

Income Inequality and Fiscal Policy: Agenda for Reform in Developing Countries

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Sanjeev Gupta^{1 2}

This paper is part of the Growth and Reducing Inequality Working Paper Series, which is a joint effort of the G-24 and Friedrich-Ebert-Stiftung New York to gather and disseminate a diverse range of perspectives and research on trends, drivers and policy responses relevant to developing country efforts to boost growth and reduce inequality. The series comprises selected policy-oriented research papers contributed by presenters at a Special Workshop the G-24 held in Geneva (September 2017) in collaboration with the International Labour Organization and the Friedrich-Ebert-Stiftung, as well as relevant sessions in G-24 Technical Group Meetings.

¹ Sanjeev Gupta is Visiting Senior Fellow at the Center for Global Development, Washington DC; Global Lead for Fiscal Practice at the Centennial Group and Senior Fellow at the African Center for Economic Transformation. He is also former Deputy Director of the Fiscal Affairs Department at the International Monetary Fund.

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I. Introduction

There are several reasons why the subject of income inequality is of interest to a country's policy makers. First, income inequality has negative consequences for growth and its sustainability (Ostry, Berg, and Tsangarides 2014; Berg and Ostry 2011). A rising income share of the top income group lowers GDP growth in the following five years (Dabla-Norris and others 2016), which has implications for the pace at which growth reduces poverty (Ravallion 2004). Second, high income inequality affects social cohesion and thus makes it difficult to gain broad political support for growth-enhancing reforms. This may even prompt governments to adopt populist policies, threatening economic and political stability (Claessens and Perotti 2007). Third, income inequality—by increasing leverage and credit—has been associated with occurrence of a financial crisis (Rajan 2010).

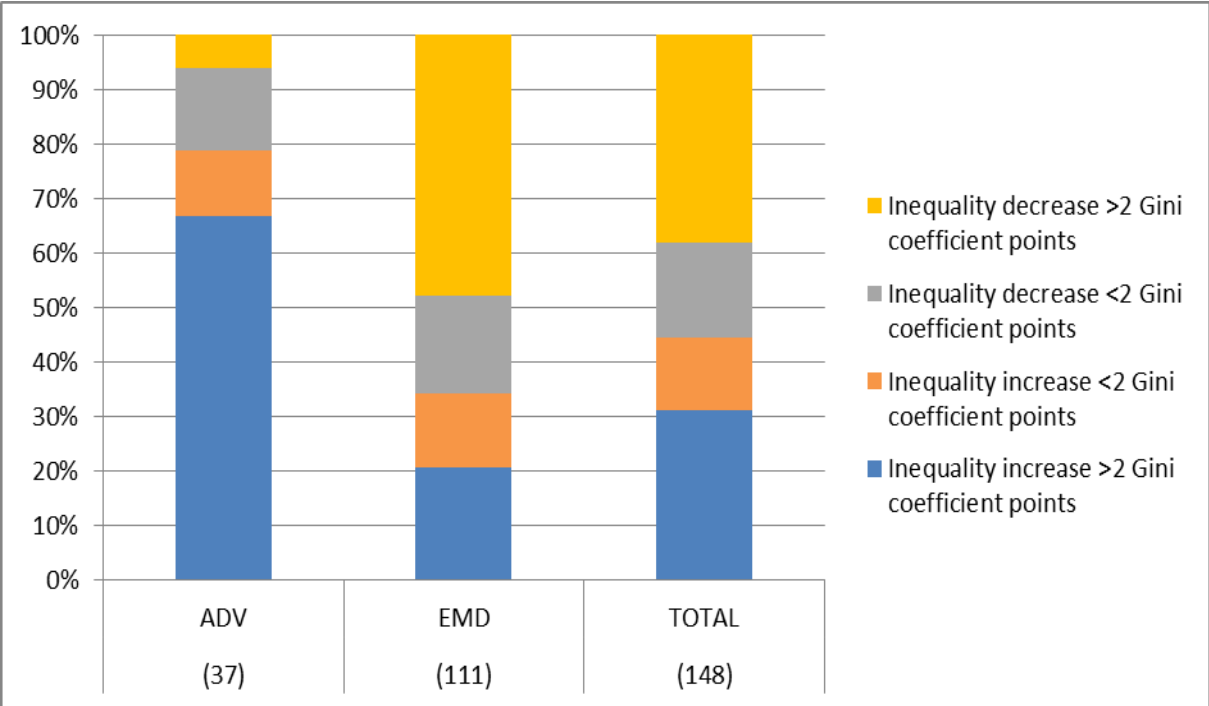
Fiscal Policy—taxation and spending—is the government's most powerful tool to achieve distributional objectives in both the short and the long term. This paper argues that fiscal policy has made a significant difference in affecting income distribution in advanced economies. By contrast, fiscal policy has been less effective in developing countries. The paper is organized as follows: the next section (Section II) presents the broad trends in income inequality, both globally and within countries. In the following section (III), the redistributive role of fiscal policy in advanced and developing countries is discussed. In doing so, the weaknesses in fiscal policy that have impaired the effectiveness of fiscal policy in developing countries are highlighted. Section IV lays out an agenda for making fiscal policy more robust in developing countries to address challenges arising from rising income inequality. Concluding remarks are in Section V.

