

Combining Growth and Gender Diagnostics for the Benefit of Both

Elena Ianchovichina

Danny Leipziger



WORLD BANK GROUP

Latin America and the Caribbean Region

Office of the Chief Economist

May 2019

Abstract

Women's economic empowerment is not a new issue; nevertheless, it continues to challenge governments and development assistance agencies. One of the reasons for this hurdle may well be that gender advocates and growth devotees are speaking different languages when there is a huge space for them to collaborate effectively and pursue both agendas simultaneously. This paper outlines a framework for gender-enhanced growth diagnostics that can be used to identify win-win solutions based on policies that target jointly the binding constraints to economic growth and

those limiting female economic participation. The welfare gain from such a reform surpasses the gain from a pro-growth reform addressing only the binding constraint to growth or that from a pro-gender reform aimed at closing gender gaps. Using Turkey's country growth diagnostics and data on gender gaps, the paper uses the approach to identify those constraints to women's economic empowerment that align with national growth priorities and may therefore gain greater traction with policy makers.

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Combining Growth and Gender Diagnostics for the Benefit of Both

Elena Ianchovichina and Danny Leipziger¹

JEL Codes: J16; O1; O40; O5

Key words: Economic development; empowerment; gender inclusiveness; economic growth; economic efficiency

¹ Elena Ianchovichina is Lead Economist and the Deputy Chief Economist of the World Bank's Latin America and Caribbean Region. Danny Leipziger is Professor of International Business at George Washington University, the Managing Director of the Growth Dialogue and the former vice president of the Poverty Reduction and Economic Management Network at the World Bank. We are grateful to three anonymous reviewers for their helpful comments on an earlier draft of this paper.

1. Introduction

Women's economic empowerment is not a new issue. It is at the heart of the Sustainable Development Goal 5 focused on achieving gender equality and empowering all women and girls. Over the years, empirical evidence has accumulated suggesting that growth with gender equality could result in substantial growth dividends (Kabeer and Natali, 2013). A recent report by McKinsey Global Institute (2015) estimates these dividends at \$12 trillion by 2025; others assess the welfare gain of removing the gender participation gap at 20% (Ostry et al. 2018). A review of the literature by Kabeer and Natali (2013) reveals that this relationship holds most consistently with respect to the education and employment gaps across a variety of countries and time periods during the past half century. In addition, abundant micro-level evidence suggests that access to education and employment reduce the incidence of poverty while resources in women's hands have a range of positive outcomes in terms of human capital (Quisumbing, 2003; Kabeer 2003, Dwyer and Bruce, 1988). Thus, there has been a broad realization that the economic inclusion of women is not only socially desirable, but it is also an integral and indispensable part of economic development,² contributing to the inclusiveness of growth and improving the distributional dynamics within households.³

Nevertheless, women's economic empowerment continues to challenge both governments and development assistance agencies. The good news is that progress has been made along an important dimension. The education gender gap has gotten smaller over the years (Figure 1). Women's education attainment steadily increased in most countries up to 2010, driving the global average ratio of female-to-male attainment above 90% in 2010. Yet, the same cannot be said about the gender labor force participation gap. That same year the world average female-to-male labor force participation rate declined and has remained around 67% since then (see Figure 1). Gender earnings inequality is also a big issue. A recent World Bank report⁴ estimates the cost of such inequality at an estimated \$160.2 trillion.

A smaller education gender gap signals increases in human capital and the supply of skills which are essential for productivity and income growth. Yet, it also indicates that other gender-related distortions, especially the participation gap, have become prominent, imposing serious costs in terms of foregone potential growth (World Bank 2012). Ostry et al. (2018) show that the growth cost of failing to narrow the gender participation gaps may be larger than previously believed because male and female labor are found to be different and complementary in production. They conclude that studies which ignore the difference between male and female labor understate the positive effects of increased female labor force participation on growth and incorrectly attribute these gains to technology. They also point out that as economies get

² See Duflo (2012), and World Bank (2010, 2012).

³ See Kabeer and Natali (2013).

⁴ Wodon and De La Briere (2018) *Unrealized Potential: The High Cost of Gender Inequality in Earnings*.

richer and their services sectors expand, reallocation of labor to this growing sector encourages female inclusion, but barriers prevent this process from unfolding quickly in many countries. Their estimations suggest that barriers in the form of tax distortions, discrimination, and social and cultural factors depress female participation in labor markets by as much as 50% of female labor (Ostry et al. 2018). Gender employment gaps can also have lasting long term effects on demographics and growth through high fertility rates, which may further alter the female labor supply (Klasen, 1999). These gaps, which tend to shrink with rising incomes, may persist and even expand as new technologies change the way we work and pose greater risks to female workers (Brussevich et al. 2018).

