


Gender Budgeting: Fiscal Context and Current Outcomes



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by Janet G. Stotsky

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Gender Budgeting: Fiscal Context and Current Outcomes

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Abstract

Gender budgeting is an approach to budgeting that uses fiscal policy and administration to promote gender equality and girls' and women's development. This paper posits that, properly designed, gender budgeting improves government budgeting, and it places budgeting for this purpose in the context of sound budgeting principles and practices. The paper provides an overview of the policies and practices associated with gender budgeting as they have emerged across the world, as well as examples of the most prominent efforts in every region of the world. Finally, it suggests what can be learned from these efforts.

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I. INTRODUCTION

One of the most important developments in the twentieth century was the entry of women into economic and political activities previously undertaken almost entirely by men. Although many countries are making strides in eliminating gender disparities, women still lag men in access to education and appropriate health care, paid employment opportunities, and political participation. Gender disparities are found throughout the world, but they are particularly pronounced in parts of the developing world. Most developed countries have eliminated gender disparities in education and health care, even while women's roles are still circumscribed in economic and political life. In most developing countries, gender disparities in education and health care have narrowed. However, there has been less success in increasing women's role in economic activities, in the management and ownership of productive assets, and in political participation.¹

The international community has committed itself to achieving gender equality and the advancement of women. The United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted by the United Nations General Assembly in 1979, emphasizes the importance of gender equality and girls' and women's development, as a means to strengthen prosperity, and as a matter of basic human rights.² The Millennium Development Goals set targets for countries to achieve by 2015 in eight areas, including gender equality and empowering women, achieving universal primary education, and improving maternal health. Its successor, the Sustainable Development Goals, approved by the United Nations in 2015, sets objectives for the international community for the next 15 years.³ Goal 5 of its 17 broad goals explicitly calls for gender equality and the empowerment of girls' and women.

A growing body of evidence suggests that eliminating gender disparities and promoting girls' and women's development are beneficial to societies. World Bank (2011), Duflo (2012), and Elborgh-Woytek et al. (2013) present evidence on the many ways in which women's development and the reduction of gender inequality lead to more rapid economic growth, improved labor productivity, healthier children, and more responsive government.⁴ Lagarde (2013) highlights the advantages of equalizing women's role in economic and political life.

¹ See Stotsky, Shibuya, Kolovich, and Kebhaj (2016).

² See Elson (2006).

³ See United Nations (2015).

⁴ A number of other studies also survey the evidence on the relationship between gender equality, women's advancement, and growth (e.g., Bandiera and Natraj, 2013; Berik, van der Meulen Rodgers, and Seguino, 2009; Cuberes and Teignier, 2014; Kabeer and Natali, 2013; and Organization for Economic Cooperation and Development, 2012).

Gender budgeting is an approach to budgeting that uses fiscal policy and administration to promote gender equality, and girls' and women's development. Countries across the world are at very different stages of economic and political development, and the status of women varies commensurately. There are countries where women enjoy equality in most areas of life, even while their economic and political role is still limited compared to men's, to countries where their most fundamental rights, such as to an education and appropriate health care, and freedom from domestic violence, are still under threat. Consequently, countries have taken many routes to gender budgeting efforts to promote gender equality and girls' and women's development and each approach reflects not only the country's goals but also the particular budget process and administrative capabilities.

Gender budgeting efforts take many different forms, with some countries focusing their efforts on fiscal policy changes that encompass budgetary allocations or the structure of fiscal policies, while others have focused mainly on administrative changes to expenditure tracking and monitoring systems. The most successful efforts encompass both policy and administrative aspects. However, a majority of the gender budgeting efforts seem to have not gone far, reflecting several factors, including a lack of commitment of fiscal policy makers and governmental bureaucracies, and weaknesses in the structure and implementation of the initiatives.

Economic rationale for gender budgeting

The economic rationale for gender budgeting is that fiscal policies influence fiscal outcomes, and thus economic output, growth, and equity. For developing countries, sound fiscal policies play an essential role in contributing to the high and sustainable growth that underlies the achievement of many of the Sustainable Development Goals. There are many channels through which fiscal policies influence growth (IMF, 2015). Sound fiscal policies influence growth through their effect on budget stability and sustainability over time. They help ensure that debt burdens are manageable and economic conditions remain conducive to investment and saving. Fiscal policies also determine the composition of expenditures and revenues, and the benefits and costs of government spending programs and revenue policies, and create incentives to modify private behavior. Expenditure and revenue policies influence human capital and physical capital accumulation, and incentives for labor supply, investments, and risk taking, among other economic behaviors.

Because of the theoretical and practical difficulties in determining the effect of fiscal policies and programs on women and men, and the traditionally weak voice of women in political discussions and government bureaucracies, women's developmental concerns are unlikely to be fully taken into account in public budgeting. Gender budgeting efforts are intended to commit public budgeting to weighing the benefits and costs of policies that would promote gender equality and girls' and women's development, and then to taking action in response to this evaluation. The important point is not whether an initiative is labeled as gender budgeting but whether fiscal

policies and administration are formulated with an eye to promoting gender equality and girls' and women's development.

The proportion of public expenditure dedicated to explicit gender equality objectives is limited, although the proportion of expenditures that can be seen as contributing to gender equality and women's advancement is much larger because it encompasses spending across many or most areas of the budget. Any attempt to disaggregate public spending into these different categories requires some degree of arbitrariness (UN-WIDER, 2014).⁵

Although gender budgeting efforts have so far largely focused on the needs of girls' and women, these efforts are not intended to detract from boys and men's important developmental needs, especially in the developing world. Men and boys are also frequently underserved by fiscal policies and there may well be value in including specific programs addressing their needs into fiscal policy making and administration, as is found in a number of countries. The goal of gender budgeting in its broadest conception is to integrate gender-oriented concerns into fiscal policies and administration.

Origin and spread of gender budgeting

The original approach to gender budgeting was developed in Australia in the 1980s (Sharp and Broomhill, 2002; Chakraborty, 2016). Australia's landmark gender budgeting initiative in 1984 required government ministries and departments to analyze the impact of the annual budget on women and girls, with a focus on public expenditures. Gender budgeting was given additional impetus by the Fourth World Conference on Women, held in Beijing in 1995, whose "Beijing Platform for Action" called for ensuring the consideration of a gender perspective and women's needs in budgetary policies and programs.⁶ A number of other international agreements or declarations since then reaffirm this commitment to using government budgets for gender equality and women's advancement objectives.

An early proponent of gender budgeting, Elson (1992, 1995), criticized international financial institutions, like the IMF and World Bank, for imposing unnecessary hardship on women and girls through what she characterized as excessive budget austerity in countries that sought to access funds from these institutions. One important part of her critique was that these institutions did not recognize the role that women and girls play in both the market economy and household, and thus, when public services were cut back, females bore the brunt of the burden

⁵ A nongovernmental group, Government Spending Watch, tracks government spending on the Millennium Development Goals, and notes that on average across countries, spending to reduce gender inequality or discrimination is a small proportion of total spending. In a recent report, it further reports that while tracking spending targeted to women has been promoted around the world, these efforts have not been successful enough to allow a comparison of gender-responsive spending across countries (Martin and Walker, 2015).

⁶ The 1995 Beijing Platform for Action identifies several areas for attention to women's needs. See <http://www.un.org/womenwatch/daw/beijing/platform>.

because their home care responsibilities increased to replace reduced public services. Moreover, if females received lower priority than males in access to education or health services, they would also bear the brunt of cutbacks in these services, during periods of fiscal adjustment. In recent years, the IMF has sought to incorporate more awareness of the differential effect of substantial fiscal adjustment on income groups in the population and has recently sought to build in an explicit focus on the needs of women and girls.⁷

Gender budgeting is now widespread. More than 80 countries have tried some variant of gender budgeting, although what these efforts have entailed has varied from place to place. Within their gender budgeting efforts, some countries have adopted or modified fiscal policies and programs to ensure that the budget contributes to the closing of gender gaps and women's advancement. Others have begun a process of trying to collect, in a systematic manner, information on the different needs of women and the differential effects of fiscal policies on women and men, and building this information into budget classification and monitoring systems. A few countries have achieved both substantive changes in fiscal policies and the complementary administrative changes. Some, however, have made little progress beyond setting up relevant administrative machineries or conducting training sessions for public officials.

Description of the IMF study and methodology

This overview paper presents the conceptual basis for gender budgeting and highlights the findings from six regional surveys, encompassing all regions in the world, on what can be learned about country approaches to gender budgeting. The surveys present case studies on an array of countries, and were divided by regions of the world because gender budgeting efforts have often drawn upon earlier efforts in the same region and because countries in a region tend to share similar economic characteristics. However, the country experiences are relevant across regions as well and thus it is useful to look at the regional surveys as a means for policy makers to draw upon the efforts of countries anywhere in the world for designing or improving their own initiatives.

Each regional survey included a short case study on the countries that had undertaken the most prominent or substantive gender budgeting efforts, and shorter takes on countries that had less well-developed efforts or where we could obtain only limited documentation of their efforts.⁸ For some countries, we attempted to formally evaluate whether gender budgeting had contributed to progress on key indicators, while for others, this evaluation was largely a subjective judgment.⁹

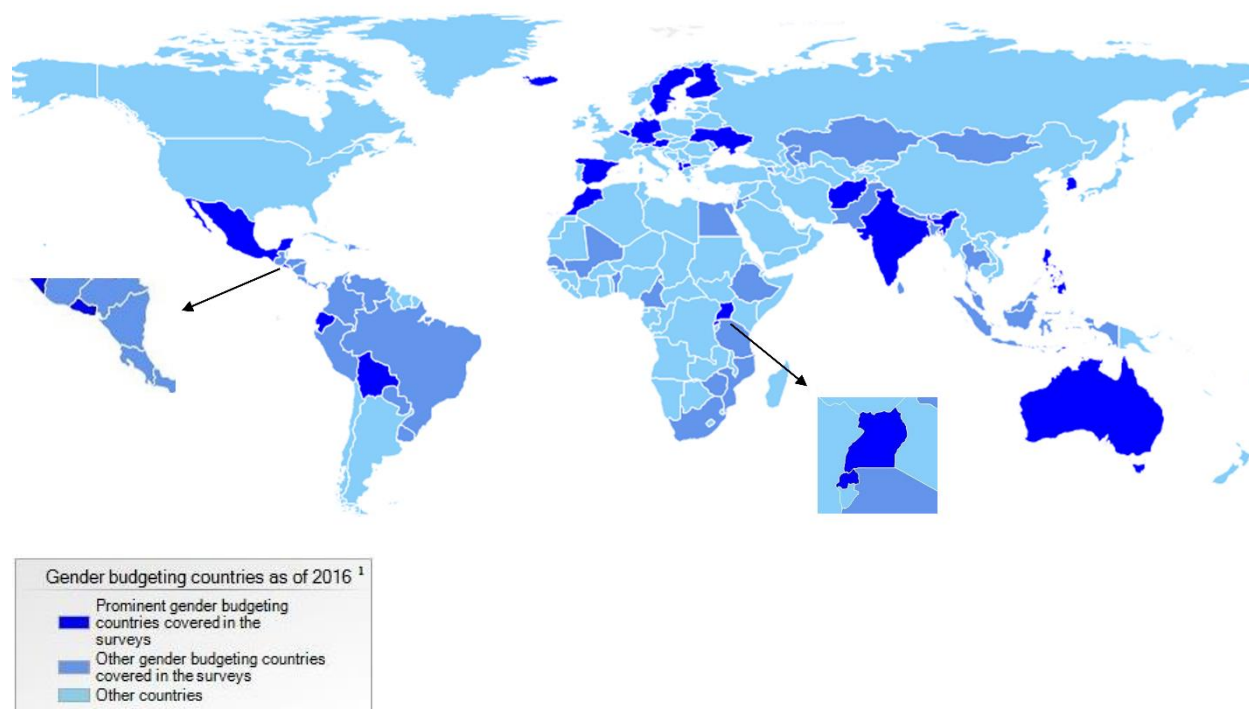
⁷ See Clements et al. (2015), which examines inequality and fiscal policy, and also several recent IMF Article IV consultation reports incorporating gender inequality analysis, including 2015 reports for Chile, Germany, Hungary, India, and Mauritius, and 2016 reports for Costa Rica and Nigeria (all referenced under IMF as author).