II. Trends in Inequality

The picture is mixed when reviewing trends in income inequality globally and within countries. The good news is that global inequality—that is, income distribution over the entire world assuming no country borders—has been declining over the past three decades

(Bourguignon 2015, Lakner and Milanovic 2015). This development reflects convergence of income between developed and developing economies (using population as weights), a process that has been dominated by China and India, where extreme poverty rates have declined sharply since the 1980s. Both the world Gini coefficient and the relative income gap between the top and bottom 10 percent decreased notably between 1990 and 2010, though the precise numbers vary across different studies.

Figure 1: Change in Inequality by Economy Type, 1985–2015
(Percent of total number of countries in economy type)



Source: G-24 staff calculations using IMF data and methodology. Atkinson 2015 discusses changes in Gini considered as economically significant.
 Note: Total number of countries represented in each bar is shown in parentheses. Absolute changes in Gini coefficient greater than 2 points are considered economically significant (see Atkinson 2015 for further discussion of economically significant changes). ADV = advanced economies; DEV= emerging and developing economies.

The sharp decline in income inequality on a global scale contrasts with developments within countries. Between 1985 and 2015, within-country income inequality increased in about 80

percent of advanced economies as gauged by changes in Gini coefficient (Figure 1).³ The dynamics of income inequality are more mixed in the developing world with the frequency of inequality reductions being higher, particularly in Latin America and sub-Saharan Africa. Inequality increases have been observed specifically in fast growing and populous countries such as China and India.

How should these developments be interpreted against the background of the Kuznets curve, which hypothesizes that after increasing as the country develops, inequality should start to decline? Milanovic (2016) argues that developing economies may have reached the peak of a Kuznets cycle where inequality is stabilizing or decreasing, whereas in advanced economies it may be on the rising part of a “new” Kuznets cycle. The inequality may decline in advanced economies in the future because these countries have acquired “inequality stabilizers” such as unemployment benefits and state pensions.⁴

The discussion on inequality cannot overlook the fact that wealth is heavily concentrated within countries—a point brought home in the recent book by Piketty (2014). From the beginning of the twentieth century until the 1970s, wealth inequality declined dramatically in most countries. This trend has reversed in the past three decades, with wealth inequality rising. As a result, household wealth is much more unequally distributed than income. The Gini coefficient of wealth in a sample of 26 advanced and developing economies in the early 2000s was 0.68, compared with a Gini of 0.36 for disposable incomes (Clements and others Chapter 7, 2015) (Figure 2). The main reason for this discrepancy is that high-income individuals have higher saving rates and thus they accumulate wealth faster than do poorer households. Differences in risk tolerance—which is higher among rich individuals—prevailing tax systems, and the share of private pensions also explain differences in wealth accumulation across countries.

³ The **Gini** is a statistical measure of distribution and ranges from 0 to 1 with 0 representing perfect equality and 1 representing perfect inequality.

⁴ Milanovic (2016) argues that certain forces will prevent inequality from declining in the US going forward.

Figure 2: Inequality of Wealth and Income



Sources: Davies and others (2008); Luxembourg Income Study; Organisation for Economic Co-operation and Development; Socio-Economic Database for Latin America and the Caribbean (CEDLAC and the World Bank).

Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.

There are important country differences in wealth holding. The share of wealth held by the top 10 percent ranges from slightly less than half in Chile, China, India, Italy, Japan, Spain, and the United Kingdom to more than two-thirds in Indonesia, Norway, Sweden, Switzerland, and the United States. In India and Indonesia, the share of nonfinancial assets in total wealth exceeds 80 percent, which is more than typically found in advanced countries. The observed wealth inequality has important implications for the design of tax policy.