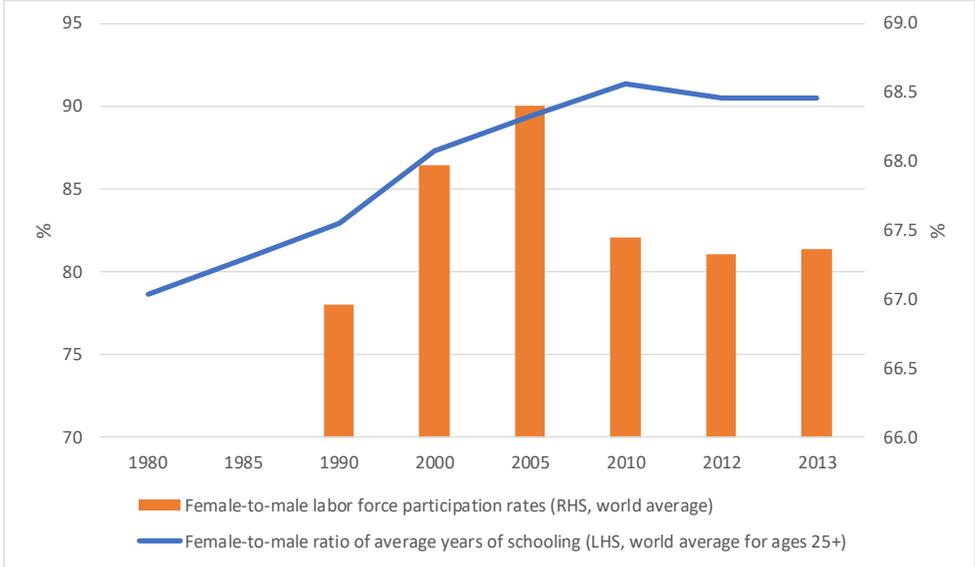
In this paper we focus on one specific aspect of women’s economic empowerment – the ability of women to participate in labor markets either as entrepreneurs or as employees. The literature finds solid support for growth with a gender-equity dividend. However, the evidence of a positive relationship of growth on gender equity is far less solid (Kabeer and Natali, 2013). As Stephan Klasen and other authors have observed, women’s labor force participation may be counter-cyclical in many parts of the world, increasing during hardship times and decreasing during good times. Single earner households are increasingly vulnerable to falling into poverty (and more so than households with two earners)⁵ due to the changing nature of work (Stiglitz, 1999). It is also well-known that single-headed female households are more likely to be poor (Chapter 8 in UN Report, *World’s Women 2015*). We recognize that there is a big difference between employment (often in the informal sector) obtained by women whose households are in economic distress and employment obtained to take advantage of new opportunities (usually in the formal economy). In a slowing global economy, where new sources of growth are increasingly in short supply, it is important to remove obstacles to women’s participation in formal labor markets so that they can choose to look for and seize opportunities and equip women with the skills that can make them more productive at work. We are convinced that policies that achieve this would promote not only greater economic opportunity for individuals, but also enhance potential growth in the aggregate.

The lack of progress illustrated by the persistent gap between the education gender gap and the gender participation gap since 2010 (Figure 1) may well be related to the fact that gender advocates and growth-concerned economists do not collaborate effectively and pursue their agendas separately. Yet, economic development and female economic empowerment are intertwined - development may create conditions conducive to closing economic-related gender gaps, but, if such conditions do not arise, economic development may be hindered. We therefore propose an approach that combines gender and growth diagnostics as a way of identifying the binding constraints to economic growth and those that hinder female economic activity. We argue that such an examination can lead to win-win interventions that can

⁵ See World Bank (Forthcoming) ECA Flagship Report, *Towards a New Social Contract: Taking on Distributional Tensions in Europe and Central Asia* and Ianchovichina (2018) *Eruptions of Popular Anger: The Economics of the Arab Spring and Its Aftermath*.

empower women economically, add to household incomes making households more resilient to economic shocks, and further national development goals. This approach may yield greater traction with policy makers insofar as it integrates the potential benefits to enhanced female productivity within a more generally accepted set of national development goals.

Figure 1: Closing the Gender Gap in Education, But Not in Labor Force Participation (World Simple Average Female-To-Male Ratio in Percent)



Source: World Bank World Development Indicators for labor force participation rates and Barro and Lee (2013), UNESCO Institute for Statistics (2013b) and HDRO estimates based on data on educational attainment from UNESCO Institute for Statistics (2013b) and on methodology from Barro and Lee (2013).

Our approach aligns with the definition of inclusive growth through productive employment in the paper by Ianchovichina and Lundstrom-Gable (2012) since our goal is to reduce barriers to productive female employment. However, we operationalize the approach by focusing on gender distortions that manifested in gender gaps and either bind growth or undermine national growth strategies by creating inefficiencies in the use of economic resources. We show that the welfare gains from a reform that targets jointly the binding constraint to economic growth and those limiting female labor force participation surpasses the gains from a pro-growth reform addressing only the binding constraint to growth or those from a pro-gender reform aimed at closing gender gaps. We recognize however that policies aimed at generating gender-enhanced growth may have an ambiguous effect on well-being (particularly women’s well-being). Nancy Folbre and other feminist economists have documented the importance of unpaid, non-market services provided by women; we agree that these services are essential for a household’s well-being and for children’s growth into productive adults and that they may contribute to different degrees to the life satisfaction of women.

