Fiscal Federalism, Expenditure Assignments and Gender Equality

No. 334
31-March-2021
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Abstract

We analyse the theoretical and empirical constructs of federal fiscal relations and present a roadmap to integrate gender in fiscal federalism. Applying an "equally distributed equivalent" methodology, gender equality is measured for this purpose. This also involves an analysis of the institutional space through a "gender lens", especially in the tax and expenditure assignments as well as the intergovernmental fiscal transfers. We arrive at the following four inferences. One, fiscal federalism, theoretically, is neither good nor bad for gender equality. The impact of fiscal federalism on gender equality outcomes depend on the interface between institutional design and intergovernmental fiscal transfers. Two, with the progress of federal governance and fiscal decentralization, significant expenditure assignments that are important for gender equality including health care, labour and education are given importance in the gender budgeting design. Three, the fiscal allocations relate to eliminating the statistical invisibility of unmonetised care economy labour that may promote women's economic empowerment need further emphasis. Four, the system of taxation and tax policy design are relevant to gender equality. However, evidence suggests that differential tax system and tax exemptions cannot correct gender inequalities. Five, in addition to integrating gender criteria in the tax-transfer formula, the fiscal federalism arrangements such as specific-purpose grants to subnational governments can promote gender equality.

Keywords: Fiscal federalism, gender equality, intergovernmental fiscal transfers

[1] The author sincerely acknowledges the discussions with Pinaki Chakraborty, Rupak Chattopadhyay, and Felix Knuepling. Thanks are due to Divy Rangan for research assistance.

I Introduction

Fiscal federalism is, inherently, neither good nor bad for gender equality (Chakraborty, 2010 and C. Forster 2018, Vickers, 2011 and 2013). The impact of fiscal federalism on gender-related outcomes depends on the interface between institutions and intergovernmental transfer design. Political will, institutional capacity and commitment towards gender equality are also significant determinants. Although fiscal federalism is a vast literature, the interface of fiscal federalism with gender equality is scarcely analyzed.

Despite the growing recognition of the importance of integrating gender in fiscal federalism, there are a few practical public policy steps taken in this direction across the globe. It is neither effectively incorporated in constitutional design, nor fiscal policy design. This paper tries to provide a summary of the existing literature on gender in fiscal federalism, to support the initiatives of integrating gender in fiscal federalism.

This review arrives at the following four inferences. One, fiscal federalism prima facie does not ensure gender equality. Two, with the advent of federal governance and fiscal decentralization, significant expenditure functions that are important for gender equality such as health care, education and income-support programs are given importance in fiscal federal design. The infrastructure investment, though rich in potential, has not effectively been analysed through a gender lens. Three, the fiscal allocations relate to the labour market that may promote women's economic empowerment need an emphasis. Four, the design of the tax system and tax policy are relevant to gender equality, however, evidence suggests that differential tax system cannot correct gender inequalities. Five, fiscal federalism arrangements such as specific-purpose grants to subnational governments can promote gender equality.

This paper aims to examine the complex dynamics of gender equality and fiscal federalism; to examine different gender equality mechanisms, institutional arrangements, and policy levers used in federal countries which have led to gender equality gains; to extract and synthesize the key theoretical and empirical learning from the existing evidence base and to make some broad recommendations how fiscal federalism can contribute to gender equality which is derived from the cross-country analysis undertaken, and produce an overview-synthesis/evidence review on the research findings.

The paper is organized into six sections. Section II deals with conceptual clarification and definitions that relate to gender equality. Section III reviews the existing literature. Section IV provides the gaps identified in the literature. Section V provides the analytical framework to fill the gap in the policy space. Section VI concludes.

II Conceptual Clarification and Definitions

Federations are seen as an "indestructible union of indestructible states". A federal political order is here taken to be "the genus of political organization that is marked by the combination of shared rule and self-rule". Gender parity is a statistical measure that provides a numerical value of the female-to-male or girl-to-boy ratio for indicators such as income or education. (Manlosa 2019, ADB 2013). Gender equality is a human rights issue. It has equity and efficiency dimensions. The measurement issues relating to gender outcomes pose a significant challenge.

The frequently used gender equality indicator is the Gender Development Index (GDI). Aggarwal and Chakraborty (2015) highlight the shortcomings of GDI and propose an alternative methodology that can address these short-comings. However, none of the measures addresses gender pay gaps in market sector employment which must be considered when formulating gender budgeting to increase the women's work force participation rates; and also in providing state and market provision of care to strengthen the workforce participation by women (Chakraborty, Nayyar and Jain, 2020). The Human Development Index (HDI) is a summary measure of achievements in three key dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living.

The Gender Development Index measures the gender gaps in human development achievements by accounting for disparities between men and women in three basic dimensions of human development – health, knowledge (education) and living standards (UNDP Report, various years) using the component indicators mentioned previously. Further, under the GDI, the average value of each component variable is substituted with equally distributed equivalent achievements (Xede), which represents the level of achievement that would, if attainted equally by men and women, be considered as valuable to the society as the observed disparate achievements (Lahiri et al. 2003). Lahiri, Chakraborty and Bhattacharyya (2003) maintain that taking an additively separable, symmetric, and constant elasticity marginal valuation function with elasticity 2, the equally distributed equivalent achievement Xede for any variable X by giving a penalty to gender inequality in the computation, is the following:

$$Xede = [\, nf\,(1/Xf) + nm\,(1/Xm)]^{-1}$$

where, Xf and Xm are the values of the variable for females and males, and nf and nm are the population shares of females and males. Xede is a 'gender-equity-sensitive indicator'(GESI). Under this calculation, a chosen value of 2 is for giving a penalty to gender inequality, GDI is computed as follows:

GDI = {Lede + (2/3 x Aede + 1/3 x Eede) + Yede}/3

Gender Inequality Index (GII) reflects gender based inequalities in mainly three dimensions, in reproductive health; in education and governance and in economic activity. The measures of reproductive health are Maternal Mortality Ratio (MMR) and Adolescent Fertility Rate (AFR). Maternal Mortality Rate (MMR) is defined as the number of female deaths per 100,000 live births annually, from any cause related to, or aggravated by the pregnancy or its management. AFR is the number of births per 1000 women aged 15-19. The empowerment is proxied through the share of parliamentary seats held by each sex (PR) and attainment of secondary education (SE). The labour force participation rate (LFPR) measures the participation of men and women in the labour market.

Gender Inequality Index (GII) reflects the loss in development due to inequality between female and male members of society. An index of 0 implies women and men fare equally whereas an index of 1 implies that one of the two genders fares as poorly as is possible. There are five steps for the calculation of GII. The first step involves treating zeros and extreme values, i.e. the outliers. GII is calculated by taking the geometric mean across the dimensions and because the geometric mean cannot be calculated for zero values, a minimum of 0.1 per cent is set for all the components (Aggarwal and Chakraborty,2015). The maximum value for the maternal mortality rate is taken as 1000 deaths per 100,000 births and the minimum value is 10 per 100,000 births. A higher maternal mortality rate suggests poor maternal health. After treating zeros, if any, we aggregate across dimensions within each gender group using geometric means. Because reproductive health variables are used, the aggregation formula for men and women is different.

$$Gf = \sqrt[3]{\left(\sqrt{\left(\frac{10}{MMR}\cdot\frac{1}{AFR}\right)}\cdot\sqrt{(PRf.SEf)}.LFRPf\right)}$$

The rescaling by 0.1 is required because we need to account for the truncation of the maternal mortality ratio minimum at 10.

