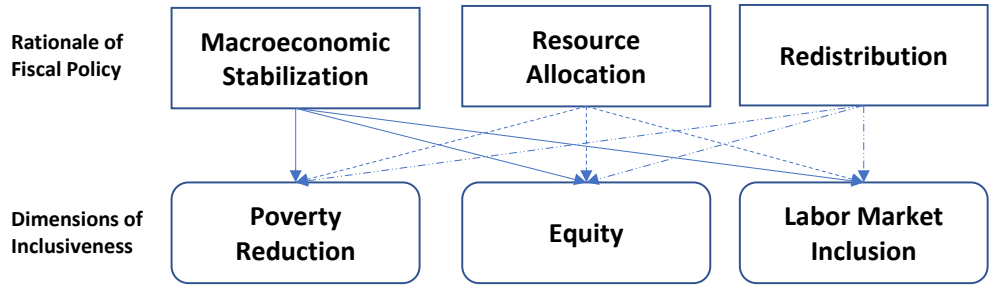
materialize and prevent vulnerability to shocks from becoming a constraint on productive, human-capital-seeking behaviors.

Public spending is a powerful instrument to promote inclusive growth. Public spending can contribute to the creation of opportunities in society through factor accumulation and productivity. It is also key in ensuring that individuals are ready and able to take advantage of the opportunities created by growth dynamics. To justify public action to achieve inclusive growth objectives (rather than relying on markets) and lay out the connections between public spending and inclusiveness, it is useful to examine the basics—the threefold rationale for fiscal policy proposed by Musgrave (1959). Under that framework, fiscal policy should aim at (i) promoting macroeconomic stabilization by focusing on countercyclical measures in the short term while preserving debt sustainability in the medium and long term, (ii) improving resource allocation by providing public goods in a cost-effective manner, and (iii) addressing distributional disparities and promoting equal opportunities.

The COVID-19 crisis has further refocused interest in public spending as an instrument for inclusive growth. During the last decade, advanced economies and developing countries have been striving to address the economic challenge of low growth and productivity slowdown and rising inequality. The global Coronavirus pandemic has reinforced the central role of public spending in many ways. In the short term, spending on health and emergency services has been fully accommodated to save lives and find vaccines and there were widespread countercyclical stimulus packages targeted at workers and firms. It has also brought to the surface longstanding challenges of the capacity and the quality of healthcare system and of social protection measures targeting the unemployed. Furthermore, it has uncovered and magnified the distributional effects of the digital gap—prevailing across countries and within countries—of unequal or limited access to essential services such remote learning, teleworking, telemedicine and E-government services.

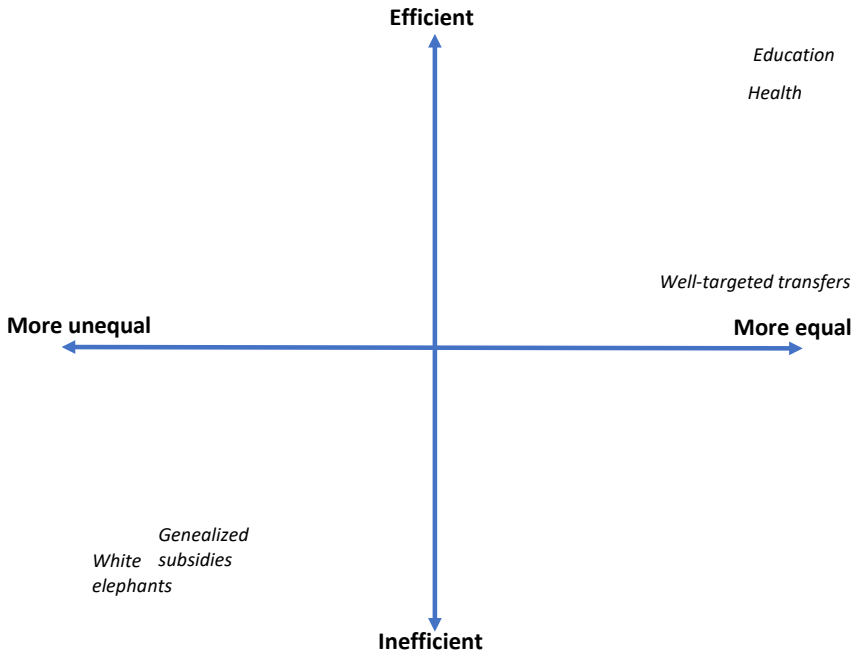
All three of these rationales for fiscal policy may have an impact on the nature or extent of inclusive growth. As noted by Brahmbhatt and Canuto (2011), "fiscal policy undertaken under one or more rationales will typically affect the different development objectives." Similarly, a spending measure undertaken under one rationale may affect some or all dimensions of inclusive growth, resulting in favorable or adverse effects (Figure 2.1). In fact, many areas of public spending offer possibilities to foster inclusive growth by focusing on reducing poverty and inequality and promoting quality employment. As such, they entail complementarities as they can achieve both efficiency and equity. Other measures, however, involve trade-offs that cannot be systematically avoided (Figure 2.2).

Figure 2.1. Musgrave's Framework of Fiscal Policy and Inclusiveness



- In one extreme, there are win-win measures that can enhance long-term growth and labor market participation while reducing inequality. For example, expanding equal access to education will boost both growth and equity.
- At the other extreme, there are lose-lose policies that tend to generate inefficiencies and more inequality. Generalized energy subsidies are a good example of such policies as they tend to undermine economic growth and diversification and benefit disproportionally upper-income households.
- Across this efficiency-equity spectrum, there are growth-enhancing public spending measures that can make a significant contribution to growth and poverty reduction but with adverse effect on income distribution. Although, there are measures that can promote growth with no significant effect on income distribution.
- There are also redistributive spending measures that aim mainly at reducing inequality and poverty, but can also be good for growth, particularly when inequality is initially high. However, relying mainly on redistribution to reduce poverty and inequality can be a source of distortions and can crowd out resources for growth-enhancing spending policies. This may lead to lower growth and higher unemployment, and in some cases, to unsustainable fiscal deficits and macroeconomic instability, all of which undermine inclusiveness.

Figure 2.2. Examples of Complementarities and Trade-offs Involved in Spending Measures



Policies entailing an efficiency-equity trade-off should be complemented by mitigating measures. Achieving higher growth is crucial to reduce poverty. However, structural or fiscal measures that improve productivity and long-term growth can entail near-term burdens

for some groups leading to higher inequality and greater wage dispersion. These anticipated negative distributional effects can be mitigated through the introduction or the scaling up of social protection such as well-targeted anti-poverty measures and social safety nets.

The analysis of the effects of spending measures on inclusiveness needs to consider how they were financed. Public expenditures are made possible by the raising of taxes, borrowing, or a reallocation of resources.

- **Taxation:** Taxes generate distortions and they have costs for efficiency. The distributional impact of tax burdens depends on the design of the tax system (Abdelkader and de Mooji, 2020). For example, a personal income tax with a progressive marginal rate structure and a threshold that protects poor and vulnerable populations can reduce income inequality; a flat value-added tax can increase income inequality because consumption expenditures typically represent a larger share of income among poorer households than among richer households. However, when a regressive tax funds a highly progressive spending measure (such as a means-tested cash transfer), the net position (post-tax and post-transfer) of low-income households will be enhanced relative to their pre-tax, pre-transfer position. In other words, it is important to consider jointly the net effects of spending and taxes on social welfare and inclusiveness.
- **Borrowing:** More borrowing needs to be consistent with a sustainable fiscal policy. Large fiscal deficits are a source of macroeconomic instability (see chapter 11). Moreover, high levels of debt lead to a higher interest burden on the budget, reducing thereby the fiscal space for productive and inclusive spending. For example, in Egypt, interest payments increased threefold between 2009 and 2017, from 15.2 percent to 42.6 percent of government revenue in lockstep with the rise in the debt-to-GDP ratio. If left unattended, higher debt-servicing burdens will affect long-term growth and undermine inclusiveness as the negative effects of, for example, increased inflation and interest rate tend to disproportionally affect low-income households.
- **Spending reallocation:** Fiscal space for productive and inclusive spending can be created through reductions in other expenditures. For example, removing generalized and untargeted subsidies can free up substantial resources that can be used to expand inclusive infrastructure and design better targeted social safety nets. Boosting capital spending by excessively reducing current spending may, however, be counterproductive and generate negative impact (Gemmell et al., 2013). It would be important to be selective as capital spending and some components of current spending (e.g., operations and maintenance) tend to be complements rather than substitutes (IMF, 2020b).

The package of spending measures should be cost-effective, consistent with fiscal sustainability and take into account country specific circumstances. The nature and number of constraints on truly inclusive growth differ from country to country. The appropriate mix of public spending measures will depend on (i) the starting point with regard to the prevalence of poverty and the degree of inequality and the nature of their drivers, (ii) the initial coverage and adequacy of social protection system, and (iii) administrative quality and capacity. Countries with high poverty rates may prioritize decreasing poverty rather than inequality and costs (including the efficiency costs of taxation); countries with relatively low poverty and inequality might instead emphasize growth-enhancing fiscal measures to reverse

low productivity trends and boost long-term growth and generate jobs. In most developing countries, income inequality tends to reflect sizeable informal sector and rural-urban disparities. Deprivations and exclusion tend to be strongly correlated: for example, a lack of access to piped water may lead to poor health outcomes and more frequent high school dropouts; or poor market access and a lack of adequate roads may prevent farmers from netting the highest price for any harvest surplus. Governments should focus on areas where there are substantial weaknesses and potential low-hanging fruits. For example, in countries where there is low and unequal access to education, notably for girls, and weak labor market participation of women, priorities may be given to expand school infrastructure and enhance provision of quality childcare facilities.

III. Public Spending and Inclusiveness—Evidence

Public expenditure has been more effective than taxation in reducing inequality.[16] In advanced economies, personal income taxation and direct transfer spending have contributed to the reduction of prefiscal (ie, before taxes and transfers) income inequality by 14 percentage points or about 25 percent (OECD, 2017).[17] The effect varies widely: there is a 3 percentage points reduction in income inequality in Korea and a 26 percentage point reduction in Denmark (Figure 3.1). Approximately two-thirds of this redistribution is due to public expenditures, but because the analysis does not include the distributional effects of indirect taxation – rates of which are generally high in advanced economies (about 20 percent) – the estimates are not complete.[18] Taking indirect taxes and subsidies into account might cause an increase in the impact of expenditure-side policy on redistribution overall. Within transfers, assistance transfers (e.g., family benefits) account for the bulk of the redistribution (Causa and Hermansen, 2017).

The redistributive effect of taxes and transfers has declined over the last two decades.[19] The downward trend has been particularly evident between mid-1990 and 2007, reflecting less generous transfers and, to some extent, less progressive income taxation. However, this result showing retrogression may be driven in part by the higher progressivity observed in the mid-1990s when the crises then experienced by Finland, Sweden, and Norway, which caused a cyclical rise in transfers minus taxes.[20] During the 2007-08 crisis, the redistributive effect increased owing to automatic stabilizers and discretionary measures to cushion the impact of the financial crisis on the population and the economy. However, since then, as automatic stabilizers have phased out (given recovery, albeit slow) and benefit eligibility has been

[16] These findings are based on the use of a sequential method for the assessment of fiscal measures. The use of marginal contribution may lead to different findings (see Lustig, 2018 for differences between these two methods).

[17] Redistribution is quantified as the relative reduction in prefiscal income inequality achieved by personal income taxes, employees' social security contributions, and cash transfers; estimates are based on household-level micro data.

[18] Were indirect taxes and subsidies taken into account this might reduce the redistributive effect overall while causing an increase in the relative impact (on overall redistribution) of expenditure-side policies.

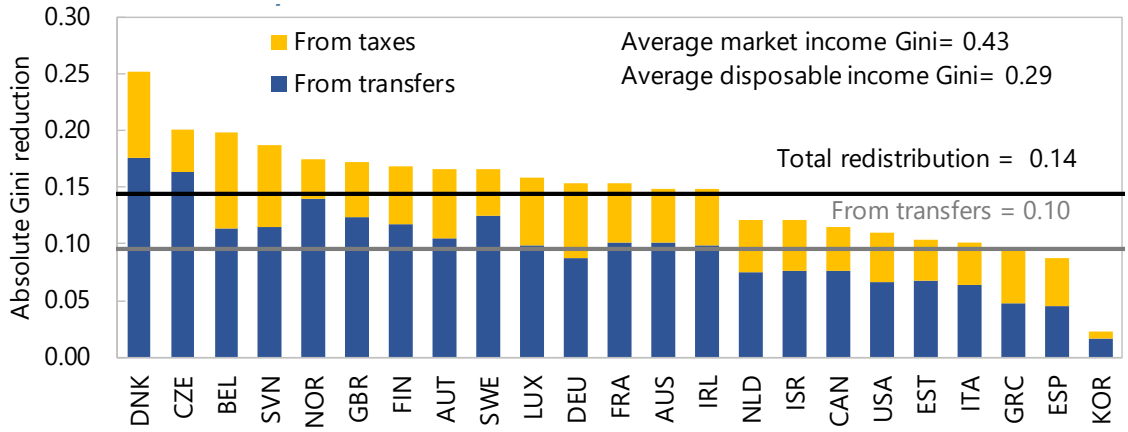
[19] See Lindert (2017) for an historical perspective of the redistributive role of fiscal policy.

[20] See Lindert (2021) page 376, fn 12.

narrowed (to support fiscal consolidation), the redistributive effect receded again (Causa and Hermansen, 2017).

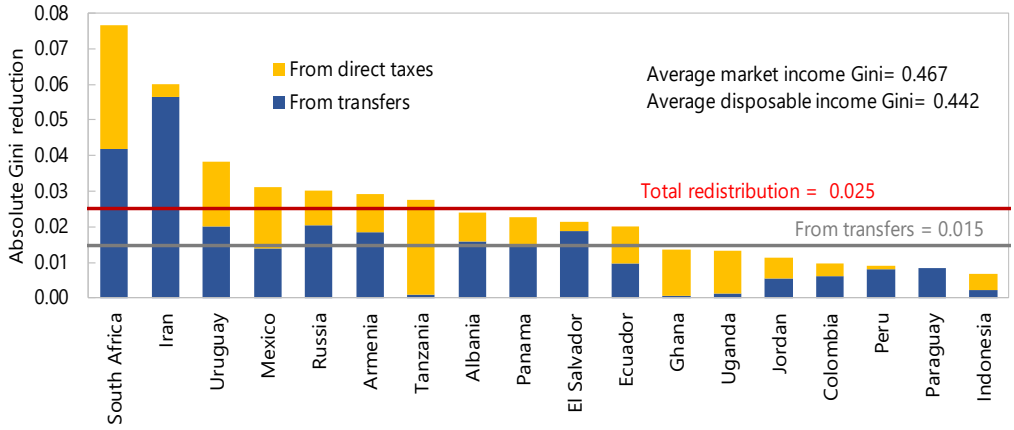
The redistributive effect of fiscal policy is much smaller in developing countries. In the fiscal incidence studies summarized in the Commitment to Equity (CEQ) Assessment archive (housed at the CEQ Institute), fiscal redistribution via personal income taxation and direct transfers reduces the inequality in prefiscal incomes by 2.5 Gini points (or 5.5 percent on average) (Figure 3.2). Transfers have a marginal impact that amounts to approximately 60 percent of the overall reduction in inequality. CEQ Assessments also estimate the incidence and impact of indirect taxation (e.g., VAT) and indirect subsidies (e.g., food, energy, and agricultural inputs). These two factors tend to offset each other, combining for a very small net reduction in the Gini coefficient. The meagre redistributive impact of public spending is not surprising given the low levels of public spending and social protection in the (mostly) developing countries covered by the CEQ Assessment archive. As the chart 3.3 shows, countries that allocated more resources to social spending (as a share of GDP) have witnessed a larger reduction in inequality.

Figure 3.1. Redistributive Impact of Fiscal Policy in Advances Economies, mid-2000s



Sources: Paulus, Figari, Hegedus, and others (2009), except for Australia, Canada, the Czech Republic, Korea, Norway, Israel, and the United States for which data are from Caminada and others (2012). Figure 2.9 in IMF (2014c).

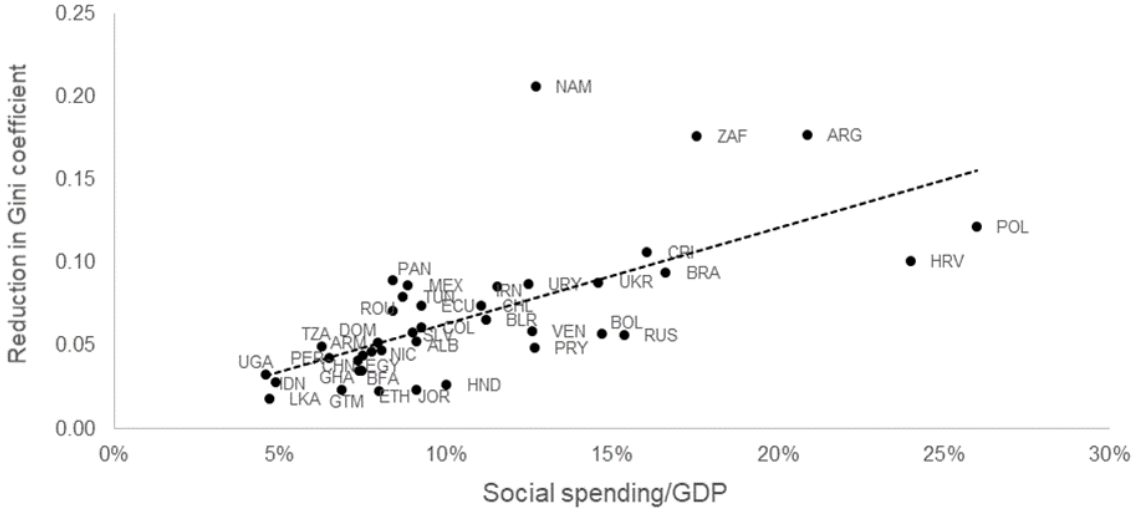
Figure 3.2 Redistributive Impact of Fiscal Policy in Developing Countries



*Contributory pensions are consided as deferred income

Sources: Albania (Dávalos et al 2018); Armenia (Khachatryan & Younger 2011); Colombia (Martinez & Melendez 2019); Ecuador (Llerena Pinto et al 2015); El Salvador (Beneke et al 2018); Ghana (Opong et al 2017); Indonesia (Afkar et al 2017); Iran (Enami et al 2017); Jordan (Alam et al 2017); Mexico (Scott 2013); Panama (Martinez-Aguilar 2019); Paraguay (Colman et al 2017); Peru (Jaramillo 2019); Russia (Lopez-Calca et al 2017); South Africa (Inchauste et al 2017); Tanzania (Mdadila et al 2016); Uganda (Haas et al 2016); Uruguay (Amábile et al 2013).

Figure 3.3. Inequality and Social Spending in Developing Countries

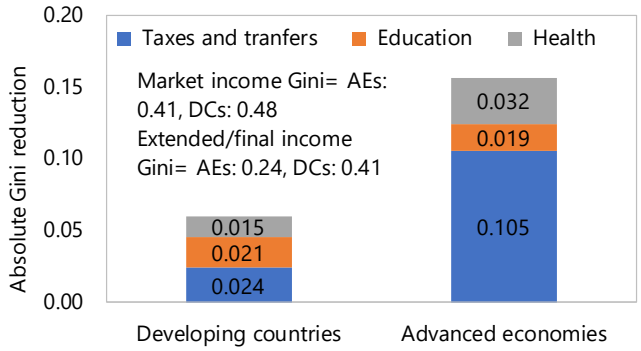


Redistributive effect = Gini of market income plus pensions minus Gini final income (percentage points)

Sources: Lustig et al. (2018). Argentina (Rossignolo, 2017); Armenia (Younger and Khachatryan, 2014); Bolivia (Paz Arauco and others,2014b); Brazil (Higgins and Pereira, 2017); Chile (Martinez-Aguilarand Ortiz-Juarez,2016); Colombia (Melendez and Martinez, 2015); CostaRica (Sauma and Trejos, 2014b); Dominican Republic (Aristy-Escuderand others,2016); Ecuador(Llerena and others,2017);El Salvador (Beneke de Sanfeliu, Lustig, and Oliva Cepeda, 2014); Ethiopia (Hill, Tsehaye, and Woldehanna, 2014); Georgia(Cancho and Bondarenko, 2015); Ghana (Younger, Osei-Assibey,and Oppong, 2016); Guatemala (Cabrera and Moran, 2015a);Honduras (Castaneda and Espino, 2015); Indonesia (Afkar, Jellema, and Wai-Poi,2015); Iran (Enami, Lustig, and Taqdiri, 2017b);Jordan (Abdel-Halimand others,2016); Mexico (Scott, 2013); Nicaragua (Cabrera and Moran, 2015b); Peru (Jaramillo, 2015);Russia(Malytsin and Popova, 2016); South Africa (Inchauste and others,2016); Sri Lanka (Arunatilake and others,2016);Tanzania (Younger, Myamba, and Mdadila, 2016b); Tunisia (Jouini and others,2015); Uganda (Jellema and others,2016);Uruguay (Bucheli and others,2014b); and Venezuela (Molina, 2016).

In-kind transfers have a substantial effect on inequality (Figure 3.4). Public spending on education and health reduces the Gini coefficient by 2.1 and 3.3 percentage points, respectively in advanced economies. For developing countries, the redistributive effect is estimated at 2.4 percentage points for education and 1.6 percentage points for health. However, this assessment doesn't fully capture the role of education and health spending on inequality for at least two reasons. First, the redistributive effects may be smaller given that the incidence analysis values public services at their cost of provision, which may not correspond to the real benefits received by the population. Inefficiencies would erode indeed their redistributive effects. Furthermore, upper-income households tend to extensively use private education and healthcare services given the poor quality of public services.[21] In some countries, the related charges can be tax deductible reducing the redistributive effect of taxation. If this is not the case, it is likely that upper-income households may be less tax-compliant given that they are not using public education services.

Figure 3.4. Redistributive Effects of in-kind Transfers



Source: Developing countries: see Figure 3.3; Advanced economies: OECD (2011).