The remainder of the paper is organized as follows. In section 2, we review the literature that can help us position the issue analytically and discuss how it gets translated into practical policy analysis. Our review differs from a traditional literature survey to the extent that we are highly selective in choosing from among a vast literature on women’s empowerment. We specifically do not address issues of political empowerment, nor do we deal with important issues of voice and agency that have been dealt with in other papers, such as World Bank (2014). We proceed to examine alternative ways of thinking about the problem of *low female labor force participation* and argue that the gender-enhanced growth diagnostics provides an analytically rigorous, effective, and politically attractive approach to tackling the problem of female economic exclusion. In section 3, we outline an approach for combining gender and growth analyses in a ‘gender-enhanced’ growth diagnostics that can be used to identify the constraints to growth by focusing explicitly on the impediments to female economic participation in developing economies. The approach enables us to prioritize the binding constraints to economic growth in terms of their importance for closing gender gaps in economic participation. Through this mechanism, it is possible to find complementarities between national growth diagnostics and women’s empowerment initiatives, increasing the chances for their joint success and potential mutual benefits. Looking simply at areas in which women lag behind men (i.e., gender gap analysis), while manifestly useful, does not prioritize according to the economic importance of the constraint, nor does it connect the constraint to other limitations in the economy that impede women’s economic progress. Section 4 operationalizes the approach using the case of Turkey and can serve as a guide for policy makers and advisors who seek to apply the approach to other countries. We acknowledge however that how we apply this approach varies depending on available data and country circumstances. We offer concluding remarks in section 5.

2. The Literature on Gender and Growth Diagnostics

Our approach builds on two important strands of the development literature. The first, as encapsulated by Duflo (2012), stakes out the position that gender-specific policy interventions are needed to break cycles of inadequate economic opportunity, overt or implicit discrimination, and the neglect of women’s potential contributions to individual, household and national economic welfare. As Duflo (2012) notes, the process of development is too slow to await improvements in women’s economic empowerment, while at the same time, the virtuous cycle between interventions to help women’s rights and development gains is also insufficiently robust; hence “this suggests that neither economic development nor women’s empowerment is the magic bullet it is sometimes made out to be.”⁶ The literature, as reviewed by Milazzo and Goldstein (2011) and carefully documented by the World Bank’s World Development Report (World Bank, 2012), and supported subsequently by regional and country specific work, particularly on Africa, has

⁶ Duflo (2012), op. cit. p.1076.

been instrumental in pointing out and quantifying the impact of excluding women from formal economic activity.⁷ Much of this work has been supported by extensive gender-specific data collection efforts that have pointed out strong correlations, for example, between lack of home ownership and gender inequality as well as major divergence in land ownership patterns, often due to titling issues, that impede access to credit and greater agricultural productivity.⁸ Evidence from Vietnam and Honduras has shown major gains from empowering women financially through the issuance of land titles (Namubiru-Mwaura 2014). More recently, World Bank (2018) estimates individual poverty rates in households of different types and shows that in some Sub-Saharan African countries (e.g. Malawi), the estimated consumption allocation within the household is unequal and the gender poverty gap surpasses more than 20 percentage points in some cases. Klasen and Lahoti (2016) estimate the gender gap in education and conclude that this gap is much larger using individual rather than household measures in a diverse set of countries, including Iraq, Tanzania, Mexico, Indonesia, and Ecuador. Finally, Munoz Boudet et al. (2018) show that the gender gap in poverty varies along the life cycle and they find that women are more likely to experience poverty than men during their youth and reproductive years. This micro-level research has been complemented by a major effort on data collection that enables capturing the size and persistence of national gender gaps in labor markets, education attainments, and entrepreneurship, and highlights measurement issues more generally (World Economic Forum 2017). We will return to the usefulness of gender gaps analysis for our purposes later; however, there is no doubt that collection and dissemination of comparable data serves a hugely important need.

Another strand of thinking that is highly relevant for our approach seeks to prioritize among many development challenges those that matter most to growth as proposed by Hausman, Rodrik and Velasco (HRV) (2005). In the same way that the HRV diagnostics attempts to identify those constraints that matter most as explanations for impeded economic growth, we extend the method to consider the interplay between the constraints to growth and the distortions associated with the gender gaps. This approach allows us to discern the gender disparities constraining women's economic position that are most likely to limit the gains from policies aimed at relaxing the most binding constraints to economic growth. In a way, our approach is related to the agency deprivations approach, pioneered by the World Bank, which recognizes both the multiplicity of deprivations and their inter-connections, but also the need to find entry points to deal with the inequality of endowments and the inequality of opportunity.⁹ Our paper is also related to the large literature on inequality and fairness (Stiglitz, 2012; Piketty and Saez 2003; and Piketty 2017). Issues

⁷ See the World Bank's Gender Equality and Development Report (2012), Milazzo and Goldstein (2011) as well as Campos and Gassier (2017), O'Sullivan (2017), and Chakravarty, Das, and Vaillant (2017), among many.