For males, the formula is as follows:

$$Gm = \sqrt[3]{\left(1.\sqrt{(PRm.SEm)}.LFRPm\right)}$$

In this step, we take the geometric mean of the three dimensions that determine the inequality index. The next step is to aggregate across gender using harmonic means. The argument for using harmonic means is that it captures the inequality between women and men and further adjusts for association between dimensions but it is open to questioning as suggested by Angela Hawken and Gerardo L. Munck (2012). The index is as follows.

$$HARM(Gf, Gm) = \left(\frac{((Gf)^{-1} + (Gm)^{-1})}{2}\right)^{-1}$$

Before calculating the final index, a composite index is calculated using the geometric means of the arithmetic means. This step is carried out to give equal weights to both the genders and then aggregating it across the various dimensions, i.e. health, empowerment and economic activity.

The composite index is:

$$G(\overline{f}, \overline{m}) = \sqrt[3]{(\overline{Health}.\overline{Empowerment}.\overline{LFPR})}$$

Where

$$\overline{Health} = \frac{\left(\sqrt{\left(\frac{10}{MMR}\cdot\frac{1}{AFR}\right)} + 1\right)}{2}$$

$$\overline{Empowerment} = \frac{\left(\sqrt{(PRf.SEf)} + \sqrt{(PRm.SEm)}\right)}{2}$$

$$\overline{LFPR} = \frac{(LFPRf + LFPRm)}{2}$$

The gender inequality index is then defined as:

$$\mathrm{GII} = 1 - \frac{HARM(Gf, Gm)}{G(\overline{f}, \overline{m})}$$

The values for $HARM(Gf, Gm)$ and $G(\overline{f}, \overline{m})$ are taken form steps 3 and 4 above. The higher the value of GII, the higher is the gender gap and the loss in the potential of human development is also large. Hence we can say that to utilize all our resources fully, we need to bridge this gender gap. Gender equality is therefore very important for the development of an economy.

There are many conceptual and methodological problems with using this approach for the measurement of gender inequality. There has been an ongoing debate on the choice of variables used for the formulation of gender indices. One of the main constraints in using the variables that completely capture the essence of the various dimensions is the lack of availability of sex-disaggregated data across the globe (Aggarwal and Chakraborty, 2015). Because the parameters are not the same in different nations and the scope of data collection also varies, it is very difficult to come up with variables that are uniform in all the nations. But Angela Hawken and Gerardo L.Munck (2010) point out data availability was not seen as a constraint for the construction of SIGI and that new data can be generated to measure certain indicators that are considered central to an index's overarching concept.

Aggarwal and Chakraborty (2015) argue that the assumptions and the choice of variables to capture these dimensions remain inadequate and erroneous. One of the main drawbacks of using GII is that along with indicators of women vis-à-vis men, it also takes absolute indicators that are defined specifically for women (like MMR and AFR). It leads to conceptual problems in interpreting GII. In other words, taking only women-specific indicators leads to an index that measures women's well- being and status in the society whereas incorporating indicators comparable for men and women, we can construct a gender inequality measure that can be used to assess the relative well- being of women. As Inaki (2013) points out, an increase in MMR and AFR systematically represents a worsening of gender inequality levels while, on the other hand, decreases in women's education or LFP do not necessarily represent a worse state of affairs as long as men's education and LFP decrease by the same amount. Also, the corresponding value of MMR and AFR for men is taken as 1 which is far from realistic and leads to an overestimation of the gap between women and men's health standards. Another problem with using indicators like reproductive health is that it penalizes low-income countries as health standards are usually low in developing countries. While the proponents of the index might rightly argue that it makes sense to penalize those countries with bad reproductive health conditions for women, it is fair to say that countries' performance in those areas is influenced by a myriad of factors other than gender-related issues (Inaki Permanyer 2013). This calls for variables that are broader and capture then health standards of both sexes equally. Another problem in the construction of GII is that it only takes the share of women in the parliamentary seats and ignores women's representation in local governance and household decision making. Therefore there is a need to incorporate variables like the share of parliamentary seats in national and local levels of governance and the percentage of women participating in intra-household decision making as a measure of empowerment. And along with indicators for education attainment and decision making, exposure to basic facilities like newspaper and television can be used as a variable for the measurement of empowerment across genders. The third sub-indicator of the GII is the 'Labour Force Participation' which measures the involvement of men and women in the paid work. But we know that housework, childcare and care of elderly relatives represent women's unpaid work- an indispensable financial benefit to the entire economy (Lucia Bartuskova and Karina Kubelkova 2014). Yet it fails to capture the care economy where women are typically overrepresented. Owing to the importance of unpaid work and the differences in the representation of genders in SNA and extended SNA activities, it is desirable to incorporate unpaid work in the gender inequality index. The GII has been constructed to satisfy the assumption of symmetry in gender gaps. It means that the direction of gender gaps, whether they favour women or men is not taken into account (Aggarwal and Chakraborty, 2015). For example, an index of 0.61 does not specify if the situations are in favour of men or advantageous to women.

III Review of the Literature – Key Findings

The theoretical underpinnings of the rationale of incorporating gender into intergovernmental fiscal transfers are accountability ("voice" and "exit"), information symmetry, transparency, and appropriate size of government at the local level for effective service delivery. The degree of accountability ("voice") in integrating gender in an intergovernmental fiscal setup is based on dual conjecture—first, the accountability of the subnational government to the higher tier of government and second, to the electorate. The former limits the latter, especially in cases where financial decisions are centralized, but the provision of public goods is decentralized. The separation of finance from the functional assignment can lead to inefficiencies, the most oft-cited problem being unfunded mandates. This section heavily draws from Chakraborty (2010). Given the heterogeneity in the efficiency of public service provisioning across jurisdictions, it may be time to consider the scope of "asymmetric federalism" in the context of incorporating gender into fiscal policies. Asymmetric federalism refers to federalism based on unequal powers and relationships in political, administrative, and fiscal arrangement spheres between the units constituting a federation. Asymmetry in the arrangements in a federation can be viewed both vertically (between central and states) and horizontally (among the states). The "one-size-fits-all" gender policy cannot be a solution to redress gender inequities in a country with a vast population and heterogeneity across jurisdictions. One way of looking at this is to benchmark the governance of subnational governments, which may catalyse horizontal competition among the states. It can ensure gains in efficiency and increase productivity through the "Salmon mechanism". This is a mechanism by which intergovernmental competition is activated by benchmarking the performances of other subnational governments in terms of levels and qualities of services, levels of taxes, or more general economic and social indicators (Salmon 1987). The gender-sensitive benchmarking of local governance can empower women to compare the relative performance of their governments in terms of the tightness of "Wicksellian connections". This is a link between the quantity of a particular good or service supplied by centres of power and the tax price that citizens pay for that good or service. This implies the importance of looking at revenue policies not just budget allocation policies. However, we will take up this issue only selectively in the study.

