UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

TRADE AND DEVELOPMENT REPORT 2017

BEYOND AUSTERITY: TOWARDS A GLOBAL NEW DEAL

Chapter IV

THE GENDER DYNAMICS OF INCLUSION AND EXCLUSION: A MACRO PERSPECTIVE ON EMPLOYMENT

UNITED NATIONS
New York and Geneva, 2017

THE GENDER DYNAMICS OF INCLUSION AND EXCLUSION: A MACRO PERSPECTIVE ON EMPLOYMENT

IV

A. Introduction

As discussed in chapter II, "inclusion" has been promoted as a way to make hyperglobalization work for all. This is despite (or because of) its attendant market deregulation, attrition of the public realm, and the increasingly crowded and competitive scramble for an advantageous spot in the emerging international division of labour. It has largely followed a supply-side approach, one that overlooks the fact that individuals are already integrated into the global economy, but on exclusionary terms that stem from prevailing rules, norms and policies. The global policy narrative on women's economic empowerment, which seems to focus largely on their inclusion in markets, is an example of this limited perspective.

This chapter evaluates the employment aspects of gender inclusion from a macroeconomic perspective. It argues that increasing women's participation in the labour force, a general trend in most developing countries in recent years, is not a straightforward pathway either to faster or to more inclusive growth and development, as is too often implied. Rather, the potential for women's increasing participation in paid work, including self-employment, to substantively enhance both women's economic empowerment and gender equality is determined by prevailing socio-cultural conditions. Moreover, its wider distributional impact is fundamentally dependent on the prevailing processes of technological and structural change. Those processes in turn are affected by the global and macroeconomic conditions and policies which influence the level and structure of aggregate demand. As argued in previous chapters, the growth of inequality has dampened demand, circumscribing the expansion of high-quality jobs relative to labour supply. This has intensified competition for "good" jobs consistent with decent work. It has also resulted in gendered job rationing and the increasing exclusion of women from better work opportunities, even as women's employment participation increases and that of men declines.

The chapter proceeds as follows. Section B provides an overview of the gender equality and growth literature. Section C discusses why gender equality in employment is an essential aspect and measure of inclusive growth. It then goes on to discuss analytical frameworks for evaluating gender in labour markets, combining perspectives on the dynamics of gender stratification and intergroup inequality with analyses of how labour markets are structurally segmented into so-called "good" jobs and "bad" jobs.[1] It highlights that in the context of the growing scarcity of high-quality work, gender is one of the ways in which economic opportunity and security are rationed. Section D presents an empirical analysis, focusing on the period since the early 1990s when systematic, gender-disaggregated data on employment by sector became available for developing countries. It argues that women's access to industrial sector jobs relative to that of men can proxy for their relative access to "good" jobs. It goes on to document both the declining availability of "good" jobs, overall, and women's increasing marginalization from them, even as their employment rate relative to men's has risen.

Section E presents a statistical analysis of women's employment concentration in the industrial sector relative to men's. It focuses on evaluating the effects of structural transformation and technological change, and the structural and policy consequences of globalization and growth. Section F evaluates how women's employment prospects affect the labour share of income, underscoring how gender inequality in the labour market is damaging for all workers, both women and men. The last section concludes.

B. The two-way causality between gender equality and economic growth

The macroeconomy is often perceived as a "gender-neutral" space; but gender matters for macroeconomic structures and outcomes. Different types of economic shocks or patterns of growth affect women and men differently, for example when labour-intensive exports increase the relative demand for women's labour, or austerity programmes have disproportionately adverse impacts on mothers and children. This causality also works the other way, in that gender relations, for example as manifested in women's low labour force participation or gender-biased access to inputs for self-employed activities, partly determine macroeconomic outcomes such as growth, trade imbalances and inflation.[2]

With respect to economic growth, the degree of gender inequality in education, health and employment has substantial adverse effects on growth.

Gender gaps in education and health are largely transmitted via their impact on labour productivity (Dollar and Gatti, 1999; Knowles et al., 2002; Klasen and Lamanna, 2009). Based on the assumption that aptitudes are equally distributed across the genders, educating more boys than girls, it is argued, causes "selection bias" and lowers the average quality of those educated. The result is an inefficient allocation of labour, with negative effects on economy-wide labour productivity and growth. On the other hand, gender equality in education has been shown to lower fertility rates and enhance children's well-being. Lower fertility rates reduce women's burden of unpaid labour and facilitate their greater participation in the labour force. Moreover, as fertility rates decline, the working age population grows at a faster rate than the overall population, thus lowering the dependency ratio and helping to boost savings and investments (including investments in children), with positive effects on per capita growth – the so-called "demographic gift".

Growth can also be stimulated by reducing gender gaps in employment, again through the "talent allocation" or selection bias channel. Narrowing the gender gap in employment also results in positive externalities. Job opportunities for women contribute to lower fertility rates, as the opportunity cost (i.e. what has to be given up) of raising children increases, and they also boost women's bargaining power in the household (Haddad et al., 1997). It has been shown that their greater bargaining power has a positive effect on investments in children's well-being, thereby contributing to long-run productivity growth. It is also important to note that equality of access to education and employment is likely to be mutually reinforcing.

