RESEARCH PAPER

ENGENDERING FISCAL SPACE:

A POLICY FRAMEWORK FOR FINANCING GENDER EQUALITY

Anuradha Seth

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ECONOMIC EMPOWERMENT SECTION
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EXECUTIVE SUMMARY

This policy framework for engendering fiscal space reconceptualizes fiscal space, expanding it from a purely financial analysis mainly related to borrowing and debt sustainability to a much broader set of mechanisms for mobilizing resources to fund gender equality investments. By now, ample research has assessed the positive effect of these investments on society-wide well-being and, in particular, GDP growth. This signifies the potential for gender-equalizing investments to be self-funding in the sense that they generate a stream of revenue over the longer run, due to increased tax revenues from higher levels of GDP.

Given the investment quality of spending on gender equality, policymakers should refrain from viewing such expenditures as merely social spending that is discretionary. Moreover, fiscal space should be measured over the medium to long term (5 to 10 years) in order to capture the investment quality of gender-equalizing spending. Although some measures of fiscal space now used are already intertemporal, thus capturing the multiplier effects of fiscal spending on GDP growth, none capture the quantitative effects of *gender broader* on GDP growth.

Recent estimates for 48 developing countries indicate it will take an additional US$360 billion a year to achieve gender equality and women's empowerment across key global Sustainable Development Goals (SDGs), which is equal to 20.5 per cent of their collective GDP. Least Developed Countries (LDCs) and Small Island Developing States (SIDS) bear the heaviest burdens: advancing gender equality would require 44 per cent and 42 per cent of their GDPs, respectively. This is the size of financing needed in low-income countries. And this is the scale of the challenge confronting policymakers. Developing countries need access to a wider range of financing mechanisms and policy options to accelerate progress on development priorities—including for gender equality. This requires rethinking fiscal space using a gender lens.

This policy framework shows how macro-level economic policies and external finance strategies have the potential for expanding fiscal space and financing investments in gender equality. Macro-level economic policy levers are critical in this respect as governments have relatively more policy space to adopt them compared to policies that govern access to external finance. Yet, without access to external finance, governments remain cut off from a significant avenue for expanding fiscal space.

Even as such policy levers can create and expand fiscal space, their impact on gender equality depends on whether there is a direct financial effect on funds available to invest in gender equality or if the broader effects on women and gender equality are indirect — that is, the result or residual of the effects of the policy intervention. For instance, taxes are not in and of themselves gendered in their direct impact. Rather, they create additional resources for the government to invest in programmes that promote gender equality. This policy framework on engendering fiscal space highlights those policy levers and instruments that directly impact financing for gender equality and those whose impact is indirect. In the latter case, gender-responsive benchmarks and gender markers are important tools that can direct resources for gender equality outcomes.

Chapter 1 presents the key issues and challenges in engendering fiscal space in developing countries. It highlights why fiscal space matters for gender equality and why the conventional approach and definition of fiscal space is inadequate from a feminist economist perspective. The chapter provides an overview of the macro-level economic policies and external finance strategies that have the potential to scale up and direct financing for gender equality outcomes.

Chapter 2 examines macro-level economic policies that can create and expand fiscal space. The focus is on fiscal, monetary and macroprudential policies. The chapter highlights fiscal policy options including through government spending and taxation that countries can adopt to finance development objectives, including for gender equality. In particular, areas not commonly considered for enhancing fiscal space through taxation are identified, including export and import taxes, windfall profit taxes, digital services taxes, property taxes and international financial transaction taxes. Furthermore, monetary policy tools (such as loan guarantees and asset-backed reserve requirements), if adopted by central banks, can influence and target access to credit, thereby expanding fiscal space. The chapter also emphasizes the importance of macroprudential policies (financial policies and regulations to support stable growth). Countercyclical policies, for instance, can attenuate the narrowing of fiscal space that results during recessions. Since women disproportionately experience economic downturns and instability due to their limited financial assets, the types of jobs they hold and their care responsibilities, macroprudential policies and regulations are critical for increasing financial systems' resilience to shocks. This is especially important given that systemic risk has increased substantially with the liberalization of financial flows.

Chapter 3 identifies how external finance can be an instrumental policy channel for creating fiscal space in developing countries. Specifically, the chapter shows how policies that mitigate external debt burdens, as well as those that increase access to concessional finance and Special Drawing Rights (SDRs) can be important channels for creating fiscal space. Yet, it is precisely these policy options that have been out of reach for many developing economies. In part, this is because conventional assessments of fiscal space ignore the fact that new external borrowing can be a vehicle for creating fiscal space. The extent to which this happens depends on how new external finance is used. If new borrowing supports expenditures with an investment quality, then it could have positive, multiplier and spillover effects over the medium to long-term. In other words, the effects on fiscal space can be lagged, have compound and multiplier effects on GDP and thereby reduce the debt to GDP ratio over time. Given the intrinsic link between debt sustainability analysis and fiscal space assessments (used to determine a country's borrowing capacity), external finance is typically cancelled out as a policy option for expanding fiscal space. The urgency and need for alternative measures of both debt sustainability and fiscal space cannot be overstated.

Mitigating the external debt burden of lesser developed economies has taken on even greater urgency in light of the unfolding debt crisis that is set to worsen over the coming years. Comprehensive debt relief and a consistent mechanism for sovereign debt restructuring and debt standstills, pauses and suspension clauses are all important strategies that can expand fiscal space by targeting external finance. Moreover, creating fiscal space through strategies that increase access to concessional finance and SDRs can be an important means for sustained, long-term finance that can be directed to promote growth and for making progress on SDG targets, including those related to gender equality. The chapter also highlights which of the external finance strategies can create fiscal space but are "gender-indifferent" and which are "gender-informed." Gender-informed external finance strategies can inform how SDRs are reallocated using gender benchmarks and markers. These can inform sovereign debt restructuring and debt cancellation strategies as well. Gender impact assessments can inform debt sustainability analysis and debt swaps for gender. Gender bonds can also potentially directly create fiscal space for gender equality over the medium and long term.

How do policymakers assess the viability of pursuing alternative avenues of creating fiscal space? What are the policy trade-offs and challenges in pursuing one method of financing versus another? Chapter 4 highlights how macroeconomic models such as stock-flow macro-models can support policymakers assess the feasibility of pursuing different sources of financing. The advantages of this are an ex ante assessment of the macroeconomic, gendered and distributional outcome for specific country settings. These models can serve as important tools that support policymakers to consider the best options for creating fiscal space and financing gender equality at scale.

1.

ENGENDERING FISCAL SPACE IN DEVELOPING COUNTRIES: ISSUES AND CHALLENGES

1.1. Why does fiscal space matter for gender equality?

Halfway to 2030, progress on SDG 5 on gender equality remains way off track. If current trends continue, over 340 million women and girls—an estimated 8 per cent of the world's female population—will live in extreme poverty by 2030 and close to 1 in 4 will experience moderate or severe food insecurity. Gender gaps in power and leadership positions remain entrenched and, at the current rate of progress, the next generation of women will still spend an average of 2.3 more hours per day on unpaid care and domestic work than men (UN DESA and UN Women 2023).

There is little or no doubt that the COVID-19 pandemic has exacerbated pre-existing gender inequalities and contributed to a reversal of progress towards gender equality. Across every sphere, from health to the economy, security to social protection, the adverse impacts of COVID-19 were disproportionately experienced by women and girls. Women's employment fell by 4.2 per cent globally compared to 3 per cent for men in 2020, as sectors in which women are overrepresented were hit the hardest. It is estimated that maternal deaths increased by between 8 per cent and 39 per cent per month in low- and middle-income countries, due to a COVID-19 reduction of perinatal care. Globally, 13 million more child marriages are projected to take place by 2030 due to school closures and to increased poverty resulting from the pandemic (Oxfam International 2024). While lockdowns slowed down the market economy, unpaid care work went into hyperdrive.

Despite such significant gendered impacts, policy responses to the COVID-19 pandemic in many countries remained gender-blind. Gender equality was not a priority or intentional objective of most national fiscal stimulus packages that were introduced by over 197 countries to mitigate the fallout from the crisis. National assessments from a wide range of developing countries show that the measures to address the pandemic failed to tackle gender equality in any meaningful way.[1] According to a global gender response tracker, of the 163 governments that adopted 4,115 fiscal, social protection and labour market measures in response to COVID-19, only 18 per cent targeted women's economic security or unpaid care work (UNDP and UN Women 2022).

A 2020 report of UN Trade and Development (UNCTAD) for 20 countries and the European Union assessed how countries responded to two separate but comparable crises: the 2008/09 financial crisis and the COVID-19 pandemic. The objective was to assess if governments' stimulus packages increased support for structural economic reforms to promote various key development objectives. It found that stimulus packages in 2020 were much larger but not as directed towards key issues which affect basic human needs and underpin a society's ability to achieve sustainable development (including affordable and clean energy, improved food security and sustainable agriculture, and, importantly, gender equality and women's empowerment). Compared to 2008, developed countries spent 270 times more while developing countries spent 18 times more to recover from COVID-19, a much deeper crisis (UNCTAD 2020). Such a huge discrepancy between the financing capacities of developed and developing countries points to how

much developing countries were constrained by fiscal space. Key constraints included potential debt default, falling remittances and revenues from international trade in goods and services—especially tourism and foreign direct investment contraction.[2]

Three years after the COVID pandemic, the fiscal picture has not improved much, especially for many middle-income and low-income countries. According to the World Bank, surging interest rates are saddling the world's poorest countries with record levels of debt, complicating investments in public health, education and infrastructure initiatives. In 2022, low- and middle-income countries paid US$443.5 billion towards principal and interest—the highest level in history and a 5 per cent increase from 2021. It is projected that the total will rise by nearly 40 per cent in 2023 and 2024 (World Bank 2023c). In summary, more than half of the world's low-income countries are facing debt distress which has set many countries on a path to crisis. This predicament has also made it more difficult for developing countries to attract new investment and financing. New loan commitments to developing countries declined by 23 per cent last year to US$371 billion. It was the first time since 2015 that private creditors received more money than they invested in developing countries.

Finding money to fight crises and restore economies onto more resilient and sustainable growth pathways remains a big challenge and none of what needs to be delivered—in terms of the progressive meeting of SDG 5 targets—can happen without large sums of money. According to recent estimates, it will take an additional US$360 billion a year to achieve gender equality and women's empowerment across key global SDG goals, including poverty reduction (UNCTAD 2023). The reality is that without more long-term and sustained finance flowing to developing countries, a gender-equitable development process will remain out of reach. Take, for instance, just the public investment requirements of providing comprehensive and quality childcare: this ranges from 3 per cent to 6 per cent of GDP in many low- and middle-income countries.[3]

Efforts to make financing options available to countries so that they can invest in gender-equitable development is a high priority in the global development policy agenda. But creating and expanding fiscal space means that the conventional approach and measures of fiscal space need to be revised. Financing gender equality at scale will require policymakers to make choices, examine policy trade-offs and take risks. But it can be done. Political commitment and will is the first step as exemplified by 31 countries in Latin America and the Caribbean in the Buenos Aires Commitment. Countries in the region will design, implement and evaluate macroeconomic policies with a commitment to gender equality perspective; and aim to safeguard the progress made and mobilize the maximum available resources in order to increase sustainable public investment over time in care policies and infrastructure. The Commitment also aims to implement specific financing mechanisms to ensure sufficient, non-transferable, sustainable resources that cover all areas of public policy.[4]

1.2. Defining fiscal space

One definition of 'fiscal space' is "room in a government´s budget that allows it to provide resources for a desired purpose without jeopardizing the sustainability of its financial position or the stability of the economy" (Heller 2005: 3). In other words, fiscal space must exist or be created if extra resources are to be made available for worthwhile government spending. A government can create fiscal space by raising taxes, securing outside grants, cutting lower priority expenditures, borrowing resources (from citizens or foreign lenders) or borrowing from the banking system (and thereby expanding the money supply). But it must do this without compromising macroeconomic stability and fiscal sustainability: it must make sure that it has the capacity in the short term and the longer term to finance its desired expenditure programmes as well as to service its debt.

Aligned with this definition are various measures of fiscal space. Typically, these focus on the net public debt to GDP ratio, with an emphasis on determining a country's debt limit (Cheng and Pitterle 2018) or on the difference between the current level of public debt and a country-specific debt limit (Ostry et al. 2010). The premise is that unless debt service capacity is maintained, a government cannot indefinitely finance its operations in a sound manner. Debt service capacity has multiple dimensions,

including financing needs that are related to budget positions, access to liquid markets, resilience to valuation changes and contingent liabilities. While loss of market access and vulnerability to valuation changes can acutely constrain debt service capacity in the short run, persistent deficits and growing contingent liabilities can erode it in the medium to long term.

The focus on debt sustainability is also embedded in the World Bank's definition of fiscal space. Its database on fiscal space, which covers up to 202 countries over the period 1990–2020, includes 30 indicators of fiscal space grouped into four categories: debt sustainability, balance sheet vulnerability, external and private sector debt-related risks as potential causes of contingent liabilities, and market access.

The conventional understanding of fiscal space clearly remains debt-focused and conceptualized in residual terms with a focus on borrowing capacity. Given the high debt levels that characterize many developing economies, policies to create fiscal space have consequently focused on a very limited set of policy instruments. These mainly relate to mobilizing more domestic revenues through a narrow range of tax policies, improving the efficiency of expenditures or through expenditure reallocation. However, these measures remain grossly inadequate given the scale of financing needed, including for gender equality.

According to UNCTAD, achieving gender equality, as represented by eight sex-disaggregated SDG indicators, is projected to cost US$6.4 trillion annually from 2023 to 2030 for 48 developing countries, equal to 20.5 per cent of their collective GDP. LDCs and SIDS bear the heaviest burdens: advancing gender equality would require , respectively, 44 per cent and 42 per cent of their GDPs. Given current government spending trajectories, this leaves a yearly gap of US$360 billion for the 48 countries included in the study. Bridging this gap would require a 6 per cent increase in yearly spending (UNCTAD 2023). And this cannot be done without expanding policy options to create and expand fiscal space in developing countries. It also requires rethinking fiscal space using a gender lens.

Feminist economists have argued that the conventional approach and definition of fiscal space does not account for the investment character of specific types of public expenditures that can raise productivity and GDP. As the room for increasing fiscal space is typically based on debt/GDP ratios, the assumption is that public expenditures have no impact on GDP. Current approaches to establishing debt ceilings define fiscal sustainability for the short term, usually one year. Thus, conventional measures of fiscal space ignore the interaction between fiscal policy (government spending) and the growth of GDP over the longer term. And, in doing so, fiscal space measures underestimate the long-term payback of the fiscal sustainability of public investment. In short, the guidelines for assessing fiscal space and sustainability ignore *what purpose the fiscal space is used for.*

This is a significant omission. Why? Because public sector spending can have multiplier effects, stimulating growth and reducing the debt to GDP ratio, thereby expanding fiscal space. Methods that are not intertemporal are hence inadequate for assessing fiscal space for gender equality investments, which a growing body of research shows have positive effects on GDP growth (Seguino 2019). The macro-level effects of greater gender equality result from the productivity-enhancing effects of greater equality in education, health and employment and improvements in children's well-being. In essence then, gender equality investments can contribute to the creation of fiscal space, even if narrowly defined as the borrowing potential of governments.

Given the convention of basing fiscal space assessments on debt sustainability criteria, external finance is typically discounted as an option for creating and expanding fiscal space. As Grabel (2025) points out, national fiscal space assessments, which are currently conducted by international financial institutions (IFIs) and inform creditor agency ratings, matter deeply for countries because such assessments have profound effects on access to new sovereign borrowing and the possibility of debt restructuring by bilateral, multilateral and private sources. With a debt crisis unfolding and austerity programmes introduced as a consequence and with women and girls paying the disproportionate price of yet another crisis, overcoming external finance constraints will be key for creating fiscal space and an urgent task.

An alternative approach to fiscal space would assess how external borrowing could be a vehicle for creating or expanding fiscal space. If new borrowing could support investments that promote gender equality, then it could have positive, multiplier effects, over the medium and long term.[5] This policy framework for engendering fiscal space reconceptualizes fiscal space, expanding it from a purely financial analysis related mainly to borrowing and debt sustainability to a much broader set of mechanisms for mobilizing resources to fund gender equality investments. By now, ample research has assessed the positive effect of these investments on society-wide well-being and, in particular, GDP growth, showing the potential for gender-equalizing investments to be self-funding in the sense that they generate a stream of revenue over the longer run, due to increased tax revenues from higher levels of GDP.

Given the investment quality of spending on gender equality, policymakers should refrain from viewing such expenditures as merely social spending that is discretionary. Moreover, fiscal space should be measured over the medium to long term (5 to 10 years) in order to capture the investment quality of gender-equalizing spending. Although some fiscal space measures in current use are already intertemporal, thus capturing the multiplier effects of fiscal spending on GDP growth, none capture the quantitative effects of *gender investments* on GDP growth.