The "principle of subsidiarity" or Oates theorem states that fiscal decentralization is good for efficiency and equality in the economy based on the rationale that local governments, which are closer to citizens, are more efficient in the provisioning of public services than the higher levels of government. This rationale holds good in terms of gender development, as local governments can have better information on gender differentials regarding needs and preferences. The point to be noted here is that is not a given, and it depends on political will, state capacity, and other such socio-political and economic determinants.

A significant risk of incorporating gender in the intergovernmental fiscal transfer mechanism is the dominance of "elite groups" within the jurisdiction and their influence in control over financial resources and in the public expenditure decisions related to the provisioning of public goods and governance. There is growing evidence that power at the local level is more concentrated, more elitist, and applied more ruthlessly against the poor than at the centre. This is referred to as *elite capture* in the theoretical literature. In such a setting, the voice of women elected as representatives may get neutralized by political pressure groups. Also, if the women in governance are comparatively less empowered, with minimum/no education and basic capabilities, their ad hoc decisions on the systems of public goods and services will not have any major impact on poor and needy women. The benefits of decentralized socioeconomic programs would be captured by the local elite and, in turn, result in underinvestment in public goods and services for women. This is particularly true in the context of heterogeneous communities and underdeveloped rural economies. A study conducted in several South-East Asian countries under IDRC concluded that women involved successfully in politics are often from families of politicians and with a comparable if a not higher level of education than men. So it is important to analyse whether the women political representatives are "proxy" voices of men or empowered leaders.

Yet another risk is "corruption". The aberrations in voice may induce the possibility of greater corruption at local levels of government than at the national levels; in turn, corruption deepens capability deprivation. There is empirical evidence indicating that decentralization increases corruption and reduces accountability, however, empirical evidence favours the hypothesis that the participation of women in governance structure lessens the possibilities of corruption. The gender differences in the incidence of corruption may range from personality traits (honesty, law-abiding), to the degree of access to networks of corruption, or to lack of proper knowledge of how to engage in corrupt practices. It may also be the case that voice may be a “proxy voice” if the elected women are not empowered and their male relatives operate the local bodies. However, effective participation of female representatives at the local level can change the priorities in budgeting, bring accountability, and ensure the quality and efficiency of public goods and services. The axiom of “exit,” which provides yet another mechanism for accountability, refers to the mobility of the population. Theoretically, citizens who are dissatisfied with the public provisioning of services by one local government can “vote with their feet” by moving to another jurisdiction that better meets their preferences. In practice, there are many constraints on inter-jurisdictional mobility, especially in the case of women. Despite these constraints, there are pieces of evidence of inter-jurisdictional labour mobility by women for wage employment. This reveals that factors beyond local service provision in physical and social infrastructure often influence citizen’s decision about where to locate. Interjurisditional labour mobility may be an instrument of local accountability when citizens reveal their preferences by strengthening exit. The question of mobility in an ethnically diverse federal country is significant to analyse as “voting with feet” is determined by both social and economic determinants in such cases.

Intergovernmental competition and the mechanism of exercising choice by the citizen-voters, either through an exit or by voice, helps to reveal preferences of public services. The theoretical literature elaborated that competition results in innovations in the provision of public services and, in respect of public goods, it helps to identify the beneficiaries and impose user charges on them. However, the efficiency in the service delivery and welfare gains accrued and the enhancement of accountability depends on the nature of intergovernmental competition and political *institutions* (Breton 1996).

“Information symmetry” is one of the important factors in holding subnational governments accountable. When policymakers are near the people they serve, the information they receive tends to be more accurate regarding the needs and demands of citizens across gender as they participate effectively and exercise their voice in terms of revealing preferences. The higher the information symmetry, the higher the accountability and transparency of the local government. Information symmetry can reduce the transaction costs on both the provider’s and the citizen’s side. The “size” of the lowest tier of the government varies significantly across countries. It is often argued that the smaller the size of the local government, the higher the inefficiency in public service delivery.

The rationale of fiscal federalism is based on the following conjectures: (Chakraborty 2010)

1. Provide greater fiscal autonomy at the local level, with transition in the budgetary decisions and intergovernmental fiscal transfers by incorporating gender concerns.
2. Helps to identify special gender needs, unlike *one-size-fits-all* gender budgeting policies.
3. It is also significant for the redistribution objectives between regions, which helps cement a diverse nation.

The fiscal decentralisation of gender policies holds good, as local governments have better information on gender differentials regarding needs and preferences. Decisions at the subnational level give more responsibility, ownership, and, thus, incentives to local agents and local information can often identify cheaper and more appropriate ways of providing public goods (Stern 2002; Bardhan and Mookherjee 1999). The genesis of these debates on how to translate gender commitments into fiscal commitments can be traced to “gender budgeting” experiments—the analysis of the budgets through a “gender lens”—as a tool of accountability. (Kolovich, Lisa, 2018[2]; Lisa and Chakraborty 2020). Gender perspectives engage many types of issues: political reforms to increase women’s representation, extending universal rights and social citizenship benefits to women, and establishing gender rights (Vickers 2012). In the multi-level fiscal federalism in India, the political economy process of gender in fiscal mechanisms may pass through four distinct phases - innovative knowledge networking, building institutional structures, reinforcing state capacity and strengthening the accountability mechanisms, at national and subnational levels[3] (Vickers 2012, Chakraborty, Nayyar and Jain, 2020).

The analytical matrices for categorizing public expenditure through a gender lens were identified as follows: (Chakraborty 2014)

1. Specifically, targeted expenditure to women and girls;
2. Pro-women allocations, which are the composite expenditure schemes with a significant women’s component; and
3. Residual public expenditures that have gender–differential impacts.

However, these analyses more often get confined to the top level of the government. Identifying the gender issues in fiscal federalism requires acknowledgement of intergovernmental fiscal transfer mechanism. Intergovernmental fiscal transfers are used as a tool for addressing the horizontal and vertical imbalances in fiscal federalism, and incorporating gender as criteria of these transfers can increase the progressivity of the transfers (Anand A and

[2] Fiscal Policies and Gender Equality, ed. Lisa Kolovich, IMF, 2018 for analysis by region.
[3] https://taxpolicy.crawford.anu.edu.au/publication/ttpi-working-papers/17227/determining-gender-budgeting-multi-level-federalism

Chakraborty, 2016). The revenues of subnational government are twofold. One is intergovernmental fiscal transfers. Two, the own revenue handles of the subnational governments. These own revenue policies are not gender-neutral, however, the domain of own revenue handles of the government through a gender lens is beyond the scope of the study. In this study, we will focus on federal transfers.

III.1: Federal governance, fiscal resources and gender equality

In a "co-operative federalism", the Public Financial Management tools are essential to be integrated to design expenditure programmes that are significant for gender equality. One of such PFM tools in federal governance is gender-budgeting at national and subnational governments. Yet another tool in federal governance to integrate gender concerns is conditional or unconditional intergovernmental fiscal transfers. This section heavily draws from my previous works on gender and federalism. In fiscal federalism, the PFM tool of gender budgeting received wide attention due to its simplicity and practicability in conducting gender budgeting *within* the country and *between* countries (Chakraborty, 2018). Chakraborty (2018) analyses the gender budgeting experiences in the context of Asia, as a part of the first-ever survey on global gender budgeting experiences by the IMF. In recent years, federal nations have also started examining to integrate gender criteria in tax transfers.