The direct effect of transfers on poverty varies widely across developing countries (Figure 3.5). Fiscal policy reduces poverty headcount ratios by 2.3 percentage points (on average; from 23.9 percent at prefiscal income to 21.6 percent at disposable income) in a sample of 16 developing countries, using the international $PPP 3.20 per person per day poverty line. This reflects overwhelmingly the role of transfers as direct taxation tends to increase poverty in most countries. The effect of public expenditure on poverty reduction ranges from negligible levels in Uganda to 10.5 percentage points in South Africa.

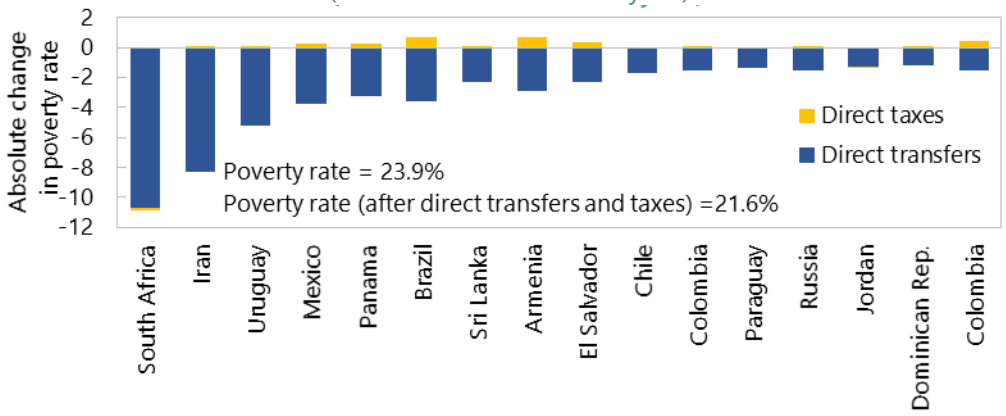
Inequality reduction from fiscal policy does not always translate into better social welfare for the poor and vulnerable (Lustig, 2018). While fiscal policy reduces inequality, it may not always lead to poverty reduction. For example, using a sample of 35 countries, fiscal policy was found to reduce inequality for all countries. At the same time, it increased the poverty headcount ratio (based on $PPP 3.20 poverty line) in 12 out of 35 countries. The role of taxes and the low level of transfers and subsidies that can be smaller in magnitude

[21] For example, in Morocco, 50 percent of the students in the highest income decile attend a private school against only 4 percent for the lowest decile (Ezzrari, 2018).

than consumption taxes, may indeed lead to a deterioration of the purchasing power of some vulnerable households.

In some cases, even when fiscal policy reduces the poverty rate, not all poor or vulnerable households will benefit uniformly. While the aggregate impact of pro-poor fiscal measures on the poverty headcount ratio, the poverty gap, the squared poverty gap, or other anonymous poverty measures is favorable, some vulnerable individuals and households can still be worse off; Higgins and Lustig (2016) refer to this phenomenon as "Fiscal Impoverishment". This can happen when anti-poverty programs like direct cash transfers have low rates of coverage (among the poor and vulnerable) while indirect taxes like VAT is levied on most goods and services.[22] In this case, many poor and vulnerable individuals will end up being "net payers" into the fiscal system even while there is no net increase in the number of individuals measured as poor.[23] Pro-poor programs that focus mainly on those just below the poverty line may lead also to the same phenomenon. In sixteen developing countries, the rate of fiscal impoverishment (or of poor individuals being net payers into the fiscal system) ranged from approximately 9 percent of the postfiscal income poor population (Panama) to nearly 99 percent of the postfiscal income poor population (Tanzania).[24] In other words, a fiscal system that "does no harm" to the poverty headcount ratio may still be creating undue burdens for many poor and vulnerable individuals.

Figure 3.5. Impact of Fiscal Policy on Poverty Rate in Developing Countries*
(2014 or latest available year)



*Contributory pensions are considered as deferred income
Source: See Figure 3.3 and Commitment to Equity Institute.

[22] The tendency of the poor to rely more on informal markets may mitigate the regressive impact of consumption taxes (Bachas et al., 2020).

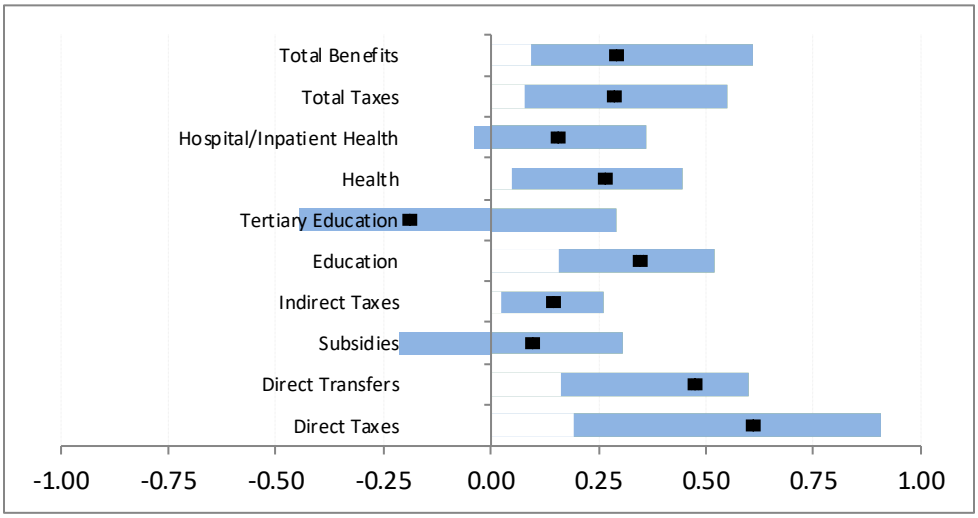
[23] Higgins and Lustig (2016) also show the converse: *some* poor individuals and households can experience fiscal gains even while the impact of fiscal policy on the poverty headcount ratio, the poverty gap, the squared poverty gap, or other anonymous poverty measures is negative.

[24] The set comprises twelve upper-middle income and four lower-middle income countries. The poverty line considered is set at the international $PPP 3.20 per person per day for upper-middle income countries and $PPP 1.90 per person per day for lower-middle income countries. In all 16 countries fiscal policy reduced inequality; and in 11 countries fiscal policy reduced the poverty headcount ratio.

Effectiveness in achieving reduction in inequality and poverty varies across fiscal instruments and countries. Impact effectiveness indicator of a fiscal program with regard inequality (poverty) is broadly defined as the ratio of its actual impact on inequality (poverty) to its maximum possible impact had it been delivered optimally.[25] Empirical assessment of the impact effectiveness with regard inequality outcome conducted by the CEQ Institute for a set of 11 African countries shows (Figure 3.6) that:

- Direct transfers come second behind direct taxes as the most effective fiscal instrument with regard inequality reduction and are on average the most effective spending instrument. The mean Poverty Gap Impact Effectiveness indicator for direct transfers is 0.54, which means that direct transfers achieve 54 percent of the maximum impact achieved if they were optimally-distributed.
- Subsidies tend to be ineffective in reducing inequality. The redistributive effect barely reaches 10 percent of the maximum impact from optimally-distributed subsidies of the same magnitude.
- There is a room to improve the effectiveness of health spending in reducing inequality.
- Spending on tertiary education tends to increase inequality in most countries.

Figure 3.6. Range and Mean Inequality Impact Effictiveness[1/] of Fiscal Instrument Classes in 11 African Countries[2/] (circa 2010-2015)

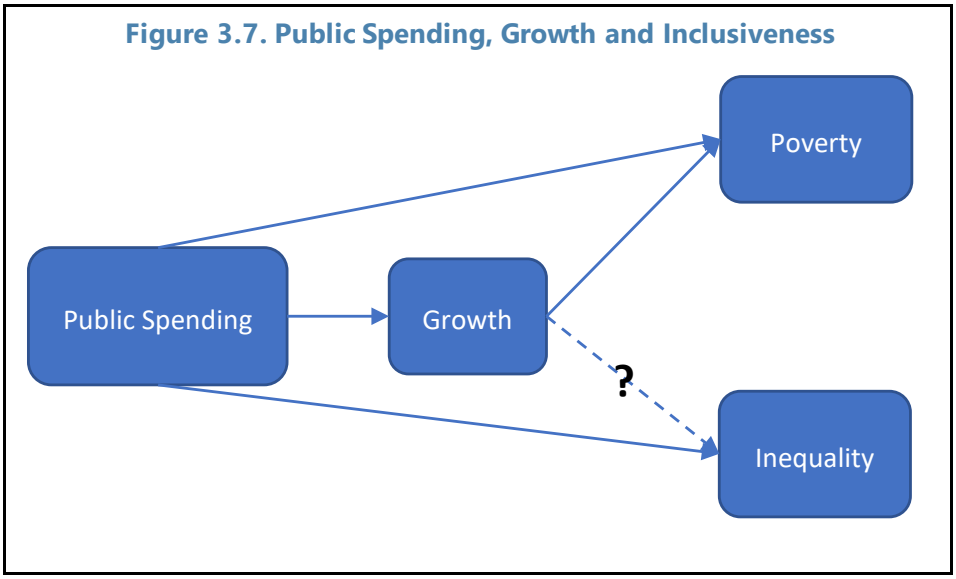


1/ The inequality impact effeciveness indicator compares the maximum theoretical impact on inequality (if the tax or transfer were allocated optimally to reduce inequality) to the actual estimated impact, keeping the total value of the allocation (of a tax or transfer or group of fiscal instruments) fixed. The indicator varies between -1 and 1, with negative values indicating that the fiscal measure increases inequality.
2/ The set of countries comprises Comoros (2014), Ivory Coast (2014), Ghana (2013), Mali (2014), Namibia (2009/10), Senegal (2011), South Africa (2010), Tanzania (2011), Togo (2015), Uganda (2013), and Zambia (2015)
Sources: See the CEQ Assessments listed by year in the references section.

[25] See Enami (2017) for a detailed definition and analysis of the impact effectiveness indicators of government intervention.

In addition to the mechanical effects above, the impact of public spending on inclusiveness is also affected by economic growth (Figure 3.7). The pathways from public expenditure to overall economic growth is well documented (e.g., Gemmell et al., 2011). An increase in productive spending results in higher growth and employment which in turn will lift income and reduce poverty. India and China in particular demonstrate how rapid economic growth can lead to a significant reduction in poverty. However, there is no clear-cut answer on how growth affects inequality. Growth may reduce inequality or exacerbate it (Bourguignon, 2003).

Figure 3.7. Public Spending, Growth and Inclusiveness



IV. POLICY OPTIONS

This section discusses public spending measures that can help in improving one or more dimensions of inclusiveness. These policies may entail complementarities or trade-offs between growth and equity objectives. We identify measures that can reduce both inequality and promote economic growth and highlight those that may entail trade-offs. This section draws mainly from the work done by the IMF, the World Bank, the OECD, the CEQ Institute and the ILO. We consider three major policy areas that have the largest scope to make growth more inclusive: (i) social protection, (ii) human capital, and (iii) government effectiveness and budget institutions.

1. Social Protection

Social protection is an important element of social welfare and represents a key pillar of the social contract. It helps individuals minimize the negative effects of shocks, natural disasters, and unfavorable life events and protect them from poverty and destitution. It also provides opportunities to build skills necessary to access jobs and return to the labor market. Provision of adequate social protection mechanisms is at the core of government functions, and it helps cement the society and increase acceptance of reforms. There are three broad categories of social protection interventions (World Bank, 2018, Table 1):

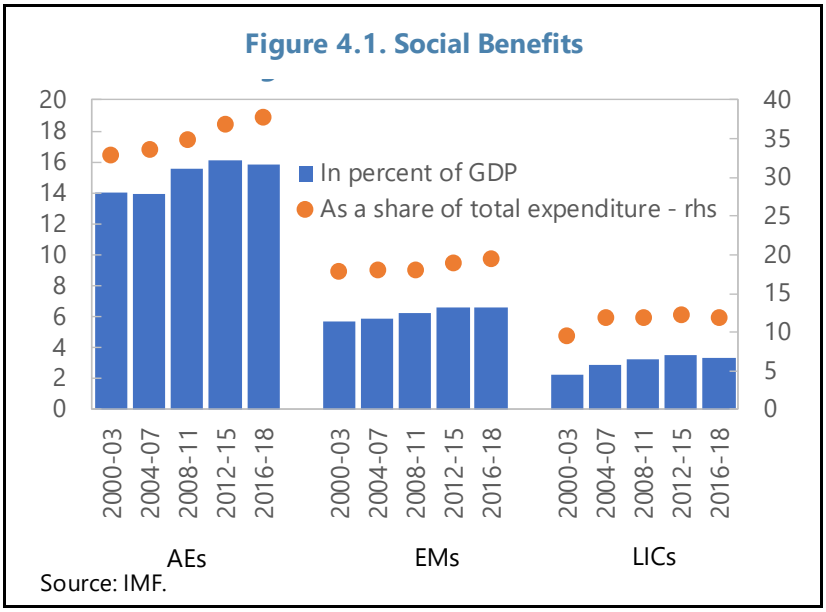
1. **Social safety nets (SSN)/social assistance programs (SA):** They consist of non-contributory interventions designed to help individuals and households cope with chronic poverty, destitution, and vulnerability. SSN/SA programs target the poor and vulnerable. Examples include unconditional and conditional cash transfers.
2. **Social insurance programs:** These are contributory interventions that are designed to help individuals manage the sudden changes in income because of old age, sickness, disability, or natural disaster. Individuals pay insurance premiums to be eligible for coverage or contribute a percentage of their earnings to a mandatory insurance scheme. Examples include contributory old-age pensions.
3. **Labor market programs.** They can be contributory or non-contributory programs and are designed to help protect individuals against loss of income from unemployment (passive labor market policies) or help individuals acquire skills and connect them to labor markets (active labor market policies).

Table 1. Types of Social Protection Instruments

Social safety nets/social assistance (noncontributory)	Social insurance (contributory)	Labor market programs
Unconditional/conditional cash transfers	Contributory old-age, survivor, disability pensions	***Active labor market programs***
Social pensions	Sick leave	Training
Food and in-kind transfers	Maternity/paternity benefits	Employment intermediation services
School feeding programs	Health insurance coverage	wage subsidies
Public works		***Passive labor market programs***
Fee waivers and targeted subsidies		Unemployment insurance
		Early retirement incentives

Source: The State of Social Safety Nets 2018, World Bank.

Despite its centrality for inclusiveness, social protection spending varies markedly across countries. In early 2000s, social protection spending was already the highest among advanced economies at 14 percent of GDP (or one-third of total public spending); it further increased to 16 percent of GDP during the period 2012-15, reflecting the role of both discretionary measures and automatic stabilizers following the 2008 crisis. Social protection spending increased by 1 percentage point in emerging economies since 2000-03 to 6.6 percent of GDP (or about 20 percent of total public spending) during 2016-18. Among LICs, social protection increased from 2.3 percent of GDP at the beginning of the second millennium to 3.5 percent of GDP during 2012-15 era, before receding slightly to 3.3 percent of GDP during 2016-18 (Figure 4.1). LICs allocate only 12 percent of the budget to social protection. In this rest of the section, we will cover social safety nets and pensions.



1.1. Social Safety Nets (SSN)

Developing countries allocate smaller budget resources to social safety nets. Spending on SSN programs varies between 1.4 percent of GDP in low-income countries and 2 percent of GDP in emerging economies, while it reaches 2.7 percent in OECD countries (Figure 4.2). [26] Social protection systems in advanced economies are mature and comprehensive and comprise tax-financed universal social assistance schemes. By contrast, the social protection system in developing countries is fragmentated and has insufficient administrative capacity, limited coverage and inadequate benefit levels (Grosh et al., 2008). Close to half of developing countries allocates less than 1 percent of GDP to social assistance.

An analysis of SSN spending by type of instrument indicates significant differences across countries (Figure 4.3):

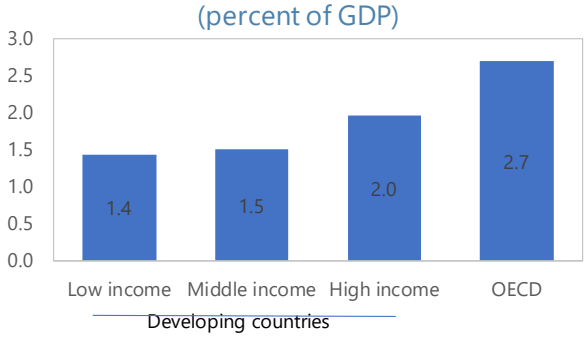
- **Cash transfer programs** are the most common mechanism used by governments to provide social assistance to the vulnerable population (representing one-third of reported SSN programs). They account for two thirds of SSN spending in high- and middle-income countries and only 30 percent in low-income countries. They can be unconditional (UCT) or conditional (CCT) with the eligibility contingent upon certain behaviors (e.g., the use of specific health and education services for children). CCT tend to be more effective in reducing inequality and enhancing long-term growth given their impact on raising school enrollment and improving health outcomes. They can also contribute to reducing gender equality by (i) improving the enrollment of girls, and (ii) making transfers to them, which enhances their role in the allocation of households' resources (OECD, 2011).

[26] The analysis of the magnitude and the incidence of spending on social protection in this section relies on the ASPIRE database compiled by the World Bank. The main limitation of the performance analysis is that social protection programs captured in the household surveys represent only a fraction of the programs administered in the country.

- **Food and in-kind transfers** are an important component of the social assistance, particularly among low-income countries, accounting for 37 percent of total SSN spending. They are often funded by donors and consist mainly of food rations, clothes, school supplies, fertilizers, among others. Their objectives are usually to provide food security, improve nutrition, increase agricultural productivity, and deliver emergency relief. Given their self-targeting feature, their coverage rate of the poor tends to be high. This is the case of India where they cover 94 percent of the poor (World Bank, 2018).

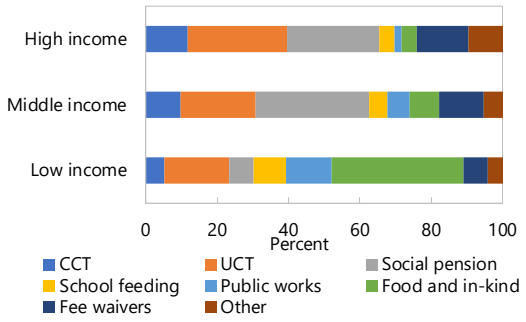
- **Public work programs:** These programs typically provide income support to the poor through labor-intensive public works. The related spending ranges from 2.2 percent of total SSN spending among high-income countries to 13 percent among low income countries. These activities under these programs consist in general of community projects that contribute to local development (e.g., through road construction and maintenance, drainage projects, and public building maintenance) (Grosh et al., 2008). To avoid misuses and ensure the beneficiary's self-selection, wages under these programs should be set up at relatively low levels. Their coverage of the poorest quintile is limited, at 11 percent, with the largest coverage rates being observed for the MGNREG program in India (27 percent) that provides a legally guaranteed right to a maximum of 100 days of employment a year to rural households. (World Bank, 2018). To increase the effectiveness of the programs, some countries have included a training component with the objective of improving beneficiaries' skills and their job opportunities. In Argentina, the public work program gives participants the option of either working or attending training courses or educational classes in exchange for benefits.

Figure 4.2 Social Safety Nets Spending in Developing Countries and OECD
(percent of GDP)



Sources: World Bank and OECD.

Figure 4.3. Social Safety Nets Spending by Instrument



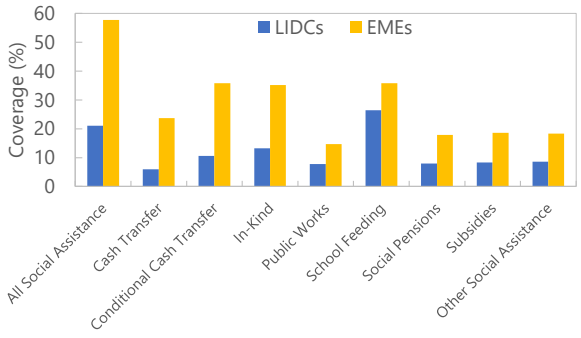
Source: ASPIRE database, World Bank.

The SSN coverage of the poor is low among developing countries. Social assistance programs cover 33 percent of the total population in developing countries. However, the coverage is only 18 percent in low-incomes countries against 43 percent in emerging economies. Close to 60 percent of the poorest 40 percent of individuals (so approximately 24 percent of the total population) in emerging economies benefit from an SSN program against only 20 percent (so approximately 8 percent of the total population) among LICs (Figure 4.4). The coverage rate of the poor is the highest for school feeding programs in both LICs (26 percent) and emerging economies (36 percent). LICs lag in all other areas of social assistance. For example, the coverage of the poor is 6 percent and 11 percent, respectively for

unconditional and conditional cash transfers among LICs while in emerging economies both types of cash transfer achieve 35 percent coverage rates. Family and child benefits cover only 9 percent of households in LICs against 54 percent in emerging economies and 90 percent in advanced economies (ILO, 2017).

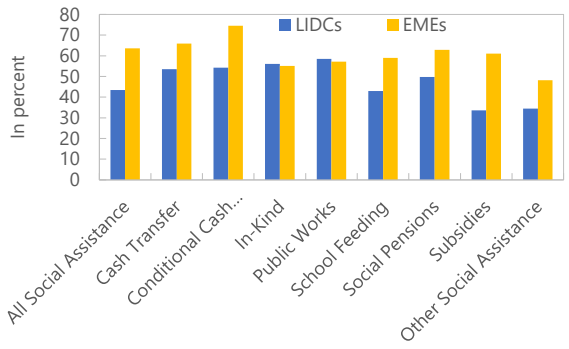
Moreover, SSN programs are not well targeted towards the poor (Figure 4.5). The poorest 40 percent of individuals represent, respectively, 46 percent and 57 percent of SSN beneficiaries among LICs and emerging economies. This means that leakages are significant: 34 (24) percent of SSN beneficiaries among LICs (emerging economies) belong to richest 40 percent of individuals. The share of all SSN benefits accruing to the same 40-percent-poorest and 40-percent-richest groups among LICs (emerging economies) is 43 percent (64 percent) and 42 percent (21 percent), respectively. Conditional cash transfer benefits are more pro-poor than general SSN benefits, with 54 percent and 75 percent of benefits accruing to the poorest 40 percent of individuals among LICs and EMEs respectively. Unconditional cash transfers are the next most pro-poor type of SSN program in LICs, followed by public works, in-kind transfers, and school feeding programs. By contrast, untargeted subsidies and other social assistance programs provide only one-third of benefits to the poorest 40 percent of the population.

