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## HOW TO OPERATIONALIZE INEQUALITY ISSUES IN COUNTRY WORK

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### EXECUTIVE SUMMARY

**Economic inclusion is the broad sharing of the benefits of, and the opportunities to participate in, economic growth.** It embodies equitable outcomes related to financial well-being as well as opportunities in access to markets and resources, and protects the vulnerable.

**Economic inclusion is a high priority issue for the IMF.** High inequality is negatively associated with macroeconomic stability and sustainable growth—core to the Fund’s mandate in promoting systemic, balance of payments, and domestic stability. Some macroeconomic policies and reforms may have adverse distributional implications, which in turn can undermine public support for reforms. And, interest in distributional issues and inequality has grown among the membership, increasing the demand for the Fund to work in these areas. While the IMF has long recognized the importance of inequality issues, it has adopted in the recent years a more systematic and structured approach. In this regard, a pilot initiative on inequality was launched in 2015, with the third wave of countries currently participating. Once this wave is concluded, staff proposes to incorporate the analysis of inequality-related issues into broader country work where relevant.

**This note provides an overview of good practices and resources available to staff.**

The note is consistent with the *2015 Guidance Note for Surveillance Under Article IV Consultations* and draws also on the *2013 Guidance Note on Jobs and Growth Issues in Surveillance and Program Work*. It provides examples of good practices with respect to coverage of inequality-related issues in country reports and lays out the resources available to country teams, both with respect to existing analytical work as well as the availability of data and tools.

**Coverage of inequality issues in staff reports should be selective and calibrated to the degree of macroeconomic significance.**

All teams should consider whether inequality issues are relevant, taking into account also the authorities’ priorities, but with no presumption that inequality will be covered everywhere or every year and in-depth coverage anticipated in only a limited number of cases any year. Staff should point to macroeconomic significance where it exists, with analysis focused on aspects with economic implications and specific policy advice limited to areas where there is Fund expertise.

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## INTRODUCTION

**1. The IMF attributes high importance to issues of inequality for several reasons.** High inequality has been shown to be negatively associated with macroeconomic stability and sustainable growth, which are core to the Fund's mandate of promoting economic stability. Further, macroeconomic policies and reforms may have adverse distributional implications, which in turn can threaten public support for reforms. Finally, the interest in distributional issues and inequality has grown among the membership, increasing the demand for the Fund to engage in these areas. The objective of operationalizing inequality in the Fund's country work is to support members in all these respects.

**2. In 2015, the IMF committed to intensify its policy and analytical work on inclusion.**<sup>1,2</sup> The IMF has adopted a more systematic and structured approach, starting with a pilot initiative to operationalize its work on inequality with the objective of providing lessons on how to effectively integrate distributional issues into broader surveillance and program work. Since 2015, two waves covering 29 pilot countries have been completed, and a third wave with 16 additional countries is under way (Annex II: Tables 1 and 2). An advisory group jointly led by the Fiscal Affairs Department (FAD), the Research Department (RES), and the Strategy, Policy and Review Department (SPR) has been set up with the objective of providing analytical and operational support to pilot country teams, build and share knowledge, and facilitate external collaboration. To further support the pilot initiatives, tools have also been developed and training opportunities have been made available to country teams.

**3. The analysis from the pilot experience can be incorporated into broader country work where relevant.** Country teams should consider inequality issues when they are macro-critical and when the authorities are planning—or advised by staff—to embark on economic policies and reforms that can have significant undesirable distributional effects, which, in turn, could affect current or prospective balance of payments or domestic stability; or when requested by member countries.<sup>3,4,5</sup> However, there is no expectation that an in-depth coverage of inequality issues is included in reports every year and for every country. Country teams should continue to focus on the issues and themes that are deemed most relevant for economic growth and stability. Analyses can draw on existing work by key development partners (e.g., the World Bank and Organization for Economic Co-operation and Development (OECD)). Where in-depth studies are carried out, country teams are expected to follow up on the authorities' progress in implementing staff's recommendations and on developments over time, as information becomes available.

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<sup>1</sup> IMF (2015a).

<sup>2</sup> Inclusion is a broad concept that encompasses inequality as well as other aspects such as gender. This note focuses on inequality.

<sup>3</sup> [2014 Triennial Surveillance Review](#) and [Guidance Note for Surveillance under Article IV Consultations](#).

<sup>4</sup> An issue is macro-critical if it affects, or has the potential to affect, domestic or external stability.

<sup>5</sup> The analysis can be reported in a Selected Issue Paper, in a Box or a Section of the staff report. Staff reports should include the main recommendations and a summary of the discussion with the authorities.

**4. This how-to note does not substitute for, or supersede, any existing formal guidance notes and aims to provide operational support to country teams.** The note is consistent with the *2015 Guidance Note for Surveillance under Article IV Consultations* (IMF, 2015) and draws also on the [Guidance Note on Jobs and Growth in Surveillance and Program Work](#). Guidance on analysis of constraints to inclusive growth and integration of these issues in policy advice was provided in 2013. It recognized the relevance of discussions around the determinants of income redistribution, the impact of redistribution on growth, and the scope for redistribution. Since then new analytical work, including by the IMF, has provided further clarity on these issues. Furthermore, the accumulated knowledge from pilot initiatives has contributed to enrich and deepen our understanding of inequality issues, and provided insights on a more structured approach to effectively integrating inequality issues into bilateral surveillance and program work. Against this backdrop, this note draws on IMF research work, policy papers, and lessons from pilot cases to provide further operational support to country teams on how to think about and tackle inequality issues.

**5. The note is structured as follows:** Section II discusses how the IMF's thinking on inequality has evolved. Section III addresses how to incorporate inequality-related issues into country papers. Section IV discusses engagement with stakeholders, including civil society organizations and collaboration with partner institutions.

## HOW THE FUND'S THINKING AND WORK ON INEQUALITY HAS EVOLVED

**6. The Fund has long recognized the importance of inequality and distributional issues.** In the late 1980s there was growing recognition and discussion of the potential effects of macroeconomic and structural adjustment programs on poverty and inequality, including by the IMF's Executive Board (IMF, 1995). Guidance notes from management on how income distribution and social expenditures should be addressed by staff, in the context of the Fund's mandate, were issued in the mid-1990s (IMF, 1996, 1997). The Fund also expanded its analytical work in this area, drawing on contributions from leading academics (Tanzi and Chu, 1998; Tanzi, Chu, and Gupta, 1999). More recently, work on equity covered jobs and growth ([IMF, 2012](#))—a guidance note on the latter was issued to Fund staff in 2013 (IMF, 2013).

**7. The 2013 guidance note on jobs and growth issues stressed the importance of incorporating labor market and distributional issues in surveillance and program work.** The note reflects the understanding that more systematic diagnostic analysis of constraints to inclusive growth and jobs and more systematic integration of advice on policies and reforms to promote growth, jobs, and inclusion are needed in surveillance and program work. However, the note also highlighted that the debates on several macro-critical aspects of inequality were open, including the relationship between inequality and growth; the effects of income distribution on growth; the determinants of, and the scope for, income redistribution; and the impact of policies and reforms on inequality and the transmission channels.