A centrally determined 'one size fits all' gender policies cannot be a solution to redress gender inequities in a country with the heterogeneity of the population. The efficiency of public service provisioning across heterogeneous jurisdictions needs to consider the scope of "asymmetric federalism". Asymmetric federalism" refers to federalism based on unequal powers and relationships in political, administrative and fiscal arrangement spheres between the units constituting a federation. Asymmetry in the arrangements in a federation can be viewed both vertically (between centre and states) and horizontally (among the states). If federations are seen as the indestructible union of indestructible states, and centre and states are seen to exist based on equality; neither has the power to make inroads into the defined authority and functions of the other unilaterally (Rao and Singh, 2004). At the same time, "competitive federalism" requires benchmarking the governance of subnational governments, which may catalyse horizontal competition among these units. It can ensure gains in efficiency and increase in productivity through the "Salmon mechanism" in which intergovernmental competition is activated by benchmarking the performances of other governments in terms of levels and qualities of services, of levels of taxes or more general economic and social.

When federal governance structures are rigid, addressing the gender inequality concerns through specific long term Public Financial Management (PFM) tools –for instance, gender budgeting - are significant. Within the analytical framework of gender budgeting, a few matrices have been developed to categorize the financial inputs from a gender perspective. These analytical matrices for categorizing public expenditure through a gender lens are: (i) specifically targeted expenditure to women and girls; (ii) pro-women allocations, which are the composite expenditure schemes with a significant women's component and (iii) residual public expenditures that have gender-differential impacts. These three analytical matrices neatly fit into the existing program budgeting framework in India. These matrices hold good even with the transition of the existing accounting system to the International Monetary Fund's *Government Finance Statistics*, where government budgets are broken down into functional and economic categorizations. This is possible through (i) organizing the budgetary data either by examining gender-disaggregated public expenditure, benefit incidence analysis (BIA) or (ii) by segregation of gender-specific allocations in the "classification of budgetary transactions".

A gender-disaggregated public expenditure benefit incidence analysis (BIA) involves the measurement of the *unit cost* of providing a particular service and the number of *units utilized* by gender. The paucity of gender-disaggregated data on services utilized constrains such a BIA for a variety of public services.

What budgetary reforms are therefore required for gender-sensitive public policy? First, ensure transparency in the allocation for women through adequate changes in *budgetary classification* to protect these provisions from reappropriation, thereby enhancing accountability. Second, with the advent of fiscal decentralization, strengthen the gender-sensitive budgeting at the subnational government levels, as provisioning of *merit goods* (like education and health) are primarily the responsibility of sub-national governments.

There is no direct attempt so far to incorporate gender concerns in intergovernmental fiscal relations. Given the asymmetries in the assignment of functions and finance, a significant prerequisite of integrating gender into intergovernmental transfers is to lessen the *unfunded mandates. The unfunded mandates refer to the expenditure assignments/functions at the subnational governments not backed up by the revenue.* However, it is also important to gender sensitize the transfer system, as a major share of local government revenue is fiscal transfers. The point to be noted here is that it would be ideal to analyse the efficacy of integrating "gender" criteria in both specific- purpose transfers (conditional) and general-purpose transfers (unconditional). The objective of the general-purpose transfer system is to offset the fiscal disabilities and it is desirable to keep the transfer system formula-based, simple and equitable. It is important to empirically analyse whether an attempt to include a gender component in general-purpose transfers may make it complex and create incentives against undertaking measures to improve gender equality. On the other hand, the objective of specific-purpose transfers is ensuring minimum standards in access to specified services, such as basic education, healthcare, water supply, sanitation, and anti-poverty interventions. The general-purpose transfers can be analyzed and designed through a gender equality lens in addition to specific-measures transfers based on gender base analysis and gender equality objectives and agreed-upon indicators.

Ideally, the transfer system for gender equity should have a judicious mix of both general-purpose and specific-purpose transfers. The objective of the general-purpose transfers is to enable all subnational jurisdictions to provide normatively determined standards of public services. On the other hand, it is important to design specific transfers to implement direct programs that would enhance the capabilities and entitlements of women, which, in turn, would help them to release the time locked up in the unpaid activities of the care economy and enable them to participate in paid work in the market economy. For instance, the direct transfers to free child care, coupled with greater access to technical skills by women could result in less time spent on the unpaid care economy and more in paid work.

Empirical evidence globally indicates that the increase in care work especially during the pandemic has fallen disproportionately on the shoulders of women (Bahn, Cohen, and Rodgers 2020). The Time Use Surveys published by the National Statistial Office of India in 2000 and in 2020 have revealed the statistical invisibility of unpaid care work done by women and men. Chakraborty (2008) analysed the links between public infrastructure provisioning and time allocation related to the water sector in India. Using time-use data, Chakraborty (2008) revealed that worsening public infrastructure affects market work with evident gender differentials. The results suggested that public infrastructure investment can redress intra-household inequalities in terms of labour supply decisions by supporting initiatives that reduce the allocation of time in non-market work. The role of intergovernmental fiscal transfers – especially conditional transfers in tackling the unpaid work of women is significant and needs attention.

III.2: Federal governance, labour market regulations and tax policy

Given the differential gender effects of many government programs (e.g. education, health care, etc.), the composition of government expenditures, or equivalently, the allocation of public funds among various types of programs, matters for gender equality. In turn, the composition of government expenditures may be affected by various features of federal governance. What types of federal institutions tend to have positive effects on access to education, more expenditures on public health care, on poverty alleviation programs, on support programs for female-led businesses, etc.? Is there any plausibility of linking responsibility allocation among national and subnational governments and indicators of access to education by gender, health care spending, etc.? This section tries to address these concerns.

Within federal governance, how equality is interpreted in the legal fiat of a country has a gender equality dimension as well. The equality of opportunities in a federal system of governance does not per se ensure equality in outcomes. The revenue stability of a government is also crucial for expenditure design. When the revenues are not buoyant, governments may try to go for expenditure compression, from the perspective of fiscal consolidation. The fiscal rules-based legislation of a country layout the targets of fiscal consolidation. The labour market regulations and tax policies will impact gender equality outcomes, within the overall macroeconomic policy framework. The national and subnational governments have specific fiscal rules and these rules may affect the overall composition of government spending.

The institutions like finance commissions that decide on the intergovernmental fiscal transfers mechanism can have positive effects on education, health and poverty alleviation programmes. Stotsky, Chakraborty and Gandhi (2019) showed that intergovernmental transfers have positive effects on reducing the gender disparities in education. However, within the macroeconomic policy framework, a segment of non-monetised work in the care economy is invisible. While discussing these externalities through a gender lens, an important point that needs to be highlighted is the "*labor force exogeneity in the treatment of the care economy* in the prevalent macroeconomic policymaking. This section is drawn from Chakraborty (2018). The intra-household gender asymmetries in the intensity and allocation of time and the choices regarding labour-force participation in the *care economy* have always been invisible in the macro policies. This implies that unpaid participation in the care economy needs to be integrated into the analysis. The dynamic interaction between dual sets of economic activity marks the micro-foundations of engendering macroeconomic policies.