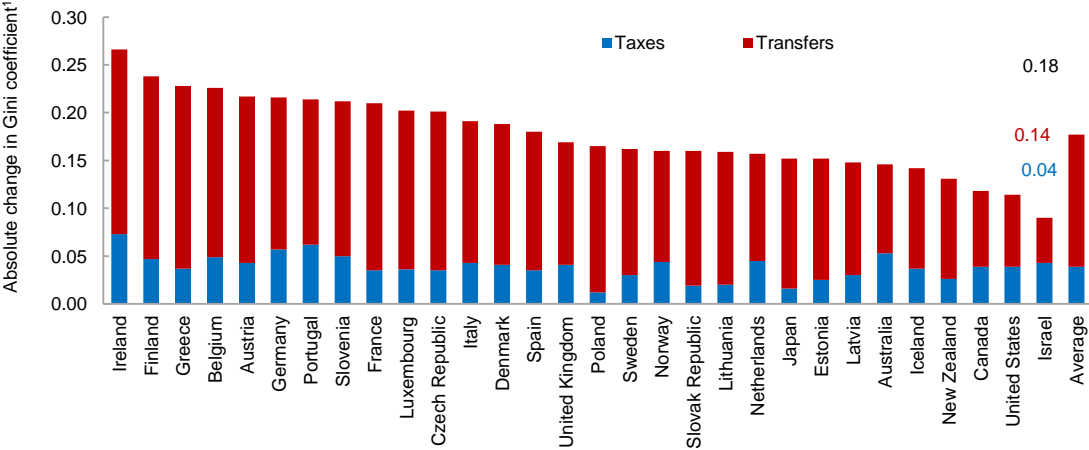
III. The Redistributive Role of Fiscal Policy

Fiscal policy impacts income distribution in two ways. First, direct income taxes and transfers reduce disposable income inequality—the discussion on Gini in the preceding section centered on this concept of income inequality. Second, non-cash transfers such as on education and

health influence the market income, which comprises labor and capital income as well as private transfers. By building human capital, education and health spending strengthen an individual’s ability to earn higher market income, including through social mobility. In this way, education and health spending also impact economic growth over time.

Fiscal policy has played a significant role in reducing income inequality in advanced economies: on average in the mid-2010s the Gini for disposable income was a third lower than the average market income Gini (Figure 3). In 2015, the average Gini coefficient for disposable income in these countries was 0.31 with 0.49 for market income. Most of this reduction was achieved on the expenditure side through transfers, which account for about three-quarters of the decrease in the Gini (see 0.18 in the last column of Figure 3). Within transfers, non-means-tested transfers (including public pensions and family benefits) account for the bulk of the redistribution. On the tax side, personal income taxes make an important contribution to reducing inequality in a number of economies; in many economies, the redistribution achieved through income taxes is even higher than that achieved through means-tested transfers. Non-cash transfers have further reduced the Gini in select advanced economies by more than five points, with nearly two-thirds of the reduction stemming from health spending (Paulus, Sutherland, and Tsakloglou 2010).

Figure 3: Redistributive Impact of Taxes and Transfers in Advanced Economies, 2015 or Latest Year



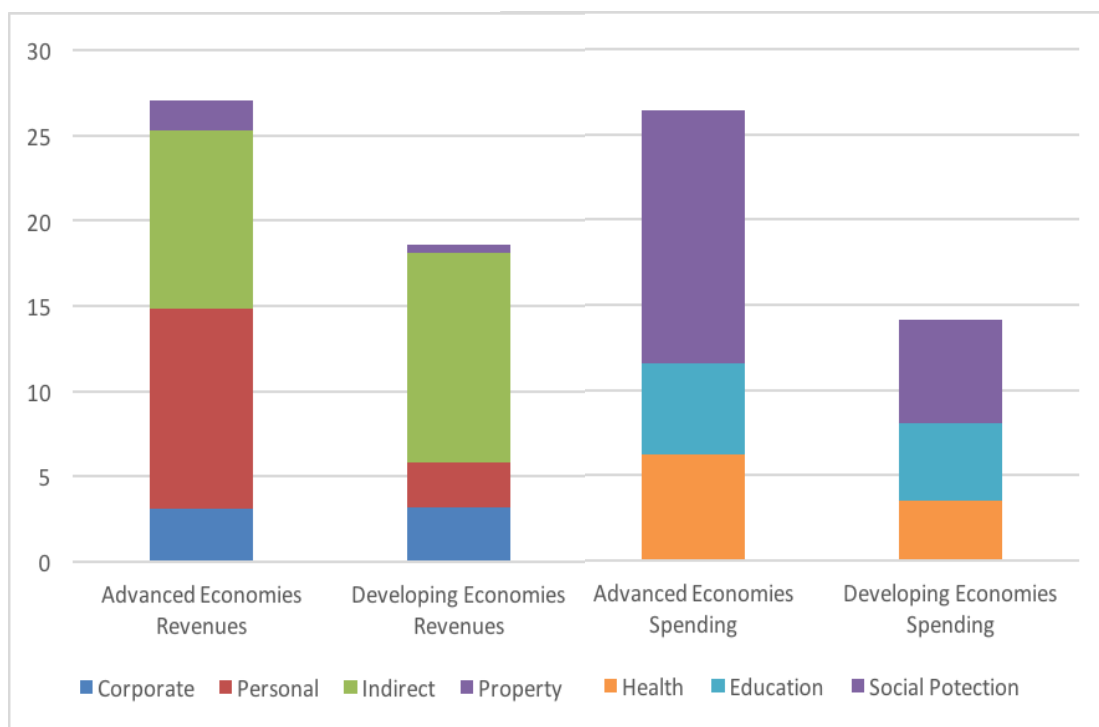
Source: Organisation for Economic Co-operation and Development (OECD), Income Distribution Database via IMF Fiscal Monitor.