Such an alternative approach to fiscal space builds on the concept of fiscal space as defined by Roy and Heuty (2009: 6) who defined fiscal space as the "financing available to government as a result of concrete policy actions for enhancing domestic resource mobilization and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective." For them, the conventional definition of fiscal space is simply a restatement of the intertemporal budget constraint, in which the interaction between fiscal policy and growth is not addressed. Such definitions, therefore, end up conceptualizing fiscal space in residual terms ("room" or "gap"). Unless the links between fiscal policy and development are considered explicitly, an analysis of fiscal sustainability will only be able to capture the fiduciary (as opposed to the developmental) implications of increasing fiscal space to achieve a specific set of long-term development objectives. By prioritizing short-term fiscal sustainability (measured through the annual fiscal balance) and solvency (measured through the ratio of debt to GDP), to a great extent this understanding of fiscal space tends to underestimate the real long-term impact of spending on these development objectives.

An alternative approach to fiscal space would thus account for public expenditures' investment character, estimating the development payback of investments in terms of increased GDP and tax revenues from higher income. The short-term payback would come from the "crowding in" effect on private investment; the longer-term paybacks of investments that also raise productivity may take 5 to 10 years or more.

When conceptualized as such, fiscal space can be created by leveraging a much broader policy landscape. For instance, policies that reduce external debt pressures and increase access to external finance by scaling up concessional finance and creating and reallocating Special Drawing Rights can create and expand fiscal space. Similarly, macro-level fiscal, monetary and macro-prudential policies can create fiscal space for financing gender-equalizing investments. The policy framework for engendering fiscal space presented in this paper follows the broader definition proposed by Roy and Heuty, conceptualized as actions to enhance resource mobilization for specific development objectives, in this instance, gender equality and women's empowerment.

1.3. Policy options

Policy options to create fiscal space cannot be the same for all countries. Much will depend on a country's production structure, degree of economic and financial development, financing needs and capacity to negotiate with external partners. Mostly, the policy channels to create and expand fiscal space rest fundamentally on two pillars: more accommodating macroeconomic and macroprudential policies, and access to external finance. This section describes policy options for creating and expanding fiscal space in developing countries.

Macro-level economic policies which can create and expand fiscal space take three broad forms: fiscal policy (government spending and tax policy), monetary policy (the use of tools to influence and to target access to credit) and macroprudential policies (financial policies and regulations to support stable growth). As noted earlier, much of the policy discussion on fiscal space has typically focused on a narrow range of tax and government spending policies. This policy framework for engendering fiscal space identifies areas not commonly considered, including a broader range of taxation policies including tariffs, international financial transaction taxes (IFTTs) and digital services taxes (DSTs), among others. Moreover, central bank policy tools can adopt instruments such as asset reserve requirements and loan guarantees to create fiscal space by directly targeting investments that benefit women.

Policies that mitigate external debt burdens, as well as those that increase access to concessional finance and Special Drawing Rights can create fiscal space. However, so far, these have been inadequately addressed in conventional assessments of fiscal space. Mitigating external debt requires adopting a new approach to debt sustainability analysis—one that accounts for the longer-term effects on GDP growth from expenditures with investment characteristics.

These policy measures have taken on an even greater imperative in the present context. Given the debt distress confronting many low-income countries, the need for a comprehensive and consistent mechanism for sovereign debt restructuring is long overdue as are policy mechanisms such as debt standstills, pauses and suspension clauses that can give fiscal room to many countries.

Policies that provide countries access to concessional finance are an important channel for expanding fiscal space. They can provide sustained, long-term finance and should be directed to promote growth and for making progress on SDG targets, including those related to gender equality. Another policy instrument with potential is the reallocation of Special Drawing Rights.

1.3.1. Macro-level economic policies

Macro-level policies which are relevant for creating and expanding fiscal space take three broad forms: fiscal policy (government spending and taxation), monetary policy (the use of tools to influence and target access to credit) and macroprudential policies (financial policies and regulations to support stable growth).[6]

Photo: World Bank / Stephan Gladieu

Fiscal policy: Fiscal policy has two components: government spending and revenue generation (taxation).

- **Government spending:** Expenditure switching and public investments if well targeted (for gender-equalizing investments) can stimulate productivity and GDP growth and create fiscal space. Public investments in social and physical infrastructure, for instance, can be an important tool for expanding employment opportunities and promoting women's livelihoods. Moreover, targeted public investment can leverage private investment by lowering production costs, further stimulating aggregate demand growth. Because public investment can raise economy-wide productivity, it has two beneficial features: first, it creates fiscal space in the long run by stimulating income growth and expanding the taxable income base, and second, well-targeted investment can be anti-inflationary if it addresses supply bottlenecks that drive up prices, reducing pressure on central banks to raise interest rates.
- **Tax policies:** The potential for increases in taxation to create fiscal space has been widely discussed as a key policy lever. Still, the policy focus has been on a narrow range of direct and indirect taxes. Less discussed are other options for types of taxation that reduce inequality and at the same time generate resources for significant public investments in gender equality. These include export and import tariffs, windfall profit taxes, international financial transaction taxes and digital services taxes, among others.

Monetary policy and central bank tools: Central banks can expand fiscal space using innovative tools such as:

- **Asset-based reserve requirements:** These require private banks to direct investment key areas of the economy, such as agriculture and livelihoods which can benefit women.
- **Loan guarantees:** These target credit to priority areas, such as women entrepreneurs, farmers and small and medium-sized businesses that disproportionately employ women.

Macro-prudential policies: Macro-prudential policies are increasingly necessary to prevent systemic risk in financial systems that can spill over to the real economy, leading to economic instability and a squeeze on fiscal space. Countercyclical spending can, in fact, attenuate the narrowing of fiscal space that occurs during recessions. This matters for gender equality as women tend to disproportionately bear the brunt of crises. Policies that the central bank can adopt include identifying asset bubbles to help protect against price volatility; capital management techniques, including regulating capital flows (through, for example, speed bumps to stem the flow of hot money); financial transaction taxes (FTTs); and taxes on currency transactions (CTTs).

Various macro-level economic policies can expand and create fiscal space (Table 1). The policies can be gendered, in the sense that there is a direct financial effect on funds available to invest in gender equality. The policies can be indirect if the effects on women and gender equality are more generally the result or residual of the effects of the policy intervention. For example, a variety of new taxes discussed are not in and of themselves gendered in their direct impact. Rather, they simply create additional resources for the government to invest in projects that promote gender equality.

TABLE 1

Macro-level policies for creating fiscal space

Category	Policy	Fiscal space effect	Direct or indirect gender effect
FISCAL **Government spending**	Expenditure switching	Switching away from some expenditures frees up revenue for gender-equitable investments.	Indirect. Size of effect depends on areas in which expenditures are reduced.
	Physical infrastructure	Creates fiscal space by stimulating GDP growth, short and long term.	Direct if investments are in areas that reduce women's care burden. Indirect otherwise.
	Social infrastructure	Investments in care economy reduce women's burden, stimulates productivity growth, short and long term.	Direct. Reduces women's unpaid work and generates employment opportunities for women's paid work.
	Countercyclical	Attenuates economic downturns, avoids hysteresis. Short-run debt rises, longer-run buys productivity growth.	Indirect. Alleviates care burden on women during economic downturns and their disproportionate job and income losses.
FISCAL **Taxation**	Export and import taxes	Improves balance of payments, takes pressure off exchange rate devaluation, generates revenue and fiscal space.	Direct or indirect. The effect depends on degree of monopoly in sectors. Export taxes raised. Import taxes not likely to harm women if on luxury goods.
	Windfall taxes	Addresses market power, redistributes income, generates revenue that creates fiscal space.	Indirect.
	IFTT taxes	Slows cross-border transactions, promotes economic stability with positive effects on government budget and fiscal space.	Indirect. Women benefit from fewer economic crises that tend to harm them more than men.
	Digital taxes	Generates tax revenue to create fiscal space.	Indirect.
	Property taxes	Reduces inequality, benefits low-income households with lower housing costs, generates tax revenue for fiscal space.	Indirect. More likely to affect high-income households and thus men. Benefits low-income women in housing costs.

Monetary	Loan guarantees	Stimulates GDP growth, tax revenues, addresses development goals.	Direct if loan guarantees targeted to projects, investments that benefit women, such as small and medium-sized enterprises (SMEs) and small farmers
	Asset-based reserve requirements (ABRRs)	Stimulates GDP growth, tax revenues, addresses development goals.	Direct if strategic areas for lending are projects, and investments that benefit women.
	Public Development Bank		Direct if lending targets women and the sectors they are typically employed in.
	Social impact and gender bonds		Direct.
Macro-prudential	Capital controls	Reduces economic volatility, reduces reserve holdings, gendering revenues to finance public investment.	Indirect. Women benefit from fewer economic crises that tend to harm them more than men. Women benefit from increased funds for investment, if targeted to gender-equalizing projects.

Source: Seguino (2025).

1.3.2. External finance policies

External finance is a critical channel for expanding fiscal space.[7] Yet, and as was noted earlier, in the prevailing definition of fiscal space, this avenue of financing appears precluded for most developing countries given concerns about debt and fiscal sustainability. The premise is that unless debt service capacity is maintained, a government cannot indefinitely finance its operations in a sound manner.

A debt crisis of epic proportions is indeed emerging in many low-income countries. More than half of all low-income countries are facing debt distress. The World Bank notes that the combined effects of increased interest rates and a strengthening US dollar have increased the cost of servicing debts. More than one third of all debts held by low-income countries are at variable interest rates (tied to interest rates in the Global North), and more than 80 per cent of public and publicly guaranteed debt in low- and middle-income countries is dollar denominated. Since 2020, there have been 18 sovereign debt defaults by 10 countries. This is greater than the number of defaults in the previous two decades (World Bank 2023c).

Moreover, in 2022, debt servicing payments by the World Bank's International Development Association (IDA) countries[8] reached record levels at US$88.9 billion, while interest payments alone were at a record level of US$23.6 billion in the same year. A total of 28 IDA-eligible countries are now at high risk of debt distress and 11 are in distress. Debt servicing costs on public and publicly guaranteed debt are projected to grow by 10 per cent for all countries in the Global South over the 2023–24 period—and by almost 40 per cent for the 24 poorest IDA-eligible countries (World Bank 2023c).

The unfolding debt crisis dims the prospects of securing the financial resources necessary for needed investments in development priorities, including for gender equality goals. In short, unless the external finance constraints

of developing countries are addressed, it is difficult to imagine how fiscal space can be expanded in many low-income countries. Therefore, it is important to explore a comprehensive set of policies to mitigate debt and liquidity pressures. Relieving these pressures will create and expand fiscal space to support investments in gender equality. First on the agenda should be a sovereign debt restructuring mechanism (SDRM) and comprehensive debt relief involving public and private sector obligations and debt cancellations for the poorest countries. Without this, countries will likely be assigned to austerity—not fiscal space. In addition, policies that enable increased access to concessional loans and grants as well as mechanisms such as the regular creation and allocation of Special Drawing Rights can contribute to the expansion of fiscal space.

Just as for macro-level economic policies, increased access to external finance will not automatically guarantee that these resources will be directed for investments in gender equality. Tools such as gender impact assessments related to debt sustainability analysis, gender markers for sovereign debt restructuring and debt cancellation, and Special Drawing Rights allocations for gender equality will be important to ensure the engendering of fiscal space. Instruments such as debt swaps and gender bonds have been introduced as innovative financing mechanisms to directly finance gender equality objectives. The challenges and potential of such instruments will be presented in more detail in Chapter 3.

External finance policies can be used to create and expand fiscal space (Table 2). As with macro-level economic policies, external finance policies can be gendered, as there is a direct financial effect on funds available to invest in gender equality, and the gender effect can be direct or indirect, in the latter case if the effects on women and gender equality are more generally the result or residual of the effects of the policy intervention.

TABLE 2

External finance policies for creating fiscal space

Category	Policy	Direct or indirect gender effect
External debt mitigation	Alternative approaches to debt sustainability analysis	Indirect
	Sovereign Debt Relief Mechanisms	Indirect
	Debt cancellation, creditor haircuts	Indirect
	Debt standstills and debt pauses	Indirect
	Debt swaps	Both
Access to external finance	Increased access to concessional finance	Indirect
	SDR issuance and reallocation	Both
	Gender bonds	Direct

1.4. Issues and challenges

Applying a gender lens to assessing fiscal space at the national level will require policymakers to address four key issues:

1.4.1. Identify fiscal space for what purpose

At the outset, it is important to identify the specific gender targets and outcomes for which financing is being sought. This is important to determine the scope of financing needed and for assessing the sustainability of gender-equalizing investments over the medium to long term. Many countries have national development plans and sector strategies that lay out gender priorities and targets. Several countries have also adopted gender-aware methodologies to estimate financing needs for expanding care services and their development paybacks in terms of fiscal sustainability, employment creation (by sex) and impacts on economic growth. Other studies show how a massive rollout of rural electrification can increase women's employment significantly (Small and Rodgers 2023) and in some cases can contribute to increases in women's education (Samad and Zhang 2019), with attendant effects on GDP growth (Klasen and Lamanna 2009).

These are important tools to initiate and facilitate policy dialogues at the national level for engendering fiscal space. They establish the rationale for why fiscal space is being created. Still, the adoption of gender-aware methodologies in financing and investment policy-making is scattered and sporadic across countries. More effort will be needed to integrate gendered and costed investment priorities in national financing frameworks and fiscal space assessments.

1.4.2. Map potential sources of fiscal space and assess ex ante the macroeconomic, distributional and gendered impacts of alternative financing methods

As the size of investment needed in many developing countries far outstrips the fiscal space available, it is necessary to go beyond the idea of what fiscal space is available to how it can be created. Potential sources for creating and expanding fiscal space will necessarily depend on the country context. Clearly, not all potential policy options for increasing financing may be available for all countries. This is especially true for policies dealing with debt mitigation and increasing access to external finance. Even so, some countries have negotiated debt relief packages and mobilized debt swaps while others have raised money from capital markets by floating gender bonds to create fiscal space. These serve as examples for other countries to learn from.

Other policy options—in the macroeconomic domain—from credit allocation polices of central banks to different and innovative sources for taxes can also be explored as potential sources for creating and expanding space. For example, 38 countries have proposed or enacted some form of a digital service tax (DST), ranging from 1 per cent to 30 per cent of a company's revenue. Most low-income countries, however, have not yet imposed DSTs.

In summary, given the financing requirements for gender equality over the short to medium term, countries will need to map all potential policy levers that it can adopt to create and expand fiscal space. Mapping alternative ways of expanding fiscal space can be supported using policy tools such as stock-flow consistent simulation models to assess the macroeconomic, distributional and gendered impacts of different financing strategies. For instance, the macroeconomic and distribution impacts may be different if gender-equalizing investments are financed through external borrowing versus through tax revenues.

1.4.3. Assign fiscal space for gender-equalizing investments

Policies that create and expand fiscal space can be used to finance investments for gender equality directly and indirectly. Some financing mechanisms such as gender bonds are specifically oriented towards financing gender goals, whereas others, such as changes in tax policy are indirect in their impacts on gender equality. In the latter case, it is important to identify how the fiscal space created will be directed towards gender-equalizing investments. Tools such as gender markers, gender benchmarks and gender-informed impact assessments

can be useful for this purpose. Gender markers and gender benchmarks (i.e. gender-based performance targets) can incentivize both efforts and outcomes. For example, gender-based performance targets can incentivize actions ex ante and ex post. Ex ante tools can establish targets that direct a certain amount or percentage of fiscal space created for investments in gender equality. As an ex post tool, they can be designed to reward firms, sectors and national and subnational actors for using fiscal space in ways which could result in measurable progress on particular gender equality goals by a specified period.

1.4.4. Restructure budgetary frameworks to reflect intertemporal constraints

At the outset, it was noted that national fiscal space assessments are typically predicated on a short-term assessment of debt and fiscal sustainability. This limits the policy options available to create fiscal space. However, a longer-term perspective that takes account of the macroeconomic and fiscal sustainability of investments opens up the possibility for countries of adopting a wider range of policy options to create and expand fiscal space. UNCTAD's Sustainable Development Finance Assessment, for instance, is an alternative to current debt sustainability analysis to assess how all sources of foreign currency revenues (exports and remittances) and all types of external financing (external debt and foreign direct and portfolio investment) can serve as vehicles for development finance over the medium to long term (UNCTAD 2023).

Some of the recent measures of fiscal space are already intertemporal, thus capturing the multiplier effects of fiscal spending on GDP growth, but they do not include gender-related investments. As noted by Seguino (2025), a basic approach to restructuring budgets could be a longer-term (10 years or more) public sector budget constraint, capturing the effect of spending on growth, with tax revenues thus a function of the level of GDP. The well-being budgets in Ecuador, New Zealand and Scotland (United Kingdom) are examples of governments which prioritize gender along with environmental concerns, racial/caste equality and economic stability goals and can serve as models for other countries.