**8. Since then, research, including by the IMF, has provided some additional clarity on these issues.**<sup>6</sup> Recent empirical work finds that high levels of inequality are harmful for the pace and sustainability of growth, and conversely, for a given level of redistribution, lower inequality is correlated with faster and more robust growth ([Ostry, Berg, and Tsangarides, 2014](#); Dabla-Norris and others, 2015<sup>7</sup>), though the impact depends on country specificities (Grigoli, Paredes and Di Bella, 2016). Also, redistribution generally has a benign impact on growth, and only in extreme cases its growth impact is negative ([Ostry, Berg, and Tsangarides, 2014](#)). Rising inequality appears to have been an important contribution to the global financial crisis (Rajan, 2010, Kumhof and Ranciere, 2010). Documenting the downward trend in labor share of income over the past two decades, the [Spring 2017 World Economic Outlook \(WEO\)](#) (IMF, 2017a) finds that technological progress explains half of the decline in advanced economies, while the expansion of global value chains accounts for most of it in emerging markets. [Clements and others \(2015\)](#) discuss how fiscal policy can be a powerful tool for addressing redistributive issues. The [October 2017 Fiscal Monitor](#) discusses how fiscal policies can help achieve redistributive objectives, focusing on (i) tax rates at the top of the income distribution, (ii) the introduction of a universal basic income, and (iii) the role of public spending on education and health. Since the drivers of inequality in emerging market and developing countries (EMDCs) could differ from those in advanced markets, policies should be tailored to country-specific conditions. Taking stock of lessons from pilots that analyzed the distributional impact of pro-growth policies and reforms, [Fabrizio and others \(2017\)](#) confirm that macro-structural policies aimed at boosting growth in developing countries may have important distributional consequences that can be addressed by designing reform packages that make pro-growth policies more inclusive. The [Note for the G20](#) (IMF, 2017b) on inclusive growth provides information on a variety of policies and tools for addressing inequality.

**9. The analytical work was accompanied by an institutional commitment to help deliver on the 2030 development agenda.** As part of the commitments laid out in the Financing for Development Policy Paper (IMF, 2015a), the Fund pledged to deepen the analysis of issues related to inclusive growth (such as income and gender inequality, and financial inclusion) and to increase the impact of its analysis on operational work. In 2015 the IMF took action to operationalize its inequality work. It established an advisory group with the objective of providing support to country teams. It has developed tools to analyze distributional issues, helped to develop relevant in-house expertise, and enhanced collaboration with external institutions. At the same time, it adopted a pilot approach for operationalizing its work on inequality with the objective of providing lessons on how to effectively integrate distributional issues into broader surveillance and program work.

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<sup>6</sup> Annex I provides a list of recent analytical and policy work on inequality-related issues.

<sup>7</sup> Dabla-Norris et al. (2015) also find that wealth inequality is more extreme than income inequality. This makes it harder for middle and lower-income families to set aside money, including to invest in education, and has implications for the inequality of opportunity,

## A. The Interdepartmental Group on Inequality

**10. The interdepartmental inequality advisory group was created to contribute to capacity building and provide support to country teams.** Led by senior staff in FAD, RES, and SPR and including representatives from area and functional departments, the group was tasked with contributing to capacity development (including by leveraging external expertise) and supporting work on inequality and redistributive issues carried out by Fund economists. The group undertakes several activities including knowledge sharing, providing guidance and coordination, and a forum for discussion on analytical approaches and policy options. It has also acted as a catalyst to promote external collaboration and leverage outside resources and knowledge, as in the case of the collaboration with Commitment to Equity Project (CEQ) and the UK Department for International Development (DFID), as well as the World Bank and OECD. The advisory group will continue to support country teams after the completion of the third wave of country pilots to facilitate the incorporation of inequality analysis into surveillance, where relevant.

## B. Resources

**11. Staff and authorities have also benefitted from capacity development activities.** Training, courses on inclusive growth and fiscal policy analysis have been administered by Institute for Capacity Development (ICD) since 2013; courses on energy subsidy reform (both on-line and face-to-face) include modules on distributional analysis. Similarly, distributional analysis features as an integral part of FAD technical assistance and is routinely used to inform recommendations on reform design (such as in the context of tax, energy subsidy, and social protection reforms). Significant effort has also been devoted to support internal capacity development and provide country teams with tools for addressing distributional issues.

**12. Knowledge sharing tools have also been developed to provide guidance, support materials, and data sharing for inequality analyses.** A knowledge exchange website (available only to IMF staff) has been created and recently revamped to provide a platform for sharing information and knowledge. The site contains general information on inequality and distributional issues and more specific documentation on the work of the advisory group and inequality pilot countries.

Material available on the site covers:

- The activities of the inequality advisory group (including offering links to relevant background documentation);
- Background on inequality trends, inequality indicators, and relevance for the IMF;
- Analytical tools developed inside and outside the Fund (Box 1);
- The completed and on-going work of pilot countries (with links to outputs produced by completed pilots);
- Selected papers and publications both by IMF staff and external scholars;

- Links to other internal and external web resources and data repositories, including the IMF Knowledge Exchange (KE) website on Jobs and Growth, the World Bank (e.g., the ASPIRE web page and the Poverty Research Program), OECD, EUROMOD, and LIS relevant web pages.

**13. Cooperation with external organizations is important for leveraging information and knowledge developed outside the Fund.** As discussed above, complementarities with the World Bank have created important synergies between the two institutions in several pilots with an efficient division of labor. Collaboration with CEQ has resulted in additional tools and resources available to staff (Box 1). Similarly, country teams should think strategically about how to contribute to and leverage cross-country departmental work, which may further help in lowering pressures on available resources. Examples of departmental outputs in which inequality/distributional issues feature prominently are the October 2015 AFR [“Regional Economic Outlook: Sub-Saharan Africa Dealing with the Gathering Clouds,”](#) October 2017 MCD [“Regional Economic Outlook: Promoting Higher and Inclusive Growth in MENA,”](#) or the 2018 IMF Staff Discussion Note on [“Inequality and Poverty Across Generations in European Union”](#)

#### Box 1. Available Analytical Tools for Distributional Analysis

- Country teams have access to analytical tools for distributional analysis that have been developed inside the Fund and in collaboration with other organizations. Over the past few years, tools have been developed to support operationalization of distributional analysis:
- The tool and template for distributional analysis of energy subsidy reforms (available both in excel and Stata format and accessible also by country officials on the IMF web page <http://www.imf.org/external/np/fad/subsidies/>). An online course is also available at <https://www.edx.org/course/energy-subsidy-reform-imfx-esrx-1>.
- The general equilibrium model developed in partnership with DFID. The model, already used in several pilots, allows to analyze the macroeconomic and distributional impact of a diverse set of policies (such as fiscal consolidation, financial liberalization, fertilizer subsidies reforms, or commodity cycles) and now also offers a user-friendly interface for analyzing the impact of revenue mobilization policies (for instance VAT or PIT) to finance selected spending programs (such as cash transfers and infrastructure investment). More detail on the model and specific documentation is available on the inequality KE website.
- Experts from Commitment to Equity Project (CEQ) have made available to IMF country teams their tool for undertaking incidence analysis of public policies and the methodology has been used in some country pilots. The approach relies on methodologies to allocate spending and revenue programs across the population, which facilitates an analysis of their poverty and distributional impacts.

## C. Pilot Initiative

**14. The experience of inequality pilots created value added in country work.**<sup>8</sup> The pilots have broadened the scope of the Fund’s policy dialogue beyond more traditional issues, helping assess the impact of inequality on growth and stability in some cases and the distributional impact of policies and reforms in others, depending on the country circumstances and the authorities’ interest. Overall, policy traction has been encouraging, especially in cases where

<sup>8</sup> See Annex II for a list of pilot countries, topics, and recommendations.

these issues were already on the authorities' policy agenda, with some countries proactively approaching staff for policy advice (e.g., China and Malawi). While there was some initial skepticism among some authorities, particularly of countries participating in the first wave of inequality pilots, on the relevance of the issues, staff managed to make a convincing case of the macro-criticality of these issues. And in some cases, where authorities were not initially engaged, staff were able to conduct country-tailored analysis that triggered positive discussions (e.g., Slovakia). In some countries, engagement on inequality issues continued into the following Article IV discussions (Bolivia, Korea, and Republic of Congo).