¹ Calculated as Gini coefficient for market income minus Gini coefficient for disposable income.

Fiscal consolidation measures have an impact on both market and disposable income—and hence on income distribution--as the experience of several countries following the 2008 financial crisis indicates (Fabrizio and Flamini 2015). These measures lead to a reduction in output and employment and therefore in earnings; at the same time, fiscal retrenchment influences the level and composition of taxes and spending. A spending-based fiscal adjustment with little regard to the nature of expenditure cuts can worsen inequality more than a revenue-based one. Policy makers can mitigate the adverse impact of fiscal consolidation by protecting most progressive and efficient redistributive spending and by relying more on progressive revenue measures. The advantage of such an approach is that it can lessen opposition to reforms.

Compared to the sizeable influence of fiscal policy in advanced economies, its impact is significantly smaller in developing countries. There are two reasons for it: First, developing countries collect significantly smaller revenues in relation to GDP. Whereas average tax ratios for advanced economies are over 25 percent of GDP, ratios in developing economies generally fall in the 15–20 percent of GDP range (Figure 4). As a result, social spending, which includes social protection as well as education and health spending, is substantially lower in developing economies, but especially in Asia and the Pacific and sub-Saharan Africa.

**Figure 4: Composition of Tax Revenues and Social Spending, by Economy Type
(Percent of GDP)**



Source: Data for Advanced Economies Spending and Revenues sourced from IMF October 2017 Fiscal Monitor. Data from 2016 or latest values available. Developing Economies Revenues used G-24 staff calculations, drawing on data from IMF Fiscal Affairs Department World Revenue Longitudinal Database. Developing Economies Spending Data from IMF Fiscal Monitor; EUROSTAT; Economic Commission for Latin America and the Caribbean; Organization for Economic Co-operation and Development, Social Expenditure Database; and World Bank. Note: Number of countries in each group varies based on data available in each category. Data for developing economies from 2017 or latest values available. Developing Economies = Emerging and Developing Economies.

Second, the composition of tax and social spending in developing economies reduces the redistributive impact of fiscal policy (Bastagli, Coady and Gupta 2012, 2015). On the tax side, the redistributive impact is limited by greater reliance on indirect taxes. Taxes have been found to have only a small impact on income inequality in developing economies, with the average Gini for disposable income of 0.34 being only slightly below the pre-tax income inequality of 0.38 (Chu, Davoodi, and Gupta 2004). Overall, indirect taxes tend to be either slightly progressive or slightly regressive, and therefore only have a small impact on income distribution. Within indirect taxes, trade (mainly import) taxes have a relatively high share, although this share has been decreasing in recent decades. Incidence studies have typically found that import taxes are regressive, while excise taxes—such as fuel, alcohol, and tobacco excises—tend to be progressive. The distributive impact of value-added taxes (VAT) has been