Figure 4.4. Social Assistance Coverage of the bottom 40 percent of the population
(2016 or latest year available)



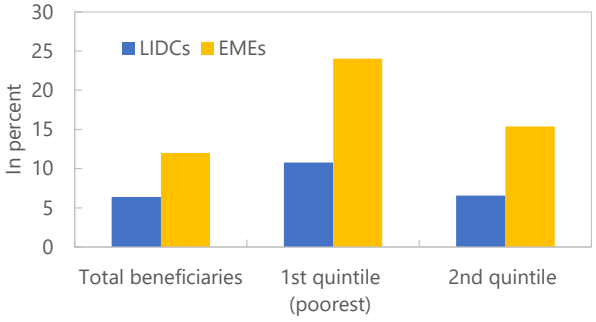
Source: Aspire database, World Bank.

Figure 4.5. Share of Benefits Accruing to the bottom 40 percent of the population
(2016 or latest year available)



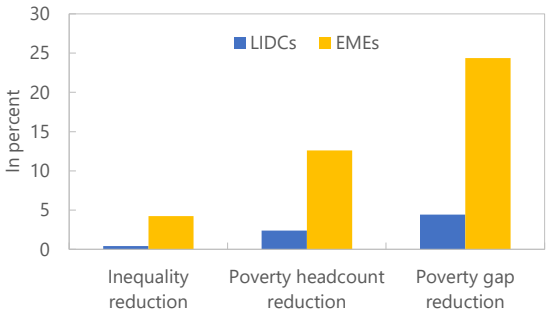
Source: Aspire database, World Bank.

Figure 4.6. The Value of the SSN Transfer as a share of Beneficiaries' Post-transfer Welfare
(2016 or latest year available)



Source: Aspire database, World Bank.

Figure 4.7. Impact of SSN Programs on Inequality, Poverty Rate, and Poverty Gap
(2016 or latest year available)



Source: Aspire database, World Bank.

SSN programs have limited impact on poverty and inequality. In addition to low coverage and poor targeting, the level of SSN transfers is small, representing 6.4 percent of total consumption of beneficiaries among LICs and 12 percent among emerging economies. The empirical literature suggests the size of transfers should not be too large (which could imply fewer beneficiaries and labor market participation) but also large enough to ensure a meaningful welfare impact for beneficiaries. For example, cash transfer programs were found to be more impactful when the transfer is set at least at 20 percent of a household's consumption (World Bank 2018, Handa et al. 2013). Based on the World Bank's ASPIRE database, the average SSN transfer amounts in LICs represent 10.8 percent of the welfare of a beneficiary in the poorest quintile and in emerging economies the average SSN transfer amount represent 24 percent of the welfare of a beneficiary in the poorest quintile (Figure 4.6). In LICs, the redistributive effect of SSN programs is barely perceptible while SSN programs reduce LIC poverty rates by just less than 2.5 percent. In emerging economies SSN programs reduce inequality by 4.2 percent (of the pretransfer level of inequality as measured by the Gini coefficient) and reduce poverty by 13 percent (of the pretransfer poverty rate) (Figure 4.7).

SSN programs need to be carefully designed to avoid misuse and leakages and increase their impact on poverty and inequality. The appropriate set of SSN programs will depend on the administrative capacity and the targeted segments of the population. Options to improve the effectiveness and the scope of social assistance programs include (mainly for developing countries):

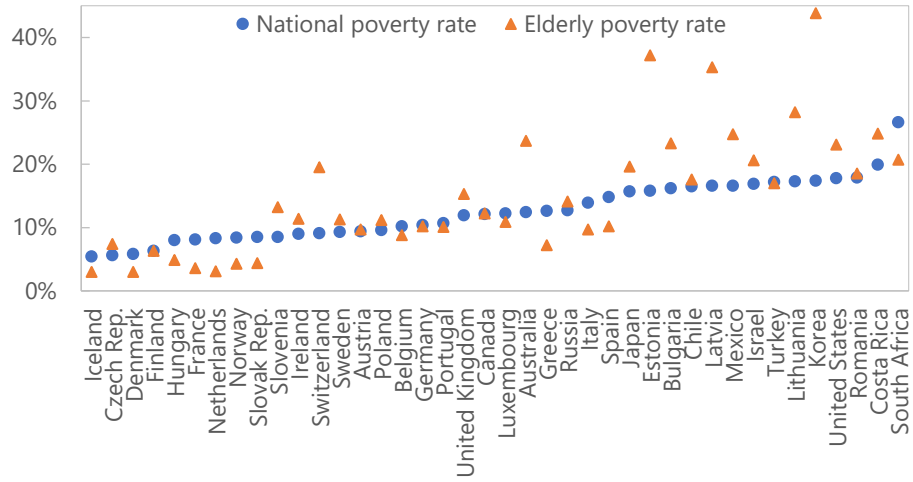
- Increase spending on SSN programs as well as the coverage, including family and child allowances/benefits;
- Consolidate social assistance programs;
- Develop biometric identification schemes to establish a national social registry (unique identifier) and allow better targeting of the programs;
- Introduce or expand conditional cash transfer programs as administrative capacity improves;
- When feasible, introduce mutual obligation in benefits by combining the transfer with the requirement to maintain investment in human capital and child health;
- Extend social protection coverage to those in the informal economy;
- Introduce/scale up public work programs and append a training component to enhance job opportunities for the beneficiaries; and
- Develop multi-dimensional programs that cover many areas such as health, education, and nutrition.

1.2. Pensions

Ensuring income security for the elderly has become challenging. In a context of global aging and longer life expectancies, the share of the non-working population requiring financial support is growing. A 2018 OECD survey reveals that about 72 percent of all respondents (young and elderly) list old-age finances as one of the top-three long-term

concerns facing them or their family. These concerns are also fueled by the high poverty rate among the elderly that in many cases outpaces the national level (Figure 4.8).[27] Aging is often accompanied with a depreciation of skills and a decline in health status and in quality of life. All of these factors combined make it difficult for the elderly to generate labor market incomes and underscores the importance of providing adequate old-age safety nets. Around the world, old age pension schemes have been a popular and effective instrument to safeguard a minimum welfare level for elderly populations. Nonetheless, globally only 68 percent of the elderly receive benefits from a publicly-supported pension schemes.[28]

Figure 4.8. National and Elderly Poverty Rate
(2015 or latest available year)



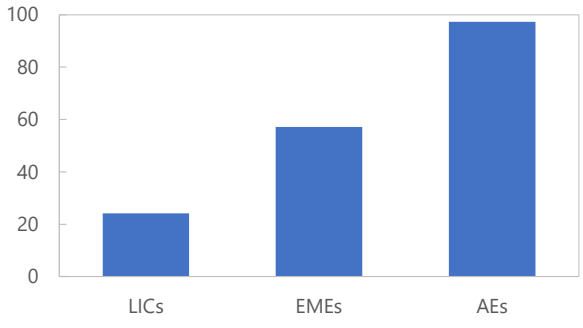
Source: OECD.

Public spending on pensions and coverage varies considerably across the world. Advanced economies allocate close to 9 percent of GDP to public spending on social protection for the elderly, which is composed mainly of pensions (Figure 4.9), resulting in a coverage rate among the elderly in those countries of 97 percent). The coverage of social protection for the elderly has also expanded (ILO, 2017) in developing countries, with some countries achieving universal coverage (e.g., Argentina, Bolivia). However, LICs and emerging economies achieve effective coverage rates of only 24 percent and 57 percent, respectively (Figure 4.10) of the elderly populations, reflecting notably smaller spending (1 percent and 4 percent of GDP, respectively). Most of the elderly in these countries therefore still depend on traditional income support sources, especially intra-household or intra-family support or transfers.

[27] This doesn't necessarily tell the whole story. Over the last decades, the age group more at risk of poverty shifted from the elderly to young adults. Moreover, in some OECD countries, the elderly may be "income poor" but are still wealthy, as many opt for to take out lumps sums from their funded pensions at retirement (often used to pay off mortgages) which leaves them with significant wealth but little income.

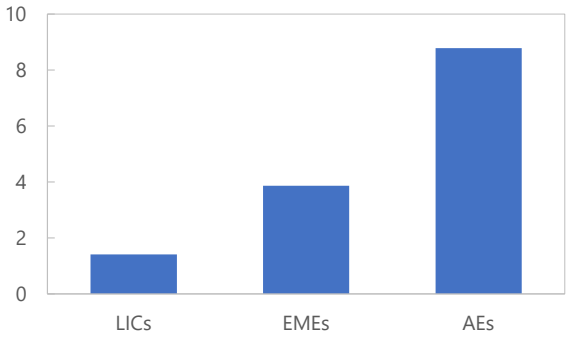
[28] Given the higher increase in the elderly population expected in EMEs and in LICs than in AEs, where ageing has already taken place, this ratio is bound to increase in the future unless policy adjustments are decided to broaden pension coverage in LICs and EMEs.

Figure 4.9. Old-Age Pension Effective Coverage: percentage of the population above Statutory Pensionable Age receiving an Old-Age Pension
(percent)



Source: ILO.

Figure 4.10. Public social protection expenditure for older persons
(percent of GDP, excluding health)



Source: ILO.

Pension systems in advanced economies pose challenges in terms of sustainability and equity, but issues are complex. Pensions are often the largest single expenditure in the budget. Increasing shares of the elderly in total populations means high and rising public spending on pensions, which tends to crowd out other growth-enhancing spending and constrain resources for redistribution to the working-age population (Causa and Hermansen, 2017, Clements et al., 2014).[29] Cournède et al. (2018) found that pension reforms will increase long-term growth via reduced incentives for early withdrawal from labor markets which will expand labor supply. The simulated impact of such reforms on the income distribution of the working-age population was not significant. However, it is estimated that they will entail in the future a 20 percent reduction in replacement rates—the average pension benefit divided by the average wage—and may cause potentially a significant increase in the elderly poverty rate (Shang, 2014).[30] Parametric reforms that emphasize an extension of the retirement age instead of a reduction in the replacement rate tend to increase employment rates among the elderly, which helps in containing or reducing old-age poverty. However, higher statutory retirement age is not by any means exempt from equity concerns as it may benefit more those with high economic status who often have longer life expectancy, better health status, as well as jobs with less hardship and high tele-workability.

[29] However, care must be taken regarding this assertion because a portion of what is paid in contributory pensions at any moment in time is implicitly paid by the workers´ contributions during their working years (Lustig, ed., 2018, chapter 1). Even in a pay-as-you-go system, income from pensions is a form of deferred income. Whether individuals are recipients of a transfer embedded in their income from pensions or not depends on the history of their contributions, their retirement age and the age at time of death. In fact, in pay-as-you-go systems that put a cap on benefits, high wage earners could end up being taxed: that is, their pension income from retirement age to death is lower than what they contributed during their working years (plus the standard return). This means that assessing whether pensions are in fact crowding out other forms of spending is a more complex issue that cannot be answered by just looking at spending on pensions to GDP at any point in time.

[30] Shang (2014) estimates an elasticity of the elderly poverty rate to replacement rate of −0.4, which implies that a 10 percent reduction in the aggregate replacement rate would increase the elderly poverty rate by about 4 percent.

In developing economies, contributory pensions schemes are marked by low coverage and adequacy. Pension systems exclude large segments of the population, which may exacerbate inequality. The share of the population above the statutory pensionable age receiving an old-age pension is 13 percent among LICs and 29 percent among emerging economies (ILOSTAT), but coverage is often limited to public sector employees and (in some countries) formal sector workers, leaving out workers in the informal sector and many if not all of the self-employed. For these uncovered groups, voluntary savings are often not feasible given their low income and lack of access to financial services. Some countries have, however, taken steps to include the workers in these sectors in the pension systems. For example, Morocco has recently extended the public pension scheme to self-employed workers and workers with low and irregular earnings.

Assessing the impact of pensions on poverty and inequality is challenging. Pensions allow individuals to defer current income to future selves; treating public pensions as purely government transfers will inflate their impact on poverty and inequality.[31] Enrolling in a public pension system entails often deferring a portion of current working-age income to a future, retired self. Therefore, even were there no public pension scheme, today's pension system income recipients would likely have used other savings vehicles to defer working-age incomes to a future, non-working self.[32] Assuming instead that today's pension system incomes are entirely a *transfer* from the government (and not deferred income) would then overstate the impact of that transfer on income poverty or inequality (see Chapter 2, Lustig et al. (2018) or Grushka (2019)). Using a set of 19 developing countries, Lustig et al. (2018) show that if pensions are accounted for as government transfers, the *average* impact of fiscal policy would be a reduction of the poverty headcount ratio by 47.4 percent; while if instead pensions are treated as deferred income, the reduction would be only 26.2 percent.[33] The reduction in inequality (for a set of 45 developing countries), meanwhile, is 8.9 percentage points on average when pensions are accounted for as government transfers and 6.9 percentage points when pensions are accounted for as deferred income (Lustig et al., 2018). This large difference is mainly explained by the fact that considering pension incomes as a government transfer leads to the creation of many "false poor" at prefiscal income; and thereby leads to an overestimation of the impact of fiscal poverty on reduction of poverty and inequality.[34] The reality most likely lies somewhere between these two extremes. Countries often have a hybrid pension system where the contributory pension system is in deficit and part of pensions are tax-funded out of general revenue. In this case, it is more accurate to assume that a portion of pensions is deferred income and a portion is a government transfer.[35]

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[31] This will be true system for any pension system and regardless of whether the system in question is "actuarially fair" or not.

[32] Such individuals would also have had access to appropriate and efficient old-age savings vehicles during their productive years as well.

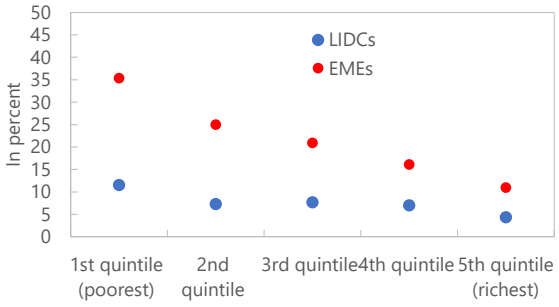
[33] When poverty is estimated at the $PPP (2011) 1.90 per person per day line and over the postfiscal income concept Consumable Income, which includes indirect tax burdens and indirect subsidy benefits.

[34] "False poor" individuals are those who have zero or near-zero incomes without public pension system incomes; but who would have generated income for their pension-age selves (ie, deferred income) using, for example, private pension or voluntary savings vehicles, if the public pension system had not been available.

[35] For a more detailed analysis, see Lustig chapter 1, in Lustig et al. (2018).

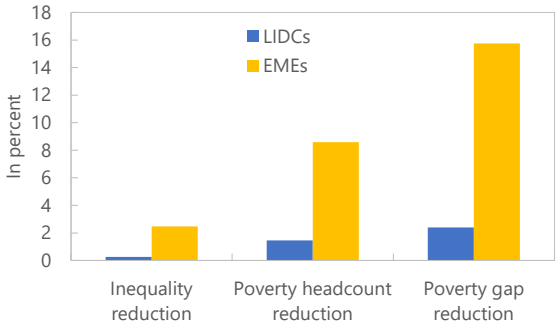
Many developing countries have introduced social pension schemes to address the low social insurance coverage of the elderly. Social pensions are non-contributory benefits that are tax-funded and target the old-age population. They can be universal or means-tested. They globally cover close to 35 percent of the old-age population. In several countries, social pension schemes are universal and constitute the main component of the pension system (e.g., Bolivia, Botswana, Thailand). They cover 50 percent of the poorest 40 percent of the population in LICs and 63 percent in emerging economies (Figure 4.4). They also tend to be progressive, representing a significant proportion of the welfare for elderly people in the poorest quintile (12 percent in LICs and 35 percent in emerging economies, Figure 4.11). Social pensions contribute to poverty reduction and inequality, albeit the outcomes are different across countries (Figure 4.12). For instance, in Bolivia, where a universal social pension exists, the pension benefit is well below the $2.5 a day poverty line, which makes only a small dent in the high elderly poverty rate (Dethier et al., 2010).

Figure 4.11. The Value of the Social Pension Transfer as a share of Beneficiaries' Post-transfer Welfare
(2016 or latest year available)



Source: Aspire database, World Bank.

Figure 4.12. Impact of Social Pensions on Inequality, Poverty Rate, and Poverty Gap
(2016 or latest year available)



Source: Aspire database, World Bank.

Policy options that can be considered to make pensions more equitable, while ensuring their sustainability, include:

- In countries where the pension system is relatively developed, monitor the trends in the pension benefits and ensure that parametric pension reforms don't translate into a substantial decline in pension benefits.[36] Mitigating measures should be considered to ensure that the reform doesn't increase the elderly poverty;
- Expand pension coverage in developing countries to workers in the informal sector and leverage it to facilitate their transition to the formal sector. For example, a number of countries in Latin America have extended coverage to the self-employed

[36] Pension reforms fall into two broad categories: parametric and structural. Parametric adjustments are the most common type of the pension reform and consist mainly of adjusting the retirement age, the contribution rates and bases, the benefit assessment periods, or the indexation rules. Structural reforms involve changing the relative importance of defined-benefit versus defined-contribution benefit assessment, funding versus pay-as-you-go (PAYG) financing, or private versus public management. Structural reforms introduce profound changes in the way risks are distributed across the government and individuals, and the manner in which the system's components are financed and governed and pay benefits (Clements et al., 2014).

population by a subsidy combined with a simplified tax and social security contribution mechanism (Ortiz, 2018);

- Ensure that the design of the pension scheme is appropriate, notably by setting the pension benefit at an adequate level that addresses the poverty risk without weakening incentives to work;
- Provide adequate support through other mechanisms for old-age individuals whose health status prevents them from working or searching for jobs;
- In countries with no pension or low pension coverage, investigate options to introduce or expand non-contributory means-tested social pensions; and
- Enhance employment opportunities for the old-age population by promoting lifelong learning and upskilling. This will maintain skills and facilitate the adaptation to technological change (OECD, 2019).

1.3. Universal basic income

Challenges with existing forms of social protection have renewed interest in the universal basic income. Even in advanced economies with mature social protection systems, some groups are still not adequately covered (e.g., the long-term unemployed) by the social protection system, especially when jobs are not available. In developing countries, the development of social protection systems has focused on those at both ends of the income distribution, leaving the "middle," including those at risk of poverty and workers in the informal sector with little social protection (ILO, 2017).[37] Moreover, the global aging and the transformation of the nature and organization of work—towards more temporary and contractual jobs—have highlighted the limits of the traditional social provisions in ensuring high coverage and adequacy. In this context, universal basic income (UBI) programs are increasingly suggested (and piloted or tested) in both developing and advanced economies.

There is a robust debate regarding a UBI's potential benefits and costs. Proponents argue that a UBI provides income security and guarantees a minimum standard of living in the face of job *precarization* and high unemployment.[38] UBIs require little administrative capacity and in particular they generate no administrative costs as eligibility determination is not needed. Coverage gaps in the existing social protection system would be eliminated. However, opponents underscore that covering everyone in society would entail large fiscal costs, crowd out productive spending, and cause unwarranted leakages to upper-income households. It will also weaken incentives to work and delink benefits from job search behaviors with adverse effects on the labor supply. Moreover, if UBIs replace unemployment benefits, for example, fiscal policy may become less counter-cyclical with fewer automatic stabilizers.

Simulations shed light on potential costs and benefits of UBI and identify winners and losers. For example, in a scenario of a budget-neutral substitution of an UBI to the current

[37] On the one hand, the introduction of contributory mechanisms (social insurance) tends to start with employees in the public and private sectors in the formal sector and on the other hand, there are non-contributory mechanisms in the form of social assistance to cover the needs of people living in extreme poverty.

[38] Job *precarization* refers to the rise of non-standard or temporary employment that may be poorly paid, insecure, unprotected, and unable to support a household.

social protection in OECD, the UBI represents only a fraction of the relative poverty line. Thus, it will have a limited and mixed impact on poverty as some individuals would be lifted out, but others may fall into poverty (OECD, 2017a). However, ensuring that an UBI is close to the poverty line will be very costly and requires significant tax increases and reductions in other benefits and tax exemptions. A UBI set at 25 percent of median per capita income would entail a fiscal cost of 6-7 percent of GDP in advanced economies—which is around the current cost of social protection—and 3-4 percent in developing countries (IMF, 2017a). For the latter, the impact on poverty would be substantial (10.4 points) given the low coverage and adequacy of existing social protection programs. UBI entails also distributional effects. Losers include early retirees and low-income households as the UBI would be lower than the pension or the benefit under the current system. But overall, it will lead to a reduction in inequality, with a magnitude depending on how it is financed.

The financing scheme matters. Financing UBIs through higher domestic revenues may lead to negative social outcomes. Lustig, Jellema, and Pabon (2019), for example, demonstrates in a sample of 9 countries in sub-Saharan Africa, that providing income floors by raising domestic taxes on individuals would imply such large increases in taxes that labor-market disincentives would arise which would then produce negative impacts on tax collection. [39] When fewer individuals are covered or the income floor is made less generous, such scenarios require fewer additional resources; even so, the imposition of more or higher taxes to fund these income floors often leads to negative incomes and extreme re-ranking – those at the top of the prefiscal income distributions end up with negative incomes after taxes and, thus, move from being the prefiscal richest to the postfiscal poorest.

