

Could Better Jobs for Men Have Improved Gender Equality? The Relationship between Economic Growth and Gender Equality in India

SUJATA BALASUBRAMANIAN*

Economic theory suggests that growth may improve gender equality directly by raising women's employment and indirectly by reducing poverty—thereby causing poorer families to discriminate less against females in intra-household allocations. This paper argues that growth in India has not substantially improved gender equality because it has not sufficiently activated either of these mechanisms. I analyze structural changes from 1982/83 to 2011/12 to show that India's high-growth period has not been pro-poor. While female employment levels have actually declined since the 1980s, growth has not expanded remunerative employment opportunities sufficiently, even for poor males. This suggests that better-paid jobs for men—by lowering poverty—might actually have led to greater gender equality in India—by reducing poverty-linked gender discrimination. The analysis thus highlights the importance of pro-poor growth, illustrating how structural changes can shape employment, thereby altering the quality of growth and its impact on gender equality.

Keywords: gender and employment, gender and poverty, growth and gender equality, India-employment, India-gender

JEL codes: I30, J16, O15, O53

*Sujata Balasubramanian: Division of Social Science, Hong Kong University of Science and Technology. E-mail: sujata@ust.hk. The Asian Development Bank recognizes “China” as the People's Republic of China; “Hong Kong” as Hong Kong, China; and “South Korea” as the Republic of Korea.

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I. Introduction

Today, developing countries are expressing greater concern regarding gender inequality. Concurrently, since economic growth remains a primary policy objective in poor countries, the question of whether growth itself can improve gender equality has attracted considerable interest. Evidence from one set of international studies suggests that the answer might be positive. Cross-sectional data from across the world indicates that gender inequality is more pronounced in poorer countries than in richer ones (Forsythe, Korzeniewicz, and Durrant 2000; World Bank 2001). Other longitudinal studies also suggest that, within a country, growth leads to declines in gender inequality over time (Dollar and Gatti 1999; Forsythe, Korzeniewicz, and Durrant 2000). Accordingly, after examining macroeconomic panel data from up to 127 countries, Dollar and Gatti (1999, p. 21) conclude that:

[T]here is strong and consistent evidence that increases in per capita income lead to improvements in different measures of gender equality... [G]ood times are good for women.

This set of macroeconometric studies thus claims that growth increases gender equality. As highlighted by Kabeer (2016), however, a major limitation of these studies is the lack of insights into the causal mechanisms by which growth may have led to greater gender equality. Moreover, in contradiction to their findings, a second empirical set of studies indicates that growth may not enhance, and can even negatively affect, gender equality (Seguino 2002, 2006; Balamoune-Lutz 2007). This latter set of studies, along with others (Berik and Rodgers 2009), also emphasizes that, apart from growth, other macroeconomic factors like economic structure and openness to trade can independently affect gender equality.¹

This paper provides a complementary perspective to this latter body of work by illustrating, in the context of India, how the employment patterns created by structural change may actually mediate and alter the impact of growth on gender equality. I suggest, firstly, that growth may not improve gender equality unless it activates at least one of the two major causal mechanisms proposed by economic theory (and detailed below), and secondly, that the distinctive employment patterns created during the process of structural change may alter the effectiveness of both these mechanisms.

Economic theory suggests two causal channels by which growth may potentially increase gender equality: higher female employment and poverty reduction.

¹ See Kabeer and Natali (2013) for an excellent and comprehensive review of this literature.

Laying out the rationale for the first channel, Becker (1971) theorizes that, if female workers are on average as productive as males, then a reluctance to hire women can be costly to employers. Competitive pressures arising from economic growth may therefore reduce gender discrimination by employers, leading to higher female employment (Becker 1971). This first channel from growth to gender equality has accordingly been termed a “market-mediated” channel (Kabeer 2016). The theoretical rationale for the second, poverty-reduction channel, as postulated by Duflo (2012), is that the higher incomes resulting from growth should reduce poverty, and therefore mitigate the need for poorer families to discriminate against girls and women when allocating food, health care, and other necessities. This second channel has therefore been designated a “family-mediated” channel (Kabeer 2016).

The encouraging outcomes suggested by these two causal channels, together with the positive cross-country evidence noted earlier, have raised the hope in countries like India that gender inequality can be progressively eliminated through continued economic growth (Government of India 2017). The Indian economy has, in fact, experienced accelerated growth since the early 1980s, with gross domestic product (GDP) expanding at 5% per annum between 1981/82 and 1993/94, at 6.7% between 1993/94 and 1999/2000, and by as much as 7.2% between 1999/2000 and 2011/12 (Ghose 2015).² Accordingly, this paper assesses to what extent an expectation of high growth having led to greater gender equality may have been realized in the Indian context. Specifically, I focus on the effectiveness of the two causal channels identified by economic theory: higher female employment and poverty reduction. My objective is to evaluate whether India’s high growth in recent decades is likely to have caused a reduction in gender inequality via these channels.

While the empirical studies arguing that growth improves gender equality do not identify any precise mechanisms causing such an improvement (Dollar and Gatti 1999; Forsythe, Korzeniewicz, and Durrant 2000), the studies negating this argument emphasize the role of the female-employment channel (Seguino 2002, 2006; Balamoune-Lutz 2007). Unlike all of these studies, however, my analysis focuses almost entirely on the poverty-reduction channel (as explained shortly, the female-employment channel has been practically nonexistent in India). To my knowledge, apart from the original, theoretical article propounding the idea of poverty reduction as a causal channel from growth to gender equality (Duflo 2012),

²It should be noted that while India’s official fiscal year is the 12-month period from 1st April to 31st March of the following year, much data on the Indian economy (such as employment data) is collected for a 12-month period from 1st July to 30th June. Depending on the source and type of data, therefore, 1981/82 may refer to either of these 12-month periods.

there has not been any research on this issue. Poverty reduction has not been specified as a causal variable affecting gender equality, either directly or via growth, in any existing empirical study; and while a few, pioneering researchers identify it as a possible causal channel, they do not then go on to study its effects (Seguino 2002, 2006; Kabeer 2016).

Theoretically, my analysis therefore brings together and builds on two previously unconnected strands of the literature on economic growth: (i) an older strand relating growth to poverty reduction, which includes discussions of “pro-poor growth” (Ravallion and Chen 2003; Kakwani, Khandker, and Son 2004) and (ii) the more recent strand relating growth to gender equality (Dollar and Gatti 1999; Forsythe, Korzeniewicz, and Durrant 2000; Seguino 2002, 2006; Kabeer 2016).³ My theoretical framework links these two strands to suggest that if poverty reduction is a major channel translating growth into gender equality, then the same factors that bring about pro-poor growth should also lead to greater gender equality. This hypothesis underlies my entire investigation, informing my conclusions about the relationship between growth and gender equality in India.