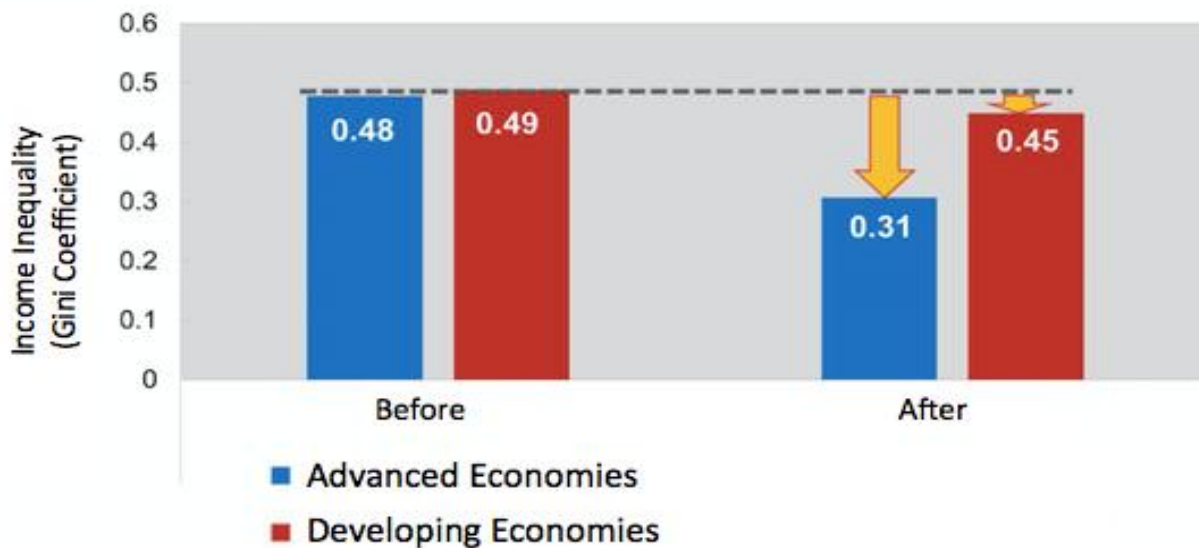
found to be mixed. There is evidence that by exempting sales of small businesses (including agriculture and the informal sector) below a threshold where the poor typically tend to buy can result in a progressive incidence (Jenkins, Jenkins, and Kuo 2006).

In general, personal income and property taxes have low progressivity in developing economies because of weak compliance combined with narrow tax bases. The latter is attributable to widespread exemptions (see below) and the preferential treatment of capital and other income. Resource taxation can be progressive as well as efficient, though it is applied mostly to foreign incomes.

The widespread use of tax exemptions can accentuate income inequality. Their value has been estimated to exceed five percent of GDP or 40 percent of collected taxes in some countries (Gupta 2018). These concessions contribute to income inequality because their benefits accrue disproportionately to middle- and high-income households. By lowering the revenue take, they further limit the government's capacity to spend on inequality-reducing programs.

Existing benefit-incidence studies show that the redistributive impact of education and health spending is compromised by its regressivity, especially where access levels are much lower for poor households. Increases in non-cash spending to finance the expansion of basic education and health services are likely to be much more progressively distributed than existing spending so that the average progressivity of spending should increase over time. Figure 5 shows that fiscal policy makes less of a difference in developing countries.

Figure 5: Inequality Before and After Fiscal Policy



Source: IMF staff estimates using Lustig 2017; and OECD Income Distribution Database.

Note: Redistributive Impact of Taxes and Transfers, 2015, or Latest Available Year.

Developing Economies + Emerging economies and Low-Income countries 1/.

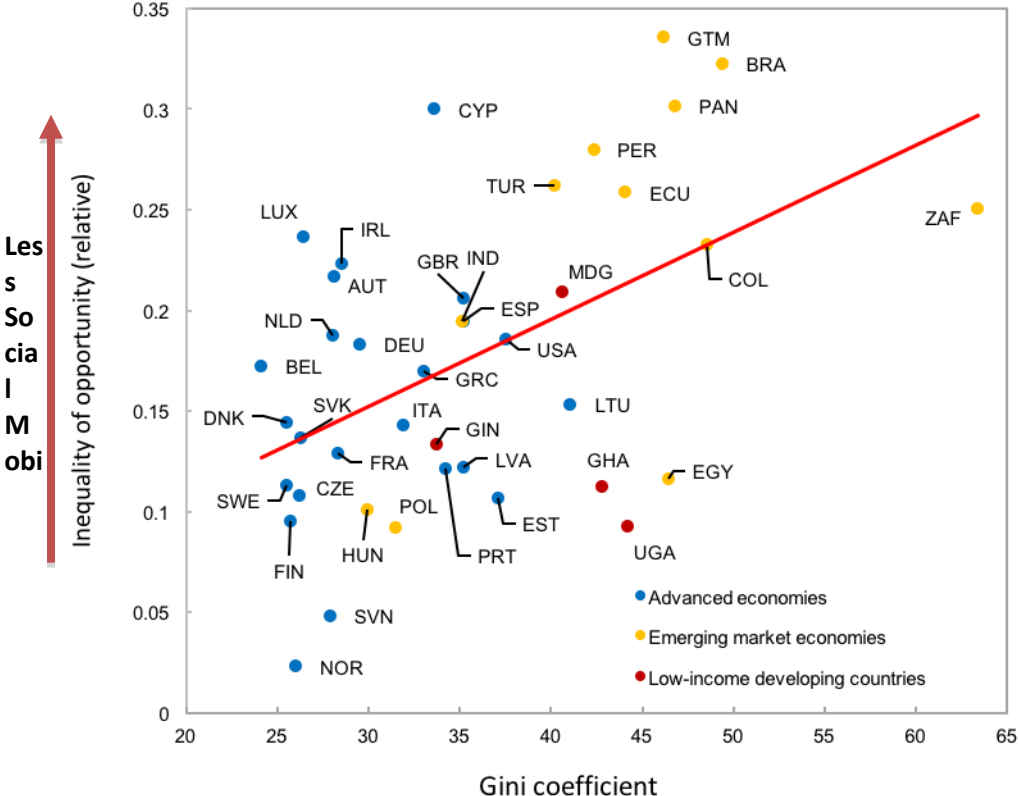
1/ Includes Argentina, Armenia, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Ethiopia, Georgia, Ghana, Guatemala, Honduras, Indonesia, Iran, Jordan, Mexico, Nicaragua, Peru, Russia, South Africa, Sri Lanka, Tanzania, Tunisia, Uganda, Uruguay, and Venezuela.