While job segregation by gender can be a barrier to the efficient allocation of labour, it is also true that in some instances such segregation, coupled with wage discrimination, can be a stimulus to short-term growth under certain conditions (Blecker and Seguino, 2002). This occurs particularly if women workers are segregated into jobs in export industries. The causal mechanism is that (discriminatorily) low wages resulting from job segregation can be a stimulus to aggregate demand by increasing both export demand and investment (i.e. business spending). Gender wage inequality may also improve the balance of payments, reducing the need to rely on currency devaluation as a means to improving competitiveness, resulting in a "feminization of foreign exchange earnings" (Samarasinghe, 1998; Seguino, 2010). However, that gender inequality may, in some circumstances, contribute to aggregate growth, underscores one of the potential pitfalls of relying solely on economic efficiency arguments to promote gender equality.

The impact of growth, development and structural change on gender inequality has been much discussed since Boserup's (1970) classic work on women's roles in economic development. Early studies found a positive correlation between growth and a variety of measures of women's well-being and gender equality, including those relating to education, life expectancy, the United Nation's Gender Development Index, female labour force participation, employment segregation and the gender wage gap. But subsequent analyses have been much more mixed, suggesting that growth is no longer deemed sufficient to overcome gender inequality (Seguino, 2017).

Women's participation in work has been related to structural change through the feminization U-Curve, which describes how women's economic activity rates first decline and then increase as industrialization proceeds, in line with the disappearance of

women's traditional work in agriculture and the development of new opportunities in an expanding services sector. However, while this has been true of some currently industrialized economies, it is not so clear-cut at present. Indeed, if differences in sectoral distribution of production over time are used as a proxy for structural change, there is little evidence to suggest that, in the recent period, structural change has been the driver of higher female labour force participation in developing countries (Gaddis and Klasen, 2014).

However, it is true that the feminization of the global labour force has been identified as a key trend of hyperglobalization (Standing, 1989), based on the increasing demand for women workers as well as the downward drift in the quality of men's jobs relative to those held by women. This has been related to an intensification of competition among firms in an increasingly open global economy, which has led to a search for lower cost female labour as a means to achieving export competitiveness. In general, there is considerable evidence of the positive effect of export growth on women's relative employment in labour-intensive manufacturing and services, such as tourism and call centres (Braunstein, 2006; Aguayo-Tellez, 2011; Staritz and Reis, 2013).

There has been a strong positive association between trade and women's employment in a number of labour-abundant, semi-industrialized countries. In primarily agricultural economies, by contrast, where women are concentrated in import-competing sectors such as food crop production, men are better placed to take advantage of export opportunities in cash crop production or natural resource extraction, and women tend to lose employment and income as a result of trade liberalization (Bussolo and De Hoyos, 2009; Fontana, 2009). Also, in developing economies with less competitive manufacturing sectors, particularly in Africa, tariff reductions on labour-intensive imports have resulted in higher job losses for women than for men (Seguino and Grown, 2006).

Trade liberalization can have contradictory effects on women and on gender equality (UNCTAD, 2014). In labour-intensive export industries, such as garment manufacturing, there has been a feminization of employment, but the women are often stuck in low-wage, dead-end jobs with limited opportunities for skills development. As economies move up the industrial ladder to more capital-intensive production, there is some evidence that men become the preferred source of labour supply, while women's share in manufacturing employment declines (Tejani and Milberg, 2016). And while the expansion of the tourism sector and call centres has provided employment for women, their jobs are also more precarious and less well-paid than those of men in these sectors (Staritz and Reis, 2013).

Similarly, the narrowing of the gender gap in labour participation rates has not produced commensurate gender equality in pay and status (Razavi et al., 2012; UN Women, 2015). Instead, women's increased labour force participation has coincided with an increase in informal, unregulated and unprotected forms of work. Although jobs in export-oriented manufacturing firms (and on farms producing non-traditional agricultural exports) have benefited some women, occupational segregation by gender continues, and women face lower wages and inferior conditions of work in the industries into which they are crowded (Braunstein, 2012).

Levels and patterns of public expenditure have strong gender-related distributional effects (Agénor et al., 2010; Fontana and Natali, 2008; Seguino and Were, 2014). Public investments in physical infrastructure, by reducing the time spent in fetching water and fuel and facilitating other unpaid household maintenance activities, reduce the care burden, and consequently raise the earnings potential of both men and (especially) women. Social infrastructure spending can also relieve women's unpaid care burden through publicly funded social services, promoting gender equality in access to jobs and income (UN Women, 2015). Also, gender-related patterns of employment increase the possibilities for women to obtain jobs in social service activities or in the paid-care sector of the economy, such that public spending in this area can further narrow gender-related employment gaps. Since job multipliers for such spending are much larger than other types of public spending, including in physical infrastructure, public spending on the care sector has much greater positive effects on aggregate employment as well as on reducing gender-related employment gaps than other types of public spending (Antonopoulos et al., 2010; ITUC, 2016 and 2017; İlkkaracan et al., 2015).