Relatedly, there is now widespread recognition that gender equality itself is a multifaceted phenomenon. Different studies may therefore focus on very distinct aspects or indicators of this phenomenon (World Bank 2011, Kabeer 2016). This study focuses solely on economic growth, examining how growth in isolation (i.e., quite apart from any social or political changes), may have affected gender equality in India. My preferred indicator of gender equality is similarly precise, and one that is often used: the female-to-male sex ratio (see, for example, Seguino 2002, 2006). I hypothesize specifically that growth, via the poverty-reduction channel, should raise this sex ratio, as higher incomes in poor families cause them to reduce gender discrimination in nutrition and health care, thereby increasing the survival chances of females.⁴

A. Approach and Methodology

Methodologically, in line with my focus on employment patterns and their effects on the two causal channels, I adopt a case-study method, which permits a more in-depth exploration of these channels. Accordingly, I rely on secondary published sources for most statistics presented in the analysis.⁵ To allow sufficient time for

³The next section discusses the concept of pro-poor growth.

⁴I discuss the female-to-male sex ratio and the related issue of excess female mortality in greater detail in section IV.

⁵However, the estimates in the table (section III) are my own calculations based on primary data from public sources.

structural changes and employment patterns to emerge clearly, I select a 30-year time frame for the analysis, running roughly from the start of India's high-growth period in 1982/83 to 2011/12.

In terms of process, my first step is to examine—and immediately rule out—the likely impact of the first causal mechanism: a rise in female employment due to growth. Unfortunately, it appears that higher growth has actually coincided with a decline in women's employment in India: female employment rates fell from almost 30% in 1983/84 to just below 22% in 2011/12, although male employment levels rose marginally over that period, moving from 53.8% in 1983/84 to 54.4% in 2011/12 (National Sample Survey Office 2013). In the prime working-age group of 25–59 years, Indian female employment rates fell from 34% in 1983/84 to 28% in 2011/12, reflecting declines in both paid employment and unpaid work participation in family farms and enterprises (Lahoti and Swaminathan 2016). It is therefore clear that the first causal channel by which growth may have been expected to lead to greater gender equality—a rise in female employment—has been nonexistent or even negative in India.

Poverty reduction thus remains the only potential causal channel linking growth to greater gender equality in India: consequently, the rest of this paper focuses solely on this “family-mediated” channel to determine whether growth may have raised incomes in poorer families, causing them to discriminate less against females when distributing food and other essentials. In studying the specific links in the chain leading from growth to reduced poverty and gender inequality, my analysis demonstrates the following:

- (i) Patterns of structural change between 1982/83 and 2011/12 have left India overdependent on agricultural employment. Growth in the key manufacturing and service sectors has been capital-intensive and skill-intensive, and therefore unable to create sufficient remunerative employment even for poorer, less educated *men*.
- (ii) Growth in India has not been pro-poor, both because of this limited expansion of employment opportunities and due to a lack of investment in basic education. Accordingly, high growth has failed to produce commensurate reductions in poverty.
- (iii) Finally, since India's high-growth period has achieved only limited reductions in poverty, I argue that it is also unlikely to have substantially reduced gender inequality via the family-mediated poverty-reduction channel. My review of the country's progress on gender equality in recent decades also supports this conclusion.

This analytical framework may be explicated in terms of Bougie and Sekaran's (2019) typology of variables as follows: Prior theory suggests that economic growth (the independent variable) leads to greater gender equality (the dependent variable), via two distinct channels of poverty reduction and female employment. My study, however, focuses especially on employment patterns as the mediating or intervening variable in this relationship, arguing that this variable actually affects both channels. While employment patterns obviously influence levels of female employment, I emphasize that poverty reduction is directly affected by employment opportunities for poor men. The moderating variables in this framework, which affect the strength of the channels, are India's capital-intensive and skill-intensive production policies, and its education policy, which affect employment patterns through the demand for and supply of workers (all discussed in section III).

B. Broad Insights

The first major contribution of this paper, accordingly, lies in illustrating how broader structural changes in a developing economy may alter the impact of growth on gender equality via the patterns of employment. The detailed chain of reasoning presented in the paper then leads to two further, related insights. Firstly, it highlights the importance of poverty reduction and pro-poor growth for gender equality—as explained earlier, this issue has been little researched. My systematic investigation of why growth in India has failed to substantially reduce poverty shows that the country has underperformed on two essential dimensions of pro-poor growth—job creation and basic education—which has accordingly limited the power of growth to reduce both poverty and gender inequality.

Secondly, this chain of reasoning uncovers the somewhat counterintuitive insight that even better-paid jobs for men can help to reduce gender inequality in developing countries. I suggest that while one overarching cause of India's limited progress on gender equality has been a failure to reduce poverty sufficiently, that failure is itself linked to a failure to create sufficient remunerative employment, even for poor males. Conversely, better-paid jobs for poor men could have led to higher reductions in both poverty and any poverty-linked gender discrimination within households.

From a policy perspective, therefore, my findings suggest that India has not only failed to empower women directly by raising female employment—it may have sacrificed even some of the indirect gains for gender equality that could have resulted from more remunerative male employment. My case study of the Indian growth experience consequently indicates that, contrary to some of the more optimistic views, translating economic growth into reductions in gender inequality may not be

an automatic or smooth process. Growth may only lead to greater gender equality if it can sufficiently activate one or both of the causal mechanisms: higher female employment and poverty reduction. My analysis therefore contributes to the broader literature on gender equality and economic growth, as well as the specific body of knowledge relating to employment, poverty, and gender inequality in India.

The remainder of the paper is organized as follows. Section II analyzes the relationship between gender equality, poverty reduction, and pro-poor growth—with specific reference to India. Section III analyzes patterns of structural change, employment, and education in India. Section IV offers a brief review of India's progress on gender equality. Finally, section V concludes with the policy implications of my findings.

II. The Relationship between Gender Equality, Poverty Reduction, and Pro-poor Growth

Analyzing the relationship between gender inequality and economic development, Duflo (2012) emphasizes that, when confronted with competing demands and a shortage of resources, poor households often resolve these dilemmas by discriminating against females in allocating food, health care, and other necessities. For example, referencing Rose (1999), she points out that during droughts in India, the mortality rate of girls, relative to boys, rises sharply. Similarly, citing Khanna et al. (2003), she stresses that in New Delhi, girls in poor localities are more than twice as likely as boys to die of diarrhea. Cumulative empirical evidence of this nature leads Duflo (2012, p. 1056) to postulate that: “Reducing poverty, it seems, even without targeting women, will disproportionately help women.”

