



IMF POLICY PAPER

A STRATEGY FOR IMF ENGAGEMENT ON SOCIAL SPENDING—BACKGROUND PAPERS

June 2019

IMF staff regularly produces papers proposing new IMF policies, exploring options for reform, or reviewing existing IMF policies and operations. The following documents have been released and are included in this package:

- The **Staff Report**, prepared by IMF staff and completed on April 5, 2019 for the Executive Board's consideration on May 2, 2019.

The documents listed below have been separately released:

- A Strategy for IMF Engagement on Social Spending
- A Strategy for IMF Engagement on Social Spending—Case Studies

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A STRATEGY FOR IMF ENGAGEMENT ON SOCIAL SPENDING—BACKGROUND PAPERS

EXECUTIVE SUMMARY

This Supplement presents an account of the extensive consultations and the results of analysis that supported the definition of "[A Strategy for IMF Engagement on Social Spending](#)."

Paper I summarizes comments received from civil society organizations (CSOs), unions, academics, economists, social spending experts, and international development institutions (IDIs). Participants' comments focused on: the scope of the strategy, the rationale for IMF's engagement on social spending and the role of the Fund, the need to consider social spending beyond the objective of poverty alleviation, and the debate on universal and targeted benefits.

Paper II presents a cross-country empirical analysis assessing whether IMF-supported programs adequately protected social spending. The analysis confirms that, on average, there is no difference between spending trends in program countries compared to similar countries without a program. However, it finds that in a significant number of instances spending decreased in program countries. Therefore, the paper also examines the factors affecting the probability of a decline in social spending.

Paper III discusses the results of a survey of IMF Area Department mission chiefs. The survey provides information on the nature and extent of their teams' engagement, and the challenges they faced. It indicates that a vast majority of mission chiefs regard social spending as macro-critical for their country.

Paper IV sets out the issues that need to be considered when providing policy advice on the targeting of transfers, and the trade-offs involved in different approaches to targeting. It highlights the challenges to achieving greater coverage and financing it. It points out the need to consider both the tax and transfer sides when designing redistributive fiscal policy.

Paper V documents how the discussion of social spending issues evolved in IMF surveillance and program staff reports since the late 1970s. It shows that discussions of social spending and inequality issues increased significantly over past decades. However, a wide variation in the intensity of the discussion of social spending issues for both surveillance and program staff reports is observed.

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Glossary

ADB	Asian Development Bank
AEs	Advanced Economies
AfDB	African Development Bank Group
AIIB	Asian Infrastructure Investment Bank
CIS	Commonwealth of Independent States
COM	Communications Department
CPI	Consumer Price Index
CSOs	Civil Society Organizations
DfID	Department for International Development
EA	Extended Arrangements
EAT	Expenditure Assessment Tool
EBRD	European Bank for Reconstruction and Development
ECF	Extended Credit Facility
EDA	Emerging and Developing Asia
EDE	Emerging and Developing Europe
EFF	Extended Fund Facility
EMEs	Emerging Economies
EPA	Ex-Post Assessment
ESAF	Enhanced Structural Adjustment Facility
ESF	Exogenous Shocks Facility
EU	European Union
FAD	Fiscal Affairs Department
FCL	Flexible Credit Line
GRA	General Resources Account
IADB	Inter-American Development Bank
IsDB	Islamic Development Bank
IDIs	International Development Institutions
IEO	Independent Evaluation Office
ILO	International Labour Organization
IMF	International Monetary Fund
ISCED	International Standard Classification of Education
ISPA	Interagency Social Protection Assessments
IT	Indicative Target
LAC	Latin America and the Caribbean

LIDCs	Low-income and Developing Countries
LICs	Low-Income Countries
MCs	Mission Chiefs
MCS	Mission Chiefs' Survey
MEFPs	Memoranda of Economic and Financial Policies
MENAP	Middle East, North Africa, Afghanistan, and Pakistan
MONA	Monitoring of Fund Arrangements
NDB	New Development Bank
NGOs	Non-governmental Organizations
OECD	Organisation for Economic Co-operation and Development
PCs	Performance Criteria
PCI	Policy Coordination Instrument
PCL	Precautionary Credit Line
PITs	Personal Income Taxes
PLL	Precautionary and Liquidity Line
PMTs	Proxy-Means Tests
PRGF	Poverty Reduction and Growth Facility
PRGT	Poverty Reduction and Growth Trust
PSI	Policy Support Instrument
PSIA	Poverty and Social Impact Analysis
RCF	Rapid Credit Facility
RFI	Rapid Financing Instrument
SAF	Structural Adjustment Facility
SBs	Structural Benchmarks
SBA	Stand-By Arrangement
SCF	Standby Credit Facility
SDGs	Sustainable Development Goals
SEC	Secretary's Department
SIPs	Selected Issues Papers
SMP	Staff Monitored Program
SPR	Strategy, Policy, and Review Department
SSA	Sub-Saharan Africa
TA	Technical assistance
UBI	Universal Basic Income
UFR	Use of Fund Resource
UNDP	United Nations Development Programme

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
WB	World Bank
WEO	World Economic Outlook
WHO	World Health Organization
SHA	System of Health Accounts

BACKGROUND PAPER I. CONSULTATION WITH THIRD PARTIES: AN OVERVIEW OF RESULTS¹

This paper summarizes comments received from civil society organizations (CSOs), unions, academics, economists, social spending experts, and international development institutions (IDIs) (hereafter “participants”) and indicates how they were reflected in the main Board paper or will be dealt with in other ways.

Most participants: agreed with using a broad definition of social spending; requested that the strategy be consistent with providing social protection to all, not just the poor; and would have preferred if the Board paper provided specific policy guidance. They suggested that social spending is always macro-critical, highlighting its role in tackling inequality, promoting social cohesion, and stabilizing the economy. They asked that the Fund work closely with other IDIs beyond the World Bank such as the International Labour Organization (ILO), various United Nations (UN) bodies and the World Health Organization (WHO), and with local CSOs. They encouraged the Fund to consider social spending as a long-term investment, not a cost to be contained, and saw the Fund’s value-added value in helping countries create the fiscal space for social spending. Most participants advised the Fund to be less biased toward targeted transfers and more supportive of universal transfers.

A. Introduction

1. Consultation with academics, economists, CSOs, unions and IDIs was an integral part of developing the proposed strategy for IMF engagement on social spending. This was motivated by their strong interest² in the Fund’s policies on social spending, their expertise in this issue, and the role they play in informing the design and implementation of social spending systems at the country level.

2. The consultation process encompassed numerous stages:

- At the IMF Spring Meetings 2018, CSOs and unions were invited to attend (i) a townhall style discussion with staff working on the strategy; and (ii) a CSO policy forum panel discussion with representatives from the World Bank, the ILO, and the International Trade Unions Confederation (ITUC), to express their views on the Fund’s role on social spending issues. Their observations helped shape the stages of Board paper’s design.

¹ Prepared by Nicolas Mombrial (COM) and Csaba Feher (FAD).

² See for example the letter by 53 economists to the IMF Managing Director <http://www.networkideas.org/news-analysis/2017/12/53-economists-write-to-imf-directors-on-approach-to-social-protection/> and the statement from the Global Coalition on Social Protection Floors <http://www.socialprotectionfloorscoalition.org/2017/10/statement-to-the-imf-on-the-findings-of-the-evaluation-report-and-the-imfs-approach-towards-social-protection/>.

- A consultative group consisting of 12 representatives³ from Non-Governmental Organizations (NGOs), unions, as well as academics, economists, and social protection experts with strong expertise on social protection, health, education and related aspects of taxation and gender equality was created in April 2018. The group was consulted at all stages of the process.
- An online consultation open to any interested stakeholders in English, French, Arabic, Bahasa, and Spanish ran from May to July 2018 on the IMF's external website. Responses were received from a wide range of stakeholders including CSOs, unions and IDIs. They are available online.⁴
- Unions were consulted during the ITUC-WB/IMF meetings in Washington D.C., USA, in March 2018 and in March 2019, and at the ITUC-Asia Pacific Symposium on Equitable and Sustainable Development in Asia and the Pacific in Bali, Indonesia, in October 2018. Staff participated in the 2018 ITUC conference on Financing Social Protection in September 2018 in Brussels, Belgium. ITUC representatives were also part of the consultative group.
- A high-level panel discussion on "[Social Protection and the Future of Work](#)" took place at the IMF Annual Meetings in October 2018 with Ms. Sharan Burrow (ITUC Secretary General), Ms. Nora Lustig (Samuel Z. Stone Professor of Latin American Economics and Director of the Commitment to Equity Institute (CEQ) at Tulane University), Mr. Nicholas Barr (Professor of Public Economics at the London School of Economics), Mr. Michal Rutkowski (World Bank Senior Director for Social Protection and Jobs), moderated by Mr. David Lipton (IMF First Deputy Managing Director). An ITUC–IFI symposium, also organized as part of the 2018 Annual Meetings, discussed the IMF's work on social protection, with an emphasis on labor organizations' views. The December 2018 IMF *Finance & Development* Magazine is dedicated to the same issue.⁵
- A one-day workshop was held with leading academics in the field of social spending at the London School of Economics (LSE) in November 2018. The workshop focused on emerging challenges for the design of social protection systems; the role and design of social insurance and assistance; the pros and cons of universalism and targeting; and financing of social protection.

³ Mr. Peter Bakvis, Washington representative ITUC (retired), Washington D.C; Mr. Nicholas Barr, Professor of Public Economics, LSE; Ms. Miriam Brett, International Development Project Finance Manager, Bretton Woods Project; Mr. Michael Cichon, ex-ILO Director (retired), Professor of Social Protection at United Nations University; Ms. Carolina Dantas, Social Protection Officer, ITUC's Americas region; Ms. Diane Elson, Professor of Sociology, University of Essex and Institute of Development Study; Mr. Barry Herman, Visiting Senior Fellow at the Graduate Program in International Affairs of The New School in New York; Mr. Daniel Horn, Adviser to the Global Coalition on Social Protection Floors; Mr. Stephen Kidd, Director Development Pathways; Ms. Nora Lustig, Samuel Z. Stone Professor of Latin American Economics and Director of the Commitment to Equity Institute (CEQ), Tulane University; Mr. Tavengwa Nhongo, Executive Director, Africa Platform For Social Protection; Ms. Sandra Polaski, Global Development Policy Centre, Boston University and ex-Deputy Director General for Policy, ILO.

⁴ <https://www.imf.org/external/np/exr/consult/2018/socialspending/>.

⁵ <https://www.imf.org/external/pubs/ft/fandd/index.htm>.

- Staff consulted bilaterally with IDIs, in particular, the ILO, UNICEF, and the World Bank, and met with the UN Special Rapporteur on Extreme Poverty and Human Rights Philip Alston to share information for his report on the IMF and its impact on social protection.⁶ Staff also started in early 2018 to regularly attend the UN Social Protection Inter-Agency Cooperation Board (SPIAC-B).⁷
- The concerns identified by participants evolved throughout the stages of the consultation process. The comments received were considered and addressed in developing the Board paper (henceforth “the paper”).

3. The following sections provide an overview of the inputs received, organized into broad themes, as well as an indication of how the issues raised during the consultation process were incorporated into the paper or will be taken up in other ways (such as the proposed Guidance Note). Section B provides third parties’ views on the scope of the strategy and the Fund’s definition of social spending. Section C summarizes their inputs on the rationale and timing of the Fund’s engagement. Section D presents their views on how the IMF should cooperate with other IDIs, CSOs, and unions. Section E discusses their views on the role of the IMF in social spending, including the use of social spending floors in Fund-supported programs, while section F focuses on the issue of universal and targeted approaches to social spending.

B. Scope of the Framework and Definition of Social Spending

4. All participants welcomed the development of a strategy that would provide guidance on a more effective IMF engagement on social spending issues. Several participants regretted that the paper focused on the process and would have preferred guidance on Fund’s policy on specific areas such as pensions reform, minimum wages, or unemployment insurance. They hoped this would be addressed in the upcoming guidance note and be subject to further consultation.

IMF policy advice in the various areas of social spending (social protection, education and health) is based on existing Fund Board policy papers (including on sector-specific policy advice and tools), which are listed in the listed in Box 7 of the main Board paper. This advice will be summarized in a Guidance Note if and when the IMF’s Executive Board has endorsed the strategy. In drafting the Guidance Note, there might be areas where the Fund guidance may need to be refined reflecting the evolving nature of social spending issues and as the Fund gains more experience.

5. Most of the participants agreed with the Fund’s decision to focus on a broader definition of social spending, including social protection, education and health spending,

⁶ Report of the Special Rapporteur on extreme poverty and human rights focus on the IMF and its impact on social protection http://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/38/33.

⁷ <https://www.ilo.org/newyork/issues-at-work/social-protection/social-protection-inter-agency-cooperation-board/lang--en/index.htm>.

though they suggested that the strategy should go beyond “basic” education and health.⁸

They urged the Fund to stress that these three elements are interdependent (e.g., there can be no income security without health security and proper education and vice versa) and to ensure that social protection remains a central part of the strategy, not a second-order priority. In that regard, they recommended that the strategy discuss more specific social insurance benefits (such as old age pensions, disability, and maternity benefits) and analyze the impact of IMF-supported programs on social protection spending, not just on health and education spending.

The paper acknowledges the inter-dependent nature of the different social spending components in promoting inclusive growth. It recognizes that the definition of “basic” will differ according to country circumstances and that countries typically expand the definition of “basic” as they develop. The issue of sector-specific policy advice and resources available to support country-team engagement will be summarized in the Guidance Note.

6. Some participants suggested that the Fund include spending in other areas such as water, sanitation, childcare, housing, minimum wages, investment in physical infrastructure, and the prevention and mitigation of disasters as they are relevant to achieving the Sustainable Development Goals (SDGs).

This paper focuses on social spending (social protection, education, and health). Countries can define a broader set of priority spending areas that they wish to pursue in support of inclusive growth, many of which will be complementary to social spending. In particular, some of the issues identified, such as childcare subsidies and social housing, may sometimes fall under the definition of social protection. As with social spending objectives, in both its surveillance and program activities the IMF can play an important role in helping countries achieve these objectives if they are macro-critical,⁹ including by creating fiscal space.

7. Many participants advised the Fund not to focus only on social protection for the vulnerable and the poor segments of the population (“charity approach”), but to view social protection as a key instrument to address risks, challenges and contingencies that everyone faces across the lifecycle. Economic and social changes affect everyone and the social pooling of risk is key to the sustainability of social protection schemes. These participants stressed that the concept of the “poor” is a fictional concept in most low- and middle-income countries where the majority of the population is living on low and insecure incomes and would benefit from social protection.

The paper recognizes the difference between social assistance (aimed at protecting households from poverty) and social insurance (aimed at protecting the broader population from various risks throughout the life cycle). With respect to targeting, the paper clarifies that this refers specifically to

⁸ The 2017 IEO Report focused on the narrower concept of social protection.

⁹ For the definition of “macro-critical” for purposes of this set of papers, see the Main Paper.

social assistance transfers. The issue of policy advice in both these areas will be taken up in the Guidance Note.

C. Rationale and Timing for IMF Engagement

8. Several participants questioned the Fund’s intention to anchor its engagement on social spending issues only in the macro-criticality of such spending. They considered that the importance of social spending for promoting growth, tackling inequality, maintaining social stability, as well as the central role of social spending in various international agreements endorsed by the UN (such as the SDGs), are sufficient reasons for the Fund to always engage on social spending. These participants argued that the Fund should therefore look at social sector spending trends and performance in all Article IV consultations and be always mindful of the impact of its policy advice on social spending, for example, by doing ex-ante impact analysis.

The IMF is committed to supporting its member countries in achieving their social objectives, consistent with its mandate to support macroeconomic and financial stability (see discussion in the third Section of the Main Paper). What is important to note is that country’s preferences on social objectives can differ substantially; for instance, some member countries have signed up to various international agreements while others have not. Both the mission chiefs’ survey and the text mining analysis undertaken for the Board paper confirm that the IMF is engaged on social spending issues with many of its member countries in both its surveillance and program activities. The strategy highlights existing good practice to make this engagement more systematic. In particular, the paper also recognizes the need to support the Fund’s engagement on social spending with sound analytical work drawing on the analysis and expertise of other IDIs where warranted.

9. Many participants viewed the Fund’s definition of macro-criticality as offering little operational guidance. They asked the Fund to provide a clear, operationally meaningful definition to macro-criticality in the strategy. Participants also requested that once the definition is agreed, a technical dialogue on how to assess macro-criticality take place at the country level with governments and development partners.

The Guidance Note will provide illustrative examples to help guide teams to evaluate the macro-criticality of different social spending components. Staff will also consider appropriate fora for discussing sectoral policy advice with external stakeholders.

10. Most participants thought that the Fund should use a wide definition of macro-criticality for the purpose of addressing social spending. The role social spending can play in reducing inequality; promoting inclusive growth; and as shock absorber should be included in the Fund’s assessment of what makes social spending macro-critical. And the Fund should also focus on other factors, such as the impact of social spending on smoothing incomes, increasing household incomes and demand, formalizing labor markets, increasing people’s capacity to cope with climate change, reducing gender inequality, improving productivity, strengthening social and political stability, and meeting the SDGs. Participants at the LSE workshop also emphasized the role of social spending in addressing persistent poverty and the challenges posed by global long-term trends,

such as ageing populations, rapid technological change, and globalization.

The various roles of social spending, including in helping the vulnerable in the context of an adjustment program, are recognized in the paper. Recognizing the evolving nature of social spending issues and as the Fund gains experience, the paper anticipates that the Guidance Note will be regularly updated.

D. Cooperation with Development Partners and Civil Society

11. There was a consensus that, because of limited resources and expertise, the Fund should refrain from taking a leading role on social spending issues, especially in terms of designing social protection schemes. The Fund should increase engagement with and rely more on IDIs with expertise on this issue. Beyond the World Bank, the Fund should work closely with UNICEF and UNESCO (education), the WHO (health), and the ILO (social protection). The strategy should provide guidance on the role of these IDIs, their expertise and how they can be effectively engaged. By improving staff's knowledge of the country context and leveraging IDIs' expertise and resources, this would ensure that the Fund arrives at better recommendations. IDIs themselves called for a more intense and regular inter-agency cooperation on the institutions' overall policy stance and regarding technical advice provided in specific country cases. They encouraged the Fund to adhere to the ILO Convention 102¹⁰ and recommendations 202¹¹ and to routinely attend the UN Social Protection Inter-Agency Cooperation Board (SPIAC-B) or the Universal Social Protection 2030. Only some participants recommended that the Fund also develop in-house expertise on social spending issues.

The IMF supports countries in achieving their social objectives when consistent with its core mandate for promoting macroeconomic and financial stability. In this context, the paper envisages strengthening collaboration with a broad set of stakeholders (including various IDIs) with social spending expertise. This is consistent with the views expressed by the IEO in their evaluation of social protection. The Paper also emphasizes the need to ensure that the IMF has sufficient in-house expertise to appropriately engage with development partners.

12. The Fund was strongly encouraged to work with CSOs, local experts, unions and faith-based groups when formulating its policy recommendations. This would improve staff's understanding of the country context and their policy advice. Some thought that the Fund could play a catalytic role in nurturing a national dialogue on social spending.

The importance of a two-way communication with national and international stakeholders is

¹⁰ The ILO Social Security (Minimum Standards) Convention, 1952 (No. 102) establishes worldwide-agreed minimum standards for all nine branches of social security. These branches are: medical care; sickness benefit; unemployment benefit; old-age benefit; employment injury benefit; family benefit; maternity benefit; invalidity benefit; and survivors' benefit. See https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312247.

¹¹ The ILO Social Protection Floors Recommendation 2012 (No.202) establishes guidance to its members on establishing and maintaining social protection floors as fundamental element of their national security systems.

recognized in the paper, as is the catalytic role the IMF can play in promoting dialogue on social spending issues, including through its analytical work.

E. The IMF's Role and Approach

13. Most of the participants felt strongly that the new strategy should result in the Fund moving from a short-term approach where social spending is perceived as a cost that needs to be contained or cut, to an approach focused on the long-term economic value of social spending. Therefore, when the Fund is looking at the fiscal sustainability of social spending, it should pay more attention to the long-term impact and benefits. For example, inclusive social protection is often seen as being costlier than poverty targeting programs in the short term. But in the long term, due to stronger political support (as they benefit everyone in the population, not just the poor), inclusive social protection is often more fiscally sustainable (i.e., the budget allocated to such spending is maintained and governments find resources to fund them) and has better outcomes. This also means that the Fund should take a more careful stance on issues like pension reforms or cutting employer social security contributions, where IMF advice looking at the immediate fiscal costs and not the long-term objective of balancing equity and sustainability has run the risks of making social protection systems unsustainable in the long term.

The paper discusses the long-term investment nature of social spending and its role in promoting both growth and equity, and the complementary nature of the different social spending components in this regard. When significant fiscal adjustment is needed in the short term due to financing constraints, adjustment measures should focus on raising revenue and increasing spending efficiency and progressivity where possible and appropriate. For instance, as highlighted in the paper, where there are large social spending gaps (for example in LIDCs), IMF-supported programs are typically designed to protect initial levels of social spending and create fiscal space. To this end, the paper also notes the Fund's Technical assistance (TA) on medium-term revenue strategies.

14. Participants encouraged the IMF to engage earlier in the process and to view income security as a continuous objective, rather as an objective only in a crisis context.

The paper highlights the need to engage early with member countries on social spending issues.

15. Most participants saw the Fund's value-added in providing policy advice on creating fiscal space for implementing internationally agreed social protection goals. Creating fiscal space should not imply reducing benefits or coverage but ensuring appropriate benefits and coverage, which can be financed through additional revenue (e.g., by helping countries making their tax and revenue systems more effective and progressive). One participant suggested that the Fund work with other agencies to establish minimum expenditure targets and provide suggestions on how to mobilize the necessary resources through progressive taxes.

The paper strongly brings out the role of the IMF in helping countries create the fiscal space needed to sustainably finance social spending objectives. This reflects that the Fund is one of the primary providers of TA in tax policy, revenue administration, and public financial management, which has

increased significantly over the last decade.

16. The Fund’s role in making social spending more efficient and equitable, and in undertaking analyses of the tradeoffs between different policy options, was also seen as important.

This is reflected in the paper, including in the discussion around the different channels through which social spending can be macro-critical (fiscal sustainability, spending adequacy, and spending efficiency).

17. Regarding the Fund’s program engagement:

- **Most participants thought that the IMF should refrain from making the specific design of social protection systems a condition for its support.** They saw these as decisions of the governments and areas where other organizations have more expertise.

The paper clarifies that conditionality needs to be critical for program success, and social spending conditionality may need to be developed in collaboration with other IDIs.

- **Participants welcomed the Fund’s use of social spending floors but regretted that current floors are applied in vague terms, are often too limited in scope, and vary much between countries.** Participants thought that all social spending should be ring-fenced through social spending floors and expanded as needed during periods of crisis or austerity. They also urged the Fund to define the content of its social spending floors more accurately while keeping the flexibility to tailor them to governments’ needs. For social protection, these floors could be based on the ILO Social Protection Floors Recommendation, 2012 (No. 202), which provides an internationally agreed framework that has also been incorporated into the SDGs (target 1.3).