**15. The range of issues covered in the pilots reflects the complexity and the various facets of inequality.** Topics included: a comparative analysis of inequality and poverty outcomes (China, Djibouti, Lithuania, Singapore, Sudan, and United States); impact of proposed policy measures on inequality (China, Costa Rica, Ethiopia, Guatemala, Honduras, Malawi, Myanmar, Republic of Congo, Togo, Zambia, and the United States); regional income inequality (Brazil, Poland, and Slovakia); strengths and weaknesses of the social safety net (China, Honduras, Korea, and Pakistan); impact of the commodity boom-bust cycle on inequality and poverty dynamics (Bolivia and Paraguay); and impact of labor market duality on inequality (Korea).

**16. Most pilots document drivers of and obstacles to reducing inequality.** Drivers include (i) unequal spatial and social access to public services (e.g., lack of transport infrastructure in rural areas in the Republic of Congo); (ii) labor market "duality" (e.g., inequality between regular and nonregular workers in Korea, between formal and informal workers in Colombia, between communities in Israel, between regions in Brazil, China, Poland, and Slovakia, and between workers in the United States); and (iii) low financial inclusion (e.g., low access to financial services in rural areas of Ethiopia and Myanmar). Poorly targeted social spending and subsidies are important obstacles to reduce inequality in many countries (e.g., high leakage in social protection programs in the Kyrgyz Republic and Pakistan, or high public spending on an inefficient public pension scheme in Brazil, or incidence analysis of fiscal policies in Togo).

**17. Most pilots also provide policy recommendations to address inequality-related issues.** Under tight fiscal conditions, staff advice focused on generating fiscal room through increased revenue mobilization (Republic of Congo, Guatemala, and Honduras), and introducing or expanding cash transfer programs targeted at the poor, along with prioritizing public investment in both physical and human capital on projects that bridge important gaps (e.g., lack of transport infrastructure; lack of access to health, education, financial services; low labor skills).

**18. Many pilots have benefited from internal resources and external collaboration in conducting their analysis.** These collaborations have helped country teams to overcome data challenges and capacity limitations. Country teams have access to a variety of internal and external resources (described above), that allows for high quality analysis tailored to country-specific circumstances while keeping resource costs manageable. For example, inequality studies for Honduras, Ethiopia, Mozambique, Myanmar, among others, have benefitted from DFID support. The inequality analyses for Togo and Zambia were conducted in collaboration with CEQ. The inequality analysis in China was made in collaboration with ADB.

Also, there are opportunities to leverage the work at local and regional events and to produce and disseminate analysis and key results in a variety of forms (reports, Selected Issue Papers (SIPs) and working papers). Pilot work has also featured in the *Regional Economic Outlook* (for example in the cases of Republic of Congo, Korea, and Myanmar) and was leveraged for further analysis in flagship publications such as the Fall 2017 Fiscal Monitor (Bolivia and the United States).

## INCORPORATING INEQUALITY-RELATED ISSUES IN COUNTRY PAPERS

### 19. Discussions of inequality should be guided by the following considerations

(Table 1 provides a list of more specific questions): (i) explaining the focus on inequality (it is affecting macroeconomic stability and growth and/or there are concerns about the distributional impact of macro-structural policies); (ii) establishing the facts; (iii) identifying the driving forces behind distributional concerns; (iv) designing policy options to tackle distributional challenges; (v) understanding how policies addressing inequality would impact on macroeconomic stability and growth and vice versa. Box 2 presents three examples of how the discussion of inequality-related issues was incorporated in country papers.

- **How does inequality fit in the overall macroeconomic picture?** Are there concerns for macroeconomic stability, growth and its durability? Inequality can affect economic performance through several channels. It can yield a less efficient allocation of resources as the poor may be unable to invest in human capital, which would have adverse implications for long-term growth. Inequality can also cause social conflicts and induce political instability, which in turn, could reduce public support for pro-growth and macro-stability reforms.
- **Are there policies and reforms for promoting macro-stability and growth that can have an adverse distributional impact?** How can it be mitigated? Some policies and reforms for promoting macroeconomic stability and growth can have a detrimental distributional impact (Fabrizio and others, 2017). This calls for alternative policy packages design to prevent such negative externalities and mitigating policies that would shield the most vulnerable from unfavorable effects. For example, financial sector reform in Ethiopia stimulating private sector activity in the manufacturing sector could boost growth, but have a detrimental distributional impact on the income of the rural population without access to financial services (IMF, 2015b). Policies to increase financial access and increase rural-urban mobility could improve the productivity of rural workers, thus boosting growth, while reducing inequality and poverty in the medium term. Cash transfers can also provide immediate support in the short run. Reforms of agricultural subsidies (as in Malawi) could support growth but increase poverty and inequality (IMF, 2015c). Spending on R&D in agriculture could boost productivity of poor farmers and reduce poverty and inequality. For those most adversely affected by the reform, cash transfers can provide immediate relief if effective social safety nets exist.

## Box 2. Examples of How Inequality-Related Issues have been Incorporated in Country Work

The 2016 Article IV consultations with Bolivia, the 2015 Article IV consultation with Ethiopia, the 2016 Article IV consultation with the Republic of Poland, and the 2016 and 2017 Article IV consultations with the U.S. follow good practices on how inequality-related issues can be incorporated in country work.

### Bolivia

- **Why a focus on inequality?** Lower commodity prices since 2014 present a challenge for sustaining growth and reducing inequality and poverty that Bolivia achieved during the previous period of commodity price boom.
- **The facts.** During 2006–2015, inequality, as measured by the Gini index, declined sharply. Using a dynamic stochastic general equilibrium model with sectorial heterogeneous agents, the team estimated that about two-thirds of the inequality reduction was due to the commodity price boom—one-third directly through its impact on rural incomes, and one-third indirectly through its impact on government revenues that allow for a substantial expansion in social programs.
- **Driving forces behind distributional concerns.** The sizable fiscal revenues that prevailed over the past decade and supported inequality and poverty reduction have shrunk, turning the fiscal balance into deficit. Fiscal consolidation is needed for preserving macroeconomic stability. This could threaten the financial support needed to maintain social spending, with potential adverse implications for inequality.
- **Policy options to tackle distributional challenges.** Greater competition in the provision of social services and greater focus on social spending outcomes can help reduce the negative distributional impact of fiscal consolidation. Better targeting of social assistance will likely require building administrative capacity.
- **Impact on macroeconomic stability and growth.** Without fiscal consolidation, GDP was estimated to shrink by the end of the next decade, poverty reduction would slow down, and inequality would increase. Under a scenario of fiscal consolidation and more efficient social spending, the negative impact on growth would be less than half compared to the no-consolidation scenario and inequality would slightly decrease.