⁸ World Bank studies show ownership differences of 10-30%, for example, in countries as diverse as Nepal, Burkina-Faso, Honduras, Senegal, Côte D'Ivoire and Indonesia, World Bank (2014), p. 136.

⁹ World Bank (2014) suggests entry points of education, laws and institutions, social norms, and jobs and social protection as being fundamental drivers of change.

linked to economic inequity have become one of the most dominant economic challenges of the coming decade. In the context of growing polarization of electoral processes around the world, this realization is now shared by a diverse set of actors, including academics in search of new and more inclusive growth models,¹⁰ the World Economic Forum (WEF), and business leaders. The WEF has indeed used its global business councils to stimulate new thinking on how to redress the problem of non-inclusive growth before it undermines many aspects of the global system.¹¹

3. Gender-Enhanced Growth Diagnostics: Theoretical Insights

It is helpful to introduce gender distortions within a consistent growth framework.¹² Using this framework we evaluate the efficacy of approaches currently on the table to motivate our approach. We find that many of the existing approaches to dealing with gender-based inequality have proven to be unsatisfactory when operationalized. To better assess their efficacy, we find it useful to categorize them in some broad fashion, realizing that in doing so we may be unfairly limiting their aspirations. Nevertheless, there is merit in distinguishing among the various alternatives using the utility maximizing framework of Hausman, Rodrik and Velasco (2005).

If u is the welfare of the average individual in a country, maximizing utility from consumption subject to standard resource constraints and the pre-existing distortions in the economy results in the following Lagrangian:

$$L(c, \tau, \lambda) = u(c, \tau) + \sum_k \lambda_k \left[\tau_k - \left(\mu_k^s(\tau) - \mu_k^p(\tau) \right) \right], \quad (1)$$

where c is consumption, τ is a set of distortions in the economy, $\mu_k^s(\tau)$ and $\mu_k^p(\tau)$ are the net marginal valuations of activity k by society (s) and by private agents (p), which are functions of the distortions τ , but also depend on consumption, labor supply, assets and other variables (these are omitted for the sake of simplicity). Finally, λ is a set of Lagrange multipliers that are all greater or equal to 0. From the first-order conditions we obtain that the gain in welfare from reducing distortion τ_i in activity i is given as:

$$\frac{du}{d\tau_i} = -\lambda_i + \sum_k \lambda_k \frac{d[\mu_k^s(\tau) - \mu_k^p(\tau)]}{d\tau_i}. \quad (2)$$

The first term on the right-hand side of expression (2) is the direct effect of a small change in distortion τ_i , which we assume is strictly positive. A small reduction in this distortion increases aggregate welfare u by an amount given by the multiplier associated with this constraint, λ_i . The multipliers differ in size, indicating that not all constraints are equally binding (Rodrik, 2010). The larger the multiplier is, the

¹⁰ See Kanbur and Stiglitz (2016), for example.

¹¹ See, for instance, Guriev, Leipziger, and Ostry (2017, 2018).

¹² See Leipziger and Ingram (2017).

costlier the distortion. When the multiplier is 0 the constraint is nonbinding and there is no difference between the social and private valuations of activity i . In the absence of other distortions, the direct effect is the only effect that we should be concerned about. However, when there are other distortions, the second term on the right-hand side of expression (2) is non-zero and may be non-negligible in magnitude. If the decline in distortion τ_i reduces these gaps at the margin, other things equal, the second-order effect is positive and there is an additional welfare gain. If the decline in distortion τ_i increases these gaps at the margin there is a welfare loss, which in some cases can be larger than the direct benefit.

Now we apply the insights from expression (2) to each of the approaches used to close the gender gaps. One approach which can be described as “gender gaps driven” would be to examine the nature of gender gaps and attempt to design interventions that try to alleviate the *largest* gender gap. We assume that the largest gap is associated with the largest policy distortion τ_G , where subscript G denotes that the distortion τ is gender-related. Note that the discussion above suggests that the largest distortion may not necessarily have the largest effect on utility because this distortion may not be binding, in which case the multiplier associated with this distortion λ_G is not the largest. In addition, reducing this distortion may negatively interact with other distortions binding growth (i.e. those with large λ_Y , where Y denotes that λ is associated with a growth-related distortion) and potentially have an overall welfare reducing effect. With equality being the goal, recognizing the most significant differences between men and women as the guide has a certain logical appeal. However, as we have shown this is not the most effective approach since the largest gender distortion may not be the binding constraint to increasing welfare and many gender gaps are inter-connected and influence other distortions increasing the possibility for large negative second-order effects. Apart from this, policies to address the largest gender gaps may face enormous social hurdles, and many will remain unless strong economic arguments can be mustered to remove them. In the minds of many country policy makers, the gender gaps approach may well be seen as advocacy economics, while in the minds of many gender advocates it has a merit in terms of social justice and equity. This approach can be effective in the sense of naming and shaming, but it is not necessarily the approach that will give the most bang for the buck in terms of welfare gain.