⁸ In some cases, the only documentation came from the authorities' response to an IMF questionnaire.

⁹ On-going work undertakes more systematic evaluation of the contribution of gender budgeting to gender-oriented goals and women's advancement. See, for instance, Stotsky and Zaman (forthcoming 2016).

The surveys covered the countries with varying degrees of comprehensiveness, with some attempting to cover the majority of countries in their region and others covering just a subset. We present, in Figure 1, a map indicating the 23 countries that had, what we assessed to be, prominent gender budgeting efforts and other countries that had efforts assessed to be substantive but less prominent.¹⁰

Figure 1: Gender Budgeting Countries Identified in the Regional Surveys



Source: IMF staff compilation from regional surveys.

1/ Germany and Spain are included because of the prominent subnational efforts in Berlin and Andalucía.

The last category of “other countries” includes some countries that use fiscal policies to achieve gender-oriented goals but do not have a formal gender budgeting initiative or may have a gender budgeting initiative for which we could not obtain information.

Chakraborty (2016) surveys gender budgeting efforts in Asia, encompassing prominent initiatives in Asia’s developed and developing countries, including those in the Republic of Korea and Australia as well as India and the Philippines. Christie and Thakur (2016) cover gender budgeting efforts in the Pacific Island countries and countries in the non-Latin-speaking

¹⁰ Appendix A, Table A1 lists the names of the countries.

Caribbean, which are all small countries with relatively little economic diversification and which share challenges typical of small economies. The most notable effort in this group was in Timor-Leste, one of the world's newest nations. Kolovich and Shibuya (2016) assess gender budgeting efforts in the Middle East, a swathe of countries stretching from Morocco in the western part of the region to Afghanistan in the eastern part, and in the Central Asian republics of the former Soviet Union. The most notable efforts in this region were in Morocco and Afghanistan.

Pérez Fragoso and Rodríguez Enríquez (2016) cover gender budgeting efforts in Latin America. Their study encompassed efforts in Mexico, Ecuador, El Salvador, and Bolivia, among others. Quinn (2016) surveys gender budgeting efforts in Europe, a diverse group of countries that includes the advanced countries of Western Europe and the emerging markets of Central and Eastern Europe. Notable efforts in this region include those in Austria, Belgium, and Scandinavia, as well as several emerging market countries. Stotsky, Kolovich, and Kebhaj (2016) assess gender budgeting efforts in sub-Saharan Africa, encompassing low-income developing and a few middle-income countries. Prominent efforts in this region include those in Uganda and Rwanda.

Section II provides a conceptual overview of gender budgeting in public finance economics and provides examples where gender budgeting initiatives were most consistent with principles of good public finance. Section III highlights some initiatives that were most prominent in each region. Section IV presents an assessment on what is essential for success in gender budgeting efforts and policy implications.

II. GENDER BUDGETING CAN IMPROVE BUDGETING

Economic principles of good public finance and their application to gender budgeting

There are several important economic principles underlying a well-functioning budget process.¹¹ From the perspective of using public funds efficiently, the budget process should weigh competing benefits from public spending against their costs, and expand programs for which, at the margin, the net benefits are positive and have a higher net social return than other competing priorities for the budget. From the perspective of equity, the budget process should consider whether the benefits of government spending programs and the burden of taxes and other revenues is distributed in accordance with a society's notion of fairness.¹² Where market

¹¹ See Rosen and Gayer (2013).

¹² Equity in the incidence of public spending and revenue can be looked at in several different ways. Horizontal equity assesses the degree to which those at an equivalent income (or wealth) level face the same burden of taxation or yield the same benefits from government spending. Vertical equity assesses the degree to which the burden of revenues or benefits of spending change with differences in income in a manner considered fair. Most countries subscribe to the notion of a progressive tax system, in which the average rate of taxation rises with increasing income. The "benefit principle" refers to the concept that individuals should pay for public services in accordance with the benefit they receive from them.

processes are not efficient and equitable, well-designed fiscal policies can contribute to better economic outcomes and higher social welfare.

Where do gender considerations fit into the public budgeting process? We start from the view that promoting gender equality and women's development is economically and socially beneficial to women and girls and to the societies in which they live (World Bank, 2011; UN Women, 2015). International conventions to which most countries are signatories confirm the almost universal acceptance of this view (Elson, 2006).

The scope for gender budgeting arises when public budgeting, for a variety of reasons, does not adequately take into account the full economic benefits of women's development and gender equality.¹³ For example, public budgeting might ignore that educating mothers will ensure that children are fed healthier diets and have better health, thus reducing the public funds needed for children's health or containing the spread of disease. Gender budgeting rests on the view that government budgets are not "gender neutral," and that the appearance of gender neutrality may more accurately be described as "gender blindness" (Elson, 2002). Advocates of gender budgeting seek to mainstream (or incorporate as a matter of course) attention to women's needs into fiscal policies and administration and to promote greater accountability for governments' commitment to addressing them. Examples of how gender-oriented considerations can influence fiscal policy are found in virtually all areas of fiscal policy making and in areas of public financial administration (or management), including in the accounting for public expenditures and tax administration.

We provide just a few examples.¹⁴ In the most gender unequal countries, illiteracy among adult women tends to be widespread. Thus an important component of a strategy both to reduce gender inequality and generate faster economic growth could be to design special government programs that focus on reaching adult women, who can no longer benefit from traditional school environments and whose time for classroom study may be limited. In countries seeking to raise women's labor force participation, as is common in countries with aging labor forces or relatively low women's participation, a strategy might entail ensuring that the income tax system avoids penalizing secondary earners (typically assumed to be women), or using fiscal incentives for workers or employers (Elborgh-Woytek et al., 2013).

On the administrative side, a system of accounting for and reporting on government budget execution might track whether spending for gender-oriented goals was being properly executed or whether allocations were being left unspent because programs could not be put adequately in place or donor requirements weren't met. In tax administration, the application of gender budgeting is less obvious. However, if a tax administration could establish that female and male

¹³ This includes both the private and social (or external) benefits.

¹⁴ We focus on issues most relevant to developing countries. However, the issue of income security for elderly women is also important (Clements, Feher, and Gupta, 2015).

small business owners tend to respond differently to government, it could build these differences into a strategy for selecting taxpayers for audit or inducing or compelling taxpayers to pay their tax liabilities.

Externalities

The concept of externalities provides an economic rationale for gender budgeting. In economic terms, externalities are the costs and benefits of activities that spill over to other markets but are not taken into account in prices. Providing a child with good quality education might be thought to produce positive externalities in that the child does not capture the full benefits of this education. Society may benefit as well through improved health of the child or his or her useful civic participation. Similarly, providing a child with poor quality education might be thought to produce negative externalities in that the child may be more likely to engage in anti-social behavior. Activities that result in positive externalities are undertaken insufficiently compared to the ideal market outcome and those that result in negative externalities are undertaken in excess. Even where markets are not efficient because of distortions other than externalities, there are still sound economic reasons for addressing externalities, though the conceptual issues become more complex.¹⁵

In the presence of externalities, governments can use various fiscal and regulatory instruments to influence the market outcome to achieve the socially optimal outcome. Most commonly, the instruments are taxes and subsidies that ensure that markets reflect social costs and benefits, but the instruments may also include regulatory approaches that mandate the socially desired production or consumption of the externality-inducing activity. In some markets, the externality can be dealt with by assigning property rights.¹⁶

The persistent inadequacy of government budgets to address women's development needs in education, health, and other areas of government services, and produce gender equitable outcomes, suggests that the budget process is inherently unable to address fully the positive externalities that stem from meeting girls' and women's developmental needs.

To clarify the notion of gender budgeting and the concept of externalities, consider the following example. Assume that in a low-income developing country, the government pays for primary education, but mainly boys attend school because girls are needed to perform household chores (and there are no compulsory education laws or, if there are, they are not enforced). Both girls and the broader society would gain from promoting girls' attendance because society benefits

¹⁵See Rosen and Gayer (2013).

¹⁶ For instance, governments allow businesses to patent their inventions to allow them to protect their right to exploit the new knowledge commercially for a period of time, which motivates businesses to invest in the research necessary for generating this knowledge. The government effectively assigns the property rights of knowledge to patent holders for a period of time.

from allowing all individuals to achieve their productive potential instead of relegating some to low-level jobs. In making their children's schooling decisions, parents weigh the benefits of their daughters becoming better educated against the cost to the household of the loss of their labor. Parents would tend to ignore the benefits to society of having better educated girls and women, which shows up in reduced fertility and child mortality, and in a host of other ways. Even today, the differential rates of literacy of women and men in the poorest countries of the world speak to the relative deprivation of girls in education. The gain to the girls, in this example, is considered a private benefit, while the gain to society, exclusive of the private gain, is considered the external benefit.

The government might expand its own budgetary allocations for schooling to enable all children to attend school at minimal or no cost and might seek ways to overcome the reluctance of parents to educate their girls. Some countries have undertaken measures to ensure that girls are better able to attend school. For example, India and several countries in sub-Saharan Africa have undertaken efforts to provide appropriate toilet facilities for adolescent girls because this was seen as critical to their remaining in school. Other countries have instituted subsidies in cash or in kind, to induce parents to keep their daughters in school. For example, Bangladesh adopted a program where parents were given food if they sent their children to school, which had a disproportionately positive effect on girls' attendance. Many countries, including all advanced countries, have passed laws that require children to attend school until they reach a minimum age and forbid employment outside of the home through child labor laws. However, in many developing countries, the problem of inadequate schooling persists.