2.
THE ROLE OF MACRO-LEVEL ECONOMIC POLICIES

Macro-level policies relevant to creating and expanding fiscal space take three broad forms: fiscal policy (government spending and taxation), monetary policy (the use of tools to influence and to target access to credit) and macroprudential policies (financial policies and regulations to support stable growth). Specific policies and regulations in each of these domains can be used to create fiscal space, depending on the country's economic structure, institutional environment and stage of development.

2.1. Fiscal policy channels

2.1.1. Government spending

Expenditure switching

Numerous authors have emphasized that fiscal space can be expanded (or at least be budget-neutral) through expenditure switching. For example, subsidies to large landowners and mineral extracting firms may be reduced with those subsidies redirected towards investments that promote gender equality. A key issue in making expenditure switching decisions is the impact on economic growth. Removing subsidies to agribusiness firms and mineral extractors, for example, may have little if any negative impact on their investments in a country and thus growth. That is because the resources these types of industries rely on are not mobile across borders. They are chiefly tied to the domestic economy. Moreover, if these firms are import-intensive, subsidies "leak" out of the domestic economy, reducing the positive effect of their investments on growth and thus fiscal space. In contrast, the decision to shift government spending to investments in physical and social infrastructure could stimulate productivity and GDP growth, reduce the debt burden and create fiscal space. A plethora of studies have offered empirical evidence that public investment has an important role to play in creating the conditions for gender equality.

Public investment

Recent studies have demonstrated that public investment has an important role to play in creating the conditions for gender equality (Agénor and Agénor 2023; Small and van der Meulen Rodgers 2023). Public investment can be an important tool to expand employment opportunities and promote women's livelihoods while also reducing gender competition over scarce jobs (Antonopoulos et al. 2011; De Henau and Himmelweit 2016; İlkkaracan et al. 2021; Bargawi and Cozzi 2017). Public investment stimulates employment as businesses hire more workers to meet increased aggregate demand. Moreover, targeted public investment can leverage or "crowd in" private investment by lowering production costs, further stimulating aggregate demand and employment growth. Because public investment can raise economy-wide productivity (Bayraktar and Moreno-Dodson 2010), it has two beneficial features. It creates fiscal space in the long run by stimulating income growth, expanding the taxable income base (Seguino 2012). Secondly, well-targeted investment can be anti-inflationary if it addresses supply bottlenecks that drive up prices, reducing pressure on central banks to raise interest rates.

Apart from these general effects of public investment, countries have the potential to redress inequalities and discrimination in the household, in asset ownership and in labour markets through targeted budget allocations. Feminist research usually divides public investment into two subcategories: *physical infrastructure investment and social infrastructure investment.*

Physical infrastructure investment. Research identifies a strong link between the three factors of physical infrastructure expenditures, women's unpaid care burden and the growth of potential output (Agénor et al. 2010; Agénor and Agénor 2023; Small and Rodgers 2023). Targeted investments can reduce women's unpaid labour burden, freeing up their time to spend in remunerative labour activities, with benefits for gender equality and intrahousehold bargaining power (Chiappori and Meghir 2014). Children's well-being and economy-wide long-run productivity growth also benefit.

Social infrastructure investment. "Social infrastructure" was originally used to refer to physical infrastructure projects for social use, such as school buildings and medical clinics.[9] Feminist economists have redefined that term since to account for the positive externalities generated by spending on childcare, education and healthcare that promote human capacity development (Campbell et al. 2013; Elson 1993 and 2016; Himmelweit 2016). In this usage, social infrastructure refers to the fundamental social, intellectual and emotional skills and health of individuals—or level of human development—a country relies on for its economy to function.[10] Unlike physical infrastructure—such as bridges, roads and telecommunications systems—which tend to be publicly owned, social infrastructure is embodied in people and is enhanced via social spending by governments. Investments in people's capabilities are theorized to have a public goods quality with positive spillover effects on economy-wide productivity. Such investments are therefore more properly classified as social infrastructure spending rather than government current consumption or even simply human development expenditures.

Feminist economists have emphasized the potential for such investments to be self-financing. This is because investments of this kind have the capacity to raise incomes and thus generate a stream of revenue in the future, thereby creating fiscal space in the long run (Elson and Warneke 2011; Seguino 2012). More specifically, by expanding the productive base of the economy, such investments generate a flow of revenue into the future, made easier if increases in human productivity can be converted to higher incomes.[11]

An expanding body of work quantifies the impact of such expenditures on GDP. These and similar studies can be used in assessments of intertemporal fiscal space. That is, they can be used to estimate fiscal space over, say, a 10-year period, accounting for the endogenous effect of public investment on growth and thus the public sector budget.

Social infrastructure spending can promote gender equality in employment in another important way. Because of the gender division of labour with women more likely to be employed in social service activities or the paid care sector of the economy, public spending in this area can narrow gender employment gaps. Several studies quantify the differential effect of public sector spending on social compared to physical infrastructure. İlkkaracan et al. (2015) made an investigation of the potential employment effects of a TRY (Turkish lira) 20 billion expenditure on childcare centres and preschools versus on the construction sector to build public infrastructure and housing. They found that while employment in the construction sector would increase by 290,000 persons (of which 6 per cent would be women), the same amount invested in childcare and preschool would generate 719,000 new jobs, where 73 per cent would go to women.

Similarly, Antonopoulos et al. (2011) presented simulation results to show that investment in social service delivery sectors in the United States— home-based healthcare and early childhood development—creates twice as many jobs as the same level of expenditures on physical infrastructure (which creates jobs in construction and energy). The authors found that those jobs are more effective at reaching disadvantaged workers and people from poor households with lower educational attainment. In summary, in terms of efficiency per dollar spent, social infrastructure spending is likely to have a larger job multiplier and greater effect on gender employment gaps.[12]

Countercyclical policies

Countercyclical policies refer to government stimulus in response to economic downturns. It may seem counterintuitive to link fiscal space to countercyclical

spending by governments. However, the failure to engage in countercyclical spending can have even more negative effects on fiscal space than doing nothing —and countercyclical spending can in fact attenuate the narrowing of fiscal space that results during recessions. To see this, consider the effects of an economic downturn. Decreases in private sector spending have a multiplier effect, contributing to even larger declines in aggregate spending. To avoid not only higher unemployment and greater demands on social protection programmes that arise during economic downturns, government spending serves as a demand injection. Just as there is a negative multiplier effect from decreases in private sector spending, on the public sector side, spending increases have a positive effect on aggregate demand, employment and output and, as a result, tax revenues.

The size of the multiplier is smaller in open economies (small island economies, for example) than in more closed economies—that is, economies that have smaller shares of imports and exports in GDP. This is because a portion of increases in government spending leak out of the domestic economy for imports, which rise as income rises. Multipliers also differ, depending on what government spends on. Social and physical infrastructure spending, because they are forms of investment that crowd in private investment and stimulate productivity growth, have a larger multiplier effect than other types of spending (e.g. such as on the military or subsidies to agribusinesses and large corporations). This spending differentially supports women, who are often hardest hit by crises.

Countercyclical spending can also attenuate hysteresis —the negative effect of sustained economic downturns on labour productivity. That negative effect results from the effect of long-term unemployment on worker skills and thus productivity, or simply the physical effects of deprivation on health and therefore productivity. Because of women's predominant responsibility for social reproduction, these effects are transmitted to children—and the impact can be long-lasting. Thus, while countercyclical policy tends to be thought of as a temporary response to an economic downturn, the way countries respond can have long-run effects on economic growth.

The funding source for countercyclical spending varies widely by countries' stage of development. In developing countries, deficit spending and thus borrowing may be limited by already high debt to GDP ratios. Absent a change in the way international finance institutions and credit rating agencies evaluate fiscal space, these countries will face borrowing challenges because of the short-term approach to evaluating fiscal space which often ignores the growth-inducing effects of targeted government spending. To address this, developing countries will need to begin to change the evaluation methods of fiscal space by emphasizing the long-term investment quality of government spending, requiring alternative methods for calculating fiscal space.

2.1.2. Tax policies

The potential for increases in taxation to create fiscal space has been widely discussed. In many countries, the progressivity of taxation has declined, leading to budget cuts and/or higher tax rates on lower income groups. Average global corporate income tax rates (direct and indirect) have fallen from 38 per cent in 1993 to 24.3 per cent in 2017 (KPMG 2010; KPMG 2017).[13] As Rodrik (1997) notes, this has meant that the immobile factor of production—labour—increasingly bears the tax burden. This, coupled with the declining wage share of national income has led to downward pressure on public spending, creating a fiscal squeeze. The following sections examine areas not commonly considered by taxation policy including:

Export and import tariffs

Export and import tariffs have largely been abandoned or sharply reduced as sources of tax revenue since the 1980s, due to the pressure rich countries have placed on developing countries to liberalize trade. But taxes on exports and imports can improve public sector budgets. Import taxes can, for example, be targeted to luxury goods. In effect, such taxes can facilitate a redistribution from the wealthy to low-income groups if those taxes are directed to physical and social infrastructure spending. In the past, low-income countries with limited capacity to administer complex tax systems relied heavily on export Free On Board (FOB) taxes on primary

commodities like coffee, cacao, cotton and jute. Good targets for export taxes are goods that are price inelastic and goods from firms that are immobile.

One concern with export taxes is that exporting firms may pass the tax on to small producers. Hence, the structure of commodities markets in individual countries will have to be evaluated to understand the potential impact of imposing or increasing export taxes. Export taxes on extractive industries, however, are not likely to contribute to this problem. While higher taxes on exports of minerals and oil may lead to downward pressure on worker wages, governments can offset this with strong minimum wage laws.

Windfall profit taxes

The COVID-19 pandemic led to windfall profits in several industries. Several countries, including Croatia, Italy, Portugal, Romania and the United Kingdom, enacted various kinds of windfall taxes. Windfall profit taxes can reduce the incentive of firms to raise their prices in response to shortages, thus also slowing inflation. Of course, multinational corporations could avoid such taxes by shifting their profits to the lowest tax country they have subsidiaries in. To avoid this, François et al. (2022) proposed a levy on windfall profits based on the increase of stock market capitalization of publicly traded firms rather than profits. The rise in market capitalization would be apportioned proportionate to the fraction of global sales made in a particular country. Alternatively, low-income countries may impose the tax on production rather than profits, again to avoid profit shifting by multinational companies to countries with lower tax rates.

International financial transaction taxes

International financial transaction taxes (IFTTs) are taxes imposed on the purchase and sale of financial securities and currency exchanges. Taxes on financial transactions are not new. For example, the United States imposed a stock transactions tax from 1914 to 1965. Several countries have already implemented financial transactions taxes. France adopted an IFTT in 2012. Kumar and Gallagher (2022), making new calculations of the potential revenue to be generated from a combined tax on financial and currency transactions, noted that global foreign exchange transactions exceeded US$7.5 trillion per day in 2022. They showed that even a marginal tax of five basis points (0.05 per cent) would yield US$900 billion annually in revenue. Even if this led to a 30 per cent decline in transactions, more than US$600 billion annually could be raised. However, poor countries have limited leverage to advocate for an IFTT. This means that collective action on the part of developing countries to advocate for IFTTs and develop proposals for tax sharing is required.

There are numerous benefits of IFTTs in addition to their revenue-generating potential. The speculative character of financial transactions creates several macro-level problems that narrow fiscal space. First, such transactions tend to be focused on short-term gains rather than long-term productive investment. Second, speculative activity has harmful destabilizing effects on the real economy, contributing to volatility, financial crisis and, as a result, crises in the real economy in terms of lost output, unemployment and economic insecurity that weighs most heavily on households with low incomes and few assets—notably, women.[14]

A second channel through which trading in financial instruments and currency produces social costs is the higher level of foreign exchange reserves which countries have been forced to hold to insure themselves against speculative attacks on their currency. According to Rodrik (2006), the opportunity cost of those reserves is roughly 1 per cent of GDP. This topic is discussed in more detail in the section below on macroprudential policies.

Digital services taxes

The sharp increase in the size of the services sector in most countries is in part driven by the growth of digital services by large and usually oligopolistic digital firms (like Amazon, Facebook and Google) offering goods and services online. Dozens of countries have already imposed digital services taxes (DSTs), which are a tax on a digital company's gross revenues. Peru first enacted DSTs in 2007, applying a 30 per cent withholding tax on payments for digital services from non-resident businesses. Since then, another 38 countries have proposed or enacted some form of a DST, with rates ranging from 1 per cent to 30 per cent of a company's revenue. Most low-income countries, however, have not yet imposed DSTs and as a result, this is an area of potential domestic resource mobilization to create fiscal space.

Property taxes

The rise of income and wealth inequality over the past 40 years makes property taxes a viable target for both reducing inequality and for generating resources for investment in gender equality. Property taxes are very low in developing countries, on average generating revenues that are less than 1 per cent of GDP. In many African countries, they contribute far less than 0.5 per cent of GDP (Ali et al. 2017). Property taxes may be regressive if, for example, two individuals in the same tax jurisdiction live in properties with the same property values but have different incomes. But property values tend to vary by the wealth status of the property owner and thus the tax has progressive features. Property taxes can be made even more progressive by establishing a floor below which homeowners are exempt from the tax or for which tax rates are income sensitive.

There are numerous benefits to relying on property taxes to expand fiscal space. Property is immobile and thus this tax is regarded as a stable and predictable revenue source. Property taxes are usually imposed by local rather than national authorities. This might lead to regional inequality if some towns and cities have larger property bases. Mechanisms can be instituted, however, to pool local tax revenues and redistribute them in an equitable way across municipalities.[15] Property taxes have the added benefit of discouraging the wealthy from investing in second and third homes, driving up housing prices and contributing to shelter poverty and homelessness for low-income groups.

2.2. Central bank tools to expand fiscal space

Central banks can expand fiscal space by using innovative tools beyond managing interest rates. Indeed, the current approach to monetary policy which emphasizes the goal of low inflation in many countries has the effect of squeezing fiscal space.[16] This is because central banks rely on raising interest rates to keep inflation low under the assumption that inflation is a demand-side problem. With higher interest rates, borrowing costs rise, which reduces lending and thus investment and consumption spending. The result is a decline in employment and GDP growth, with the effect of reducing tax revenues and creating greater demand for social safety net programmes. Together, these effects result in reduced fiscal space.

There are several reasons why this approach is particularly badly suited to addressing inflation. For many developing countries, inflationary pressures are strongly linked to supply-side problems of low productivity related to widespread health problems, poor transportation networks and exchange rate pass-through effects on imported necessities such as food and more generally, constrained food supplies (Heintz and Ndikumana 2011). Even in rich countries, inflationary pressures are often due to supply-side factors such as energy and food price shocks and oligopolistic market structures.[17] Under those conditions, raising interest rates during inflationary periods does not address the root causes of the problem—except by engineering an economic slowdown at a significant human cost. As can be surmised, when inflationary pressures come from the supply side, they might be more efficiently targeted with appropriate public investment rather than contractionary monetary policy. In those cases, targeting physical infrastructure investment that "crowds in" private sector investment and social infrastructure investment in the care economy that improves human capacity promotes productivity growth, lowering unit labour costs and thus inflation.

This does not mean that central banks should entirely abandon efforts to address inflation. But with public investment focused on addressing the root causes of inflationary pressures, central banks would be able to adopt an alternative policy framework that emphasizes an inclusive macroeconomic policy. They would do this by identifying "real" targets that affect social welfare rather than monetary targets, determined by identifying the key social and economic problems to be addressed by policy—such as gender equality in employment and unpaid care burdens (Epstein 2007). Those real targets would be identified on a country-by-country basis, established in response to the specific conditions and institutional structure in a country.

2.2.1. Loan guarantees

An example of tools for reaching employment targets would be for governments to guarantee a certain percentage of loans made by commercial banks to priority sectors or groups. The loan guarantees serve to reduce private banks' risk exposure and lower the cost of lending to borrowers (Epstein 2009). Loan guarantees would be especially beneficial for women borrowers in countries where they have limited property rights, restricting their ability to provide collateral to secure a loan. In agricultural economies where women are subsistence farmers, small-scale agriculture is an obvious target for lending. Priority might also be given to small- and medium-sized enterprises (SMEs) that are labour-intensive and disproportionately employ women. Credit could also be directed to large-scale businesses that can demonstrate their ability to promote significant increases in employment relative to their total spending. Regardless of whether the immediate beneficiaries are women or the labour force, higher rates of employment contribute to higher incomes, lower demands on social safety nets and greater tax revenues, expanding fiscal space.

A related strategy for governments, via central banks, is to limit the percentage of bank portfolios invested in non-priority sectors such as real estate and securities trading. This would have the twin effect of limiting the destabilizing effect of lending in these two areas and in freeing up savings to be invested in priority sectors (Epstein and Grabel 2007).