A second approach may be described, perhaps uncharitably, as being analogous to “trickle down” economics, namely, the argument that with a more rapidly growing pie, women will benefit along with men and therefore that utmost effort should be directed at finding the binding constraints to economic growth. We assume for the sake of simplicity that the binding constraint to economic growth is associated with distortion τ_Y in activity Y. Of course, reducing this distortion will have a *positive* effect on average per capita welfare but there is no guarantee that it would close the gender gaps in a given economy. This will happen if the reduction in τ_Y is associated with a reduction in the distortions limiting gender participation, i.e. the gap between the net social and private returns to economic participation declines and the second term in

expression (2) is positive ($d[\mu_G^s(\tau) - \mu_G^p(\tau)]/d\tau_Y > 0$). In economies where the gender distortion is binding (i.e. λ_G is large) and the second-order interaction is negative because the gender distortion does not decline $d[\mu_G^s(\tau) - \mu_G^p(\tau)]/d\tau_Y < 0$, the overall welfare gain from the reduction of the most-binding constraint to growth will be less than the direct effect given by λ_Y . The “trickle-down” approach is followed by some bilateral development agencies. While there is no doubt, as with poverty alleviation efforts, that economic growth is a necessary prerequisite for improved welfare outcomes, it is not a sufficient condition for either poverty reduction or improvements in women’s economic status.^{13,14}

A third and in our view practically impossible approach is to encourage a review of actions regarding beneficiaries of policies or investments and to ensure that women benefit from them. In the extreme this approach is equivalent to the idea of a wholesale reform in HRV (2005), which requires complete knowledge of all prevailing distortions and the capacity to remove them all, resulting in $\tau_G=0$ and $\lambda_G=0$. The problem is that for most countries, this approach is unfeasible. We uncharitably call this the “checklist” approach to gender and development, but it too has its adherents. And to be clear, there are good reasons to look at the benefit-incidence of policies and to try and shape them appropriately once national growth priority areas are identified. It would make little sense to promote education reform in a country and not be aware of gender differences and not address them in the design of reforms. But all too often, standard development projects are reviewed to see whether gender has been taken into account as a substitute for ex ante design of projects that alleviate constraints to women’s economic fortunes. There is a decided difference in the order in which project objectives are ranked and the checklist approach does not take women’s economic empowerment sufficiently on board as an objective of the intervention.

A fourth approach, proposed by Roncolato, Reksten and Grown (2017), is to ‘engender’ the HRV growth diagnostic process by providing gender disaggregated information in all activities and reinterpreting nodes in the HRV decision tree. This very elaborate and data intensive approach may produce deeper insights on binding constraints to reducing gender gaps but there is no indication that these distortions are also most-binding for economic growth. Therefore, removing them may lead to sub-optimal aggregate welfare outcomes. Operationalizing this strategy is difficult too because it involves many pieces coming together with an improved alignment and collaboration across sectors.

A fifth approach, proposed by Ianchovichina and Lundstrom (2009) (see also Ianchovichina and Lundstrom-Gable, 2012), blends the growth diagnostics of Hausman, Rodrik and Velasco (2005), which determines entrepreneurship growth and changes in labor demand, with an employability module that determines labor supply. Since the IG framework is used to identify the binding constraints to productive employment, it is a useful vehicle to identify the main constraints to female productive employment within

¹³ See Besley and Cord (2005), for example, on the links between economic growth and poverty gains.

¹⁴ See Atkinson (2015) on those factors associated with inequality more broadly.

the areas that matter most to inclusive growth in general and the broader economic reform agenda. The employability analysis in the IG framework looks at factors important for investments in education and health, cultural and social norm, and other barriers, including discriminatory business environment.¹⁵ It also allows for the integration of multi-dimensional objectives – those of lifting bottlenecks to productive employment of different lagging groups (e.g. the poor and vulnerable), but also importantly women—as a socially desirable and economically efficient way to dealing with economic exclusion.¹⁶ Women in different segments of the population may face different obstacles. Poor women, for instance, may face mostly employability issues because of lack of education, poor health or no access to safe transport to work. A leadership deficit may be the real impediment to economic participation of the more educated and skilled female economic participants. As in HRV (2006) the business analysis of binding constraints to economic growth in the IG framework can be traced to government or market failures and distortions in credit markets. The IG framework’s strength is that it allows us to consider both supply-side and demand-side constraints to productive employment in the near term and in the longer run. However, since it has explicit focus on identifying the binding constraints to informal and small and medium sized enterprises, it is unclear whether the removal of these distortions will be as welfare enhancing as those that focus on the whole enterprise sector in an economy. This will be the case only if the distortions affecting SMEs and micro firms are the most-binding constraints to growth in general.