The paper highlights the importance of effective use and documentation of conditionality, including spending floors. Floors need to be tailored to the specific objectives of individual Fund-supported programs and be critical to the program success, reflect country-specific circumstances, and be based on the availability of data. Where data quality is an issue, conditionality can be used to address this during the program. To this end, the paper acknowledges that quality data, disaggregated by key components, are crucial for evaluating policies and pressures, formulating policy advice, and monitoring spending outcomes; and that the IMF’s GFSM2014 and COFOG statistical standards provide a useful conceptual and operational framework for enhancing data quality. Social spending floors can be used to protect existing social spending or to increase social spending.

- **Participants felt that social spending floors are not sufficiently enforced.** They suggested that these floors be turned into binding performance criteria (not just indicative targets).

As established under the [IMF Guidelines on Conditionality](#), when assessing whether a program review can be completed, the Executive Board will take into consideration the member’s observance of performance criteria (PCs), indicative targets (ITs) and structural benchmarks (SBs),

etc. Social spending targets can be established as a PC, but not if there are concerns about the quality of data. The paper discusses importance of improving quality and timeliness of social spending data for better policy analysis and program monitoring (see also response under the previous bullet on data quality).

F. Universal and Targeted Approaches to Social Spending

18. Participants saw the Fund as having, like the World Bank, a bias in favor of targeted social benefits based on means testing. This perceived bias was deemed to be at odds with the SDGs and other agencies' views (e.g., ILO, UNICEF).¹²

The paper clarifies the views of the IMF on the appropriate use of universal and targeted social assistance transfers. The Fund does not have any bias in favor of one approach. Rather, it sees these approaches as complementary tools for achieving social objectives. The paper and a background note dedicated to the issue acknowledge the difficulties in implementing targeting of transfers in some countries, and at the same time emphasize that a greater reliance on universal-type transfers typically involves fiscal costs which need to be financed through efficient and progressive taxation.

19. A greater emphasis on ensuring universal access to social protection benefits (not just in health and education but also in pensions or other transfers) was preferred by various participants who encouraged the Fund adopt this approach more often. Participants pointed out that targeting social benefits using means testing has flaws, including large exclusion errors, and a high implementation cost for recipients and countries that have limited administrative capacity. They argued that targeted programs only for the poor are likely to get limited political support (because they only benefit a small part of the population) and therefore are unsustainable in the long term. One contributor also made the point that social protection should be focused on getting people to participate in economic activity, rather than “drip feeding” cash transfers to keep poverty low (especially when this holds the poor in unproductive employment). Another stressed that when all paid in, all gained, creating broad public support and strengthening the social contract. The Fund's perceived concerns with “leakage to the rich” in the absence of targeting was seen as unwarranted as government could make this choice for political reasons and, if they see this “leakage” as an issue, could address it through the tax system.

The paper and a dedicated background note recognize that the appropriate use of targeted and universal-type transfers will depend on country economic, political, and social circumstances and constraints. It describes the advantages and disadvantages of the universal versus the targeted approach, highlighting trade-offs for policy makers.

20. Several participants, including several academics at the LSE workshop, stressed that the dichotomy between universal and targeted was overly simplistic. For them, the focus should

¹² A summary of arguments raised by some social protection experts against using means testing can be found here: <http://www.developmentpathways.co.uk/publications/exclusion-by-design-the-effectiveness-of-the-proxy-means-test/>.

not be on specific schemes but on national systems that can include both targeted transfers and universal transfers. Targeting should not be limited to the use of proxy-means targeting. Most of the social protection schemes are targeted in one way or another, either by income or to vulnerable groups (such as children).

The paper reflects these nuances, in particular in Background Paper IV.

BACKGROUND PAPER II. IMPACT OF IMF PROGRAMS ON SOCIAL SPENDING: EMPIRICAL EVIDENCE¹

This paper analyzes whether levels of public education and health spending have been safeguarded in IMF-supported programs. The analysis addresses various methodological and data challenges present in existing studies. It confirms the findings of earlier studies: on average there is no difference between spending trends in program countries compared to similar countries without a program. However, in a significant number of instances spending decreased in program countries. High GDP growth increases the probability of a decline in spending as a share of GDP but lowers the probability of a decline in real per capita spending. The probability of a decline is greater where the magnitude of short-term fiscal consolidation is high, and especially where consolidation is achieved through expenditure reductions. Therefore, strengthening measures that reinforce growth and revenue mobilization can help to avoid short-term declines in social spending. Declines are much more likely where initial spending is high, which may reflect spending inefficiencies.

A. Introduction

1. The IMF has long recognized the importance of protecting social spending in -all Fund-supported programs (“programs” thereafter) , particularly in low-income countries (LICs). A significant step in this direction was the introduction in 1999—jointly with the World Bank—of the [Poverty Reduction Strategy Paper \(PRSP\)](#) approach to assist LICs with the development of their poverty reduction strategies. This approach was supplemented by the transformation of the Enhanced Structural Adjustment Facility (ESAF) into the Poverty Reduction and Growth Facility (PRGF), which strengthened the inclusion of pro-poor growth considerations into the design of Fund-supported programs (“programs” hereafter). The design of the IMF’s concessional lending was further reformed in July 2009 (effective January 7, 2010) by replacing the PRGF with the Extended Credit Facility (ECF) supported by the Poverty Reduction and Growth Trust (PRGT) that enhanced the monitoring of social and other priority spending, including through incorporating explicit performance criteria (such as social spending “floors”) into program design. Programs under the General Resources Account (GRA) also include spending indicative targets (ITs) involving funding to specific social assistance programs, while they more often rely on structural conditionality to strengthen social safety nets (IMF 2017, pp. 30).

¹ Prepared by Emmanouil Kitsios and Baoping Shang. Research assistance was provided by Nghia Piotr Le.

2. This paper intends to answer two important questions:

- Have IMF-supported programs safeguarded the level of public education and health spending?²
- What is the effect of IMF-supported programs on public education and health spending, relative to the counterfactual under which they had not engaged in a program?

B. Data and Measurement

3. Government spending on education refers to all levels of education.³ The data are collected by the UNESCO Institute for Statistics and are mapped to the International Standard Classification of Education (ISCED) using the method adopted in 2011 by the UNESCO General Conference to ensure the comparability of education programs at the international level. Total general government spending on education captures current and capital spending, and includes spending funded by transfers from international sources to government.

4. Public health spending is defined as the sum of domestic general government health spending and external health spending channeled through government.⁴ This definition refers to current health spending given the lack of a decomposition of capital spending into public and private components in the WHO's updated database that uses the framework of System of Health Accounts 2011 (SHA 2011). According to the WHO (2017), current government spending on health financed from domestic sources provides a more precise measure by which to evaluate health policy analysis as capital spending tends to fluctuate and does not finance access to health services.⁵ Adding external transfers channeled via the government is useful in our case, as it is of interest whether IMF programs catalyze donor assistance. Existing studies have typically used total public health spending data that were previously compiled by the WHO using the National Health Accounts approach, which did not distinguish between current and capital spending. The SHA 2011 improved on the previous methodology by classifying country-specific health spending financing flows in a uniform way to produce comparable results, increasing in this way accuracy in the tracking of spending.

5. Three measures are used to evaluate the impact of a program. The paper focuses on the evolution of spending in countries with programs approved after 2000 using data over the period 2000–2016: (i) for health spending, and (ii) for education spending.⁶ Government spending on health

² The focus on education and health spending reflects the absence of reliable time-series data on social protection spending, especially in emerging and developing economies. Data limitations also prevent an empirical analysis on the quality of spending, as captured by changes in actual service delivery and social outcomes.

³ The focus on all levels reflects data availability. Subject to improvements in data availability, future analysis could analyze trends in basic education (primary and secondary).

⁴ Health spending, henceforth, refers to all levels of healthcare provision. Future analysis could explore basic health package spending, subject to data availability.

⁵ Capital spending rather improves future resilience of the health sector.

⁶ The year 2000 is the starting year in the current Global Health Expenditure Database provided by the WHO.

and education can be expressed in real per capita terms and as a share of GDP or total government spending. To comprehensively evaluate the impact of programs on spending in health and education we use all three measures in our analysis. The pros and cons of each measure are:

- **Spending as a share of GDP** helps assess whether spending fluctuates in line with general economic conditions. However, changes in this measure could simply reflect changes in GDP rather than spending levels. Thus, spending as a share of GDP could increase even when real spending declines because GDP declines by a greater proportion.
- **Real per capita spending** allows for comparison of the level of resources allocated by the government to these sectors. Nevertheless, real per capita spending estimates can suffer from measurement error as population data are revised infrequently and nominal spending is often deflated using a GDP deflator in the absence of sector-specific deflators. Moreover, as is the case with all three indicators, real spending could simply reflect changes in wages rather than changes in service provision, although competitive wages are required to avoid staffing problems.
- **Spending in percent of total government spending** can be used to evaluate whether it is protected relative to other spending. However, increases in the share of government spending allocated to social sectors could coincide with declines in overall spending when spending reductions in these sectors are less pronounced.

6. Approval and expiration dates of programs are collected for all arrangements approved and ongoing during the period 2000–2016. Appendix Table 1 provides an overview of the 283 programs approved over the period 2000–2016. Blended programs that combine PRGT with GRA resources are treated as PRGT programs in the descriptive and empirical analyses that follow, with the program length being the longer duration among both program types. The sample includes 123 GRA and 160 PRGT programs, of which 13 are blended arrangements and 18 are Policy Support Instrument (PSIs).⁷

C. Social Spending Trends During Programs

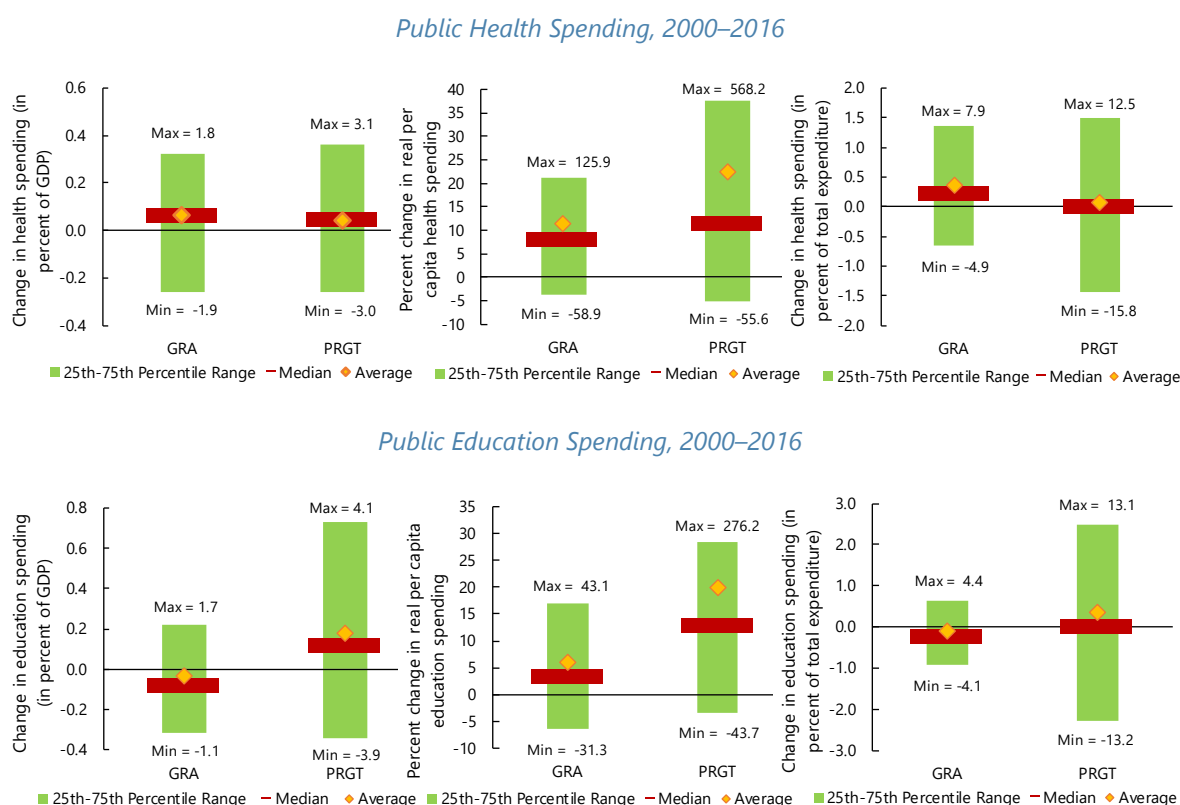
7. Both health and education spending are, on average, protected during program years. This is demonstrated using boxplots of trends in health and education spending during program years expressed as changes in their share of GDP and government spending, as well as percent changes in real per capita spending (Figure 1). Changes in spending in a program year are calculated relative to spending in the year prior to the program approval date. The analysis indicates that changes are generally positive (whether focusing on mean or median change), with a notable exception being the reduction in education spending as a share of GDP and as a share of spending

⁷ For the purposes of this study, LIC facilities—the Structural Adjustment Facility (SAF), Enhanced Structural Adjustment Facility (ESAF), and Poverty Reduction and Growth Facility (PRGF)—available prior to the establishment of the PRGT in 2009 are also labeled as PRGT-supported programs. The PSI offers LICs Fund support without a borrowing arrangement.

observed in countries with GRA programs. Reassuringly, however, real per capita education spending is on average protected across facilities, suggesting that GDP increases may drive downward the median change in education spending as a share of GDP—even when real spending is increasing. The change in the share of spending on each sector as a share of total government spending provides a measure to evaluate the priority each government gives to that sector over others. On average, using this measure, health spending has been increasing in programs whereas there is some evidence that education spending as a share of total spending fell in GRA programs.

8. While spending was protected on average, it declined in over a quarter of program years (Figure 1). This holds for both education and health spending and regardless of the measure of spending used. It raises the questions of what factors are behind these declines and, where warranted, how program design could be further strengthened to avoid them.

Figure 1. Trends in Public Spending on Health and Education during an IMF Program

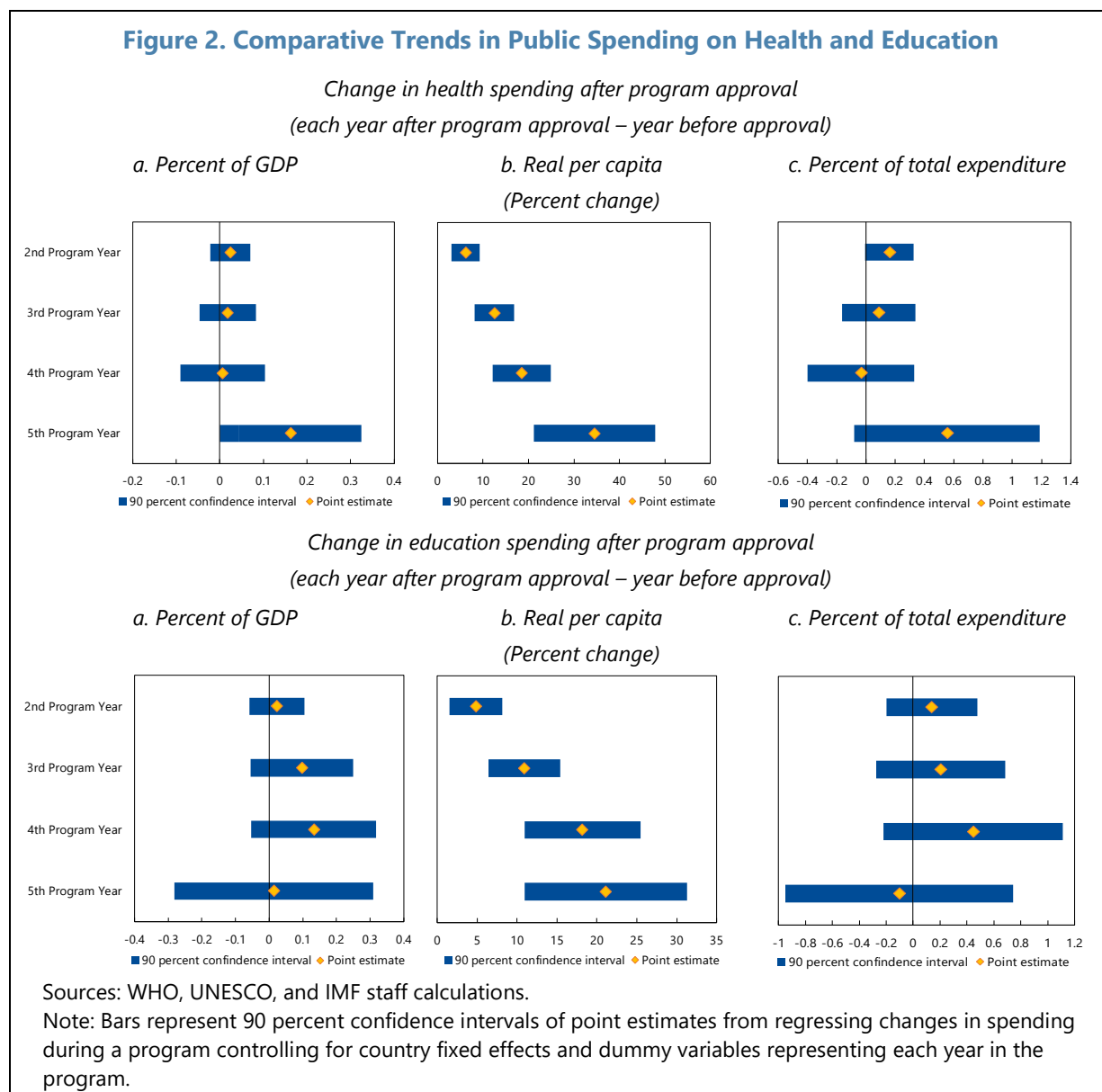


Sources: WHO, UNESCO, and IMF staff calculations.

Note: Bars represent cross-country interquartile ranges of changes in spending in any program year after the approval date relative to spending in the year prior to the approval date. Only countries with observations in the year before approval and during program years are included.

9. For real per capita education and health spending, there is evidence that, on average, spending continued to increase over the course of the program. A simple regression of spending changes in program countries on dummy variables reflecting the program years, also

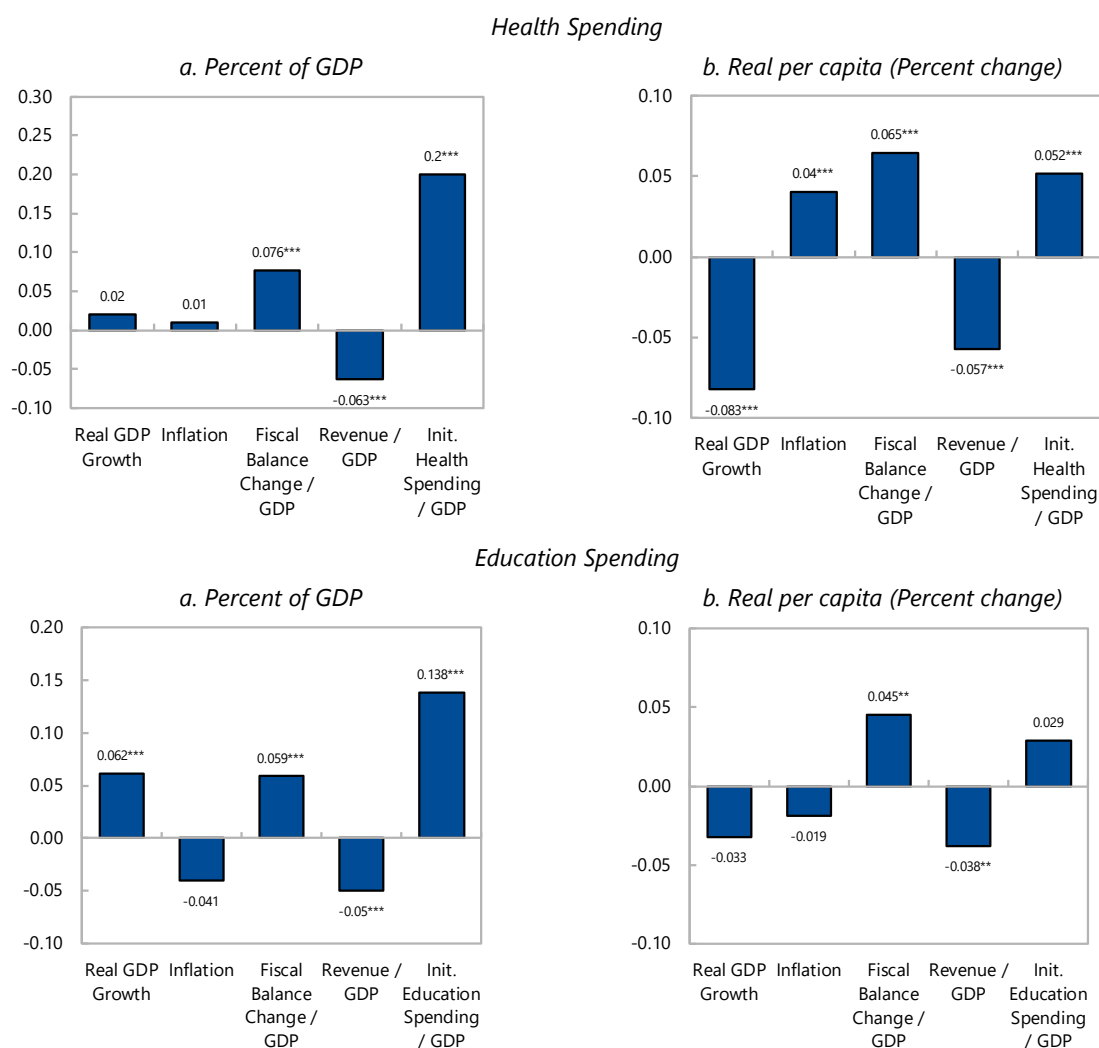
controlling for country fixed effects, suggests that on average real per capita health and education spending increases were higher in the later years in the program relative to the approval year (Figure 2). Similar regressions for spending expressed as share of GDP or total government spending do not point to statistically significant differences relative to the approval year, except for programs that lasted five years which had significant positive changes in health spending as a share of GDP.



10. What factors contribute to declining social spending in program countries? To empirically explore this question, we use probit regressions where the dependent binary variable equals one for *large* declines in spending, with large defined as spending decreases greater than the median decline in spending when measured as shares of GDP and in real per capita terms. Appendix Table 2 presents the range of spending values captured in each dummy variable. Macroeconomic conditions can affect the probability of large changes in social spending. To capture the broader

economic developments that may trigger large drops in social spending, we include as regressors: (i) real GDP growth and inflation (CPI index growth) observed during program years since nominal and real changes in GDP are expected by construction to reduce spending ratios; and (ii) proxies for the evolution of fiscal space during program years as reflected in the changes in cash balances and revenues in percent of GDP.⁸ Initial health and education spending in percent of GDP are also added as a regressor to explore whether countries with higher spending tend to have lower changes during program years. Figure 3 shows the average marginal effects of an increase in the regressors from their 25th to their 75th percentile value in the sample (see Appendix Table 3 for underlying coefficient estimates).

Figure 3. Average Marginal Effects on Probability of Large Declines in Social Spending



Sources: WHO, UNESCO, and IMF staff calculations.

Note: Bars represent of average marginal effect estimates from a probit model of large negative changes in spending during a program when each regressor ranges from the 25th to 75th percentile.

⁸ Similar results were obtained in robustness checks that included the debt-to-GDP ratio among the control variables.

11. Results suggest that higher real GDP growth is positively correlated to the likelihood of large drops in education spending when the latter is expressed as a share of GDP (Figure 3).