This inductive theory—that a reduction in poverty can reduce gender discrimination by poor families—underlies the family-mediated channel toward gender equality (Kabeer 2016). It suggests that growth may be converted into greater gender equality via poverty reduction. National studies also validate this theory by indicating that gender inequality is typically higher among the poorest sections in a country than the richer sections (World Bank 2011, Duflo 2012). Thus, the World Bank (2011, p. 108) observes that: “Poverty rather than gender feeds overall educational inequalities in most of the world.” In India, the World Bank calculates that approximately three-fifths of the total inequality in educational outcomes can be attributed to poverty, while one-fifth is due to gender discrimination. Consequently, while boys and girls in the top Indian income quintile attend school at roughly the same rates, there is a 5-year gap in the average schooling received by boys and girls in the bottom income quintile (World Bank 2011).

Regarding immunization and nutrition in India, Pande (2003) shows that, in families with more than one child, girls are significantly less likely to be immunized than boys, and significantly more likely to be stunted, in most cases. Similarly, Raj, McDougal, and Silverman (2015)—combining data from Bangladesh, India, and Nepal—show that girls’ malnutrition is significantly affected by the presence of siblings, although that of boys is not. The underlying logic of the poverty-reduction channel is therefore supported by empirical evidence at the household, country, and regional levels.

A. Poverty Reduction and Pro-poor Growth: Has Growth in India Been Pro-poor?

For economic growth to reduce gender inequality via the family-mediated channel, as outlined above, this growth must lead to substantial poverty reduction. Advocates of pro-poor growth suggest that poverty can be reduced more quickly by making growth itself more pro-poor: This contrasts with earlier approaches which assumed that the benefits of growth would ultimately “trickle down” from the rich to everyone, including the poor. Pro-poor growth has been defined as any growth that lowers poverty (Ravallion and Chen 2003). But as Kakwani, Khandker, and Son (2004) emphasize, this definition would let growth be termed pro-poor even if poorer segments received only a small fraction of the total benefits. They, among others, call for a stronger criterion that defines growth as pro-poor only if it benefits lower-income segments more than higher-income segments. This stronger criterion makes reduced income inequality a necessary condition of pro-poor growth.

As detailed below, for roughly 3 decades starting in the early 1980s, India exhibited high growth, along with rising inequality and very limited poverty reduction.⁶ In line with Kakwani, Khandker, and Son (2004), I therefore maintain that this growth cannot be termed pro-poor. Moreover, I contend that this limited poverty reduction is the second major reason why India has not made substantial progress on gender equality despite high growth—the first reason, as noted earlier, is the failure to raise female employment.

⁶There has been heated debate about the extent of India’s poverty reduction from the 1990s onward, centering around the different methodologies and income cutoffs used in measuring poverty—see Himanshu and Sen (2014) and Garikipati and Pfaffenzeller (2012) for a comprehensive analysis of the issues. In laying out the argument in this paper, I have therefore attempted to sidestep these issues entirely by utilizing evidence based on United States dollar poverty lines and on a comparison of the growth elasticity of poverty in India with other developing countries.

Notably, the growth elasticity of poverty in India—that is, the percentage reduction in the poverty rate associated with a 1% increase in per capita income—has been extremely low. This is strikingly demonstrated in a study by Lenagala and Ram (2010), which compares the growth elasticity of poverty in all developing countries for the 25-year period from 1981 to 2005 and concludes that the elasticities for India “seem as remarkably low as its high economic growth” (Lenagala and Ram 2010, p. 929). The study utilizes four poverty lines with daily income levels of \$1.00, \$1.25, \$2.00, and \$2.50 to illustrate that “income growth in India seems to have had an extremely small impact on poverty, and that impact, notably for [the] \$1.00 and \$1.25 poverty lines has been declining” (Lenagala and Ram 2010, p. 923).⁷ Between 1981 and 1990, for example, for the \$1.00 poverty line, the Indian growth elasticity of poverty was barely 0.73, compared to an average of 5.29 for the group of developing countries; for the \$1.25 poverty line, the respective elasticities were 0.48 for India and 3.44 for the group. Between 1999 and 2005, the Indian elasticities fell to 0.37 for the \$1.00 poverty line and 0.26 for the \$1.25 line, compared to average elasticities of 1.69 and 1.42, respectively, for developing countries (Lenagala and Ram 2010).

Moreover, the Indian elasticities for the \$2.00 and \$2.50 poverty lines were so small as to be nearly insignificant. For the \$2.50 line, the average elasticity for the group of developing countries was 5–10 times higher than the elasticity for India, which stayed at 0.08 throughout 1981–2005 (Lenagala and Ram 2010). In short, this study demonstrates that during this 25-year period, the growth elasticity of poverty in India was, in practically all cases, a small fraction of the average elasticities achieved by the group of developing countries. Not surprisingly, the authors’ overall conclusion for India is that “the impact of growth on poverty is perhaps among the weakest in the world” (Lenagala and Ram 2010, p. 929). This assessment of the extremely low impact of growth on poverty in India is supported by other studies illustrating that high growth in the country has been accompanied by increasing income inequality and distributional shifts against the poor (Himanshu and Sen 2014, Chancel and Piketty 2017). For instance, Khan (2007b) stresses that the poverty reduction achieved by India during the 1990s was well below the potential rate—defined as the rate that could have been achieved had the income distribution remained unaltered (rather than becoming even more unequal).

Specifically, income inequality in India has increased markedly since the 1980s, corresponding quite closely with the country’s high-growth period. Consequently,

⁷Local incomes have been converted into United States dollars using purchasing power parity exchange rates.

poorer segments of Indian society have benefited much less from this growth than the rich. Estimates by Chancel and Piketty (2017) show that between 1980 and 2015, the share of total income growth accruing to the bottom 50% of the Indian population was only 10%–11%, while the top 1% captured as much as 28%–29% of the overall income growth. By contrast, from 1951 to 1980, when the country experienced much slower growth, the bottom 50% of the population captured 28% of the total income growth, with incomes in this group rising by 87%, compared with only 5% income growth for the top 1% (Chancel and Piketty 2017).

In India, therefore, the poorer half of the population has received only a small fraction of the benefits from high growth, and the levels of poverty reduction achieved during the high-growth period have been characterized as among the weakest in the world. While this is of major concern in itself, more directly relevant for this study is the fact that poverty reduction is the fundamental catalyst for the family-mediated channel: Declines in poverty are vital for reducing gender discrimination within poorer families, thus converting growth into gender equality (Duflo 2012). Consequently, it is essential to understand exactly why growth in India has failed to substantially reduce poverty. As I emphasize below, this failure reflects India's weak performance on two critical dimensions of pro-poor growth: employment creation and basic education.