Our gender-enhanced approach examines the gender gaps within the framework of prioritized constraints to economic growth. The gaps analysis tells us what the state of play is with respect to gender-related distortions, τ_G , while the binding constraints-to-growth analysis gives us the distortions with the largest λ_Y and how important that finding is with respect to raising national welfare. So far we have argued that a unitary reliance on either of these two very valid approaches will yield weaker results than a combined strategy. If closing the largest gender gap τ_G is not crucial to lifting a major constraint to growth (with large λ_Y), governments would pay little attention to closing this gap. A focus on addressing the most binding constraints to growth will be welfare-enhancing on average for both men and women, but large gender-related distortions will reduce or in some cases reverse the direct benefits of the growth interventions.

We are therefore interested in the binding constraint to growth (constraints with the largest λ_Y) that when removed will also reduce the gender-based impediments (i.e. $d[\mu_G^s(\tau) - \mu_G^p(\tau)]/d\tau_Y > 0$ so they have positive secondary interaction terms). In other words, we are concerned with gender-related distortions τ_G that are not necessarily the largest but are binding constraints to growth and therefore are associated with large multipliers, λ_G (in this case $G \equiv Y$). We are also interested in gender-related distortions that may not be

¹⁵ Social and cultural norms play an important role in some parts of the world, as shown in a recent report for the case of Jordan (World Bank, forthcoming).

¹⁶ This is very much in the spirit of the path-breaking study by Lewis and Lockheed (2007) that showed that three-quarters of women and girls not in school came from minority or disenfranchised groups.

binding to growth (have smaller multipliers λ_G) but if left in place are likely to interact negatively with the interventions targeting the most binding constraints to growth, i.e. they create large negative secondary interaction terms (i.e. $\lambda_G d[\mu_G^S(\tau) - \mu_G^P(\tau)]/d\tau_Y < 0$) in expression (2). Using this approach, we can design a win-win scenario – a set of welfare enhancing interventions that close a gender gap.

4. Operationalizing the Approach

In section 3 we show that our approach identifies an efficient win-win solution from an analytical perspective. In this section we show that our approach is relatively easy to operationalize because it builds on existing country growth diagnostics, which offer a list of prioritized binding constraints to growth. We also use country-level WEF data on gender gaps in labor force participation, labor productivity, wages, education, skills, access to markets, finance, land, information, discriminatory policies, laws, perceptions, customs, family norms and responsibilities, among others (WEF, 2018). The additional analysis involves figuring out which interventions addressing the binding constraints to growth in a country (i.e. those associated with large λ_G) will also have the effect of reducing gender-related distortions and which interventions are needed to remove gender gaps that are likely to create large negative indirect interaction effects if left in place.

What does that mean as a practical matter? First, it means that we do not focus on closing the largest gender gap. For example, the gender gap in labor force participation for highly educated workers may not be the largest, yet closing this gap in economies where returns to capital are limited by the availability of skilled labor will lift potential growth and foster the kind of productivity growth and structural transformation many policy makers hope for. Second, this approach ensures that the focus is on the constraints to national growth that align with women’s empowerment, in effect reprioritizing national objectives through a gender lens. It means that if two of the top five constraints to growth overlap with two major impediments blocking women’s economic opportunity, in a gender-enhanced growth diagnostics we would put as priority the two that overlap, even if they are ranked lower among the top five constraints to growth in the national growth diagnostics. Our purpose is twofold: (1) to demonstrate that the interventions for empowerment are important for and align or support national economic goals, and (2) to generate the necessary political will among policy officials to undertake the reforms that matter for both sets of economic objectives. We call this the “sweet spot for intervention” because it serves to alleviate bottlenecks to women’s economic activity, while at the same time contributing to national goals of lifting income and economic growth.

In practice we can tease apart the HRV framework in two ways. One way is to simply see how the binding constraints to national development affect men and women differently. Work has previously been done at the World Bank and elsewhere in examining project design from a gender perspective (Roncolato,

Reksten and Grown 2017). One drawback of this approach is that it is data intensive. It requires detailed gender disaggregated data, which may not be available in many developing countries. Another problem is that proposing gender-related interventions within each growth constraining area poses the risk that none of the gender related actions will actually be addressed with policy interventions. In developing countries, where policy makers are often preoccupied with immediate macroeconomic concerns, growth concerns usually trump those related to female economic empowerment. Finally, many of the gender-related interventions may not be seen to deliver benefits on a scale that matters at the national level. The result is that there are often two parallel dialogues – one around economic growth and its constraints and another around women’s economic empowerment.

The approach we propose merges the two dialogues for the benefit of both. Once the areas of national priority are identified through growth diagnostics a la HRV (2006) or other types of rigorous growth analysis, the same approach can be deployed to identify the major constraints to women’s economic participation. We then seek to identify overlapping impediments to growth and economic participation. In other words, we are interested in removing the most significant gender-based distortions that impede the achievement of more robust economic growth outcomes.