### Ethiopia

- **Why a focus on inequality?** Ethiopia aims at increasing private sector participation and developing the manufacturing sector. Financial sector reform to further develop the financial sector could support these objectives. However, this reform is likely to increase income inequality and the gap between the rural and urban population.
- **The facts** the financial sector in Ethiopia is relatively underdeveloped, with large part of funds channeled to finance public enterprises. Interest rates on deposits are negative in real terms. The rural population does not have access to financial services, which are highly concentrated in urban areas.
- **Driving forces behind distributional concerns.** Financial sector reforms for increasing private sector participation and developing the manufacturing sector could have regressive outcomes from a distributional standpoint even as growth would strengthen. With no access to financial services in rural areas and limited rural-urban mobility, agricultural workers have little opportunity to shift to higher-productivity activities and sectors, so wages would not equalize, increasing inequality across sectors. Also, inequality would increase because firms that export agricultural goods would switch to (more profitable) manufacturing goods, lowering the demand for agricultural inputs, thus reducing the income of small farmers.
- **Policy options to tackle distributional challenges.** Complementing the financial sector reform with measures to increase financial access in rural areas and facilitate rural-urban sectoral labor mobility would mitigate the negative distributional effect of the reform. Increasing the cash-transfer program could protect the most vulnerable in the short term.
- **Impact on macroeconomic stability and growth.** Using a dynamic stochastic general equilibrium model with sectorial heterogeneous agents, staff estimated that the reform package could boost private sector activity and economic growth. Higher deposit rates would increase private saving, expanding available lending resources. Private sector credit would therefore increase, pushing down lending rates and increasing investment—which would more than triple—contributing to economic growth. This would also boost tax revenues, allowing the government to reduce borrowing and contain the cost of public debt financing.

## Box 2. Examples of How Inequality-Related Issues have been Incorporated in Country Work *(concluded)*

### Poland

- **Why a focus on inequality?** Despite the strong economic performance that Poland enjoyed in recent years, the quality of growth is undermined by enduring regional disparities. The eastern regions have not been catching up to the western ones, holding back convergence to the EU average income levels.
- **The facts.** Eastern regions in Poland have lower per-capita GDP, productivity, and educational attainment levels, while also exhibiting higher poverty and long-term unemployment rates.
- **Driving forces behind distributional concerns.** A large agricultural sector concentrated in the Eastern regions combined with lower-quality infrastructure and bottlenecks in cross-regional mobility perpetuate the productivity gap between regions, exacerbating regional inequality.
- **Policy options to tackle distributional challenges.** Policies that would reduce income inequality across regions and boost regional productivity convergence include supporting structural transformation in the east, facilitating labor mobility, and attracting Foreign Direct Investments (FDI) to less productive regions
- **Impact on macroeconomic stability and growth.** The team estimated that Poland's GDP per capita could be increased by 7 percent if one-third of the gap between regions with GDP per capita below average and the four regions, which are above average, was closed. This would imply an additional 5 percent convergence to the EU28 average income level. Boosting labor productivity growth in lagging regions is key to reducing regional disparities.

### United States

- **Why a focus on inequality?** Increased inequality and income polarization may have contributed to lower productivity growth and potential GDP in the US in recent decades. As such, the subject of inequality and income polarization has been studied in the two most recent Article IVs. The 2016 Article IV and its accompanying Fund working paper (WP16/121) established that the rising income polarization observed since the turn of the current century has resulted in a significant loss of private consumption. In turn, the 2017 Article IV and the accompanying Fund working papers (WP17/244 and WP17/192) discussed the causes for such polarization of income and expanded the analysis to determine the possible macroeconomic and distributional impact of income tax reform. At the time of the 2017 Article IV, the US authorities were contemplating income tax reform aimed at boosting GDP and generating more jobs. Fund studies found that the reform could have important distributional effects with a further increase in income polarization and added reduction of the labor share of income, which could be only partially mitigated by higher growth. Furthermore, increased budget deficits and debt could have a negative impact on future generations' wealth.
- **The facts.** US economy is undergoing one of its longest expansion in history, but its growth prospects are constrained by weak productivity growth, falling labor participation, increasingly polarized income distribution, and high levels of poverty.
- **Driving forces behind distributional concerns.** Reducing personal income tax to high income groups might not boost consumption, investment, and labor supply sufficiently to allow for a trickle down of the benefits of the tax reform to those at the medium and bottom of the earning scale.
- **Policy options to tackle distributional challenges.** Even though tax cuts for higher income groups may generate greater gains in GDP, personal income tax cuts should be targeted at middle-income groups to obtain some trickle down to lower income individuals while reducing income disparity between higher income groups and the rest of the population.

**Impact on macroeconomic stability and growth** Using a dynamic stochastic general equilibrium model with sectorial heterogeneous agents, the team derived three important results from the simulations: i) personal income tax cuts can provide a one-time boost to GDP, consumption and investment, but the effects are not large enough to prevent a loss of revenue; ii) income tax cuts to high income groups can benefit those at the bottom of the earning scale even if they do not receive a tax cut (through their impact on low-skill-job wages not subject to mechanization); iii) a tradeoff between growth and income inequality can arise as tax-rate cuts for higher income groups would increase income inequality and polarization but have larger impact on GDP than tax rate reductions for middle-income groups.

- How sizeable is inequality? What are the drivers behind inequality developments?** Analysis of inequality trends and benchmarking inequality across comparators could rely on a variety of indicators. The various indicators reflect many dimensions across which inequality can be assessed. For instance, an important distinction exists between inequality of outcomes (ex post) and inequality of opportunity (ex-ante) (Box 3). The most widely cited measure of inequality of outcomes is income inequality, typically measured by the market (before direct taxes and transfers) and disposable (after direct taxes and transfers) income Gini coefficient or by other summary indicators, such as the income shares of the population (by deciles or quintiles).<sup>9</sup> Besides income, other measures widely used focus on wealth inequality (mostly for advanced economies due to data availability). For example, information on the assets held by the wealthiest offers a complementary perspective on financial inequality. Inequality of opportunities relates to differences in opportunities to access basic services (e.g. health, education, and infrastructure) and to financial and labor markets. While conducting quantitative analysis, it is important to also consider people's perception of inequality as that can impact on traction of advice. Furthermore, the diagnosis of income inequality could usefully consider how drivers may interact to create a vicious circle over time (e.g., inequality of access to education is both a consequence of today's income and wealth inequality and a cause of tomorrow's inequality).
- What are the obstacles to reducing inequality?** If the level and/or trend of inequality are of concern, the next step is to identify the driving forces. The obstacles can include a variety of factors, for example: disparities in productivity growth (e.g. regional inequality in Poland is driven by productivity differential among regions, which, in turn, limit overall growth and convergence with EU average GDP per capita); unequal spatial and social access to services (e.g., lack of access to financial services in rural areas in Ethiopia); labor market duality (inequality between regular and non-regular workers in Korea, formal and informal workers in Colombia, or between communities in Israel); and poorly designed fiscal redistribution (Kyrgyz Republic).<sup>10</sup>
- What are the policies to tackle distributional challenges?** Policy recommendations depend on the underlying forces driving inequality, the available policy space, the country's political economy and implementation capacity, society's preference for redistribution, and prioritization in the policy agenda. A guiding principle should be options for efficient redistributive policies that do not compromise macroeconomic stability and growth. Concerning fiscal policy, the main tool for redistribution, the [FAD book](#) on fiscal policy and income inequality (Clements and others, 2015) and the 2017 Fall Fiscal Monitor (IMF 2017) provide guidance on tax and expenditure tools. The [Staff Discussion Note \(SDN\) on](#)

<sup>9</sup> Income inequality indicators for benchmarking are available from several data providers (such as OECD and World Bank) and caution should be used when drawing data from different sources because of differences in concepts and methodologies. The 'FAD Income Inequality (Gini) Database' brings together data from five main sources (World Bank, OECD, SEDLAC, Eurostat and LIS). The accompanying methodological note (also available on the website) offers detailed information on the reported data.