A social cost-benefit analysis would need to consider the benefits to the girls, the economic cost to the parents, and the benefits to society above those benefits that the girls themselves capture through higher earnings or some other measure of their well-being, and compare those benefits and costs to the monetary costs of the program. Were budget-makers to ignore the social benefits from better-educated women, they might underestimate the benefit to society of programs to educate female and therefore not provide a sufficient allocation for them in the budget, with the result that females would receive a lower than socially optimal amount of education absolutely and compared to males.¹⁷

This discussion thus highlights the good budgeting principles that can underlie gender budgeting on the spending side. Governments should weigh the benefits and costs of policies and programs, both those that they have and those they could develop, and choose those that produce the highest social return. When considering competing priorities, spending should increase for programs for which the additional spending would produce the greatest additional social benefits. It is important that governments take into account the positive and negative externalities associated with individual decisions, when considering the size and structure of government

¹⁷ In many countries in the advanced and emerging world today, girls attend secondary and post-secondary school at rates higher than boys, leading to new issues to be addressed by public policies.

programs.¹⁸ The improvement of female education and health, among other gender-oriented objectives, has positive externalities, and government should ensure that these externalities are taken into account in budget decisions.

As earlier examples suggest, gender budgeting is not a special approach to budgeting or even an add-on to budgeting. Rather, gender budgeting is an approach to budgeting that can improve it, when fiscal policies and administrative procedures are structured to address gender inequality and women's development needs. When properly done, one can say that *gender budgeting is good budgeting*. Gender budgeting is not, however, an approach to budgeting that benefits only women and girls. In its most general conception, gender budgeting encompasses benefits to the society as a whole through benefits to women and girls. If men and boys are disadvantaged in a way that produces social losses, fiscal policies need to be crafted to take this into account as well.

The intersection of gender budgeting with the care economy

There is an important dimension to gender budgeting related to labor for care of household members and maintenance of the household. Women remain responsible for a disproportionate share of this unpaid labor (Floro, Grown, and Elson, 2011; Bertrand, Kamenica, and Pan, 2015; Burda, Hamermesh, and Weil, 2013). This distribution of labor within the household produces a positive externality to others in the household or society at large in that women take on activities that would otherwise fall upon other members of the household or the government (Palmer, 1995). Economic analysis has, in recent years, incorporated time spent on non-market activities into modeling.¹⁹ Non-market time spent on care and other domestic work can be integrated into models as a productive factor. With these extensions, it is possible to incorporate formally into public policy the recognition that unpaid work in the home is an important part of the economy.

Equity

So far, we have emphasized the efficiency-enhancing aspects of incorporating gender considerations into the public budgeting process. However, equity is also an important dimension to public budgeting. Thurow (1971) extends the concept of externalities to encompass notions of equity, where more equitable societies generate benefits that individuals do not fully capture and thus equity is undervalued in the public sphere. Fiscal policies that are redistributive in nature can move a society closer to its own notion of equality, and thus raise aggregate well-being.²⁰

¹⁸ Considerations of equity and practicality are also relevant in government decision making.

¹⁹ See, for instance, Agenor and Canuto (2015); Blackden and Bhanu (1999); and Ilkkaracan, Kim, and Kaya (2015).

²⁰ In formal economic modeling, social welfare functions aggregate the interests of individuals and one can weigh each individual's contribution to social welfare differently, in accordance with society's notion of fairness.

In this context, we can argue that starting from the claim that women have a fundamental human right to be treated equivalently to men in all aspects of life, gender budgeting that might involve redistributive policies produces an improved social outcome. The CEDAW principles, the Millennium Development Goals, and now, the Sustainable Development Goals, explicitly and implicitly recognize that there are efficiency and equity dimensions to government actions to promote gender equality and girls' and women's development.

Summing up

Thus, we can see that gender budgeting can be firmly grounded in public finance principles. On efficiency grounds, gender budgeting can ensure that promoting gender equality and women's development is taken into account when making public budgeting decisions. On externality-correcting grounds, gender budgeting can ensure that the benefits that accrue to society, and not necessarily to a specific individual, are taken into account. Gender budgeting suggests that value should be attached to time spent in the care economy and this information is used in assessing the benefits and costs of government programs. Gender budgeting can draw upon the acceptance that equity and efficiency are appropriate objectives of fiscal policy, even where there may be some tradeoff of efficiency against equity.²¹

Budgeting typically does not adhere precisely to economic principles of good public finance. A variety of considerations weigh in on fiscal decision making, and public budgets reflect the outcomes of political, social, and economic considerations. In addition, the technical requirements of good budgeting in terms of assessing properly the costs and benefits of government programs are challenging.

Practical dimensions of gender budgeting

We next approach the integration of gender budgeting into public budgeting from a practical perspective. Figure 2 provides an overview of the stages of public expenditure budgeting, which illustrates how budgets move from preparation or formulation, to legislative discussion and approval, to execution, and to oversight.²²

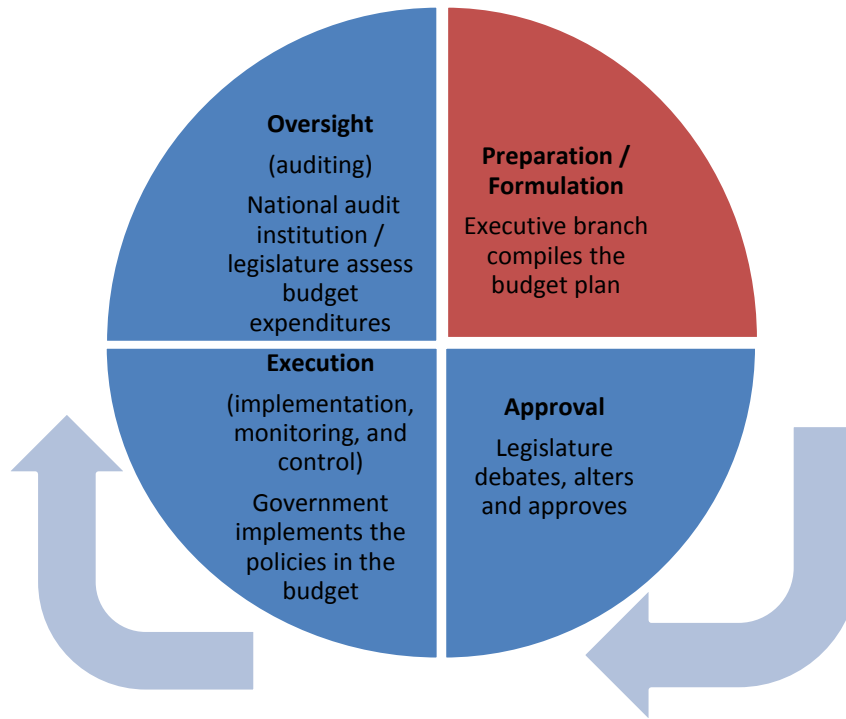
Stages in the budget process

There are several key phases to the budget process. The broad macroeconomic contours of the budget, determining the fiscal balance, revenue, and spending objectives, are typically developed within government, with the participation of the fiscal and monetary authorities, among others.

²¹ Some evidence suggests that more income-equitable economies grow faster, resulting in no equity-efficiency tradeoff (Ostry, Berg, and Tsangarides, 2014).

²² UNICEF (2016) provides a compact summary of approaches to public budgeting.

Figure 2. Stages of the Budget Process



Source: UNICEF (2016).

The executive branch, comprising the ministries of government, and led by the ministry of finance, typically has the principal responsibility for developing the budget. The legislative branch typically enacts the budget into law, and may play a significant role in shaping it through committees of legislators. Nongovernmental organizations and other entities outside a national government, including foreign donors, often play a significant role in influencing budget decisions and through their research, helping inform public policies. The ministry of finance then has the responsibility of executing and administering the budget. And finally, governments have responsibility for oversight of the budget, which may fall to specific institutions of audit or the legislature, itself, and scrutiny of financial outcomes. The responsibility for research and analysis may fall to any or all of these actors.

Inserting gender budgeting into the budget process

Our survey of practices, summarized in Table 1, found that gender budgeting enters the budget process at different stages. Appendix A provides further details on the methodology of our study, and Appendix Table A2, more extensive summary statistics.²³

²³ The data are available in an online toolkit. Links to the study's working papers and online toolkit are available at <http://www.imf.org/external/datamapper/index.php?db=GD>.

Table 1. Summary Statistics on the 23 Prominent Gender Budgeting Efforts
(number of countries in which the gender budgeting efforts had the characteristic)

	Total
ORIGINS	
Supported by international organizations or bilateral aid agencies	13
Tied to MDGs or national development plan or gender equality strategy	18
SELECTED COMPONENTS OF FISCAL POLICY	
Focus on spending	23
Focus on revenue	5
INDICATORS TO PLACE GENDER BUDGETING IN THE FISCAL PROCESS	
Gender budgeting circular or related to instruct the bureaucracy	18
Gender budgeting outcome report or audit	12
LEGAL BASIS	
Gender budgeting is incorporated in organic budget or other finance laws	13
ROLE OF GOVERNMENT	
Ministry of Finance is lead entity	17
Subnational government is involved	16
ROLE OF CIVIL SOCIETY	
Significant encouragement or participation of civil society	18

Source: Staff compilation from regional surveys.

When looking at gender budgeting efforts throughout the world, our survey found that there are a wide variety of institutional arrangements that countries have adopted in managing their own initiatives. In most countries, the ministry of finance is assigned primary responsibility for leading the gender budgeting initiative. It establishes requirements for other ministries and agencies within the government to follow; it is responsive to the requests of the spending ministries in the allocation of funds to particular programs; and it works with the revenue authorities to change tax laws or regulations. In some countries, a ministry of women's affairs or related type ministry is assigned principal responsibility and works in conjunction with the ministry of finance and other government entities. In some countries, the gender budgeting efforts were initiated by legislative groups or nongovernmental organizations, and only later were these efforts adopted by the executive function, with it then playing a leading role.

The role of the ministry of finance

Where ministries of finance (and ministers of finance, in particular), lead these efforts, gender budgeting has tended to have more influence on budget policies. In some cases, the gender-oriented goals of the government were better integrated into the budgeting process and thus gender budgeting was applied more widely across the different areas of government activity. In sub-Saharan Africa's gender budgeting efforts, **Rwanda and Uganda** appeared to do best at ensuring that gender-oriented goals were set and the ministry of finance took the lead in ensuring that ministries and agencies of the government incorporated goals relevant to their areas of responsibility into their budget plans. Even while we may assess that gender-oriented goals were

integrated through a gender budgeting initiative into the budget process, it is inherently difficult to establish what factors lead a government to its budgeting decisions, given the complexity of the budget process and the variety of interests that come to bear on these decisions.

Incorporating gender budgeting into the administration and management of the budget

In some countries, the fiscal authorities tried to integrate gender budgeting efforts into the process of reforming the administration of the budget. Many developing countries have sought, in recent decades, to improve the administration of the budget, to ensure good control of spending and accountability in the execution of the budget for its intended purposes. Some countries have moved to adopt program- or results-based budgeting, where rather than just focusing on the inputs (or cost of inputs), governments focus on the outputs and outcomes of the budget process.²⁴ For example, in education, governments might set the goals of spending programs in terms of certain indicators of output, measured by number of seats in schools or classrooms, and outcomes, measured by student performance. Program budgeting tends to lend itself better than traditional input-based budgeting to incorporating themes, such as achieving gender-oriented objectives, into the budget process. **Ukraine and Rwanda** provide good examples, where governments are integrating gender budgeting into a program-based budgeting approach.