B. Employment, Education, and Pro-poor Growth: The Linkages

Since the poor have few productive assets and must rely mostly on selling their labor to generate income, the creation of employment has been identified as a critical dimension of pro-poor growth (Pasha and Palanivel 2003; Khan 2007a, 2007b). Greater job availability can potentially reduce both unemployment and underemployment among the poor, while also raising wages (Khan 2006, Osmani 2006). Thus: “[E]mployment opportunities for the poor offer the most crucial link between growth and poverty” (Osmani 2006, p. 10). The effectiveness of growth in reducing poverty, accordingly, depends both on the job opportunities it creates and on the ability of the poor to take advantage of these opportunities (Khan 2006, Osmani 2006).

The extent to which growth creates employment can be estimated from the output elasticity of employment, also known as the gross output elasticity of employment (GOEE). The GOEE measures how much employment growth is associated with a 1 percentage point increase in economic output; factors affecting it include the technologies used and the capital intensity of production. Correspondingly, the extent to which poor people are integrated into the growth process and can take advantage of opportunities for more productive or remunerative employment has been termed the “integrability factor” (Osmani 2006). Such integrability, or inclusiveness, depends on

the skills and capabilities of the poor, especially their education. Consequently, the public provision of health care and education directly contributes to pro-poor growth by raising the productivity of poorer workers, enabling them to benefit from new economic opportunities (Osmani 2006).

The East Asian experience demonstrated the importance of both factors—the generation of employment opportunities and the ability of the poor to take advantage of them—in creating pro-poor growth. The success of East Asian economies in reducing poverty has been attributed to the many high-wage manufacturing jobs created by growth, combined with extensive state provision of education and health care, which continuously raised labor productivity (World Bank 1993). By contrast, India's performance on both these critical dimensions of pro-poor growth has been far from adequate.

Thus, Khan (2007a, 2007b) emphasizes that, while Indian growth rates since the 1980s have been somewhat comparable to those of East Asia at its peak, India has achieved much less in terms of poverty reduction, largely due to low output elasticities of employment. During the 1970s, economies in East Asia had an output elasticity of employment in manufacturing as high as 0.7–0.8 (Khan 2007b). Conversely, the GOEE in the Indian factory manufacturing sector was negative during the 1980s, and only 0.3 during the 1990s (Sundaram and Tendulkar 2002). Given the high Indian growth rates during the 1990s, Khan (2007b) concludes that the country's inability to reduce poverty significantly during that decade can be attributed almost entirely to the low employment intensity of growth. India's failure to achieve substantial poverty reduction thus highlights a critical weakness of the growth process—the low levels of employment accompanying such growth.

The second important dimension of pro-poor growth highlighted by the East Asian experience was that economies should invest in education and health to raise labor productivity and increase inclusiveness (Khan 2006, Osmani 2006). During their high-growth periods, investments in human capital development contributed greatly to reducing poverty in East Asian economies (World Bank 1993, Krugman 1994). The early achievement of universal primary education in these economies was followed by increasing access to secondary education as growth continued (Khan 2006). On this second dimension too, however, India's record has been weak. Much evidence points to the continuing poor quality and low coverage of both basic education and health care (Kumar et al. 2011, National Council of Educational Research and Training 2016). Moreover, as will be discussed later, India has focused too heavily on tertiary education, while neglecting primary and secondary schooling—a bias that has particularly hurt poorer workers.

In sum, India's performance on the two key dimensions of pro-poor growth has been weak, seriously hampering its ability to reduce poverty and, therefore, also gender inequality. As hypothesized previously, since poverty reduction is the second major causal mechanism for converting growth into gender equality, the same factors that induce pro-poor growth should also enhance gender equality. In the next section, I study India's performance on these factors in greater detail, examining the country's record on both employment creation and basic education. As I illustrate there, structural change in India has been somewhat atypical, leaving the country overdependent on agriculture for employment. In particular, production in manufacturing and services has been capital intensive as well as skill intensive. Consequently, growth in these sectors has not been conducive to the expansion of employment opportunities for poorer workers, especially when combined with the neglect of primary and secondary education.

III. Patterns of Economic Growth in India

In this section, I analyze patterns of growth in India, starting with the broader structural changes that occurred over the 30-year period from 1982/83 to 2011/12. I then relate these structural changes to the patterns of employment and education in the country to illustrate the problem of non-inclusion of poorer workers, thereby completing the picture of why high growth in India has failed to bring about a commensurate decline in poverty. Most notably, I find that the Indian pattern of growth has not generated sufficient remunerative employment even for poorer *male* workers: a major obstacle to the country's efforts to reduce both poverty and gender inequality.

A. Structural Change in the Indian Economy from 1982/83 to 2011/12

India's growth path has been somewhat different from the pattern established by the now-developed countries. In these advanced economies, the initial process of structural transformation typically involved the movement of surplus labor from a less productive agriculture sector into a more productive industrial sector, at higher wages. Subsequently, as incomes continued to increase, workers were also absorbed into a growing service sector, providing services such as banking and telecommunications (Kuznets 1966; Chenery, Robinson, and Syrquin 1986). The rise of high-wage employment in manufacturing, and later services, was thus an integral

Table. **Employment and Structural Change in the Indian Economy**

Sector	1982/83		2011/12	
	Share of GDP (%)	Share of employment (%)	Share of GDP (%)	Share of employment (%)
Agriculture	35.2	68.5	17.9	48.9
Manufacturing	17.6	10.6	14.7	12.6
Services	37.5	17.5	54.9	26.9

GDP = gross domestic product.

Notes: For both 1982/83 and 2011/12, the percentage shares of GDP are based on GDP at factor cost and current prices.

Sources: GDP figures for 1982/83 are from the EPW Research Foundation (1995); GDP figures for 2011/12 are from the Central Statistics Office (2014); employment figures for 1982/83 are from the National Sample Survey Organisation (1987) and the National Sample Survey Office (2014); employment figures for 2011/12 are from the National Sample Survey Office (2013).

part of structural change during the process of development.⁸ Equally, as emphasized in the previous section, the expansion of such remunerative employment is critical for poverty reduction and pro-poor growth.⁹

Unfortunately, in the case of India, a very limited rise in employment in manufacturing, as well as services, has slowed down both the process of structural transformation and that of poverty reduction. The table above presents structural changes in the Indian economy over the 30-year period from 1982/83 to 2011/12. As the table shows, the share of agricultural employment in India is disproportionately high relative to the sector's share of GDP: agricultural workers comprised 69% of all workers in 1982/83 and that share remained at a fairly high 49% even in 2011/12. The agriculture sector thus continues to display low productivity, contributing less than 18% of the country's GDP in 2011/12, while employing almost half of all workers. Conversely, labor productivity in manufacturing and services is estimated to be 4–5 times that in the agriculture sector (Bosworth, Collins, and Virmani 2007). The Indian economy has thus been deprived of the substantial gains in productivity and average incomes that could have resulted had there been a greater reallocation of labor

⁸This is intended to be just a very brief summary of the classical approach to structural change. For a much more detailed exposition of structural transformation, see the excellent article by Sen (2019a), which also makes the very important point that these prototypical patterns may no longer hold for present-day developing economies.