2.2.2. Asset-backed reserve requirements

To promote gender equality, central banks could also use asset-based reserve requirements (ABRRs), incentivizing private banks to channel lending to priority groups and strategic sectors of the economy. ABRRs can be especially useful when fiscal policy is limited by budget constraints. ABRRs require financial firms to hold varying amounts of reserves against different classes of assets (e.g. loan portfolios) (Palley 2007). ABRRs could be designed to incentivize commercial banks to allocate a portion of their lending to priority groups (or sectors) in return for being obliged to hold a lower amount of required reserves on assets that contribute to identified development goals, an idea proposed by Pollin et al. (2006). This policy tool would thus incentivize but not require banks to lend to priority areas. Private banks would still be responsible for determining the creditworthiness of borrowers and thus retain a great deal of autonomy in lending practices. Moreover, the central bank would continue to be responsible for short-term interest rate management, but its relative focus would shift to long-term promotion of productive investment, financial stabilization and social goals like gender equality.

This alternative policy measure is neither radical nor new. Several high-performing developing economies have directed credit to target sectors to promote structural change and economic development. Among these, the Republic of Korea stands out. Having nationalized banks in the 1960s, the government allocated subsidized credit to large firms that in return were required to meet investment and export goals. This reciprocal control mechanism disciplined capital, incentivizing firms to align their profit goals with the country's broader development goals (Amsden 1992).

The strength of alternative monetary policies such as those previously described lies in their employment and income-generation possibilities and ability to target key sectors and groups to overcome asset inequality. To be effective and well targeted, monetary policies should be coordinated with public investment goals. To the extent that public investment reduces inflationary pressures, central banks can afford to lower interest rates, in turn making it less costly for governments to finance public investment.

2.3. Macroprudential policies

2.3.1. Capital controls

Macroprudential policies and regulations aim to increase the financial system's resilience to shocks. Systemic risk has increased substantially with the liberalization of financial flows, beginning with relaxation of controls on cross-border currency movements in the late 1960s, moving then to "floating" or flexible exchange rates in the 1970s. As an indication of the extent of financial liberalization and the ensuring speculative nature of financial flows, global foreign exchange transactions exceeded US$7.5 trillion per day in 2022, only a minute portion of which is used for merchandise trade (Kumar and Gallagher 2023).

Capital management techniques can and have been adopted to control destabilizing flows of "hot money" and maintain more stable, competitive exchange rates that expand the space to adopt expansionary monetary policies. The benefits include a reduction of macroeconomic volatility and exchange rate volatility (and thus economic insecurity). Especially relevant for creating fiscal space, capital controls can free up reserves held by governments to insure against a financial crisis or external shocks.

Regarding reserves, international financial institutions such as the IMF have required countries to maintain larger foreign exchange reserves to hedge against crisis from financial panics, bankruptcies and competitive devaluations. Borrowing countries are required to place a significant portion of foreign aid into foreign exchange reserve accounts or use these funds to reduce debt. Gallagher and Shrestha (2012) estimated that reserves held by developing countries rose from 5 per cent of GDP in 1990 to 31 per cent in 2009. The optimal amount of foreign exchange reserves is 3 months of imports but with deregulation of capital flows, by 2009 reserves jumped to 16 months of imports. The cost of holding such large reserves is the interest that could be earned from investing funds in higher-yielding financial assets as well as the potential for otherwise foregone public investment to "crowd in" private investments and reduce inequality (Elson and Warneke, 2011).

Epstein et al. (2004) and Gallagher (2011) reviewed experiences with capital management techniques.[18] Tools include reserve requirements on inflows of capital as well as diagnostic tools such as early warning systems that trigger the regulation of capital flows. They differ across countries and there is no one-size-fits-all toolkit to manage capital Flows. The approach to the use of such tools has often been dynamic—that is, countries have flexibly adapted these tools to changes in the internal and external environment.

There are two significant points to make here. First, there is increased policy space to adopt macroprudential policies in the wake of recent global economic crises, as evidenced by the increased openness of the IMF to such controls. The second point is that macroprudential policies and in particular, capital controls that reduce economic volatility are gendered in the sense that they are a tool to promote gender equality. Women are disproportionately harmed by financial crises because women are more likely to lose their jobs in ensuing economic downturns; and women carry similarly the disproportionate load of care work in households struggling financially from higher unemployment and limits on central government resources to fund social spending. Moreover, the government revenue sacrificed by holding reserves can be recuperated with controls, with a beneficial effect on fiscal space.

Capital controls have been effectively used in developing countries to disincentivize speculative flows. As an example of capital controls, Malaysia instituted controls during the Asian Financial Crisis of 1998 and, as a result, recovered more quickly than other Asian economies that did not seek to regulate flows. To do this, Malaysia limited foreign borrowing; restricted non-resident access to the Malaysian currency, the ringgit; and imposed a 12-month repatriation waiting period on non-resident capital outflows. Chile established speed bumps in the 1990s to reduce the volatility of capital flows to encourage patient capital and to discourage speculative flows or "hot money." The main control on inflows has been a one-year unremunerated reserve requirement (URR) on foreign loans. The URR requires anyone borrowing money from abroad to deposit a percentage of the loan in the bank in a non-interest-bearing account for a full year, essentially acting as a tax on short-term and potentially speculative borrowing. Colombia has adopted similar capital control measures.

2.3.2. Public Development Banks

Public Development Banks (PDBs) are public financial institutions initiated by governments. Development banks may be publicly or privately owned (e.g. by non-profits such as Bangladesh's Grameen Bank). Even if privately owned, governments often make substantial contributions to the capital of private banks. The government therefore has leverage to influence to whom non-governmental development banks lend to. Nationally owned public development banks can enhance lending to women by offering preferential features in products for women farmers and SME business owners, including lower interest rates, flexible repayment terms and unsecured loans. For central banks

to incentivize development banks to lend to women is not sufficient, however, as women tend to lack a credit history and collateral. Therefore, governments will need to also utilize loan guarantees or subsidize interest rates to targeted groups.

2.4. How can fiscal space be directed towards investments in gender equality?

Many of the macro-level policies identified above can create fiscal space, i.e. a greater capacity for government investment spending to achieve development goals. But they are not necessarily or inherently "gendered" in terms of directing finance towards achieving gender equality goals. However, mechanisms and gender-aware policy tools can support policymakers to direct finance for gender equality investments.

2.4.1. Physical infrastructure spending

A starting point for assessing the types of physical infrastructure projects that will promote gender equality is to conduct a gender analysis, in other words, an assessment of gender-based economic and social roles and responsibilities. Evaluating time use by gender is critical at this stage, as it should guide the infrastructure project activities to be undertaken. In the poorest countries, for example, improvements in electricity and energy, water and sanitation, transportation, and information and communication technology (ICT) have been identified as key areas for investment that reduce women's care burden and enhance their ability to engage in paid work.

As an example of the gendered impact of infrastructure investments, Fontana and Natali (2008) simulated the benefits of targeted physical infrastructure investments that reduce time spent on unpaid care activities for gender equality. They demonstrated that such investments, by reducing the time spent on fetching water, fuel and other unpaid household maintenance activities, reduce the care burden and as a result, raise the earnings potential of both women and men. Women benefit disproportionately from such investments. According to the simulations, the time released from unpaid work would raise women's income by 17.7 per cent relative to the economy-wide average and men's by 1.6 per cent annually.

Similarly, piped water and access to toilets reduce the time women, who are primarily responsible for household water provision, spend fetching water with positive effects on their access to paid employment. Small and Rodgers (2023) discussed the effects of such projects in India and Zambia. Regarding transportation, women tend to travel more frequently with dependents, such that lack of access to safe and reliable transportation has a greater effect on their time and employment than for men. There is evidence from India, Nicaragua and Peru of the positive effects of transportation investments on women's labour force participation (Small and Rodgers 2023).

There are numerous examples of countries that have designed infrastructure projects to facilitate women's employment (Tanzarn and Gutierrez 2014). One way of for ensuring women have access to employment has been to specify minimum quotas for women's share of jobs. The provision of childcare and separate toilets also supports women's access to these jobs.

2.4.2. Social infrastructure investment

The impact of social infrastructure investments on gender equality—both in terms of reducing unpaid labour and increasing job opportunities—has now been widely documented and noted earlier in this paper. Under social infrastructure spending are included those expenditures that promote the development of human capacities—education, healthcare and social care services such as child and elder care. Because women perform the bulk of this work, paid and unpaid, it is not difficult to use time-use data to target such projects in a way that reduces gender inequality. The general strategy is to determine the type and extent of gender-differentiated care responsibilities in an economy and to identify investments in those areas that take up the most of women's unpaid labour time.

2.4.3. PDBs and central bank lending to commercial banks

Nationally owned development banks could develop institutional mandates that define their gender equality goals, including funding targets and levels. PDBs, to be successful, PDBs would benefit from a balanced representation of women at all functional levels, including in senior roles. Accountability mechanisms are also required, to include annual monitoring of the PDB's progress in meeting its lending goals for gender equality. It is also necessary to train staff to adopt a gender lens for investment analysis and decision-making.

A survey of 54 PDBs showed that many are already offering preferential features in products for women micro, small and medium-sized enterprises, including lower interest rates, flexible repayment terms and unsecured loans (Andrade et al. 2023). As described above, targeting lending to women farmers, women-owned businesses and SMEs, however, is not sufficient because women have less access to collateral and a limited credit history. To address this, central banks can use ABRRs to incentivize lending by private banks to projects that promote gender equality, supplemented, if necessary, with loan guarantees.

3.

EXTERNAL FINANCE POLICIES TO CREATE FISCAL SPACE

3.1. External debt, concessional finance, special drawing rights and innovative finance

External finance can be a significant potential source of fiscal space for developing countries. However, it is typically precluded from policy consideration because the conventional definition and assessment of fiscal space remains debt focused and retains a short-term perspective while assessing debt sustainability. The IMF defines fiscal space as "the availability of budgetary room that allows a government to provide resources for a desired purpose without prejudice to the sustainability of a government's financial position" (Heller 2005) or as "the difference between the current level of public debt and the debt limit implied by the country's record of fiscal adjustment" (Ostry et al. 2010). This conventional approach is marked by its focus on debt and the limits to borrowing capacity. The latter is understood as immutable, static and circumscribed by a country's immediate circumstance. Fiscal space assessments are generally short-term in nature, with the relevant time horizon generally around one year.

Most measures of fiscal space compare the net public debt to GDP. Conventional measures of fiscal space tend to focus on the numerator of this ratio. The ratio improves if debts are repaid, taxes are raised, government subsidies are cut, or if "expenditure efficiency" increases the efficiency of public expenditures. All of this means repaying external debt at any cost.

But as many have pointed out, there is much that is wrong with this approach. It ignores the fact that new external borrowing can be a vehicle for expanding or creating fiscal space. The extent to which this happens depends on how new external finance is utilized. If new borrowing supports expenditures with an investment quality, then it could have positive multiplier and spillover and crowding-in effects over the medium- and long-term. The interest rate and fees, maturity structure and currency in which debt is denominated will also affect the extent of fiscal space created by new borrowing. In short, conventional assessments of fiscal space do not address how fiscal space can be created over time through strategies that expand the denominator (that is, by expanding GDP). New external borrowing can promote growth over the medium and long term and consequently can have positive, intertemporal effects on fiscal space. The effects on fiscal space can be lagged, have compound and multiplier effects on GDP and thereby reduce the debt to GDP ratio over time.

In summary, reducing external debt pressures, increasing access to external finance and making critical investments that expand growth over time can directly increase fiscal space. The fiscal space created can indirectly support gender equality if policymakers channel that space to appropriate, gender-equalizing investments. Further fiscal space for investments in gender equality can also be directly supported through a range of gender-informed external finance strategies.

Given the scale and consequences of the debt burdens confronting most developing countries—which is historically unprecedented—steps must urgently be taken for mitigating debt burdens. It is impossible to think of restoring, let alone expanding fiscal space without significant change. At present, instead of creating fiscal space, countries are facing a fiscal squeeze. It appears that the world is poised on the cusp of a new "lost decade" with vast debt overhangs, widespread debt

distress, demands for austerity by lenders and severe economic slowdowns. All of these are certain to have deep implications on the prospects for progress on women's equality and the empowerment of women and girls.

3.2. External finance and fiscal space

External debt and inadequate access to external finance constrain fiscal space. They do this through differentl mutually reinforcing channels:

3.2.1. Direct reductions in funding for social expenditures and investments that support growth and gender equality

Firstly, debt service obligations to multilateral, bilateral and private creditors directly reduce available funding for already under-resourced shock absorbers, social protections (including those that support women's workforce participation, social reproduction and caring labour), public investment and investments in physical and social infrastructures that support growth and gender equality. Moreover, as in all previous financial and debt crises, support from the Bretton Woods Institutions (BWIs) is conditioned on the adoption of austerity programmes that entail fiscal consolidation, public expenditure reductions, increased consumption and value-added taxes, user fees (that, for example, impact educational access for girls and women) and measures that contract public sector employment (Chang and Grabel 2014; Mucchala 2023: 3–6).[19] Advocates of retrenchment programmes see them as inevitable, gender-indifferent and temporary.[20] In practice, austerity programmes have significant negative intertemporal economic and social costs and negative multiplier effects. These effects undermine economic growth, productivity and gender equality, among other things. These points have been amply demonstrated in decades of gender-indifferent research on debt crises and by a robust body of research by feminist economists.

There is ample evidence that the austerity agenda has already arrived and it appears likely to be more severe than that associated with the aftermath of crises dating from the 1980s through 2008 (Mucchala 2023: 6; Ortiz and Cummins 2022: 9). Ortiz and Cummins (2022) show that austerity programmes have been implemented in many countries and they project deepening cuts in social protections and severe austerity until at least 2025. They expect adjustment shock to affect 143 countries in 2023, which would affect 85 per cent of the world's population. In 2023, 94 countries in the Global South are projected to cut public spending (compared to 49 high-income countries). More than 50 countries appear to be adopting "excessive" budget cuts, which the authors define as spending less than the (already low) pre-pandemic levels, including countries with high needs such as Equatorial Guinea, Eswatini, Guyana, Liberia, Libya, Sudan, Suriname and Yemen.

A long list of austerity measures is being considered or has already been implemented by governments worldwide. This includes 11 types of austerity policies that have particularly damaging social impacts on the most vulnerable populations, especially harming women.[21] There is by now a vast body of empirical literature that demonstrates that austerity and debt crises are deeply gendered in their effects. The damages occur through a variety of channels, including by pressing women into additional paid and unpaid caring labour, including in the informal sector; diminished access to essential public services and social programmes; and loss of livelihoods.[22]

The proportion of debt service versus public expenditures underscores the real human costs of unsustainable debt (Mucchala 2023: 18). A 2022 study found that across all countries in the Global South, debt servicing amounts to about 25 per cent of total government spending and is twice education spending, 9.5 times health spending and 13.5 times social protection (Martin and Waddock 2022). A 2023 study found that across the Global South, debt service now "equals combined total spending on education, health, social protection and climate and exceeds it by 50 per cent in Africa. It is 2.5 times education spending, 4 times health spending and 11 times social protection spending" (Development Finance International 2023). UNCTAD warns that the debt crisis and austerity could end any prospect of the SDGs being realized by the 2030 deadline *(Bretton Woods Observer 2022a).*

3.2.2. The contemporary debt architecture

A second channel by which external debt constrains fiscal space today stems from the contemporary structure of the debt architecture. As earlier noted, the fractured debt architecture is a powerful obstacle standing in the way of meaningful, comprehensive debt restructuring. The pressing need for a sovereign debt restructuring mechanism (SDRM) has been raised and abandoned over several decades. The need for an SDRM is ever greater now. The matter has recently received a great deal of attention, especially by the BWIs, the UN and civil society organizations (CSOs). But the challenge posed by fragmented architecture remains unaddressed. A coalition of the willing would have to bring together the BWIs, Paris and London Club members, the G20, the United States, China and other new bilateral lenders. This has not happened.

3.2.3. Credit rating agencies

A third channel by which today's debt distress constrains fiscal space involves the credit rating agencies. There are three major international (private) credit rating firms: Standard & Poor's, Moody's and Fitch. A credit rating is an assessment of a country's (or, when corporate debt is involved, a corporation's) capacity to repay its debts. Credit rating firms loom large in the lives of finance ministers in nations with access to international private capital markets. A threatened or actual downgrade reduces access to capital markets by triggering sudden stops or reversals. Less dramatically, a threatened or actual downgrade increases the cost of raising new capital. A downgrade can be triggered by defaults, restructuring programmes, repayment pauses (even under official channels, such as the G20's Debt Service Suspension Initiative (DSSI) or Common Framework for Debt Treatment), or expenditures on social protections. Ethiopia, for example, was downgraded after opting into the DSSI (Vijaya 2021). Consequently, even just the threat of a downgrade can reinforce pressures to implement austerity programmes to boost ratings, placing the interests of lenders above human needs (including women's equality).[23]

There is ample evidence of the pro-cyclical nature of credit ratings and of a North–South bias in ratings, including what Fofack (2021) refers to as the "perception premium" that has unduly disadvantaged African governments.[24] Global South countries received a greater number of and more severe downgrades compared to northern counterparts during the pandemic, despite debt levels in the latter having increased to a greater extent (Jones 2023). Rating agencies also punished Global South governments disproportionately after they announced increased spending on healthcare during the pandemic. Moreover, the fear of such punishment caused some governments not to spend as much as they otherwise would have. Some governments also cut back on healthcare spending when ratings fell (Vijaya 2021).