The role of gender budget statements

As a practical matter, governments must decide where to insert gender-oriented goals as a theme or category in budget making. Typically, once the macroeconomic goals of the budget are established, the ministry of finance (or minister) is charged with developing and delivering to parliament (and public) a statement of principles that will underlie the budget to be proposed for the coming fiscal year. The incorporation of gender-oriented goals into the basic statement of principles of the budget is important for demonstrating the importance of these goals and for ensuring that they are well integrated into the budget process (and receive budget allocations).

Our survey of practices suggests that gender budget statements did tend to draw upon agreed development goals for women and girls. In the developing world, countries typically lay out these goals in a development strategy or national development plan, often drawn up in conjunction with their targets under international agreements or, in the past, commitments in the Millennium Development Goals. Some of the gender budgeting initiatives, such as those in **Morocco or Afghanistan**, sought explicitly to align their goals and were clear in laying out these goals in statements on the budget.

²⁴ In program budgeting, as the name indicates, funds are allocated to a program, sub-programs and activities within the sub-programs. There are line items such as wages, utilities etc., within a program budget down to the sub-program level. Thus, money is allocated to programs. In line item budgets, funds are allocated only by line items and by administrative units. There is no indication of outputs.

Budgets normally rely on transmission of instructions from the ministry of finance to spending ministries and the revenue administration through a budget circular or related communication. The budget circular instructs the bureaucracy on how it should approach the budget and what new fiscal policies and programs or modified approaches are going to be incorporated into the budget for the new fiscal year.²⁵ Gender budgeting may be integrated into the budget circular or communication in a variety of ways (Budlender, 2015).

The role of spending ministries

Spending ministries (e.g., education, health, justice, and so on) are responsible for developing and administering key spending programs of the government and play an important role in incorporating gender-oriented goals into their programs and policies and reporting on the spending for gender-oriented goals to government accounting and audit offices. On the revenue side, the tax or revenue administration is responsible for ensuring that any new revenue sources or amendments to laws or changes to regulations governing existing sources of revenues are adapted to meet gender-oriented goals. Revenue issues have generally received less attention in gender budgeting initiatives, but we do note a couple of exceptions where government sought to achieve gender-oriented goals through tax policy reforms.

In our survey, we found that effective gender budgeting requires that spending ministries take the lead in identifying gender-oriented goals that fall within their area of responsibility and developing programs and requesting budgets for them to bring about the achievement of these goals. In Europe, we found a number of examples where ministries were asked to identify and incorporate these goals in ministerial or departmental budgets. The initiatives in **Austria and Belgium** were noteworthy in this respect. In **Mexico**, the gender budgeting efforts were led by the ministry of health. In **Timor-Leste**, the Ministry of Education played a central role. In **Uganda**, government officials identified a set of priority sectors, including education, health, water, sanitation, infrastructure, justice, and agriculture, and asked the relevant ministries to develop programs to address unmet needs of women in these areas. The inclusion of agriculture is noteworthy because it reflects the important role that African women play in the rural sector and in subsistence and small-scale agriculture.

The role of economic analysis in underpinning sound fiscal policy formulation

Good policy formulation inherently depends on evidence on what works best. Gender budgeting has benefited from the extension of both theoretical and empirical economic research in recent years to issues that are useful in helping structure effective initiatives and more use should be made of such research in informing policies.

²⁵ Of course, ministerial budgetary work is a year-round job.

Some research has extended the traditional notion of the household having only one set of interests to the notion that the household may have a diversity of interests, reflecting the different interests of women and men (Lundberg and Pollak, 1996; Behrman, 1997; Hoddinott, Alderman, and Haddad, 1997; Vermeulen, 2002; Quisumbing, 2003; Browning, Chiappori, and Lewbel, 2013). This research posits that household behavior reflects the outcome of the interactions between household members with diverse preferences and resources that they draw upon in making their decisions. For policy analysis, the main implications are that women and men may respond differently to fiscal policies and other features of the economic environment, and economic policies may have different effects on different members of the household.²⁶ This notion is particularly important in capturing aspects of models that bear upon the different use of time in households and how government services that substitute for domestic work (for instance, public day care for children) may have very different effects on women and men. Studying the differences in men and women’s labor supply behavior has long been a staple of research in labor economics (Blau, Ferber, and Winkler, 1998; Blau and Kahn, 2003). For tax policy analysis, a number of studies (e.g., Apps and Rees, 1999; Pollak, 2011) extend models of the household to incorporate multiple individuals with different preferences.

Another important strand of research, which is limited but growing, disaggregates the incidence of government spending programs and revenue policies by sex.²⁷ This literature is useful in helping understand the consequences of policy decisions in the achievement of gender-oriented goals. Although interesting, this analysis has typically been undertaken with the use of certain simplifying assumptions rather than in a fully specified theoretical framework that takes into account the full complexity of household decision making. For instance, it is typical for this sex-disaggregated incidence analysis to measure the benefits of government spending programs by taking the product of a unit benefit and the number of beneficiaries and comparing the benefits obtained by women or girls and those obtained by men or boys. So, for instance, in undertaking a sex-disaggregated analysis of public school spending, the required data would consist of the number of students who are girls and boys and the unit or average cost of education. The sex-disaggregated analysis would compare the benefits of girls to those of boys (as a number of studies have done, comparing this relative benefit at different levels of education and at different points in the distribution of family income).

Some government services are provided in the form of what economists call “pure public goods or services,” so that the benefits can be shared by all in equal fashion and in fact, their benefits

²⁶ For example, in Rajasthan, India, the government’s program to subsidize toilets for rural households, which did not have running water, led to less uptake than expected because many women saw the additional time spent in providing the household with enough extra water to run the toilets as more costly to them than the benefits of having the toilets. The men in the household might have felt differently because they do not traditionally have the job of fetching household water in this part of India. I thank Tej Prakash for this example.

²⁷ Appendix B surveys some of these studies. Also see Greenspun and Lustig (2015), which covers a wide range of these studies, and Grown and Valodia (2010), which focuses on tax issues.

are not divisible (for example, national defense). Or they are what economists term “publicly provided goods or services,” so that while the benefits are not necessarily equally shared and the benefits are divisible, the benefits accrue to households or communities in a way that does not easily allow a disaggregation of the benefits by sex (for instance, water or electricity provision or fire prevention services to households). These kinds of services pose more difficult conceptual issues in trying to undertake an analysis of the beneficiaries of public spending, though there are approaches in the economic literature to surmount these difficulties. For instance, one might try to measure the benefits of improved water supply (e.g., bore holes in villages) to households by assessing the reduction in time spent on water collection of different household members and then assigning a value to this time derived from alternative activities that household members can pursue with the freed up time. Such analyses could be instrumental in setting appropriate government priorities for infrastructure spending and other forms of government spending.

Empirical studies that support sound fiscal policy making need to be better integrated into gender budgeting efforts. A number of country efforts were grounded in formal analytical work, including **India, Korea, South Africa, and Tanzania**, whose efforts are highlighted in the Asian and sub-Saharan African survey papers, though sex-disaggregated analysis was rare.

The catalytic role of international, bilateral, and nongovernmental organizations

Our surveys also highlighted the vital role that organizations outside government play in influencing the adoption of gender budgeting. The role of UN Women (formerly UNIFEM) is particularly noteworthy in this regard, as its assistance has been critical in initiating gender budgeting efforts throughout the world and helping sustain them. Today, it continues to provide assistance to governments throughout the world. The important role of the United Kingdom’s DFID (e.g., in Uganda) and other donor agencies follows upon earlier efforts by the Commonwealth Secretariat, which helped to spur the earliest initiatives.

Gender budgeting as a whole and a number of country efforts have benefited from the work of nongovernmental organizations in analyzing and reporting on gender-oriented issues. Several countries are particularly noteworthy in this regard. In **Australia, South Africa, and Tanzania**, the gender budgeting efforts were all spearheaded by nongovernmental entities. In the **United Kingdom and Canada**, although these countries have never adopted a specific gender budgeting initiative, nongovernmental entities have produced compelling analysis on the gender-differentiated impact of fiscal measures and applied meaningful pressure on governments to deliver on gender-oriented commitments through the budget.

Extensions to the medium term

Although we have been discussing budgets as though they apply only in annual terms, most sensible budget planning is done on a multi-year basis through what are typically known as “medium-term frameworks.” Effective gender budgeting is no different than other budgeting in

that the costs and benefits of the achievement of budget goals should be seen from a medium-term perspective. For many of the gender-oriented goals, especially those related to education and health, it is in fact essential to look at their achievement over the medium term. Education and health care lead to the accumulation of human capital, which only manifests itself in improved human productivity over the medium- or long-term. For example, the impact of programs to reduce illiteracy among women may only produce dramatic effects over a generation as the higher rates of literacy allow women to realize more of their productive potential in labor markets, to participate more effectively in civic governance, and to transmit socially productive values to their children. Gender budgeting efforts strengthen the argument for incorporating the medium term (and even long term) into public budgeting.²⁸

The role of subnational governments

Many countries have systems of government with multiple layers that are responsible for providing public services. Most large countries have at least two levels of government, though even some smaller ones have multiple layers. Although the discussion has focused on national governments, it is equally important that gender budgeting efforts extend at least to any levels of government with responsibilities for the provision of such key public services as education, health, and infrastructure, the traditional focus of gender budgeting efforts. In each region, we saw evidence, highlighted in the regional surveys, of the importance of subnational governments in gender budgeting efforts. Several noteworthy examples include **Bolivia, Ecuador, India, the Philippines, Rwanda, and Uganda**. In most countries in the developing world, even where public service provision is devolved to subnational levels, national governments remain the most significant and often, the only significant, source of public revenues, which are transferred to subnational levels through a system of intergovernmental transfers of shared revenues and grants. It may therefore be useful for national governments to create incentives for subnational governments to achieve gender-oriented goals relevant to their areas of public service provision by linking either the structure of amounts of intergovernmental transfers to subnational programs for these purposes.

III. EXAMPLES OF PROMINENT GENDER BUDGETING EFFORTS

Governments have undertaken a variety of efforts to address gender equality and advance women's development, within the context of "gender budgeting."²⁹ We present here a few examples from the regional surveys of gender budgeting efforts throughout the world, but we would refer the reader to the full surveys for discussion of a wider range of countries.

²⁸ Ng (2016) examines how gender budgeting can be used to encourage more participatory budgeting.

²⁹See Budlender et al. (2002) for a discussion of earlier approaches.

Gender budgeting in Asia

Chakraborty (2016) provides a number of examples of the application of gender budgeting in Asia. In India, gender budgeting has long been used as a tool for fiscal policy to address gender equality and girls' and women's development objectives in education, health, and access to infrastructure, among other government services. It presents a particularly interesting application because India has a federalist system of government, with decentralization of many important public services to state governments. Reflecting this decentralization, gender budgeting was adopted not only at the federal level but also in the majority of Indian states, and some of the most substantive measures were adopted at the state level. For example, the state of Kerala introduced a statement on gender budgeting into its budget documents in 2008/09, with associated policy commitments. The state budget targeted additional spending for infrastructure to support women's greater involvement in economic and public life.³⁰ Chakraborty (2010) suggests building gender-oriented objectives into the transfer system of federal funds to the states, as a means to stimulate further state governments' commitment to incorporating gender-oriented goals in fiscal policies.