In regards to transfers, the much lower coverage of social insurance (mainly pensions) in developing countries, especially among lower-income groups, is one of the factors behind the lower redistributive impact of social spending. In most developing economies, participation in social insurance schemes is restricted to workers in the formal sector and to public sector employees. On top of this, low and poorly targeted social assistance spending results in low coverage of the poor and substantial leakage of benefits to the non-poor (Coady, Grosh, and Hoddinott 2004; Weigand and Grosh 2008).

The matters are made worse when large sums of resources are allocated to energy subsidies by setting consumer prices below cost-recovery levels or undercharging for externalities, such as pollution and congestion arising from energy consumption (Clements and others 2013). Energy subsidies are especially large in oil-exporting countries. Most benefits from universal subsidies accrue to higher-income groups (Coady, Flamini and Sears 2015). These subsidies reinforce rather than reduce income inequality and crowd out more redistributive social spending.

High inequality can impair the access of certain population groups to education facilities or certain professions, thereby affecting intergenerational social mobility. Figure 6 shows that intergenerational mobility is lower, on average, in developing countries, especially in Latin America, as compared to advanced economies. By contrast, social mobility across generations is significantly higher in Nordic countries.

Figure 6: Income Inequality and Inequality of Opportunity



Sources: Brunori, Ferreira, and Peragine 2013; and IMF staff calculations.
 Note: Gini coefficients are as of 2015 or the most recent year available. Inequality of opportunity (relative) measures the extent to which circumstances beyond an individual’s control (such as family background, gender, and race) affect joint distribution of outcomes (income). It is a lower-bound estimate, because it is not possible to take into account all external circumstances (see Brunori, Ferreira, and Peragine 2013 for details). Data labels in the figure use International Organization for Standardization (ISO) country codes.

IV. Way Forward--An Agenda for Fiscal Reform

The developing country governments will need to act both on the revenue and spending side to ensure that their fiscal systems respond to high and rising income inequality.

A. Strengthening the revenue base, including through progressive taxation.

Developing countries have made considerable progress in raising taxes in recent years. Between 2002-2014, average tax ratios rose by 2.8 percent of GDP in sub-Saharan Africa, and 3.6 percent in the Western Hemisphere and developing Asia (Birdsall and Gupta 2018). IMF and World Bank analyses suggest substantial tax potential in these countries going forward through broadening their tax bases and improving compliance, both of direct and indirect taxes.

The loss in VAT revenue as a result of faulty design and poor compliance has been estimated at more than five percent of GDP in some countries (Udea and Thackray 2014, Hutton, Thackray and Wingender 2014)). In such instances, policymakers would need to revisit the exemption and special rate regime of the VAT. The resulting reform entailing a reduction in the number of VAT rates may make the tax system more regressive than before. However, it is important to assess the incidence of VAT in combination with the use of revenues it generates. If VAT revenues were used to support progressive programs that benefit the poor, the net incidence of VAT and spending programs could be progressive (Abdallah, Coady, Gupta and Hanedar 2015). In many countries, there is scope for raising excises on tobacco and alcohol. An area that is likely to assume importance in the coming years is the taxation of added sugar particularly in aerated drinks, given its adverse effects on health of young children in poor households.