<sup>10</sup> Bastagli, Coady, and Gupta (2012) document how fiscal policy plays a much smaller redistributive role in developing compared to advanced economies reflecting both low and poorly targeted spending.

[macro-structural policies and income inequality in low-income developing countries](#)

(Fabrizio and others, 2017) and the [Note for the G20](#) (2017b) on inclusive growth provide information on a variety of useful policy tools for addressing inequality. In Fund-supported programs, while economic stability and poverty reduction should remain central, if high and rising inequality is assessed to have adverse implications for stability, policy recommendations would also need to address inequality, which could also take the form of conditionality, if deemed to be macro-critical for the program.

- **How do policy recommendations for addressing inequality fit in the overall policy mix and what are the policy interactions?** Country reports should provide a discussion of costs, if any, of implementing policy recommendations, and their potential impact on macroeconomic stability and growth. In general, a comprehensive approach that delivers a consistent policy strategy would be the best way to ensure that distributional concerns are integrated within the broader macro policy advice.

### Box 3. Inequality Indicators and their Measurement

Economic inequality can be viewed from different perspectives. Indeed, distributional issues are complex and multifaceted, and the selection of the most appropriate indicators will depend on the focus of the analysis. The list below summarizes the most frequently used approaches and indexes. In general, it is advisable to consider a number of dimensions that are relevant for the policy issue under consideration. As an example, pre- and post-taxes and transfers income inequality indicators may highlight problems both in the primary income distribution and in the effectiveness of tax/transfers policies, or a joint analysis of financial inclusion and wealth inequality may support a discussion of what policy measures may be more relevant to enhance access to financial services.

- *Inequality of income* focuses on the inter-personal distribution of income, which captures how individual or household incomes are distributed across the population at a point in time. The income definition can also vary: market and disposable income are commonly used aggregates.
- *Inequality of wealth* focuses on the distribution of wealth across individuals or households, which reflects differences in savings as well as bequests and inheritances.
- *Lifetime inequality* measures inequality in incomes or earnings for an individual over his or her lifetime, rather than for a single year.
- *Inequality of opportunity* focuses on the relationship between income inequality and social mobility.

Frequently used measures of inequality differ in the concepts on which they are based and in their sensitivity to incomes at different points along the income distribution:

- *The Gini coefficient* measures dispersion of a frequency distribution, ranging from 0 if all individuals have the same resources/endowment (perfect equality) to 1 if all resources/endowment are held by only one person in the population (perfect inequality).
- *Quintile ratio*. The quintile income (or expenditure) ratio is the ratio of the total income (or expenditure) of the top (richest) 20 percent of the population to that of the bottom (poorest) 20 percent. More generally, income ratios can be computed for different population shares.
- *Generalized entropy* is one member of a family of measures derived from the notion of entropy in information theory. It is also known as *Theil's second measure* and can be decomposed to measure inequality between and within groups.
- *Growth incidence curves* plot per capita income (or expenditure) growth at each point of an income distribution between two periods.
- *Inequality of opportunities* indicators capture access to various aspects that are related to social mobility. For example, these could include access to health (or education) services by groups in different parts of the income distribution,<sup>2</sup> or outcomes measures such as infant mortality and life expectancy (or educational attainments) by different levels of income or aggregate indicators such as a Gini index of education outcomes. Access to job opportunities is another aspect that can be captured by indicators such as unemployment by groups, for example youth and long-term unemployment. Gender-based inequality in its multiple dimensions, for example in economic participation, education, health and financial access, is also strongly associated with income inequality.
- *Financial Inclusion indexes* include number of adults with an account at a formal financial institution and number of adults that borrowed from a financial institution for different income levels. The Financial Access Survey (FAS) is a comprehensive source of information on financial access and inclusion.<sup>3</sup>

<sup>1</sup> When using external data source, staff should keep in mind the IMF policy on the use of [Third Party Indicators \(TPIs\)](#).

<sup>2</sup> Data on resources spent on key government functions (such as health and education) can complement direct access indicators to provide insights on equality of opportunities.

<sup>3</sup> FAS has been conducted since 2009, FAS data and metadata are available at <http://data.imf.org/FAS>.

Table 1. Illustrative Questions on Income Inequality Issues in Surveillance and Program Work

Why a focus on inequality?	Establish the facts	Identify the driving factors behind distributional concerns	Policy options to tackle distributional challenges	Other considerations
<ul style="list-style-type: none"> <li>• How does inequality fit in the overall macro-picture?</li> <li>• Are there concerns for macroeconomic stability, growth and its durability?</li> <li>• Do the authorities see tackling inequality as a priority? How does inequality fit within the country's development strategy?</li> <li>• Is there a case that more equal income distribution may be desirable given social preferences?</li> <li>• Have the authorities embarked on policies and reforms for macro stability and growth that can have distributional impact?</li> </ul>	<ul style="list-style-type: none"> <li>• How high is inequality and how does it compare to other countries?</li> <li>• What has been the trend in inequality over time and in across countries?</li> <li>• What are the different dimensions of income inequality? (market vs disposable income inequality, income inequality across rural and urban areas, inequality across regions, inequality in access to education and health). What is people's perception on inequality? (based on survey data or discussion with unions and Civil Society Organizations (CSOs))</li> </ul>	<ul style="list-style-type: none"> <li>• What are the sources of inequality? (e.g. inadequate public spending on health, education, and infrastructure; weak growth; severe recession; economic transformation; technological change, etc.)</li> <li>• How do existing policies and reforms affect the country's income distribution?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the policy options to address existing inequality issues?</li> <li>• If existing policies are not inclusive as warranted, how to address this challenge?</li> <li>• Are planned macro policies and structural reforms likely to have an adverse impact on income distribution? How can this adverse impact be mitigated? And what are the appropriate policy tools?</li> <li>• What is the macroeconomic cost of the policy options to address income inequality?</li> <li>• Among the various policy options available, what are those that would have the biggest impact on reducing inequality given country's specificities and circumstances?</li> <li>• Does the country have adequate capacity to implement the recommended policies?</li> <li>• How do policies interact and are there trade-offs? What are the authorities' views on potential policy trade-offs?</li> <li>• Do policies involve a poverty-inequality trade-off (e.g. energy subsidy reform) and how to address it?</li> </ul>	<ul style="list-style-type: none"> <li>• What is the involvement of other development partners on inequality issues in the given country?</li> <li>• Is their policy advice consistent with the Funds' and is there a scope for collaboration?</li> </ul>

## COLLABORATION WITH PARTNER INSTITUTIONS

**20. Staff should collaborate with partner institutions, where appropriate, to leverage their considerable knowledge and expertise on inequality issues.** The World Bank has proven an important partner and there is room for taking advantage of complementarities in the activities of the Fund and the Bank. For example, in the case of Malawi, the Fund contribution focused on assessing the macroeconomic and distributional impact of agricultural subsidy reform, highlighting the need to strengthen social assistance programs. The World Bank has taken the lead on the design and implementation of the measures to review and strengthen these programs and on financing them. In the case of Ethiopia, the IMF distributional analysis of fiscal and financial reforms was used by the World Bank as input to their Systematic Country Diagnostic for the country. Collaboration with the CEQ has also proved very valuable for several pilots in the African region.