Controlling for inflation, higher real GDP growth translates into higher nominal GDP growth that is (mechanically) negatively correlated to the ratio of spending over GDP. This correlation points to the advantages of also assessing spending changes in real per capita terms. We note that higher real GDP growth is associated with a lower probability of a sharp decline in real social spending per capita. Similarly, the probability of a sharp decline is higher for countries with higher inflation and therefore also higher growth in nominal GDP. Measures that reinforce growth can therefore help to protect (or even enhance) real social spending.

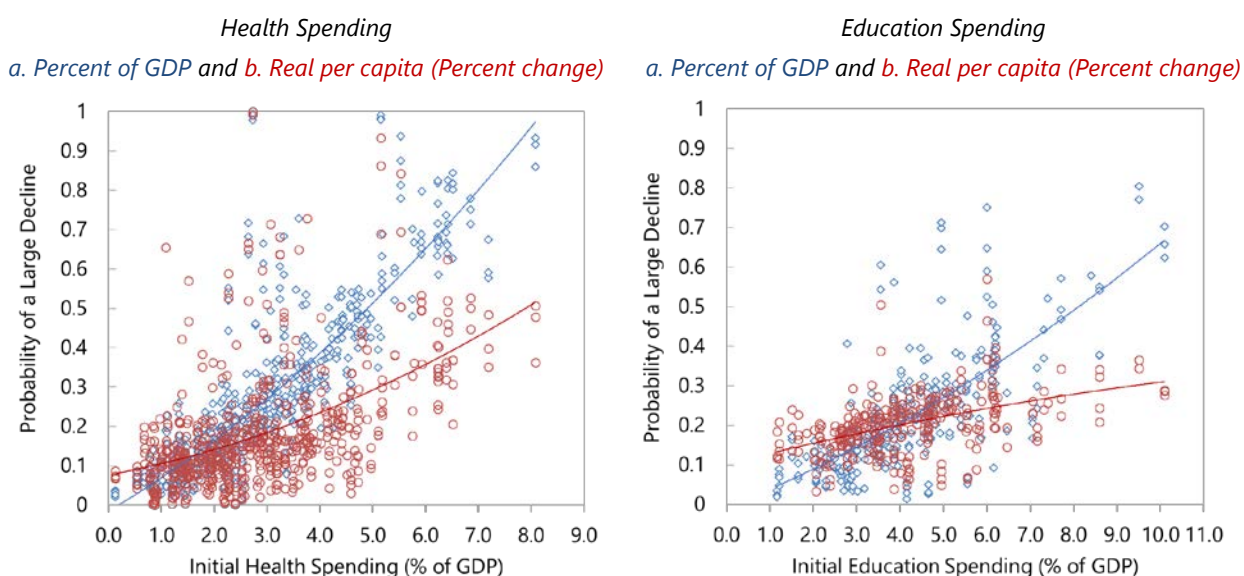
12. The probability of a decline in spending (both as a share of GDP and in real per capita terms) is also greater where the magnitude of short-term fiscal consolidation is high.

The negative impact of revenue increases on the probability of a decline indicates that this effect is attenuated the more fiscal consolidation (i.e., improvements in the fiscal balance) is achieved through enhanced revenue mobilization as opposed to through expenditure consolidation. Therefore, program measures that strengthen revenue mobilization (e.g., stronger revenue administration and higher taxes) can help to avoid short-term declines in social spending.

13. Declines in spending are much more likely where initial spending is high (Figure 4).

High spending can be associated with spending inefficiencies (such as high wages or other costs) and addressing these inefficiencies can reduce the likelihood of decreases in efficient spending components. For instance, reforms in Greece during the Troika programs explicitly aimed at lowering the cost of pharmaceuticals and other medical goods, as well as containing wages (October 2013 *Fiscal Monitor*, pp. 50).

Figure 4. Probability of Large Declines in Social Spending



Sources: WHO, UNESCO, and IMF staff calculations.

Note: Probit model probability predictions of large negative changes in spending during a program.

D. The Impact of IMF Programs on Social Spending

Previous studies

14. Most previous empirical studies on the effect of IMF-supported programs on social spending find that social spending trends have been on average similar to those in comparable non-program countries (Appendix Table 4). The availability of comparable data on health and education spending for a broad sample of countries has facilitated the empirical examination of the average impact of programs across countries. However, credibly estimating the effects of programs on social spending is challenging. The fundamental empirical hurdle is that the correlation between the presence of a program and the size of government spending could reflect causation in either direction, or the effect of a third factor influencing both the likelihood of a program and the level of spending. The literature has applied a variety of empirical strategies to overcome these identification concerns that often include the system-GMM and Heckman correction approaches. These methods typically rely on exclusion restrictions to tackle program endogeneity requiring variables that are strongly correlated with the likelihood of having a program but not correlated with government spending on health and education. Appendix Table 4 critically discusses the findings of the main papers in this area. While most studies find a significantly positive or no average impact on education and health spending in program countries, although two studies find a negative impact for health.

15. The strategies of existing studies to address the identification problem suffer from various shortcomings. These studies have attempted to assess the causal effect of IMF programs, while controlling for variables measured *after* the program was approved assuming these can also affect social spending directly—such as fiscal balances, per capita GDP, and lagged dependent variables. However, IMF programs can have an indirect impact on social spending through their impact on these variables, so that controlling for such intermediate outcomes confounds the estimate on the total impact of IMF programs and complicates the interpretation of the IMF program dummy. Another important methodological shortcoming relates to the use of variables that do not satisfy the exclusion restrictions required to identify the average effect of programs on spending. For example, proxies for external conditions—exchange rates, reserves, and exchange rate regimes—are likely correlated with fluctuations in the cost of imported goods used in the social sectors (such as drug costs), and therefore are not suitable as instrumental variables. Other strategies rely on instruments such as the total number of countries with programs, and United Nations General Assembly voting similarity with key donor countries to proxy for the Fund’s willingness to lend. However, the number of programs in a given year could also be a proxy for omitted variables (such as commodity price shocks or international financial crises) that are positively correlated to the probability of having a program. Such shocks could both increase the likelihood of a specific country requesting a program and the total number of countries that are approved for a program. More importantly, these shocks could affect government financing and

should therefore also be included in the spending equation.⁹ Similarly, political proximity to the key IMF shareholders is significantly correlated with the degree of openness and other characteristics of member countries that in turn are correlated with the level of government spending yet are excluded from the spending equation.¹⁰ Empirical strategies that make use of such instrumental variables risk biasing their results in unpredictable directions.

16. Using the same empirical strategy as existing studies and the data constructed for this paper for the period 2000–2016, this paper finds that spending trends are not statistically different in program and non-program countries. Despite the shortcomings of the Heckman and system-GMM approaches used by previous studies, for comparison purposes we present updated estimates over the period 2000–2016 for PRGT-eligible countries noting that health spending data in this paper refer to current spending rather than total spending as used in the studies reviewed in Appendix Table 4.¹¹ For education spending, the results point to sign differences across the Heckman and system-GMM estimates, with a significant positive impact found in the former and an insignificant negative impact in the latter (Appendix Table 5). For health spending, both approaches yield negative—albeit statistically insignificant—estimates of the program impact. But, in general, the results suggest that it is hard to reject the hypothesis that spending trends have on average been similar in both program and non-program countries.

A new approach to measuring the impact of IMF-supported programs on social spending

17. Doubly robust estimators can address some of the shortcomings of previous identification strategies. Essentially, under this approach, non-program countries that look similar to program countries in terms of pre-program macroeconomic conditions are assigned a higher weight, based on their probability of being in a program, when estimating differences in average spending trends between program and non-program countries. These estimators rely on inverse propensity weighting to proxy random allocation in a two-stage procedure, where the probability of a country engaging in a program is estimated in a separate *first stage regression* (participation equation) that controls for pre-treatment observable sources of endogeneity (Box 1). Pre-treatment characteristics include: (i) real economy variables to proxy for the comparable level of development and growth in the year prior to program approval (e.g., per capita GDP in purchasing power parity terms and real per capita GDP growth); (ii) proxies for the fiscal pressures in the economy captured by the cash balance and government debt in percent of GDP; (iii) external sector proxies, including reserves in months of imports, external debt in percent of GDP, as well as trade and capital account balances; and (iv) eligibility for concessional lending (PRGT dummy variable), which may render IMF lending an attractive alternative to other sources of financing. In the *second stage regression* (outcome equation), observations are weighted inversely to the estimated probability of engaging in

⁹ Even if the validity of the exclusion restrictions were established, the studies reviewed in this note do not correct standard errors for using predicted regressors. Thus, the statistical significance of the estimates obtained in the outcome equations is not appropriately determined.

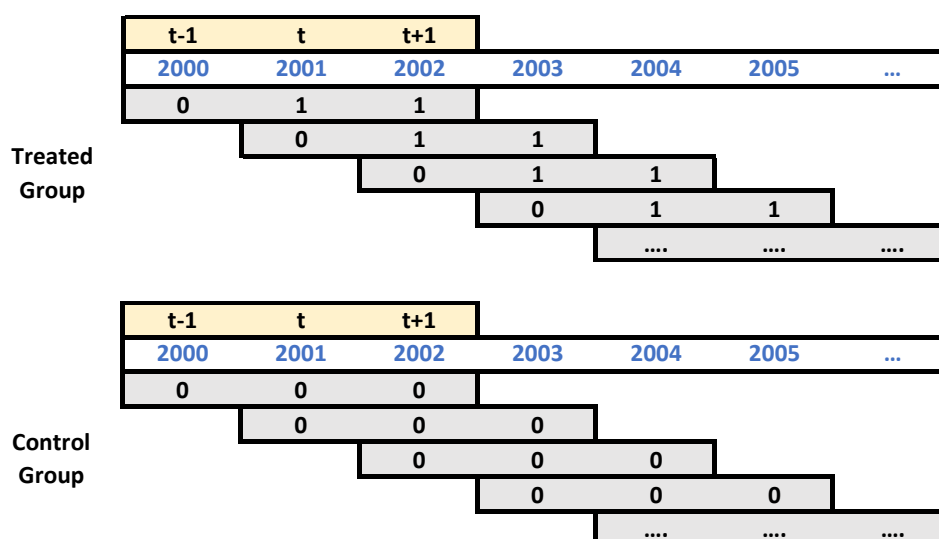
¹⁰ Such measures of political proximity to the U.S. have been found strongly correlated to democratization, financial openness, and government ideology (Bailey, Strezhnev, and Voeten; 2017).

¹¹ The updated estimates are presented in the last four columns of Appendix Table 5.

a program, thus allocating greater weight to those that mimic a random allocation. Year fixed-effects in this second stage can control for cohort specific effects in the outcome equation where the dependent variable is changes in spending in that year relative to the year before the program approval. The initial spending in percent of GDP is also added as a regressor in an alternative set of the estimations to explore whether countries with higher spending tend to have lower changes during program years.

18. The construction of the dummy variable characterizing the presence of an IMF-supported program is critical. Previous studies do not differentiate across arrangements approved for each country that overlap in a given year. As a result, the estimates may be driven by those countries that have longer-term engagement with the Fund, as greater variation in spending is likely observed in programs with longer duration. In what follows, each lending arrangement is considered as a separate program given that its objectives or conditionality may differ from the previous one. Constructing the program dummy in this way significantly increases the sample size of program cases, providing further insight into the heterogeneity of outcomes within the typical duration of arrangements that range between 2–5 years.

Figure 5. Sample Construction Example



Note: Dataset construction of the treated and control groups considered for IMF programs with duration of two years. Cells contain the values of a dummy variable indicating the presence of a specific IMF arrangement over the period of interest.

19. The dataset assigns all program cases to the “treated” group, while countries not having an IMF program form the “control” group. In our regressions all programs that have completed at least one year of the program following the program approval are included. The dependent variable captures changes in social spending in a program year, other than the program approval year, relative to the year prior to approval. The control group is constructed by including all countries that did not have a program during the time interval we are considering. For example, the sample of program and non-program countries in the case of programs that lasted two years is

constructed by first dividing the period 2000–2016 into rolling three-year periods, where $t-1$ refers to the year prior to the program approval (Figure 5). The treated group contains countries with IMF programs that lasted two years (i.e., an IMF program dummy equal to one in the years t and $t+1$), whereas all countries that did not undergo any IMF program over the course of three consecutive years (i.e., including the pre-approval year) form the control group (i.e., an IMF program dummy equal to zero for all years considered). Treated countries could have another IMF arrangement in the year prior to the approval of the arrangement under consideration since we consider consecutive programs as two separate programs. Pre-treatment characteristics in period $t-1$ for the treated and control group are included as regressors in our participation and spending equations. The full sample is constructed by repeating this process for all available durations of IMF programs over 2000 to 2016.

Box 1. Inverse Probability-Weighted Regression Adjustment (IPWRA) Estimation

The IPWRA estimator provides a “doubly robust” approach in estimating the effect of programs. The IPWRA estimator includes both outcome and participation (or treatment) equations to account for the non-random treatment assignment. Inverse-probability weighting is applied to estimate corrected regression coefficients that are subsequently used to perform regression adjustment. By modeling both the outcome and the treatment probability, the method is robust to misspecification of at most one of the underlying outcome or participation equations (Wooldridge, 2007; Wooldridge and Słoczyński, 2018). This is contrary to the Heckman approach that requires specific distributional assumptions, and at least one selection variable not affecting the outcome equation. We estimate the average treatment effect on the treated (ATT), i.e., the effect of the program on social spending of those countries that receive the treatment (the control group consists of all countries for which there is no program over a similar duration):

$$\tau_{IMF} = \mathbf{E}(\Delta G_{IMF} - \Delta G_{noIMF} \mid D_{IMF} = 1) = \frac{1}{\mathbf{P}(D_{IMF} = 1)} \cdot \mathbf{E} \left[D_{IMF} \cdot \Delta G_{IMF} - \frac{1 - D_{IMF}}{1 - p(X)} p(X) \cdot \Delta G_{noIMF} \right] \quad (1.1)$$

where τ_{IMF} refers to the average impact of the IMF program on social spending; ΔG_{IMF} denotes the change in social spending observed in year t of the program relative to the year prior to program approval; ΔG_{noIMF} refers to the counterfactual outcome that would be observed if the country had not received an IMF program; D_{IMF} is a binary indicator for treatment with an IMF program; X is a vector of observed pretreatment regressors that predict participation in an IMF program and have explanatory power for the counterfactual change observed during an IMF program; $\mathbf{P}(D_{IMF} = 1)$ is the unconditional probability of participating in an IMF program; $p(X)$ is the propensity score of participating in an IMF program.

Identification of the IMF program effect on the treated countries relies on the assumption of unconfoundedness between the treatment assignment and the counterfactual changes in social spending in the control state, ΔG_{noIMF} . The unconfoundedness assumption requires that conditional on the regressors, the treatment and potential outcomes are independent.

20. The first stage estimates suggest a correct specification of the program participation equation. A desirable property of the “doubly robust” estimators is their flexibility in obtaining consistent results if either the linear model for potential outcomes or the probit model used for program participation is valid. The null hypothesis that the first stage model balances the covariates cannot be rejected, thus lending support to the specification of the program participation equation. The macroeconomic variables used in the first stage have the expected sign and most of them are statistically significant, with more developed and faster growing countries being less likely to engage in a program. On the other hand, countries with weaker fiscal balances, lower foreign reserves, weaker trade positions and higher external debt are more likely to request an IMF program.

21. On average, Fund-supported programs do not appear to have a statistically significant effect on social spending trends. The estimation results using the IPWRA estimates of the impact of the program suggest that the point estimate is statistically insignificant across the three years considered after program approval in the sample of 101 lending arrangements with duration of at least two years over the period of 2000–2016 (Appendix Tables 6 and 7). There is weak evidence suggesting that the impact on health spending as a share of GDP is greater in program countries where initial spending is relatively low (Columns 2 and 4; Table 7). Similar insignificant effects are found when education spending is considered in a sample with 81 program cases, with the point estimate having a negative sign in the early years of the program, which turns positive for those programs with longer duration when initial spending is considered (Appendix Tables 8 and 9).

E. Main Implications and Conclusions

22. Consistent with previous studies, this study finds that while education and health spending has been protected on average in programs, spending decreases are sizeable in a large share of program countries.

- *On average, education and health spending has not declined in program countries.* This holds regardless of the measure of spending used and for both GRA and PRGT programs. When spending is measured in real per capita terms, there is evidence that on average spending continues to increase over the life of the program.
- *However, spending declined in over one-quarter of countries with the reduction being large in some cases.* Again, this holds regardless of the measure of spending used. This raises the issue of the factors behind these decreases and the potential for strengthening program design to prevent declines where warranted.
- *On average, spending on education and health in program countries are similar to those in otherwise comparable non-program countries.* New econometric analysis undertaken in this paper aims at addressing shortcomings of existing studies related to the identification of program impact and the definition of programs. The results of the new analysis confirm those of previous studies that, on average, spending trends are similar in program and non-program countries. There is also evidence that spending is better protected in countries with relatively low initial spending levels.

References

- Bailey, Michael A., Anton Strezhnev, and Erik Voeten, 2017, "[Estimating Dynamic State Preferences from United Nations Voting Data](#)," *Journal of Conflict Resolution*, Vol. 61, No. 2, pp. 430–56.
- Clements, Benedict, Sanjeev Gupta, and Masahiro Nozaki, 2013, "[What Happens to Social Spending in IMF-supported Programmes?](#)," *Applied Economics*, Taylor & Francis Journals, Vol. 45, No. 28, pp. 4022–33.
- Gupta, Sanjeev, Mechela Schena, and Seyed Reza Yousefi, 2018, "[Expenditure Conditionality in IMF-Supported Programs](#)," IMF Working Paper No. WP/18/255 (Washington: International Monetary Fund).
- International Monetary Fund (IMF), 2013, *Fiscal Monitor: Taxing Times*, (Washington: International Monetary Fund), October.
- _____, 2017, "[Social Safeguards and Program Design in PRGT and PSI-Supported Programs](#)," (Washington: International Monetary Fund).
- _____, 2019, "[2018 Review of Program Design and Conditionality](#)," IMF Policy Paper (Washington: International Monetary Fund).
- World Health Organization (WHO), 2017, "Technical brief on the Indicators published on the World Health Organization's Global Health Expenditure Database," (Washington: World Health Organization).
- Słoczyński, Tymon, and Jeffrey M. Wooldridge, 2018, "[A General Double Robustness Result for Estimating Average Treatment Effects](#)," *Econometric Theory*, Vol. 34, No. 1, pp. 112–33.
- Stubbs, Thomas, and Alexander Kentikelenis, 2017, "[Targeted Social Safeguards in the Age of Universal Social Protection: The IMF and Health Systems of Low-income Countries](#)," *Critical Public Health*, Vol. 28, No. 2, pp. 132–9.
- Stubbs, Thomas, Alexander Kentikelenis, David Stuckler, Martin McKee, and Lawrence King, 2017, "[The Impact of IMF Conditionality on Government Health Expenditure: A Cross-national Analysis of 16 West African Nations](#)," *Social Science & Medicine*, Vol. 174, pp. 220–7.
- Wooldridge, Jeffrey M., 2007, "[Inverse Probability Weighted Estimation for General Missing Data Problems](#)," *Journal of Econometrics*, Vol. 141, No. 2, pp. 1281–1301.

Appendix I. Selected Tables

Appendix Table 1. IMF Lending Arrangements Approved, 2000–16
(number of arrangements)

	2000–2016
Total	283
GRA	123
EFF	17
FCL	17
PCL	1
PLL	3
SBA	85
PRGT	160
ECF	51
ECF-EFF	4
ESF	11
PRGT	62
PRGT-EFF	3
PSI	18
SBA-ESF	1
SBA-SCF	5
SCF	5

Sources: IMF Monitoring of Fund Arrangements database and IMF Financial database.

Note: Data refer to the arrangements approved over the period 2000–16.

Appendix Table 2. Binary Variable for Large Declines in Health and Education Spending

Dummy Variable equals:		0	1
When the change in social spending is in the range of:	Change in Health Spending (% of GDP)	(-0.2, 3.1)	[-3.0, -0.2]
	% Change in Health Spending (real per capita)	(-10.1, 568.2)	[-64.2, -10.7]
	Change in Education Spending (% of GDP)	(-0.4, 5.1)	[-3.9, -0.4]
	% Change in Education Spending (real per capita)	(-7.1, 276.2)	[-43.7, -7.5]

Sources: WHO; UNESCO; and IMF staff calculations.

Note: Dummy variable construction for country-years with declines in spending that are greater than the median negative changes observed in health and education spending.

Appendix Table 3. Probit Analysis of Large Reductions in Social Spending

Panel A: Probit Analysis Coefficients												
	Education spending (% of GDP)			Education spending (NCU per Capita)			Health spending (% of GDP)			Health spending (NCU per Capita)		
	Full	PRGT	GRA	Full	PRGT	GRA	Full	PRGT	GRA	Full	PRGT	GRA
Real GDP Growth	0.021*** (0.007)	0.032*** (0.007)	-0.029* (0.017)	-0.010 (0.010)	0.006 (0.010)	-0.091*** (0.023)	0.006 (0.005)	-0.005 (0.006)	0.013 (0.011)	-0.029*** (0.006)	-0.044*** (0.008)	-0.037*** (0.013)
Inflation	-0.007 (0.005)	-0.011* (0.006)	-0.002 (0.008)	-0.003 (0.004)	-0.011* (0.006)	0.003 (0.009)	0.002 (0.003)	-0.002 (0.003)	0.007 (0.006)	0.008*** (0.003)	0.005 (0.003)	0.015*** (0.005)
Fiscal Balance / GDP	0.053*** (0.017)	0.053*** (0.020)	0.133*** (0.047)	0.039** (0.016)	0.060*** (0.021)	0.092* (0.053)	0.066*** (0.012)	0.056*** (0.017)	0.102*** (0.023)	0.064*** (0.012)	0.060*** (0.016)	0.089*** (0.025)
Revenue / GDP	-0.062*** (0.021)	-0.065*** (0.024)	-0.035 (0.073)	-0.046** (0.019)	-0.067*** (0.023)	-0.066 (0.085)	-0.062*** (0.015)	-0.053*** (0.019)	-0.047 (0.031)	-0.067*** (0.015)	-0.059*** (0.018)	-0.068* (0.037)
Initial Education Spending / GDP	0.249*** (0.053)	0.264*** (0.061)	0.129 (0.121)	0.050 (0.052)	0.050 (0.061)	-0.098 (0.119)						
Initial Health Spending / GDP							0.360*** (0.040)	0.447*** (0.061)	0.493*** (0.090)	0.114*** (0.040)	0.229*** (0.055)	0.190** (0.091)
Constant	-1.995*** (0.297)	-2.216*** (0.357)	-1.250* (0.660)	-0.842*** (0.293)	-0.965*** (0.346)	0.089 (0.625)	-1.896*** (0.182)	-1.699*** (0.205)	-2.986*** (0.477)	-1.138*** (0.172)	-0.935*** (0.193)	-2.021*** (0.456)
Pseudo R-squared	0.120	0.172	0.116	0.036	0.055	0.190	0.186	0.200	0.265	0.141	0.175	0.244
Number of observations	309	203	106	306	202	104	644	428	216	644	428	216
Panel B: Average Marginal Effect												
Real GDP Growth	0.005*** (0.002)	0.008*** (0.002)	-0.008* (0.004)	-0.003 (0.003)	0.001 (0.002)	-0.022*** (0.004)	0.002 (0.001)	-0.001 (0.002)	0.003 (0.003)	-0.007*** (0.001)	-0.01*** (0.002)	-0.007*** (0.002)
Inflation	-0.002 (0.001)	-0.003* (0.001)	-0.001 (0.002)	-0.001 (0.001)	-0.003* (0.002)	0.001 (0.002)	0 (0.001)	0 (0.001)	0.002 (0.001)	0.002*** (0.001)	0.001 (0.001)	0.003*** (0.001)
Fiscal Balance / GDP	0.014*** (0.004)	0.013*** (0.005)	0.034*** (0.012)	0.011** (0.004)	0.015*** (0.005)	0.023* (0.013)	0.017*** (0.003)	0.014*** (0.004)	0.025*** (0.005)	0.015*** (0.003)	0.014*** (0.003)	0.016*** (0.004)
Revenue / GDP	-0.016*** (0.005)	-0.016*** (0.006)	-0.009 (0.019)	-0.012** (0.005)	-0.017*** (0.006)	-0.016 (0.021)	-0.016*** (0.004)	-0.013*** (0.005)	-0.011 (0.007)	-0.015*** (0.003)	-0.013*** (0.004)	-0.012* (0.007)
Initial Health/Education Spending / GDP	0.065*** (0.012)	0.066*** (0.013)	0.033 (0.03)	0.014 (0.014)	0.013 (0.015)	-0.024 (0.029)	0.094*** (0.009)	0.113*** (0.013)	0.119*** (0.016)	0.026*** (0.009)	0.052*** (0.012)	0.035** (0.016)

Source: IMF staff calculations.