Progressive taxation of the richer segments of the society is the key instrument in the design of fiscal redistribution. Optimal tax theory indicates that progressive tax schedules (with higher tax rates for the upper-income groups) are optimal as redistributive gains in this instance dominate efficiency costs (Diamond 1998, Saez 2001). There are a number of considerations that influence tax progressivity (IMF 2017). The first and foremost is the elasticity of taxable income. A high tax elasticity of taxable income could mean a less progressive tax system because a smaller share of income is earned by higher-paid individuals. It could also mean that

society places a greater weight on the welfare of high-income individuals. The latter is not consistent with the evidence from the Integrated Values Survey which show that since 2007 public support for redistribution has increased in both advanced and developing countries (Clements, Gaspar, Gupta and Kinda 2015). The other consideration to bear in mind is the impact of progressivity on growth. Here, the empirical evidence on the direct link between tax progressivity and growth is mixed (IMF 2017). The bottom line is that there is scope for enhancing the progressivity of income taxes in most developing countries, including by expanding the base of income taxes. The key consideration to bear in mind is not to make the tax system extremely progressive which would hurt growth.

Another tax which is inherently progressive but has been neglected in developing countries is property taxation (Birdsall and Gupta 2018). Recall Figure 3 which showed that wealth inequality is twice as high as income inequality. The OECD countries on average generate around two percent of GDP in property taxes, whereas the average tax take in developing countries is under half percent of GDP. While property prices have risen in all developing countries conferring large windfall gains to property owners, the tax-take from this source has hardly changed. Recurrent taxes on property are viewed as growth friendly because their base is immobile and they are hard to avoid. Developing country governments often provide extensive tax exemptions to different classes of property owners, in part because middle classes resist the imposition of property tax.⁵ The problem is compounded by the weak capacity to collect revenues, record ownership titles and establish property values in the presence of thin markets for property transactions. Going forward, technological innovation can help overcome the capacity constraints that developing countries currently face in levying property taxes. Property registers can be digitized, and satellite data and computer-aided mass valuation systems can make valuation and updates of property values cheaper and quicker. Some of these technologies are being used in developing countries with favorable outcomes.

⁵ The roll-back of inheritance taxes in several countries has further contributed to rising wealth inequality.

Developing countries rely on average more on corporate income tax (CIT) revenue, both as a share of GDP and total revenues. Globally CIT rates have declined continuously since 1990s because of tax competition. Thus far, corporate income tax revenues have held up in developing countries, but profit shifting by multinationals is affecting these countries more than advanced economies. The revenue loss from base erosion and profit shifting is on average 30 percent higher in developing than in advanced countries (1.3 percent of GDP, versus one percent) (de Mooij, Matheson, Schatan 2015). A fall in revenue yield from corporate taxes would impinge on the ability of developing countries to implement redistributive programs. To deal with these pressures, developing countries could consider introducing limits on the deductions of interest and royalties taken by multinationals. They could also make better use of withholding taxes. On the international scene, they should carefully weigh whether to enter into tax treaties with other countries because of likely leakage of revenue.

B. Reforming the Spending Side

At the lowest end of the income distribution, the expenditure side of the budget plays a dominant role. The preceding section of the paper mentioned social spending coverage gaps. These gaps partly reflect a low level of social spending. Of course, expanding domestic tax capacity will grow the capability of developing countries to spend more on social programs and reduce coverage gaps. Yet, even if tax revenues grow in the next decade, they would not be sufficient to cover all unmet needs in these countries, including on the social side. This means that policymakers must complement tax-enhancing efforts with improving the efficiency of existing public spending to generate additional resources.

There are many instances of observed expenditure inefficiency in these countries. Some countries (for example, in Africa) use between 25-35 percent more inputs in both the education and health sectors to produce outputs that are comparable to countries viewed as more efficient (Gupta and Verhoeven 2001, Herrera and Pang 2005). In India, education and

health spending in six states could be reduced by 50 percent or more without loss in output (Mohanty and Bhanumurthy 2018). The bottom 25 percent of the most inefficient countries in a group of 80 countries studied could potentially gain up to five years in (health-adjusted) life expectancy by using their existing allocations as productively as the most efficient countries (Grigoli and Kapsoli 2018). By comparison, a 10 percent across-the-board increase in public health spending per capita in all countries would improve life expectancy by only two months. This shows that higher spending on its own cannot improve outcomes, unless undertaken efficiently. Finally, developing countries lose more than one-third of their public investment through inefficient spending (IMF 2015). As a result, the impact on growth is estimated to be half as much as countries where investment spending is efficient.

Improvements in expenditure efficiency in the above-noted programs can generate up to two to three percentage points of GDP in savings in the medium term to be used for more productive programs. Eliminating fiscally costly and inefficient universal price subsidies (including tax expenditures) can produce substantial resources in the short term.

The access to education is influenced by socio-economic status. And because disadvantaged students receive low-quality education, they perform substantially worse than students from better socioeconomic backgrounds. Enhanced targeting of public education spending within the existing budget to disadvantaged students and schools could help reduce education inequality and raise overall education outcomes (IMF 2017). This will help make incidence of education spending more progressive.