The desirability of a UBI hinges on many factors, notably the comprehensiveness of the current social protection programs. Given the large fiscal costs associated with UBI alternatives, OECD (2017) suggests instead (i) a "partial" form of basic income, receipt of which is tied to mild eligibility conditions (e.g., a participation income proposed by Atkinson) or (ii) a gradual roll-out (e.g., only to new cohorts of young adults) of a full-fledged UBI. [40]

IMF (2017, 2020) provides a decision framework for assessing the relevance of a UBI based on (i) the current coverage of the poor and (ii) the current adequacy of benefits (Figure 4.13):

- **Countries with mature social protection systems.** (e.g., European, East Asia and Pacific, and Latin American countries). Expanding coverage by replacing the existing systems with a UBI would result in only a modest benefit for everyone and cause a large reduction in progressivity and losses in the size of benefits for many poor households and could even lead to higher poverty. The priorities should instead be reforming and strengthening the current system to enhance its coverage and targeting.
- **Countries that lack or have only a minimal transfer system.** (e.g., South Asian countries). UBIs could be an option for providing income support and scaling up coverage; however, the fiscal cost would be prohibitive. UBIs could theoretically be

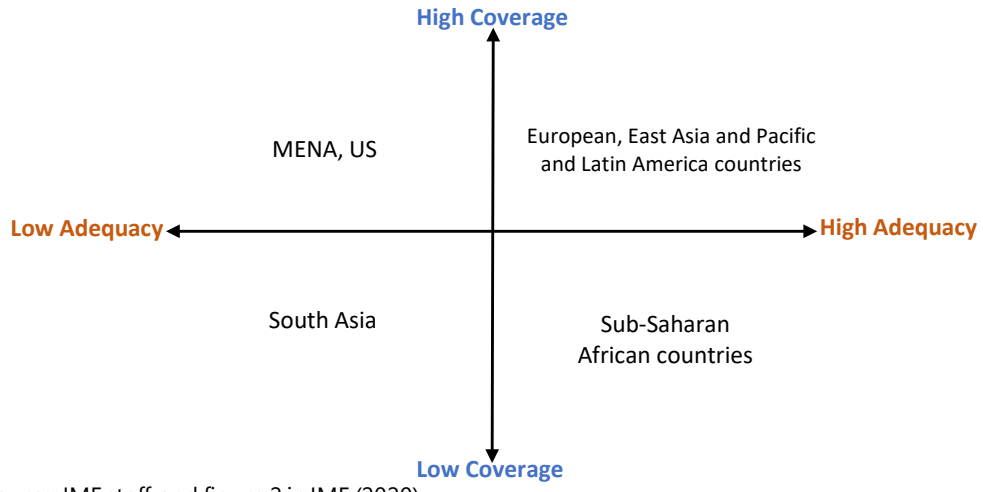
[39] The sample covers four low-income, three lower-middle-income, and two upper-middle-income countries in sub-Saharan Africa.

[40] Atkinson (1996) proposed that a basic income would be paid conditional on a social contribution. This could include engaging in education, training, caring for the young, elderly or disabled dependents or undertaking forms of voluntary work.

financed through progressive taxation and other fiscal reforms (such as the elimination of energy subsidies in oil-exporting economies) without generating large costs to efficiency. An alternative would be to limit the basic income benefit to the poor and vulnerable. Given the low capacity to means-test and that poverty tends to be high and localized in those countries, geographic targeting could be considered to reduce leakages and limit costs.[41]

- **Countries with shortcomings in their social protection systems.** Replacing these systems with a UBI would expand coverage to all households at the cost of lowering progressivity and reducing benefits for the average beneficiary under the current system. In other words, adopting a UBI entails a trade-off between coverage and progressivity, which is more relevant when the current system is characterized by low coverage and relatively good progressivity. This points to the need to weigh the option of introducing a UBI against the capacity to expand coverage under the existing progressive transfer system.

Figure 4.13. A Decision Framework to Assess the Desirability of the Universal Basic Income



Source: IMF staff. and figure 2 in IMF (2020)
Note: Adequacy and coverage refer to existing social assistance benefit systems. Adequacy reflects the ratio of benefit amount to bottom quintile welfare (as proxied by total expenditure in household survey); coverage reflects the ratio of beneficiaries over the bottom quintile population. SSA: Sub-Saharan Africa

2. Human capital

Equal access to affordable education and healthcare should be the focus of public policies; achieving equal access will ensure economic growth is as inclusive as possible. Education and health are key determinant of an individual's ability to earn a decent living. The potential impact on current market income inequality of these services can be substantial; however, equally important effects materialize later through higher social

[41] Within a geographic targeting scheme, the location determines eligibility to benefits. Poverty maps are often used to focus the social program on only some areas of the country. However, geographic targeting tends to be less accurate in urban areas, as it may miss pockets of poverty in upper-income residential areas (see IMF, 2019b for a discussion of alternatives targeting mechanisms).

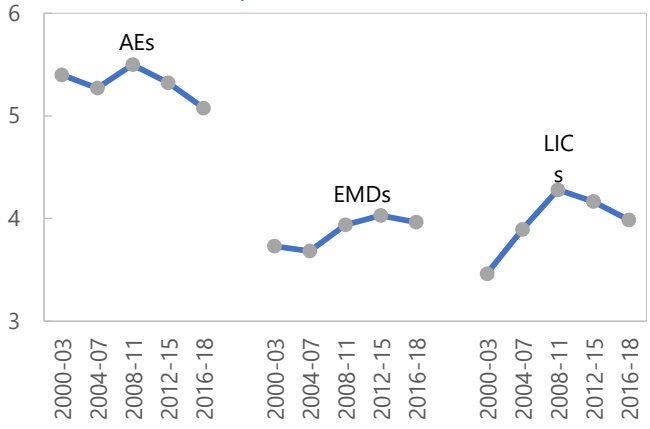
mobility, reducing the need for government ex-post redistribution in the future through taxes and transfers.

2.1. Education

More high quality education can increase individual as well as economy-wide productivity, boost growth in incomes, and reduce inequality. An efficient and inclusive education shapes an individual's life chances and ensures the development of skills relevant to local and international labor markets. Education-based investments in human capital It improve productivity and long-term growth. Educational systems that give all children equal opportunities are generally associated with improved employment prospects and higher average earnings. This translates to greater intergenerational social mobility and reduced income inequality in the future. For example, an increase in the share of workers with upper secondary education was found to be associated with a decline in labor income inequality (Fournier and Koske, 2012). Education also enhances entrepreneurship and fosters social cohesion as it tends to be positively associated with well-being and social outcomes, such as health status and willingness to participate and become socially active.

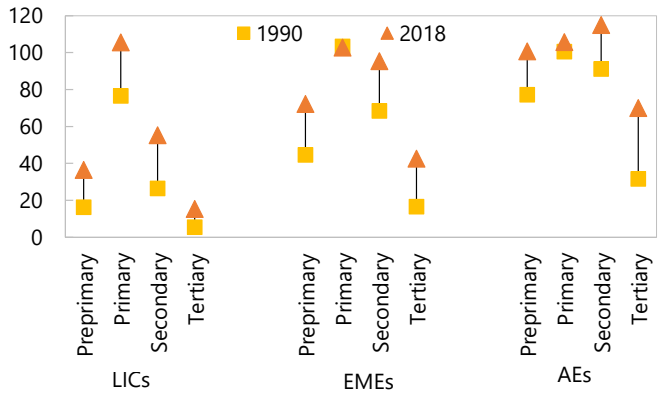
Public spending on education has been substantial across the world, but with mixed outcomes. Advanced economies allocated 5 percent of GDP to the education sector 2016-18, during a slight decrease compared to 2000-03. Education spending increased from 3.7 percent to 4 percent of GDP among emerging economies over the same period. It peaked to 4.3 percent for LICs in 2008-11 before slightly receding to 4 percent (Figure 4.14). Disparities in education outcomes are more pronounced. Advanced economies achieved full enrollment in primary and secondary levels long ago while enrollment rates in pre-primary and tertiary are high (83 percent and 75 percent, respectively). Emerging economies and LICs have made significant progress with the generalization of primary education and a substantial increase in the secondary enrollment rates. However, there are still significant gaps in pre-primary and tertiary education as well as, in the case of LICs, in secondary education (Figure 4.15).

Figure 4.14. Education Spending
(percent of GDP)



Sources: IMF, World Bank, National authorities Database.

Figure 4.15. School Enrollment by level
(percent gross)



Source: World Bank.

Public education expenditures reduce inequality (as measured by the Gini coefficient) by 2 percentage points among advanced and developing countries (Figure 3.4); but there are important differences across levels of education. [42] Evidence from the analysis of set of 31 developing countries shows that pre-primary, primary and lower-secondary education spending tend to be progressive and pro-poor; upper secondary tends to be equalizing but not pro-poor; and tertiary is just as often unequalizing as it is equalizing (and not pro-poor) (table 2). While primary education is generally available in every local community, secondary and especially tertiary education may require travelling or moving to larger urban areas, making attendance more difficult for children from disadvantaged households. Naturally upper secondary and tertiary education are available only later in a student's life, when their productivity in the workplace has also risen; i.e. for a household the opportunity cost of upper-secondary and tertiary schooling is much higher than for lower levels. This can compound inequality in both education and opportunities later in life as it is more often females who are tasked with household duties (e.g., collecting clean water in areas without connections to water supply) when education is not locally available at low cost and the opportunity costs (in terms of foregone labor supply from potential students) are high.

[42] A comprehensive meta-regression analysis by Abdullah et al. (2013), that draws on 885 estimates, provides a strong evidence of the beneficial impact of education on inequality as educations reduces the income share of top earners and increases the share of the bottom earners. The education was found particularly effective in reducing inequality in Africa.

Table 2. Progressivity of Public Spending on Education (by level) and Health (pensions as deferred income)

A = Pro-poor, equalizing (spending declines w/ income);

B = Neutral absolutely and equalizing (spending is uniform across incomes)

C = Equalizing, not pro-poor (spending as share of own income declines w/ income)

D = Unequalizing (spending as share of own income rises w/ income)

	Total Education	Pre-school	Primary	Secondary	Lower secondary	Upper secondary	Tertiary	Health
Argentina (2012)	A						C	A
Armenia (2011)	A	B	A		A	B	C	B
Bolivia (2009)	B	A	A	A			C	B
Brazil (2009)	A	A	A	A			C	A
Chile (2013)	A	A	A	A			C	A
China (2014)	A	B	A		A	A	B	B
Colombia (2014)	A	A	A		A	A	C	C
Costa Rica (2010)		A	A	A			C	
Dominican Republic (2013)	A	A	A		A	A	C	A
Ecuador (2011)	A		A	A				A
El Salvador (2011)	A	A	A			B	D	C
Ethiopia (2010)	C		B	C			D	C
Ghana (2012)	C	A	A		A	C	D	B
Guatemala (2011)	B	A	A	B			D	C
Honduras (2011)	B	A	A	B			C	B
Indonesia (2012)	B		A		B	C	D	C
Iran (2011)	B		A	A			C	
Jordan (2010)	A	A	A	A			C	C
Mexico (2014)	A	A	A	A			C	C
Nicaragua (2009)	B	A	A	B			C	B
Panama (2016)	A	A	A	A			C	A
Paraguay (2014)	A	A	A	A			C	A
Peru (2011)	A	A	A	A			C	C
Russia (2010)	A	A		A			B	B
South Africa (2010)	B	A	A	A			C	A
Sri Lanka (2009)	B							B
Tanzania (2011)	C	A	A	C			D	C
Tunisia (2010)	B						C	B
Uganda (2012)	C		A	C			D	B
Uruguay (2009)	A	A	A		A	B	C	A
Venezuela (2013)	A	A	A	A			B	A

Source: see bibliographical reference by country at the end of this presentation.

Source: CEQ Institute calculations; see bibliographical reference by country at the end of this presentation.

Equity in learning outcomes and in the acquisition of skills and competencies desired by employers is also critical. The OECD's Program for International Student Assessment (PISA) indicators show significant disparities between developing and advanced economies in cognitive skills acquisition. These disparities are also exhibited within countries according to socio-economic background (OECD, 2018a): the average reading score of students from the most advantaged socio-economic background is 10 percent higher than those from the most disadvantaged background (Figure 4.16). In turn, countries with high inequality in learning outcomes tend to exhibit high income inequality (Figure 4.17). [43]

At the country level, rural-urban gaps in academic performance reflect notably inadequate infrastructure and lack of quality teachers (OECD, 2019). Given that transportation costs often represent a larger share of education spending in rural than in urban communities, the development of better road systems and public transportation in rural areas are likely to attract more access to quality education among rural communities (OECD, 2019). [44] There are also disparities between private and public schools with children that attend private schools performing significantly better in PISA assessments. Beyond the issue of the public-private school dualism that may undermine social cohesion, there is also a concern that families that send their kids to private schools may become less tax compliant (given that they don't use public education services). Also, lower quality of public schools compels parents in some countries to allocate a significant share of their budget to tutoring and support classes. For example, the out-of-pocket spending on education of the poorest 10 percent households with children at school in Egypt represented about 5 percent of their total spending, of which 40 percent was allocated to tutoring courses (CAPMAS, 2019).

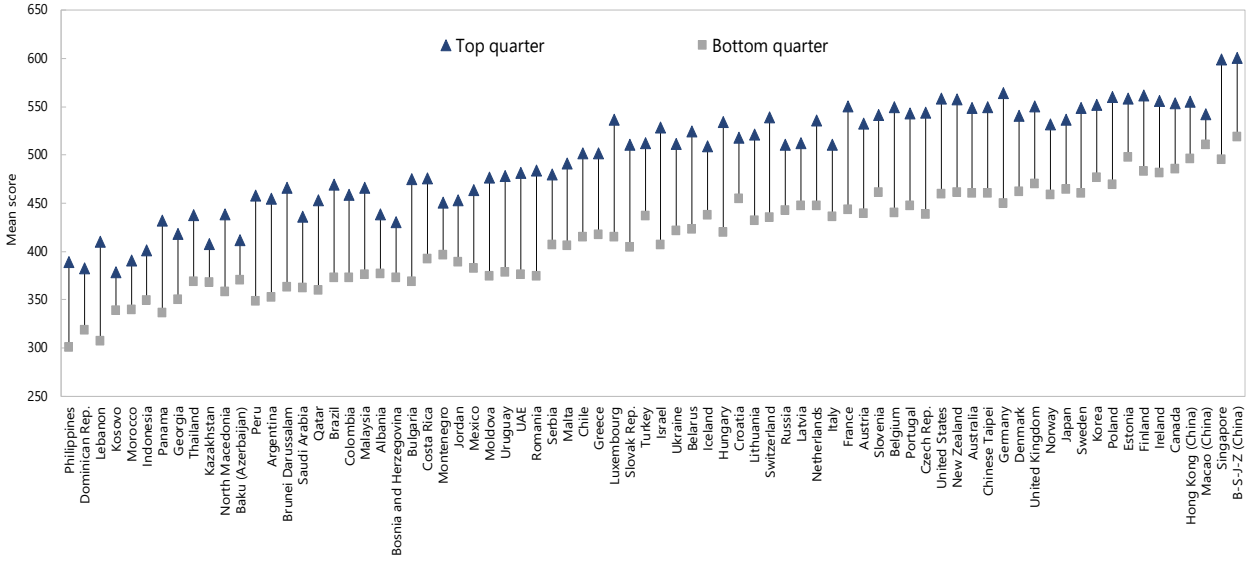
Enhancing equity in education and skills requires reforms in a broad range of policy areas, from pre-school to university, as well as school-to-work transition and training. Investing in early childhood education and care has been shown to yield some of the largest returns because a person can build on the acquired learning in later education stages, creating a virtuous cycle. Access to affordable childcare and pre-schools are thus strong instruments to ensure equity in compulsory education. Policies should focus on enhancing the access and the quality of education and ensuring the adaptability of the education system to changing demand for skills. Measures that can be considered include (OECD, 2019, IMF, 2017a):

- *Expand early childhood care and basic schooling for all.* Educational inequalities start early in life and disadvantages accumulate over the lifecycle. Increasing the currently low pre-primary enrolment should yield large positive returns over an individual's entire lifetime, particularly for the most disadvantaged (OECD, 2006). Moreover, providing affordable and high-quality childcare will encourage labor market participation of women;

[43] Inequality in learning outcomes is proxied by the ratio of the PISA reading scores of students with 25 percent most disadvantaged socio-economic background to the reading score of those in the top 25 percent most advantaged socio-economic background.

[44] For example, in Egypt, rural households with kids at school allocate 11.4 percent of their education spending to transportation against 8.9 percent for urban households (CAPMAS, 2019).

Figure 4.16. Mean Performance in Reading, by national quarter of socio-economic status



Source: OECD, PISA 2018 Database, Table II.B1.2.3

Figure 4.17. Inequality in Learning Outcomes and Income Inequality



Sources: OECD and SWIID.

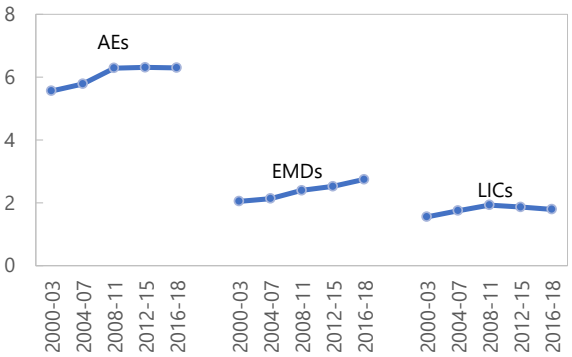
- *Promote more equal tertiary education.* Given its regressive nature, expanding tertiary education may widen inequalities. Introducing tuition fees while providing financial support for students with disadvantaged backgrounds (e.g., means-tested grants) can help achieve the right balance between growth and equity;
- *Develop vocational education and training.* Vocational pathways in secondary education, for example, can help youth, disaffected with academic education, stay engaged with education (Quintini and Manfredi, 2009). It could also play a considerable role in smoothing paths of transition from school to work, in particular when it is combined with work-based apprenticeships. Developing re-training opportunities will facilitate up-grading of skills, reduce the skill mismatch, and mitigate the impact of skills-biased technical change on wage inequality;
- *Upgrade the school infrastructure*, in particular in remote and poorer regions. This includes improving public transportation and access to internet;
- *Enhance R&D collaboration between universities and firms* can help to close the productivity gap between the least productive and most productive firms, as R&D collaboration facilitates technological diffusion by providing smaller firms with access to sources of knowledge. Initiatives to encourage R&D collaboration between universities and firms can thus make productivity more inclusive.

2.2. Health

Significant gains in healthcare service utilization and health status across the world are due in no small part to public spending on health. Globally, governments spend around 4 percent of GDP on the health sector. While health spending has been increasing everywhere since 2000, there are significant differences across countries: in 2016-18 it reached approximately 6.3 percent of GDP in advanced economies; less than half of that in emerging economies represents; and health spending in LICs was approximately 2 percent of GDP (Figure 4.18). Expenditure levels are correlated with health outcomes: healthcare service coverage tends to be universal in most advanced economies while large populations in emerging economies and LICs lack access to quality care. Across the world, life expectancy has risen steadily over time (and the mortality rate has fallen, notably among infants), but individuals born in developing countries today can still expect to live only 75 to 80 percent as long as their HIC counterparts (Figures 4.19 and 4.20).

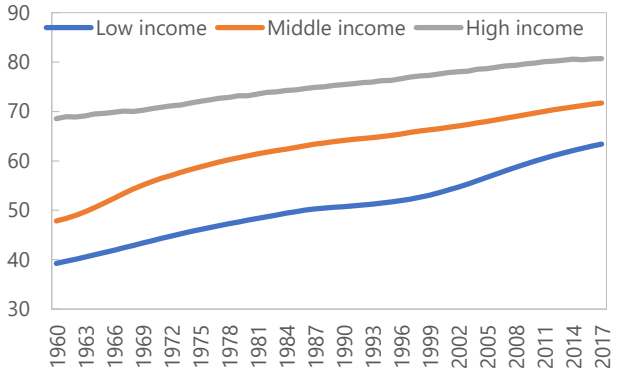
Gains in health have not been shared equally; gaps in coverage, utilization, and outcomes continue to be large across the world. The poor and less educated are more likely to be in worse health and die prematurely than those with better socioeconomic background. For example, a 25-year old man with the lowest level of education can expect to live at least four years less than a man with tertiary education (OECD, 2017b). More than half of all births in Africa cannot rely on the necessary level of medical attention, contributing to a still high maternal and child mortality. Significant inequities persist in access to health care. For example, in LICs, only one-third of women in the poorest quintile has access to maternal healthcare services against more than 80 percent of women in the richest quintile (Figure 4.21). There are also substantial rural-urban disparities as 56 percent of the global rural population lacks health coverage compared to 22 percent of the urban population (ILO, 2017) and maternal mortality in rural areas is 2.5 times higher than in urban areas.

Figure 4.18. Public Health Spending
(percent of GDP)



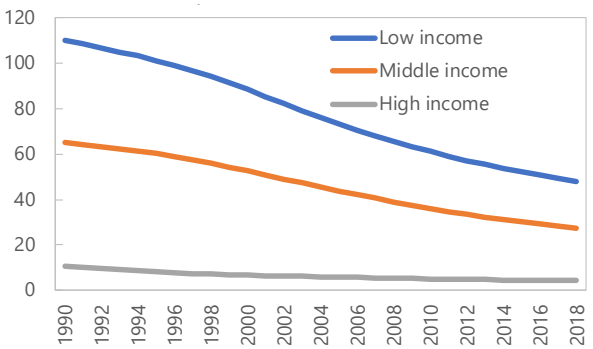
Sources: IMF. World Bank. National authorities Database.

Figure 4.19. Life Expectancy at Birth, total
(years)



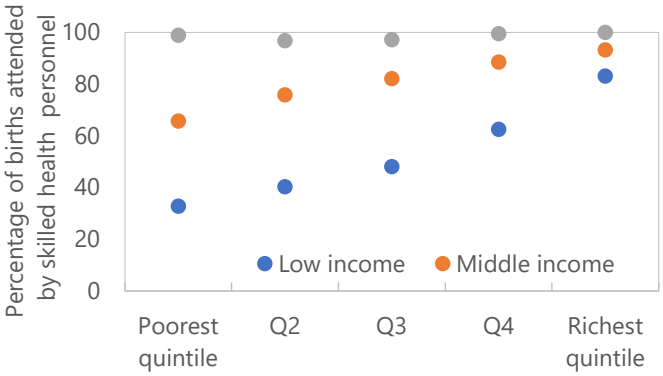
Source: World Bank.

Figure 4.20. Mortality Rate, infant
(per 1,000 live births)



Source: World Bank.