⁹Felipe, Mehta, and Rhee (2019) also demonstrate that a minimum threshold level of manufacturing employment may be a necessary condition for a country's eventual prosperity: "[H]igh levels of manufacturing employment have been necessary for becoming rich."

from agriculture—that is, if more workers had been able to secure employment in manufacturing and services.

Relatedly, development processes in India also appear to have deviated from the prototypical pattern in one important respect. Typically, the now-developed countries went through an initial phase of structural change in which manufacturing contributed a rising share of GDP and also employed an increasingly large percentage of the total workforce. It was only subsequently that the importance of this sector began to decline and services became the primary driver of economic growth (Rodrik 2015). In contrast, the Indian economy shifted relatively early into services, with a concomitant lack of progress in manufacturing. As the table illustrates, over the 3 decades from 1982/83 to 2011/12, the share of manufacturing in India's GDP fell slightly from 17.6% to 14.7%. Simultaneously, the share of services grew from 37.5% in 1982/83 to 54.9% by 2011/12. This early dominance of services in India's economic structure has been so pronounced that the country is cited as a possible instance of "premature de-industrialization," or a case where the manufacturing sector has lost its significance too quickly during the growth process (Chaudhuri 2015). Thus, Rodrik (2015) emphasizes that while industrialization in West European countries like Italy, Sweden, and the United Kingdom reached its peak at per capita incomes of around \$14,000 (in 1990 dollars), India reached its manufacturing peak very much earlier, at an income level of only about \$700.

B. Patterns of Employment

In keeping with this atypical pattern of structural change, Indian manufacturing has also failed to create employment on the scale seen in other industrializing Asian economies. The contribution of manufacturing to India's total employment rose extremely slowly in the high-growth decades, increasing from roughly 10% in 1985 to about 11% in 1995 and 12% in 2005 (Athukorala and Sen 2015), finally reaching a peak of just 12.6% in 2011/12 (Table). By contrast, manufacturing in Taipei, China accounted for about 34% of total employment in 1985, when the economy was near its peak industrially, and continued to provide as much as 27% of total employment in 2005. In Malaysia, manufacturing jobs provided about 26% of total employment in 1995 and 23% in 2005. Even in Sri Lanka—a small island nation that experienced decades of civil war—manufacturing accounted for 16% of total employment in 2005 (Athukorala and Sen 2015).

The failure of Indian manufacturing to create sufficient employment has been attributed to India's industrial policies. After independence, the government concentrated on promoting heavy industrialization, which was by nature highly capital intensive. Simultaneously, production of consumer goods, which is more labor

intensive, was restricted through a system of industrial licensing. Other policies also reinforced the propensity for capital-intensive manufacturing by raising the cost of labor relative to that of capital—for example, ceilings on interest rates. However, a series of liberalizing reforms, initiated in the 1980s, culminated in the full dismantling of the industrial licensing system by the early 1990s (Kochhar et al. 2006).

These reforms were expected to accelerate growth and raise employment. And India's high-growth period, which began in the early 1980s, did largely coincide with the introduction of the first set of reforms (Ghose 2015). Unfortunately, the rapid growth failed to generate proportionate employment gains in manufacturing and services. Instead, the output elasticity of employment in manufacturing declined quite substantially from the middle of the 1980s to the middle of the 2000s. From 1981/82 to 2004/05, organized manufacturing in India grew at an annual average rate of 7.4%, increasing its output by a factor of more than 5. However, the output elasticity of employment in the sector during this entire 24-year period was a mere 0.1 (Kannan and Raveendran 2009). By contrast, East Asian economies achieved employment elasticities of 0.7–0.8 in manufacturing during the 1970s (Khan 2007b), or elasticities roughly 7–8 times higher than India's rates for this period.

Sen (2019b) provides further insights into the changes in Indian manufacturing employment from 1980 to 2010. His decomposition analysis reveals that, while there was an increase in the total number of jobs due to growth in manufacturing, about one-sixth as many jobs were also lost due to a shift in composition toward more capital-intensive industries as well as lower labor intensity overall (see Figure A2, p. 1582). For the period 1990–2010, Sen's estimate is even bleaker, with almost one-third as many jobs lost due to these two factors as the total jobs created (see Figure A3, p. 1583). Despite high growth in manufacturing therefore, jobs in this sector made up only 12.6% of India's total employment even at the peak in 2011/12.

Like manufacturing, the service sector in India has also displayed remarkably low levels of employment intensity, especially in comparison to the global norm. In both developing and developed economies, econometric analysis suggests that the contribution of services to total employment should be roughly the same as the sector's share of total output (Ghose 2014). In India, by contrast, the actual level of employment in services is a little over half the predicted level. Based on the share of the sector in India's real GDP, Ghose (2014) calculates that services should have accounted for approximately 53.8% of total employment in 2010. The actual figures, however, show that services provided only 28.9% of Indian employment that year (Ghose 2014). In sum, both manufacturing and services in India have failed to create employment on the expected scale.

C. The Non-inclusiveness of Growth

Relatedly, the high skill intensity of both services and manufacturing has held back poorer workers, further reducing the inclusiveness of growth. Both registered manufacturing and a range of modern services in India require relatively high education levels in comparison to the agriculture sector (Amirapu and Subramanian 2015). Not surprisingly, across the country, low levels of literacy and the lack of a basic education decrease the ability of the poor to participate in the growth of the nonfarm sector (Ravallion and Datt 2002). The combination of capital-intensive manufacturing processes and skill-intensive methods in both manufacturing and services has thus reduced India's ability to generate remunerative employment for its large pool of poorer, unskilled workers (Bosworth, Collins, and Virmani 2007; Amirapu and Subramanian 2015).

It is notable that only about 14% of the agricultural workforce in India has a secondary school or higher level of education. However, the percentage of employees with a secondary or higher education rises substantially to 43.2% of workers in the registered manufacturing sector and, even more sharply, to about 84% of workers in financial services and insurance, and 89% of workers in educational services (Amirapu and Subramanian 2015). In other words, while both manufacturing and services have generated very low levels of employment, the jobs created in these sectors typically require more highly educated workers. By contrast, in the prime working-age group of males aged 25–54 years, only about 57% of Indian men have completed secondary school (World Economic Forum 2017). This indicates that almost 43% of the male labor force may be completely unqualified for a range of jobs in services as well as manufacturing.