Note: Standard errors are shown in parentheses. Three, two, one asterisks indicate significance levels of 99 percent, 95 percent, and 90 percent, respectively. Panel A shows the results from the probit regression of the dummy of a reduction in large social spending over the period (t-h) and (t). Regressors include real GDP growth and inflation, initial social spending, and changes over the period in revenue and fiscal balances as shares of GDP. Panel B refers to the average marginal effects of increasing the regressors from their 25th to their 75th percentile value in the sample.

Appendix Table 4. Summary of Studies on the Impact of IMF Programs on Social Spending, 2010–2018

Paper	Data	Methodology	Results	Limitations
Clements, Gupta, and Nozaki (2013)	<u>Period:</u> 1985–2009 <u>Countries:</u> 59 LICs (eligible for concessional lending). 61 Non-LICs	<p>The paper uses a dynamic model specification of the determinants of public spending on education and health measured as shares of GDP or total spending. The paper attempts to identify the effect of programs using:</p> <ol style="list-style-type: none"> 1) Heckman’s two-step estimator to model selection of countries into programs using the inverse Mills ratio as a control variable to correct for selection bias in a two-step procedure. 2) System-GMM to address endogeneity of program participation, real GDP per capita, and government balance. External instrumental variables (IVs) include international reserves, the exchange rate to the USD, and an index of exchange rate regime. 	<p>System-GMM estimates suggest that programs raise education and health spending in the first year by 0.22 and 0.27 percentage points of GDP, respectively, for LICs.</p> <p>For LICs, education and health spending as a share of total government spending increases by about 1 percentage point and 0.5 percentage point, respectively, in the first year of the program.</p> <p>The program effects on social spending were found to be insignificant for non-LICs.</p>	<p>The Heckman approach requires specific distributional assumptions—typically joint normality of the underlying structural disturbances—as well as that the probit model is correctly specified in the selection stage.</p> <p>Heckman’s approach also requires at least one selection variable not affecting the structural equation. Proxies for external conditions are unlikely to satisfy such exclusion restrictions as they can directly affect import costs of the goods purchased for use in the social sectors.</p> <p>Similarly, the IVs used in the system-GMM estimation are unlikely to be valid, as external indicators can correlate with health and education spending.</p>
IMF (2017) <i>Social Safeguards and</i>	<u>Period:</u> 1988–2014	The paper replicates the analysis of Clements, Gupta, and Nozaki	“Heckit” analysis on 48 LICs over 1988–2014 shows that	The paper is subject to the limitations identified in the paper

Appendix Table 4. Summary of Studies on the Impact of IMF Programs on Social Spending, 2010–2018 (continued)

<i>Program Design in PRGT and PSI-Supported Programs</i>	<u>Countries:</u> 59 LICs (eligible for concessional lending)	(2013) applying Heckman’s two-step approach.	education spending increases by 0.32 percentage of GDP on average during IMF programs.	of Clements, Gupta, and Nozaki (2013).
			Evidence from 59 LICs over 1995–2014 suggests that Fund programs do not have a significant impact on health spending.	
Stubbs and Kentikelenis (2017)	<u>Period:</u> 1988–2014 <u>Countries:</u> 59 LICs (eligible for concessional lending)	The paper uses a variant of the Heckman two-stage approach of Clements, Gupta and Nozaki (2013) on the country sample of the 2017 IMF Board paper on Social Safeguards and Program Design in PRGT and PSI-Supported Programs. The authors exclude from the sample PSI arrangements while they include GRA-funded programs.	Program participation is associated with annual reductions in health spending of about 1.7 percentage points of GDP but has no statistically significant effect on education spending.	The variables assumed to satisfy exclusion restrictions (i.e., total number of countries under IMF programs and United Nations General Assembly voting similarity with the United States) are correlated to determinants of spending such as international financial crises, commodity price fluctuations, as well as country specific economic openness and political preferences that can affect spending.
Stubbs, Kentikelenis, Stuckler, McKee, and King (2017)	<u>Period:</u> 1995–2014.	The paper adopts the Heckman approach with the selection equation	An additional binding condition, defined by the authors as a prior action or quantitative/structural	The paper is subject to the limitations identified in the paper of Stubbs and Kentikelenis (2017).

Appendix Table 4. Summary of Studies on the Impact of IMF Programs on Social Spending, 2010–2018 (concluded)

	<u>Countries:</u> 16 West African countries	of Stubbs and Kentikelenis (2017), as well as a two-stage least squares method with both IMF program participation and IMF conditionality variables instrumented using United Nations General Assembly (UNGA) voting similarity with the United States and the total number of countries under IMF programs.	performance criteria, reduces government health spending per capita by 0.248 percent, albeit the joint effect of program and the number of program conditionalities is found to be statistically insignificant.	
Gupta, Schena, and Yousefi (2018)	<u>Countries:</u> 50 EMs 42 LICs	Variants of autoregressive distributed lag (ARDL) specifications are used to assess whether program conditionalities affect health and education spending in the short term or in the long term.	Structural expenditure conditionality is found to increase education and health spending by about 0.5–2 percent of GDP in the long run. Public investment-related conditionalities reduced the budget share of health spending by between 1.5–2.8 percent. The benefit of IMF conditionality is found mainly in LICs.	The ARDL modelling approach of the paper is essentially an OLS approach that does not tackle endogeneity concerns.

Appendix Table 5. Summary of Regression Results of the Effect of IMF Programs on Social Spending Replicating Past Methodologies

	Clements, Gupta and Nozaki (2013)				2017 Board paper on Social Safeguards		2019 Board paper on Social Spending			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Education spending (% of GDP) Fixed effect	Education spending (% of GDP) System GMM	Health spending (% of GDP) Fixed effect	Health spending (% of GDP) System GMM	Education spending (% of GDP) Fixed effect	Health spending (% of GDP) Fixed effect	Education spending (% of GDP) Fixed effect	Education spending (% of GDP) System GMM	Health spending (% of GDP) Fixed effect	Health spending (% of GDP) System GMM
IMF program	0.26* (0.133)	0.22** (0.101)	0.17** (0.070)	0.27*** (0.094)	0.32** (0.134)	0.03 (0.067)	0.27*** (0.094)	-0.30 (0.231)	-0.03 (0.044)	0.03 (0.149)
Lagged dependent variable	0.71*** (0.053)	0.85*** (0.029)	0.61*** (0.066)	0.84*** (0.035)	0.69*** (0.063)	0.76*** (0.048)	0.71*** (0.048)	0.84*** (0.056)	0.74*** (0.040)	0.90*** (0.034)
Real GDP per capita	-0.40 (0.330)	-0.05 (0.030)	0.15 (0.119)	-0.01 (0.030)	0.24 (0.335)	0.17 (0.107)	0.10 (0.180)	0.01 (0.044)	0.02 (0.125)	-0.01 (0.026)
Government balance	0.02** (0.010)	0.00 (0.010)	0.00 (0.004)	-0.00 (0.006)	0.01** (0.005)	0.00 (0.004)	-0.00 (0.003)	-0.00 (0.003)	-0.00 (0.004)	-0.00 (0.006)
Population under 15	-0.03* (0.016)	0.01 (0.016)			0.01 (0.038)		-0.00 (0.036)	0.02 (0.017)		
Population over 65			0.05 (0.107)	0.02 (0.026)		-0.01 (0.034)			0.13** (0.059)	-0.03 (0.043)
Urbanization index	0.06* (0.029)	-0.01 (0.009)	0.02* (0.014)	-0.01* (0.003)	0.02 (0.021)	-0.00 (0.007)	0.01 (0.029)	0.02* (0.010)	-0.01 (0.013)	-0.00 (0.005)
Openness	0.00 (0.004)	0.01*** (0.002)	0.00* (0.002)	0.00** (0.001)	0.01 (0.005)	0.00 (0.002)	-0.00 (0.003)	-0.00 (0.004)	0.00 (0.002)	0.00 (0.002)
Inverse Mills ratio	-0.17** (0.080)		-0.06* (0.036)		-0.14* (0.074)	-0.01 (0.043)	-0.16*** (0.052)		0.02 (0.032)	
Constant	1.82 (1.515)	0.34 (0.884)	-0.94 (0.644)	0.17 (0.259)	-3.51 (4.777)	-1.10 (1.057)	-0.22 (3.115)	-0.54 (0.948)	0.26 (1.041)	0.45 (0.304)
Number of observations	580	580	687	687	366	809	388	388	813	813
Number of countries	54	54	59	59	48	59	54	54	65	65

Source: IMF staff calculations.

Note: Standard errors are shown in parentheses. Three, two, one asterisks indicate significance levels of 99 percent, 95 percent, and 90 percent, respectively. In the fixed effect estimation, the inverse Mills ratio variable controls for selection bias (the tendency of countries with macroeconomic imbalances to have Fund-supported programs). This is calculated from a probit regression of the Fund program dummy on lagged Fund program dummy, government balance (% of GDP, lagged), international reserves (in months of imports, lagged), and the exchange rate to the U.S. dollar (% change, lagged), and an index of exchange rate regime (lagged). In the system GMM estimation, real GDP per capita and the government balance are assumed to be endogenous and instruments include only one lag of endogenous variables as well as international reserves (in months of imports, lagged), and the exchange rate to the U.S. dollar (% change, lagged), and an index of exchange rate regime (lagged).

Appendix Table 6. Government Expenditure on Health (in Percent of GDP)

	(1)	(2)	(3)	(4)	(5)	(6)
Year in the program	2nd	2nd	3rd	3rd	4th	4th
Average treatment on the treated						
Impact of IMF program on spending	-0.009	-0.003	-0.023	-0.012	-0.096	-0.085
	(0.05)	(0.05)	(0.08)	(0.08)	(0.14)	(0.14)
Outcome equation for countries with an IMF program						
Public health spending (%GDP)		-0.069**		-0.164***		-0.199***
		(0.03)		(0.05)		(0.07)
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Treatment equation						
Cash balance (%GDP)	-0.052***	-0.052***	-0.048**	-0.048**	-0.072**	-0.072**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
	0	0	0	0	0	0
Reserves in months of imports	-0.060***	-0.060***	-0.049***	-0.049***	-0.083***	-0.083***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)
	0	0	0	0	0	0
GDP per capita (PPP)	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
GDP per capita growth	-0.032**	-0.032**	-0.043***	-0.043***	-0.071***	-0.071***
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
	0	0	0	0	0	0
Government debt (%GDP)	-0.002	-0.002	0.000	0.000	0.001	0.001
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
External debt (%GDP)	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
Trade balance (%GDP)	-0.009***	-0.009***	-0.007*	-0.007*	-0.005	-0.005
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
Capital account balance (%GDP)	0.096***	0.096***	0.090**	0.090**	0.087**	0.087**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
	0	0	0	0	0	0
PRGT eligible country	0.110	0.110	0.313*	0.313*	1.017***	1.017***
	(0.16)	(0.16)	(0.18)	(0.18)	(0.25)	(0.25)
	0	0	0	0	0	0
Constant	0.154	0.154	-0.247	-0.247	-0.974**	-0.974**
	(0.23)	(0.23)	(0.26)	(0.26)	(0.38)	(0.38)
Observations	997	997	859	859	729	729
Program cases (number of treated)	136	136	101	101	60	60
Non-program (number of controls)	861	861	758	758	669	669
P-value for covariate balance	0.291	0.291	0.115	0.115	0.514	0.514

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 7. Government Expenditure on Health (in Constant NCU per capita)

	(1)	(2)	(3)	(4)	(5)	(6)
Year in the program	2nd	2nd	3rd	3rd	4th	4th
Average treatment on the treated						
Impact of IMF program on spending	-0.213	1.094	-0.059	2.325	-5.431	-2.046
	(2.57)	(2.44)	(4.80)	(4.23)	(8.68)	(7.76)
Outcome equation for countries with an IMF program						
Public health spending (%GDP)		-4.279***		-8.902***		-9.866***
		(1.22)		(2.05)		(2.92)
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Treatment equation						
Cash balance (%GDP)	-0.052***	-0.052***	-0.048**	-0.048**	-0.072**	-0.072**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
	0	0	0	0	0	0
Reserves in months of imports	-0.060***	-0.060***	-0.049***	-0.049***	-0.083***	-0.083***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)
	0	0	0	0	0	0
GDP per capita (PPP)	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
GDP per capita growth	-0.032**	-0.032**	-0.043***	-0.043***	-0.071***	-0.071***
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
	0	0	0	0	0	0
Government debt (%GDP)	-0.002	-0.002	0.000	0.000	0.001	0.001
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
External debt (%GDP)	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
Trade balance (%GDP)	-0.009***	-0.009***	-0.007*	-0.007*	-0.005	-0.005
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
Capital account balance (%GDP)	0.096***	0.096***	0.090**	0.090**	0.087**	0.087**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
	0	0	0	0	0	0
PRGT eligible country	0.110	0.110	0.313*	0.313*	1.017***	1.017***
	(0.16)	(0.16)	(0.18)	(0.18)	(0.25)	(0.25)
	0	0	0	0	0	0
Constant	0.154	0.154	-0.247	-0.247	-0.974**	-0.974**
	(0.23)	(0.23)	(0.26)	(0.26)	(0.38)	(0.38)
Observations	997	997	859	859	729	729
Program cases (number of treated)	136	136	101	101	60	60
Non-program (number of controls)	861	861	758	758	669	669
P-value for covariate balance	0.291	0.291	0.115	0.115	0.514	0.514

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 8. Government Expenditure on Education (in Percent of GDP)

	(1)	(2)	(3)	(4)	(5)	(6)
Year in the program	2nd	2nd	3rd	3rd	4th	4th
Average treatment on the treated						
Impact of IMF program on spending	-0.125 (0.09)	-0.132 (0.08)	-0.086 (0.14)	-0.104 (0.14)	-0.016 (0.24)	0.108 (0.22)
Outcome equation for countries with an IMF program						
Public education spending (%GDP)		-0.114** (0.05)		-0.258** (0.10)		-0.159** (0.08)
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Treatment equation						
Cash balance (%GDP)	-0.078*** (0.03)	-0.078*** (0.03)	-0.043 (0.03)	-0.043 (0.03)	-0.062 (0.04)	-0.062 (0.04)
	0	0	0	0	0	0
Reserves in months of imports	-0.044* (0.02)	-0.044* (0.02)	-0.035 (0.03)	-0.035 (0.03)	-0.107** (0.05)	-0.107** (0.05)
	0	0	0	0	0	0
GDP per capita (PPP)	-0.000*** (0.00)	-0.000*** (0.00)	-0.000*** (0.00)	-0.000*** (0.00)	-0.000** (0.00)	-0.000** (0.00)
	0	0	0	0	0	0
GDP per capita growth	-0.015 (0.02)	-0.015 (0.02)	-0.054** (0.02)	-0.054** (0.02)	-0.040 (0.03)	-0.040 (0.03)
	0	0	0	0	0	0
Government debt (%GDP)	-0.001 (0.00)	-0.001 (0.00)	0.004 (0.00)	0.004 (0.00)	0.002 (0.00)	0.002 (0.00)
	0	0	0	0	0	0
External debt (%GDP)	0.003*** (0.00)	0.003*** (0.00)	0.002*** (0.00)	0.002*** (0.00)	0.003*** (0.00)	0.003*** (0.00)
	0	0	0	0	0	0
Trade balance (%GDP)	-0.020*** (0.00)	-0.020*** (0.00)	-0.016*** (0.01)	-0.016*** (0.01)	-0.016** (0.01)	-0.016** (0.01)
	0	0	0	0	0	0
Capital account balance (%GDP)	0.071 (0.05)	0.071 (0.05)	0.086 (0.05)	0.086 (0.05)	0.073 (0.06)	0.073 (0.06)
	0	0	0	0	0	0
PRGT eligible country	0.215 (0.22)	0.215 (0.22)	0.513* (0.27)	0.513* (0.27)	1.546*** (0.40)	1.546*** (0.40)
	0	0	0	0	0	0
Constant	0.505 (0.31)	0.505 (0.31)	-0.179 (0.37)	-0.179 (0.37)	-0.897* (0.50)	-0.897* (0.50)
Observations	542	542	442	442	367	367
Program cases (number of treated)	81	81	47	47	29	29
Non-program (number of controls)	461	461	395	395	338	338
P-value for covariate balance	0.400	0.400	0.162	0.162	0.189	0.189

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table 9. Government Expenditure on Education (in Constant NCU per capita)

	(1)	(2)	(3)	(4)	(5)	(6)
Year in the program	2nd	2nd	3rd	3rd	4th	4th
Average treatment on the treated						
Impact of IMF program on spending	-3.616	-4.178	-0.382	-1.395	-3.268	6.056
	(3.99)	(3.91)	(5.62)	(5.59)	(11.83)	(10.19)
Outcome equation for countries with an IMF program						
Public education spending (%GDP)		-3.624***		-6.797***		-7.884***
		(1.36)		(1.84)		(2.15)
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Treatment equation						
Cash balance (%GDP)	-0.078***	-0.078***	-0.043	-0.043	-0.063	-0.063
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
	0	0	0	0	0	0
Reserves in months of imports	-0.037	-0.037	-0.032	-0.032	-0.106**	-0.106**
	(0.02)	(0.02)	(0.03)	(0.03)	(0.05)	(0.05)
	0	0	0	0	0	0
GDP per capita (PPP)	-0.000***	-0.000***	-0.000***	-0.000***	-0.000**	-0.000**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
GDP per capita growth	-0.013	-0.013	-0.053**	-0.053**	-0.040	-0.040
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
	0	0	0	0	0	0
Government debt (%GDP)	-0.002	-0.002	0.004	0.004	0.002	0.002
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
External debt (%GDP)	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	0	0	0	0	0	0
Trade balance (%GDP)	-0.020***	-0.020***	-0.016***	-0.016***	-0.016**	-0.016**
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
	0	0	0	0	0	0
Capital account balance (%GDP)	0.073	0.073	0.087	0.087	0.073	0.073
	(0.05)	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)
	0	0	0	0	0	0
PRGT eligible country	0.245	0.245	0.498*	0.498*	1.540***	1.540***
	(0.22)	(0.22)	(0.27)	(0.27)	(0.40)	(0.40)
	0	0	0	0	0	0
Constant	0.442	0.442	-0.180	-0.180	-0.895*	-0.895*
	(0.31)	(0.31)	(0.37)	(0.37)	(0.50)	(0.50)
Observations	537	537	439	439	365	365
Program cases (number of treated)	79	79	47	47	29	29
Non-program (number of controls)	458	458	392	392	336	336
P-value for covariate balance	0.366	0.366	0.151	0.151	0.185	0.185

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

BACKGROUND PAPER III. MISSION CHIEFS' SURVEY: AN OVERVIEW OF RESULTS¹

IMF Area Department mission chiefs were surveyed between July and December 2018 to better understand the country team's approach to social spending issues, the nature and extent of their engagement, and the challenges they faced in this engagement. The survey responses indicated that: i) social spending is widely considered to be macro-critical; ii) when engaging on social spending IMF country teams rely on their own resources and also extensively leverage internal and external expertise; iii) program objectives are typically in line with countries' social spending priorities; and iv) IMF policy advice to member countries commonly involves social spending reforms.

A. Introduction

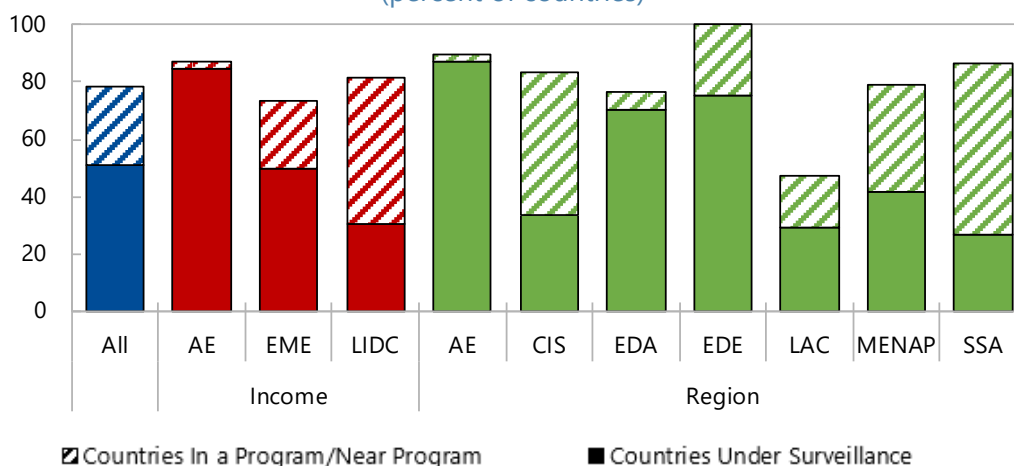
- 1. A survey of IMF mission chiefs (MCs) provides insights into staff views on the Fund's engagement on social spending.** The survey collected views of MCs leading country work for the 189 [IMF member countries](#), as well as those responsible for IMF country work related to Aruba, Curaçao and St. Maarten, Hong Kong, Macao SAR, and West Bank and Gaza. The survey was conducted during July through December 2018. It sought to capture views on a wide-ranging set of issues related to the IMF's work on social spending, including on analysis and policy advice and interaction with other stakeholders. It included specific questions on program context, design, and conditionality.
- 2. Survey responses were representative.** The overall response rate stood at (about 80 percent; Figure 1), varying from 73 percent for emerging economies (EMEs) to 81 percent for low-income and developing countries (LIDCs), and 89 percent for advanced countries (AEs).² All regions were represented in the survey, although with varying response rates (around 80 or more percent in all regions except in LAC).³
- 3. The following sections present and discuss the survey results.** Section B provides MCs' views on drivers of macro-criticality of social spending issues. Section C discusses resources that support IMF engagement on social spending issues, including how external resources are leveraged. Section D discusses policy advice; and Section E addresses specific issues related to countries under IMF-supported programs.