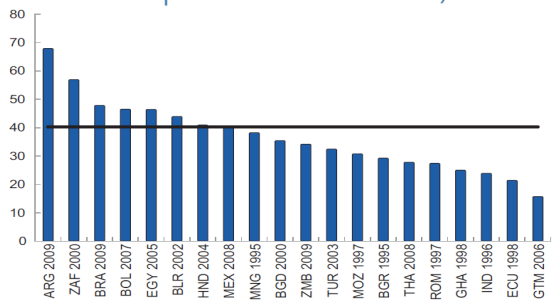
Figure 4.21. Access to Maternal Healthcare Services, by income quintiles
(2014 or latest year available)



Source: ILO calculations based on WHO Global Health Observatory.

Public spending on health tends to be progressive in advanced economies and regressive in developing countries. On average, health spending has been found to decrease the Gini coefficient by 3.2 percentage points in advanced economies. The redistributive effect of health spending in developing countries averages 1.5 points (Figure 3.3), or approximately half of the impact expected in advanced economies. In developing countries, health spending is typically equalizing but not always pro-poor (Figure 4.21 above). In some developing countries, the bottom 40 percent of the income distribution receives a-less-than-proportional share of total public health spending (Figure 4.22). This may reflect lack of a low-cost or free healthcare services on offer as well as an inadequate supply of healthcare services, materials, and healthcare service personnel in rural areas: the ILO estimates there is a shortfall of 7 million skilled health workers in rural areas, compared to 3 million in urban areas, and that the workforce shortage leads to the exclusion from access to health care of 84 percent of the total population in LICs. Also, out-of-pocket payments on health tend to represent a larger share of total health expenditure of rural households compared to urban households (Table 3). Hence, expanding access to public health services in rural areas will free up resources for other necessary spending.

Figure 4.22. Benefit Incidence for Health Spending
(percent of public spending accruing to the poorest 40 percent of households)



Sources: Davoodi, Tiongson, and Asawanuchit (2010); Lustig and others (2011); World Bank.

Table 3. Out-of-pocket Payments as a percentage of total Health Expenditure, selected countries, 2015

	Total	Urban	Rural
Chad	72.7	45.2	80.4
Niger	60.5	40.6	64.7
India	61.8	49.8	67.2
Pakistan	60.6	42.2	70.9

Source: Scheil-Adlunk, 2015; Table 5.1 in ILO (2017).

Public spending can help address coverage gaps and inequities in healthcare. Priorities should focus on expanding the health infrastructure in underserved areas, increasing the hiring of healthcare professionals and providing incentives to work in remote and disadvantaged areas. Policies that can be considered include:

- *Protect the poor and vulnerable (and other disadvantaged groups) from excessive cost-sharing.* In developing countries, only 12 percent of the poorest decile benefits from health fee waivers (World bank, 2018). Providing health fee waivers for disadvantaged households can foster equitable access to both preventative and curative care. In Canada and France, subsidies are provided for the poor to obtain complementary or supplementary private health insurance (OECD, 2017c);
- *Expand coverage for maternity cash benefits and maternity leave.* Income security contributes to the well-being of pregnant women, new mothers and their children. Countries that have a higher level of coverage for maternity cash benefits also tend to achieve better results with respect to maternal mortality ratios (ILO, 2017); and
- *Expand paid sickness leave benefit to all workers.* This is particularly crucial during the outbreak of infectious diseases as it can help prevent the spread of the disease and its build-up to epidemic proportions.

Healthcare spending policy needs to be coordinated with other public policies. Health outcomes reflect also socioeconomic factors such as income, employment status, and education. Poverty and low income, particularly when persistent, have clear detrimental effects on health (OECD, 2017c, O'Donnell et al., 2013). Measures could include:

- *Well-targeted in-kind or cash transfers with a nutritional component to the poor* are likely to contribute to improved health outcomes. For example, studies of the Supplemental Nutrition Assistance Program, which provides food vouchers to low-income families in the United States, found evidence of positive impacts on birth outcomes and child health (U.S. Executive Office of the President, 2015). Multidimensional programs that cover health, but also education and nutrition can be effective. For example, the cash transfer program "Prospera" in Mexico has proved successful to increase school attendance, fight malnutrition, and extend health coverage to poor families (OECD, 2017d);
- *Expanding school feeding programs* can help improve the health status and reduce the prevalence of stunting among children while improving their school attendance and education outcomes. Currently, only one-third of the kids from the poorest quintile benefits from a school feeding program, and there is room to improve targeting as about 22 percent of school feeding benefits leak out to kids from the richest 40 percent households (World Bank, 2018); and
- *Addressing poor housing conditions* (e.g., cold and damp, inadequate safety) and certain neighbourhood problems, such as the risk of crime or air pollution can have positive health effects (Bambra et al., 2010, Gibson et al., 2011).

3. Government effectiveness and budget institutions

3.1. Rationalization of the remuneration policy in the public sector

In a context of a declining labor income share, a large public sector wage bill may increase income inequality. The wage bill in the public sector tends to be among the largest components of the budget. In advanced economies public sector wages (as a share of GDP) have declined *somewhat* from 10.7 percent in 2000-03 to 10.3 percent in 2016-18, reflecting wage containment measures in the context of fiscal consolidation following the 2008 financial crisis. The wage bill increased by 0.5 percentage points in emerging economies, reaching about 9 percent of GDP in 2016-18. The increase was more substantial for LICs (1.5 points); however the wage bill in LICs - at 7 percent of GDP in 2016-18 – is still lower on average than for emerging or advanced economies. In many countries, the large size of the wage bill is not matched by the availability and quality of public services, in particular among LICs (Figure 1.10, and IMF, 2018). Moreover, given the secular decline in the share of labor income in the economy in most countries (ILO, 2019, IMF, 2017b), a stable or rising share of the public sector wage bill implies that the burden of rising income inequality was borne out by workers in the private sector.

Large wage gaps between public and private sector undermine inclusiveness. The average public sector wage premium—the amount by which public sector wages exceed those in the private sector after controlling for skills and education—is significant, reaching on average 5 percent for advanced economies and 13 percent for developing countries. This may be due to the fact that the remuneration policy in the public sector tends to be

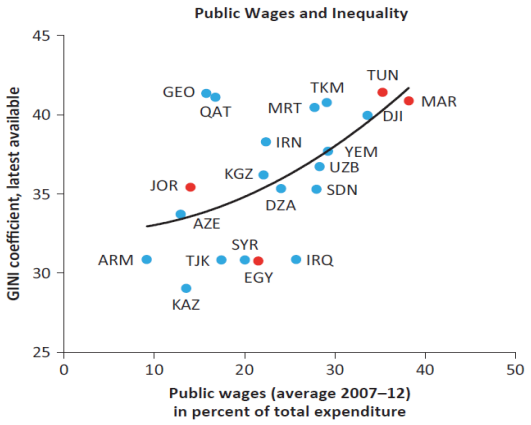
disconnected from productivity. Wage increases can be sometimes politically motivated to glean the political support of the civil servants, which often represent a large segment of the middle class. They can also be driven by social pressures and, where social protection systems are weak, by the need to cushion the impact of shocks on the population; that is "excess" civil servant labor employed or higher civil servant wages may be a partial substitute for social protection in these countries. The public sector in general tends to be highly unionized and the resulting collective bargaining power and proximity to public policy debates may give civil servants an outsized influence on public policy. All of this may exacerbate inequality and crowd out productive spending. It also makes the budget more rigid as wage increases implemented in good times are difficult to reverse in bad times. For example, in Mauritania, the government doubled the salaries of civil servants between 2004 and 2008 to mitigate the impact of the commodity price shock. In a context of centralized administration (about 50 percent of civil servants are located in the capital), this has worsened income inequality and spatial disparities (Zouhar, 2011). In the MENA region, countries with higher public wages tend to display higher inequality (Figure 4.23, and IMF, 2014). Large civil servant wage premiums tend to be associated with higher inequality (Figure 4.24). The disconnect between public compensation and productivity fragments labor markets, discourages accumulation of skills, and cultivates dependence and resistance to reforms. Furthermore, large wage premiums exacerbate perceived social inequities, especially where more equitable social transfers are small or absent (IMF, 2018). They also lead to higher reservation wages, causing longer unemployment spells. Similarly, high rates of public employment, which is often associated with substantial fiscal costs, have a large negative impact on private employment rates and do not reduce overall unemployment rates (Behar and Mok, 2013).

Containing the public wage bill is key to reducing expenditure rigidities and creating fiscal space for productive and social spending. Legitimate pressures for higher public sector wage bill stem mainly from the need to adjust for the inflation and the need for more hiring in the social sectors such as education and health, notably in developing countries.[45] However, the upward trend in the wage bill (as percentage of GDP) observed in the past has not always be matched by an improvement in the government effectiveness or social outcomes (see section I). Measures to maintain the public sector wage bill under the check could include: (i) avoiding using the public sector as an employer of last resort, (ii) prioritize and (ii) rationalizing compensation policy by tightening the link between pay and performance.[46]

[45] One should note that the adjustment of wages for inflation is not always warranted in the private sector, and other considerations may come into play such the degree of tightness in the labor market and the trends in the profitability. This may contribute to the wage gap between the public and private sector.

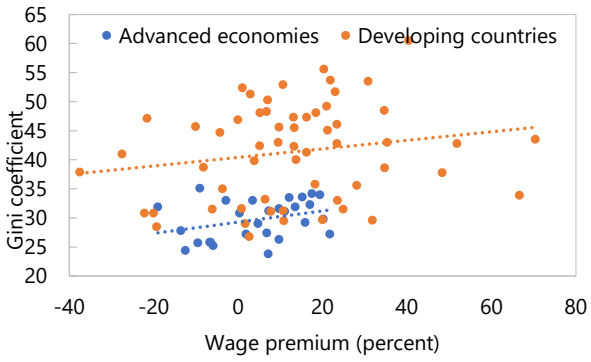
[46] See IMF (2016) for detailed recommendations on how to manage and contain the public sector wage bill.

Figure 4.23. Public Wages and Inequality, selected countries



Sources: Figure 2.7 in IMF 2014b, National authorities; World Bank World Development Indicators; and IMF staff calculations.

Figure 4.24. Wage Premium and Inequality



Sources: IMF Public-Private Sector Wage Premium Dataset, 2016; and World Bank.

3.2. Replacing generalized subsidies by targeted transfers

Subsidies are pervasive and costly. Many countries provide generalized price subsidies with the intention to shield consumers from large swings in commodity prices and to boost certain economic sectors. Universal subsidies can function as a form of social protection and can partially compensate for the lack of adequate social safety nets. As a matter of fact, in many countries, subsidies have been in place for a relatively long period of time and are perceived as a *de facto* entitlement. The cost of subsidies can be large. For example, post-tax energy subsidies were estimated globally at $5.2 trillion (6.5 percent of global GDP) in 2017 (Coady, 2019). The underpricing of water delivery resulted in global water subsidies measured at about 0.6 percent of global GDP, ranging between 0.5 percent to 2.4 percent of GDP across regions, with low-income economies being at the high end of this range (Andres, 2019, Kochhar, 2015).

Subsidies can be important for enhancing poor households' purchasing power, but larger shares of subsidy expenditures are captured by richer households who consume more. That is, subsidies are inefficient for reducing either poverty or inequality. Subsidies are neither well-targeted nor cost-effective as a social protection tool. Though they may reach the poor to some extent, those who consume more – ie, the better off – will always capture more of the subsidy benefits available. For example, for energy, IMF calculations for 32 developing countries found that 45 percent of subsidies accrue to the richest 20 percent of households against only 7 percent for the poorest 20 percent (Figure 4.25, Coady et al., 2015). The same pattern is observed for water as 56 percent of subsidies reach the wealthiest quintile of the population, while a mere 6 percent benefit the poorest quintile in a sample of 10 developing countries (Andres, 2019).

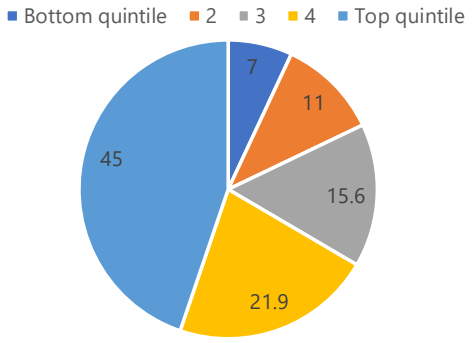
Subsidies—especially those on energy products—distort prices, encourage overconsumption and resource misallocation, and do not incentivize the adoption of newer technologies requiring non-subsidized inputs**.** Subsidies – by keeping the price of the subsidized good below its true or economic cost of production – encourage excessive consumption and production, which may accelerate the depletion of natural resources as well

as the production of harmful natural resource byproducts (such as carbon emissions). They also reduce the incentive for investment in efficiency and in other forms of cleaner energy. By encouraging wasteful use of energy, energy subsidies can also exacerbate the external vulnerability of countries to volatile international energy prices. In addition, energy overconsumption leads to adverse impacts on traffic congestion, health, and the environment, and to inefficient specialization of domestic production, often in less labor and high energy-intensive industries.

By distorting real comparative advantages, prolonging the viability of inefficient production, and by reducing the capacity of the government to provide other productivity-enhancing services, subsidies undermine longer-term growth. Although they can be used to provide short-term support to the productive sector, in the long run subsidies have a dampening effect on growth potential. For example, energy subsidies lead to under-investment in labor-intensive and energy-efficient sectors, which affects adversely the diversification of the economy. In Sub-Saharan Africa, electricity subsidization is associated with underinvestment in capital and maintenance of the electricity sector, causing frequent electricity shortages, which dampen the development of the industrial sector. Often, decisions about subsidies take place in an opaque manner (the so-called quasi-fiscal activities of SOEs such as utilities) hence escaping the standard budget preparation process necessary for enhancing allocative efficiency.[47] Subsidies also crowd out productive spending on human and physical capital. For example, water subsidies exceed total spending on public investment in some countries (Figure 4.26). Many countries allocate sizeable amounts to energy subsidies, that sometimes outpaces spending on education and health (Figures 4.27. and 4.28). A 2015 IMF study (Ebeke and Ngouana, 2015) found that a 1 percentage point increase in energy subsidies to GDP leads, on average, to a reduction of public spending in education and health by 0.6 percentage point of GDP. The crowding out effect tends to be larger in the presence of weak domestic institutions and narrow fiscal space.

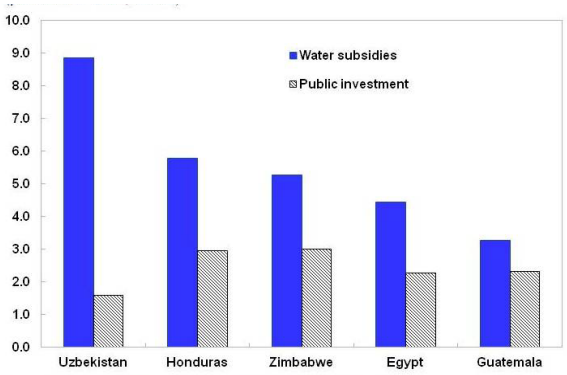
[47] Enhancing the transparency of the quasi-fiscal activities in the utilities sector and fully reflect them in the budget would be a first step towards an assessment by the budget central authority and budget decision makers of their magnitude as well as the merits of such policies as compared to other spending items.

Figure 4.25. Distribution of Energy Subsidies by quintile
(percent)



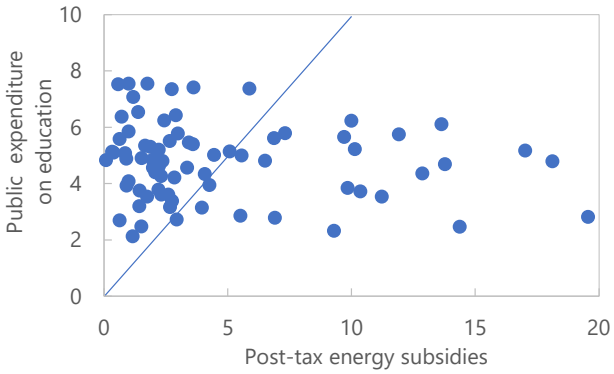
Source: Coady et al (2015).

Figure 4.26. Water Subsidies and Public Investment in Selected Countries
(percent of GDP, 2012)



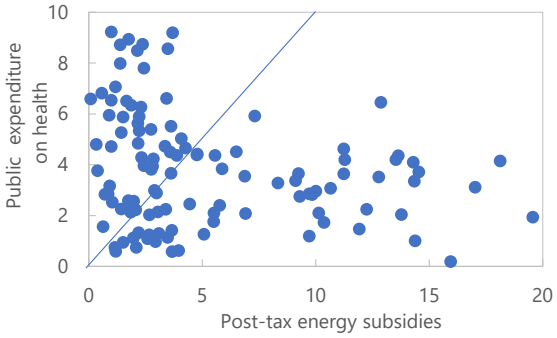
Sources: Chart 1 in Lipton (2016), IMF World Economic Outlook, and Staff calculations.

Figure 4.27. Public Education Spending vs Post-Tax Subsidies
(percent of GDP, 2017)



Sources: IMF and World Bank.

Figure 4.28. Public Health Spending vs Post-Tax Subsidies
(percent of GDP, 2017)



Sources: IMF and World Bank.

Nonetheless, current subsidies represent a sizeable share of the purchasing power of poor and vulnerable households, so subsidy reform should proceed cautiously. A 2015 IMF study simulated the impact of a $0.25 dollar liter increase in fuel prices on the real income of households in about 40 developing countries around the world and found that that on average a household in the poorest 40 percent of the population will witness a 5.4 percent reduction of its real income (Coady et al., 2015). Lustig et al. (2019) found in a sample of 11 countries in Africa that a budget-neutral transformation of current subsidy expenditure into targeted or universal cash transfers would actually create a net loss (relative to the status quo) for some poor and vulnerable households, indicating that subsidies captured often represent a greater share of income than do social transfers.

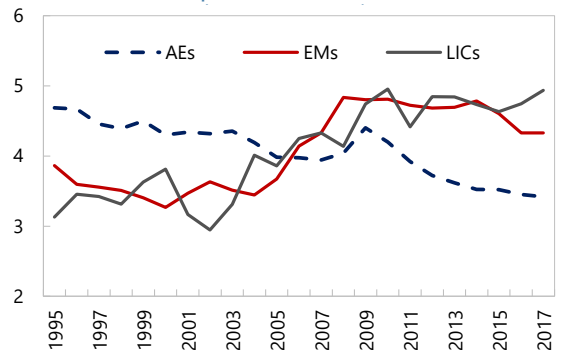
Introducing mitigating measures is a key component of any subsidy reform strategy. Governments need to preserve access of poor households to basic goods and services (e.g., energy) and protect their purchasing power from the direct and indirect effects of subsidy

reform. This is critical for building public support for subsidy reform and minimizing the risk that the reform is derailed after it is introduced. There is no single recipe for success in subsidy reform, and governments should tailor reform strategies to their individual country situations; however, there are a number of measures that can contribute to the success of subsidy reforms including: (i) thorough preparation, including careful planning of the pace and breadth of reform, with technical assistance from international stakeholders; (ii) strong commitment of the government to reform, which can be achieved by building pro-reform consensus, through communication and coalition building; (iii) introduction or scaling-up of effective social safety nets to mitigate the impact of subsidy reform on the vulnerable; and (iv) building consensus and the case for reform by reaching out and consulting with different stakeholders (Sdralevich et al., 2014).

3.3. Building inclusive infrastructure

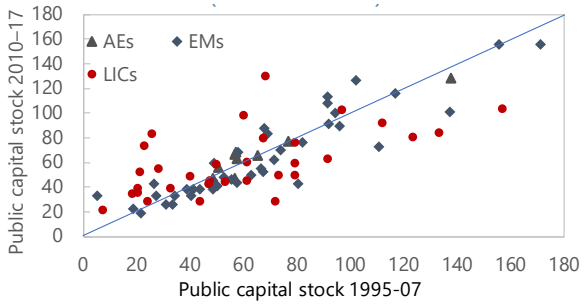
Despite its importance for economic and social development, public investment has been somewhat tepid. Public investment is by far the largest discretionary item in the budget, which allows governments to shape the budget towards achieving its social and economic priorities. Public investment (as a share of GDP) has receded over the last decade in advanced and emerging economies and showed some signs of a slowdown in LICs (Figure 4.29). As a result, the stock of public capital has declined in the majority of countries (Figure 4.30), contributing to the global economic slowdown as well as to stagnation in most measures of productivity.[48] Many countries are still well below the global median of the public investment's share of GDP of 56.[49] The erosion of fiscal space via persistent and rising debt service expenditure and the persistence of an anti-investment bias (investment spending, as a discretionary item, often bears the brunt of either planned or unplanned fiscal consolidation) have all contributed to low and perhaps declining levels of public investment.

Figure 4.29. Public Investment, 1995-2017
(percent of GDP)



Sources: IMF Investment and Capital Dataset and the World Bank.

Figure 4.30. Public Capital Stock
(percent of GDP)



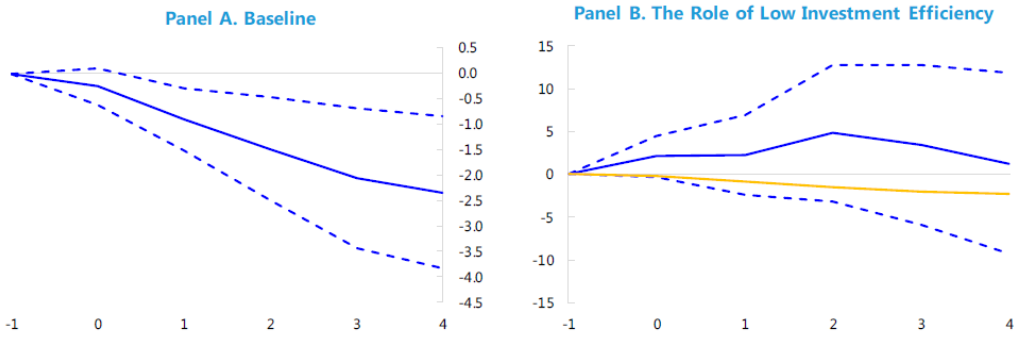
Source: IMF, Investment and Capital Dataset.
Note: Data labels use International Organization for Standardization (ISO) country codes. EMDEs = emerging market and developing economies.