Thus, India's growth pattern has not created sufficient remunerative employment opportunities even for poor, less educated male workers—quite apart from failing to raise female employment. Since better-paid jobs for poor men can lead directly to a decline in poverty, this illustrates why India has been unable to achieve more substantial reductions in poverty levels. Moreover, the failure to bring about steeper declines in poverty is also likely to have dampened the effectiveness of the family-mediated channel toward greater gender equality. In other words, India's limited progress on gender equality despite high growth rates can also be traced to its failure to substantially enhance employment opportunities for poor men.

Needless to say, the situation is far worse with regard to women's education and employment. In the prime working-age group (25–54 years), only about 38% of women have completed secondary school (World Economic Forum 2017). Moreover, only 1.8% of the female labor force is classified as highly skilled compared to 8.1% of the male labor force (World Economic Forum 2017). Not surprisingly, women in

2011/12 made up about 35% of the total workforce in agriculture (with men being 65%), 29% of the manufacturing workforce (men were 71%), and a much smaller 18% of the workforce in services (with men making up the large majority at 82%) (Mehrotra and Parida 2017).

The barriers faced by Indian women are reflected in the fact that almost half of young females are neither studying nor employed, compared to only 8% of young males (World Economic Forum 2017). Girls and women are often confined to housework and childcare, with the percentage of females aged 15–59 years reporting that they were engaged solely in unpaid domestic duties rising from 34% in 1983/84 to as much as 55% in 2011/12 (Mehrotra and Parida 2017). Relatedly, a much higher percentage of the work women do each day—65.6%—is unpaid, compared to only 11.7% for men (World Economic Forum 2017).

These statistics reflect the prevailing sociocultural norms, which influence the extent to which women in South Asia can control and benefit from their own labor (see, for example, Kabeer 1996). Patriarchal norms discriminate heavily against Indian women and, for caste and status reasons, their mobility is often restricted to the extent that they withdraw from the labor force (Esteve-Volart 2004; Eswaran, Ramaswami, and Wadhwa 2013). Even when employed, women are often relegated to lower-paid inferior jobs through occupational segregation by sex or outright discrimination based on social norms that wrongly assume that they are less capable (Esteve-Volart 2004, Institute of Social Studies Trust 2012).

Despite economic growth, therefore, social norms continue to constrain female employment in India, leading to greater reliance on the poverty-reduction channel to bring about even the slightest degree of gender equality.

D. Patterns in Education

Regarding the non-inclusiveness of growth, it has also been emphasized that the expansion of manufacturing jobs and other employment opportunities in India may have been hindered by a lack of sufficiently educated workers (Kochhar et al. 2006). In other industrializing Asian countries, for instance, factory jobs are generally considered to require at least a secondary school education. Reinforcing this standpoint, Felipe, Mehta, and Rhee (2019) stress that years of schooling are a positive and significant predictor of manufacturing employment in a country, with a 1-year increase in the average level of education associated with as much as a 6.3% rise in the share of manufacturing employment. Accordingly, it has been argued that measures need to be taken to raise the education and skill levels of Indian workers as part of efforts to boost manufacturing (Kochhar et al. 2006; Bosworth, Collins, and Virmani 2007).

Unfortunately, while investments in primary and secondary education could have helped to prepare poorer workers for jobs in manufacturing as well as services, thereby increasing inclusiveness, the Indian education system has been characterized by an emphasis on higher education. Public investment has been heavily biased toward tertiary education, focused on creating institutes of higher learning—such as the Indian Institutes of Technology and Indian Institutes of Management—to supply scientists, engineers, managers, and other highly qualified professionals (Kochhar et al. 2006). Higher education has been subsidized to a much greater degree than primary education, even in comparison to other, richer countries. For instance, India's ratio of public expenditure per student in tertiary education to that in primary education was 6.2 in 2006, compared to a ratio of 2.1 in Indonesia in 2007 and 1.6 in Thailand in 2004 (Ghose 2014).

This emphasis on higher education has supported the development of high-skill sectors of the Indian economy, such as information technology and skill-intensive manufacturing (Kochhar et al. 2006). Conversely, the neglect of primary and secondary education and the resulting high level of educational inequality have hindered India's ability to reduce poverty, especially when compared to countries like the People's Republic of China (PRC). While both countries initiated economic reforms in the 1980s, Ravallion (2009) suggests that the PRC was better able to translate the resultant GDP growth into poverty reduction, partly due to higher literacy levels. In 1980, the literacy rate in the PRC was approximately 66% for the population aged 15 years and over, compared to about 45% in India (Bosworth, Collins, and Virmani 2007). Even as late as 1990, India had not attained 100% enrollment in primary education, a goal achieved by the PRC more than 10 years before (Ravallion 2009). Relatedly, Kim, Olsen, and Wiśniowski (2020) emphasize that India has the highest number of child laborers in the world, with their percentage rising sharply at age 14. Keeping children in school after 13–14 years of age—when they are likely to start secondary schooling—might accordingly be an important step toward reducing child labor and breaking the cycle of poverty.

While India passed a Right to Education Act in 2009, mandating free and compulsory education, this was only for children between 6 and 14 years of age. Moreover, in spite of the Act, the overall quality of primary schooling in India remains very poor. A recent survey in rural India indicated that only 27.2% of students enrolled in Standard III could read a text at the level of Standard II. Even by Standard VIII, only about 73% of children

were able to read a Standard II level text, while barely 44% of them could correctly divide a three-digit number by a one-digit number (ASER Centre 2019).¹⁰

Investments in primary and secondary education are an integral component of pro-poor growth (Khan 2006), and India's weakness on this front has compounded its inability to generate remunerative employment for the poor. The predictable consequence of the failure to provide better-paid jobs, even for poor males, has been that growth has failed to achieve commensurate reductions in poverty and has actually increased income inequality (see previous section). Accordingly, since high growth in India has had a very limited impact on poverty, it may be inferred that it cannot be expected to have substantially reduced gender inequality either via the poverty-reduction or family-mediated channel. I turn next to a brief review of the country's progress on gender equality to assess whether this inference is justified.