**21. Stakeholders' interest in Fund's work on income inequality has often allowed staff to draw others' attention to issues of inequality.** The donor community has been appreciative of the inequality work and has actively supported income inequality initiatives by the Fund. As the outreach during the Article IV missions often sparked stimulating debates, external institutions have also picked up the topic of income inequality in their own work (e.g. the European Commission (EC) and the OECD in the case of Lithuania). Engagement with a broader set of stakeholders, including unions and CSOs, can play a useful role in generating third-party impetus for the authorities to address inequality issues in their policy dialogue and formulation.

**22. Staff outreach on inequality issues with CSOs and labor unions is key to raising awareness of the Fund's efforts to foster inclusive growth, but also to learn from their perspective.** Close dialogue with CSOs could help gather broader perspectives about the impact of the Fund's work, dispel public misconceptions of the IMF and its activities, enhance program ownership and facilitate acceptance of reforms. It is important that staff explains clearly why the Fund is concerned about equity issues, how this is taken into account in the formulation of policy advice and how this helps the country in achieving its development goals and macroeconomic objectives. In program contexts, early engagement with CSOs during program negotiations would provide opportunities to enrich staff's understanding of country circumstances and thereby improve program design, help influence opinions makers and strengthen traction of IMF policy advice. Overall, in its interaction with CSOs, staff should follow the general principles and best practices laid out in [the 2015 Staff Guidelines on IMF Staff Engagement with Civil Society Organizations](#).

**23. Engagement with CSOs has been positive in pilot countries.** For example, the IMF team for the Republic of Congo had constructive discussions on governance in the oil sector with CSOs, which provided the team with useful suggestions on governance measures that could help reduce poverty and inequality. The Brazil team engaged with CSOs on pension and labor reforms, as well as the Fund's forthcoming book on future reforms and possible growth-inequality trade-offs. In Zambia, the inclusion of water and sanitation as part of social spending in the IMF-supported program drew on the conclusion of a recent CSOs' position paper on gender and inequality issues. The Fund also participated in a CSO policy forum organized by Oxfam during the 2017 Annual Meetings on their assessment of the Fund's inequality pilots experience, where the usefulness of ex- ante consultations with CSOs in the context of programs was highlighted, particularly in Ghana.

## Annex I. Selected Analytical and Policy Work

Recent key analytical outputs are listed below:

Ball, L., D. Furceri, D. Leigh, and P. Loungani, 2013. "The Distributional Effects of Fiscal Consolidation." IMF Working Papers 13(151).

Bastagli, F., D. Coady and S. Gupta, 2012, *Income Inequality and Fiscal Policy*, IMF Staff Discussion Note SDN/12/08, Washington.

Berg, A, and J.D. Ostry, 2011, "Inequality and Unsustainable Growth: Two Sides of the Same Coin?" IMF Staff Discussion Note 11/08, Washington. IMF Economic Review (forthcoming).

Clements, B., R. de Mooij, S. Gupta, and M. Keen, eds., 2015, *Inequality and Fiscal Policy*, IMF, Washington.

Coady, D., and A. Dizioli, 2018, "Income Inequality and Education Revisited: Persistence, Endogeneity and Heterogeneity," *Applied Economics*, forthcoming 2018. Available at: <http://www.tandfonline.com/doi/full/10.1080/00036846.2017.1406659>

Dabla-Norris, E., K. Kochhar, N. Suphaphiphat, F. Ricka, and E. Tsounta, 2015, "Causes and Consequences of Inequality: A Global Perspective," IMF Staff Discussion Note 15/13, Washington.

Fabrizio, S., D. Furceri, R. Garcia-Verdu, B.G. Li, S. Lizarazo, M. Mendes Tavares, F. Narita, and A. Peralta, 2017, "Macro-structural Policies and Income Inequality in Low-Income Developing Countries," IMF Staff Discussion Note SDN/1/17, Washington.

Francese, M., 2015, *Harnessing the Power of Fiscal Policy to Mitigate Inequality*, IMF Survey, Washington.

Francese, M. and C. Mulas Granados, 2015, *Functional Income Distribution and Its Role in Explaining Inequality*, IMF Working Paper No. 15/244, Washington.

Furceri, D., and P. Loungani, 2015, "Capital Account Liberalization and Inequality," IMF Working Paper 15/243 (Washington: International Monetary Fund). *Journal of Development Economics* 2018. <https://www.sciencedirect.com/science/article/pii/S0304387817300706>

Furceri, D., P. Loungani and A. Zdzienicka, 2016, "The Effects of Monetary Policy Shocks on Inequality," IMF Working Paper 16/245 (Washington: International Monetary Fund); *Journal of International Money and Finance* (forthcoming). <https://doi.org/10.1016/j.jimonfin.2017.11.004>

Furceri, D., and G. Li., 2017, "The Macroeconomic (and Distributional) Effects of Public Investment in Developing Economies," IMF Working Paper 17/217 (Washington: International Monetary Fund).

Grigoli, F., E. Paredes and C.G. Di Bella, 2016, "Inequality and Growth: A Heterogeneous Approach," IMF WP 16/244, Washington.

Jaumotte, F., S. Lall, and C. Papageorgiou, 2013, "Rising Income Inequality: Technology, or Trade and Financial Globalization?" IMF Economic Review, Vol. 61, No. 2, pp. 271–309.

IMF, 2017a, Fiscal Monitor: Tackling Inequality, October, IMF: Washington.

IMF, 2017b, "Fostering Inclusive Growth," Note for the G20 Hamburg Summit, Washington.

IMF, 2017c, "Social Safeguards and Program Design in PRGT and PSI-Supported Programs," IMF Policy Paper, Washington.

IMF, 2017d, "Understanding the Downward Trend in Labor Income Shares," World Economic Outlook: Chapter 3 (Washington).

IMF, 2017e, "[Inequality of Opportunity, Inequality of Income, and Long-Term Growth](#)," in Euro Policies: Selected Issues, July, Washington.

IMF, 2014, Fiscal Policy and Income Inequality, IMF Policy Paper, Washington.

IMF, 2013, Guidance Note on Jobs and Growth Issues in Surveillance and Program Work, IMF Policy Paper, Washington.

IMF, 2012, Fiscal Policy and Employment in Advanced and Emerging Economies, IMF Policy Paper, Washington.

Ostry, J., A. Berg, and C.G. Tsangarides, 2014, "Redistribution, Inequality, and Growth," IMF Staff Discussion Note, SDN/14/02, Washington. *Journal of Economic Growth* (forthcoming).

Sonali, J.C., T. Kinda, K. Kochhar, S. Piao and J. Schauer, 2016, Sharing the Growth Dividend: Analysis of Inequality in Asia, IMF Working Paper No. 16/48, Washington.

Woo, J., E. Bova, T. Kinda and Y.S. Zhang, 2013, "Distributional Consequences of Fiscal Consolidation and the Role of Fiscal Policy: What Do the Data Say?," IMF Working Paper No. 13/195, Washington.