[48] The stock of private sector capital has stagnated over the same period, based on the IMF Investment and Capital Stock Dataset.

[49] It is interesting to note that this median is about the same across advanced economies, emerging economies, and LICs.

Public investment affects inclusive growth through many channels. The effect of public investment materializes, first, in the short-term by boosting aggregate demand (through the short-term fiscal multiplier) during the implementation phase of projects. More importantly, public investment increases long-run growth by expanding the productive capacity of the economy, facilitating human capital accumulation, and enhancing returns on private investment as well as productivity gains. However, the magnitude of the supply-side effect depends largely on how efficient the investment is. Also, the growth gains tend to be lower at high levels of public capital stock (OECD, 2018b). The potential impact on inequality and poverty can be considerable. Public investment can facilitate human capital accumulation and acquisition of skills and increase the participation of the poor in the growth process. For example, infrastructure investment such as schools and hospitals in underserved areas can reduce inequities in access to education and health services. It can help improve the living standards of the population by generalizing access to water and sanitation. Expanding rural roads improves labor mobility and allows access to markets. Investment improves the overall productivity of the economy which can have a mixed effect on inequality depending on whether it leads to a divergence or not of intra-firm productivity. If the location of infrastructure projects is unduly influenced by political factors, this will widen regional disparities. Overall, public investment expansions are associated with lower inequality among LICs. An exogenous increase in public investment of 1 percent of GDP was found to reduce the Gini coefficient by about 0.3 percent one year after the increase and about 2.3 percent five years after the increase (Fabrizio et al., 2017). The beneficial impact vanishes, however, when investment efficiency is poor (Figure 4.31). For OECD countries, larger public investment could increase growth without significant impact on inequality (OECD, 2018b).

Figure 4.31. Impact of Public Investment on Inequality
(percent change in Gini coefficient for disposable income)



Source: IMF staff calculations.
Note: t=0 is the year of the reform. Solid blue lines denote the response to reforms, and dashed lines denote 90 percent confidence bands. Solid yellow lines denote the unconditional (baseline) response presented in Panel A. The measure of investment efficiency is from the World Economic Forum's *Global Competitiveness Report* and was also used in the April 2014 *Fiscal Monitor* and in the October 2014 *World Economic Outlook*. See Appendix 1 for details on reforms. The analysis using the Gini coefficient for market income provided similar results.

Source: Figure 12 in Fabrizio et al. (2017)

Public investment can play a central role to achieve inclusive growth. Preserving public investment and improving efficiency are key. The declining trend in public capital stock should be reversed to avoid adverse effects on long-term growth. This will require addressing

the anti-investment bias by nesting the planning and the execution of public projects in the context of a medium-term expenditure framework that is consistent with fiscal sustainability. This will help also minimize problems arising from excessive political discretion. Sound institutional processes, including better project appraisal and selection that identifies and targets infrastructure bottlenecks, and improved project execution should be in place to ensure productive and quality investment (IMF, 2015). Improving public investment management would help also contain the fiscal cost and mitigate the trade-off between growth and debt.[50] There is a need to scale up public investment on school and health infrastructure in order to expand access to education and healthcare services and address the social gaps. Investment strategies should cover areas that enable the largest possible number of poor people to engage in productive activities and access social services:

- **Transport**: The lack of adequate transportation system inhibits access of disadvantaged people to social services and labor markets. It is therefore crucial to improve the connectedness of the transportation network to social and public services. Expanding the road network especially in underserved areas will improve labor mobility and access to public services. It will also enhance production and trade. The distributional implications of transportation projects should be part of the evaluation of the projects. For example, a new road that connects a poor remote area to a big city, provides opportunities for the poor to increase their income (access to new markets, to basic services, lower production and transaction costs). By contrast, building a high-speed train between two major cities in a developing country that are already well connected might not be good for both growth and equity. Particular attention should be given also to introducing and improving school transportation in rural areas as it will increase school attendance and alleviate the out-pocket-payments for rural households.
- **Water and sanitation:** In developing countries, many households still don't have access to piped water. For example, in Africa and Asia-Pacific less than a third of the poorest urban households use a piped water source. Improving access to water and sanitation should be a priority. Clean water and sanitation improve hygiene, which prevents the spread of disease and improves the health status of the population. Moreover, it generates tangible externalities. Better access to water reduces, for example, the time spent by girls in collecting water and improves their school attendance in water-insecure communities. If for instance in India, water and sanitation were accessible to even 1 percent more girls in secondary school, the country's GDP would rise by more than $5 billion (UNGEI, 2011). Governments, especially in water stress countries, should also promote a sustainable tourism that avoids undue use of water. Finally, expanding access to sustainable irrigation can enhance both productivity and climate resilience, and raise farmers' income.[51]
- **Energy:** Access to reliable energy services is essential for the living standards of the population. Yet, in many developing countries, a large share of the population doesn't

[50] Improving investment management (to the 90th percentile of best performers in each income group) could halve the size of investment inefficiencies across countries (Baum, et al. 2020).

[51] Some public investment projects could create negative externalities, exacerbating poverty and inequality. For example, Duflo (2007) shows an increase in rural poverty in districts where a large-scale irrigation dam was built while poverty declined in downstream districts.

have access to electricity while energy subsidies benefit mostly upper-income households. Eliminating universal energy subsidies will free up resources for infrastructure investment and social spending. Governments should preserve and improve access to affordable energy services by providing targeted subsidies (e.g., lifeline tariff, LPG vouchers, micro-finance) to poor households.

- **Telecommunications:** The focus should be on improving and expanding an equal access to affordable internet in order to reduce the digital divide between rural and urban areas and between low- and upper income households. The COVID crisis has highlighted the implications of the current-day gaps in communications technology access in widening inequality of opportunities in terms of distance learning (U.N., 2020) and access to E-government services. Lustig et al. (2020) also shows that those with better communications-technology access are better able to absorb the extreme curtailment of social and economic activity associated with COVID containment. In good times, encouraging the use of technologies can also support income-generating activities. For example, the expansion of the mobile banking (M-Pesa) in Kenya has promoted the development of e-commerce activities and electronic cash systems in remote areas. Other examples include weather forecasting systems for poor fishermen and electronic price systems allowing poor farmers to compare commodity prices in different markets.
- **Research and development:** Increasing public spending on R&D would increase overall productivity. However, productivity gains should benefit all firms and sectors to avoid divergence of productivity between firms which may breed more wage dispersion and income inequality. Particular attention should be paid to facilitating technological diffusion by supporting the adoption by smaller firms of new technologies.

Public projects should promote local enterprise development and create employment opportunities for disadvantaged groups. Anecdotal evidence supports the notion that when public projects are allocated to foreign companies who excessively import all the supplies and bring their own labor, this undeniably limits the local economic multiplier of the public projects during the implementation phase. Governments should encourage local private sector provision and the involvement (within prudent contracting standards) of local industries for example, for catering, cleaning, and security services. There is also an opportunity for employment of the labor force from disadvantaged socioeconomic backgrounds. Consideration could be given to the promotion of small projects within the public work programs, which can provide social safety nets to the poor and unskilled workers and contribute to local development through investment in infrastructure (e.g., through road construction and maintenance, drainage projects, and public building maintenance). To make it more effective, a training component can be appended to these programs to improve beneficiaries' skills and enhance their job opportunities.

Closing inclusive infrastructure gaps entail a prohibitive financial cost. The additional total—private and public—spending required in 2030 to make substantial progress toward the sustainable development goals (SDGs) in five areas (education, health, roads, electricity, water and sanitation) is estimated at 4 and 15.4 percentage points of GDP for emerging economies and LICs, respectively (Gaspar et al., 2019). The cost varies widely across countries: the median for LICs is estimated at 7 percentage points of GDP and the maximum

at around 50 percentage points of GDP. Its magnitude is mainly determined by the size of the initial SDG gaps, the current government spending, demographics, and the investment costs.

Financing sustainably the public-investment-related SDGs would require a multi-front approach. The priority should be on (i) achieving a better tax mobilization given the lower levels in emerging economies and LICs and (ii) improving spending efficiency.[52] Developing the government bond market would reduce excessive reliance on external debt while fostering the deepening of domestic financial markets. Given the limited room for debt financing, there is also a room for greater role of the private sector. For example, the private sector plays in many countries a critical role in delivering health services to the vulnerable segments of the population (IFC, 2012). Improving the business climate and streamlining the regulations would encourage more private investment in the socio-economic sectors.[53] Well-designed public-private partnerships laws can catalyze additional private financing without excessive fiscal risks.

3.4. Role of budget institutions

Weak budgetary institutions hamper economic development and limit equal opportunity. Decisions about public spending and redistribution are ultimately determined through a political process (Musgrave, 1959). Weak public institutions will more likely lead to a failure to incentivize government and government officials to allocate resources towards achieving *inclusive* growth. There is no shortage of anecdotal evidence of how the politically connected capture the policy process to acquire rents and tilt the policies and rules in their favor.[54] The formulation and the implementation of fiscal policy are besieged with many challenges of political economy, such as the common pool problem and political myopia. This can be particularly acute during the election cycles, with adverse effects on fiscal sustainability. For example, Ebeke and Ölçer (2013) found in the case of LICs that government consumption tends to significantly increase during elections years. The ensuing higher fiscal deficits impose harsh adjustment during the two years following elections in the form of higher taxes and capital spending cuts.

By contrast, good budget institutions reduce political discretion and contain the spending bias. They are also conducive of more efficiency and reinforce the counter-cyclical feature of public spending, reflecting prudent policies during good times that allow to build fiscal buffers for the bad times. This will help limit the severity of recessions and their impact on the population and speed up recoveries. A 2014 IMF analysis of policy responses to the 2009 global crisis found that strong budget institutions are associated with more timely fiscal policy response (Figure 4.32), reflecting notably the ability of governments to quickly identify and understand the economic challenges. Another key finding is that countries with weak budget institutions fail to protect public investment during fiscal consolidation episodes (Figure 4.32). Moreover, strong institutions lead to more stable and predictable investment flows (IMF, 2015).

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[52] The median of the tax revenue to GDP ratio is 15 percent and 18 percent among LICs and emerging economies, respectively (against 26 percent for advanced economies) (Gaspar, 2019).

[53] An example of such regulation is the prohibition of investors from outside the health professions to invest in health care in Morocco.

[54] See for example Rijikers et al. (2014) for the case of Tunisia during the Era of President Ben Ali.

Figure 4.32. Timeliness of Consolidation Plans*
(months b/w crisis & plan announcement)
institutional scores: planning



Sources: IMF, 2014. * Months since January 2009.

Figure 4.33. Protection and Capital Expenditure
(change in capital expenditure as a share of total expenditure, 2010-2012)



Sources: IMF, 2014.

Strengthening public financial management can reduce rent-seeking, improve efficiency of public spending and lead to more inclusion. Improvements in the public financial management (proxied by PEFA scores) are associated with lower inequality in developing countries (Figure 4.34). For OECD countries, Fournier and Johnson (2016) found that greater government effectiveness may reduce inequality, as a result of better targeting of disadvantaged groups and more cost-efficient delivery of transfer programs. Strategies to enhance budgetary institutions need to focus on enhancing fiscal transparency, enforcing expenditure controls, strengthening accountability and audit, and improving governance of state-owned enterprises. Priorities could also include:

- **Enacting fiscal responsibility law:** This encompasses the agreed-on set of policies, processes, or arrangements intended to improve fiscal outcomes, discipline, transparency, and accountability by requiring governments to commit to fiscal policy objectives and strategies that can be monitored (van Eden, 2013). Adopting fiscal responsibility laws are beneficial in many ways. It smooths out fiscal policy over time by taking into account longer term considerations; as such a fiscally responsible government will not opt for policies which may be too expensive for future generations. Fiscal responsibility reinforces macroeconomic stability and growth as disciplined governments tend to implement sound fiscal policies and are in a better position to react to unexpected events. Governments can also better focus on designing efficiency spending and implementing strategic priorities as they spend less time to worry about to how make the ends meet (peace of mind).

- **Improving public procurement procedures**. Given the large funds involved, procurement is potentially vulnerable to fraud and corruption. It can also alter fair competition and equal opportunities to companies as it can be captured by politically connected firms. Promoting transparent bidding processes and competitive procurement should improve efficiency (value-for-money) and effectiveness.

- **Enhancing public sector employment frameworks**. These can be conducive to inefficiencies and governance issues. In many countries, paying bribes and political connections are the best way to get a job in the public sector. For example, between 60 percent and 90 percent of respondents to a Gallup survey conducted in 2013 in MENA

countries think that knowing people in high positions is critical to getting a job, reflecting a lack of transparency and competition in the hiring process (IMF, 2018). Fostering competitive hiring and merit-based civil service systems should minimize corruption and ensure equal opportunities in terms of hiring and promotion.

- **Operationalizing medium-term budgeting**. Understanding the future implications of current policy decisions on fiscal sustainability requires a multi-year budget framework. However, to be effective, multi-year budget frameworks need to be consistently articulated with the annual budget and well embedded in the decision-making process (not just an accounting exercise). By emphasizing a strategic perspective, medium-term budgeting allows to align inclusive growth objectives with resource allocation over time (OECD, 2011). It also helps enforce fiscal discipline and reduce the deficit bias. Moreover, a credible medium-term fiscal framework anchors investor confidence and preserve government access to financial markets during downturns, which helps curb procyclical pressures. Finally, longer horizons (more than 20 years) should be considered when analyzing fiscal challenges pertaining to aging-related health care costs and the sustainability of pensions. The transition from a line-item budgeting to program budgeting would increase accountability and reinforce the link between resources and outcomes. The budgeting framework can further be adapted and refined to increase focus and accountability on key socio-economics areas. For example, many countries have adopted gender budgeting in their efforts to promote gender equality (IMF, 2017c). Experiments to explicitly integrate the SDGs in the budget processes (SDG budgeting) are being considered.[55]

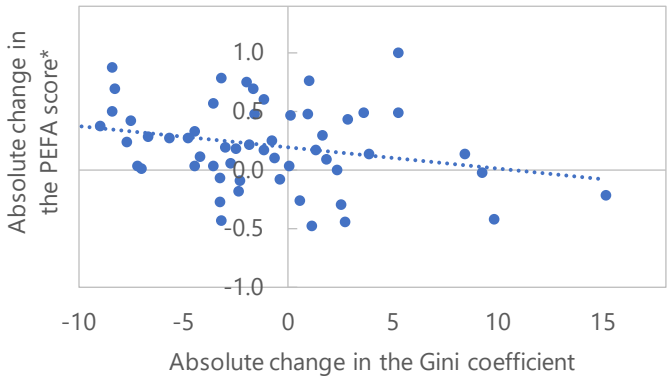
- **Involving citizens and NGOs in the budget process.** There is no shortage of anecdotal evidence on politicians using public spending for their own political gains for their own benefit, including by providing benefits to their favored groups. Giving citizens a say in the design and implementation of the budget can support inclusiveness by improving the quality of the service delivery and ensuring more accountability. For example, de Renzio and Wehner (2015) shows that greater citizen participation and budget openness can help tackle leakage and corruption and improve public resource allocation by ensuring that the selection of public programs takes into account the needs and preferences of the most disadvantaged. Conducting incidence analysis of fiscal policy options can better inform policy choices and the design of mitigating measures to protect the vulnerable and those adversely impacted by reforms. For example, Spain conducts impact assessments of policies and regulations on gender and regional distribution (OECD, 2011). Some countries, such as the United Kingdom and New Zealand, require distributional analysis, in which, at a minimum, appraisers quantify how project costs and benefits accrue to different socioeconomic groups (Taliercio and Estrada, 2020).

- **Expanding e-government services.** This will increase transparency and reduce opportunities for corruption. It will also enhance the cost-effectiveness of public services

[55] For example, a workshop held in Cotonou in January 2020 with the participation of 8 countries, recommend the following steps to ensure an integration of the SDGs in the budget: (1) Integrate the SDGs at all stages of the budget cycle, (2) Take into account the interlinkages and indivisibility of the SDGs, (3) Use all available information at an appropriate level of detail, and (4) Institutionalize the integration of the SDGs in countries' legal framework, business processes, and information systems (FMIS) (Gouzien, 2020).

and addresses unequal access across regions. For example, in Mauritania, more than two-thirds of poor households have "difficult access" to civil registry offices (against one-third for non-poor), imposing high costs on them and hampering their transition to formality.[56]

Figure 4.34. Inequality and Quality of Public Financial Management



Source: World Bank
*PEFA score refers the indicator of the public financial management.

CONCLUSION

Public expenditure is the most powerful instrument at hands of governments to achieve their objectives of economic development and social welfare. The central role of public expenditure has been further ascertained by the global COVID-19 pandemic crisis in view of the widespread and massive rolling out of spending measures to scale up health capacities, protect the population and support businesses. The main focus of this paper is to identify spending policies that can promote more inclusive growth.

Levels of public spending and its composition matter. Societal preferences with regard to the size and composition of social spending (and fiscal expenditures more generally) differ across countries. Notwithstanding this, social outcomes tend to be strongly correlated with the levels of social spending. In many countries, there is a need to scale up budget appropriations to social spending to make a dent on poverty and inequality. To this effect, fiscal space can be created through reductions in other expenditures such as generalized subsidies and containment of the wage bill. Strengthening public sector employment frameworks, through transparent hiring processes and linking wages to performance, can reduce inefficiencies and governance issues.

Public expenditure policy is shaped by country-specific circumstances such as the country's preferences with respect to the role of the government, the country's development level, its available fiscal space, and the government's ability to raise taxes. In advanced economies, where tax and debt burdens are already high, the focus should be on better targeting the benefits through means-testing and ensuring the sustainability of the

[56] Civil registry offices are remote (more than 5 km) and require more than one-hour travel time.

pension system. In developing countries, given the large gaps in public services and infrastructure, the priority should be on extending the coverage of social safety nets, and improving access to basic public services. Equal emphasis should be put on reducing nonproductive spending (such as universal subsidies) and improving tax mobilization to preserve fiscal sustainability.

Understanding the trade-offs and complementarities of fiscal measures with regard inclusiveness is key. Many areas of public spending offer possibilities to achieve both efficiency and equity. Examples of win-win measures include expanding equal access to education, promoting the access to maternal health services. Other measures, however, involve trade-offs that cannot be systematically avoided, and would require mitigating measures (e.g. subsidy reform). The right policy choices require assessing the incidence on different population groups, particularly the poor.

Education and health should be priorities. Providing equal access to these valuable services to all citizens regardless of socioeconomic status, geographic location, or any other characteristic can reduce current inequality as well as facilitate own investments in human capital upgrades to improve productivity and reduce inequality and poverty in future generations. Therefore, education spending should focus on shepherding children all the way to the endpoint of a basic primary-junior secondary-senior secondary program; and it should also provide low-cost finance for those who want to continue their studies after graduating from the basic education track. Healthcare service delivery should also prioritize providing equal access for all citizens to *all* relevant healthcare services regardless of location or socioeconomic standing; and should facilitate low-cost (or no-cost) access to all healthcare provider types.

Infrastructure should be more inclusive. Infrastructure is not a social expenditure per se, but infrastructure investment can, if planned and executed properly, make an impact on inequality today and make meaningful contributions to inclusive growth in the future. Acknowledging and remedying gaps in transport and physical connectivity options; in digital connectivity and communications; and in water and sanitation services and in the coverage of properly-priced energy sources; should be priority actions for governments who wish to reduce inequality and protect the poor and vulnerable populations while investing in growth-enhancing infrastructure. When infrastructure projects can be (at least partially) delivered by relying on local firms and local labor, the fiscal multiplier will be larger and longer-lived; this too will facilitate a broad distribution of the benefits from infrastructure expenditures.

The analysis of the effects of spending measures on inclusiveness needs to consider how they were financed. Public expenditures are made possible by the raising of taxes, borrowing, or a reallocation of resources. It is important to ensure that financing progressive public expenditures through additional revenue from regressive taxes still supports redistribution. More borrowing needs to be consistent with a sustainable fiscal policy as large fiscal deficits are a source of macroeconomic instability, which tends disproportionally affect to the poor.

The "right" package of spending measures should be cost-effective, consistent with fiscal sustainability and take into account country specific circumstances. The nature and number of constraints on truly inclusive growth differ from country to country. The appropriate mix of public spending measures will depend on (i) the starting point with regard

to the prevalence of poverty and the degree of inequality and the nature of their drivers, (ii) the initial coverage and adequacy of social protection system, and (iii) administrative quality and capacity. Countries with high poverty rates may prioritize decreasing poverty rather than inequality and costs (including the efficiency costs of taxation); countries with relatively low poverty and inequality might instead emphasize growth-enhancing fiscal measures to reverse low productivity trends and boost long-term growth and generate jobs.

Addressing the pro-cyclicality of public expenditure can reinforce the contribution of fiscal policy to more inclusive growth. Pro-cyclical spending has adverse effects on equity and growth by exacerbating macroeconomic instability and curtailing social and investment spending. Ill-judged efforts at fiscal adjustment may squeeze out productive public spending that is supportive of both growth and fiscal sustainability in the long term. Strengthening fiscal frameworks can help constrain spending (or resist pressures for tax cuts) in good times, which allow to build upon fiscal buffers during economic downturns. in particular, credible medium-term budget frameworks help stabilize investor sentiment and preserve access to financial markets during downturns. Finally, the use to cyclically adjusted fiscal balances to anchor fiscal policy may limit the procyclicality problem.

Strengthening the institutions and governance is necessary to improve the quality of spending and its efficiency. Some measures that can be considered cover the areas of public financial management, procurement, and fiscal transparency laws. It is also important to improve fiscal transparency and ensure a better involvement of the civil society throughout the different stages of the budget process. Equally important are the existence of independent audit institutions and anti-corruption agencies.

REFERENCES

Abdel-Kader, Khaled and Ruud De Mooji, 2020. Tax Policy and Inclusive Growth. IMF Working paper, WP/20/271.

Abdih, Yasser, Pablo Lopez-Murphy, Agustin Roitman, and Ratna Sahay, 2010. The Cyclicality of Fiscal Policy in the Middle East and Central Asia: Is the Current Crisis Different? IMF Working paper WP/10/68.