The remainder of this section illustrates the application of this approach to the case of Turkey. We use the prioritization of the binding constraints to growth and inclusion in Turkey’s Systematic Country Diagnostics (World Bank, 2016) and the gender-gaps database of the World Economic Forum (WEF). The latter provides standardized data on gender gaps in education, health, economic and political participation in Turkey and other countries. According to Turkey’s Systematic Country Diagnostics the top binding constraints to growth, given a score of 4 in column (2) of Table 1, are:

- low quality of regulatory and accountability institutions;
- geopolitical tensions in East and Southeast Turkey;
- underdeveloped financial markets;
- low educational achievements;
- low female labor force participation;
- low performance in technology absorption and innovation;
- weak corporate governance;
- weak competition policy and its enforcement;
- congested cities.

All these constraints, except the last four, are also considered crucial for inclusion and given the rank of 4 in column (3) of Table 1. As noted in HRV (2006) λ_Y ’s vary in size so at any given point in time only one of them is binding growth. In practice it is difficult to assess the size of the λ ’s so most SCDs list several potential binding constraints whose λ_Y ’s are likely to be sizable.

Table 1. Prioritization of Constraints in Growth, Inclusive Growth & Gender-Enhanced Growth Diagnostics (rankings are based on a scale from 1 to 4)

List of constraints	Scores indicating relevance to:				
	Growth (2)	Inclusion (3)	Growth + Inclusion (4)	Gender (5)	Growth + Gender (6)
Solid Foundations					
Low quality of regulatory & accountability institutions	4	4	8	2	6
Geopolitical tensions affecting East and Southeast	4	4	8	2	6
Underdeveloped financial markets	4	4	8	4	8
Macro-fiscal risks	3	3	6	2	5
Productive Employment					
Low educational achievement	4	4	8	3	7
Low female labor force participation	4	4	8	4	8
Wide regional differences and lack of convergence	3	4	7	3	6
Dynamic Firms					
Low performance in technology absorption and innovation	4	2	6	4	8
Weak corporate governance	4	2	6	2	6
Weak competition policy and its enforcement	4	2	6	2	6
Being stuck in small, mixed cropping agriculture	3	4	7	4	7
Public Assets and Resources					
Congested	4	3	7	2	6
Declining availability of water	3	3	6	3	6
Energy consumptions closely linked with GDP growth	2	3	5	2	5
Inefficient land management	3	3	6	3	6

Source: Adapted from World Bank (2016). Note: Scores in columns (2) and (3) are obtained from World Bank (2016) based on staff estimates and Turkey experts' survey. The scores in columns (4) equal the sum of the scores in columns (2) and (3). The scores in column (5) are ours and the ones in column (6) equal the sum of the scores in columns (2) and (5).

The Turkish case is illustrated in Figure 1. As suggested by global data in the WEF on gender gaps, Turkey has made progress in closing the education gender gap (the female-male gaps in enrollment in secondary education and tertiary education are 99% and 87%,¹⁷ respectively), but Turkey still has large gender gaps in labor force participation, formal employment and entrepreneurship. The female-male gender participation gap, assessed at 46.6% in 2018 according to WEF data, indicates a significant gender-related policy distortion τ_G that limits female LFP. The World Bank SCD identifies this distortion as a binding constraint to growth in Turkey, giving it a score of 4 (see column 2 of Table 1), which suggests that this constraint is associated with a large λ_G and $G \equiv Y$. Therefore, lifting the distortions responsible for the gender participation gap is expected to produce a large positive direct welfare gain. In addition, failure to close this gap signals an inefficient policy stance¹⁸ that may give rise to large negative interaction effects when policies

¹⁷ Source: WEF 2018, <http://reports.weforum.org/global-gender-gap-report-2018/data-explorer/#economy=TUR>.

¹⁸ Turkish women fare badly in terms of other workforce indicators. Compared to men, they are 43% more likely to be unemployed, twice as likely to be employed part time and three times more likely to be employed in unpaid work. Partly because of this gender workforce participation gap, but also due to lack of political participation, Turkey ranks 130th of 143 countries on the WEF's Global Gender Gaps Report (2018).

are implemented to lift other binding constraint to growth. Therefore, we give this binding constraint a score of 4 in terms of its relevance to gender inclusion (see column (5) of Table 1).

Turkey's attempt to address the binding constraint associated with low performance in technology absorption and innovation will produce limited results if the supply of skilled labor, including skilled female labor, is low. This is because skilled labor has been shown to complement new technologies (Acemoglu 1998) and the distortion associated with the undersupply of skilled female labor will give rise to a negative indirect welfare effect, $d[\mu_G^s(\tau) - \mu_G^p(\tau)]/d\tau_Y < 0$. According to Acemoglu (1998), a higher supply of skilled female labor initially means a decline in the skill premium, but the expansion of the market size for skill-complementary technologies encourages faster upgrading of the productivity of skilled workers and eventually strengthens the process of skill-biased technical change. In other words, Acemoglu's theory – confirmed using data for the United States – suggests that new technologies are complementary to skills by design, not by nature. His approach suggests that countries that educate women but fail to provide conditions for their inclusion in the economy would grow more slowly because of two reasons: (1) a direct negative effect on potential growth due to lower supply of skills; and (2) an effect on productivity because of slower skill-biased technical change which manifests itself in lower technology absorption and innovation. Closing the gender employment gap of 35 percentage points among professional and technical workers, with women employed at 39% and men at 61%, would be hugely beneficial for growth, although this is not the largest participation gap. As a way of addressing Turkey's low performance in technology absorption and innovation, public policy must deal specifically with the obstacles to economic participation of skilled female labor. We therefore rate the binding constraint associated with low performance in technology absorption and innovation as 4 from a gender inclusion perspective (see column (5) in Table 1).