Applying "global substitution criteria" of price variables to the time use budgets to value the care economy across selected states in India (within the framework of extended production boundary of *Systems of National Accounts* [SNA] 1993, and, in turn, integrates this into macro policies. Realizing that the allocation and efficiency of time spent in the *care economy* might be more important to economic welfare than the market economy through its positive externalities, the study has recommended integrating the inferences from time use budgets in gender budgeting. The point to be noted here is that the gender budgeting policies related to the *care economy* would be more effective at the decentralized levels of government through *social multiplier* effects. The care economy (unpaid participation in the care sector) represents domestic (reproductive) work together with voluntary community work.

Systems of National Accounts 1993 (SNA 1993) suggests the development of estimates for the value of household production of services for own use in satellite accounts of an alternative concept of gross domestic product (GDP). Estimation of the "unpaid" work of women in the care sector can suggest a quantification of the contribution of women to the economy. The quantification can also be useful for two more reasons. First, it would provide a fuller understanding of how resources and time are allocated in the economy. Second, it would indicate the extent to which economic development and the associated feminization of labour—through the substitution of own-account production of services by purchases from the market (for example, households using self-service laundry services instead of washing at home)—would give a fillip to the growth rate of GDP as it is measured. Monitoring such estimates over time can also help in understanding the effect of policies on these own-account productions of services, which are critical for welfare.

Would greater decentralization of responsibilities in these areas be beneficial to women well-being (e.g. measured, for example, by female enrolments at different levels of education, health programs targeted at women, etc.)? This could be the case if, for example, women are more active politically at the subnational level, or if subnational governments are more responsive to gender issues. A prima facie evidence from Chattopadhyay and Dufflo 2004 shows that feminisation of governance at the third tier in India is beneficial for women. Alternatively, could shared-responsibilities in these areas be more conducive to policies that impact women positively? Is there any evidence to support this? The empirical evidence indeed is mixed. Chakraborty and Singh (2018) has reviewed a few studies on the determinants of female labour force participation rates and explored the link between direct fiscal transfers and their impact on female labour force participation rates.

The empirical analysis of determinants of female labour force participation rates (FLFP) can be traced back to Goldin (1995) where he explored the U-shaped relationship between female labour supply and the level of economic development across countries, where he interpreted the U-shaped curve of the labour force participation as when incomes rise, women's labour force participation often falls initially, only to rise again when female education levels improve and consequently the value of women's time in the labour market increases (Das, et al. 2015). Gaddis and Klasen (2008, 2012) also found a U-shaped curve when they explored the effect of structural change on FLFP using sector-specific growth rates. The literature also examined the impact of female labour force participation on economic growth (Chakraborty and Singh, 2018). The policy prescriptions of such studies including Agenor et al. (2015) was the effect of public policies (including public investment in infrastructure and efficiency of spending on health and education) on women's labour force participation choices and economic growth. Their findings also highlighted that such policies raise female labour force participation rates, and depending on the relevant policies, economic growth could increase by between 1.5 and 2.4 percentage points per annum (Das et al., 2015).

The theoretical framework often used in these models were Becker's (1965) time allocation model, where women's labour supply decision is based on the trade-off between leisure and labour and also based on substitution between market-time and non-market activities. Case studies highlighted the significance of public policies in increasing female labour force participation on their productivity and economic growth, as these policies increase the mobility of women from non-market to market economy. Case studies also highlighted the significance of public policies like access to public infrastructure, care economy infrastructure, female education and reduction in the gender wage gap in enhancing female labour force participation. However, there is no comprehensive study in the Indian context analysing the link between a public employment policy (job guarantee programme), time use in the care economy and the female labour force participation in the market economy.

Khera (2016) has succinctly presented the literature review on determinants of female labour force participation. She highlighted that lower education (skill) level of female relative to male workers; lower bargaining power in the wage bargaining process based gender bias against females in formal employment, lower preference for working outside the home in paid market-good production relative to staying at home, which corresponds to concerns regarding female safety and mobility in developing countries and higher preference for working in home-production relative to leisure, which is related to social norms and the lack of public provisions, including childcare support are the plausible factors which affect female labour force participation. It is against this backdrop that Chakraborty and Singh (2018) examined whether job guarantee programmes designed to integrate gender concerns in the employment has translated into tangible outcome across Indian States.

Chakraborty and Singh (2018) examined the impact of conditional fiscal transfers (specific purpose transfers) on public employment across gender in India taking the case of the Mahatma Gandhi National Rural Employment Guarantee Scheme. The employment guarantee scheme, as an “employer of last resort” (ELR) fiscal policy, is a direct employment transfer, which guarantees to provide 100 days of paid work opportunities at a predetermined wage for public works in India through a self-selection criterion. Using unit record data of the latest 68th round of NSS Employment-Unemployment survey, Chakraborty and Singh (2018) examined gender differential impacts of ELR policy on labour force participation rates across states in India. The unit of analysis in our paper is not ‘household’ but is one step ahead to capture the intra-household level of participating behaviour in economic activity. The results, based on the survey enumerating 2,80,763 individuals in rural areas, revealed that there is a striking heterogeneity in the gender impacts of job guarantee programme across the States of India. The probit estimates showed that ELR job card holder’s labour force participation rates were higher than the non-cardholders and the result was more pronounced for women. The analysis of the time-use patterns and the unpaid care economy statistics of job guarantee cardholders obtained from the unit records also shows that augmenting public investment in care economy infrastructure is significant for the job guarantee programme to function at its full potential in India.

III.2.1: Tax policy

In calibrating fiscal policy to address gender inequalities, It is significant to analyse the disaggregated components of the policy – namely, taxation policies, public expenditure policies and debt deficit dynamics, and analyse its differential impacts on men and women. The aggregate fiscal policy impacts on macroeconomic aggregates such as GDP and prices and this would have gender differential impacts. Changes in the effective demand would have gender differential effects on the employment and incomes, depending on the access and participation of men and women in paid work. Similarly, an increase in the price level would have gender differential impacts, as this could alter the intra-household real income allocation Besides the effect of aggregate fiscal policies, each of its components has gender differential effects. Thus changes in tax policy can alter the intra-household allocation of resources (human capital and financial capital) and the benefit incidence of public expenditure depend on the access and utilization of these public service provisioning across gender. In addition to macroeconomic effects on employment, output and prices, the individual components of budgetary policy may also impact resource allocation through their effect on relative prices and this could impact differently on men and women.

Analytical work on gender-responsive tax policy is scarce. Much of the work on tax incidence looks at the distribution of tax burden in terms of income/classes. Empirical studies on the impact of tax reforms policies on the employment of men and women in the short as well as long term also can provide useful policy guidance. In the United States, several studies have examined the effect of the Tax Reforms Act, 1986 on female employment. In most developing countries, where the gender inequity is much more than in advanced economies (mainly because the participation in paid work and economic empowerment is more in advanced economies), there is very little empirical work examining the impact of budgetary policies.

In some countries, greater tax concessions are given to women for reasons of gender equity (Table 1). This can take the form of higher exemptions in personal income tax for women, providing tax concessions for savings and investments by women and exempting commodities and services predominantly consumed by women. In indirect taxes too there are cases where the items consumed by women have received concessional treatment. In fact, many argue that such concessions are an important policy instrument to promote gender equity.

Table 1: Evidence (selected) from Asia Pacific for intrinsic gender inequalities in the tax policy.