Abdullah, Abdul, Hristos Doucouliagos and Elizabeth Manning, 2013. Does Education Reduce Income Inequality? A Meta-Regression Analysis. Journal of Economic Surveys (2015) Vol. 29, No. 2, pp. 301–316.

Andres, Luis A., Michael Thibert, Camilo Lombana Cordoba, Alexander V. Danilenko, George Joseph, and Christian Borja-Vega, 2019. Doing More with Less Smarter Subsidies for Water Supply and Sanitation. World Bank.

Atkinson, A.B. (1996), The Case for a Participation Income. The Political Quarterly, 67: 67-70. doi:10.1111/j.1467-923X.1996.tb01568.x.

Bachas, Pierre, Lucie Gadenne, and Anders Jensen, 2020. Informality, Consumption Taxes and Redistribution. Policy Research Working Papers no. 9267. World Bank.

Baum, Anja, Tewodaj Mogues, and Genevieve Verdier. 2020. "Getting the Most from Public Investment." In *Well Spent - How Strong Infrastructure Governance Can End Waste in Public Investment*, edited by Gerd Schwartz, Manal Fouad, Torben Steen Hansen, and Genevieve Verdier. Washington, DC: International Monetary Fund.

Bourguignon, François, 2003. The Poverty-Growth-Inequality Triangle, Paper prepared for a Conference on Poverty, Inequality and Growth, Agence Française de Développement /EU Development Network, Paris, November 13, 2003.

Brahmbhatt, Milan, and Otaviano Canuto, 2011. "Fiscal Policy for Growth and Development" , in *Is Fiscal Policy the Answer? A Developing Country Perspective*, World Bank.

Caminada, K., K. Goudswaard, and C. Wang, 2012, "Disentangling Income Inequality and the Redistributive Effect of Taxes and Transfers in 20 LIS Countries Over Time," LIS Working

Paper Series No. 581 (Luxembourg: Luxembourg Income Study).

CAPMAS, 2019. Main Indicators of the Income and Expenditure Survey. CAPMAS, Egypt.

Causa , Orsetta and Mikkel Hermansen, 2017. Income Redistribution Through Taxes and Transfers Across OECD Countries, Economics Department Working Papers No. 1453, OECD.

Clements, Benedict J., David Coady, Stephania Fabrizio, Sanjeev Gupta, Trevor Alleyne, and Carlo Sdralevich, 2013, "Energy Subsidy Reform: Lessons and Implications," IMF Policy Paper (Washington: International Monetary Fund).

Clements, Benedict, Frank Eich, and Sanjeev Gupta, 2014. *Equitable and Sustainable Pensions: Challenges and Experience*. International Monetary Fund.

Clements, Benedict, Ruud de Mooij, Sanjeev Gupta, and Michael Keen, 2015. *Inequality and Fiscal Policy.* International Monetary Fund.

Coady, David, Maura Francese, and Baoping Shang, 2014. Finance & Development, December 2014. International Monetary Fund.

Coady, David, Ian Parry, Nghia-Piotr Le, and Baoping Shang, 2019. Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates.

Coady, David, Valentina Flamini, and Louis Sears, 2015. The Unequal Benefits of Fuel Subsidies Revisited: Evidence for Developing Countries. IMF Working Paper WP/15/250.

Cournède, Boris, Jean-Marc Fournier, and Peter Hoeller, 2018. Public finance structure and inclusive growth, OECD Economic Policy Paper No. 25.

de Renzio, Paolo, and Joachim Wehner. 2015. The Impacts of Fiscal Openness: A Review of the Evidence. Global Initiative for Fiscal Transparency and the International Budget Partnership.

Del Granado, Javier Arze, Sanjev Gupta, and Alejandro Hajdenberg, 2010. "Is Social Spending Procyclical?" IMF Working Paper WP/10/234.

Duflo, Esther and Rohini Pande, 2007. Dams. The Quarterly Journal of Economics, Volume 122, Issue 2, May 2007, Pages 601–646, https://doi.org/10.1162/qjec.122.2.601

Ebeke, Christian and Constant Lonkeng Ngouana, 2015. Energy Subsidies and Public Social Spending: Theory and Evidence. IMF Working paper WP/15/101.

Ebeke, Christian, and Dilan Ölçer, 2013. Fiscal Policy over the Election Cycle in Low-Income Countries. IMF Working paper WP/13/153.

Echazarra, lfonso, and Thomas Radinger, 2019. Learning in Rural Schools: Insights from PISA, TALIS and the Literature, OECD Education Working Paper No. 196.

Enami, Ali. 2018. "Measuring the Effectiveness of Taxes and Transfers in Fighting Inequality and Poverty," chap. 5 in *Commitment to Equity Handbook. Estimating the Impact of Fiscal Policy on Inequality and Poverty,* edited by Nora Lustig (Brookings Institution Press and CEQ Institute, Tulane University).

Essama-Nssah B., and Blanca Moreno-Dodson, 2011. "Fiscal Policy for Growth and Social Welfare", in *Is Fiscal Policy the Answer? A Developing Country Perspective*, World Bank.

Ezzarari, Abdeljaouad, 2018. Dépenses Publiques et dépenses des Ménages en Education. Les Brefs du Plan, Haut Commissariat au Plan, Rabat, Morocco.

Fabrizio, Stefania, Davide Furceri, Rodrigo Garcia-Verdu, Bin Grace Li, Sandra V. Lizarazo Ruiz, Marina Mendes Tavares, Futoshi Narita, and Adrian Peralta-Alva, 2017, "Macro-Structural Policies and Income Inequality in Low-Income Developing Countries," IMF Staff Discussion Note No. 17/01 (Washington: International Monetary Fund).

Fournier, J. and I. Koske (2012), "The Determinants of Earnings Inequality: Evidence from Quantile Regressions", OECD Journal: Economic Studies, Vol. 2012/1.

Fournier, Jean-Marc and Åsa Johansson, 2016. The Effect Of The Size And The Mix Of Public Spending On Growth And Inequality, OECD Economics Department Working Paper No. 1344

Frankel, Jeffrey A., Carlos A. Végh, and Guillermo Vuletin, 2011. "On Graduation from Fiscal Procyclicality", NBER Working Paper No. 17619.

Gaspar, Vitor, David Amaglobeli, Mercedes Garcia-Escribano, Delphine Prady, and Mauricio Soto, 2019. Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs. Staff Discussion Notes. SDN/19/03.

Gemmell, Norman, Florian Misch, and Blanca Moreno-Dodson, 2011. "Public Spending and Long-Run Growth in Practice: Concepts, Tools, and Evidence", in *Is Fiscal Policy the Answer? A Developing Country Perspective*, World Bank.

Gouzien, Quentin, 2020. Integrating the SDGs into the Budget: The Experience of African Countries. IMF blog

Grigoli, Francesco, and Eduardo Ley, 2012. Quality of Government and Living Standards: Adjusting for the Efficiency of Public Spending. IMF Working Paper WP/12/182.

Grosh, Margaret; del Ninno, Carlo; Tesliuc, Emil; Ouerghi, Azedine. 2008. For Protection and Promotion: The Design and Implementation of Effective Safety Nets. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/6582

Gupta, Sanjeev, and Sami Ylaoutinen, 2014. Budget Institutions in Low-Income Countries: Lessons from G-20. IMF Working Paper WP/14/164.

Handa, S., M. Park, R. Osei Darko, I. Osei-Akoto, B. Davis, and S. Daidone. 2013. "Livelihood Empowerment against Poverty Program: Impact Evaluation." Carolina Population Center, Heckman, J. J., and Mosso, S. 2014. The economics of human development and social mobility. Annu. Rev. Econ., 6(1): 689-733.

Higgins, Sean and Nora Lustig. 2016. "Can a Poverty-Reducing and Progressive Tax and Transfer System Hurt the Poor?" J*ournal of Development Economics.*

IFC, 2012. The Role of the Private Sector in Expanding Health Access to the Base of the Pyramid.

ILO, 2017b. *World Social Protection Report 2017–19.*

ILO, 2019. The Global Labour Income Share and Distribution.

IMF, 2014a. "*Budget Institutions In G-20 Countries: An Update"*.

IMF, 2014b. Toward New Horizons Arab Economic Transformation Amid Political Transitions. MCD Departmental Paper Series.

IMF, 2014c, "Public Expenditure Reform: Making Difficult Choices," April 2014 Fiscal Monitor (Washington: International Monetary Fund).

IMF, 2014e, "Fiscal Policy and Income Inequality," IMF Policy Paper.

IMF, 2015. *"Making Public Investment More Efficient"*.

IMF, *2016. "Managing Government Compensation and Employment—Institutions, Policies, and Reform Challenges".*

IMF, 2017a, "Tackling Inequality," October 2013 Fiscal Monitor.

IMF, 2017b. Understanding the Downward Trend in Labor Income Share, in World Economic Outlook, April 2017.

IMF, 2017c, Gender Budgeting in G7 Countries, IMF Policy Paper.

IMF, 2018. Public Wage Bills in the Middle East and Central Asia. MCD Departmental Paper Series.

IMF, 2019a. A Strategy for IMF Engagement on Social Spending. IMF Policy Paper.

IMF, 2019b. The Debate on Universal and Targeted Transfers in *A Strategy For IMF Engagement on Social Spending—Background Papers.* IMF Policy Paper

IMF, 2020a. Managing the Impact on Households: Assessing Universal Transfers (UT). Special Series on Fiscal Policies to Respond to COVID-19, International Monetary Fund.

IMF, 2020b. "Public investment for the recovery", October 2020 Fiscal Monitor

Kochhar, Kalpana, Catherine Pattillo, and an IMF Staff Team, 2015. Is the Glass Half Empty or Half Full? Issues in Managing Water Challenges and Policy Instruments. IMF Staff Discussion Note SDN/15/11.

Lindert, Peter H., 2017. The Rise and Future of Progressive Redistribution. CEQ Working Paper 73. CEQ Institute at Tulane University New Orleans.

Lindert, Peter H. 2021. Making Social Spending Work, Cambridge University Press.

Lipton, David, 2016. The Case for Reforming the Price of Water. IMF Blog: https://blogs.imf.org/2016/03/22/the-case-for-reforming-the-price-of-water/.

Lustig, Nora. 2000. Crises and the Poor: Socially Responsible Macroeconomics.

Lustig, Nora. 2015. The Redistributive Impact of Government Spending on Education and Health: Evidence from 13 Developing Countries in the Commitment to Equity Project,, in Sanjeev Gupta, Michael Keen, Benedict Clements and Ruud de Mooij (Eds.), Inequality and Fiscal Policy, Washington: International Monetary Fund. 2015.

Lustig, Nora (ed). 2018. Commitment to Equity Handbook – Estimating the Impact of Fiscal Policy on Inequality and Poverty. Brookings Institution Press and CEQ Institute at Tulane University New Orleans.

Lustig, Nora. 2020. Measuring the Distributional Impact of Taxation and Public Spending: the Practice of Fiscal Incidence Analysis, in *Oxford Research Encyclopedia of Economics and Finance*.

Lustig, Nora, Jon Jellema, and Valentina Martinez Pabon, 2019. "Leaving No One Behind: Can Tax-funded Transfer Programs Provide Income Floors in Sub-Saharan Africa?". CEQ Working Paper 85. CEQ Institute at Tulane University New Orleans.

Lustig, Nora, Valentina Martinez Pabon, Federico Sanz and Stephen D. Younger, 2020. The Impact of Covid-19 Lockdowns and Expanded Social Assistance on Inequality, Poverty and Mobility in Argentina, Brazil, Colombia and Mexico. CEQ Working Paper 92. CEQ Institute at Tulane University New Orleans.

Maura, Francese, and Delphine Prady, 2018. Universal Basic Income: Debate and Impact Assessment. IMF Working paper WP/18/273.

Musgrave, Richard, 1959. The Theory of Public Finance: A Study in Public Economy.

OECD, 2011. *Divided We Stand: Why Inequality Keeps Rising*, OECD.

OECD, 2017a. Basic Income as a Policy Option: can it add up?. OECD Policy Brief on the Future of Work.

OECD, 2017b. Bridging the Gap: Inclusive Growth 2017 Update Report.

OECD, 2017c. Update Report 2017 - Inclusive Growth. Meeting of the OECD Council at Ministerial Level Paris, 7-8 June 2017.

OECD, 2017d. OECD Economic Surveys: Mexico 2017.

OECD, 2018a. PISA 2018 Results.

OECD, 2018b. Public Finance Structure and Inclusive Growth. OECD Policy Paper. December 2018 No. 2.

OECD, 2012. Economic Policy Reforms - Going for Growth 2012.

OECD, 2015. Economic Policy Reforms - Going for Growth 2015.

OECD, 2017. Economic Policy Reforms - Going for Growth 2017.

OECD, 2018. Economic Policy Reforms - Going for Growth 2018.

OECD, 2019. Economic Policy Reforms - Going for Growth 2019.

Olden, Brian, Duncan Last, Sami Yläoutinen, Carla Sateriale, 2012. Fiscal Consolidation in Southeastern European Countries: The Role of Budget Institutions. IMF Working Paper WP/12/113.

Ortiz, Isabel, 2018. The Case for Universal Social Protection, in *Finance and Development*, December 2018. International Monetary Fund.

Paulus, A., M. Čok, F. Figari, P. Hegedüs, N. Kump, O. Lelkes, H. Levy, C. Lietz, S. Lüpsik, D. Mantovani,L. Morawski, H. Sutherland, P. Szivos, and A. Võrk, 2009, "The Effects of Taxes and Benefits on Income Distribution in the Enlarged EU," EUROMOD Working Paper EM8/09 (Essex: University of Essex).

Rijkers, Bob, Caroline Freund, and Antonio Nucifora. 2014. "All in the Family: State Capture in Tunisia." World Bank Policy Research Working Paper 6810.

Scheil-Adlung, X, 2015. Global Evidence on Inequities in Rural Health Protection: New data on rural deficits in health coverage for 174 countries, Extension of Social Security (ESS) Paper Series No. 47. ILO.

Schwartz, Gerd, Manal Fouad, Torben Steen Hansen, and Genevieve Verdier . *Well Spent - How Strong Infrastructure Governance Can End Waste in Public Investment,* Washington, DC: International Monetary Fund.

Sdralevich, Carlo, Randa Sab, Younes Zouhar, and Giorgia Albertin, 2014. Subsidy Reform in the Middle East and North Africa: Progress and Challenges Ahead. IMF

Shang, Baoping, 2014. Pension Reform and Equity: The Impact on Poverty of Reducing Pension Benefits. In *Equitable and Sustainable Pensions: Challenges and Experience*. International Monetary Fund.

Skoufias, E. 2003. Economic crises and natural disasters: Coping strategies and policy implications. *World development, 31*(7): 1087-1102.

Taliercio, Robert and Eduardo Andrés Estrada. Best Practices in Project Appraisal and Selection, 2020. "Getting the Most from Public Investment." In *Well Spent - How Strong Infrastructure Governance Can End Waste in Public Investment*, edited by Gerd Schwartz, Manal Fouad, Torben Steen Hansen, and Genevieve Verdier. Washington, DC: International Monetary Fund

UNDP, 2020. COVID-19 and Human Development: Assessing the Crisis, Envisioning the Recovery. 2020 Human Development Perspectives.

UNGEI, 2011. Making it Right - Ending the Crisis in Girls' Education.

United Nations, 2020. Policy Brief: Education during COVID-19 and beyond.

Van Eden, Holger, Pokar Khemani, And Richard P. Emery Jr.,2013. Developing Legal Frameworks to Promote Fiscal Responsibility: Design Matters in *Public Financial Management and Its Emerging Architecture*, 2013. IMF.

World Bank, 2018. *The State of Social Safety Nets 2018*.

World Health Organization, 2010. Health Systems Financing – The path to universal coverage.

Zouhar, Younes, 2012. Inclusive Growth in Mauritania, Islamic Republic of Mauritania: Selected Issues Paper. IMF Country Report No. 12/249.

Country-specific studies appearing in CEQ-sourced figures, charts, and tables:

Albania (2015)
Dávalos, Maria E., Gjika, Aida, Robayo-Abril, Monica, & Shehaj, Esmeralda. (2018, March). *The Distributional Impact of the Fiscal System in Albania.* (World Bank Policy Research Working Paper No. 8370).

Argentina (2012)
Rossignolo, Dario. (2018). Argentina: Taxes, Expenditures, Poverty, and Income Distribution. In Nora Lustig (Ed.), *Commitment to Equity Handbook. Estimating The Impact of Fiscal Policy on Inequality and Poverty* (pp. 516-553). Brookings Institution Press.

CEQ Master Workbook Source
Rossignolo, Dario. (2018, June 8). *CEQ Master Workbook: Argentina (2012-2013).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household survey citation
National Institute of Statistics and Census of the Republic of Argentina. Encuesta Nacional de los Hogares 2012-2013. Dataset downloaded from https://www.indec.gob.ar/bases-de-datos.asp?solapa=4

Armenia (2011)
Khachatryan, Artsyi, & Younger, Stephen D. (2017). Fiscal Incidence in Armenia. In Inchauste, Gabriela., & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 43-78). Directions in Development: World Bank.

CEQ Master Workbook Source
Bartsch, Ulrich, Gyulumyan, Gohar, Khachatryan, Artsvi, Sinha, Nistha, & Younger, Stephen D. (2019, June 8). *CEQ Master Workbook: Armenia (2011).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
National Statistical Service of the Republic of Armenia, World Bank. Armenia Integrated Living Conditions Survey (ILCS) 2011, Ref. ARM_2011_ILCS_v01_M. Dataset downloaded from http://microdata.worldbank.org/index.php/catalog/2960.

Burkina Faso (2014)
World Bank. (2018). *Burkina Faso: Incidence budgétaire, inégalités et pauvreté* (World Bank Report 135303).

Belarus (2015)
Bornukova, Kateryna, Chubrik, Alexander, & Shymanovich, Gleb. (2017, October). *Fiscal Incidence in Belarus: A Commitment to Equity Analysis* (World Bank Policy Research Working Paper No. 8216).

Bolivia (2009)
Jiménez Pozo, Wilson, Molina, George Gray, Paz Arauco, Verónica, & Yáñez Aguilar, Ernesto. (2013, July). Explaining Low Redistributive Impact in Bolivia. *Public Finance Review 42*(3), 326-345.

CEQ Master Workbook Source
Gray-Molina, George, Jimenez, Wilson, Paz Arauco, Veronica, & Yañez Aguilar, Ernesto. (2014,

September 22). *CEQ Master Workbook: Bolivia (2009).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics of the Plurinational State of Bolivia. Encuesta de Hogares 2009. Dataset downloaded from http://anda.ine.gob.bo/ANDA4_2/index.php/catalog/232/get_microdata

Brazil (2008)
Higgins, Sean & Pereira, Claudiney. (2013, September). The Effects of Brazil's High Taxation and Social Spending on the Distribution of Household Income *Public Finance Review 42(3), 346-367.*

CEQ Master Workbook Source
Cabrera, Maynor, Higgins, Sean, & Pereira, Claudiney. (2019, May 3). *CEQ Master Workbook: Brazil (2008-2009)*. CEQ Data Center on Fiscal Redistribution CEQ Institute, Tulane University.

Household Survey Citation
Brazilian Institute of Geography and Statistics. Pesquisa de Orçamentos Familiares 2008-2009. Dataset downloaded from https://ww2.ibge.gov.br/home/estatistica/populacao/condicaodevida/pof/2008_2009_encaa/microdados.shtm

Chile (2013)
Del Carmen, Giselle, Fuchs, Alan, Martínez-Aguilar, Sandra, & Ortiz-Juarez, Eduardo. (2018). Chile: the Impact of Fiscal Policy on Inequality and Poverty. In Nora Lustig (Ed.), *Commitment to Equity Handbook. Estimating the Impact of Fiscal Policy on Inequality and Poverty* (pp. 568-602). Brookings Institution Press.

CEQ Master Workbook Source
Martinez-Aguilar, Sandra & Ortiz-Juarez, Eduardo. (2016, October 7). *CEQ Master Workbook: Chile (2013)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Ministry of Social Development of Chile. Encuesta de Caracterización Socioeconómica Nacional 2013. Dataset downloaded from http://observatorio.ministeriodesarrollosocial.gob.cl/casen-multidimensional/casen/casen_2013.php

Colombia (2010)
Martinez, Valentina, & Melendez, Marcela. (2019, February 20). *CEQ Master Workbook: Colombia (2010).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and Inter-American Development Bank.

CEQ Master Workbook Source
Martinez, Valentina, & Melendez, Marcela. (2019, February 20). *CEQ Master Workbook: Colombia (2010).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and Inter-American Development Bank.

Household Survey Citation
National Administrative Department for Statistics of the Republic of Colombia. Encuesta Nacional de Calidad de Vida 2010. Dataset downloaded from http://microdatos.dane.gov.co/index.php/catalog/201/get_microdata

Colombia (2014)
Martinez, Valentina, & Melendez, Marcela. (2019, February 20). *CEQ Master Workbook: Colombia (2010)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and Inter-American Development Bank.

CEQ Master Workbook Source
Martinez, Valentina, & Melendez, Marcela (2019, February 28). *CEQ Master Workbook: Colombia (2014)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and Inter-American Development Bank.

Household Survey Citation
National Administrative Department for Statistics of the Republic of Colombia. Encuesta Nacional de Calidad de Vida 2014. Dataset downloaded from http://microdatos.dane.gov.co/index.php/catalog/342/get_microdata

Comoros (2010)
Belghith, Nadia Belhaj Hassine, Harivelo, Faniry Nantenaina Razafimanantsoa, Mahdi, Shireen, Sharma, Natasha, & Takamatsu, Shinya. (2017, April). *Comoros: Poverty Assessment*.

Costa Rica (2010)
Sauma, Pablo & Trejos, Juan Diego. (2014, March). *Social Public Spending, Taxes, Redistribution of Income, and Poverty in Costa Rica* (CEQ Institute Working Paper 18).