As in education, there are large gaps in health coverage between the rich and the poor. One way to improve the access of the poor to health services is to move gradually towards universal health care under which certain essential services are publicly financed—the principle of progressive realization of universal health care as put forward by Jamison, Summers *et al.* (2013). We now know that there is a high degree of overlap between primary health care and universal health care (Watkins, Yamey *et al.* 2018). Countries could begin to

fund the package that is of highest priority in primary health care, which could be gradually expanded as their revenue position improves. This approach will provide protection against the financial risks of seeking care and falling into poverty. It would also help lower out-of-pocket spending which reaches almost one-half of total health spending in several developing countries. Recall from advanced country experience that non-cash health spending has a bigger impact on lowering Gini coefficient than education spending.

The recent success of conditional cash transfer programs in many countries suggests that they should play a greater role in the social protection strategies. These programs have targeted incomes to poor households on the condition that they invest in education and health of family members (Fiszbein, Schady and Grosh 2009; Garcia and Moore 2012). Conditional cash transfer programs have been most widely used in Latin America, where 17 countries are currently operating them with an average budgetary cost of less than one percent of GDP. Brazil and Mexico have the largest programs; it is estimated that they have helped lower the Gini of disposable income by 2.7 percentage points between the mid-1990s and the mid-2000s (Soares and others 2007). Any expansion of these programs would need to be carefully considered because of potential labor supply disincentive effects.

The other steps that could help in reducing inequality include broadening the coverage of public pension systems while ensuring their fiscal sustainability. In this regard, governments could consider the use of targeted social pensions.

The weak administrative capacity may constrain a country's policy options to pursue a distributive agenda. However, recent developments in digital technologies (Gupta and others 2017) can enhance the capacity of governments to deliver programs effectively by lowering their cost and reducing information asymmetries (that is, ensuring that supervisors have the information on whether providers are using government resources effectively). The widespread use of mobile technology has further reduced the government's cost of disseminating information about programs and ascertaining what citizens want through surveys.

Experience shows that digital technologies, including electronic payment systems have indeed improved the delivery of social welfare payments, cut bureaucratic inefficiencies, reduced fraud and corruption, and produced fiscal savings. Digitalizing payments has significantly reduced costs in many developing countries. For example, *Ti Manman Cheri* in Haiti helps mothers support their families, and 4Ps in the Philippines provides cash grants to the poorest families. Also, India's Aadhaar system covering 1.15 billion people has allowed the government to lower the cost of providing subsidies for cooking gas.

Finally, the discussion on income distribution is not complete without addressing the concept of universal basic income (UBI). Under this proposal, every individual would receive an annual cash transfer of an equal amount from the government. The advantage of providing a universal benefit is that governments would not have to struggle with defining who is poor and who is not. It will do away with complex administrative systems engaged in targeting benefits as well as with associated corruption and inefficiency. Given concerns about the future of work owing to the growing use of robots and artificial intelligence, UBI is seen as a way to deal with resulting high levels of unemployment.

IMF (2017) estimated the cost of a UBI in selected developing countries at 3.75 percent of GDP with the benefit level set at twenty five percent of median per capita income. The net impact of providing universal benefit would depend on how it is financed. Governments would have to either raise additional tax revenues or generate savings from existing programs. Higher tax rates are likely to create distortions and result in loss of output unless the focus is on broadening the base and improving compliance. Introduction of a UBI would have to compete with demands to reduce infrastructure gaps and expand social services for lessening market income inequality and promoting growth. As argued above, there is certainly a scope for rationalizing existing programs, including those on the provision of social safety nets. Ultimately, the benefit of a UBI must be weighed against labor market disincentives and leakage of benefits to higher income groups.

V. Concluding Remarks

Fiscal policy is a powerful tool to address governments' distributive objectives as is evident from experience of advanced countries. In this context, fiscal policy has been less effective in developing countries. In these countries, the challenge going forward would be to mobilize more resources domestically to support expansion of programs that have a positive impact on inequality. Developing countries would need to rely more on taxes that are progressive in nature—such as property taxes, and pay attention to potential leakage of revenue from corporate taxes. Education and health spending is key to reducing inequality and enhancing social mobility over the medium term. Finding sufficient resources to fund these programs would also require reducing inefficiencies in existing spending programs.

A fundamental consideration for policymakers is that fiscal instruments should not be assessed in isolation; instead, tax and spending should be analyzed together. For instance, appropriately and accurately gauging the distributional impact of a particular tax instrument requires taking into consideration the spending effects that it helps finance. Finally, fiscal redistribution should reflect country-specific circumstances, including fiscal situation, social preferences, and administrative capacity.

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