What policy intervention might boost the labor force participation of women, particularly those with skills? Lack of affordable childcare is often noted as a reason for this constraint. It has been one of the crucial bottlenecks to solving low LFPR for women in other parts of the world, such as Japan and the Republic of Korea. This potentially “win-win intervention” would give a potential boost to Turkey's medium-term growth performance through increases in potential growth and productivity, as suggested also by Guven and Rodrik (2016) and through faster technological absorption, as suggested by Acemoglu (1998). A public policy intervention to incentivize affordable quality childcare can be an immediate source of new job creation if less educated women are employed in childcare services and more educated women enter the workforce. The availability of affordable quality childcare will empower and motivate young mothers, especially those with skills, to seize opportunities in the labor market, producing positive national benefits in terms of increasing productivity and income generation.

Underdeveloped financial markets – the third most severe constraint to growth - is binding Turkey's private-sector investment, especially female entrepreneurship. Only 24% of Turks are financially literate

(GFLEC, 2016). Institutional reforms that accompany improved acquisition of financial skills and access to credit would be a package of interventions that would empower people, especially women. The gender gap in asset ownership is huge. On average, only 44% of women have an account at a financial institution versus nearly 70% of men. The gap is even larger for women in the bottom 40% of the income distribution. As this reform package is implemented, it is important to address gender-specific impediments in the financial sector, including biases in inheritance and family laws which limit the collateral available to women. We rate this constraint as severe from a gender perspective and give it a score of 4 in column (5) of Table 1. Finally, since most poor women are stuck in small, mixed cropping agriculture, any intervention addressing this constraint will have to consider the distortions preventing productive employment for women in agriculture (either as workers or as farm owners). We therefore rate this constraint as severe from a gender inclusion perspective and give it a rating of 4 in column (5) of Table 1.

The remaining binding constraints to growth in column (2) of Table 1 are unlikely to interact negatively with existing gender related distortions. Therefore, they receive a lower rating of 2 as shown in column (5) of Table 1. Note however that the constraints related to access to basic services (education) and resources (land and water), and regional differences receive a higher rating of 3 in terms of gender inclusion because interventions targeting these areas are likely to reduce gender gaps. The sum of columns (2) and (5) allows us to obtain the new ranking from the gender-enhanced growth diagnostics. The most binding constraints to gender-enhanced growth are those with a rating of 8 in column 6 of Table 1:

- underdeveloped financial markets;
- low female labor force participation;
- low performance in technology absorption and innovation.

Identifying the policies that would effectively address gender gaps within each of these areas requires careful impact evaluations, which are beyond the scope of this paper. For further information on this topic we refer readers to papers by Buvinic (2015, 2018), Bandiera et al. (various years), and Goldstein et al. (various years), among many others. Nevertheless, our aim is to show that even a simple yet systematic approach to identifying dual binding constraints has policy merit since it narrows priority areas and makes implementation of policies to address them more likely.

5. Concluding Remarks and Caveats

The value of the gender-enhanced diagnostic approach is that it offers the chance to engage with governments around a common theme of increasing the productivity of the economy and driving new sources of economic growth based on scalable policy interventions that empower women economically. National governments are much more likely to see merit in a broad set of policy-relevant interventions that favor women's economic empowerment, if in addition to helping countries achieve Sustainable

Development Goal 5, they are aligned with national economic development goals. To create local ownership for these interventions, they must be seen as serving both sets of goals, and doing so at a scale that matters. We endorse that but wish to extend the criteria to those interventions that matter most to increasing female economic empowerment and economic earnings.

As a practical matter, once analysis has identified the major gaps between female and male workers/entrepreneurs and each national priority area, the next crucial step is to identify the national priorities that improve national welfare the most by removing constraints to women's productive employment. There is no magic bullet and answers will vary by country. It is also unlikely that these issues will be dealt with effectively by an office of women's economic opportunity. The approach should be to mainstream reforms with a gender dimension into the national reform agenda and ensure that the constraints to women's economic opportunity are effectively dealt with as a matter of national priority.

The role of outside expertise can be one of both identifying and integrating gender-based constraints and necessary reforms in a viable and effective national agenda. This is frankly speaking not being done. There are two parallel dialogues underway, one around economic growth and its constraints and another around women's economic empowerment. There is an opportunity to engage those governments that share the dual objectives of empowering female economic participation to raise national income as well as improving the state of women and their ability to be more productive. In-so-doing, these dual dialogues can be merged for the benefit of both.

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