Fiscal space is further constrained by dysfunctional global financial architecture. The architecture is anti-developmental and crisis prone. It is unfit to address the development and climate challenges of our time and reflects the power and economic realities of a long-gone post-War environment.[25] The financial architecture is characterized by destructive asymmetries that include the exorbitant privilege enjoyed by the United States and other northern economies. This privilege allows them to borrow and lend in their own currencies. It also allows them to pursue quantitative easing when it is deemed necessary without regard for global spillover effects or rating downgrades. It gives them the ability to borrow on global capital markets at far lower rates than countries of the Global South. And it permits them to exercise undue influence and veto power at the BWIs, institutions that operate under outdated, rigid, exclusionary rules and norms.[26]

IMF practice exhibits severe dysfunction and inequities. For instance, interest rates on loans from the IMF have long been higher than they should be in view of the capacities of their clients. Interest rates on IMF loans have been rising in recent years because they adjust alongside rates in the Global North (Krahnke and Tordoir 2023). High surcharges on IMF loans to middle-income borrowers—which add 2 to 3 per cent to borrowers'

interest rates—are procyclical. That is, they disadvantage borrowers at a time when needs are greatest (Amsler and Galant 2023). Surcharges necessarily divert resources from other uses, as became apparent in critiques of IMF lending during the pandemic (Stiglitz and Gallagher 2022). The number of countries paying surcharges increased from 15 to 21 between 2020 and 2021 (Cohen 2022). Recently released data by the IMF indicate that 22 countries were paying surcharges as of January 2023 (Galant and Vasic-Lalovic 2024).[27] Surcharges have become a major source of revenue for the IMF in recent years. Between the start of the pandemic and the end of 2022, the IMF estimated that borrowers paid US$4 billion in surcharges (on top of interest payments) (Cohen 2022). For surcharge-paying countries, surcharges make up on average 36 per cent of all charges and interest rate payments to the IMF (and 40 per cent, on average, for the five most heavily indebted countries).[28] Recent estimates suggest that the IMF will charge over US$2 billion in surcharges per year through 2025 (Amsler and Galant 2023).

In summary, expanding and creating fiscal space remains unattainable without significant action on external debt burdens and increased access to external finance. Tackling this challenge requires rejecting conventional understandings of fiscal space and debt sustainability and articulating an alternative view. One proposal is for the IMF to introduce an "SDG carve-out" (Daar and McCarthy 2023: 4). It would exempt all public investment in SDG-related goals from counting toward a country's debt-to-GDP calculation, which is a key input to existing debt sustainability assessments (DSAs). IMF programmes generally aim to reduce a country's debt-to-GDP ratio below 60 per cent. DSAs should also incorporate the feedback loops between public sector investments and economic growth (Mucchala 2023: 20).

Debt sustainability as currently defined is clearly a difficult condition for most low-income countries to meet given their extreme levels of high debt. Creating fiscal space requires then that strategies to mitigate debt burdens become an urgent policy priority. Most essential in this context are a sovereign debt resolution mechanism (SDRM), debt cancellation and debt relief.

3.3. Strategies to address external debt

3.3.1. Sovereign debt resolution mechanisms

Given mounting debt distress in developing countries, efforts to facilitate the restructuring of debt during the pandemic were initiated. However, these are not comprehensive SDRMs. Jointly implemented with the Paris Club, the G20's Debt Service Suspension Initiative was replaced with the Common Framework for Debt Treatment (hereafter, Common Framework) in November 2020.

It was hoped that the Common Framework would engage a broader range of bilateral official creditors since it was available to non-Paris Club official creditors. However, the initiative in place is slowly failing. The Framework is "common" in name only, both because of its case-by-case rather than multilateral approach to restructuring and because the DSAs conducted under its auspices have been wildly inconsistent in practice (Setser 2023).

There are many other flaws in the Common Framework. One of them, as one commentator described, is that "Middle-income countries, where the vast majority of the world's poor people reside and where serious debt defaults are taking place, are excluded from the Common Framework, further confirming its operational failure" (Mucchala 2023). The Common Framework, as with the DSSI, was too optimistic when it came to involving private creditors in some meaningful way in debt restructuring processes. Moreover, the Common Framework "stipulated those private creditors would have to provide comparable relief on the debt owed to them [to ensure burden sharing] but without clarity on how this was to be enforced" (Ahmed and Brown 2022). Finally, to be eligible under the Common Framework a country must be under an IMF programme, which is yet another channel by which austerity programmes are introduced.

An attempt to modify the Common Framework in April 2023 (George 2023; George and Jones 2023) included the key goal of getting the BWIs to agree to share

information on debt distress more quickly and to provide more low-interest and grant funding and stricter timeframes on restructuring. At present, the status and efficacy of these modifications remains uncertain.

Chief on the sovereign debt agenda therefore is the pressing need for an international legal framework for an SDRM that is comprehensive, consistent, binding, timely and transparent and available to low- and middle-income countries. An SDRM must incentivize or force all parties—bilateral, multilateral and private creditors—to come to the table together in good faith. Participation of private lenders in restructuring negotiations might be forced or incentivized through debt exchanges for longer maturities or lower interest rates.[29]

According to IMF forecasts, the existing restructuring deals that have been penned or are under negotiation will leave many countries over the next three to five years with an overall average debt service of 48 per cent of budget revenue (DFI 2023). This obviously leaves little to no room for major increases in spending for much-needed investments, including for gender equality. Indeed, it may mean major cuts. Some observers have noted that debt restructuring associated with previous crises involved targeting debt service to be no more than 11 to 20 per cent of total revenue. It is important going forward to set explicit debt service targets or ceilings, at least as generous as their predecessors, beginning in the first year of relief.

3.3.2. Debt cancellation and creditor haircuts

Comprehensive debt relief on bilateral, multilateral and private debt is unambiguously essential. It must involve creditor "haircuts" (losses on the loans they had provided or underwritten) and debt cancellations, particularly in the poorest countries. Special consideration for odious and illegitimate debt is also warranted. Without debt relief, countries are consigned to austerity, there are constraints on policy autonomy, and fiscal space remains unachievable.

There are important precedents for international debt relief. The Heavily Indebted Poor Countries Initiative of 1996 and the Multilateral Debt Relief Initiative of 2005 offered debt relief of different magnitudes and types ranging from haircuts to cancellations, albeit through complicated, slow processes.[30]

3.3.3. Debt standstills, debt pauses and suspension clauses

In certain contexts, debt standstills may be a useful stopgap to buy breathing room while a comprehensive SDRM or debt cancellation process is underway. In such cases, the financial costs of a standstill must be clear to the borrower up front and preferably borne by the creditor. The World Bank has included a "debt-pause clause" in new and existing lending agreements that permit 45 Small Island Developing States and states experiencing "qualifying events" to postpone their interest and principal payments (see discussion in Ramos et al. 2023). This provision should be extended to all borrowing countries and represents a model on which other lenders should build. Some observers have made a case for the introduction of "multi-year suspension clauses" for external shocks, including pandemics and climate catastropes. These clauses might be included in loan agreements with official, multilateral and private lenders. Credit rating agencies should be precluded from downgrading debt when such clauses are activated.

To be clear, comprehensive debt relief in the form of cancellations or meaningful restructuring should be a far higher priority than debt standstills, given the present conditions and those forecast for the next several years.

3.3.4. Debt swaps

Debt-for-nature (sometimes called debt-for-climate) swaps have received a great deal of attention of late. The UN Secretary-General's SDG Stimulus makes a case for debt-for-SDG swaps. In general, swaps are relevant for countries that do not have unsustainable debt burdens, but which lack fiscal space for climate-related or other SDG-related investments. He argues, "Such swaps can either be done bilaterally between an official creditor and a debtor (such as those done by L'Agence Française de Développement), or by using official or philanthropic funds to buy bonds at a discount in secondary markets as with most existing debt for nature swaps. These can be structured so that the new creditors pass on part or all of the discount to sovereign debtors. Thus far, although there have been examples of successful debt for investment swaps, uptake has been limited, in part due to high transaction costs" (UN 2023b).

At the 2023 UN Climate Change Conference (COP28), a new global taskforce was created to scale up debt-for-nature swaps. There have recently been high profile debt-for-nature swaps, such as a record-setting deal in Ecuador in 2023 (Bourke 2023). It refinanced US$1.6 billion of sovereign bonds at a discounted rate, issuing in its stead a new conservation bond. In exchange, about US$12 million a year of the money saved via this cheaper loan will be channelled to conservation in the Galapagos. Barbados, Belize, Gabon and Seychelles have also concluded debt-for-nature swaps, which is encouraging.

However, debt swaps are not a magic bullet. Debt swaps are not a substitute for timely, comprehensive debt restructuring, debt cancellation and lender haircuts, and concessional finance. In the words of Kenyan President Ruto: "We can't fix the climate issue unless we fix the debt issue" (Fresnillo 2023). Swaps are best seen as one tool among others and one with limited potential. A benefit of swaps is that they do not affect a country's credit rating. But on the negative side, they are a slow vehicle, legally complex and costly to negotiate; their administration involves complex reporting requirements.

A recent study by Fresnillo (2023) is worth quoting at length here because she describes parameters for maximizing the net benefits of swaps, though she remains on balance very cautious about their efficacy:

"Debt swaps don't become more impactful just by scaling them up. Impact instead rests on ensuring a sustainable and realistic schedule for the borrowing country to disperse the freed-up resources, that these disbursements are made in the local currency and other elements determining the governance, transparency, accountability and transaction costs of the operations." She goes to on to explain that "[f]or countries without access to grants or concessional finance, well-designed debt swaps can play a role in mobilizing extra funds for the SDGs or climate projects. When the priorities of the impacted communities, not those of the creditors, are at the forefront and these communities are given space to participate from the early stages, then funding local projects via debt swaps can have a positive impact. Without this, the inherent conditionality of debt swaps runs the risk of a loss of sovereignty for debtor nations."

3.4. Creating fiscal space through strategies that increase access to concessional finance and special drawing rights

3.4.1. Concessional finance

The case for scaled-up concessional finance has never been clearer. Scaled-up concessional finance can be a critical source of fiscal space, especially for low-income countries. Sustained annual increases in concessional finance can promote inclusive growth with the aim to make progress on SDG targets, including for gender equality. The World Bank's "Evolution Roadmap" includes a commitment along these lines, in other words, to expand concessional finance beyond the poorest countries to support climate investments) (World Bank 2023b).

Scaling up concessional finance depends, however, on increasing the capitalization of multilateral and regional banks. Calls for this come from many actors, including the global development community. This should be on the top of the development financing agenda, including because of its potential to expand fiscal space and for financing development priorities, including for gender-equalizing investments.

3.4.2. Special drawing rights issuances and reallocation

Special Drawing Rights (SDRs) are an international reserve asset that the IMF creates electronically, by fiat. When SDRs are maintained by a country solely as a reserve asset, they are not considered to be an IMF loan. Therefore, they do not have to be repaid. However, when countries convert SDRs into hard currency (such as the US dollar), they must pay the IMF the annual SDR interest rate (Ghosh 2023).

In the early days of the pandemic, a proposal to release a one-time general allocation of US$650 billion in SDRs was approved by the IMF in August 2021. This was the largest single release of SDRs in the IMF's history. The goal of this release was to provide a financial lifeline to countries in the face of the pandemic's economic effects. Owing to IMF rules, the US$650 billion in SDRs was allocated in line with member country quota shares

at the institution. Quotas depend heavily on the GDP of each member country. SDRs were therefore allocated primarily to developed countries since they hold the largest quotas. These countries received US$450 billion of the SDR allocation, while low-and middle-income countries received just over US$200 billion (Ghosh 2023). But only US$21 billion of the US$200 billion went to low-income countries.[31] Despite this uneven allocation, the 2021 SDR release is widely considered to have been a crucial source of emergency debt-free finance in the form of new foreign exchange reserves at a critical time for low- and middle-income countries.[32]

Developed countries could have amplified the impact of this SDR release by transferring their idle SDRs, which sit in their central banks, to the IMF for its use and to the development finance institutions that are its prescribed SDR holders. As of December 2019, they held US$177 billion in idle SDRs, some of which could have been transferred to the IMF and to two special funds for low-income countries (Herman 2020). In October 2021, G20 countries pledged to recycle (i.e. channel) US$100 billion of unused SDRs to vulnerable countries (Plant and Camps-Adrogué 2023). However, less than 1 per cent (approximately US$702 million) of the promised recycling has gone to the countries that need the support the most.

Recently, there has been a renewal of interest in the promise of new SDR issuances. Some have argued for new, annual, large-scale SDR issuances. In this view, SDRs would be allocated in line with need, rather than IMF quota shares. The High-Level Advisory Board on Effective Multilateralism has suggested two ways to ensure that the issuance of new SDRs flows to low- and middle-income countries (Ghosh 2023). One way would be by allocating to poorer countries double or triple their quotas. The other would involve introducing targeted allocations according to eligibility criteria that focus on exposure to identified risks, such as climate change, interest rate or terms of trade shocks, or other external forces or shocks.

Developed countries could also be encouraged to transfer unused SDRs to support developing economies through lending or preferably grants. It could also be accomplished through the creation of rapidly disbursing instruments at concessional terms with no or minimal conditionality (United Nations 2023b).[33]

3.5. Creating fiscal space directly for gender equality through gender-informed external finance strategies

Gender-informed external finance strategies include:

- SDR reallocations for gender equality
- Gender-informed impact assessments related to debt and debt sustainability assessments
- Gender markers for sovereign debt restructuring and debt cancellation
- Debt swaps for gender equality
- Gender bonds.

These strategies have the potential to directly create fiscal space for gender equality over the medium and long term. However, and as discussed below, both debt swaps and bond issues are associated with specific challenges that should be identified.

The gender-informed tools discussed below can be operationalized using "gender markers" and "gender-based performance targets" (which are also known as "gender benchmarks.") Gender markers and gender performance targets incentivize efforts and outcomes, respectively. Over the last decade, both have become an increasing area of interest, though much work remains to be done to develop them, especially in connection with external financial flows (UN Women 2023a).

Gender-based performance targets could be designed to incentivize actions, ex ante or ex post. For instance, ex ante tools could establish targets that direct a certain amount or percentage of new external financial resources (such as external debt, concessional finance or SDRs) or fiscal space created by a debt pause, SDRM or creditor haircut to initiatives that support gender equality. As an ex post tool, they could be designed to reward firms, sectors and subnational or national-level actors for using new external financial resources or fiscal space in ways that result in measurable progress on particular gender equality goals by a specified period. Progress in terms of supporting gender equality is to be measured against key performance targets.

For instance, the UN Secretary-General has proposed quantitative (ex ante) performance targets that govern the percentage of ODA allocated to programmes that support gender equality (UN Women 2023a). This target could be adapted to the allocation of other external financial resources or the use of newly created fiscal space. The same could be said of the examples of other gender-based performance targets provided here. For example, in the "2X Challenge" the following gender performance targets are used: the share of businesses owned by women or with a woman as a founder, the percentage of women in leadership positions or on a corporate board, the percentage of women employees in a particular sector, and the degree to which a product or a service disproportionately provides benefits to women (Biegel et al. 2023).[34]

There are also country-level gender performance targets that focus on the performance of public companies, such as the Bloomberg Gender Equality Index (which tracks the performance of public level companies), Equileap Gender Equality Data and Ranking, and the World Economic Forum's Gender Gap Report. An example of a hybrid green and gender performance target is provided by the US city of Minneapolis, which uses green bonds that also incorporate gender criteria to finance some public investment programmes. In this case, the gender performance target focuses on the percentage of women in the construction workforce building the project. A French firm, Schneider Electric, uses gender-based performance targets that reward progress on reducing CO2 emissions and expanding the roles of women in the company through performance targets for hiring, management and leadership. If gender-based performance targets are not met, the interest rates on bonds issued are increased.