¹ Prepared by Maura Francese and Nghia Piotr Le (FAD).

² The response rate was very high (83 percent) also for the sub-sample of fragile states.

³ Regions and country grouping (AE: Advanced Economies; CIS: Commonwealth of Independent States; EDA: Emerging and Developing Asia; EDE: Emerging and Developing Europe; LAC: Latin America and the Caribbean; MENAP: Middle East, North Africa, Afghanistan, and Pakistan; SSA: Sub-Saharan Africa) follows the [WEQ country classification](#).

Figure 1. Response Rates by Region and Income Group
(percent of countries)

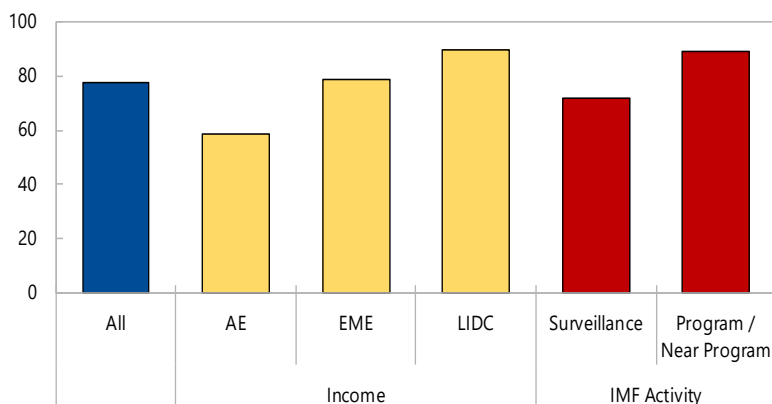


Source: Mission Chiefs' Survey on IMF Engagement on Social Spending.

B. Macro-criticality of Social Spending Issues

4. Social spending is widely considered to be macro-critical. Almost 80 percent of MCs see social spending as macro-critical. This view is broadly consistent across country income groups as well as across IMF activities (Figure 2). In general, social spending is more frequently considered to be macro-critical in LIDCs and EMEs (respectively, in almost 90 and 80 percent of countries), than in AEs (almost 60 percent of countries). As expected, the share of mission chiefs that viewed social spending as macro-critical in fragile states was very high (85 percent). Across regions, it is more frequently seen as macro-critical (about 90 percent) in emerging and developing Europe, MENAP and Sub-Saharan Africa. By contrast, social spending issues are less often considered macro-critical in CIS countries.

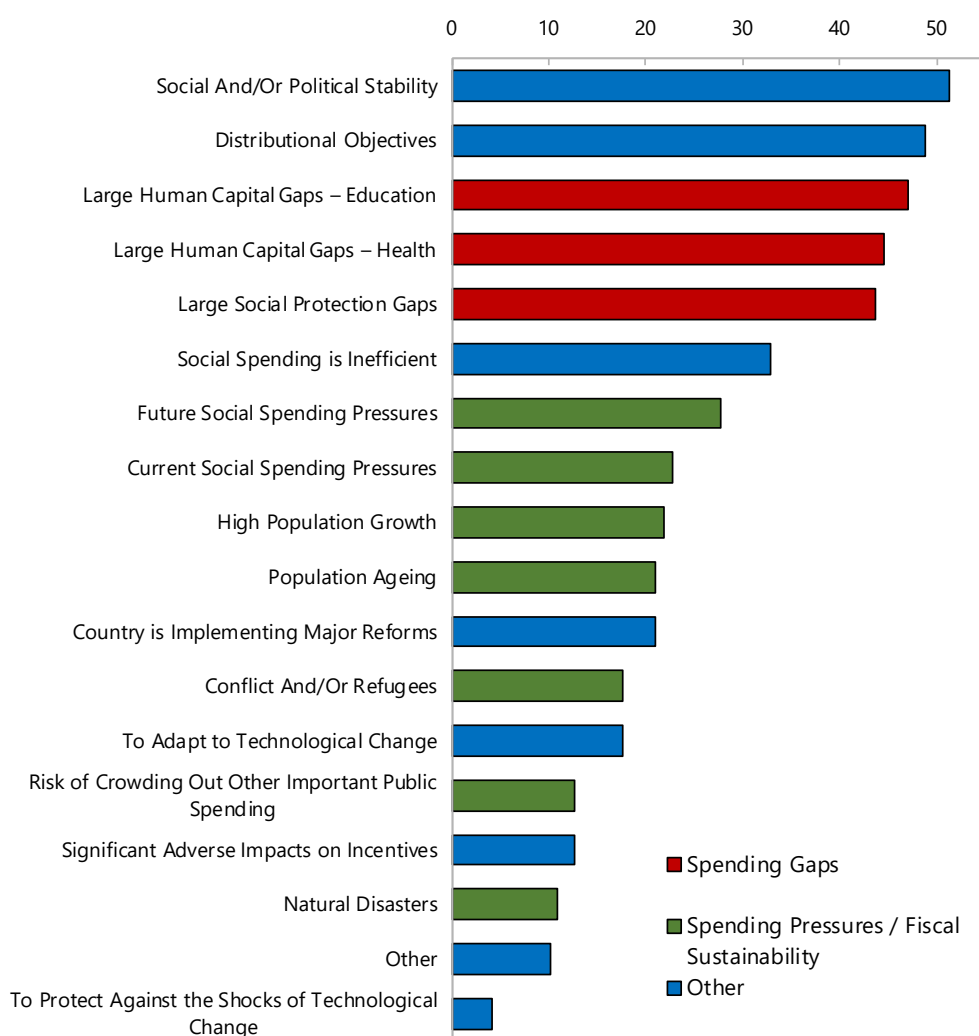
Figure 2. Is Social Spending Macro-critical for your Country?
(percent of yes responses)



Source: Mission Chiefs' Survey on IMF Engagement on Social Spending.

5. The drivers of the macro-criticality of social spending vary significantly. The most cited reasons for considering social spending to be macro-critical are: (1) the risk posed to social and political stability by inadequate social spending; (2) the view that social spending is key for achieving the authorities' distributional objectives; and (3) the need to close development gaps, including those needed to meet the SDGs (Figure 3). Yet, there is some heterogeneity across country groups. Whereas in AEs spending pressures, population ageing, and distributional objectives are the most commonly cited factors, in LIDCs development gaps in education, health, and social protection as well as social and/or political stability are considered the main drivers of macro-criticality (Figure 4, left panel). In countries under IMF supported programs, MCs most often point to the need to close development gaps and the risks to social and/or political stability stemming from inadequate social spending (Figure 4, right panel). These concerns are particularly prominent in fragile states.

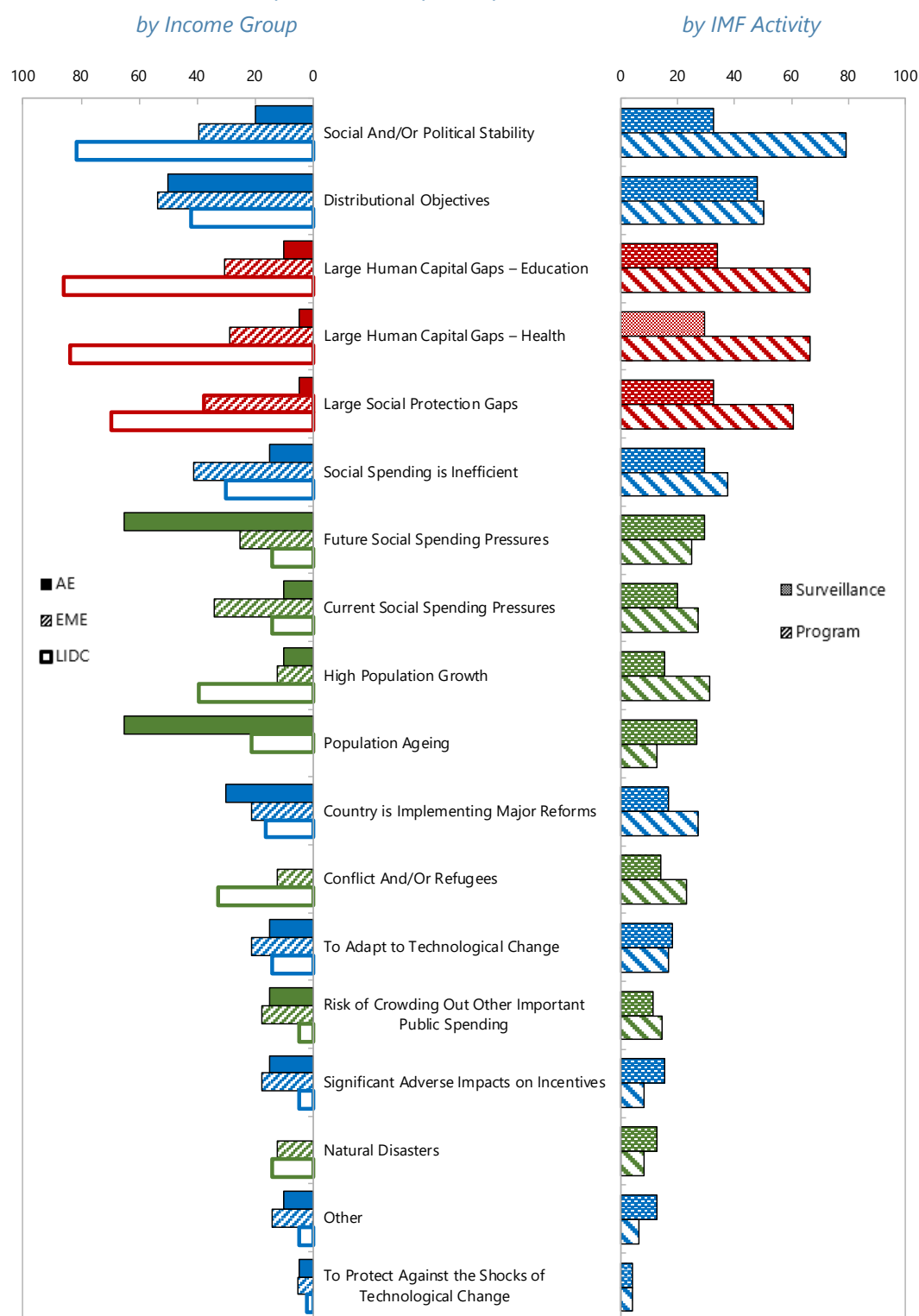
Figure 3. Why Social Spending is Macro-critical
(percent; multiple responses allowed)



Source: Mission Chiefs' Survey on IMF Engagement on Social Spending.

Note: MCs were allowed to check all options relevant for their case (no weighting used).

Figure 4. Why Social Spending is Macro-critical by Income Group and IMF Activity
(percent; multiple responses allowed)



Source: Mission Chiefs' Survey on IMF Engagement on Social Spending.

C. Resources for Addressing Social Spending Issues and Interaction with Other Institutions

6. Country teams rely on their own resources and leverage IMF and external expertise.

Overall 80 percent of MCs indicated that own resources and analysis are the main basis for engagement on social spending issues. Analysis, tools, and technical assistance provided by other IMF departments is cited by about 50 percent of MCs as an important source of expertise and analysis. The Fiscal Affairs Department (FAD) is the main provider of analysis and expertise with technical assistance and some of the tools that have been developed being used by many teams.⁴ International Development Institutions (IDIs) (in almost 80 percent of cases), country authorities (31 percent), and academics (20 percent) are recognized as important external contributors of knowledge and expertise. Reliance by IMF staff on external resources varies significantly across countries, partly reflecting the focus and role of IDIs and varying levels of countries' capacity. While use of World Bank resources is low for AEs,⁵ the World Bank is a major partner for IMF engagement on social spending in EMEs and LIDCs.⁶ Conversely, external partners are an important source of information on AEs, alongside authorities' and scholars' analyses.⁷

7. Staff benefits from intensive interaction on social spending with the World Bank and other IDIs.

Interaction with development partners most often takes the form of bilateral discussions between IMF country teams and sectoral experts, either at headquarters or during missions. Collaboration on analytical projects appears to be much less frequent.⁸ Table 1 maps external interactions by topic and counterparts. Cooperation spans all areas of social spending, with social assistance, education, and health being the most common topics. The World Bank accounts for almost half of total interactions and is the most frequent counterpart across all topics, reflecting its significant expertise both on design and implementation of social spending programs. Interaction between IMF country teams and OECD and ILO is rare (only 1.3 and 1.2 percent of interactions respectively), consistent with their limited operational presence in the field.

8. The factors primarily holding back engagement on social spending issues are competing priorities for country analysis, availability and quality of relevant data, and availability of expertise within the team (Figure 5).

These three challenges were seen as key

⁴ For example, almost 30 percent of teams use FAD's tool for assessing spending, almost 20 percent use the Department's long-term pension and health projections, about 16 percent use the inequality database and a similar share of teams uses tools and templates for energy subsidy reform. MCs would most welcome further tools on education, health and social assistance. Technical expertise is also leveraged, with 15 percent of the surveyed teams reporting using FAD TA when engaging on social spending issues.

⁵ Only 6 percent of AE MCs selected World Bank as an important source of information.

⁶ The World Bank was indicated as an important source of analysis and resources by respectively 60 and 53 percent of MCs of EMEs and LIDCs, and just above 60 percent for fragile states.

⁷ For AEs, the shares of MCs that flagged other international institutions and the authorities as an important source of information are 53 and 47 percent respectively.

⁸ 18 percent of MCs indicated collaboration on analytical projects as a modality chosen for interacting with other institutions.

across surveillance and program countries, as well as across regions and income groups, and also for fragile states. In the case of fragile states data quality/availability issues were signaled as especially relevant.

Figure 5. Factors Affecting IMF Country Teams' Engagement on Social Spending Issues



Source: Mission Chiefs' Survey on IMF Engagement on Social Spending.

Table 1. Interaction with Other Institutions: Mapping Topics and Counterparts

(percent of total interactions)

	Social Assistance	Social Insurance	Health	Education	Other	Total
World Bank	11.0	5.9	9.7	10.2	8.9	45.8
OECD	0.8	0.2	0.2	0.3	0.0	1.5
Other regional development banks	2.8	1.0	2.3	2.6	2.3	11.0
ILO	0.5	0.3	0.2	0.0	0.2	1.2
Un Agencies	3.1	0.8	2.3	3.0	1.2	10.4
Local Development Partners	1.8	1.5	2.5	2.8	1.6	10.2
NGO	2.5	1.5	1.3	2.0	1.0	8.2
Academics	2.8	2.0	1.3	1.8	1.3	9.2
Other	1.0	0.5	0.5	0.3	0.2	2.5
Total	26.4	13.7	20.3	23.1	16.6	100.0

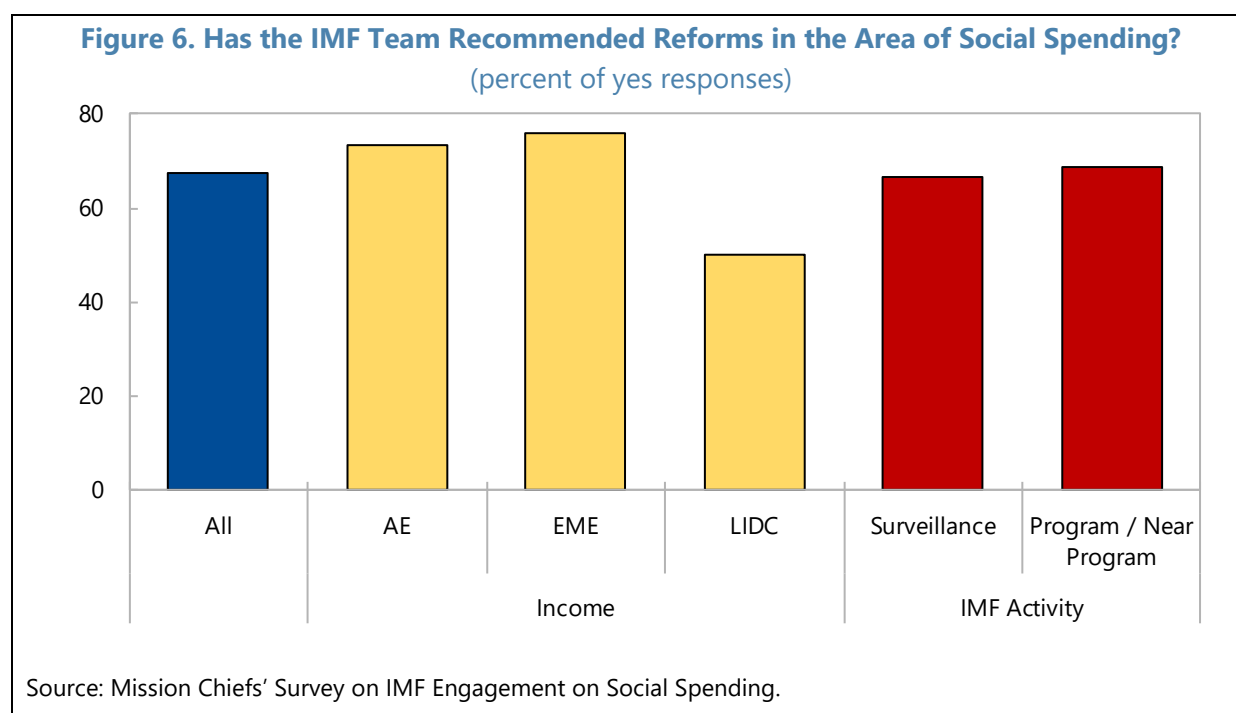
Source: Mission Chiefs' Survey on IMF Engagement on Social Spending.

9. Lack of information about other institutions' engagement and differing institutional priorities pose important obstacles to enhanced external cooperation. MCs pointed to: (1) a lack of information on other institutions' organizational set up, work plans, and country engagement; and (2) differences in institutional focus (e.g., improving social outcomes versus fiscal sustainability) as the main obstacles to more intensive external cooperation. Establishing

cooperation processes and data sharing, alongside a more extensive use of informal channels were identified as key steps to enhancing cooperation.

D. Policy Advice

10. Social spending reforms are a common feature of IMF policy advice to member countries, both in surveillance and program countries (67 and 69 percent of the cases respectively, Figure 6). Some income group and regional variation is observed. While in AEs and EMEs social spending reforms are recommended in three-quarters of the cases, similar recommendations are made in only 1 of 2 LIDCs and fragile states, mostly reflecting less frequent recommendations in Sub-Saharan countries.



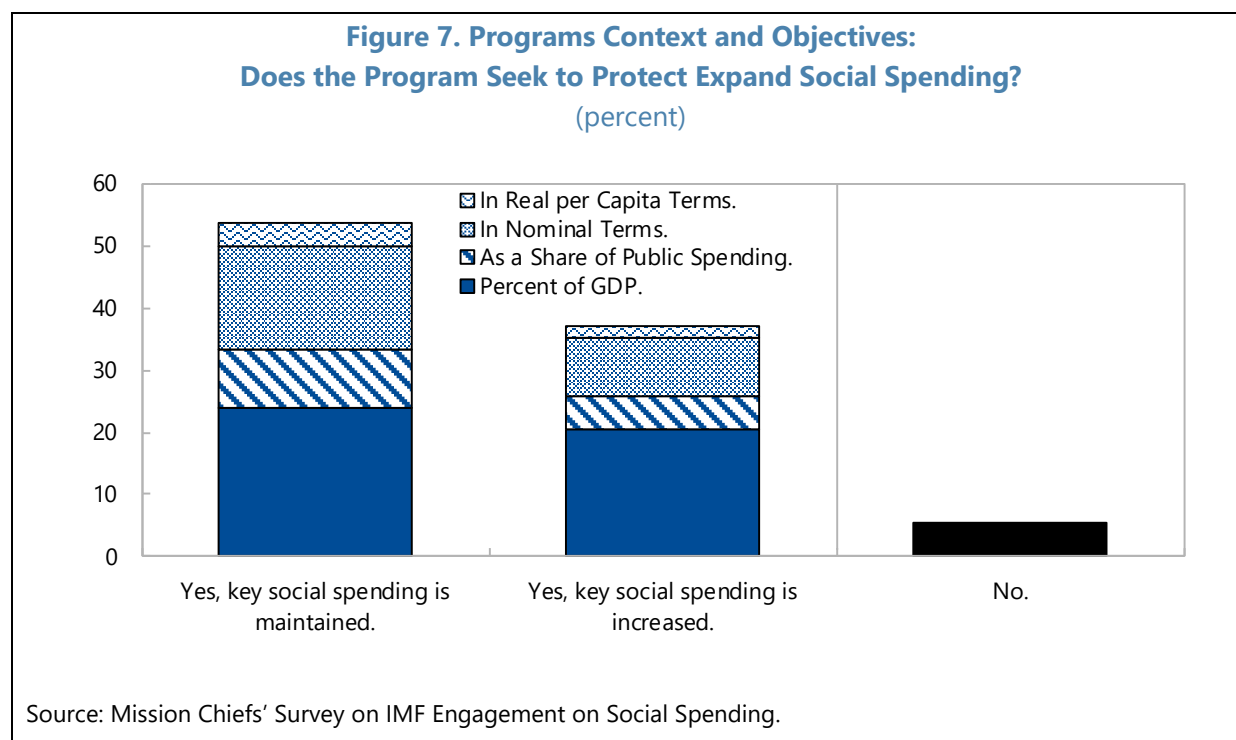
11. IMF policy advice on social spending often centers on targeting based on means-testing, both in surveillance and programs. The introduction or expansion of means-tested schemes is recommended in the majority of cases (64 percent) and the downsizing of schemes that do not require a means test is suggested in 18 percent of the cases. The expansion of social programs not based on a means test is recommended in only about 18 percent of cases. These results indicate that means-tested programs play a central role in IMF policy advice on social spending issues, a pattern that is more pronounced in program contexts when the introduction or expansion of a means-tested program is recommended in 4 of 5 cases, likely reflecting more severe fiscal space constraints during a fiscal adjustment, but only in one half of fragile states.

12. In some cases, IMF policy advice on social spending issues is reported to have been controversial with the authorities or other stakeholders, with higher reported controversy in

EDE, LAC and CIS. IMF recommendations on social spending appear to have been controversial with the authorities or given rise to criticism by other stakeholders in only 15 percent of cases. This pattern is consistent across Fund activities (surveillance and programs) and most income groups. For EDE, LAC, and CIS MCs, policy advice was more often reported to be controversial, specifically in 42, 31, and 30 percent of the cases, respectively.