Other countries in the region that have prominent gender budgeting efforts include the Republic of Korea and the Philippines. In Korea, there was a focus on increasing women's labor force participation, an important objective in a country with a rapidly aging workforce. In the Philippines, the initiative evolved over time from one in which government departments were each required to allocate five percent of their funds to gender-oriented goals, to one in which government departments were allowed to take a more flexible approach in seeking the highest priority uses of funds. Like India, the Philippines initiative extended to subnational governments.

Gender budgeting in the Caribbean and Pacific Islands

Christie and Thakur (2016) provide a look at an effective application in Timor-Leste, in their study of gender budgeting efforts in the Caribbean and Pacific Islands. Gender budgeting was given legal status by the nation's parliament. The initiative focused on ensuring that a gender perspective was introduced in the planning and analysis of government programs and the setting of specific targets. Government agencies are asked whether their programs have considered the different needs of women and men, whether the government's goals are consonant with international agreements on gender equality, and how government policies and programs will contribute to gender equality. Some examples of gender-oriented policies and programs include those to (i) increase access of girls' and women to education and implementing teaching practices and a scholarship program that addresses inequality in girls' and women's enrollment in higher education; (ii) identify and create more opportunities for women in growing economic sectors, such as tourism, commerce, and industry; and (iii) improve women's access to legal aid

³⁰ Stotsky and Zaman (forthcoming 2016) find, using panel data of Indian states, that gender budgeting was positively and significantly linked to more gender equality in primary school enrollment.

services and related measures necessary to fight more effectively violence against women. The frequency with which gender budgeting was seen as a mechanism to address violence against women—across the world and not only in the South Pacific region—was one of the most interesting findings of the global survey of gender budgeting.

Gender budgeting in the Western Hemisphere

Pérez Fragoso and Rodríguez Enríquez (2016) report on the efforts underway in Latin American countries to develop gender budgeting. Mexico provides an example of a country where gender-oriented fiscal efforts were undertaken both at the federal and at the state levels. At the federal level, the efforts began with health. In collaboration with nongovernmental organizations, the ministry of health diagnosed the health needs of women, assessed whether existing programs were adequate to address these needs, allocated budgetary resources to meet those needs, and designed indicators to measure whether the needs were being met. Evidence suggests that Mexico has made progress on women's health issues, including a drop in maternal mortality and rise in life expectancy. Federal budget reforms supported the institutionalization of this approach more broadly in the government ministries. In Mexico City, a similar initiative was undertaken where parts of the government were tasked to identify where gender was relevant to their programs. One tangible outcome of this process was changes in public transportation to provide safer options for women.

In several countries, including Ecuador and El Salvador, gender budgeting focused mainly on ensuring that gender-oriented goals were integrated into budgetary classification schemes, which is important for tracking spending execution in accordance with approved budgets. However, it was more difficult to identify what success the gender budgeting initiatives had in influencing the budget and the goals of fiscal policies. Bolivia was another example of a country with gender budgeting efforts at the national and subnational levels.

Gender budgeting in the Middle East and Central Asia

Kolovich and Shibuya (2016) examine the experiences in the Middle East and Central Asia, where gender budgeting has faced difficulty in taking hold. Among the Middle Eastern countries, Morocco has been a leader in trying to put in place an initiative, though the results are still somewhat ambiguous. As part of its gender budgeting efforts, Morocco assessed the needs of women and girls in education, health, the judicial system, infrastructure, and employment and sought to develop fiscal and other policies to ensure their equal access to education and health care, while expanding women's labor market opportunities. Various legal reforms that accompanied the gender budgeting efforts have strengthened women's rights in family law and other areas of civic, political, and economic life. In 2014, changes to the organic budget law required gender equality to be considered when defining performance objectives, results, and indicators, in all parts of the budget, and that a Gender Report be included as part of each year's Finance Bill. Morocco's efforts were recognized by the international community with the Ministry of Economy and Finance receiving the United Nations Public Service Award in 2014.

Afghanistan also has sought to put in place gender budgeting to address some of the world's worst indicators on female education and health. Over the course of its efforts, Afghanistan appears to have made progress in improving female developmental indicators, but it is unclear how much of the progress can be attributed to gender budgeting, in view of the significant involvement of external donors in Afghanistan's budget process and their provision of substantial budget support.

Gender budgeting in sub-Saharan Africa

Stotsky, Kolovich, and Kebhaj (2016) review gender budgeting efforts in sub-Saharan Africa. The commitment to promoting women's development and reducing gender inequalities in economic and political life is evident in the number of countries in the region that have tried gender budgeting. However, in the majority of cases, the efforts are relatively new or were integrated into budget processes in only limited ways.

Two clear exceptions were Uganda and Rwanda. In both countries, the government sought to ensure that gender-oriented goals were identified, and that budgeting addressed these goals in important public services such as education and health. Rwanda made a point of ensuring that the gender budgeting efforts accompanied implementation of a program-based budget. In Uganda, parliamentarians and nongovernmental organizations contributed substantially to gender budgeting efforts. In both countries, gender budgeting was also extended to local governments, where similar efforts were made to integrate gender-oriented goals into local government budgets or programs.

In both Uganda and Rwanda, evaluations from within and outside of the government affirmed that gender budgeting had spurred government efforts to reduce gender inequalities in economic and political life and promote women's development. Stotsky et al. (2016) also found evidence of a beneficial effect of gender budgeting, by comparing Uganda and Rwanda to regional peers before and after gender budgeting was put in place.

In Uganda, priority sectors included education, health, agriculture, roads and works, water and sanitation, and justice, law, and order. Some tangible achievements were an increased allocation in the budget to monitor efforts to increase participation and retention of girls in school. The Ministry of Education was tasked with tracking the reasons girls drop out of school, including pregnancy, marriage, lack of sanitary and hygienic facilities, and violence against girls. Another part of their efforts focused on improving women's economic standing in the agricultural sector where most Ugandans work.

In Rwanda, the government initially chose four sectors as pilots—health, education, agriculture, and infrastructure—to extend gender budgeting concerns beyond social sectors. Ultimately, gender budgeting was rolled out to all sectors of the government. All sectors relied on articulating and analyzing the problems and their policy implications, assessing how these

policies could be incorporated into the budget, monitoring execution, and evaluating outcomes. Rwanda eventually adopted an organic budget law that included gender budgeting as a fundamental principle, echoing the same commitment found in budgetary reforms in Austria. Another important part of Rwanda's program was the establishment of a Gender Monitoring Office with authority to ensure that gender budgetary commitments were being met.

Although gender budgeting in sub-Saharan Africa has largely addressed spending issues, there have been some tax reforms motivated by gender-oriented concerns. In South Africa, in 1995, the government undertook a comprehensive reform of the tax system, one of whose goals was to equalize tax rates on all taxpayers, addressing explicit bias in the income tax. Previously, married women were taxed at a higher rate than men or single women. In another instance, South Africa reduced the value-added tax on paraffin (e.g., kerosene), an important household fuel in poor households, which are predominantly female-headed in that country.

Gender budgeting in Europe

Quinn (2016) provides an extensive look at gender budgeting in Europe. In this region, the integration of gender was made a fundamental part of national level budgeting and gender budgeting was given legal status by national parliaments. Austria presents one of the most interesting examples where as part of recent reforms, in 2007, it introduced gender equality as a clear objective of the government. In addition, Austria has undertaken fundamental tax reform, which had one aim of ensuring that the tax system provides greater incentives for women to work.

Belgium is another country that adopted a comprehensive approach to gender budgeting. In 2007, the Belgian parliament passed a law that required the integration of a gender dimension into all federal policies, including budgeting. The law requires the ministries of government to identify gender equality objectives and then to link these objectives to their budget programs. For instance, the Ministry of Civil Service commits to integrate a gender perspective into its consideration of more flexible work terms for civil service employees. The Ministry of Justice commits to examine gender-oriented goals with respect to prison policies. Further, the Belgian law requires the discussion of the budget in parliament to include gender equality actions, and for all government policies and laws to be subject to an assessment in terms of the potential differential impact on women and men. Another important part of the law is to mandate the collection and use of sex-disaggregated data.

The emerging market economies of Europe are also adapting gender budgeting efforts to programs of governmental reform. Ukraine's approach draws upon Austria's leadership in Europe, and in particular, the integration of gender-oriented objectives into programming of the budget.

IV. ASSESSMENT AND FISCAL POLICY IMPLICATIONS

Since their inception about 30 years ago, gender budgeting efforts now shape fiscal policies to reduce gender inequality and address girls' and women's needs in over 80 countries in the world. Gender budgeting calls attention to the role that fiscal policies and administration can play in addressing gender inequality and girls' and women's needs.

A summary assessment of gender budgeting efforts:

- In some countries (for example, India and Mexico), gender budgeting has led to changes in fiscal policies in such key areas as education, health, and infrastructure, and contributed to the achievement of gender-oriented goals. This conclusion is based on case study analysis of prominent gender budgeting efforts, observations by researchers who have examined these initiatives in a number of countries, and an evaluation of available data, all of which are highlighted in the regional surveys.
- In some countries (for example, Austria and Ecuador), gender budgeting has led to improved systems of accountability for public spending for gender-oriented purposes. A few countries have successfully incorporated gender budgeting into program-based budgeting (for example, Rwanda), which seems to offer the greatest promise for ensuring that its goals are included in the budget process. Others successfully adapted their classification systems for government spending to facilitate more effective tracking of gender-oriented spending.
- The influence of gender budgeting efforts may be positive, even when it remains difficult to establish cause and effect. In many countries that undertook gender budgeting, the effect of these efforts on fiscal policies cannot easily be discerned because government budget decisions reflect complex processes.
- Gender budgeting efforts seem to have led to meaningful fiscal policy changes only when they had the support of the political center of fiscal decision-making (for example, in Rwanda, Uganda, and the Indian state of Kerala). Within the executive branch of government, the leadership of the minister of finance has clearly been essential in incorporating gender-oriented goals. Parliamentarians and parliamentary committees are important supports to the executive branch and have sometimes been catalytic.
- The incorporation of relevant spending ministries (for example, in Morocco, the Philippines, and Timor-Leste) into gender budgeting efforts has also been essential in ensuring that gender budgeting efforts were institutionalized and focused on agreed gender-oriented goals. The use of gender budget statements, budget circulars, and follow up to the spending (and revenue) institutions of government is a vital part of this institutionalization of gender budgeting.

- In most countries, subnational governments play a critical role in the provision of essential public services. Gender budgeting efforts that extended to these subnational entities were in some countries more substantive than those at the national level (for example, in Bolivia).
- International organizations (such as UN Women) and donors provide important technical assistance and financial support.
- Nongovernmental organizations, academic scholarship, and advocacy play at times a catalytic role in gender budgeting efforts (as in South Africa) or in informing fiscal policies (as in the United Kingdom). Some initiatives remained alive only because of the constant support of entities outside government (as in Tanzania), but without the government as a full participant, these gender budgeting efforts ultimately did not go far.
- Effective gender budgeting efforts rely on the ability of governments to improve their policies and programs over time and to monitor the results throughout the agencies and departments of government. Only a few countries elevated the monitoring function to the level expected of government oversight or audit offices (as in Rwanda).