## Annex II. Inequality Pilot Initiative

Table 1. Inequality Pilots <sup>1</sup>						
Dept.	Country	Pilot Country Focus	Status and Outputs/Link if Published	Sources for information	Engagement with Authorities	Good Practices
AFR	<b>Congo, Rep of</b>	Impact of alternative fiscal consolidation options on growth, inequality and poverty dynamics and appropriate policy responses.	<a href="#">2015 Article IV</a> 2016 Art. IV report (Box), not yet published  Selected Issue Paper (SIP)  <a href="#">SDN</a>	World Bank reports and Household database	The analyses were presented to the authorities during the May 2015 and November 16 Article IV consultation missions.  The presentations were well received and based on discussions with the mission in December 2017, higher appropriations were allocated to social spending in the 2018 budget to mitigate the impact of the economic crisis on the most vulnerable.	Upcoming missions will leverage the work done during the Art. IVs and will elicit feedback from the authorities. Preliminary discussions with CSOs have been fruitful, with CSAs providing a list of governance measures to reduce poverty and inequality.  The 2016 Article IV benefited from a model developed by SPR economists and the DFID-supported group.
	<b>Ethiopia</b>	Impact of selected economic and financial reforms on inequality	<a href="#">2015 Article IV Staff Report</a>  <a href="#">SIP</a>		Given limited opportunity to engage with the authorities (one mission per year), Article IV discussion focused on other areas, not on inequality.	
	<b>Malawi (volunteer)</b>	Effectiveness of the rollout of the fertilizer reform, including the role of cash transfers and other safety nets.	<a href="#">2015 Art. IV Report</a>  <a href="#">SIP</a>		During the 2015 Article IV consultations, staff presented to the authorities the preliminary results, the authorities requested new experiments that were used to discuss the reform in the congress.	The analysis led to a strong coordination and cooperation with the authorities and the World Bank.  The project benefited from a model developed by SPR economists and the DFID-supported group.

<sup>1</sup> This annex covers wave 1 and wave 2 pilots. Wave 3 is currently underway.

Table 1. Inequality Pilots <i>(continued)</i>						
Dept.	Country	Pilot Country Focus	Status and Outputs/Link if Published	Sources for information	Engagement with Authorities	Good Practices
AFR					After the analysis, the authorities have taken a partial reform and engaged with the WB to extend the cash-transfer program in Malawi.	The project benefited from a model developed by SPR economists and the DFID-supported group.
	<b>Togo</b>	Impact of tax and public expenditure policy on household incomes and rural poverty.	<a href="#">20167 Art. IV (May April 2017)</a>  <a href="#">SIP</a>	Data provided by the authorities.	During the 2016 Article IV consultations, staff presented to the authorities the preliminary results on the incidence of VAT and electricity subsidies.  The authorities were interested and engaged in the discussions.	The team has collaborated with a research group CEQ, and the OECD to examine the fiscal incidence on inequality.  An ECF-supported program was approved in May 2017, but recent political turmoil is holding up engagement with stakeholders on inequality issues.
APD	<b>China</b>	Evolution and drivers of inequality and the role of fiscal policy in China.	<a href="#">SIP (August 2017)</a>  WP (planned)	China-specific data, World Bank data.	SIP presented during the Article IV outreach	The work draws on departmental research on inequality and benefits from close collaboration with FAD and other country teams (Korea).  The paper is a joint research product with ADB.
	<b>Korea</b>	Impact of labor market duality on rising inequality and analysis of the safety net's strengths and weaknesses.	Planned: Art. IV report (end 2017) (Box)  SIP  WP	The analysis has focused on data from the Korean authorities and cross-country databases provided by the OECD and SWIID.	2016 staff report, which already discussed inequality issues, received some media attention.  Inequality has not yet been discussed as a stand-alone topic.	

**Table 1. Inequality Pilots** *(continued)*

Dept.	Country	Pilot Country Focus	Status and Outputs/Link if Published	Sources for information	Engagement with Authorities	Good Practices
APD	<b>Mongolia</b>		The team has been in program negotiation mode. As a result, the inequality work has been put on hold.			
	<b>Myanmar</b> (Volunteer)	Macroeconomic and Distributional Implications of Financial Reforms in Myanmar.	<a href="#">2016 Art. IV report</a>  <a href="#">SIP</a>	Data were gathered from various sources, including the UN.	The authorities are highly receptive to the message that financial inclusion and access to credit needs to be expanded and are considering policy changes in line with those discussed in the SIP.  The SIP has been used for engagement with some stakeholders as part of overall post-A4 outreach.	The work was well supported by the review/advisory process, and exploited synergies with other similar studies, e.g., a parallel SIP on financial sector reform strategy.  The project benefited from a model developed by SPR economists and the DIFD-supported group
	<b>Singapore</b>	Analysis of inter- and intra-generational equity issues.	<a href="#">Art. IV report</a> (July 2017)	Mostly reports prepared by the authorities, such as budget documents, reports on income surveys, and the report by the Committee on the Future Economy.	The government has embarked on an ambitious, decade-long transition to a labor-lean, innovation based economy. A key objective is to build a more inclusive society with equality of opportunity and lifelong learning."	
EUR	<b>Denmark</b>	Showcase Denmark as a positive example on how it is possible achieve high	<a href="#">2016 Article IV Staff Report</a>		The authorities show little interest in the issue. Their view is that Denmark's egalitarian structure may	

<b>Table 1. Inequality Pilots</b> <i>(continued)</i>						
<b>Dept.</b>	<b>Country</b>	<b>Pilot Country Focus</b>	<b>Status and Outputs/Link if Published</b>	<b>Sources for information</b>	<b>Engagement with Authorities</b>	<b>Good Practices</b>
		redistribution and low inequality			dampen growth somewhat, but they noted a strong social preference to keep the structure	
	<b>Israel</b>	Labor duality between ethnic groups and distributive role of tax and transfer system on inequality.	<a href="#">2015 Article IV Staff Report</a> <a href="#">SIP</a>	Mostly national statistics of Israel.	Extensive discussions, including in subsequent Article IV missions, including with the National Insurance Institute which has extensive reports on poverty issues.  These discussions reinforced the team's view on raising the EITC (negative income tax) amount and expanding eligibility for that credit.	
<b>EUR</b>	<b>Lithuania</b>	Inequality and income distribution in Lithuania in an international comparison.	<a href="#">2016 Art. IV report</a> (1 Box and 1 Section) <a href="#">SIP</a>	Eurostat data and own calculations.  Several Fund SDNs addressing inequality and consequences of income inequality	The new government that took office after the 2016 Art IV has put concerns about income inequality toward the top of its agenda  Addressing income inequality will continue to be discussed and policies to reduce it will be refined.	
	<b>Poland</b>	Regional income inequalities	<a href="#">2016 Art. IV report</a> (1 Box) <a href="#">SIP</a>	The team relied on its own resources and did not engage with functional departments on this work.	The authorities were interested in the results of the work. The new government was elected on the platform of more inclusive growth and reducing social	

<b>Table 1. Inequality Pilots (continued)</b>						
<b>Dept.</b>	<b>Country</b>	<b>Pilot Country Focus</b>	<b>Status and Outputs/Link if Published</b>	<b>Sources for information</b>	<b>Engagement with Authorities</b>	<b>Good Practices</b>
				Data from Eurostat and Poland.	and regional disparities.	
<b>EUR</b>	<b>Slovakia</b> (Volunteer)	Optimal use of EU funds to reduce regional disparities.	<a href="#">2016 Art. IV report</a>  <a href="#">SIP</a>	The European Commission provided guidance on the EU funds data.	Regional disparity served as a key focus of the Article IV consultation. The authorities are starting to focus more on regional disparity issues. Regional disparities are expected to be discussed during the next Article IV cycle.	The SIP has been written by the Slovakia team at the request of the authorities
<b>MCD</b>	<b>Armenia</b> (Volunteer)	Growth inclusiveness	<a href="#">2017 Article IV Staff Report</a>  <a href="#">SIP</a>		Discussed during the Article IV mission and reflected in the SIP and a dedicated section of the staff report.	
	<b>Djibouti</b> (Volunteer)	Impact of economic growth on poverty reduction and income distribution.	<a href="#">2016 Art. IV report</a> , Appendix II "Growth Inclusiveness: Distributional and Gender Dimensions" (forthcoming)  <a href="#">WP "Growth inclusiveness in Djibouti,"</a> by A. Kireyev	The paper is based on household surveys provided by the authorities of Djibouti and uses the Distributional Analysis Stata Package. (WB, UNDP and Université Laval).	The findings of the paper were presented to the authorities in during the 2016 Article IV Consultations.	The methodology can be applied to many countries, provided household surveys are available. A WP presenting the methodology in a general context is in preparation.
	<b>Kyrgyz Republic</b>	Benchmarking and cross-country analysis to identify policies for reducing inequality.	<a href="#">2015 Article IV Staff Report</a> ,  <a href="#">SIP</a>	WB, UNDP, FAO.	Given importance of program issues, inequality discussions were not extensive.	