Country	Tax Policies through a gender lens
India	In 2008–09, the income tax threshold was increased for women income earners. The lower tax bracket for women has now been discontinued. Apart from the higher exemption thresholds for women, most deductions and exemptions are available to all individuals paying income tax, irrespective of sex – making them both gender-neutral and gender-blind. In India, joint filing of taxes is under the Hindu Undivided Family (HUF) and is applicable to Hindus, Sikhs, Jains as well as Buddhists. 'Under the HUF system, the eldest male has the power to file returns for the entire extended family. The perception of the HUF as a social unit not only ignores but also negates issues of social relationships and dependency in a patriarchal society.'
Pakistan	Prior to the amendments made in the year 2010 in the Income Tax Ordinance, 2001, the income tax law used to give special and favourable treatment to the salaried women taxpayers (by allowing a higher exemption threshold). However, after the amendment in 2010, this relief has been withdrawn. Now there is same tax rate for both men and women salaried workers. There are no special tax deductions or tax credits applicable only to women. Tax treatment of married couples in Pakistan is individual based and tax schedules used to differ slightly for men and women before 2010. The tax rate varies between 2% and 30% in Pakistan.
Bhutan	No exemption for women
Sri Lanka	No separate provision
Myanmar	Each individual files a separate return. Married couples are not allowed to file a joint return.

Nepal	"Husband and wife should be treated as a couple and is not subject to choice". 10% tax liability rebate for women with only renumeration income.
Bangladesh	Differential tax slabs for men and women.
Australia	A penalty exists where the tax payable by the couple is higher than the tax payable by two individuals. Primary carers and spouses are recognised as gender neutral, although the data reflect social norms, showing that primary carers are predominantly female and that male workforce participation rates are higher.
New Zealand	Regarding tax credits, some countries allow childcare costs to be fully or partly deductible (such as Canada, Austria and Belgium). Others, such as New Zealand and Australia, do not.
Japan	Japan has one of the highest rates of working women in the developed world, so the problem is not so much jobs but rather the quality of the jobs women get and how much money they make. According to the Internal Affairs and Communications Ministry, 56 percent of all women who worked in Japan in 2018 had non-regular jobs, meaning part-time, temp or contract work that usually lacks benefits. The corresponding rate for men was 22 percent. There is a spouse deduction that some have argued discourages women from entering the workforce full-time. Those who receive an income in excess of 1.30 million yen, with 760,000 yen coming from the spouse, they cannot take the special marital deduction.
China	The proposal that couples could get tax relief on spending relating to their kids' education appeared as a draft amendment to China's personal income tax law, which the Standing Committee of the National People's Congress (NPCSC), the country's top legislative body.
Singapore	Working Mother's Child Relief (WMCR): The amount of WMCR that you can claim for each child is based on the child order, i.e. when your child was born or legally adopted. This is then matched to a percentage of your earned income. WMCR percentages are added together if you claim for more than one child and the total is capped at 100% of the mother's earned income. FML Relief is given to encourage married women to stay in the workforce. Married women and divorcees/widows with school going children may claim relief for foreign domestic worker levy paid in the previous year. Singles and married men are not eligible for this relief.
Malaysia	Malaysia (1991) moved from a tax system in which the income of a married woman was attributed to her husband unless she elected separate assessment, to a system in which husbands and wives are treated as separate taxable units with an option for joint treatment.
Philippines	No difference in tax benefits for men and women. For married individuals, the husband and wife, subject to the provision of Section 51 (D) hereof, shall compute separately their individual income tax based on their respective total taxable income: Provided, That if any income cannot be definitely attributed to or identified as income exclusively earned or realized by either of the spouses, the same shall be divided equally between the spouses for the purpose of determining their respective taxable income.
Indonesia	Paragraph 1 of Article 8 of the PPh Law stipulates that the income of a married woman is considered part of her husband's earnings if she works for a separate employer. Tax experts called for the tax office to revise the contradictory laws on career women's NPWPs as part of the tax-reform agenda.

Argentina	In Argentina the tax system provides a higher rebate for employees(AR$34,200) than it does for the self-employed (AR$9,000). An implicit bias exists because men are more likely to be employed in formal jobs and women are more likely to be self-employed in the informal economy.

Source: Collated from various cross-country tax policy resources.

This is not to say that use of tax policy for gender equity is inappropriate. There can be policy instruments that can result in equitable allocation of resources and it is important to identify such policies. For example, a substantial reduction in registration fee for immovable properties owned by women could change the ownership pattern of properties. Although initially, this may be only on paper, the legal ownership of the property by women could provide them with greater security.

In the literature on fiscal federalism, it is well recognised that while the local governments have a comparative advantage in providing public services due to lower transaction costs, it is the higher-level governments that have a comparative advantage in raising revenues. All broad tax bases are mobile and therefore, cannot effectively be subject to tax at the local level. Most redistributive taxes may fail at the local level, as the local bodies may follow regressive policies to attract capital to their jurisdictions. The 'race to the bottom' arising from competition to attract capital may cause distortions in resource allocation and could result in lower tax collections and under-provision of public services. While, it is important to identify the tax bases suitable for the levy of local taxes to ensure that they do raise revenues to finance public services, to link spending decisions with that of raising revenues at the margin for reasons of incentives and accountability, it is important to recognise that assignment of functions and sources of finance, according to comparative advantage, necessarily results in vertical fiscal imbalances. Similarly, as there are wide variations among the local governments in their ability to raise revenues or unit cost of providing public services, to enable all jurisdictions to provide a given level of public services at a given tax-price, such fiscal disabilities need to be offset. The resolution of horizontal and vertical fiscal imbalances requires a properly designed intergovernmental transfer system.

Will the federal institutions that lead to more redistributive tax and transfer policies tend to promote gender equality (an important part of income inequalities is gender-based)? In federal systems, would coordination and harmonization across subnational governments for income-support programs, poverty-alleviation programs and transfers for children, for example, have a positive impact on income equality across gender? Table 1 collates a few empirical evidence of tax policy across countries which has inherent gender inequalities. These are also highly redistributive programs that are often threaten/weakened by fiscal competition. Gender equality objectives would generally call for more coordination/harmonization, or even centralization, of such policies in federal settings.

In the empirical literature, Bategeka, Lawrence and Guloba, Madina and Kiiza, Julius, (2009) examined the gender dimensions of personal income tax (PIT) in Uganda to analyse the possible gender biases that may be embedded in the tax system. Against the backdrop of CEDAW, they found that PIT paid by different household earning types increases gender inequality. They found that some tax systems only worsen gender gaps and hardly is a useful tool that could be used to close the gender gaps. They proposed how PIT could be reformed with a view to using taxation as a tool for the realization of substantive gender equality (Bategeka, Lawrence and Guloba, Madina & Kiiza, Julius, 2000). Alesina et al. (2011) constructed a model in which different labour supply elasticities for men and women emerge from intra-household bargaining. Bastani, Spencer (2012) explored the optimal tax implications of their model in an economy with both singles and couples and inequality across as well as within households. In the model, they found that the welfare of married women can be improved by lowering taxes for single women. The study also found that if single men earn more than single women, the welfare of married women can alternatively be improved by a gender-neutral tax scheme which taxes singles at a higher rate. They argued that as the government is concerned not only with equalizing utilities within families, but also with the redistribution between high income and low income households, gender-based adjustments in the income tax must be weighed against the welfare consequences of changing the progressivity of the tax system. They found that larger lump-sum transfers to women is always optimal. Saint-Paul, Gilles, (2007) criticized the Alesina and Ichino (2007) proposal of taxing men more than women, as it cannot be Pareto-improving. They argued that its virtues in terms of efficiency are better obtained by gender-neutral voluntary schemes for taxing households. They also argued that such tax would further undermine marriage (Saint-Paul, Gilles, 2007). Bettina Cass and Deborah Brennan (2003) explored the changes to family-based tax and transfer policies in the post-war period, with a particular emphasis on policy shifts introduced by the Coalition Government since 1996. They argued that the shift to policies based on (apparently) contrasting family types, couple families with a stay -at-home parent and families in which both parents are participating in paid work, represents a substantial and regressive move away from the principles of equity which underpinned policy from the mid 1970s to the mid 1990s (Bettina Cass and Deborah Brennan, 2003).