3.5.1. SDR reallocation for gender equity

In work that predates the contemporary debt crisis, Erten and Çağatay (2017) argue that the reallocation of unused SDRs by countries of the Global North could be used to create direct fiscal space that supports investments in projects that support women's equality and environmental sustainability. In their view, SDRs can be reallocated to establish trust funds at the IMF that provide loans that support women's equality through what they term a Global Fund for Women through Innovative Finance.[35]

3.5.2. Gender-informed impact assessments related to debt and DSAs

This type of impact assessment might be a part of a new approach to DSAs that incorporates and disaggregates the effects of debt burdens on gender, climate and human rights indicators. This approach might also figure into ex ante impact assessments of debt restructuring or cancellations and ex post analyses of the effects of debt relief. The gendered effects of debt restructurings are rarely, if ever, considered. This gender blindness disadvantages women. For example, recent research on Sri Lanka's debt restructuring makes clear that domestic debt restructuring will have a disproportionate effect on the economic welfare of older women in the country (Arunatilake 2024). This stems from changes in the country's pension system that are part of the country's overall debt restructuring.

3.5.3. Gender markers or performance targets for sovereign debt restructuring and debt cancellation

Under a gender-informed SDRM, future obligations for repayment might be tied to gender markers or performance targets. These would reward countries for progress in connection with establishing gender equality targets or having met certain gender equality performance targets. These should be designed by national policymakers.[36] This might involve rewarding countries up front with debt restructuring, reprofiling or limited cancellations for committing to make investments in new social programmes that support gender equality markers or for having met certain performance targets within a specified time frame.

3.5.4. Debt swaps for gender equality

Swaps to date have mostly focused on the protection of natural resources and support for sustainability. There is no reason why debt swaps cannot be structured to support the cancellation of some external debt in exchange for a government's commitment to use the fiscal space created to support investments in gender equality. This would mean tying the swaps to any number of gender markers, such as investment in women's educational access, job training, access to credit or investments in social infrastructure.

Advocates of debt swaps for gender equality might build upon the example of the debt-for-education swaps that have been used in a few bilateral contexts. These involved "the cancellation of external debt in exchange for the debtor government's commitment to mobilize domestic resources for education spending."[37] Debt-for-education swaps existed between El Salvador and Spain in 2005, Cameroon and France in 2006 and Germany and Indonesia (2000–2006). Momentum around debt-for-education swaps diminished with the 2008 financial crisis and has not been restored since that time. The concerns with debt swaps identified in section 3.3.4 pertain equally to debt swaps for gender equality. It appears that no debt-for-gender swaps have taken place to date.

3.5.5. Gender bonds

Gender bonds are an example of social impact bonds. Social impact bonds fall under the broader umbrella of social impact investing. Other types of social impact bonds include "green" (or sustainability) bonds, blue bonds that protect water, bonds that combine both gender and green objectives, and bonds that support other social objectives.

The project and expenditure categories supported by gender bonds depend on the gender equality objectives of the issuer. A gender bond issued by a national, state or local government or national development bank can be used to implement national or subnational programmes that support gender equality and women's empowerment, such as by increasing access to education, improving the supply of services and investing in a range of other physical and social infrastructure projects (e.g. childcare facilities, supporting victims of gender-based violence). Gender bonds can also be issued by private firms, such as financial institution, and multilateral development banks. These bonds might capitalize funding platforms that provide loans to women-owned businesses or businesses that make specific commitments to increase the numbers of women hired or appointed to leadership positions. A bond framework document specifies the type of gender bond and the issuer's specific intentions, reporting requirements and monitoring mechanisms. Depending on which entity is selling the bond, the bond framework document would be prepared by the Ministry of Finance (in the case of a national bond), national or multilateral development bank staff, subnational officials, private firms or civil society organizations.

Gender bonds can be of two types: "use-of-proceeds bonds" or "key performance indicator bonds." Use-of-proceeds bonds mean that issuers must apply all the proceeds from the bond issue to specific kinds of projects, often aligned with the SDGs. The types of projects to be supported by bond proceeds are identified prior to the issuance of the bond (e.g. those that have a measurable impact on specific manifestations of gender inequality). Alternatively, gender bonds can be performance based. That means they are designed to encourage the issuer to achieve certain outcomes as measured by pre-established, quantifiable, time-sensitive key performance indicators (e.g. increasing options for affordable childcare). With performance-based bonds, the financial characteristics of the bonds are linked to meeting predetermined benchmarks, such that repayment costs, for example, could fall if targets are met over the lifetime of the bond. Gender bonds are recent innovations in the world of social impact bonds (ICMA et al. 2021).

The Asian Development Bank has issued use-of-proceeds gender bonds. These consider five broad dimensions of gender equality and women's empowerment, including increased access to credit by women, access to education, skills development and technical or vocational training in nontraditional female subjects. The Asian Development Bank has issued 14 gender bonds, beginning in November 2017. These bonds have raised over US$3.65 billion as of March 2022. The Australian Workplace Gender Equality Agency also has sold a gender-based use-of-proceeds bond, though the bond goes beyond gender concerns by excluding firms involved in, for example, alcohol, military weapons, fossil fuels and whaling. Other examples of gender bonds—both use-of-proceeds bonds and key performance indicator bonds—are found in Brazil, Finland, Mexico, Morocco, South Africa, Spain, Sweden and Tanzania. For example, a Tanzanian commercial bank, NMB, in April 2022 issued a use-of-proceeds gender bond. The proceeds of the Tanzanian bond go entirely to support micro, small and medium-sized enterprises that are owned and controlled by women and can

boost the development of new women entrepreneurs. In Mexico, a gender bond was issued by Fideicomisos Instituidos en Relación con la Agricultura, a public development bank. The bond was issued in April 2021 and is a key performance indicator bond. It provides finance for projects exclusively involving women or led by them. The projects financed fell within the agricultural, fishing, forestry and rural sectors.

Key issues in the design of gender bonds include how to identify the appropriate projects and targets for use of proceeds bonds, benchmarks for key performance indicator bonds, and mechanisms for tracking and reporting on the use of proceeds and performance targets. The goals of both types of gender bonds should focus on longer-term structural transformations that support gender equality over time. Investor objectives realistically cannot be ignored in the design of such bonds. But these objectives cannot trump gender equality goals or, in the case of bonds issued by public entities, cannot be designed in ways that place too great a strain on public finances. National or subnational actors—working with public sector statistics bureaus, UN agencies, other multilateral institutions and CSOs—should be deeply involved at all stages of the lifecycle of gender bonds.

4.

MODELLING ALTERNATIVE METHODS OF FINANCING INVESTMENTS FOR GENDER EQUALITY

Using a framework to analyse the macroeconomic and microeconomic impacts of policies aimed at enhancing gender equality, this chapter proposes an alternative model of financing investments for gender equality. The policy initiatives are distinguished by their specific goals and methods of financing. A fully articulated stock-flow consistent post-Keynesian macroeconomic model is sketched to track the changes in flows of income and expenditures as well as changes in assets and liabilities. The model is multisectoral (e.g. it can include capitalist mining and non-capitalist agriculture) and encompasses major institutions of the economy, such as businesses and households. The microeconomic impacts of the changes in macroeconomic conditions are captured via a microsimulation model that does not rely on assumptions of utility-maximizing behaviour. Individual outcomes are determined via a computational method ("hot-decking") that uses a representative sample of the entire population (rather than a few representative agents). The model delivers the statistically most likely results based on the diverse constraints and opportunities of the individuals. In addition to labour market effects, the impacts on unpaid household production activities are also modelled. Distributional outcomes for population subgroups (including intra group and intergroup inequality) can be assessed with the model using standard measures such as earnings and family income. Because household production is modelled, the impacts on measures of economic well-being and poverty that incorporate household production can also be evaluated.

Mapping a country's potential to mobilize finance through different avenues should be accompanied with ex ante assessments of the macroeconomic, gendered and distributional impacts of adopting alternative financing modalities. Applying multisectoral macroeconomic models with a micro component can provide important guidance at the country level to policymakers on the economic, gendered and distributional impacts of scaling up investments using different channels (for example, whether through external borrowing or domestic revenues). One such model is a stock-flow consistent (SFC) model with disaggregated production sectors and a disaggregated household sector that is used to assess the impacts of alternative options of financing initiatives for gender equality initiatives, such as investing in childcare and elder care, investing in gender-responsive social protection, and other social services targeting women.

Several key features of an SFC model make it appealing. First, it models the monetary transactions and the interactions among various sectors of the economy and

tracks the value of real and financial assets. Second, the model tracks the sources of funds and the uses of funds for each institutional sector. This is a relatively critical feature to assess sources of financing for gender equality initiatives and the trade-offs involved. Third, it allows for assessing the impact of alternative policy scenarios within the broader macroeconomic constraints: external balance, public/private sector borrowing and financial assets dynamics. Fourth, the models' accounting structure offers great flexibility for specifically tailoring it to a country. This is critical for building models that respond to country typology. Finally, the model does not use a representative/optimizing agent for modelling micro-level outcomes. As such, macro-level changes set the broad constraints under which individuals and households adjust their livelihood strategies and experience changes in their living standards ("from the macro to the micro").

In what follows, a schematic overview of the model and its potential uses is provided. First, the macroeconomic block and the structure of the SFC model is outlined. Some macroeconomic adjustment mechanisms are proposed to be incorporated in the model. These are post-Keynesian and distinct from the usual marginalist macroeconomic theory that underpins most "gendered" computable general equilibrium (CGE) models (e.g. Lofgren and Cicowiez 2021).[38] Next, it is discussed that the aggregate effects have implications for individual and household economic well-being and economic inequalities, including those based on gender. While the model can deal with a few transmission channels, here, the focus is primarily on changes triggered by the employment channel.

To analyse micro-level changes, an intersectional view that considers men and women in the context of their diverse constraints and opportunities, governed by their social class, race, ethnicity, caste, religion, family type, composition and/or size is adopted.[39] The microsimulation model seeks to identify the persons and households most likely affected by the changes in employment and the resulting changes in individual and household economic well-being. Moreover, the identification relies on computational and nonparametric methods rather than parametric stochastic modelling, though the latter is used as a tool in the modelling.

4.1. A stock-flow consistent model

The macro-micro approach adopted in the stock-flow consistent model aims to integrate the analysis of real and financial markets in a way that is perfectly aligned with the System of National Accounts 2008 (EC et al. 2009) and flexible enough to accommodate alternative approaches to assessing alternative policies' gendered and distributional impacts. The novelty of the macro modelling block relies on a consistent view of both transactions connected to the generation of income, expenditure and more, and the building up of credits and debts, with their implications on the dynamics of budget constraints for households and the other institutional sectors of the economy.

SFC models were initially proposed to address financial stability and policy alternatives at the macroeconomic level, with a high order of aggregation. The approach began to gain popularity for its effectiveness at predicting economic crises (Godley 1999; Godley and Zezza 2006) and after Godley and Lavoie's publication (2007), which showed in detail how the approach allowed a study of the behaviour of both real and financial markets.

The effectiveness of the approach has led central banks and government institutions to adopt the same methodology (see Burgess et al. (2016) for the United Kingdom and Hermitte et al. (2023) for Italy). More recently, the SFC approach has been extended to address problems requiring a disaggregated, sectorial representation of production and demand, such as climate change and other environmental issues (see, e.g., Dafermos et al. (2017)). To this end, the SFC architecture is complemented by a supply-side structure according to the input-output approach. This latter version of the SFC modelling approach is deployed for the macro block of the model proposed here.

4.2. The accounting structure

SFC models all have a skeleton based on four accounting matrices, which respect the principles of national accounting recommended in the System of National Accounts 2008 (EC et al. 2009) adopted worldwide,

albeit with different degrees of implementation, which are conditional on the availability of resources and data. All matrices refer to the institutional sectors of the economy: household and non-profit institutions that serve households (NPISH); non-financial businesses, sometimes split between corporate and non-corporate; financial businesses, sometimes split between the central bank and other monetary and financial institutions; government, usually divided between central and local institutions; and the rest of the world.

The first set of accounting identities is organized to respect the first principle of stock-flow consistency: for every payment taking place in the economy, there must be an entry debiting the sector making the payment and an entry crediting the sector receiving the payment. These accounts can be organized in either a Transaction Matrix (TM) or a Social Accounting Matrix (SAM).

TABLE 3

An example of a Transaction Matrix

	Prod.	HH	NFB	FB	GG	RoW	Tot
Compensation of employees	-CE	+CEd				+CEw	0
Net indirect taxes	-NIT				+NIT		0
Gross operating surplus	-GOS	+GOSh	+GOSn	+GOSf	+GOSg		0
Compensation of employees from Rest of the World (ROW)		+CEFW				-CEFW	0
Household consumption	+CON	-CON					0
Government consumption	+G				-G		0
Gross capital formation	+GCF	-GCFh	-GCFn	-GCFf	-GCFg		0
Net exports	+NE					-NE	0
Interest on foreign loans			-iFLn	-iFLf	-iFLg	+iFL	0
Interest on domestic loans		-iDLh	-iDLn	+iDL	-iDLg		0
Dividends			-DIV		+DIVg	+DIVw	0
Taxes		-Th	-Tn	-Tf	+T		0
Transfers from the government		+TRgh	+TRgn		-TRg		0
Remittances		+TRwh				-TRwh	
Increase in financial assets		-DFAh	-DFAn	-DFAf	-DFAg	-DFAw	0
Increase in financial liabilities		+DFLh	+DFLn	+DFLf	+DFLg	+DFLw	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**

A simplified TM is shown in Table 3 above. In this case, each type of transaction is recorded on one row of the table, reporting the value with a plus sign in the column of the sector receiving the payment and a minus sign in the column of the sector making the payment. Accounting consistency requires that the sum of all cells in each row be zero. The example starts with the payments connected to the components of GDP from the demand and income sides. Notice that accounting consistency also implies that the sum of the first column for production is equal to zero.

The non-financial side of the TM can be arranged to present the data in the same sequence adopted in the national accounts of institutional sectors: determination of primary income, determination of disposable income, current expenditure, capital expenditure and saving formation. However, the modeller will need to address the problem that the payee and payer will not necessarily be matched for each type of payment. The financial side of the TM, which has a direct relationship to flow-of-fund matrices, will include the payments related to the purchase, sale of financial assets and liabilities.

TABLE 4

Structure of a Social Accounting Matrix

	Production	Households	Non-fin. business	Financial business	Govt.	ROW	Capital account	Total
Production	IP	CON			G	EXP	GCF	**Q**
Households	WBh + GOSh	TRANSFER MATRIX					GCFh	**Yh**
Non-financial Business	GOSn						GCFn	**Yn**
Financial business	GOSf						GCFb	**Yf**
Government	GOSg + NIT						GCFg	**Yg**
ROW	IMP							**Yw**
Capital account		SAVh	SAVn	SAVf	SAVg	SAVw		**SAV**
Total	**Q**	**Yh**	**Yn**	**Yf**	**Yg**	**Yw**	**GCF**	

In the SAM (Table 4), each cell will include all payments on the current account made from one sector (in the column) to another (in the row). The consistency principle requires that the sum of the elements in a row (money obtained) be equal to the sum of the elements in the corresponding column (money spent plus saving/net acquisition of financial assets). In both the TM and the SAM tables, imports can be assumed to be purchased by domestic firms and, therefore, appear as a cost of total production. When data are available, imports can also be decomposed between intermediate goods and final goods, allowing for a better representation of the economy's supply side. In a similar vein, institutional sectors can also be disaggregated depending on the availability of data and research goals, e.g. central and subnational levels of government.

Another consideration that favours using SAM as a starting point is the relative ease of incorporating industrial disaggregation. Based on the I-O table, the model disaggregates production into specific key sectors (usually less than 10). That is, for each sector, a column and row are added for intermediate purchases (IP). Corresponding disaggregation is also carried out for the total wage bill (WBh), gross operating surplus (GOS) and net indirect taxes (NIT), as well as for domestic and foreign final demand.

4.3. Financial accounts: flow of funds

SFC adherents point out that the table is incomplete because it does not carry through the logical implication of the principle of double-entry accounting. For example, what form does the savings of the household sector take? How are budget deficits financed? (Godley and Lavoie 2012: 8). These considerations lead to the flow of funds (FoF) matrix, which displays the sources of funds and the uses of funds for each institutional sector. The standard disaggregation of these flows is again detailed in the SNA, which suggests reporting the acquisition of assets and incurrence of liabilities distinguishing, for each institutional sector, among:

- Monetary gold and Special Drawing Rights (SDRs)
- Currency and deposits
- Debt securities
- Loans
- Shares
- Insurance, pension and standardized guarantees
- Financial derivatives
- Other

The estimates of these flows in a given period, which may appear both in the assets and liability side of a given sector, are usually estimated and published by central banks. Stock-flow consistency requires that, for each financial asset/liability, the value of—say—new bank deposits made by households are reported as an increase in the value of financial assets of the household sector and an increase of financial liabilities of the financial sector for the same amount so that creditors and debtors can be matched. Several countries publish these financial data matching creditors to debtors. For those that lack such data, a matching procedure will need to be conducted in the modelling stage with appropriate hypotheses.