E. Programs: Objectives and Conditionality

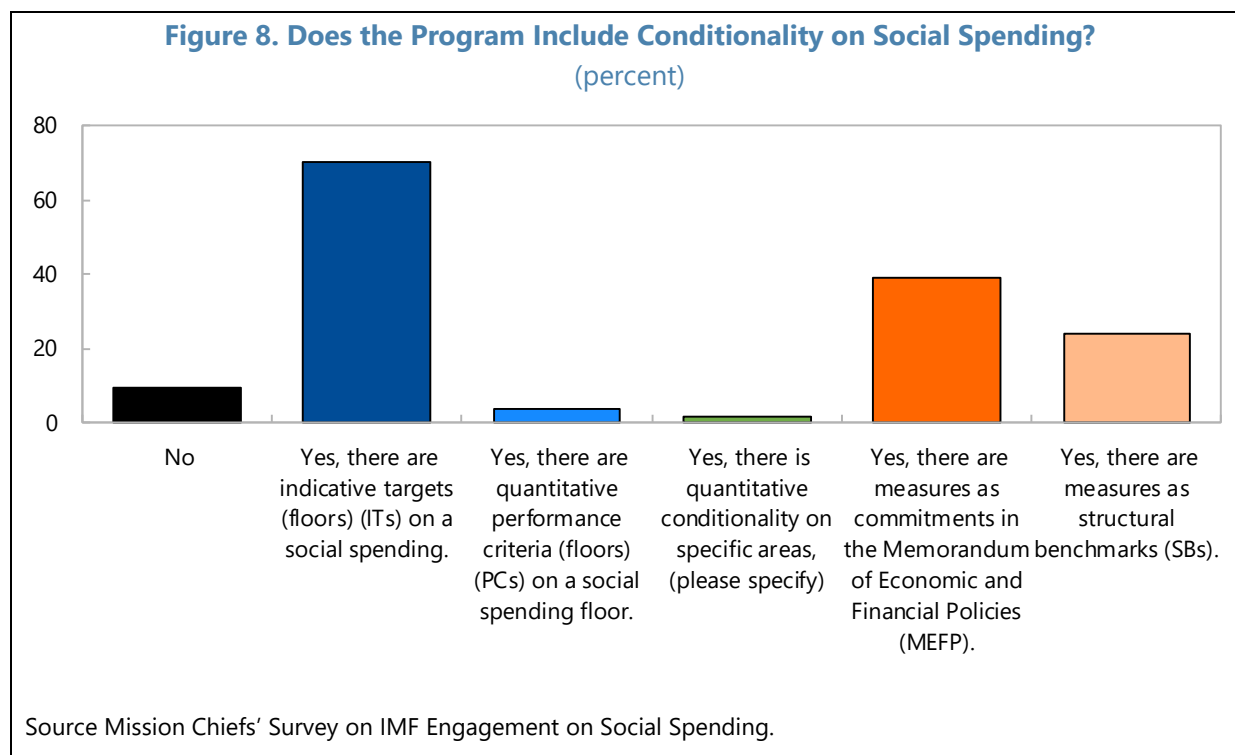
13. In Fund-supported programs, MCs believe that objectives are generally aligned with countries' social priorities and social spending is typically protected. In nearly all cases, MCs indicated that IMF programs entailed either fiscal consolidation or a neutral fiscal stance, with only a few cases of fiscal expansion. The majority of MCs (70 percent) view program objectives as consistent with country authorities' social priorities, and an additional 19 percent were neutral with respect to this question. Even though fiscal consolidation is required to restore macroeconomic stability in many programs, MCs indicated that key social spending items are typically maintained (54 percent) or increased (37 percent). In most of the cases, the objective is to maintain or increase spending as a share of GDP or in nominal terms (Figure 7).



14. Conditionality in IMF programs is generally viewed as an effective mechanism to protect social spending. Almost all IMF programs include conditionality aimed at protecting and strengthening social spending. In terms of effectiveness, most MCs (63 percent) indicated that program conditionality is an effective way to protect spending and 22 percent were neutral on this statement. Indicative targets are the most widely used mechanism (indicated by 70 percent of MCs, Figure 8). Commitments of country authorities in Memoranda of Economic and Financial Policies

(MEFPs) are also common (about 40 percent of the cases). Structural benchmarks (SB), which entail design or approval of reform measures by governments, are used to a lesser extent (24 percent of the cases).⁹ Conditionality has been used on the whole spectrum of spending categories (education, health, social assistance, unemployment benefits, pensions, etc.) with no clear pattern across region and income groups. MCs reported that conditions are met most of the time, even though 75 percent of them acknowledged that during the life of the program at least one conditionality (either quantitative or structural) was missed at some point. Shortfalls in external donor financing flows or government revenue or lack of ownership are the most cited reasons for targets being missed.

15. There is room to improve on the design and implementation of conditionality. Almost half of the MCs indicated that the design of social spending conditionality in IMF programs could be improved by narrowing the definition of spending floors (e.g., aiming at the most critical programs in a selected way), broadening consultation with IDIs, and improving data quality. In underscoring the need to strengthen implementation of social spending measures (noted by 40 percent of respondents), MCs pointed to the need to enhance implementation capacity in program countries and early engagement with IDIs to ensure that conditionality reflects country-specific factors.



⁹ On IMF conditionality and the differences between type of conditions, see the [IMF website](#).

Annex I. Questionnaire

IMF ENGAGEMENT ON SOCIAL SPENDING

Questionnaire for Mission Chiefs

This questionnaire is being sent to all country mission chiefs. Questions 1–14 are for all countries, while questions 15–24 are only for program countries. The results of the survey will serve as input to the upcoming board paper on *IMF Engagement on Social Spending: A Strategic Framework*, which is central to management response to the IEO Report on The IMF and Social Protection. Click on [hyperlink for Scoping Note](#). The main purpose of the survey is to assess the nature and extent of country teams’ engagement on social spending issues in their work and collaboration with external institutions on these issues.

Most of the questions can be answered very quickly. Where relevant, please highlight aspects and experiences that you consider important and noteworthy. In answering the questions, please feel free to provide links to information on the internet or notes/presentations that you or your team may have prepared related to social safeguard policies and social spending issues in general. Your response will be a very valuable input to the development of the strategic framework.

IMF ENGAGEMENT ON SOCIAL SPENDING: A STRATEGIC FRAMEWORK

Survey of Mission Chiefs

Please note that for the purposes of this questionnaire and the Board paper, social spending is defined as spending on 1) basic health, 2) basic education, and 3) social protection (which consists of social insurance and social assistance). Social insurance policies (e.g., unemployment insurance and pensions) aim at protecting populations from shocks that can adversely impact household incomes and welfare, and are typically financed by contributions and payroll taxes. Social assistance policies (e.g., universal and targeted transfers) aim at protecting households from poverty, and are typically financed by general government revenues.

1. Your department: _____
2. Mission chief for [country]: _____
3. Start date of assignment _____
4. Type of Fund engagement during your assignment:
 - a) Surveillance
 - b) Program/near program. Please specify program type, Start Year and End Year (if applicable)
5. Do you assess social spending issues to be macro-critical for your country (affecting or having the potential to affect, domestic or external stability, or global stability, as defined in "[Guidance Note for Surveillance under Article IV consultations](#)")?
 - a) Yes
 - b) No
6. Why is social spending macro-critical for your country? (check all options that you assess to be macro-critical)
 - a) Current social spending pressures are putting fiscal sustainability at risk
 - b) Future social spending pressures are expected to put fiscal sustainability at risk
 - c) Social spending is crowding out other important public spending thus creating risks for internal or external stability or growth.
 - d) Lack of adequate social spending is a risk to social and/or political stability.
 - e) The country is facing significant challenges due to population ageing.
 - f) Significant/increasing social spending needs due to high population growth.
 - g) Significant/increasing social spending needs due to conflict and/or refugees.
 - h) Significant/increasing social spending needs due to natural disasters.
 - i) Social spending is inefficient (too much spending, but very little social outcomes).
 - j) Social spending has significant adverse impacts on incentives e.g. affecting labor market participation.
 - k) Social spending is key for achieving the authorities' distributional objectives.

- l) The country has large human capital gaps (may include SDG commitments)— scaled up education spending is needed.
 - m) The country has large human capital gaps (may include SDG commitments)— scaled up health spending is needed.
 - n) The country has large social protection gaps (may include SDG commitments)— scaled up social protection is needed.
 - o) Scaled up or significantly reformed social protection is needed to protect against the shocks of technological change (e.g., gig economy).
 - p) Scaled up or significantly reformed education spending is needed to adapt to technological change.
 - q) The country is implementing major reforms of social spending (e.g. move towards universal basic income, pension reform, healthcare reform, etc.) that may have macroeconomic consequences.
 - r) Other (please specify)
7. *Has the team recommended reforms in the area of social spending, including introduction and/or modification of social protection schemes, reforms in health and/or education spending?*
- a) Yes
 - b) No
8. *If yes to Q7, have your recommendations implied the following? (check all that apply)*
- a) Introduction/expansion of targeted schemes that require some type of means test
 - b) Reduction of targeted schemes that require some type of means test
 - c) Introduction/expansion of schemes that do not require some type of means test (including universal schemes)
 - d) Reduction of schemes that do not require some type of means test (including universal schemes)
9. *For any option (a)-(d) above that is checked: has this recommendation been controversial with the authorities or given rise to criticism by other stakeholders in the country?*
- a) Yes
 - b) No
10. *Whose analysis/resources have you relied on as your main source? (check all that apply)*
- a) Team's own resources
 - b) Analysis conducted by another department. (please specify which below)
 - c) Technical Assistance. (please specify the department(s) below)
 - d) Support and tools provided by another department. (please specify the department(s) below)
 - e) Analysis conducted by the World Bank. (please specify below)
 - f) Analysis conducted by international institutions (e.g. AfDB, ADB, IADB, ILO, OECD, Unicef, EU). (please specify which institution(s) below)

- g) Authorities' analysis
- h) Academics' analysis
- i) Other (please specify)

11. Please check the appropriate boxes to indicate if the country team had explicit discussions with the listed institution on issues related to social spending (or other social policies) and if such discussions have been helpful. (Note: social assistance includes targeted and universal transfers to households; social insurance includes pensions, unemployment benefits; disability benefits.)

	Social Spending								Other - such as energy subsidies and/or food subsidies (please specify)	
	Social assistance		Social insurance		Health		Education			
Discussions with the institution	Worked well	Did not work well	Worked well	Did not work well	Worked well	Did not work well	Worked well	Did not work well	Worked well	Did not work well
a) World Bank										
b) OECD										
c) AfDB										
d) IADB										
e) ADB										
f) EBRD										
g) IsDB										
h) NDB										
i) AIIB										
j) other regional development banks										
k) ILO										
l) UN agencies (e.g.,UNDP, UNICEF)										
m) Local development partners (e.g., EU, DfID)										
n) NGOs or CSOs										
o) Academics										
p) Other. Please specify										

12. How do you interact with other institutions/organization and leverage external expertise?

- a) Bilateral discussions with experts (e.g. WB managers and economists) at HQ
- b) Bilateral discussions with experts (e.g. WB anagers and economists) during missions
- c) Bilateral discussions with experts (e.g. WB managers and economists) by ResRep

- d) Collaborating in analytical projects
 - e) Other (please specify)
13. *In your experience, indicate which of the following obstacles you have faced when cooperating/trying to cooperate with other institutions/organization on social protection issues. (check all that apply and specify which IDI or other institution (as CSOs or academics) they refer to)?*
- a) Lack of country-level involvement (country presence) by the other institutions/organizations
 - b) Lack of information on who does what (information on work plans and engagement by other institutions)
 - c) Lack of interest from the other institutions to cooperate with the Fund
 - d) Conceptual differences in understanding/approaches to social spending issues
 - e) Differences in institutional focus (e.g. improving social outcomes versus fiscal sustainability).
 - f) Other (please specify)
14. *What would improve your cooperation with other external institutions/organizations? (check all that apply and specify which IDI or other institution (as CSOs or academics) they refer to)*
- a) Established discussion channels/cooperation processes
 - b) More extensively using informal contact/discussion channels
 - c) Data sharing
 - d) Other (please specify)
 - e) Current set up works quite well/well enough
15. *Indicate which of the following tools your team has used.*
- a) Expenditure Assessment Tool (EAT)
 - b) FAD's long-term pension and health expenditure projections
 - c) FAD's Pension Reform Template
 - d) FAD's Income Inequality (Gini) Database
 - e) FAD's Energy Subsidies tools and templates
 - f) Macroeconomic and Distributional Implications of Fiscal Policies model developed by SPR
 - g) CEQ (Commitment to Equity project) incidence analysis methodology (in cooperation with CEQ)
 - h) WB ASPIRE database
 - i) WB PovcalNet analysis
 - j) WB Poverty and Social Impact Analysis (PSIA)
 - k) Interagency Social Protection Assessments (ISPA) tools
 - l) The SDG Indicators Global Database
 - m) The ILO's social protection platform
 - n) Other (please specify)

16. *Have you found the tool(s) selected above have been helpful?*

- a) Yes
- b) No

17. *Have the following challenges prevented you from covering social spending issues more fully? (check all that apply)*

- a) Covering social spending is not within the tasks mandated to the team
- b) Lack of expertise within the team
- c) Inability to draw on outside expertise
- d) Cannot do adequate analysis because of data quality/availability
- e) Competing priorities
- f) The authorities are not interested
- g) The authorities are sensitive to the topic
- h) Achieving progress is unlikely anyway because of capacity constraints in the country's public administration
- i) Another institution (please specify) is taking the lead on social spending issues and there is no need for the Fund's engagement in this area
- j) Other (please specify)

18. *In what areas would you find it helpful to have more tools available to conduct analysis? (check all that apply)*

- a) Health
- b) Education
- c) Pensions
- d) Unemployment insurance
- e) Social assistance transfers to households (such as unconditional and conditional cash transfers)
- f) Other (please specify)

19. *For each option a-f above that is checked, ask: list any tools you would find useful to conduct analysis (e.g. expenditure benchmarking tool)?*

---END OF QUESTIONNAIRE FOR NON-PROGRAM COUNTRIES

...Questions for program countries

20. *In your view, were program objectives consistent with the authorities' social priorities? (select one)*

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree
- f) Not applicable

21. *Does the program entail fiscal consolidation?*

- a) The program entails fiscal consolidation.
- b) The program entails fiscal expansion.
- c) The program is fiscally neutral.

22. *Does the program seek to protect or expand social spending?*

- a) Yes, key social spending is maintained. Then choose from (in nominal terms/
in real per capita terms/as a share of GDP/as a share of total public spending).
- b) Yes, key social spending is increased. Then choose from (in nominal terms/
in real per capita terms/as a share of GDP/as a share of total public spending).
- c) No. If no, please specify reasons_____

23. *Does the program have quantitative/structural conditionality on social spending? (check all that apply)*

- a) No
- b) Yes, there are indicative targets (ITs) on a social spending floor
- c) Yes, there are quantitative performance criteria (floors) (PCs) on a social spending floor
- d) Yes, there is quantitative conditionality on specific areas, (please specify)
- e) Yes, there are measures as commitments in the Memorandum of Economic and Financial Policies (MEFP)
- f) Yes, there are measures as structural benchmarks (SBs).

24. *If the program includes quantitative/structural conditionality, what is included in 'key social spending'?*

- a) Pension benefits
- b) Unemployment benefits
- c) Disability benefits
- d) Social assistance benefits
- e) Health benefit
- f) Education spending
- g) Other (please specify)

25. *If the program has conditionality on social spending, how effective has the conditionality on social spending been?*

- a) The measures are met most of the time.
- b) The measures are not met most of the time.

26. *If during the program period the country authorities missed one or more social spending conditionality (if answer b) to question 25), please indicate the main reason(s). Please select all that apply:*

- a) Shortfall in external donor financing flows
- b) Shortfall in government revenue (unrelated to external financing)
- c) Lack of country ownership
- d) Social spending conditionality defined too broadly
- e) Social spending target became irrelevant
- f) Other. Please specify: _____.
- g) Not applicable

27. *Program conditionality on social spending is an effective way to protect such spending during an IMF program in your country*

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree
- f) Don't know
- g) Not applicable

28. *In your view, could the design/implementation of the social spending target in your country be improved to increase compliance rate?*

- a) Yes, the design could be improved.
- b) Yes, the implementation could be improved.
- c) No

29. *If you answered a) to Q28, please indicate how could the design of the social spending target be improved? Please select all that apply:*

- a) More targeted specification of spending floors (e.g. targeting few or most critical sectors and line ministries)
- b) Revisiting and revising these targets more frequently
- c) Seeking expertise from the World Bank and other development partners
- d) Adopting contingency plans to preserve spending from fiscal shocks

- e) Including adjustors in the design of target to account for external shocks (e.g. shortfall in external assistance)
- f) Actively seeking and incorporate authorities' inputs in designing of the targets
- g) Improving the quality of fiscal data
- h) Making the target a binding conditionality (e.g. performance criteria)
- i) Other (please specify)

30. *If you answered b) to Q28, please indicate how could the implementation of the social spending target be improved? Please select all that apply:*

- a) More detailed specification of spending floors by type of spending.
- b) Seeking feedback from the World Bank and other development partners on implementation challenges in the country before conditionality is defined
- c) Seeking expertise from the World Bank and other development who have more expertise on implementation issues during the program
- d) Strengthening capacity building focused on improving administrative capacity for social spending to accompany the delivery of the reform process
- e) Other (please specify)

BACKGROUND PAPER IV. THE DEBATE ON UNIVERSAL AND TARGETED TRANSFERS¹

This paper sets out the issues that need to be considered when providing policy advice on the targeting of transfers, and the trade-offs involved in different approaches to targeting. Broader population coverage may be desirable due to administrative constraints or social and political preferences (e.g., to build public support for social programs and structural reforms). Greater reliance on methods that result in large population coverage and fiscal cost needs to be accompanied by progressive and efficient taxation to reduce the economic cost of redistribution. Since transfers need to be financed, it is important to consider both the tax and transfer sides when designing redistributive fiscal policy to ensure that taxes do not significantly offset the redistributive impact of transfers. Achieving distributional objectives requires that the share of lower-income groups in transfers is sufficiently higher than their share in taxes. The issue is therefore how to effectively channel resources to lower-income groups given administrative, social, and political constraints.

A. Introduction

1. **There is a growing debate on the relative merits of universal and targeted social assistance transfers, especially in low-income contexts.**² This was flagged both in the IEO Evaluation Report on “The IMF and Social Protection” and during the consultation process. At the heart of the debate is the argument that targeting of benefits using means tests is very imperfect, resulting in large undercoverage of the targeted poor population, and can result in strong work disincentives when benefits are withdrawn rapidly as income increases. This is particularly so in LICs with large “informal” sectors (often characterized by self-employment and multiple and volatile sources of income) and limited administrative capacity, which makes verification of income very difficult.
2. **The distinction between targeted and universal benefits relates to the use of eligibility conditions for receiving benefits.** A *universal benefit* is defined as a benefit that is available to everyone without any eligibility conditions. For example, a Universal Basic Income (UBI) is typically defined as a uniform cash transfer that every person is entitled to regardless of income or other conditions (e.g., age, gender, or location) (IMF 2017; Francese and Prady, 2018). A *targeted benefit* has eligibility criteria, based on income (or “means”) or on characteristics that are typically thought to be highly correlated with poverty such as the number of children or elderly in a household.

¹ Prepared by David Coady and Nghia Piotr Le (FAD).

² Brown, Van de Walle, and Ravallion (2017).

B. Means-tested Transfers

3. In theory, the case for means-tested targeting is straightforward.³ In the presence of a budget constraint, an ability to perfectly target transfers to lower-income (or “poor”) households based on their incomes will result in a greater increase in social welfare (or decrease in poverty) compared to an untargeted benefit (i.e., a UBI).⁴ For instance, if the transfer budget is just sufficient to eliminate poverty, then perfect targeting will result in each poor household receiving a transfer equal to the gap between its income and the poverty income line; non-poor households will not receive a transfer. Therefore, households receive a transfer equal to the gap between their “means” and their “basic needs”. However, in the absence of perfect targeting, some poor will be excluded from the program, while some non-poor will be included, so that the poverty impact will be lower. Or some poor households may be included but receive lower transfers compared to perfect targeting.

4. In practice, many countries do not have the capacity to implement perfectly targeted transfers based on sophisticated means tests. This may reflect low administrative capacity, a large “informal” sector constituting small-scale and self-employment activities, individuals having multiple and volatile sources of income (including in-kind income), and poor or non-existent bookkeeping. This makes verification of income very difficult, especially for low-income individuals. There may also be a reluctance to do such means testing for social or political reasons (e.g., beneficiary stigma or middle-class support for redistribution). Or the costs of individuals acquiring sufficient capacity to comply (or understand) may be deemed undesirable or prohibitive.

C. Categorical Targeting

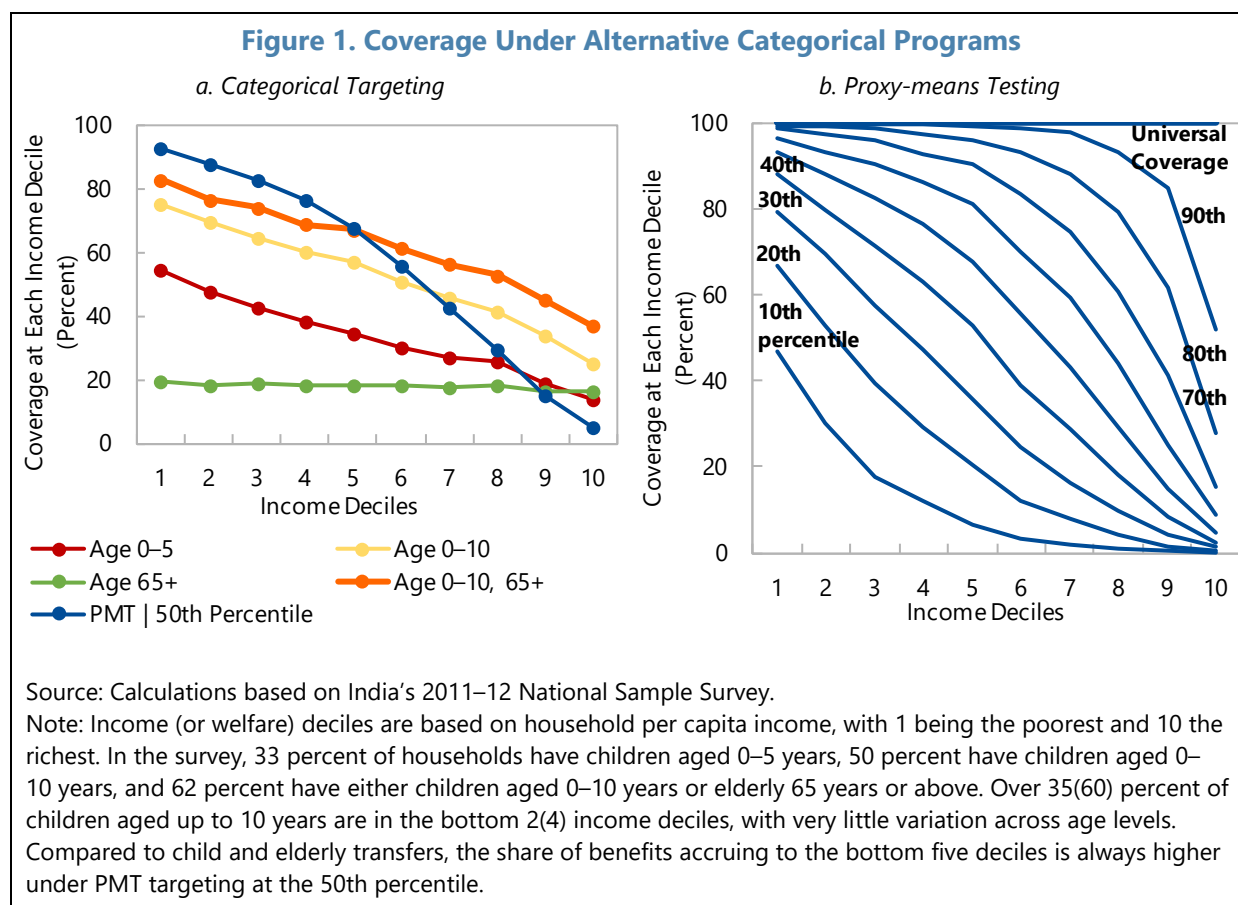
5. Where effective means testing is not feasible, an alternative approach is “categorical” targeting.⁵ Under categorical targeting, eligibility for transfers is based on such characteristics as the presence of children (child benefit) or elderly (social pensions) in the household, the location of the household (living in poor areas) or being disabled or in ill health. Such characteristics may be highly—but imperfectly—correlated with being poor. For instance, while the poverty rate for households with children or elderly may be relatively high, not all households with children or elderly are poor, or if they are poor they are not equally so. Categorical targeting can also be used

³ For more detailed discussion, see Atkinson (1995); Besley and Kanbur (1993); Coady, Grosh, and Hoddinott (2004a,b); and van de Walle (1998).