Hundsdoerfer, Jochen and Matthaei, Eva Kristina (2020) examined the gender-specific impact of discriminatory taxation on fairness perception and individual labour supply decisions. They found strong differences in reactions between male and female participants in the tax experiment. Male participants perceived gender-discriminatory taxation as unfair in and of itself. Female participants perceived random taxation as well as gender-discriminatory taxation to be unfair, as long as they ended up with a higher tax rate. The perceived fairness strongly drove (did not affect) male (female) participants' labour supply (Hundsdoerfer, Jochen and Matthaei, Eva Kristina (2020). Rachel Ngai and Lei Fang and Robert Duval Hernandez (2017) reviewed that cross-country difference in aggregate market hours is mainly due to women's market hours, especially low-skilled women. Using a multi-sector model that allows for both gender and skill dimensions, they showed that taxes and social subsidies on family care account for a substantial fraction of the observed cross- country pattern in market hours. Both substitution margins across work and leisure and across market and home are important. Effects of taxes operate through both margins while social subsidies operate mainly through the second margin. The first margin affects all population groups while the second margin affects mostly women especially low-skilled. The overall conclusion is that differential tax system cannot correct gender inequalities.

In the revenue assignment in India, dynamic and buoyant taxes are with the national governments, at the sametime significant expenditure assignments are at the subnational levels. With the progress of fiscal decentralisation, there has been devolution of functions to the third tier. However, there is an issue of “unfunded mandates” as finance has not been devolved effectively. This asymmetry in functions and finance affects the decisions relate to gender budgeting. However, with the feminization of local governance (ex-post to the constitutional amendment) by earmarking 33 per cent of seats has helped in prioritizing the revealed preferences and needs of women in public expenditure decisions. The flexibility of finance is a significant determinant of expenditure design. Many local governments in India do not have dynamic tax handles at the third tier. This restricts the local self government in designing expenditure prioritizing the needs of women.

III.2.2: Fiscal federalism arrangements and gender equality through “*specific purpose grants*” and “general purpose grants”

Ensuring gender equality in fiscal policies, not only helps to access equitable share of benefits and costs across gender, but also helps in ensuring equity in empowering them. Strengthening of “agency” in women helps in providing greater opportunities and access to paid work, enhances productivity and economically empowers women. Empowerment improves entitlements and thus, enhances economic, social and political status of the disadvantaged and gives them a greater role in the design most important way in which this can be accomplished is through ensuring gender equity in human development.

How can gender equality priorities be advanced in a federal setting? How can the transfer system be designed to pursue gender equality objectives? Are there any examples from federal countries that could be examined (e.g. specific-purpose transfers to subnational governments to finance education conditional on female enrollment indicators, transfers to subnational governments for health care conditional on indicators of female health, or conditional on expenditures on female health programs, etc.)? Given the usual under-representation of women at the highest levels of political decision-making, would heavier reliance on institutions such as finance commissions for determining transfers and expenditure allocations, with adequate women representation, have positive impacts on gender equality? Are women usually better represented in such institutions? Is there any evidence about this?
Could mechanisms for comparing the performance of subnational governments at implementing policies that promote gender-equality be explored? Perhaps combining gender impact assessment with yardstick competition mechanisms? Is there any example of this?

Anand and Chakraborty (2018) showed that integrating a gender variable as one of the criteria for intergovernmental fiscal transfers has four advantages. One, it incentivizes states to improve gender inequality. Two, it makes the fund transfer more progressive, Three, it also benefits the poorer states, as the correlation between the gender inequalities and poverty is high. Finally, it makes the per capita income across states, post devolution, more equitable, and increases progressivity in the intergovernmental fiscal transfers.

While social values and ethics reflected in the demographic performance of a state cannot be changed by fiscal fiats alone, a proactive approach by a high constitutional body like the Finance Commission (FC) has always been called for (Chakraborty, 2020). This is especially when these prejudices — reflected in the demographic patterns — are blatantly oppressive.
For instance, 15th Finance Commission's decision to give 12.5 per cent weightage to "demographic performance" is laudable. The Commission has decided to use total fertility rate (TFR) — instead of other plausible indicators like female population of the states or the sex ratio of 0-6 age group — as an indicator of "demographic performance". It was noted that the reduction of TFR — the average number of children that would be born to a woman over her lifetime —also reflects better performance in maternal and child health as well as education, and it reflects quality of human capital.

Given the disturbing demographics, there has been a growing recognition over the years to the plausibility of incorporating gender into tax transfer formula in India. With the monotonous decline in the 0-6 sex ratio in India, it was believed that there can be no valid objection to using FC transfers for gender equity. Chakraborty (2010) suggested was to use a simple method for introducing some weight in favour of the female population of the states in the fiscal devolution formula. Chakraborty (2020) argued that the message would be even stronger and more appropriate if the number of girls in the 0-6 age cohort— is adopted as the basis for determining the states' relative shares of the amount to be disbursed by applying the allotted weight. The demographic pattern of 0-6 age group can also capture the gender discrimination "even before birth". It remains an empirical question whether incorporating TFR or a sex ratio (0-6) makes FC transfers more progressive/equitable (Anand and Chakraborty, 2018). This progressivity analysis is significant to know whether TFR is a better criterion than the other in capturing the "demographic performance".

In addition to incorporating gender criteria in tax transfer formula, specific purpose transfers can also strengthen the gender budgeting initiatives at the subnational levels, including the third tier. For instance, in India, with the advent of fiscal decentralisation aftermath 73rd and 74th Constitutional Amendments and the feminization of local governance in India (33 per cent reservation for women), the imperative for gender equity will be even stronger if the specific purpose transfers can facilitate integrating the revealed preferences ("voice") of women in local level public expenditure decisions. Ethiopia, too, is in the process of integrating gender in IGFT. In Ethiopia, the process has been initiated by House of Federations (Senate) and the Terms of Reference (TOR) was moved in Parliament for public hearing. Subsequently, a majority was secured in the Senate for gender-integrated TOR and the country is waiting for the "proclamation" by the Senate to make it a reality in their forthcoming Fiscal Commission. NIPFP has worked in close association with the House of Federation (Senate), the Government of Ethiopia and the Forum of Federation in this process of integrating gender in fiscal transfers in Ethiopia (Chakraborty, 2020).