The accounting identities implied in the TM (or the SAM) and those in the FoF provide a fundamental identity for each institutional sector and the national economy as a whole. In summary, equations 1 to 5 are:

$$\textit{Income less current expenditure = Saving (SAV)} \tag{1}$$

$$\textit{SAV less gross capital formation (GCF) = Net acquisition of financial assets (NAFA)} \tag{2}$$

$$\textit{NAFA = Net acquisition of assets (}\Delta\textit{A) less Net incurrence of liabilities (}\Delta\textit{L)} \tag{3}$$

Applying the fundamental identity to the non-financial business sector, for instance, results in:

$$\textit{NAFAn = SAVn – GCFn = }\Delta\textit{An – }\Delta\textit{Ln} \tag{4}$$

and rearranging leads to:

$$\textit{GCFn = SAVn + }\Delta\textit{Ln (–}\Delta\textit{An)} \tag{5}$$

In other words, capital expenditure ***(GCFn)*** must be funded either through internal funds ***(SAVn)*** or through an increase in liabilities ***(ΔLn)*** or a reduction in financial assets ***(ΔAn)***. Applying the same analysis to the other sectors helps to clarify the sources and uses of funds both at the sectoral level and for the country as a whole. In other words, the sum for each column of the TM will provide the budget constraint for a specific sector. The macroeconomic effects of alternative methods of financing interventions for gender equality would begin by describing the financing modalities within this framework.

4.4. The revaluation matrix

The logical question once the flow of funds is considered is this: what are the results of these flows? Where are they going? To complete the macro picture, stocks (i.e. stocks of assets and liabilities) need to be brought into the picture explicitly. Borrowing and lending need to be linked—and, more generally, all entries in the FoF—to the stocks of the nation's assets and liabilities and individual institutional sectors. In doing so, the change in the market value of real and financial assets due to changes in their market price ("revaluation") needs to be considered. The revaluation matrix displays for each institutional sector (rows) the amount of capital gains or losses for each asset and liability (columns) between two periods.

For instance, the value in the domestic currency of foreign loans at the end of the next period **(FL_{t+1})** will be given by the value in US$ at the end of the period **($FL\$_{t+1}$)** at the new exchange rate **(e_{t+1})**. In general, the value of an asset/liability ***i*** at the end of period ***t+1***, can be written as:

$$A_{i,t+1} = A_{i,t} + I_{i,t} + \dot{p}_{i,t+1}\dot{A}_{i,t} \qquad (6)$$

where $\dot{p}_{i,t+1}$ is the percentage change in price and I_i is the new acquisition in period ***t***.

The value of ***FL*** will evolve because of (a) new loans being obtained, less reimbursement of existing loans and (b) changes to the exchange rate.[40] The latter generates capital gains/losses, which may be very large and volatile. Net capital gains have played a significant role in the last two booms that ended in recessions: the stock-market boom of the second half of the 1990s (the "dot-com bubble") and the housing market boom of the first half of the 2000s, which ended with the 2007 Great Recession. Therefore, any macroeconomic model must incorporate net capital gains and allow for feedback from speculative movements in housing and financial markets on the real economy and the balance sheet of institutional sectors.

4.5. The balance sheet matrix

A matrix represents the balance sheet of the economy. Table 5 illustrates 10 asset/liability categories and 6 institutional sectors. Apart from real capital, the other categories are all financial assets and liabilities. Domestic and foreign components of loans, shares and securities are distinguished below. Also, except for real capital, the row sum of each category adds up to zero because each financial asset of an institution is the liability of another institution and vice versa.

The inclusion in the model of the stocks of assets and debt allows for tracking the implications for expenditure and saving decisions, as well as for endogenizing the income transfers generated by interest payments on existing debt.

TABLE 5

A balance sheet matrix

	Household and NPISH	Non-financial business	Central Bank	Other financial institutions	Government	ROW	Total
Real capital	+Kh	+Kn			+Kg		**+K**
Gold and SDRs			+CBA			-CBA	**0**
High powered money	+HPh		-HP	+HPb	+HPg		**0**
Bank deposits	+DEPh	+DEPn		-DEP	+DEPg		**0**
Gov. securities	+Bh	+Bn	+Bcb	+Bb	-B	+Bw	**0**
Domestic loans	-Lh	-Ln		+L	-Lg		**0**
Foreign loans		-LWn		-LWb	-LWg	+LW	**0**
Domestic shares	+EQh	-EQ			+EQg	+EQw	**0**
Foreign shares	+EWh	+EWn		+EWb		-EW	**0**
Foreign securities		+Fn	+Fcb	+Fb		-F	**0**
Total	**+Vh**	**+Vn**	**0**	**0**	**+Vg**	**+Vw**	**+K**

4.6. Model closures

The accounting framework of an SFC model can be extended appropriately according to the research question to be addressed. So far, the structure of the model has followed the same principles adopted for producing macroeconomic data according to the SNA. Therefore, it will not be biased in one direction or another by the adoption of a given theory. Any consistent macroeconomic model should be coherent with this accounting structure and since most models have a much simpler structure, they implicitly assume that not explicitly representing some parts of economic processes—usually related to financial markets—will not imply severe distortions in their results. However, the experience of the last Great Recession has shown that neglecting the interactions between real and financial markets may imply completely wrong perceptions of the impact of shocks or policies. Therefore, explicitly or implicitly calibrated, a complete accounting structure is an essential requirement.

Once the accounting structure is complete and tested for consistency, the next step in model development requires the adoption of appropriate closures, i.e. assumptions about the direction of causality among model variables. So far, most, if not all, empirical SFC models in use are based on post-Keynesian closures. Such a position entails assuming that the level of real GDP is determined from the demand side, with real private expenditure depending on real disposable income and the real stock of (real and financial) wealth.

Exports and imports are also carefully endogenized based on income and relative price determinants. This demand-led Keynesian approach has proven effective not only for developed economies but also for lower-income countries that may experience supply-side constraints.

The following section sketches the vital causal links among model modules at the aggregate level.

4.7. Aggregate demand

At the aggregate level, household domestic consumption in real terms is assumed to depend on real disposable income and the initial stock of wealth, with a specification that implies a stable wealth-to-income ratio in the long run, with short-run deviations that can originate from changes in the autonomous component of consumption, financed by borrowing.

Investment is usually modelled more effectively when it can be studied separately for residential and non-residential expenditures, since the former usually relies more on the conditions of finance than the latter. Empirical analysis has shown that models based on a target output–capital ratio usually imply realistic results.[41] This investment specification introduces another path dependence to the model in addition to the consumption –savings–wealth nexus.

SFC models explicitly link the target expenditure for productive investment to the availability of internal funds (undistributed after-tax profits), the demand for new loans (conditional on an evaluation of loans' profitability from financial businesses) or the sales of new equities, which may take the form of foreign direct investment. In this way, the dynamics of investment and accumulation of real assets are linked to the dynamics of debt and foreign ownership of productive assets.

Exports and imports are determined based on an indicator of the real disposable income of the buyer and a measure of the real exchange rate, usually decomposed in the determinants of domestic and foreign inflation, as well as of the nominal exchange rate. The balance of trade, along with net property income flows, will imply a change in the net external investment position of the country, which in turn will affect the availability of funds and possibly the exchange rate.

Since this macro model disaggregates demand into a few productive sectors, the components of aggregate demand need to be allocated across the productive sectors. As in SAM-based CGE and structuralist models (see, e.g., Taylor 1983: 68), survey data on household expenditures can be used to estimate the changes in the sectoral shares of domestic private consumption in response to a policy intervention. The cost of borrowing may also be relevant to household expenditure decisions, particularly for some categories of goods and services. This consideration can be incorporated in the sectoral decomposition of private domestic consumption as well. Similarly, relatively simple techniques can be deployed on the data available from the input-output table or SAM to allocate imports and exports across the productive sectors.[42]

4.8. The financial sector

The behaviour of the financial sector is usually based on the hypothesis that it will accommodate the requests for funding coming from other sectors, conditional on these operations being profitable. For instance, loans will be provided to the non-financial sector on demand, at an interest rate given by a markup over the cost of borrowing for the lending institution, where the markup will vary with the riskiness of the borrower, which at the aggregate level can be proxied by the ratio of outstanding debt to income, or a similar indicator.

The cost of borrowing for lending institutions typically depends on monetary policy decisions from the central bank. In small open economies, the demand for liquidity may often rely on the demand for foreign currency to pay for imports or other obligations with foreign institutions. In such cases, the central bank may not be able to lend at rates lower than those prevailing in international financial markets. These considerations can be directly incorporated into this model. Another factor to consider in the specification of the financial sector in some countries is the role of microcredit. Where relevant, it should be treated explicitly in the model whenever data —on the size and the cost of such credit—have been collected and published.

4.9. Fiscal policy

SFC models usually pay great attention to endogenizing components of government revenues and expenditures that depend on the business cycle: all of them These will include different types of taxes and contributions, as well as transfers such as pension payments and unemployment benefits. For these variables, fiscal policy will imply, for instance, changes in specific tax rates. The model will also specify the sources of funds for government expenditures and consider the possible implications of "excessive" debt burdens in terms of interest payments to foreign creditors, as well as the possible impact of higher debt-to-GDP ratios on the cost of borrowing.

4.10. Macroeconomic closures

SFC models are fully compatible with a structuralist approach to modelling a developing economy. Contrary to most CGE models, however, macroeconomic closure does not constrain investment to be determined by aggregate saving. Convergence towards macroeconomic equilibrium will typically be achieved with one or more sectors being out of equilibrium at the same time one or more institutions react to prevent imbalances from cumulating over a desired threshold. As an example, consider the net wealth of the main institutional sectors of the economy, where the subscripts ***h, i, f, g*** and ***w*** identify the household, business, financial, government and rest of the world sectors, respectively. Consider a stable, sustainable initial condition where the end-of-period stocks of net financial assets are:

$$B_h = -B_i - B_g \qquad (7)$$

In other words, household net financial wealth comprises claims on domestic businesses (which will be holding productive capital) and government debt, with the net wealth of the financial sector being zero and no foreign debt or foreign assets. In countries where bank loans finance government expenditure, this situation will be determined by the financial sector lending to the government, therefore creating liquidity that the government uses to pay businesses and workers in the private sector so that the amount of outstanding government debt will equal the amount of liquidity which are the assets of private institutions. As long as the government can roll over its debt that comes to maturity, such a configuration will be stable and the stock of government debt will match the stock of liquid assets desired by the private sector.

Consider now the effects of an increase in government expenditure in order to reduce gender imbalances, e.g. expanding early childhood care and education services. As discussed previously, this intervention will require an increase in employment in this sector and a corresponding increase in the compensation of employees (with a one-to-one increase in GDP). This stimulus to aggregate demand will imply the usual Keynesian effects on consumption and possibly on investment if the impact on the capital utilization rate is sufficiently large, as well as the multiplier effects that transmit the increase in demand from one industry to another.

Suppose the country can collect the value-added tax and income taxes effectively. In this case, part of the increase in government expenditure will be automatically financed by the rise in tax revenues. The remaining part will need to be financed, assuming that the financial system will fulfil the demand for credit and that the increase in demand will not be large enough to generate an increase in the average costs of production and, therefore, inflation. The only problem in a small, open economy is that a considerable part of the additional demand will be for imports, so an increase in government deficit will translate into a balance of payment deficit. Of course, the macroeconomic outcomes will be different if the financing needs are met via increased taxation of high-income groups. Similarly, forgiveness of some external debt or reduced payments to service external debt can offset the impact on balance of payments.

SFC models also explicitly consider that debt implies future interest payments, so an increase in government deficit and a balance of payments deficit will generate an increase in future transfers of interest payments to the creditors, possibly increasing the size of both deficits. A central bank reaction function exists to ensure that the level of international reserves remains at appropriate levels, either through movements in the exchange rate or through other monetary policy instruments.

4.11. Micro modelling block

In the overview of the model, it was pointed out that the focus would be on changes in employment as the key variable linking the macro and micro blocks of the model. In turn, the changes in employment generate changes in individual earnings, family income and expenditures. This is one way of demonstrating how inequality along the three dimensions changes due to particular policy interventions. In addition to metrics for the overall changes (e.g. the Gini coefficient of individual earnings), it is also desirable to examine the changes among population subgroups (e.g. earnings of highly educated women versus less-educated women) and, especially, along the gender axis.

Because gender disparity in the division of household production responsibilities is considered to be a crucial determinant of gender inequality in various domains, the likely impact of changes in employment on the hours allocated to home production is modelled. It is assumed that in multi-person households, the change in an individual's employment status may lead to changes in the intrahousehold allocation of home production, even though the employment status of the other adults in the household may remain unchanged. This is consistent with the view that employment status is critical in shaping intrahousehold power relations and gender norms, exerting powerful influences on household production allocation (see, e.g., Sen 1987, Agarwal 1997 and Kabeer 2008).

Keeping track of changes in household production generated by the policy interventions is also important for poverty evaluation. As has been argued, poverty thresholds do not recognize that survival with a poverty level of income presupposes a certain amount of household production (Vickery 1977, Zacharias 2023). Consequently, conventional poverty thresholds are misleading for families without sufficient time to allocate toward household production. The Levy Institute Measure of Time and Income Poverty (LIMTIP) overcomes the bias in the official measures. It is proposed, data permitting, that the impact assessment on poverty employs the official measure and LIMTIP.

Below, the model's main features for evaluating micro-outcomes are described. The data required to implement the model are usually collected in a typical household income or consumption expenditures survey that gathers a wide variety of information, including demographics, education, and the economic activity and labour market characteristics of each adult person in the household; details regarding own-account farm and non-farm employment; and household characteristics such as the number of children and adults, place of residence (urban versus rural), household income and consumption expenditures. For assessments which use the LIMTIP, information on time allocation, preferably collected via a time-use survey, is also required. Typically, the operations described below are carried out using a synthetic data file that combines a household income or expenditure survey with a time-use survey via statistical matching based on propensity scores (Kum and Masterson 2010).

4.12. Changes in employment and household production

The execution of the macro block of the model yields the estimates of new employment by sector. Since it is assumed that technology remains unchanged, it can also be assumed that the occupational distribution of new employment can also be assumed the same as that of existing employment in each sector. A further premise is that new employment is like existing employment in terms of hours of employment and earnings within each sector. The simulation assigns each newly employed person the hours and earnings of an already employed person who is statistically most similar to them in the sector. It is also assumed that enough willing and able workers are available to take up the newly available jobs at the going rates of remuneration.

The procedure for judging statistical similarity considers the constraints and opportunities which individuals face. The constraints are mainly reflected in their living arrangements (e.g. single, female head versus a member of a joint family), responsibilities (e.g. mother of young children versus women with no responsibility for young children), location (e.g. urban versus rural) and other similar variables. Economic opportunities which are

available to individuals are assumed to be shaped by their demographic characteristics (e.g. social class, gender, age, ethnicity), labour market attributes (e.g. educational attainment, experience), family wealth (e.g. ownership of real estate or liquid assets) and a related set of variables. The constraints and opportunities, as well as their effects, tend to be different for men and women—a reflection of pervasive gender disparities.