⁴ This ignores the issue of work disincentives related to the withdrawal of benefits as income increases, which is a concern in all countries regardless of level of development. The theory of optimal income distribution emphasizes the important role of gradual withdrawal of means-tested benefits with income levels to efficiently manage the trade-off between work disincentives (efficiency) and redistribution (equity) (Picketty and Saez, 2013).

⁵ This is often referred to as “tagging” or “statistical targeting.” For a broader discussion of targeting alternatives, see Coady, Grosh, and Hoddinott (2004a,b).

to differentiate the *level* of transfers (as opposed to just determining eligibility for a uniform transfer) across households based on these categorical characteristics.⁶



6. The imperfect nature of categorical targeting gives rise to a trade-off between poverty impact, coverage of the poor, and fiscal cost. While restricting transfers to households with children (say as opposed to a UBI) may help to channel a larger share of the poverty budget to the poor, and thus have a larger poverty impact, poor households without children will be excluded, while non-poor with children are included.⁷ Coverage of the poor can be increased by expanding eligibility to, say, older children or the elderly.⁸ Figure 1a illustrates the trade-offs involved—between coverage of the poor, leakage to the rich, the transfer levels received by the poor and fiscal cost—using simulations based on household survey data. Uniform benefits for children up to 5 years are very progressive since a high percentage of transfers go to lower-income groups; coverage of the bottom quintile is around 50 percent, falling to around 15 percent for the top

⁶ Note also that categorical targeting can reduce efficiency costs when the categories (or “tags”) used are linked to household or individual characteristics that cannot be easily changed or hidden.

⁷ Although child benefits are often described as being “universal,” from a redistributive perspective they are just a different form of targeting based on the demographic composition of a household.

⁸ The approach of expanding coverage across groups over time is similar to the concept of “progressive universalism”, which is generating broad support (Rutkowski, 2018; Gentilini, 2018).

quintile (Figure 1a, orange line). Expanding eligibility to children up to 10 years or to include the elderly would help increase overall household coverage, including coverage of lower-income groups. Moving to universal benefits would obviously ensure universal coverage but, under a fixed budget, also require lower transfer levels per household across all income groups. The choice between universal and categorical transfers therefore involves a trade-off in terms of poverty impact, coverage of the poor, and the size of the transfer budget (and therefore required tax levels).

D. Proxy-means Testing

7. Targeting eligibility based on proxy-means tests (PMTs) also results in leakage and undercoverage. This approach, which is the subject of much debate given its increasing importance in practice, attaches a continuous score to households based on various household characteristics strongly correlated with welfare, often based on the coefficients from a regression analysis of income or consumption on these characteristics. It has been argued that, by design, this approach is prone to significant leakage and undercoverage of the target poor population, especially of the poorest (Brown and others, 2016). Figure 1b illustrates the trade-offs using the same survey data as above. Each line, going from bottom to top, shows the change in coverage across income deciles as the program increases from 10 percent of the population to 100 percent based a standard form of PMT. Under all PMT schemes, coverage is substantially higher for lower-income groups than for higher-income groups. As the program expands upward from 10 percent of the population, coverage of lower-income groups increases significantly, reaching around 80–90 percent for the bottom quintile at 40 percent coverage. If the objective is to ensure almost universal coverage (say above 80 percent) of each of the bottom three deciles, then the program would need to expand to 50 percent of the population.

8. PMT targeting can be designed to outperform categorical child and elderly targeting in terms of both coverage and benefit incidence. Coverage of lower-income groups is higher under the PMT covering 50 percent of the population compared to categorical transfers (Figure 1a). Combined with the sharp drop-off in coverage over higher-income groups, this results in a higher share of the transfer budget going to lower-income groups under PMT. Therefore, for a given budget, the PMT will typically have a larger poverty reduction impact and better coverage of lower-income groups than under the categorical targeting. The poverty impact could be increased further by differentiating transfers by household size and composition (e.g., using the PMT to target child transfers). However, the random nature of exclusion and exclusion around the eligibility cut-off score, and the associated lack of transparency in defining eligibility, can generate significant community discontent as they observe that poor households are excluded while better off households are included. This issue of horizontal inequity is inherent to PMT. In addition, the structural nature of the underlying statistical approach means that the PMT scoring system needs to be regularly updated.

9. An alternative is to use the PMT only to differentiate benefit levels across the population with universal coverage. Benefit differentiation could be based on the PMT score. This would help to eliminate undercoverage of poor beneficiaries (however defined), although not all

poor beneficiaries would have the same transfer. Figure 2a shows the outcome in terms of share of benefits accruing to the poorest (and richest) 30 percent of the population. Under the UBI, by design, the poorest 30 percent receive 30 percent of the fixed transfer budget. The second set of bars show the share under a “tiered PMT” where the ratio of benefits received by individuals is 4:2:1 across the lowest three PMT deciles, the next four deciles, and the highest three deciles, respectively. This increases the share of benefits accruing to the bottom three deciles to over 40 percent, while that for the richest three deciles decreases to just above 15 percent. In addition to having a bigger poverty impact, this also eliminates eligibility undercoverage. Although the PMT that targets half the population has a slightly higher share of benefits accruing to the bottom three deciles (Figure 2a, fourth set of bars), it also comes with significant undercoverage of lower welfare deciles (Figure 2b, line). Tiering benefits also eases, but does not completely eliminate, horizontal equity concerns.

E. Financing Transfers

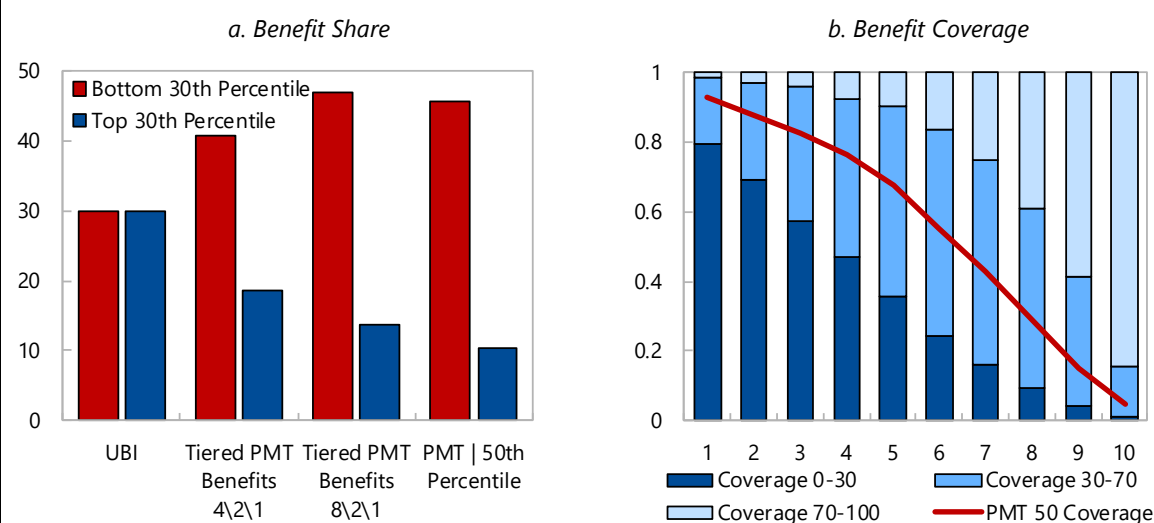
10. Coverage expansion needs to be financed through progressive and efficient taxation.

This strategy should include:

- *Strengthening personal income taxes (PITs).* Where administrative capacity is low, this could first focus on broadening coverage of taxes on wages and salaries and paying particular attention to taxation of higher incomes. From the perspective of fiscal redistribution, this allows the claw back of universal transfers from these income groups and can reduce reliance on other less progressive tax instruments. Strong PITs should also be reinforced by effective taxation of corporate income.
- *Strengthening consumption taxes.* Broad-based consumption taxes play a key role in increasing tax capacity in developing economies (Coady, 2018). Efficiency requires that differentiation of consumption tax rates across goods be minimized, and the strengthening of the social safety net through expanding coverage of lower-income groups greatly dilutes the case for preferential rates on income distribution grounds. Setting the tax registration threshold at a reasonably high level can also enhance the progressivity of the consumption tax burden since smaller scale businesses typically have lower incomes and lower-income groups often buy from small-scale retailers. In a high inequality setting, i.e. where higher-income groups account for a disproportionately high share of total consumption, significant redistribution can be achieved through simple tax and transfer systems. For instance, a UBI financed by higher consumption taxes can be a feasible and efficient approach to redistributing income and protecting the poor (Figure 3).
- *Expanding use of efficient excises.* Taxation of consumption (in addition to standard consumption taxes) that generates negative externalities can raise significant revenues in an efficient and equitable manner. For instance, increasing taxes on fossil fuel energy presents a “win-win” opportunity in terms of helping to reduce domestic and global pollution (and associated health damage) and ensuring a progressive distribution of the tax burden (Figure 3). Other candidates for excise taxes on efficiency grounds include alcohol, tobacco and possibly sugar.

Note that since broadening the consumption tax base can increase the tax burden on vulnerable groups, it is important that the safety net is capable of protecting these by ensuring they are covered and transfers are increased accordingly (Lustig, Pessino and Scott, 2013). In addition, these tax policies will also often require significant investment in strengthening revenue administration systems, which (together with good tax policy) can also help to fight tax evasion and avoidance, both domestic and cross-border.

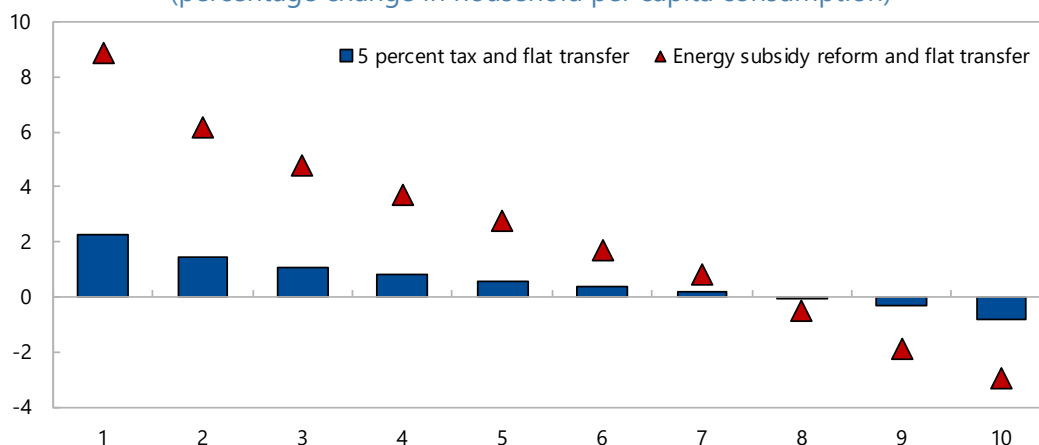
Figure 2. Benefit Share, Benefit Level, and Coverage



Source: Calculations based on India's 2011–12 National Sample Survey.

Note: In panel b, chart bars show the share of each decile receiving different benefit levels under the ratio 4:2:1 for the bottom three deciles, next four deciles, and top three deciles.

Figure 3. Distributional Impact of Tax and Transfer Programs
(percentage change in household per capita consumption)



Source: Calculations based on India's 2011–12 National Sample Survey.

References

- Atkinson, Anthony B., 1995, "[On Targeting and Family Benefits](#)," in *Incomes and the Welfare State: Essays on Britain and Europe*, ed. by Anthony Barnes Atkinson, pp. 223–261 (Cambridge: Cambridge University Press).
- Besley, Timothy and Ravi Kanbur, 1993, "[The Principles of Targeting](#)," WB Policy Research Working Paper No. WPS385 (Washington: The World Bank Group).
- Brown, Caitlin, Martin Ravallion, and Dominique van de Walle, 2017, "[Reaching Poor People](#)," *Finance & Development*, Vol. 54, No. 4, pp. 48–51.
- Brown Caitlin, Martin Ravallion, and Dominique van de Walle, 2016, "[A Poor Means Test? Econometric Targeting in Africa](#)," NBER Working Paper No. 22919.
- Coady, David, 2018, "[Creating Fiscal Space](#)," *Finance & Development*, Vol. 55, No. 4, pp. 24–27.
- Coady, David, Margaret Grosh, and John Hoddinott, 2004a, "[Targeting of Transfers in Developing Countries: Review of Lessons and Experience](#)," WB Regional and Sectoral Studies No. 30230, (Washington: The World Bank Group).
- Coady, David, Margaret Grosh and John Hoddinott, 2004b, "[Targeting Outcomes Redux](#)," *The World Bank Research Observer*, Vol. 19, No. 1, pp. 61–85.
- Francese, Maura, and Delphine Prady, 2018, "[Universal Basic Income: Debate and Impact Assessment](#)," IMF Working Paper No. 18/273 (Washington: International Monetary Fund).
- Gentilini, Ugo, 2018, "[What Lessons for Social Protection from Universal Health Coverage?](#)," *Let's Talk Development Blog*, August 22.
- Independent Evaluation Office (IEO), 2017, "[The IMF and Social Protection](#)," 2017 Evaluation Report (Washington: International Monetary Fund).
- International Monetary Fund (IMF), 2017, "[Fiscal Monitor: Tackling Inequality](#)," (Washington: International Monetary Fund), October.
- Lustig, Nora, Carolina Pessino and John Scott, 2013, "[The Impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico, Peru, and Uruguay](#)," *Public Finance Review*, Vol. 42, No.3, pp. 346–67.
- Picketty, Thomas, and Emmanuel Saez, 2013, "[Optimal Labor Income Taxation](#)," *Handbook of Public Economics*, Vol. 5, Ch. 7, pp. 391–474.
- Rutkowski, Michal, 2018, "[Reimagining Social Protection](#)," *Finance & Development*, Vol. 55, No. 4, pp. 10–13.

van de Walle, Dominique, 1998, "[Targeting Revisited](#)," *The World Bank Research Observer*, Vol. 13, No. 2, pp. 231–48.

BACKGROUND PAPER V. TRENDS AND PATTERNS IN FUND ENGAGEMENT ON SOCIAL SPENDING: A TEXT MINING ANALYSIS¹

This note shows how the discussion of social spending issues has evolved in IMF surveillance and program staff reports since the late 1970s. Discussions of social spending and inequality issues steadily increased until 1999 and stabilized at this higher level until 2008. The dip in 2007–09 coincided with the global financial crisis and the introduction of the 2007 Surveillance Decision. The recovery in the frequency of social spending terms after the late 2000s coincides with the increase in research by IMF staff on social spending issues and its link with inclusive growth. However, there is a wide variation in the intensity of the discussion of social spending issues for both surveillance and program staff reports as well as for various types of program reports. These wide variations in the discussion of social spending is consistent with calls for a more systematic approach to IMF's engagement on social spending.

A. Introduction

1. This note shows how the discussion of social spending issues has evolved in IMF surveillance and program staff reports since the late 1970s. Based on the intensity of use of social spending terms, social spending issues received increasing attention in the 1980s and 1990s, and have featured prominently in IMF staff reports ever since, with the exception of a 3-year dip during 2007–09 coinciding with the onset of the global financial crisis and the introduction of the 2007 Surveillance Decision. This overall trend is consistent across all types of documents and measures used. A similar trend was observed for in-depth analysis of poverty and distributional issues.

B. Description of the Database Used for Text Mining

2. A database comprising 8,998 IMF staff reports over the period 1979–2018 was compiled for this exercise.² The main source is the IMF's Institutional Repository, which includes all documents submitted to the IMF Executive Board. Document information ("metadata") such as country name, type of reports, and years was first sourced from the Knowledge Exchange website and then completed and corrected through text analysis techniques. The resulting classification was cross-validated with information from the Monitoring of Fund Arrangements (MONA) database for the 1992–2018 period, and SEC Board Calendar Management System for the 2001–2018 period. The database includes 3,836 Article IV staff reports, 1,897 program review staff reports, 1,023 combined Article IV and program review staff reports, and 2,242 Selected Issues Papers (SIPs). In the subsequent analysis, surveillance documents refer only to Article IV staff reports, whereas program

¹ Prepared by Dominique Guillaume, Nikhil Brahmkar, Emine Hanedar, and Jorge Martinez (FAD).

² See Guillaume et al. (forthcoming).

documents include both program review staff reports and combined Article IV and program review staff reports. SIPs, which typically cover specific topics, have been included in a separate group. The database covers all staff reports classified as “Public,” “Official Use,” and “Confidential.” A set of 118 “Strictly Confidential” documents was not included in the database.³ Programs are classified according to the official classification of the [IMF lending facilities](#). Facilities financed from the General Resources Account (GRA) are the Extended Fund Facility (EFF), the Precautionary Credit Line (PCL), the Precautionary and Liquidity Line (PLL), the Flexible Credit Line (FCL), the Stand-By Arrangement (SBA), and the Rapid Financing Instrument (RFI).⁴ For the purposes of this study, staff reports classified as Extended Arrangements (EA) and Use of Fund Resource (UFR) are also labeled as GRA-supported programs. The Policy Coordination Instrument (PCI)—a non-financial arrangement—was also grouped with GRA facilities. Facilities financed through the Poverty Reduction and Growth Trust (PRGT) are the Extended Credit Facility (ECF), the Rapid Credit Facility (RCF), the Standby Credit Facility (SCF).⁵ For the purposes of this study, LIC facilities available prior to the PRGT—the Exogenous Shocks Facility (ESF), the Structural Adjustment Facility (SAF), Enhanced Structural Adjustment Facility (ESAF), and Poverty Reduction and Growth Facility (PRGF)—are also labeled as PRGT-supported programs. The Policy Support Instrument (PSI)—a non-financial arrangement for low-income member countries—was grouped with PRGT facilities. Also included in PRGT were programs financed under a combination of PRGT and GRA accounts. Ex-Post Assessment (EPA), Staff Monitored Program (SMP), and Post-Program Monitoring were included in either PRGT or GRA depending on the underlying program or the country’s eligibility for PRGT facilities.

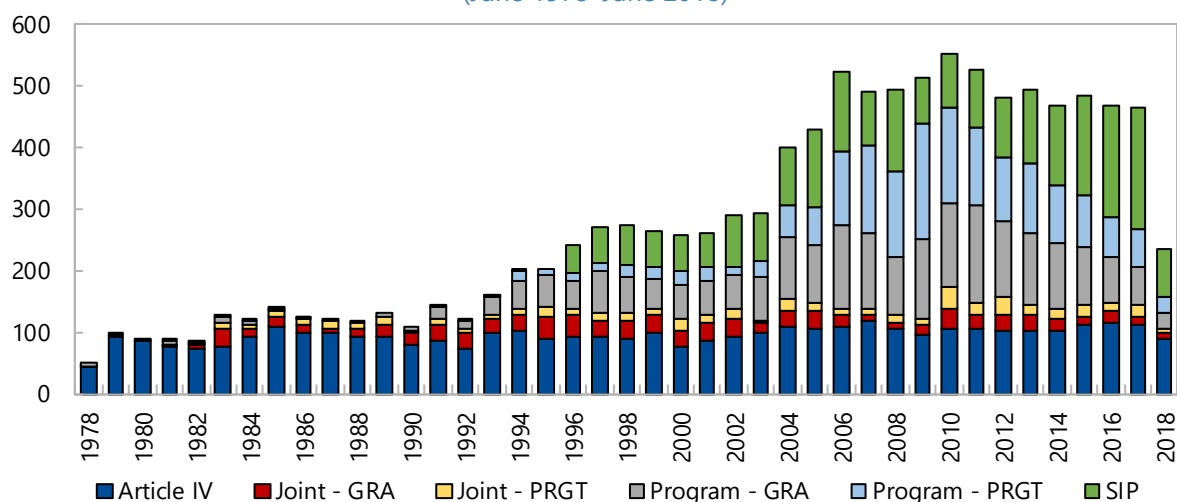
3. The number of IMF documents peaked during the global financial crisis, underscoring a marked increase in the number of program staff reports that began in 2004 and began tapering in 2013 (Figure 1). The number of program staff reports increased as a consequence of the global financial crisis but has declined since 2013. The number of Article IV staff reports has remained broadly constant over time. SIPs were introduced in the second half of the 1990s, with their number remaining broadly stable after 2004. Article IV staff reports covered mostly middle-income countries (50 percent) followed by advanced economies (28 percent) and low-income countries (22 percent). The distribution is largely a reflection of composition of member countries across income groups. Program staff reports covered slightly more facilities financed through GRA (58 percent). SIPs had broadly the same distribution as surveillance staff reports (48 percent middle-income, 32 percent advanced economies, and 20 percent low-income).

³ A set of 187 program and surveillance documents with no specific country focus such as reviews of facilities was not included in the analysis.

⁴ The GRA arrangements comprise a variety of lending programs available to all Fund members with different disbursement schedules and maturities depending on the balance of payment needs of the member.

⁵ The [Poverty Reduction Growth Trust \(PRGT\)](#) Arrangements are lending programs providing concessional financing support to low-income countries.

Figure 1. Overview of Fund Documents by Type
(June 1978–June 2018)



Source: IMF Institutional Repository and IMF staff calculations.

Note: Joint is for program reports covering Article IV as well.

C. Methodology

4. The intensity of the discussion of social spending in documents is measured by the *term frequency*. The *term frequency* is defined as the number of occurrences in a document of specific terms, normalized by the number of words in that document to account for possible variations of document length over time (and scaled by a factor 10,000 for presentational purposes).^{6,7} To allow comparisons between countries with a different number of staff reports per year,⁸ the term frequency is averaged across all staff reports in a given year for each country. The list of social spending-related *terms* was pre-defined by IMF subject matter experts who examined a representative number of staff reports.

⁶ The term frequency approach was preferred to the topic modeling approach. Topic modeling is an unsupervised approach to identify keywords and common patterns representing topics throughout document collections using hierarchical probabilistic models. In topic modeling, there are no benchmarks to measure against and no direct method to adjust parameters. Moreover, the number of possible topics is limited, whereas staff reports cover a very broad range of topics over time.

⁷ Sensitivity analysis shows that the results in the trend of social issues discussed in IMF programs are broadly uncorrelated to the length of IMF documents. The length of the staff reports dropped from 2,015 words on average in 1982 to 974 words in 1984, and from 1,950 words on average in 2005 to 1,224 words in 2007. It is, therefore, important to account for these changes in the length of staff reports. The “normalized average frequency count per document” used as indicator in this analysis has a flatter shape and a less pronounced dip between 2007 and 2009 than the unnormalized indicator (“average frequency count per document”). However, overall, both indicators have broadly similar trends.