IV Gaps Identified in the Literature

The existing literature is highly skewed towards analyzing public expenditure through a gender lens. The studies related to taxation policies and intergovernmental fiscal transfers are scarce. Within the limited literature, the results showed that tax differential cannot be a tool for redressing gender inequalities in a fiscal federal setting. However, the tax-transfer from the higher government to lower government incorporating a gender criterion can be significant in lessening gender inequalities, if subnational governments prioritise gender concerns in their expenditure functions. However, the survey of exiting tax-transfer systems show that such models are rare across countries. The existing intergovernmental fiscal transfers that incorporated gender criteria are through the conditional transfers which are designed as specific purpose transfers. It is also to be noted that the fiscal transfers – the direct benefit transfers – from the government to household is also yet another area where more studies are required through a gender lens. At the macroeconomic policy level, there is a policy dilemma of whether participation income is better than basic income. The participation income is earned through participating in an economic activity ensured more often through 'employer of last resort' policies, while the basic income is universal and unconditional. The literature looking into such employment and income policies in a federal arrangement is scarce. The tax incidence of indirect taxes across gender is an important area of research to understand how the regressivity of taxation affects gender equality. However, gender-disaggregated tax incidence studies are scarce. How feminization of governance at the local local-level improves the fiscal space for women is an intriguing question. In the intergovernmental fiscal transfers framework, how grants, unconditional and conditional tax transfers affect women and men differently need to be analysed, though the existing literature is confined to the subnational public spending effects on gender.

V Analytical Framework and Policy Design Issues

Three dimensions of a country need to be studied as a prelude to exploring gender in a federal set up. These three dimensions in fiscal federalism are revenue assignment, expenditure assignment and intergovernmental fiscal transfers. All expenditure functions cannot be gender partitioned. It is also an empirical question, whether tax transfers or own income of lower level of government determine gender equality. The analytical framework needs to examine the scope of integrating gender in federalism. The main objective of this analytical template is to provide a simple and practical structure to integrate gender in federalism within the country-specific context.

Phase 1: Country-specific gender diagnosis and model

As a prelude to integrating gender in intergovernmental transfers, it is significant to undertake gender diagnosis, incorporating the intersectionality perspectives. What is the demographic composition in terms of ethnicity and other factors and the geographical distribution across constituent units need a careful examination before designing the gender-specific transfers? The gender-disaggregated trends in education, health, workforce participation, governance, wages etc. need to be collated for analyzing the incidence. The analysis of existing legal and fiscal models of a specific country is crucial before designing the IGFT for women. It is important to analyse the legislations supporting gender-related issues.

Phase 2: Institutional Design

The institutional design is crucial for integrating gender in the intergovernmental fiscal transfers, within a specific country context. The analysis of the structure of revenue and expenditure assignments and the composition of intergovernmental fiscal transfers are required before gender design in the fiscal policy. The constitutional or legislative divisions of finance and functions are closely related to understanding the asymmetry in the finance and functional assignments, and it is crucial to identify the reasons for unfunded mandates.

The analysis of the principle of subsidiarity - if government closest to people are effective in incorporating gender concerns than the higher levels of government – can provide useful insights into perpetuating gender inequalities across jurisdictions. It also helps to examine if there are any overlapping areas of responsibilities (concurrent) related to gender. In the existing frameworks, an analysis is required to understand if there any mandates provided by the federal government to sub-national governments regarding integrating gender in the fiscal domain. If there is one, it is also crucial to analyse its efficacy. For instance, in India, the constitutionally assigned feminization of governance in institutions, earmarking a threshold number of seats for women helps in "engendering" public expenditure priorities. Apart from institutions, it is crucial to analyse what are the channels of federal influence on sub-national policies to integrate gender concerns, including the "pork barrel funds". it is pertinent to examine what are areas of fiscal conflicts among different orders of government in the federation to integrate gender. As the next step, the identification of the institutional arrangements to deal with these conflicts is also crucial.

On the taxation side, an analysis of the tax assignments across the levels of government to identify whether there are overlapping gender issues in such assignments. This analysis needs to incorporate intersectionality concerns, along with the income quintiles. Is there any gender-related considerations in natural resources taxation, like earmarking the mining royalty to human development or reducing spatial inequalities (for instance, District Mineral Fund)?

Phase 3: Capacity Building

The capacity building is the third step after the identification of the country-specific models for gender in the intergovernmental fiscal transfers design and strengthening the institutions. What are the methods of capacity building of economic and fiscal policy institutions to integrate gender? Is there any fiscal responsibility legislation embodying fiscal rules for fiscal discipline and coordination? And special training is required to identify gender concerns within the macro-fiscal rules framework? What is the capacity to examine debt deficit dynamics? Any interpretation of fiscal rules is required through a gender lens, if the path to fiscal consolidation is through expenditure compression than tax buoyancy?

Regarding the links between fiscal consolidation and gender outcome, the point to be noted is that if fiscal consolidation leads to fiscal austerity, that can have gender differential impacts (Donald and Lusiani, 2017[4] and Elson, Diane, 2018).

What is the fiscal marksmanship of tax transfers? What are the capacity issues in dealing with sectoral issue relate to gender and federation, if we find fiscal marksmanship issues relate to forecasting errors in tax transfers? What is the content and frequency of training modules and institutional deliberations in gender and federalism? These are the plausible questions to be analyzed in the capacity building phase.

Phase 4: Accountability Mechanisms

Monitoring outcome than financial inputs is the final procedure, by linking the financial resources to the outcomes. What is the nature of fiscal inequalities? How it affects the gender equality? Is there an issue of fiscal marksmanship to be analysed? Is there any deviation between estimates and actuals in tax transfers and grants? What are the quantitative and qualitative indicators to be collated to analyse the credibility of tax transfers and grants – that is, on the variations in fiscal marksmanship and partitioning the sources of forecasting errors. Are fiscal inequalities a matter of political economy concern, describe if the accountability mechanisms to minimize the effects of such deals on economy, where it can lead to gender differential outcomes. Any fiscal equalization transfers based upon gender based considerations? Is there a constitutional basis for gender accountability in fiscal equalization? Who makes recommendations on the quantum and criteria of tax transfers– federal government agency,

[4] Donald and Lusiani, 2017, The IMF, Gender Equality and Expenditure Policy, CESR and Bretton Woods Project https://www.brettonwoodsproject.org/wp-content/uploads/2017/09/The-IMF-Gender-Equality-and-Expenditure-Policy-CESR-and-BWP-Sept-2017.pdf and

Elson, Diane, 2018, The impact of austerity on women, UK Women's Budget Group (WBG) https://wbg.org.uk/resources/the-impact-of-austerity-on-women/

independent tax transfer commission? Is there any link between tax transfers (especially specific purpose transfers) and intersectionality issues? These are the analytical issues to be examined in the accountability phase.

VI. Conclusion

Fiscal transfers and principles of federalism prima facie do not ensure gender equality. It depends on the institutional space and transfer design. With the progress of federal governance and fiscal decentralization, significant expenditure functions important for gender equality such as health care, education and income-support programs are at the sub-national level. Gender-sensitive transfer design can help achieve equality of outcome. Our analysis shows that the gender differential tax system and tax policy are not the most efficient way to address gender inequality. It is argued that specific-purpose grants to subnational governments for gender-specific outcome can promote gender equality.

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