IV. India's Progress on Gender Equality: A Brief Review

Being a complex, multidimensional phenomenon, gender equality is likely to be influenced by various forces within a country, including social and political forces. Consequently, even if economic growth did not have a substantial impact on gender equality in India, other social or political forces could conceivably have had a positive influence. This paper only seeks to emphasize that the recent decades of high growth are unlikely to have made a sizable contribution toward gender equality in India. Accordingly, my review of the country's progress focuses only on a single indicator: the female-to-male sex ratio. I illustrate that this commonly used indicator of gender equality is likely to be affected by economic growth and, even more importantly, by the family-mediated poverty-reduction channel. Since the relevant data on excess female mortality in India is only available from the 1990s onward, however, I restrict this review to the period after 1990, although my discussion of Indian employment and growth also covers the 1980s.

The female-to-male sex ratio in India was 927 females per 1,000 males in 1991 (Government of India 2011). Contrasting this sex ratio of 0.93 with ratios of 1.05 in Europe and North America and 1.02 in Sub-Saharan Africa, Sen (1992) suggested that it reflected the "missing women" in India. He then estimated that about 37 million

¹⁰The survey tests children aged 5–16 years who may be enrolled in Standards I–VIII, with Standards I–IV corresponding to upper primary school and Standards V–VIII corresponding to middle school.

Indian women were missing due to a combination of sex-selective abortion and various other forms of discrimination against girls and women (Sen 1992).

Importantly, economic growth may have different effects on these two different causes of excess female mortality. Thus, sex-selective abortion may actually rise with growth due to the wider availability of related technologies (Chung and Das Gupta 2007). Conversely, the other forms of gender discrimination that cause excess female mortality may be expected to decline with growth. Such discrimination typically involves lower allocations to girls and women by poorer families, during the distribution of food and health care (World Bank 2011, Government of India 2017). Therefore, it is exactly the kind of scarcity-driven discrimination that could be expected to decline—as suggested by the poverty-reduction channel—if incomes in poor households were to rise due to growth.

While the sex ratio in India did improve with growth, rising from 927 females per 1,000 males in 1991 to 943 females by 2011 (Government of India 2011), the Government of India recently estimated that:

The stock of missing women as of 2014 was nearly 63 million and more than 2 million women go missing across age groups every year (either due to sex selective abortion, disease, neglect or inadequate nutrition) (Government of India 2017, p. 112).

Despite growth rates of 6%–7% from the 1990s onward, therefore, India has been unable to halt the trend of missing women. Their numbers continue to increase by more than 2 million annually, with the cumulative total rising from 37 million to 63 million women between 1991 and 2014 (Government of India 2017). It must be emphasized that girls missing at birth (i.e., due to sex-selective abortion) account for only about 30% of missing Indian females. The largest proportion—approximately 70%—of excess female mortality in India comes from the age groups of girls in early childhood and women in their reproductive years (World Bank 2011).

Furthermore, the main cause of excess mortality in these two latter age groups is the various forms of poverty-linked gender discrimination within families, such as lower allocations of food and health care for females (World Bank 2011). In other words, if growth in India had generated a substantial reduction in poverty, this could have increased the access of poor females to essentials like food and health care, thereby eliminating, or at least sharply reducing, the excess mortality related to this 70% of missing girls and women. On the contrary, if, of the 2 million Indian females who are missing each year, approximately 70% are missing for reasons other than sex-selective abortion, this would amount to a potential 1.4 million deaths of girls and women annually due to continuing, poverty-related gender discrimination by families.

Thus, while the sex ratio in India did improve between 1991 and 2011, indicating some reduction in both sex-selective abortion and other forms of gender discrimination, progress has been neither sufficient nor extensive. A closer look at the two critical age groups that make up most of the 70% of females missing after birth—those missing because of factors other than sex-selective abortion—clearly demonstrates the importance of poverty reduction for lowering excess female mortality in India.

The two groups are women in their reproductive years and girls under the age of 5 years. In the first group, maternal mortality rates have declined, especially after 2005 when the government introduced a cash transfer program enabling poorer women to give birth in health facilities rather than at home (Randive et al. 2014). Largely due to this *Janani Suraksha Yojana* (JSY) program, the percentage of institutional deliveries among the poorest quintile of women rose from 13% to 60% between 2005/06 and 2015/16, and maternal mortality rates also declined substantially over the same period (International Institute for Population Sciences [IIPS] 2007, Randive et al. 2014, IIPS 2017). In transferring resources to poorer households, thereby leading to increased health-care spending on women, the JSY therefore appears to have acted as a form of quasi-poverty reduction—illustrating the importance of actual poverty reduction for lowering female mortality.

However, there have been noticeable flaws in the JSY's targeting and implementation (Lim et al. 2010), so that 40% of women in the poorest quintile still were not able to deliver in a health facility in 2015/16 compared to only 5% in the richest quintile (IIPS 2017). Moreover, almost 16% of all women still cited cost as the main reason for not delivering in a health facility. And while 10% of women said the main barrier was the closure of the health facility, it should be noted that poorer women may be unable to turn to existing private facilities if public facilities are closed since the cost of a private delivery is approximately five times as high as that of a public delivery (IIPS 2017).

Additionally, while a large proportion of maternal deaths occur during the first 24 hours after delivery, only 48% of women in the poorest quintile received a postnatal check within 2 days in 2015/16, compared to 80% of those in the richest quintile (IIPS 2017). While the JSY has therefore benefited poorer families, acting as a form of quasi-poverty reduction, these outcomes reinforce the importance of actual poverty reduction so that poor women do not need to rely on cash transfer programs to access maternal health care.

The problem becomes even starker for girls under the age of 5 years, the second critical age group in India, with the trend of excess female mortality in this group worsening shockingly between 1990 and 2012. The ratio of excess female deaths to all deaths of children under 5 years old rose from 8.7% in 1990 to 11.7% by 2012 (Alkema et al. 2014). Moreover, the estimated-to-expected ratio of female under-5

mortality rates also increased significantly, signaling a worsening of family-mediated gender discrimination against girls. Consequently, by 2012, India had deviated even further from the global standard and had by far the highest excess mortality in the world among girls under the age of 5 years at 13.5 per 1,000 livebirths, followed by Afghanistan at 5.2 and Pakistan at 4.7 per 1,000 (Alkema et al. 2014).¹¹ It appears that poverty-linked gender discrimination against young Indian girls worsened in the absence of any government transfers targeting them, again highlighting the limited extent of the poverty reduction achieved by growth. Excess female mortality, therefore, remains of major concern in India.

Lastly, it must be emphasized that excess female mortality is only the most extreme outcome and indicator of poverty-linked gender discrimination—and consistently underestimates its full extent. Firstly, excess female mortality does not capture some forms of poverty-linked discrimination—like discrimination in education (World Bank 2011). Secondly, it does not even capture the fullest extent of gender discrimination in nutrition and health care since, for example, giving girls less food than boys in India can result in stunting and/or wasting but not necessarily death (Pande 2003; Raj, McDougal, and Silverman 2015). Similarly, women who give birth at home may suffer serious medical complications but not death (IIPS 2007, 2017). Therefore, excess female mortality systematically underestimates the true extent of poverty-linked gender discrimination, making it even more powerful as an indicator: it signals that actual levels of such discrimination are likely to be substantially higher.