The first step involves estimating the set of joint probabilities of being employed in each combination of sector and occupation for each potential job recipient. Actual job assignments may be limited to a subset of sectors according to the specific research question. These estimated probabilities are used in assigning jobs created in various policy scenarios to individuals by beginning with the highest joint probability and assigning jobs to those with progressively lower joint probabilities until the new jobs are exhausted. To estimate the set of joint probabilities, three statistical models are used: a probit model for being employed, a multinomial probit model for sector conditional on employment and a multinomial probit model for occupation conditional on being employed. The predicted probabilities of being employed, employed in each sector and employed in each occupation to each job recipient are assigned. Then, the product of the predicted probability of employment and each combination of the predicted probability of being employed in a sector and of being employed in an occupation as the joint probability for each combination of sector and occupation are taken.

$$emp = G(\beta X + \varepsilon) \quad (8)$$

$$ind = G(\gamma Z + \mu) \quad (9)$$

$$occ = G(\delta Z + \upsilon) \quad (10)$$

$$\widehat{emp}^{io} = Pr^{emp}(\hat{\beta}X) \cdot Pr^{i}(\hat{\gamma}Z|emp = 1) \cdot Pr^{o}(\hat{\delta}Z|emp = 1) \quad (11)$$

The first model (Equation 8) is estimated using all potential job recipients and all those who are employed. The set of independent variables, $\boldsymbol{X}$ is chosen to reflect the constraints on an individual's entry into employment. It includes variables such as age, sex and educational attainment, as well as household-level variables such as other household income, the number of children in the household and geographic identifiers. Because the industry and occupation of employment are known only for employed persons, the second (Equation 9) and third (Equation 10) models for that subsample only are estimated. The dependent variable is the probability of being employed in one of the sectors or occupations and the independent variables are those chosen to reflect the individual's constraints and opportunities. In sum, in the first step, a ranking of the likeliest industry and occupation combinations for recipients is constructed.[43]

In the next step, the earnings and hours of employment of all are imputed. These imputations are usually carried out separately for men and women, classified into various age groups to account for parameter heterogeneity.[44] The first stage is a probit estimation of labour force participation:

$$lf_i = \alpha_0 + \beta_j X_i + e_i \quad (12)$$

where lf_i is a dummy variable that takes a value of 1 if the person is in the labour force, $\boldsymbol{X}_i$ is the set of $\boldsymbol{j}$ characteristics of person $\boldsymbol{i}$, and $\boldsymbol{e}_i$ is the normal error term that (hopefully) captures the effect of unobserved factors that impinge upon labour force participation. Based on the results of the probit regression, the inverse Mills ratio $\boldsymbol{(\lambda)}$ is estimated to be used to account for

selection bias.[45] In the second stage, an OLS regression is run to model the log of hourly earnings for the sub-population of those with positive earnings:

$$\ln w_i = \alpha_1 + \gamma_k Z_i + \theta_1 \lambda_i + \epsilon_i \quad (13)$$

where w_i is the hourly earnings of person i, Z_i is the list of k characteristics of person i and ϵ is a Gaussian error term. The earnings of all with the OLS equation is then predicted. The list of explanatory variables includes the actual industry and actual occupation for employed people, while the imputed pair of likeliest industry and likeliest occupation are used for the recipients. Among the variables included in the regression is the inverse Mills ratio. The final step is the estimation of (weekly) hours of employment for those with positive earnings:

$$h_i = \alpha_2 + \psi_k Z_i + \theta_2 \lambda_i + \omega \ln \tilde{w}_i + \mu_i \quad (14)$$

where h_i is the weekly hours of employment of person i and μ_i is a Gaussian error term. Note that the imputed wage predicted in the second stage ($\tilde{w}_i$) and the inverse Mills ratio calculated in the first stage are included. Imputed hours per week are predicted for donors and recipients using the regression results, replacing the latter's likeliest industry and occupation.

With the imputed information described above and observed characteristics, jobs to recipients can be assigned using a variant of the standard hot-decking method (Andridge and Little 2010). Beginning with the potential recipient with the highest joint likelihood of being employed in an industry-occupation combination, a pool of individuals actually employed in that sector-occupation combination that most resemble the recipient is identified. The degree of resemblance between each potential recipient and the pool of potential donors is assessed using affinity scores (see Crammer and Gill 2013: 435). The affinity score is a weighted sum of matched characteristics. For example, suppose a donor and the recipient have exactly the same value for characteristics such as imputed wage or area of residence that are considered relevant. In that case, the preassigned weight for that characteristic is added to the affinity score for that donor with respect to the recipient in question. For categorical matching variables, exact matches are used. To ensure that the donor's job is in the appropriate industry and occupation, these are weighted very highly so that only donors with that combination of employment characteristics can be matched.

As noted earlier, the change in employment status can potentially change the newly employed person's time allocated to household production. Such changes may be triggered by the reduced time available for unpaid work, the ability to afford more market substitutes because of additional income from employment (e.g. restaurant meals instead of home-cooked meals), a combination of the two and other factors. For the newly employed who live with other adults, the possibility of reshuffling household responsibilities should be considered. Reshuffling may occur because of reduced time availability of the newly employed, higher family income, change in the intrahousehold power relations governing the distribution of household production, or a combination of these factors.

A second round of imputations is thus needed. In this round, the recipient pool consists of all those for whom time-use information is available in a household that contains at least one job recipient. The donor pool consists of everyone in the survey. The change in the allocation of time use hinges on the change in the number of workers in the household, so for this round of hot-deck matching based on affinity scores, the number of male and female workers is weighted as heavily as the number of adults and the number of children in the household in assessing similarity between recipients and donors. In this case, individuals are matched within groups of individuals with the same sex, age category and educational attainment. Once the imputations are done, the post-intervention aggregate household hours of household production is constructed by adding up the post-intervention individual hours of household production in households with at least one job recipient.

Naturally, the change in the employment status of previously non-employed persons in the household would lead to a change in family income. It is expected, therefore, that household consumption expenditures will also change. The change in aggregate consumption expenditures has already been determined in the macro block of the model. Hence, the percentage change in

aggregate consumption expenditures in the household survey data is constrained to be the same as that which is generated by the macro model.

4.13. Economic well-being and deprivation

The modelling described so far provides sufficient information to evaluate the impact of the intervention on gender disparities in employment and pay at a granular level within the statistical limits imposed by the particular household survey sample. Similarly, a comparison of post-intervention and baseline household income distributions can facilitate understanding the potential impacts on overall income inequality and inequality across demographic groups. It was also seen that post-intervention household consumption expenditures consistent with the macro model's estimates can also be constructed. Consumption expenditures are widely used as a gauge of household living standards. Moreover, official poverty lines in most of the Global South are based on consumption expenditures (Deaton 2018). This model can support the standard analysis of changes in the poverty status of households generated by the policy intervention (Fontana and van der Meulen 2005).

As indicated, a more comprehensive assessment of gender disparities can be conducted for countries with time-use data. This allows the introduction of the dimension of home production into the picture. Feminist scholars have long emphasized the importance of considering the changes in the amount and division of unpaid home production among individuals (primarily but not exclusively along gender lines) due to policy interventions being a crucial component of impact assessment (Elson 1995b). Because the model is based on microdata, it allows such assessments from a rich intersectional perspective by taking into account, for example, ethnic and household income differences among men and women.

With the integration of time-use data into the micro database, a poverty-impact assessment can be conducted that avoids a signficant pitfall of the official measure of poverty —the neglect of household production in sustaining minimum living standards. The LIMTIP has been designed to facilitate a more robust analysis of poverty.[46] This measure conceptualizes time deficits at the individual and household level and abandons the treatment of time deficits as a purely household-level phenomenon in earlier works (e.g. Vickery 1977).

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ENDNOTES

1. See country studies for Argentina, Ethiopia, Kenya, Morocco, Nepal, Nigeria, Palestine and Senegal, among others, that assessed fiscal stimulus packages from a gender equality perspective in the UN Women publications in the Chapter 1 references. See also UNFPA et al. (2023).
2. Governments have defaulted on their debt 18 times in the past three years. This surpasses the total number of defaults that were recorded in the previous two decades, underscoring how unsustainable debt burdens have become.
3. Public investment needs for providing childcare have been estimated in UN Women reports for several countries, including Argentina, Egypt, Mexico, Morocco, Nepal, Turkey, South Africa, Uruguay and others. See also UN Women and ILO (2023a) that provides a comprehensive list of country, regional and global studies on public investment requirements.
4. The Buenos Aires Commitment was adopted at the 15th session of the Regional Conference on Women in Latin America and the Caribbean in November 2022 (UN ECLAC and UN Women 2023).
5. The interest rate and fees, maturity structure and currency in which debt is denominated will also affect the extent of fiscal space created by new borrowing.
6. The discussion on macro-level policies to create fiscal space is based on Seguino (2025).
7. The discussion in this section is detailed in Chapter 3. It draws from Grabel (2025).
8. A total of 75 countries are eligible to borrow from the World Bank's International Development Association (IDA), which supports the world's poorest countries.
9. The World Bank, for example, uses this definition to distinguish it from infrastructure investments that "crowd in" private investment, that is, that support the productive as compared to reproductive economy.
10. To be more precise, social infrastructure investment refers to public expenditures on health, education and care. The evidence of such expenditures is to be found embodied in people, but the impact of those expenditures extends beyond individual recipients to society at large, due to their public goods quality.
11. Himmelweit (2016) cautions that a narrow focus on the benefits of social infrastructure investment for productivity growth can be problematic, insofar as it is harder to make an investment argument for expenditures on care for some members of society, such as those with disabilities and the elderly. Yet even in these two cases, public spending to support care of this kind reduces women's unpaid labour burden, freeing up their time to spend in paid labour.
12. See Bargawi and Cozzi (2017) and De Henau and Himmelweit (2016) for simulations for Europe and the United Kingdom.
13. These are statutory rates or the base rate applied on all profits. Tax adjustments may be applied such that the effective tax rate differs from (and is lower than) the statutory rate. Taking the United States as an example, although the statutory tax rate in 2010 was 39.1 per cent, the effective tax rate after deductions was 24.1 per cent (KPMG 2010).
14. These include the Mexican crisis in 1994, the Asian financial crisis of 1997–98, with contagion effects in Russia (1998) and Brazil (1999) as well as crises in Turkey (2000) and Argentina (2001).
15. As an example, in the US state of Vermont, Act 60 adopted in 1995 requires the pooling of the education portion of local property tax revenues at the state level, which then redistributes these revenues to municipalities to achieve equalized per pupil spending across all municipalities. The tax is income sensitive in that households with income below a threshold are exempt from the tax.
16. The view that central banks must adhere to low inflation targets as a precondition for macroeconomic stability and growth is not supported by the evidence. Several studies find that annual inflation rates under 20 per cent are not harmful to a country's growth (Bruno 1995; Pollin and Zhu 2006). During the Republic of Korea's early years of export-led growth, inflation rates routinely reached 15 per cent and yet that country recorded some of the highest growth rates in modern times.
17. The recent bout of US inflation is primarily attributable to an increase in corporate profits, reflecting its market power to set prices in the context of increased economic concentration (Bivens and Banerjee 2023; Bräuning et al. 2022).
18. IFTTs discussed in the previous section on tax policy can be categorized as capital management techniques.
19. Also see the citations in and discussion of the investment character of public expenditures (including expenditures on social and physical infrastructures that support gender equality and economic growth) in Seguino (2019 and 2025).
20. In recent years, the BWIs have become somewhat more sensitive on the costs of austerity, though this is expressed more through rhetoric than in the content of adjustment programmes.
21. These austerity policies include (1) targeting and rationalizing social protection (in 120 countries); (2) cutting or capping the public sector wage bill (in 91 countries); (3) eliminating subsidies (in 80 countries); (4) privatizing public services/reform of State-Owned Enterprises (SOEs) (in 79 countries); (5) pension reforms (in 74 countries); (6) labour flexibilization reforms (in 60 countries); (7) reducing social security contributions (or "tax wedges" in 47 countries); and (8) cutting health expenditures (in 16 countries). In parallel, three prevalent measures to raise revenues in the short-term that also have detrimental social impacts include: (9) increasing consumption taxes, such as sales and value-added taxes (VAT) (in 86 countries); (10) strengthening public –private partnerships (PPPs) (in 55 countries); and (11) increasing fees/tariffs for public services (in 28 countries) (Ortiz and Cummins 2022: 16).
22. For a summary of some of the literature on the gendered effects of economic crises and austerity programmes, see Mucchala 2023: 8–9, which further cites Sen and Grown (1987); Elson (1995); Elson and Cagatay (2000); Roy et al. (2009); Seguino et al. (2010); Jain and Elson (2011); Seguino (2013 and 2021); Elson and Seth (2019); and Braunstein et al. 2011.
23. Small Island Developing States (SIDS) are particularly vulnerable to climate change. During the pandemic, 11 of the 16 SIDS that are rated faced a downgrade or a negative credit outlook by at least one of the big three credit-ratings agencies. This raised the cost of capital for these countries, some of which presumably could have been used to support climate adaptation (Wilkinson and Wignaraja 2023).
24. For further discussion of biases in credit ratings (both cross-national and ideological), see Griffith-Jones and Kraemer (2021). One striking statistic from this working paper illustrates North–South disparities. They found that during the pandemic, credit ratings for countries in the Global South were downgraded by a total of 125 notches, whereas in the Global North (where economies contracted to a greater degree and accumulated debt more rapidly) were downgraded by only 6 notches.

25. The UN Secretary-General has consistently emphasized this matter. For example, see UN (2023a) and *UN News* (2022 and 2023).

26. "Even prior to the recent rise in interest rates, least developed countries that borrowed from international capital markets often paid rates of 5 to 8 per cent, compared to 1 per cent for many developed countries. More recently, rising investor risk aversion has pushed the cost of borrowing above what would be warranted by macroeconomic fundamentals in many countries, with some middle-income countries with investment grade ratings paying between 6 and 7 percentage points above US Treasury yields in 2022." (UN 2023b: 1).

27. The same data release by the IMF (via its new Financial Data Query Tool) indicates that the five countries paying the most in surcharges will spend US$6.1 billion on surcharges in the next five years (Galant and Vasic-Lalovic 2024).

28. Note that Ukraine is the largest payer of surcharges. It is estimated that from 2023–2031, the country will likely pay the IMF US$3.5 billion in surcharges. Other nations with large surcharge obligations include Pakistan and Egypt (Amsler and Galant 2023).

29. Note that debt buybacks, guarantees, collateralization and cancellations were part of the Heavily Indebted Poor Countries Initiative in the 1990s and the resolution of the Latin American debt crisis of the 1980s (UN 2023b).

30. In these initiatives, "debt relief was granted by multiple creditors (including in the private sector) to multiple debtor countries on common principles, even if sometimes negotiated on a case-by-case basis. These initiatives shared several commonalities: substantial —but protracted—debt stock reduction and being preceded by a series of less ambitious debt relief efforts" (World Bank 2022b: 50–51).

31. Another stark illustration of the perverse allocation of SDRs in 2021: the US received US$113 billion in SDRs and Malawi US$189 million (Daar and McCarthy 2023: 14–15).

32. See discussion in Ghosh (2023) and Daar and McCarthy (2023): 14–15.

33. For a summary of other transfer strategies, see Muchhala and Hope (2021); Ghosh (2022); and Ghosh (2023).

34. The 2X was founded in 2017 by G7 development finance institutions. For discussion of 2X, see AWID (2023: 27). On the 2X Challenge, see also 2XChallenge. "2X Criteria."

35. They also argue that the trust fund could be what they call a "Green Fund."

36. This approach could be adapted to reward other markers that connect to goals around equitable growth, human rights and sustainability.

37. Cassimon, Essers and Renard, cited in Ito et al. (2018: 2).

38. Consider, e.g. the following statements that describe the core analytical framework: "For the private sector, profit maximization drives decisions regarding factor employment, which determine the output level and intermediate demands" (5); "After deducting net financing of the government and of changes in foreign reserves, household savings are used to finance private investment." (6); "In the markets for private commodities, flexible prices ensure balance between demands for domestic output from domestic demanders and supplies to the domestic market from domestic suppliers." (7) (Lofgren-Cicowiez 2021). Taken together, they display the neglect of the principle of effective demand, the consequent "crowding out" nature of government deficits and the supply–demand determination of prices and distribution. The macro part of the model is mainly what has been described as a "World Bank model." For an intuitive contrast between this model and a structuralist post-Keynesian model, see Gibson and Seventer (2000).

39. Simon (1978) provides an excellent discussion of the idea. Lavoie (2004) has argued that the concept of procedural rationality is a better framework to understand individual behaviour than the "rationality of the utility-maximizer – a pretty smart one at that." (Simon 1978: 2).

40. Nalin and Yajima (2020) discuss the balance-sheet effect of devaluation in the context of developments in Mexico during 2004–2019, a period of the boom-bust cycle in commodity prices. One of the major changes that took place during this period is the increasing role of foreign-currency denominated debt of non-financial businesses in several emerging economies.

41. See, for instance, Burgess et al. (2016) and Zezza and Zezza (2022).

42. Allocating trade to productive sectors is possibly the easiest estimation step in building this type of model, since detailed data on trade by commodities are usually available, allowing the researcher to map trade data to data on domestic production and demand and to estimate price elasticities for the specification of how households and businesses allocate demand between domestic and foreign goods and for the determination of the demand for exports.

43. Other relevant employment characteristics may be considered in the assignment of jobs. For example, job status, such as being an own-account worker or wage employee, could also be modelled along similar lines and used in the matching procedure.

44. In certain contexts, such as in the United States, parameters are also estimated separately based on race categories.

45. The inverse Mills ratio is calculated as $\lambda_i = \phi(\bar{lf}_i)/\Phi(\bar{lf}_i)$, where $\bar{lf}_i$ is the predicted probability of being in the labour force for person i, $\phi(.)$ the normal distribution function and $\Phi(.)$ the cumulative normal distribution function.

46. Collaborative research by the Levy Institute scholars and country experts have been conducted in the project Levy Institute Measure of Time and Income (Consumption) Poverty (LIMTI(C)P). The project has developed estimates for a set of countries (in a given year): Argentina (2005), Chile (2006), Ethiopia (2014), Ghana (2012–13), Mexico (2008), the Republic of Korea (2009), Tanzania (2011–12), Turkey (2006) and South Africa (2014). Detailed analysis of the results and information regarding sources and methods can be found in: Zacharias et al. (2012) for Argentina, Chile and Mexico; Zacharias et al. (2014) for Turkey; Zacharias et al. (2014) for the Republic of Korea; Zacharias et al. (2018) for Ghana and Tanzania; and Zacharias et al. (2021) for Ethiopia and South Africa.

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