For low-income developing countries, the chief policy implications are:

- Align gender budgeting efforts to goals in national development plans, including those related to the Sustainable Development Goals. Countries should ensure that their gender-oriented objectives are clear, ambitious, and fit into the budget process.
- Improve access of girls to secondary and tertiary education, and their participation in science, technology, and math education. Equal access of girls and boys to primary education across the world is within reach.
- Keep gender-oriented health goals as priorities. These goals include bringing down high rates of maternal mortality and sexually transmitted diseases, including HIV/AIDS, and providing contraception services.
- Remove obstacles that prevent girls and women from participating in educational and economic activities, such as inappropriate hygienic conditions and unsafe transportation.
- Improve the supply of electricity and water to households as well as cooking technologies to reduce girls' and women's time demands for domestic work.
- Assess key sectors of the economy in which women could participate more productively, identify the constraints to their participation, and develop fiscal policies to help address these constraints. Governments can extend fiscal incentives to individuals and employers, and to financial institutions to encourage greater women's participation in economic activities.

- Ensure that subsistence agriculture remains a focus of fiscal policies and programs, including through enhanced training of farmers, in sub-Saharan Africa and other regions where women continue to play a predominant role.
- Eliminate gender-based inequalities in tax, financial, civil, and other laws, and ensure that women's rights to ownership and control of property are equal to men's rights.
- Improve the administration of justice, law, and order, to reduce violence against girls and women.

For countries with well-developed income and social security systems, key policy implications are:

- Identify structures in income tax systems that lead to a higher effective tax rate on secondary workers in the household, which may discourage female labor force participation. The move to individual-based income tax systems is one means to reduce this problem. Even within income tax systems that impose a joint income tax on the household, it is possible to structure the income tax to reduce the higher effective tax rate on secondary earners.
- Ensure security for elderly women through reform of fiscal policies directed toward security in old age. Security of elderly women is a growing problem in view of women's more limited paid work history compared to men's.

Concluding remarks:

Regardless of a country's stage of economic and political development, well-structured fiscal policies have the potential to improve girls' and women's development. All countries can use fiscal policies to reduce women's still disproportionate share of responsibilities for the care of children and elderly parents and for domestic chores. These responsibilities inhibit women's fuller participation in economic activities, although policies should be mindful of women's preferences and evolving social and cultural norms.

Although gender budgeting efforts have generally achieved modest results so far, the making of national development plans in the context of the Sustainable Development Goals offers an opportunity to use fiscal policy and administration to reduce disparities based on gender and promote girls' and women's development. Cost-benefit analyses of domestic time use can help to identify appropriate priorities for public investment. Governments can begin by ensuring the participation of staff capable of articulating country-relevant, gender-oriented budget priorities, designing an evaluation of the programs created by gender budgeting, conducting economic analyses of them, and providing public information on their results.

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Appendix A: Methodological Approach to the Regional Surveys and Summary Statistics

The approach to collecting information on each country entailed a multi-pronged effort. First, we sent a questionnaire to the Ministries of Finance of all countries who are members of the International Monetary Fund soliciting their views on whether they had ever had such an initiative and if so, its principal characteristics, and if not, whether they had undertaken any fiscal policy or administrative efforts with the same intention. Table A1 lists the 62 responding countries. Second, we collected published and unpublished materials on gender budgeting. Third, we drew upon interviews with country officials, technical assistance providers, including from UN Women, the United Nations entity that addresses women’s interests and provides support to many initiatives, and nongovernmental organizations.

Table A1. Countries Responding to the IMF Questionnaire on Gender Budgeting

Afghanistan	Guatemala	Philippines
Argentina	Honduras	Poland
Australia	Italy	Portugal
Austria	Japan	Romania
Bahamas, The	Korea	Samoa
Belarus	Latvia	Senegal
Belgium	Lithuania	Serbia
Benin	Macedonia, FYR	Slovenia
Bulgaria	Malawi	Somalia
Cameroon	Maldives	Spain
Chad	Mali	Sweden
Chile	Micronesia, Fed. Sts.	Switzerland
Comoros	Moldova	Tajikistan
Costa Rica	Mongolia	Tanzania
Czech Republic	Montenegro	Thailand
Denmark	Morocco	Turkey
El Salvador	Mozambique	Uganda
Ethiopia	Netherlands	United States
Gambia, The	Norway	Vietnam
Germany	Pakistan	Zimbabwe
Greece	Panama	

The six regional papers identified 23 countries considered to have “prominent” gender budgeting efforts and an additional 37 countries with gender budgeting efforts that were of interest. The list is not comprehensive of all countries that have undertaken gender budgeting. Table A2 lists

the countries in each group.³¹ In all regions, some of the initiatives were also conducted at the sub-national level. Germany is included because of the initiative in Berlin and Spain because of Andalusia.

Table A2. Countries Featured in the Regional Surveys

Countries with Prominent Gender Budgeting Efforts	Countries with Less Prominent Gender Budgeting Efforts	
Afghanistan	Armenia	Nepal
Albania	Bahrain	Nicaragua
Australia	Bangladesh	Pakistan
Austria	Benin	Panama
Belgium	Bhutan	Paraguay
Bolivia	Brazil	Peru
Ecuador	Cameroon	Senegal
El Salvador	Colombia	South Africa
Finland	Costa Rica	Sri Lanka
Germany	Dominican Republic	Tanzania
Iceland	Egypt, Arab Rep.	Thailand
India	Ethiopia	Uruguay
Korea	Gambia, The	Venezuela, RB
Macedonia, FYR	Guatemala	Zimbabwe
Mexico	Honduras	
Morocco	Indonesia	
Philippines	Jordan	
Rwanda	Kazakhstan	
Spain	Malaysia	
Sweden	Mali	
Timor-Leste	Mauritius	
Uganda	Mongolia	
Ukraine	Mozambique	

In the regional survey papers, for the 23 prominent gender budgeting efforts, we tried to collect information on the start year, whether the initiative was on-going or had ended, whether the program was tied to the Millennium Development Goals or a national development strategy, key fiscal policy components, the legal basis, and the roles of government, parliament, and civil society.³² This information is summarized in Table A3, with the column labeled “Total” indicating how many of the 23 efforts had the characteristic indicated. It is important to note that the data represent a composite over time and do not relate specifically to any one point in time,

³¹ We also summarize the gender budgeting effort in West Bank and Gaza in Kolovich and Shibuya (2016).

³² We caution the reader that in converting the mainly qualitative information to the data template, there is room for differences in interpretation.

except the start dates. The focus and structure of efforts may have changed over time. More than half of these efforts received technical and/or financial support from international organizations or bilateral aid providers; two-thirds linked their goals to those of the Millennium Development Goals or a national development plan. Each of the 23 programs focused on spending, while only five had an additional revenue focus. The Ministry of Finance was a lead player in 17 of the gender budgeting initiatives, and more than three-quarters had active participation of civil society.³³

**Table A3. Key Components of the 23 Prominent Gender Budgeting Efforts
(number of countries in which the gender budgeting initiative had the characteristic)**

	Total
ORIGINS	
Supported by international organizations or bilateral aid agencies	13
Tied to MDGs or national development plan or gender equality strategy	18
SELECTED COMPONENTS OF FISCAL POLICY	
Focus on spending	23
Spending focus on key human development (education and health)	22
Spending focus on physical infrastructure (transport, water, electricity, and energy)	18
Spending focus on justice and security (violence against women, judicial assistance)	22
Spending focus on jobs, entrepreneurship, wages etc	21
Structural reforms in spending (subsidies, transfers, incentive or distributional objectives)	15
Focus on revenue	5
Personal income tax focus	3
Other tax focus, including general or selective sales and trade	2
INDICATORS TO PLACE GENDER BUDGETING IN THE FISCAL PROCESS	
Broad statement of goals of Minister of Finance	15
Gender budgeting statement in budget documentation	19
Gender budgeting circular or related to instruct the bureaucracy	18
Gender budgeting in planning and programming	21
Gender budgeting outcome report or audit	12
Explicit reporting on gender equality spending	17
LEGAL BASIS	
Gender budgeting has constitutional standing	4
Gender budgeting is incorporated in organic budget or other finance laws	13
ROLE OF GOVERNMENT	
Ministry of Finance is lead entity	17
Other ministries play consequential role	23
Subnational government is involved	16
ROLE OF CIVIL SOCIETY	
Significant encouragement or participation of civil society	18

Source: Staff compilation from regional surveys.

³³ We note that “lead player” does not necessarily imply that the ministry of finance was a catalyst or involved from the beginning of the efforts. Rather, this indicates that the ministry of finance assumed a lead role at some point.

Table A4 shows the average by region and gender budgeting status for a variety of fiscal and gender inequality indicators. The Public Expenditure and Financial Accountability (PEFA) scores are higher for both the prominent and the other featured initiatives than the non-gender budgeting countries (Europe is excluded because most countries do not have PEFA evaluations).³⁴ Looking at the female to male ratio of gross secondary enrollment, we see that the African prominent gender budgeting countries and Asia and Pacific prominent and other gender budgeting countries had higher ratios than their non-gender budgeting counterparts. Gender budgeting countries in Europe and the Western Hemisphere had similar ratios to non-gender budgeting countries. Across all the regions and categories of gender budgeting, the lowest average female to male ratio for secondary enrollment is in the Middle East and Central Asia prominent gender budgeting countries at 0.71. However, the other gender budgeting countries in this region outperformed their non-gender budgeting regional counterparts. For the maternal mortality ratio, we see that the African and Western Hemisphere gender budgeting countries have lower maternal mortality ratios than non-gender budgeting countries in the same regions. The other gender budgeting countries in the Middle East and Central Asia had the lowest maternal mortality ratio (note that data for Europe are excluded).

There are no clear patterns comparing gender budgeting and non-gender budgeting countries regarding spending on education or health as a share of GDP. In some cases, non-gender budgeters spend more on these two categories (e.g. Western Hemisphere on education; Africa, Asia and Pacific and Western Hemisphere on health), while in other regions, gender budgeters spend more (e.g. Europe's on education and health; Africa's other gender budgeting countries on education).

³⁴ PEFA is a performance monitoring framework used to assess the public financial management systems in developing countries. A higher PEFA score implies stronger administration of public finances. Please see <https://www.PEFA.org> for more details.