Consequently, while India may be considered to have seen some improvement in gender equality along with growth, as signaled by improving overall sex ratios, its progress has been very limited and glaring problems remain. This conclusion is in line with my earlier inference that growth is unlikely to have brought about a substantial improvement in gender equality via the poverty-reduction channel. As illustrated previously, India's poverty reduction has fallen considerably below the potential offered by its high growth, with India's growth elasticity of poverty being among the weakest in the world. Moreover, as emphasized in the introduction, Indian women's employment levels have actually declined since the 1980s. Thus, both causal mechanisms that might have helped to translate growth into gender equality—poverty reduction and higher female employment—have been fairly weak or even nonexistent in India.

My analysis therefore indicates that a country's path from growth to reduced gender inequality is not necessarily automatic or straightforward. This is in line with

¹¹ ADB placed its regular assistance to Afghanistan on hold effective 15 August 2021.

Seguino (2006), who shows that in Latin America and the Caribbean from 1970 to 2000 growth did not improve a composite gender-equity index. Of particular relevance for this review, she also shows that growth had a negative effect on female-to-male population ratios. Relatedly, Seguino (2002) illustrates that, for a sample of Asian countries, growth had no significant effect on female-to-male population ratios from 1970 to 1990. It seems, therefore, that India may not be an anomaly in failing to convert high growth into substantial increases in gender equality.

Most importantly, as emphasized by Berik and Rodgers (2009) and Seguino (2002, 2006), macroeconomic factors such as the economic structure and trade policies can substantially affect gender equality. In line with this proposition, my analysis highlights how government policies and broader structural changes in the economy have shaped patterns of employment and poverty reduction in India, thereby altering the nature of growth and its impact on gender equality. My findings suggest that macro policies designed to shape the nature of growth—strengthening its impact on both poverty reduction and female employment—may raise the extent to which growth is converted into gender equality in developing countries.

V. Conclusions and Policy Implications

Economic theory suggests that growth may lead to greater gender equality either by reducing poverty or by increasing female employment. This paper highlights the broader links between employment and poverty reduction, emphasizing that growth may enhance gender equality even by creating better-paid jobs for poor men. Higher-waged employment for male workers can reduce poverty, potentially causing poor families to allocate more resources to females and thus, indirectly improving gender equality.

A second, important dimension of poverty reduction and pro-poor growth—closely related to employment—is investment in education. Unfortunately, India's performance has been deficient on both these dimensions of pro-poor growth: It has not invested sufficiently in primary and secondary education, and growth has not created enough job opportunities. In turn, these dual failures have limited the positive impact of growth on poverty reduction, as well as gender equality. While high growth in India has been unable to raise female employment so as to directly empower women, the country may have lost out on even the indirect gains for gender equality that could have resulted from better employment options for poor men.

The broader implications of the current study for other developing countries, especially those in South Asia, may be summarized as follows. Firstly, for basic gender

indicators relating to the nutrition, health, and survival of women, poverty reduction may matter more than growth. Faced with multiple needs and a shortage of resources, poor families may choose between males and females in intra-household allocations, with females often receiving less food, health care, and even education (Pande 2003, World Bank 2011, Duflo 2012). Under these conditions, even better jobs for poor men, by reducing such scarcity, may help to improve gender equality.¹² Slower growth, with higher levels of employment and lower inequality, may therefore be preferable to higher growth which creates fewer jobs and disproportionately benefits the rich.

Secondly, South Asia has historically been characterized by low rates of female labor force participation, partly due to patriarchal sociocultural norms. Until such time as there is some alteration in these norms, therefore, and/or female employment increases, better jobs for poor males may provide a critical initial step toward greater gender equality in this region.

Nevertheless, while male employment and the related poverty reduction may provide females with basic necessities, it must be clearly acknowledged that this is just a starting point. Intensive efforts are needed to directly enhance both girls' education and women's employment, especially in India. As emphasized in the introduction, Indian female employment actually declined between 1983/84 and 2011/12, although male employment increased marginally. Rather than decreasing, the gender gap in Indian employment thus increased further during this high-growth period, leaving poverty reduction as the only mechanism for translating growth into greater gender equality.

In terms of female labor force participation, even within the South Asian region, India ranks below Bangladesh, Nepal, and Sri Lanka (World Bank 2011). A comparison with Bangladesh is revealing. The two countries had roughly equal levels of per capita income in 1990 and 2000, but by 2017, faster growth in India had raised its per capita income to \$1,820, while Bangladesh's remained slightly lower at \$1,470 (World Bank 2018). However, only 39% of Indian females had any secondary education in 2017, compared with 44% in Bangladesh, and India's female labor force participation rate was 27.2%, compared with Bangladesh's 33% (United Nations Development Programme 2018). In terms of policy effectiveness, Bangladesh seems to have created a virtuous cycle, as one effect of higher female employment prospects and wages is to raise the returns to female education, thereby encouraging parents to educate daughters (World Bank 2011). Female secondary school attendance in Bangladesh,

¹²Of course, this will not benefit households without any current or potential male workers, such as female-headed households or households in which the adult males are unable to work due to age, sickness, or disability.

it appears, was strengthened partly by the demand for educated female workers from expanding garment factories (World Bank 2011).

Even more importantly, in 1994, Bangladesh initiated a large-scale conditional cash transfer program to boost girls' secondary education. The program gave cash stipends to all rural, female, secondary school students provided they remained unmarried and fulfilled basic attendance and exam requirements (Hahn et al. 2018). The results were remarkable and wide ranging: a significant increase in years of schooling and later marriage among girls eligible for the program, plus lower desired and actual fertility. The girls were also more likely to secure formal work as opposed to agricultural or informal sector jobs (Hahn et al. 2018).

These results demonstrate the potential that targeted development programs have to bring about greater gender equality in education and employment; similar, large-scale initiatives are urgently needed in India. Until such measures are implemented and bear fruit, however, together with a softening of patriarchal sociocultural norms, growth may not raise female employment in India—thus leaving the country even more reliant on the poverty-reduction channel to achieve even the slightest degree of gender equality. Consequently, as emphasized by this paper, growth cannot be expected to enhance gender equality unless it is accompanied by pro-poor policies: In the short to medium term, therefore, counterintuitive as it may seem, better jobs for (poor) men could help to increase gender equality in India.

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