⁸ There is only one Article IV staff report at most per year whereas there would be several program review staff reports (two or more depending on the frequency of the review cycle). To ensure comparability, the frequency count is the average of the normalized term frequency for all the staff reports for a country in a year.

5. To ensure that both general and specific discussions of social spending issues were captured by the exercise, both general and specific terms were included. Overall social spending frequency is the sum of the frequencies of general and specific social spending terms (Box 1). *General terms* capture broad social spending concepts. *Specific terms* were grouped into categories such as pension, health, education, etc. The list of terms includes only root words; for instance, a search for “pension” would capture pension, pensions, pensioner.

D. Results

6. The discussion of social spending issues increased over time. The frequency of discussions of social spending issues in IMF documents rose steadily for decades and peaked in 1999 when the Poverty Reduction Growth Facility (PRGF) was introduced. Since then, discussions of social spending have featured prominently in IMF documents, although the streamlining that followed the overhaul of the IMF’s lending and conditionality frameworks during 2009–2011, in tandem with the global financial crisis, appears to have temporarily crowded out attention on social spending issues (Figure 2). The subsequent recovery of social spending issues in *all* staff reports coincides with renewed IMF research on social spending issues and its link with inclusive growth, and suggests a certain resilience in engagement on social spending issues. Today, engagement on social spending issues remains substantial. On average, Fund documents had about 20 (normalized) occurrences of social spending related terms in 2018,⁹ although with variation across countries.¹⁰ The discussion of social spending issues in surveillance and program staff reports followed a broadly similar pattern. However, particularly after 2000, the normalized frequency count for surveillance staff reports is somewhat higher than for program staff reports.

7. In both surveillance and program documents, there is wide variation in the intensity of the discussion of social spending issues, and some countries show large repeated references to social spending issues (“outliers”) (Figure 3, panel A). In surveillance documents, the number of staff reports without any discussion of social spending issues has fallen from an average of 33 documents in 1979 to zero after 2012. After 1993, there are only a few instances of reports where such social spending issues are not dealt with (Table 1). For some countries, surveillance documents repeatedly paid relatively high attention to social spending issues (Austria, Belgium, Finland, Netherlands, Norway and Luxembourg).¹¹ For program documents, the number of staff reports without any discussion of social spending issues fell to zero after 1999. In recent years, the discussion of social spending issues in PRGT and GRA program cases diverged, with PRGT programs falling slightly. Social spending issues received substantial attention on a repeated basis in Argentina, Bolivia, Kazakhstan, Malawi and Peru.

⁹ Equivalent to about 40 unnormalized occurrences per report.

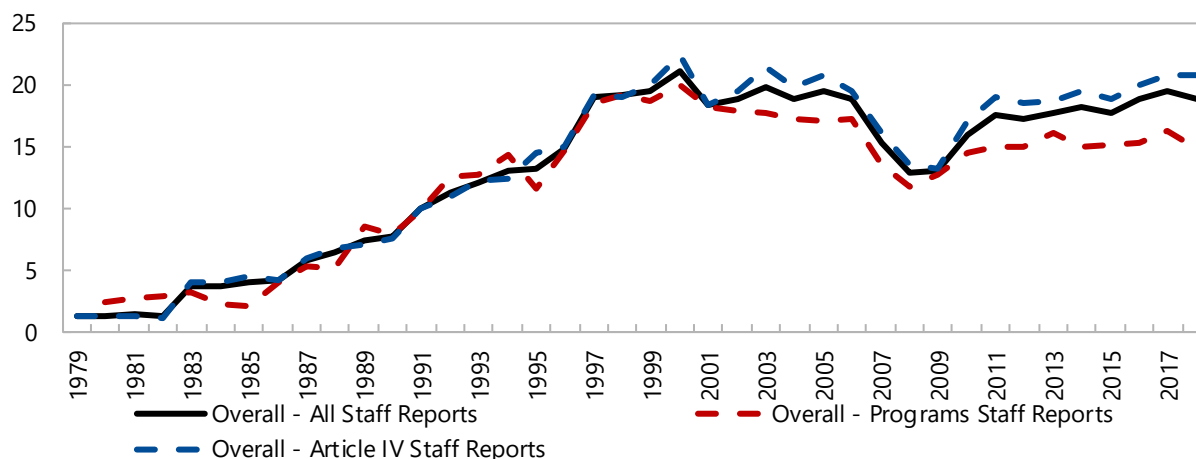
¹⁰ In addition to the main text of the staff report, program staff reports include often the letter of intent, the memorandum of economic and financial policies, the technical memorandum of understanding and the data reporting requirements.

¹¹ The discussion of social spending issues in SIPs follows a similar pattern to Article IV documents.

Box 1. Social Spending Related Terms Used in the Text Mining Analysis

- *Overall social spending concepts* is the sum of the general social spending concepts and specific social spending concepts.
- *General social spending concepts* include the following terms: social spending, social expenditure, social policy, social protection, social program, safety net, social transfer, social assistance, social benefit, social package.
- *Specific social spending concepts* includes the following terms:
 - Pension: pension, retirement, retiree, old-age benefit
 - Health: health, health expenditure, health spending
 - Education: education, education expenditure, education spending
 - Income support: income support, guaranteed minimum income, meal program, food stamp, ration card, voucher
 - Energy subsidy: energy subsidy
 - Other subsidies: food subsidy, agriculture subsidy, consumer subsidy, price subsidy, fertilizer subsidy
 - Other benefits: disability benefit, maternity benefit, child benefit, child allowance, unemployment benefit
- *Distribution analysis concepts* includes the following terms: inequality, distribution, redistribution, distributional, poverty, vulnerable, Gini, income decile, income quantile, regressive, progressive.

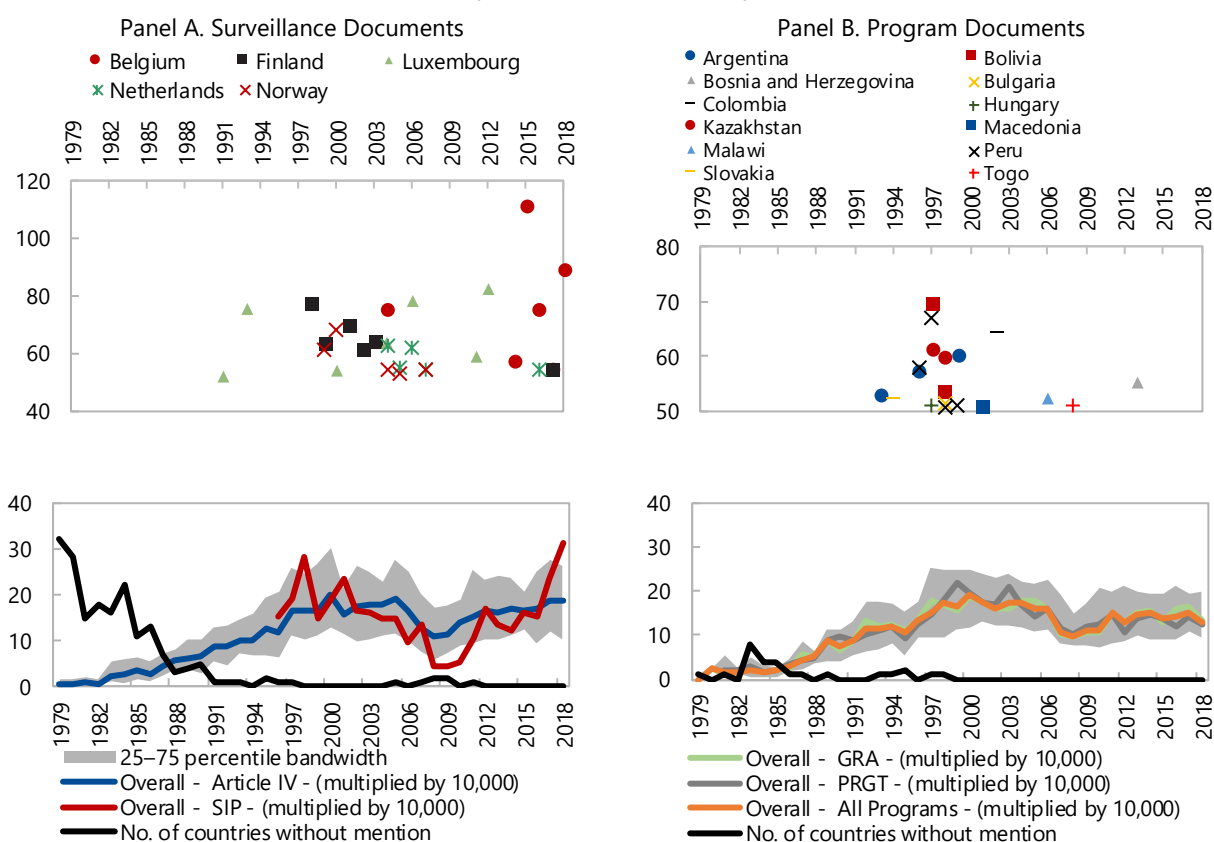
Figure 2. Normalized Frequency Count of Overall Social Spending Concepts
(June 1978–June 2018)



Sources: IMF Institutional Repository and IMF staff calculations.

Figure 3. Normalized Frequency Count—Breakdown by Surveillance and Program and Outliers

(June 1978–June 2018)

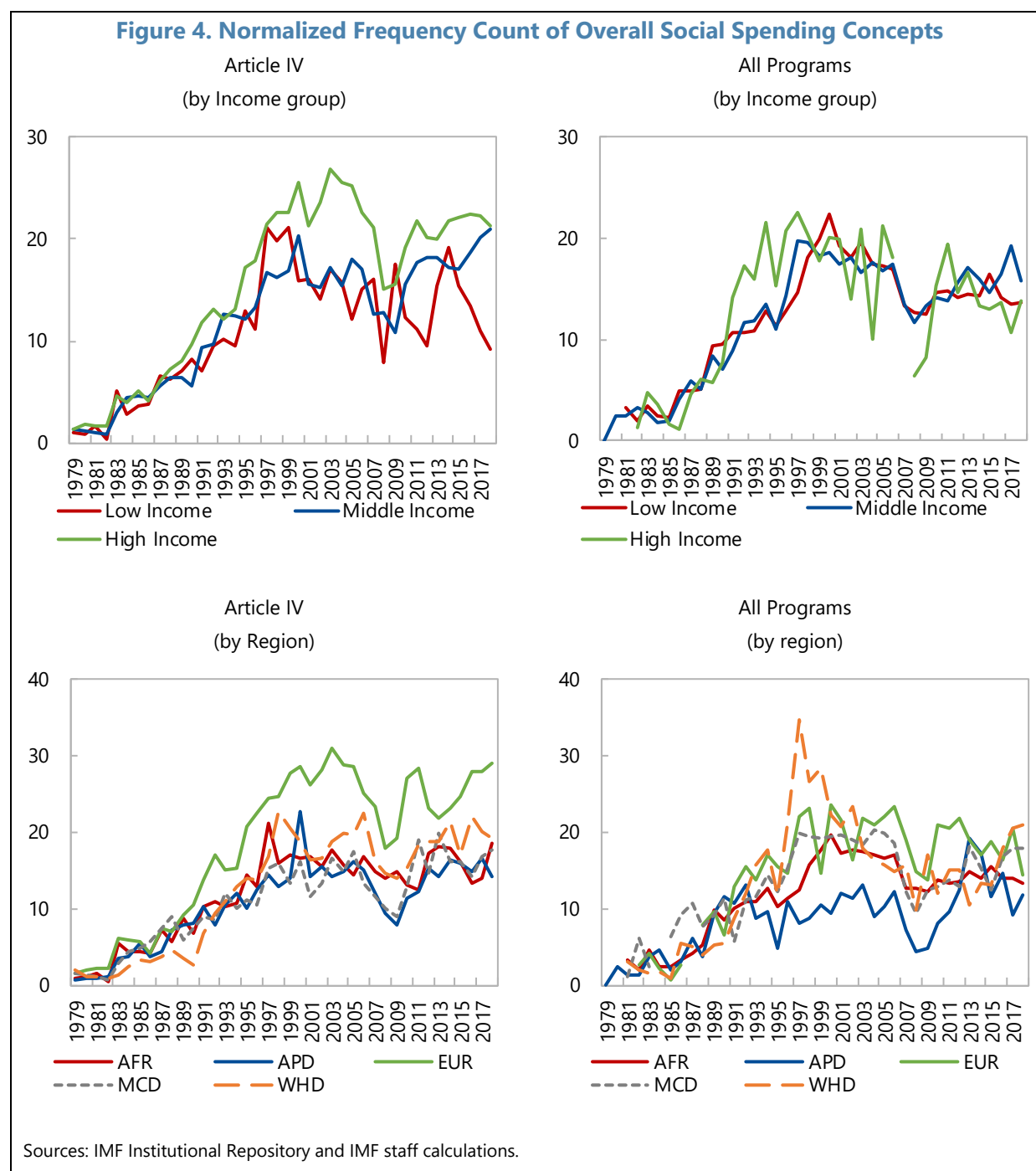


Sources: IMF Institutional Repository and IMF staff calculations.

Table 1. Normalized Frequency Count—Repeated Outliers

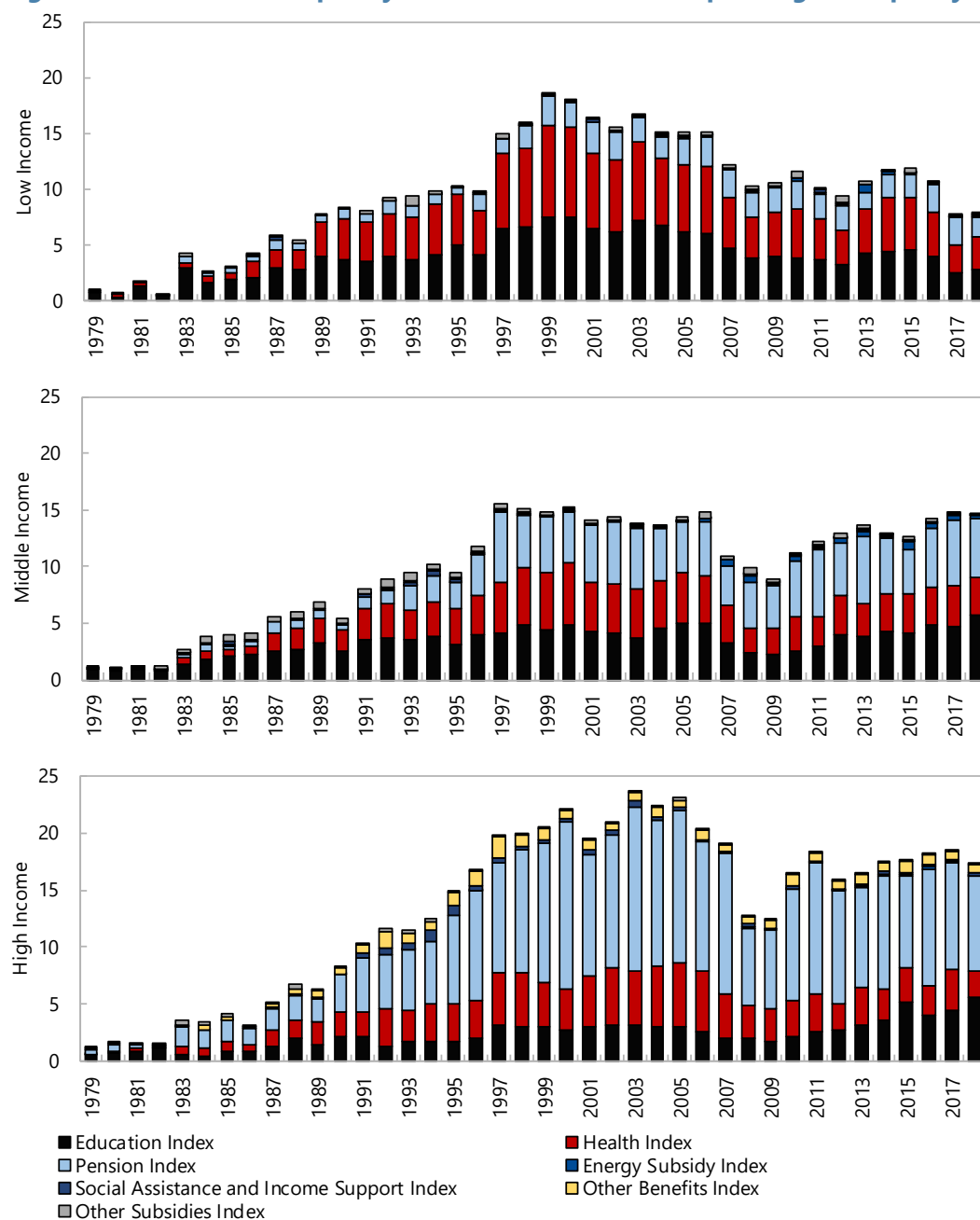
Normalized Frequency Count - Outliers		
	Surveillance	Program
Countries with a zero frequency count	Iceland (2007)	Czech Republic (1993)
	Jamaica (2008)	Jamaica (1994)
	Libya (2009)	Pakistan (1995)
	Qatar (2009)	Papua New Guinea (1995)
	Suriname (2005)	Sudan (1997)
	The Republic of Marshall Islands (2008)	
	United Kingdom (2011)	
Countries with a relatively high frequency count	Belgium (2004; 2014; 2015; 2016; 2017; 2018)	Argentina (1993; 1996; 1999)
	Finland (1998; 1999; 2001; 2002; 2003; 2017)	Bolivia (1997; 1998)
	Luxembourg (1991; 1993; 2000; 2004; 2006; 2011; 2012)	Kazakhstan (1997; 1998)
	Netherlands (2004; 2005; 2006; 2007; 2016)	Malawi (2006)
	Norway (1999; 2000; 2004; 2005; 2007)	Peru (1996; 1997; 1998; 1999)

8. The frequency of discussion of social spending issues varies across income groups and regions (Figure 4). For surveillance documents, social spending issues are discussed more in high-income countries. Differences are less pronounced between income groups for program staff reports. For surveillance documents, social spending issues are discussed more in reports for European countries followed by countries from the Western Hemisphere. For program documents, the differences among regions are again less pronounced.



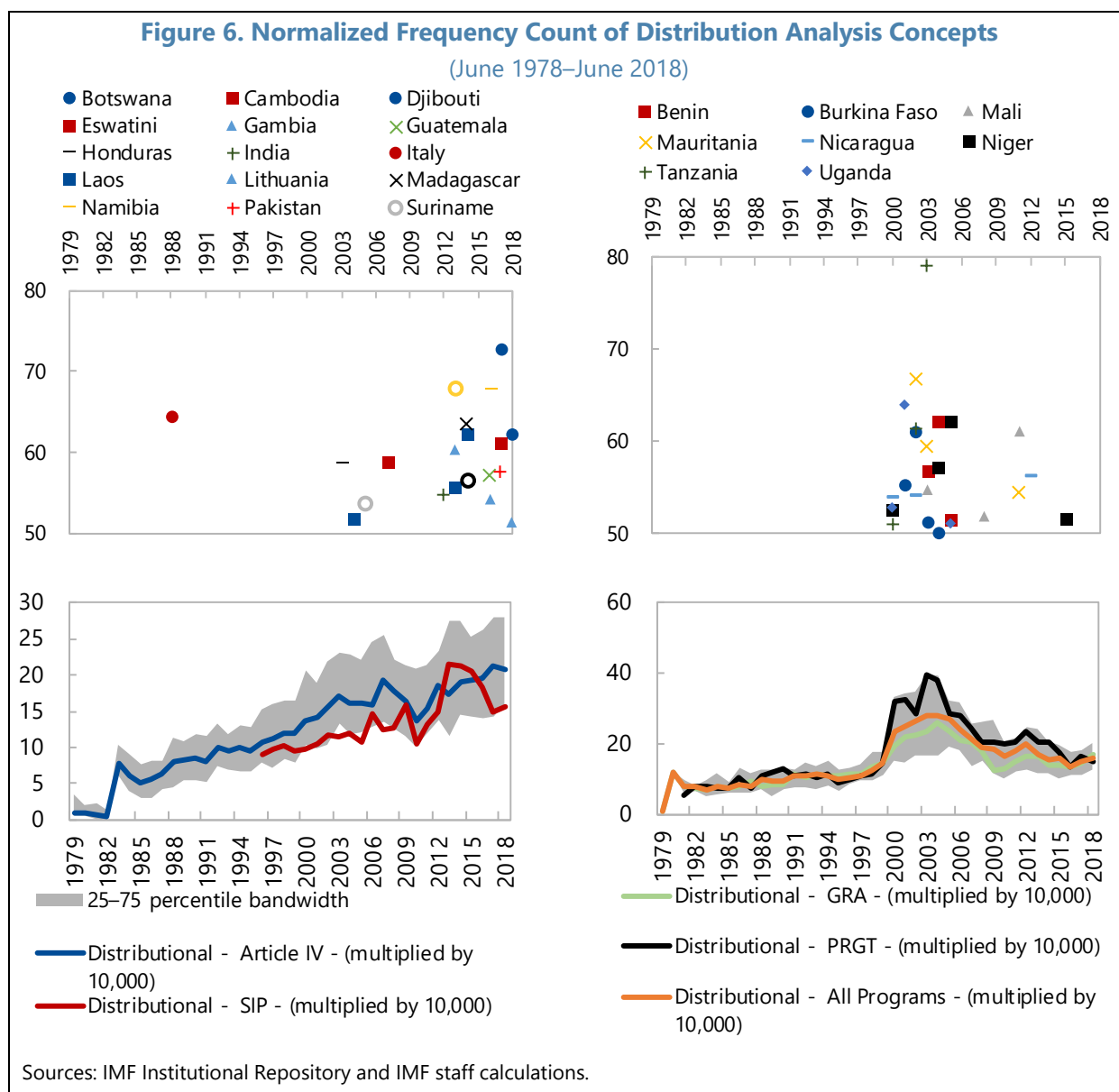
9. The specific social spending topics that have received most attention are related to pensions, health, and education (Figure 5). There are, however, variations among country groups, with pension-related issues figuring most prominently in advanced economies, and health and education issues more prevalent in low-income countries. Energy subsidies, social assistance, income support, and other subsidies are less discussed, except for Middle-Eastern countries where subsidy issues were raised more regularly.

Figure 5. Normalized Frequency Count of Overall Social Spending Concepts by Topic



Sources: IMF Institutional Repository and IMF staff calculations.

10. Discussion of distributional issues follows a broadly similar pattern over time as the discussion of social spending issues. Discussion of distributional issues increased sharply in program staff reports between 1999 and 2005, declining thereafter with a dip in 2009 (Figure 6). Overall, the discussion of distributional analysis is correlated with the discussion of social spending issues and is more prominent in program staff reports than in surveillance staff reports. Within program documents, distributional issues are more discussed in PRGT programs than in GRA programs. Unlike the discussion of distributional issues in program staff reports, the discussion of distributional issues in surveillance documents has continued to increase in recent years, with a similar pattern shown in SIPs, and many repeated outliers. Positive outliers tend to be staff reports for low and middle-income countries for both surveillance and program staff reports.



References

Dominique Guillaume, Jorge Martinez, and Nikhil Brahmkar, Forthcoming, “A database for the text analysis of IMF Reports.”

International Monetary Fund (IMF), [*The 2007 Surveillance Decision - Revised Operational Guidance*](#), (Washington: International Monetary Fund).