**Table A4. Fiscal and Gender Inequality Indicators
by Region and Gender Budgeting Status**

		Fiscal Aggregates ¹				Public Financial Management		Gender Inequality Indicators							
Region ²	Gender budgeting status	Total revenue	Total expenditure	Overall balance ³	Gross debt ⁴	Education expenditure	Health expenditure	PEFA overall score ⁵	GDI, time-consistent ⁶ (2013)	Gini coefficient ⁷ (scale 0-100)	Gross secondary enrollment (FMR)	Gross secondary enrollment (female)	Labor force participation rate (ages 15-64) (FMR)	Labor force participation rate (ages 15-64)(female)	Maternal mortality ratio (per 100,000)
		(average 2012-2015, unless otherwise indicated) ⁸				(average 2010-2013) ⁸	(average 2011-2014) ⁸	2013 or latest year available							
AFR	Prominent gender budgeting	19.1	21.9	-2.8	25.7	3.7	2.5	2.7	0.92	46.9	0.95	29.0	0.99	82.3	316.5
	Other gender budgeting	21.3	24.9	-3.5	42.6	4.4	2.7	2.7	0.88	42.3	0.86	48.3	0.84	69.6	407.5
	Non-gender budgeting	25.7	28.5	-2.8	42.0	4.2	3.0	2.0	0.85	44.7	0.82	42.6	0.83	65.7	512.6
APD	Prominent gender budgeting	23.6	26.0	-2.4	43.0	4.2	3.2	2.3	0.92	37.3	0.99	95.6	0.65	51.8	76.3
	Other gender budgeting	19.6	23.3	-3.7	53.2	3.7	2.2	2.6	0.92	36.3	1.02	75.5	0.68	56.4	113.3
	Non-gender budgeting	27.7	28.0	-0.3	54.2	4.0	3.9	2.0	0.94	37.5	0.97	75.7	0.85	70.1	86.3
EUR	Prominent gender budgeting	42.9	45.8	-2.9	70.2	5.8	6.7	2.6	0.98	30.3	0.99	N/A ⁹	0.85	67.3	N/A
	Non-gender budgeting	39.7	42.1	-2.4	59.5	5.2	5.8	3.0	0.98	32.2	1.00	N/A	0.83	62.2	N/A
MECA	Prominent gender budgeting	26.1	29.2	-3.2	34.2	4.1	2.4	2.7	0.72	40.7	0.71	50.9	0.27	21.7	258.5
	Other gender budgeting	23.2	28.3	-5.1	54.7	2.9	2.9	2.9	0.92	31.4	1.05	93.4	0.49	38.8	31.3
	Non-gender budgeting	32.6	34.0	-1.4	36.8	3.8	2.6	2.5	0.89	34.6	0.94	79.4	0.47	37.4	127.3
WHD	Prominent gender budgeting	29.4	32.8	-3.4	41.9	4.9	3.8	2.6	0.95	46.8	1.03	80.8	0.67	55.8	90.5
	Other gender budgeting	22.4	26.2	-3.8	38.5	4.3	4.2	2.9	0.97	49.0	1.07	84.5	0.67	56.7	83.0
	Non-gender budgeting	29.4	32.8	-3.4	55.0	5.0	4.7	1.4	0.98	45.7	1.03	95.9	0.80	62.8	90.8

Sources: IMF, World Economic Outlook (2016); World Bank, World Development Indicators database, Women, Business and the Law (2015); Stotsky et al. (2016); and IMF staff calculations.

1/ Figures for total revenue, total expenditure, overall balance, and gross debt are drawn from the latest WEO publication, and the concept of government corresponds to that in the WEO. Please see the WEO for further details. Health and education expenditure are drawn from the World Bank Development Indicators (WDI) and correspond to the general government concept.

2/ AFR stands for Africa; APD for Asia and Pacific; EUR for Europe; MCD for Middle East and Central Asia; WHD for Western Hemisphere

3/ Corresponds to the concept of total revenue minus total expenditure.

4/ Gross debt does not net out holdings of debt by other entities of the government.

5/ PEFA is a performance monitoring framework used to assess the public financial management systems in developing countries. It is an initiative jointly supported by the World Bank, IMF, European Commission, and other development and government institutions. The framework consists of 28 indicators with each indicator scored on a scale from A (highest) to D (lowest). PEFA scores reported above are an average of the 28 indicators and convert the four ordinal PEFA scores (A,B,C,D) to numerical scores (4,3,2,1) with “+” score given 0.5 point. A higher PEFA score implies stronger administration of public finance. On a global basis, the lowest score is 1.1 and highest score is 3.6. Please see <https://www.pefa.org/> for further details.

6/ The GDI is an index of gender equality, which generally ranges from 0-1, with higher numbers signifying more equality; please see Stotsky et al. (2016) for further details.

7/ A higher Gini coefficient implies more inequality.

8/ The figures are based on the average over the number of years in this period for which data were available, by region and GB status.

9/ Data are not available.

Appendix B: Fiscal Incidence Using Data Disaggregated by Sex

To understand why the incidence of government services may vary by sex for education spending, it is important to start with a look at gender-based differences in behavior with regard to household education decisions. An extensive literature has examined the economics of education decisions in a developing country perspective (Behrman, 1999; Schultz, 2002; Glick, Saha, and Younger, 2004; Duflo, 2012). Gender inequalities in education are a result of supply and demand factors that interact to limit the opportunity of females to gain an education.

In the standard formulation, demand for education reflects price, income, and taste or culture variables, and the price is composed of both direct and indirect components of cost. The direct costs of education have several components, including the direct monetary costs and the opportunity cost of time. The monetary costs may in some contexts be the same between males and females and in others, they may differ, for instance, the costs of uniforms or materials required for school. The opportunity costs of time generally differ between males and females, especially when children play an important economic role in the household. For instance, in many cultures, girls are expected to help care for younger siblings and both boys and girls may be required to help with home chores; thus, there may be varying opportunity costs to their time spent in school.

The direct costs of education vary, depending on the ability of the country to fund public education. These costs may often be prohibitive, especially in the poorest countries in the world where even though the monetary costs may not be high, they may still be sufficient to discourage households with little excess cash income. The education of girls may often be a lower priority to parents for economic reasons, especially because in many traditional societies, sons are expected to provide old age security to parents. Schultz (1995) notes that parents may not invest in the optimal amount of education for their children because they expect the private returns on education to be lower than those on other investments. Even if they expect the return to be competitive with alternative investments, they may not choose an efficient level of education because of credit constraints that limit their ability to borrow to pay for their children's education or an aversion to borrowing. There may also be social and religious reasons that dampen parental incentive to educate their daughters.

Women may have different preferences for spending on goods and services in the home. The evidence suggests that women have a stronger preference than men for spending on goods and services that contribute to the human capital of their children, implying that within a household, women gear spending more toward education, food, and health care for children (Blumberg, 1988; Thomas, 1997; World Bank, 2001; Quisumbing, 2003). Women and men may have different preferences for spending on male and female children within the household (Deaton, 1989; Alderman and Gertler, 1997; Quisumbing and Maluccio, 2003; Kingdon, 2005). Here the differences seem to vary widely across cultures. In some cases, women may have a preference for spending relatively more on male children, while in others

this tendency may be less pronounced or even reversed. As a result, price and income elasticities of demand may vary depending on the decision-making process in the household as well as the sex of the children involved.

The supply of education reflects the availability of schools, teachers, and other facilities, and includes both public and private alternatives. Where the public sector is well funded, schools are typically one of the major expenditures of government. However, in poorer countries, public spending on education may be relatively modest compared to the burgeoning population of school-age children. Private alternatives exist in most countries, but these are usually affordable only to a small group of higher income households.

From a social perspective, there are also significant external benefits from educating females. Higher levels of education for females are associated with better health and nutrition, reflected in longer life expectancies and reduced child mortality, even while male education is also beneficial. Glewwe (1999) and Christiaensen and Alderman (2004) find evidence of the beneficial effect of mother's education on their children's health. Female education also tends to promote reduced fertility, and interacts with other cultural factors to encourage parents to invest more in the human capital of their children. Weir and Knight (2004) find, in the context of Africa, the benefits of education diffuse through social networks. They find, using survey data from Ethiopia, that the majority of farmers say they were influenced in their decision to adopt modern inputs by someone of the same gender, thus suggesting that the positive externalities from education are enhanced when social networks facilitate greater diffusion of this knowledge. The evidence is thus clear that the benefits of increased education, although internalized to a large extent, also spill over to the society.

Unfortunately, the external benefits are hard to quantify, but they form a critical part of the argument for using public policies, be they taxes, subsidies, or regulations, to reduce gender inequalities. Schultz (2002) concludes that there is "mounting empirical evidence from around the world that the social returns to the years of schooling of females are greater than the returns to males...." Further, he notes that the regions of the world that have achieved the most economic and social progress over the past several decades are those—among other things—that have most successfully promoted equal educational achievements for males and females.³⁵ Klasen and Lamanna (2009) also find that addressing inequality in female education is beneficial to national growth.

Gender inequalities in investments in health are harder to measure because biological differences between males and females could lead to different nutritional requirements and different needs regarding use of health services. For instance, women in their childbearing years generally require more health care than men. Schultz (1995) notes that there was a

³⁵ See also World Bank (2001) and Abu-Ghaida and Klasen (2004).

significant advance in female longevity relative to male longevity in the twentieth century in most countries, reflecting reduced inequalities in health care access. However, girls and women are still disadvantaged in some countries where gender inequalities in health persist, including most notably India, where ratios of under-5 mortality for girls relative to boys remain well above international norms (Stotsky et al., 2016).

*Examples of studies on education, health, and infrastructure*³⁶

In one of the earliest such studies, Demery et al. (1995) use discrete choice modeling techniques to estimate the incidence of education and health spending in Ghana, disaggregated by gender and income. They combine estimates of the cost of service provision with information on household use of services, from the Ghana Living Standards Surveys. They find marked gender inequalities in education spending, with girls receiving less benefit than boys. With regard to health expenditures, Demery, Chao, Bernier, and Mehra (1995) find, for outpatient services, an even split between males and females and little variation across the expenditure distribution. But for inpatient care, they find that there are substantial differences, with females receiving less than half the total share in the lowest quintile and more than half in the other quintiles, thus suggesting more of a disadvantage for lower-income females.

In a comprehensive international comparison, Filmer (1999) analyzes gender differences in school enrollment, using data from 41 countries across the world in the 1990s. Ranking households by wealth, he finds that both gender inequalities and income inequalities in school enrollment. Gender inequalities in school enrollment rates tend to be greater for the poor than the rich. In no country were these gender inequalities greater for the rich than the poor. He also finds similar patterns between the rich and poor for mortality of children under five, where in contrast to access to schooling, females enjoy a natural advantage over males. In about two-thirds of countries, the female advantage is smaller for the poor than the rich. Sahn and Younger (2000) examine cumulative shares of benefits across the expenditure distribution for eight African countries. They find that for primary education in only one country do aggregate benefits differ significantly by sex, which implies that there is gender inequality but the degree of inequality is relatively constant across the expenditure distribution.

Glick, Saha, and Younger (2004) assess the distribution of public expenditures, focusing on education and health services, water supply, and public employment, for nine countries in different regions of the world, including a sample of transition economies, and countries in sub-Saharan Africa, Latin America, the Middle East, and Southeast Asia. They break down the data for each country by quintiles using per capita household expenditures as a measure

³⁶ Also see Greenspun and Lustig (2015) for a comprehensive survey.

of welfare and by gender (hence there are 45 comparisons by gender for the nine countries). With regard to education, a majority of their comparisons for primary education show a gap in favor of boys, rising slightly over the second period of their observation. The largest gaps are in Ghana, Pakistan, and Uganda. The results for secondary education are similar. For public medical visits, the gender gap favors women in every country and virtually every quintile in their sample of countries. These results are stable over time. Since the results may be influenced by the differentially greater need of women in childbearing years, they also examine the number of medical care visits for people outside the childbearing years and find no gender gap. Public vaccinations also show no gender gap.