<b>Table 1. Inequality Pilots</b> <i>(continued)</i>						
<b>Dept.</b>	<b>Country</b>	<b>Pilot Country Focus</b>	<b>Status and Outputs/Link if Published</b>	<b>Sources for information</b>	<b>Engagement with Authorities</b>	<b>Good Practices</b>
<b>MCD</b>	<b>Mauritania</b>	Growth inclusiveness	<a href="#">2015 Article IV Staff Report</a>  <a href="#">SIP</a>		Issues discussed with the authorities during the Article IV mission.	
	<b>Pakistan</b> (Volunteer)	Assessment of poverty, inequality, and the role and efficiency of social safety nets.	<a href="#">2017 Article IV Report</a> and <a href="#">SIP</a>	The team interacted with the Pakistani authorities and FAD on social safety nets issues. The team used the World Bank database on social safety nets (ASPIRE) and development indicators.	The authorities were actively engaged in providing detailed information on safety net programs. The findings of the paper are presented to the authorities during the Article IV discussions (April 2017).	Coordination and cooperation with the authorities and the World Bank.
	<b>Sudan</b> (Volunteer)	Assessment of the challenges of inclusive growth and its policy options.	<a href="#">2016 Art. IV report</a> Annex	The team used resources from the Fund (SDNs) and World Bank (World Development Indicators).		
<b>WHD</b>	<b>Bolivia</b>	An empirical analysis of the factors driving poverty and inequality reduction in the last 15 years.  Impact of the commodity boom-bust cycle on inequality and poverty dynamics and appropriate policy responses.	<a href="#">2015 Art. IV report</a> (1 paragraph and 1 Box)  <a href="#">WP</a>  <a href="#">2016 Art. IV report</a> (1 paragraph and 2 Boxes)  <a href="#">WP</a>		Issues and results were presented to the authorities and discussed during Article IV mission.  The model was presented during a meeting with donors and at the IMF workshop on Macroeconomic Policy and Income Inequality. The authorities are very interested in the model and municipal-level analysis and	Paper was presented at the LAEC Annual Conference in Santa Cruz in October 2015  The donor community is clearly appreciative of the inequality work.  The project benefited from a model developed by SPR economists and the DIFD-supported group.

Table 1. Inequality Pilots (continued)

Dept.	Country	Pilot Country Focus	Status and Outputs/Link if Published	Sources for information	Engagement with Authorities	Good Practices
WHD					appreciated the focus on inequality.  The WP was presented during the Article IV mission.	
	<b>Brazil</b>	Regional inequality, policies driving inequality.  The impact of pension reforms on inequality.	Ongoing work: <a href="#">SIP</a>  And <a href="#">WP</a>  for the 2017 Art. IV	Numerous references to studies published by the IMF, WB, but also in Brazil by various think tanks, research institutes, and the academia	The topic proposal was received without major excitement as there are other important priorities for the immediate future. Nevertheless, the team discussed the results with the authorities and reached out to CSOs on the issue.  The topics was received with interest by the authorities, since this is an important reform on the government agenda.	There is a wealth of data and literature on inequality in case of Brazil.  In-depth collaboration with the WB, academia, and experts on the topic.  The project benefited from a model developed by SPR economists and the DIFD-supported group.
	<b>Colombia</b>	Drivers of inequality and financial inclusion	<a href="#">2015 Article IV Staff Report</a>  <a href="#">SIP</a>	WB, OECD, IADB.	Engagement with the authorities was very positive and outputs well received.	
	<b>Costa Rica</b> (Volunteer)	Impact of the proposed fiscal reform package on poverty and inequality using household survey micro-data.	<a href="#">SIP</a> for the 2017 <a href="#">Art. IV</a> (June 2017)	The projects based on the latest household survey.	The authorities expressed substantial interest in the project.	The work is a joint project with the CEQ Institute.
	<b>Guatemala</b>	Macroeconomic and distributional effects of fiscal policies and improved financial inclusion on poverty and inequality.	<a href="#">2016 Art. IV report</a> (1 Paragraph and 2 Boxes)  <a href="#">SIP</a>	Latest household survey microdata.	There was substantial interest from the authorities.	The project benefited from a model developed by SPR economists and the DIFD-supported group.

<b>Table 1. Inequality Pilots (concluded)</b>						
<b>Dept.</b>	<b>Country</b>	<b>Pilot Country Focus</b>	<b>Status and Outputs/Link if Published</b>	<b>Sources for information</b>	<b>Engagement with Authorities</b>	<b>Good Practices</b>
<b>WHD</b>	<b>Honduras</b>	Impact of tax reforms, improved macroeconomic stability, and enhanced social protection framework on growth and inequality.	<a href="#">2016 Art. IV report</a> (1 Paragraph and 1 Box)  WP (summer 2017)	The project benefited from a model developed by two SPR economists who extensively contributed to the project.	The results of the project were presented during the Article IV mission in 2016. The authorities were interested in the results and agreed with the analysis	The project benefited from a model developed by SPR economists and the DIFD-supported group.
	<b>United States</b>	Effects and trends in income polarization.  Effects of tax reform on Inequality	<a href="#">2016 Art. IV report</a> (Box)  <a href="#">WP</a>  <a href="#">2017 Art. IV report</a>  <a href="#">WP</a>			The project benefited from a model developed by SPR economists and the DIFD-supported group.

<b>Table 2. Third-Wave Pilots</b>	
Department	Country
<b>AFR</b>	Benin <sup>1,2</sup> ( <a href="#">2017 Article IV and Selected Issues</a> ) Nigeria <sup>2</sup> ( <a href="#">2018 Article IV and Selected Issues</a> ) Senegal <sup>1</sup> Swaziland <sup>2</sup> ( <a href="#">2017 Article IV and Selected Issues</a> )
<b>APD</b>	Cambodia Lao P.D.R.
<b>EUR</b>	France Ireland <sup>2</sup> ( <a href="#">2017 Article IV and Selected Issues</a> ) Kosovo
<b>MCD</b>	Morocco <sup>1,2</sup> ( <a href="#">2018 Article IV and Selected Issues</a> ) Tajikistan
<b>WHD</b>	Argentina <sup>2</sup> ( <a href="#">2017 Article IV</a> and <a href="#">Selected Issues</a> ) Dominica <sup>2</sup> ( <a href="#">2017 Article IV</a> and <a href="#">Selected Issues</a> ) Dominican Republic <sup>2</sup> Haiti Peru
<p><sup>1</sup>Three out of the 17 countries participating in the third-wave pilots have a Fund-supported program. These are Benin (Extended Credit Facility (ECF)), Senegal (Policy Support Instrument (PSI)), and Morocco (Precautionary and Liquidity Line (PLL)).</p> <p><sup>2</sup>Pilot has been completed.</p>	

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