CEQ Master Workbook Source
Sauma, Pablo & Trejos, Juan Diego. (2014, February 14). *CEQ Master Workbook: Costa Rica (2010)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics and Census of Costa Rica. Encuesta Nacional de Hogares 2010. Dataset downloaded from http://sistemas.inec.cr/pad4/index.php/catalog/128

Croatia (2014)
Inchauste, Gabriela & Rubil, Ivica. (2017, September). *The Distributional Impact of Taxes and Social Spending in Croatia.* (World Bank Policy Research Working Paper No. 8203).

Dominican Republic (2006)
Aristy-Escuder, Jaime, Cabrera, Maynor, Moreno-Dodson, Blanca, & Sanchez-Martin, Miguel E. (2018). The Dominican Republic: Fiscal Policy, Income Redistribution, and Poverty Reduction. In Nora Lustig (Ed.), *Commitment to Equity Handbook. Estimating the Impact of Fiscal Policy on Inequality and Poverty* (pp. 603-666). Brookings Institution Press.

CEQ Master Workbook Source
Aristy-Escuder, Jaime. (2019, January 23). *CEQ Master Workbook: Dominican Republic (2006-2007)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Office of Statistics Encuesta Nacional de Ingresos y Gastos de los Hogares 2006-2007 [dataset]

Ecuador (2011)
Llerena Pinto, Freddy Paul, Llerena Pinto, María Andrea, Llerena Pinto, María Christina, & Saá Daza, Roberto Carlos. (2015, February). *Social Spending, Taxes and Income Redistribution in Ecuador* (CEQ Institute Working Paper 28).

CEQ Master Workbook Source
Llerena Pinto, Freddy Paul, Llerena Pinto, Maria Andrea, Llerena Pinto, Maria Christina, & Saa Daza, Roberto Carlos. (2017, January 5). *CEQ Master Workbook: Ecuador (2011-2012).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics and Census of the Republic of Ecuador. Encuesta Nacional de Ingresos y Gastos de los Hogares Urbanos y Rurales, 2011-2012. Dataset downloaded from http://www.ecuadorencifras.gob.ec//encuesta-nacional-de-ingresos-y-gastos-de-los-hogares-urbanos-y-rurales-bases-de-datos/

Egypt (2015)
Fayez, Rana, Ibarra, Gabriel Lara, Jellema, Jon, & Sinha, Nistha. (2019, April). *Impact of Fiscal Policy on Inequality and Poverty in the Arab Republic of Egypt* (World Bank Policy Research Working Paper No. 8824).

El Salvador (2011)
Beneke, Margarita, Lustig, Nora, & Oliva Cepeda, Jose Andres. (2018). El Salvador: The Impact of Taxes and Social Spending on Inequality and Poverty. In Nora Lustig (Ed.), *Commitment to Equity Handbook. Estimating The Impact of Fiscal Policy on Inequality and Poverty* (pp. 667-701). Brookings Institution Press.

CEQ Master Workbook Source
Oliva, Jose Andres. (2019, October 23). *CEQ Master Workbook: El Salvador (2011).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and Inter-American Development Bank.

Household Survey Citation
General Statistics and Census Department of the Ministry of Economy of El Salvador. Encuesta de Hogares de Propositos Multiples 2011. Dataset downloaded from http://digestyc.microdatahub.com/index.php/auth/login/?destination=catalog/14/get_microdata

Ethiopia (2010)
Hill, Ruth, Inchauste, Gabriela, Lustig, Nora, Tsehaye, Eyasu, & Woldehanna, Tassew. (2017). Fiscal Incidence Analysis for Ethiopia. In Inchauste, Gabriela., & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 79-112). Directions in Development: World Bank.

CEQ Master Workbook Source
Hill, Ruth, Tsehaye, Eyasu, & Woldehanna, Tassew. (2014, September 28). *CEQ Master Workbook: Ethiopia (2010-2011)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Central Statistical Agency of Ethiopia. Household Consumption Expenditure Survey 2010 -2011 and Welfare Monitoring Survey 2010-2011 [dataset]

Georgia (2013)
Bondarenko, Elena, & Cancho, Cesar. (2017). The Distributional Impact of Fiscal Policy in Georgia. In Inchauste, Gabriela, & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 113-148). Directions in Development: World Bank.

CEQ Master Workbook Source
Bondarenko, Elena & Cancho, Cesar. (2015, December 31). *CEQ Master Workbook: Georgia (2013).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
National Statistics Office of Georgia. Integrated Household Survey 2013 [dataset]

Ghana (2012)
Oppong, Felix, Osei-Assibey, & Younger, Stephen. (2017, January). Fiscal Incidence in Ghana. *Review of Development Economics, 21*(4).

CEQ Master Workbook Source
Oppong, Felix, Osei-Assibey, Eric, & Younger, Stephen. (2018, October 28). *CEQ Master Workbook: Ghana (2012-2013).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
Ghana Statistical Service (GSS), Ghana Living Standards Survey (GLSS6) 2012, version1.0. Dataset downloaded from http://catalog.ihsn.org/index.php/catalog/5350/get_microdata

Guinea (2012)
Batana, Yele Maweki, Hounsa, Mahunan Thierry, Konou, Akakpo Domefa, & Tien, Bienvenue. (2019, May). *Incidence of Fiscal Policies on Poverty and Inequality in Guinea.* World Bank.

Guatemala (2011)
Instituto Centroamericano de Estudios Fiscales (ICEFI). (2017, May). *Incidencia de la Politica Fiscal en la Desigualdad y la Pobreza en Guatemala* (CEQ Institute Working Paper 50).

CEQ Master Workbook Source
Cabrera, Maynor & Moran, Hilcias E. (2016, October 4). *CEQ Master Workbook: Guatemala (2011).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University, Instituto Centroamericano de Estudios Fiscales (ICEFI) and International Fund for Agricultural Development (IFAD).

Household Survey Citation
National Institute of Statistics of Guatemala. Encuesta Nacional de Condiciones de Vida 2011. Dataset downloaded from https://www.ine.gob.gt/index.php/encuestas-de-hogares-y-personas/condiciones-de-vida

Honduras (2011)
Instituto Centroamericano de Estudios Fiscales (ICEFI). (2017, April). *Incidencia de la Politica Fiscal en la Desigualdad y la Pobreza en Honduras* (CEQ Institute Working Paper 51).

CEQ Master Workbook Source
Castaneda, Ricardo & Espino, Ilya. (2015, July 27). *CEQ Master Workbook: Honduras (2011)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University, Instituto Centroamericano de Estudios Fiscales (ICEFI) and International Fund for Agricultural Development (IFAD).

Household Survey Citation
National Institute of Statistics of Honduras. Encuesta Permanente de Hogares de Propósitos Múltiples, Mayo 2011 [dataset]

Indonesia (2012)
Afkar, Rythia, Jellema, Jon, & Wai-Poi, Matthew. (2017). The Distributional Impact of Fiscal Policy in Indonesia. In Inchauste, Gabriela., & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 149-178). Directions in Development: World Bank.

CEQ Master Workbook Source
Afkar, Rythia, Jellema, Jon, & Wai-Poi, Matthew. (2015, August 5). *CEQ Master Workbook: Indonesia (2012).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Central Bureau of Statistics of Indonesia. Survei Sosial-Ekonomi Nasional 2012. Dataset downloaded from https://microdata.bps.go.id/mikrodata/index.php/catalog/87/study-description

Iran (2011)
Enami, Ali, Lustig, Nora, & Taqdiri, Alireza. (2017, September). *Fiscal Policy, Inequality and Poverty in Iran: Assessing the Impact and Effectiveness of Taxes and Transfers* (CEQ Institute Working Paper 48).

CEQ Master Workbook Source
Enami, Ali, Lustig, Nora, & Taqdiri, Alireza. (2017, May 5). *CEQ Master Workbook: Iran (2011-2012).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and Economic Research Forum.

Household Survey Citation
The Statistical Center of Iran . Iranian Urban and Rural Household Income and Expenditure Survey 2011-2012 [dataset]

Ivory Coast (2014)
Jellema, Jon and Caroline Tassot (forthcoming). Analyse de l'impact des politiques fiscales et de protection sociale sur les inégalités et la pauvreté au Côte d'Ivoire." OECD Development Policy Paper, OECD Publishing, Paris.

Jordan (2010)
Alam, Shamma, Inchauste, Gabriela, & Serajuddin, Umar. (2017). The Distributional Impact of Fiscal Policy in Jordan. In Inchauste, Gabriela., & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 179-198). Directions in Development: World Bank.

CEQ Master Workbook Source
Abdel-Halim, Morad, Alam, Shamma A., Mansur, Yusuf, Serajuddin, Umar, & Verme, Paolo. (2016, March 8). *CEQ Master Workbook: Jordan (2010-2011)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Economic Research Forum and the Department of Statistics of The Hashemite Kingdom of Jordan, Household Expenditure and Income Survey 2010/2011 (HEIS 2010/2011), Version 1.0 of the Licensed data files (March 2013), provided by the Economic Research Forum. http://www.erfdataportal.com/index.php/catalog

Kenya (2015)
Pape, Utz Johann, & Lange, Simon. (2018, May). *Fiscal Incidence Analysis for Kenya: Using the Kenya Integrated Household Budget Survey 2015/16.* World Bank.

Sri Lanka (2009)
Arunatilake, Nisha, Inchauste, Gabriela, & Lustig, Nora. (2017). The Incidence of Taxes and Spending in Sri Lanka. In Inchauste, Gabriela, & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 267-292). Directions in Development: World Bank.

CEQ Master Workbook Source
Abayasekara, Ashani, Arunatilake, Nisha, & Jayawardena, Priyanka. (2019, August 10). *CEQ Master Workbook: Sri Lanka (2009-2010)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Department of Census and Statistics, Sri Lanka. Household Income and Expenditure Survey 2009-2010 [dataset]. Ref. LKA_2009_HIES_v01_M. Dataset downloaded from http://www.statistics.gov.lk

Mexico (2010)
Scott, John. (2013, August). Redistributive Impact and Efficiency of Mexico's Fiscal System. *Public Finance Review 42*(3), 368-390.

CEQ Master Workbook Source
Scott, John. (2013, September 2). *CEQ Master Workbook: Mexico (2010)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics and Geography of Mexico. Encuesta Nacional de Ingresos y Gastos de los Hogares 2010. Dataset downloaded from http://www.beta.inegi.org.mx/programas/enigh/tradicional/2010/

Mexico (2012)
Aranda, Rodrigo, De La Rosa, Enrique, Martinez-Aguilar, Sandra, & Scott, John. (2019, June 15). *CEQ Master Workbook: Mexico (2012)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

CEQ Master Workbook Source
Aranda, Rodrigo, De La Rosa, Enrique, Martinez-Aguilar, Sandra, & Scott, John. (2019, June 15). *CEQ Master Workbook: Mexico (2012)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics and Geography of Mexico. Encuesta Nacional de Ingresos y Gastos de los Hogares 2012. Dataset downloaded from http://www.beta.inegi.org.mx/programas/enigh/nc/2012/default.html#Microdatos

Mexico (2014)
Aranda, Rodrigo, De La Rosa, Enrique, Martinez-Aguilar, Sandra, & Scott, John. (2019, June 15). *CEQ Master Workbook: Mexico (2014)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

CEQ Master Workbook Source
Aranda, Rodrigo, De La Rosa, Enrique, Martinez-Aguilar, Sandra, & Scott, John. (2019, June 15). *CEQ Master Workbook: Mexico (2014)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics and Geography of Mexico. Encuesta Nacional de Ingresos y Gastos de los Hogares 2014. Dataset downloaded from http://www.beta.inegi.org.mx/programas/enigh/nc/2014/default.html#Microdatos

Mali (2014)
Coulibaly, Mohamed, Hounsa, Thierry, & Sanoh, Aly. (2019, June). *The Redistributive Effects of Fiscal Policy in Mali and Niger* (World Bank Poverty & Equity Global Practice Working Paper No. 208).

Mongolia (2016)
Freije-Rodriguez, Samuel, & Yang, Judy. (2018, November). *Mongolia: Distributional Impact of Taxes and Transfers.* (World Bank Working Paper No. 131852).

Namibia (2009)
Jellema, Jon, Schuler, Philip M., Sulla, Victor, & Zikhali, Precious. (2017, June). *Does Fiscal Policy Benefit the Poor and Reduce Inequality in Namibia? The Distributional Impact of Fiscal Policy in Namibia* (World Bank Working Paper No. 116029).

Niger (2014)
Coulibaly, Mohamed, Hounsa, Thierry, & Sanoh, Aly. (2019, June). *The Redistributive Effects of Fiscal Policy in Mali and Niger* (World Bank Poverty & Equity Global Practice Working Paper No. 208).

Nicaragua (2009)
Instituto Centroamericano de Estudios Fiscales (ICEFI). (2017, May). *Incidencia de la Politica Fiscal en La Desigualdad y la Pobreza en Nicaragua* (CEQ Institute Working Paper 52).

CEQ Master Workbook Source
Cabrera, Maynor & Moran, Hilcias E. (2015, October 14). *CEQ Master Workbook: Nicaragua (2009).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University, Instituto

Centroamericano de Estudios Fiscales (ICEFI) and International Fund for Agricultural Development (IFAD).

Household Survey Citation
National Institute of Development Information. Encuesta Nacional de Hogares sobre Medición de Nivel de Vida (EMNV) 2009, Ref. NIC_2009_EMNV_v01_M.

Panama (2016)
Martinez-Aguilar, Sandra. (2019, January 16). *CEQ Master Workbook: Panama (2016).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the Economic Co-operation and Development.

CEQ Master Workbook Source
Martinez-Aguilar, Sandra. (2019, January 16). *CEQ Master Workbook: Panama (2016).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the Economic Co-operation and Development.

Household Survey Citation
National Institute of Statistics and Census of Panama. _Encuesta de Propósitos Múltiples 2016. Dataset downloaded from https://www.contraloria.gob.pa/inec/Publicaciones/Subcategoria.aspx?ID_SUBCATEGORIA=38&ID_IDIOMA=1

Peru (2009)
Jaramillo, Miguel. (2013, July). The Incidence of Social Spending and Taxes in Peru. *Public Finance Review 42*(3), 391-412.

CEQ Master Workbook Source
Jaramillo, Miguel. (2015, August 7). *CEQ Master Workbook: Peru (2009)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
Instituto Nacional de Estadística e Informática - Encuesta Nacional de Hogares 2009. Dataset downloaded from http://iinei.inei.gob.pe/microdatos/

Peru (2011)
Jaramillo, Miguel. (2019, February 11). *CEQ Master Workbook: Peru (2011)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

CEQ Master Workbook Source
Jaramillo, Miguel. (2019, February 11). *CEQ Master Workbook: Peru (2011)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
Instituto Nacional de Estadística e Informática - Encuesta Nacional de Hogares 2011. Dataset downloaded from http://iinei.inei.gob.pe/microdatos/

Poland (2014)
Goraus, Karolina, & Inchauste, Gabriela. (2016, August). *The Distributional Impact of Taxes and Transfers in Poland.* (World Bank Policy Research Working Paper 7787).

Paraguay (2014)
Colman, Humberto, Farfan, Gabriela, Galeano, Juan Jose, Gimenez, Lea, Lugo, Maria Ana, & Martinez-Aguilar, Sandra. (2017, October). *Paraguay: Análisis del sistema fiscal y su impacto en la pobreza y la equidad* (CEQ Institute Working Paper 74).

CEQ Master Workbook Source
Colman, Humberto, Farfan, Gabriela, Galeano, Juan Jose, Gimenez, Lea, Lugo, Maria Ana, & Martinez-Aguilar, Sandra. (2017, February 12). *CEQ Master Workbook: Paraguay (2014)*. CEQ Data Center: CEQ Institute, Tulane University.

Household Survey Citation
General Statistics and Census Department of Paraguay. Encuesta Permanente de Hogares 2014. Dataset downloaded from http://www.dgeec.gov.py/microdatos/index.php#collapse-3

Romania (2016)
Inchauste, Gabriela, & Militaru, Eva. (2018, August). *The Distributional Impact of Taxes and Social Spending in Romania.* (World Bank Policy Research Working Paper No. 8565).

Russia (2010)
Lopez-Calva, Luis F., Lustig, Nora, Matytsin, Mikhail, & Popova, Daria (2017). Who Benefits from Fiscal Redistribution in the Russian Federation? In Inchauste, Gabriela., & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 199-232). Directions in Development: World Bank.

CEQ Master Workbook Source
Popova, Daria, & Malytsin, Mikhail. (2019, March 21). *CEQ Master Workbook: Russia (2010)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Russia Longitudinal Monitoring survey, RLMS-HSE", conducted by the National Research University Higher School of Economics and ZAO "Demoscope" together with Carolina Population Center, University of North Carolina at Chapel Hill and the Institute of Sociology RAS.

South Africa (2010)
Inchauste, Gabriela, Lustig, Nora, Maboshe, Mashekwa, Purfield, Catriona, & Woolard, Ingrid. (2017). The Distributional Impact of Fiscal Policy in South Africa. In Inchauste, Gabriela, & Lustig, Nora. (Eds.), *The Distributional Impact of Taxes and Transfers. Evidence from Eight Low-and Middle-Income Countries,* (pp. 233-266). Directions in Development: World Bank.

CEQ Master Workbook Source
Inchauste, Gabriela, Lustig, Nora, Maboshe, Mashekwa, Purfield, Catriona, Woolard, Ingrid & Zikhali, Precious. (2016, March 6). *CEQ Master Workbook: South Africa (2010-2011)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and the World Bank.

Household Survey Citation
Southern Africa Labour and Development Research Unit. National Income Dynamics Study 2010-2011, Wave 2 [dataset]. Version 2.2. Cape Town: Southern Africa Labour and Development Research Unit [producer], 2012. Cape Town: DataFirst [distributor], 2012

Tunisia (2010)
Jouini, Nizar, Lustig, Nora, Moummi, Ahmed, & Shimeles, Abebe. (2018). Tunisia: Fiscal Policy, Income Redistribution, And Poverty Reduction. In Nora Lustig (Ed.), *Commitment to Equity Handbook. Estimating The Impact of Fiscal Policy on Inequality and Poverty* (pp. 723-744). Brookings Institution Press.

CEQ Master Workbook Source
Jouini, Nizar, Lustig, Nora, Moummi, Ahmed, & Shimeles, Abebe. (2017, May 5). *CEQ Master Workbook: Tunisia (2010).* CEQ Data Center on Fiscal Redistribution; CEQ Institute, Tulane University and African Development Bank.

Household Survey Citation
National Institute of Statistics of Tunisia. National Survey on Household Budget, Consumption and Standard of Living 2010 [dataset]

Tanzania (2011)
Mdadila, Kenneth, Myamba, Flora, & Younger, Stephen. (2016, September). Fiscal Incidence in Tanzania. *African Development Review, 28*(3), 264-276.

CEQ Master Workbook Source
Mdadila, Kenneth, Myamba, Flora, & Younger, Stephen. (2019, June 21). *CEQ Master Workbook: Tanzania (2011-2012).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
Tanzania National Bureau of Statistics, Tanzania Household Budget Survey (HBS) 2011-2012, Ref. TZA_2011_HBS_v01_M.

Togo (2015)
Jellema, Jon and Caroline Tassot (2018). Analyse de l'impact des politiques fiscales et de protection sociale sur les inégalités et la pauvreté au Togo." OECD Development Policy Paper, No. 12, OECD Publishing, Paris.

Uganda (2013)
Haas, Astrid, Jellema, Jon, Lustig, Nora, & Wolf, Sebastian. (2018). Uganda: The Impact of Taxes, Transfers, and Subsidies on Inequality and Poverty. In Nora Lustig (Ed.), *Commitment to Equity Handbook. Estimating The Impact of Fiscal Policy on Inequality and Poverty* (pp. 745-779). Brookings Institution Press.

CEQ Master Workbook Source
Haas, Astrid, Jellema, Jon, Lustig, Nora, & Wolf, Sebastian. (2016, July 28). *CEQ Master Workbook: Uganda (2012-2013)*. CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University and International Growth Center.

Household Survey Citation
Uganda Bureau of Statistics (UBOS). 2014. Uganda National Household Survey 2012/2013. Kampala Uganda; UBOS, provided by the National Data Archive. www.ubos.org/unda

Ukraine (2016)
Bornukova, Kateryna, Leshchenko, Nataliia, & Matytsin, Mikhail. (2019, March). *Fiscal Incidence in Ukraine: A Commitment to Equity Analysis* (World Bank Policy Research Working Paper 8765).

Uruguay (2009)
Amábile, Florencia, Bucheli, Marisa, Lustig, Nora, & Rossi, Máximo. (2013, July). Social Spending, Taxes, and Income Redistribution in Uruguay. *Public Finance Review 42*(3), 413-433.

CEQ Master Workbook Source
Bucheli, Marisa. (2019, April 7). *CEQ Master Workbook: Uruguay (2009).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics of Uruguay. Encuesta Continua de Hogares 2009.Dataset downloaded from http://www.ine.gub.uy/encuesta-continua-de-hogares1

United States (2011)
Higgins, Sean, Lustig, Nora, Ruble, Whitney, & Smeeding, Timothy (2015, May). Comparing the Incidence of Taxes and Social Spending in Brazil and the United States. *Review of Income and Wealth, 62*(1), 22-46.

CEQ Master Workbook Source
n.a. (The MWB was not completed by the author/s.)

Household Survey Citation
Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 6.0 [dataset]. Minneapolis, MN: IPUMS, 2018. https://doi.org/10.18128/D030.V6.0

Venezuela (2013)
Molina, Emiro. (2018, April 5). *CEQ Master Workbook: Venezuela (2012).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

CEQ Master Workbook Source
Molina, Emiro. (2018, April 5). *CEQ Master Workbook: Venezuela (2012).* CEQ Data Center on Fiscal Redistribution: CEQ Institute, Tulane University.

Household Survey Citation
National Institute of Statistics of Venezuela. Encuesta Nacional de Hogares por Muestreo (ENHM), Sistema de Indicadores de Coyuntura (SIC). Tercer trimestre 2013 [dataset]

Zambia (2013)
De la Fuente, Alejandro, Rosales, Manuel, and Jon Jellema (2017). The Impact of Fiscal Policy on Inequality and Poverty in Zambia. World Bank Policy Research Working Paper 8246. World Bank: Washington, DC.