More recent evidence shows some evolution in spending patterns over time. Demery and Gaddis (2009) assess the incidence of public spending on education and health care in Kenya. They find that per capita spending on education favors boys at all levels—primary, secondary, and tertiary. However, primary spending is progressive measured against income, while secondary and tertiary spending is regressive. They also assess marginal, as opposed to average, benefits from additional spending, and show that primary spending has a higher marginal benefit for low-income girls. With regard to health care, they find that women and girls benefit more than men and boys but that higher-income females receive more benefit from spending than lower-income households. As with education, primary healthcare spending has a higher marginal incidence for poor females.

Austen, Costa, Sharp, and Elson (2013) assess public spending in Timor-Leste. They find that public education spending benefits boys more than girls at each level of education and rural students are at a disadvantage compared to those in urban settings. They also undertake demand analysis to examine determinants of public school enrollment and find that the education of mothers is a key determinant of greater school attendance, suggestive of the need to consider externalities and the medium-term in assessing the benefits of interventions to equalize gender inequalities.

These findings on primary education and healthcare are important because they validate the common policy orientation of much of the international aid efforts in recent years to focus on these components of public spending. The higher marginal spending incidence for poor females suggests that targeting these components of spending to lower-income households is a particularly effective public policy both for closing gender and income gaps.³⁷

To sum up, the research on education and health suggests that, in general, educational inequalities exist between boys and girls and they are more pronounced at higher levels of education, for poorer families, and in poorer countries. However, there is considerable

³⁷ See Clements, de Mooij, Gupta, and Keen (2015) for a similar conclusion on the importance of targeting spending to reduce inequality.

variation across countries and certain regions of the world, especially sub-Saharan Africa, the Middle East and North Africa, and South Asia show the greatest inequalities. Health inequalities exist in some areas of health care, especially for poorer households and in poorer countries, but are less evident for some components of health care, such as vaccinations. The trend is toward the reduction of these inequalities, though progress has been uneven. The relative paucity of such studies suggests the need for more work in this area.

This survey neglects advanced countries because the differences in spending on education and health care for women and men are largely equalized. In fact, in many advanced countries today, women attain tertiary education at a higher rate than men, so if anything, they derive more benefit from public spending on education. The benefits from public spending for healthcare for women may exceed that for men, largely because of their longer life expectancy (Cylus et al., 2011).

A number of studies have also focused on measuring the incidence of government infrastructure spending and government services, such as training and education of farmers. Government infrastructure poses a problem in that many services are consumed jointly in the home. However, because women and men typically have different roles, there is still scope to assess differential incidence, even with jointly consumed services, including through time use surveys. For instance, in many developing countries, where households lack running water, it is women and girls' task to bring water to the household so they benefit both from the provision of the government service and the time savings. Sahn and Younger (2000) find that for time spent collecting water, there is a significant gender gap in both Madagascar and Uganda.

An interesting attempt to capture this differential incidence is found in Mogues, Petracco, and Randriamamonjy (2011), who examine the distribution of rural services in Ethiopia broken down by gender and income level. They find that agricultural extension services are skewed in favor of men and the public works component of the Food Security Program favors male-headed households, while the direct support component favors female-headed households. For drinking water, they find that female-headed households have more access to safe water and travel further to access safe water. Mogues (2013) finds a similar bias in the benefit of agricultural extension services to men.

These results, though few in number, provide some clear policy implications with relevance to fiscal policies to address gender inequality. They suggest that properly targeted and structured public spending can contribute to reducing gender inequalities in education, health, and water and other infrastructure and government services. These studies highlight the importance of looking not only at incidence disaggregated by sex but also broken down by type of government spending and income. The studies on education and healthcare suggest that focusing on primary education and healthcare for girls, especially in lower-income households, is particularly beneficial, and that the indirect benefits of closing gender gaps among men and women may yield external benefits that go beyond the direct

beneficiaries and into the medium term. However, the recent research on infrastructure is well worth further investigation especially now as the poorest countries in the world, including Africa, attempt to address their critical infrastructure gaps through ramped up spending.

Examples of studies on tax policies

On the revenue side, tax incidence analysis entails a set of considerations similar to those in expenditure analysis. However, rather than programs, we focus on policies—tax and related revenue policies, including fees and tariffs. There are many inherent gender biases—both explicit and implicit—in tax systems (Stotsky, 1997). Taxes are typically either income- or wealth-based (i.e., direct taxes) or sales based (i.e., indirect taxes).

The empirical work on tax policy has in some cases taken account of the combined or in some cases general equilibrium effects of tax and social benefit systems. This is especially the case of research in the advanced economies, where social benefits, like taxes, can have disincentive effects on labor supply. In addition, recent work on the incentive and incidence of taxation look at human capital and other factors in a life cycle framework (Keane, 2011).

Explicit gender discrimination in the personal income tax may take several different forms, including the rules governing the allocation of shared income (such as non-labor income and income from a family business), the allocation of exemptions, deductions, and other tax preferences, as well as the setting of tax rates and legal responsibilities for paying the tax. Implicit gender bias is often seen as the result of increasing marginal tax rates that may discourage secondary workers in a household from working (Feenberg and Rosen, 1995; Blanchard, Jaumotte, and Loungani, 2014).

Indirect taxes may also contain gender biases, though explicit biases are less likely since the tax is impersonalized. However, implicit biases exist in several forms. For instance, under sales taxes, there may be differential application or rates applied to different commodities. If taxes apply less heavily to necessities or products predominantly purchased by women, this creates a certain implicit gender bias. Similarly for taxes on international trade, since these taxes are also impersonal, rarely does one find explicit gender bias but there are also implicit biases built into the definition of the base, the structure of tax rates, and other features of the tax system.

Grown and Valodia (2010) explore these issues in depth in a volume that presents case studies on a mix of eight advanced and developing countries from around the world. The book applies the same methodology to the analysis of the incidence of both direct and indirect taxes broken down by gender. With regard to direct taxes, they focus on personal income tax, which is based on individual filing in these countries and thus lends itself better to a breakdown by gender than systems based on household filing. The studies examine the different ways in which these taxes incorporate explicit and implicit discrimination and how

the statutory incidence of the tax varies by gender. Although explicit discrimination was once commonplace, there are now fewer income taxes with this characteristic as countries reform their tax systems.

Budlender, Casale, and Valodia (2010) assess gender equality and taxation in South Africa, noting that after the transition to democratic rule in 1994, the government addressed explicit discrimination against women in taxes and other areas of the government budget.³⁸ Other tax systems still retain elements of unequal treatment of women, including Morocco's, in which women are considered dependents of men. Chakraborty, Chakraborty, Karmakar, and Kapila (2010) point out that at one time, India's personal income tax had provisions that favored women, though only a tiny fraction of workers in India pay income tax (because the threshold is high relative to typical income), so that this favorable treatment had little effect. Many tax systems have implicit bias. In Argentina, Rodriguez Enriquez, Gherardi, and Rossignolo (2010) find that components of income more typically earned by women face a higher effective rate than those where men predominate. In African tax systems, where most income tax derives from wage income, implicit bias tends to be against men because they earn higher incomes on average and thereby face higher effective tax rates under progressive marginal tax schedules.

With regard to indirect taxes, the studies in Grown and Valodia (2010) focus on the value-added tax and excises. They make use of the division of households into gender types. They test sensitivity to defining household type by majority of adults of one gender in the household and also the household breadwinner, whether individual or shared. The studies find that the incidence by gender varies across the different tax systems. Many indirect tax systems have an implicit bias against men because of the high rates of taxation on goods favored by men, including alcoholic beverages and tobacco products, although to the extent that these are seen as demerit goods, one might question whether this is really a bias or whether these higher rates correct for negative externalities stemming from their consumption. For value-added taxes, the incidence depends greatly on the pattern of rate structure (whether there is one rate or a reduced rate for certain necessities such as essential food and children's goods) and on the pattern of zero-rating and exemptions. Perez Fragoso and Cota Gonzalez (2010) find that the incidence of Mexican indirect taxation falls more heavily on male-headed households.

Two studies examine the gender dimensions of the incidence of tariff liberalization. Using South African expenditure data, Daniels and the Southern Africa Labour and Development Research Unit (2005) evaluates the differential impact of tariff reductions on male and female-headed households in South Africa, during 1995, 2000, and 2004. This study finds

³⁸ See Hartzenburg (1996) and Smith (2002) for earlier work on this topic.

that male-headed households almost always bear a greater share of tariff incidence (mainly because of their greater consumption of some highly taxed goods, such as alcohol).

Siddiqui (2009) models the gender-differentiated general equilibrium impact of Pakistan's trade liberalization. The model simulations show that revenue-neutral trade liberalization increases women's employment in unskilled jobs and increases women's real wage income more than men's for all labor types but maintains the division of labor biased against women. Women in the poorest households face an adverse effect of liberalization by increasing their work and their relative poverty. Women in the richest households, in contrast, face a gender neutral or favored result.³⁹

User fees are another important component of revenue, especially at local levels and in developing countries. In assessing the appropriate use and scope of user fees to recover costs of providing government services or products, it is also useful to consider whether the structure creates any disparate impact on women. The use of fees for cost recovery purposes has been advocated as a means to strengthen revenue systems and generate a more efficient use of public services. However, their use has also been criticized for what are seen as adverse equity effects, by reducing access to certain essential services such as primary education and health care.

Like direct taxes, they can be personalized (different people are charged different amounts). Nanda (2002) examines the use of user fees in terms of its effect on women's utilization of health services, in Africa. She finds that these fees discourage use. Hillman and Jenkner (2004) suggest, however, that it is also essential to assess the purposes for which these fees are used. They argue that school fees may, at times, increase access to schooling for poor children by augmenting the ability of the government to provide schools and improve school quality. School fees may also enhance the ability of parents to control the flow of finances to schools in contrast to more general taxes.

Figari, Immervoll, Levy, and Sutherland (2011) examine the effect of tax and benefit systems in nine countries of the European Union on gender disparities in net income within households. They combine an analysis of the incidence of personal income taxes, contributions to social security, and cash transfers for various purposes on income shares, disaggregated by gender, and focus on within-couple shares of income before and after application of taxes and benefits. The extent of within-couple income equalization varies greatly across the countries, with Finland, the United Kingdom, and Austria achieving the most and Greece and Italy, the least.

³⁹ Fontana and Wood (2000) develop a model for Bangladesh with a gender-differentiated general equilibrium approach to assessing the effect of trade reform.

Browne (2011) analyzes the effect of tax and benefit reforms by gender, focusing on the United Kingdom. The data in this study are disaggregated to the household level, thus the study does not examine the differential impact of tax and benefit changes within the household, unlike Figari et al. Instead, the study examines differential impact by single adult households, whether male or female, and couple and multi-family households. The paper draws some conclusions for reforms under consideration at that time of the British tax and benefit system, concluding that those proposed in 2010 to be phased in through 2014-15 would cause a larger loss for households with a single adult female than single adult male, among other observations.