Clearly, to understand the two-way causality between gender equality and economic growth, gender outcomes must be linked with the specific structures, processes and policies that underlie growth. In this chapter, this is done with a specific focus on employment, which is a critical measure of gender inclusion.

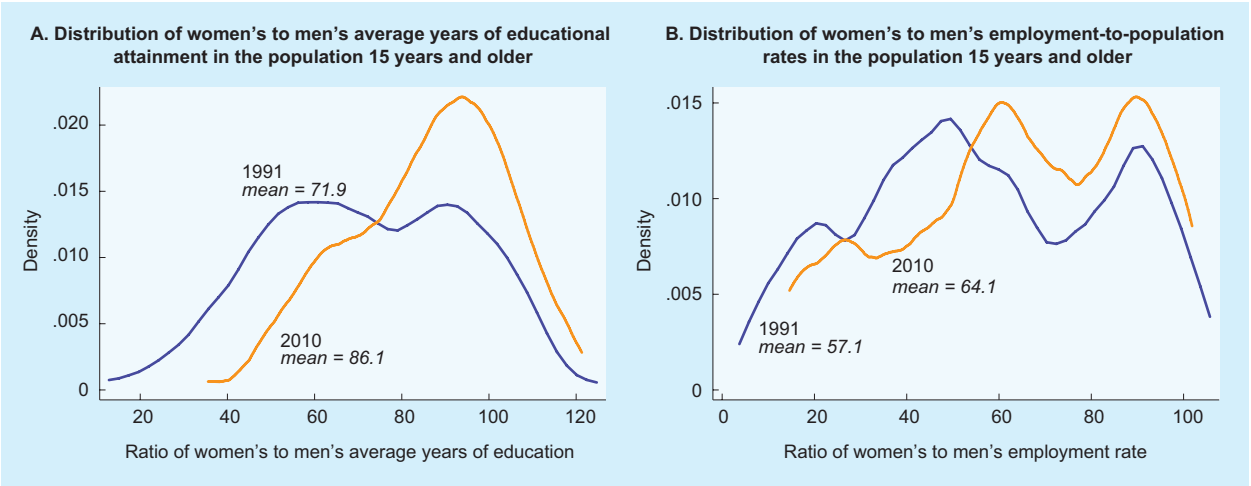
C. The employment dimension of gender-inclusive development

Remunerative employment (including self-employment) is the main mechanism by which individuals provide for themselves and their families. When combined with effective bargaining structures, it is also the most assured route to achieving a fairer distribution of income and for promoting gender equality. When women have equal access to work as men, it has positive effects on women's bargaining power within the household, improving their ability to choose how to spend their time and allocate household resources. Moreover, income in the hands of women, and reduced income and asset inequality between men and women, improve investments in children's well-being, with benefits for long-run growth (Doepke and Tertilt, 2011).

An important determinant of equality of employment is equality in education. Efforts over the past 25 years by national governments and international organizations to close the gender-based education gap (including its identification as the sole target of Millennium Development Goal (MDG) 3 − to promote gender equality and empower women) have resulted in significant progress. Figure 4.1A displays a kernel density function (akin to a histogram in that it represents a distribution of frequencies) that shows the distribution of developing countries according to the ratio of women's to men's average years of educational attainment for the population 15 years and older, comparing 1991 and 2010. The lowest ratio is on the far left of the distribution and the highest ratio (greater gender equality) on the right. The vertical axis indicates the percentage of countries in the sample with a corresponding women's/men's educational attainment ratio, but these percentages are less important than the shapes and relative positions of the curves. Over the time period in question, the mean women's/men's ratio in developing countries rose from 71.9 to 86.1 per cent, while the dispersion between countries in educational equality substantially decreased, as illustrated by the narrowing of the distribution between 1991 and 2010. It is notable also that a much larger proportion of countries are shown as centred on a ratio of 100 (indicative of gender equality in education) in 2010 than in 1991.

However, educational equality is not sufficient to achieve gender equality in economic well-being, or even in employment. Conditions must exist to convert greater educational equality into comparable improvements in access to paid work. Yet, although employment gaps have narrowed over the past two decades, they remain significantly wider than educational gaps. In developing countries, the mean employment-to-population ratio of women to men 15 years and older rose from 57.1 per cent in 1991 to just 64.1 per cent in 2010 (figure 4.1B). The failure of educational equality to ensure employment equality

FIGURE 4.1 Developing-country distribution of gender equality in education and employment, 1991 and 2010



Source: UNCTAD secretariat calculations, based on Barro and Lee (2016, v. 2.1) data; and on ILO modelled employment data.
Note: Data for 1991 are interpolated from 1990 and 1995 estimates, and include 79 countries. The vertical axis indicates the percentage of countries in the sample with a corresponding women to men educational attainment ratio, hence it is referred to as a "density"; the horizontal axis gives the values for the ratio corresponding to each density.

suggests that women continue to face impediments to translating their increased education into more secure livelihoods.

Moreover, even where there are gains in access to paid work, not all forms of work are equally remunerative, stable or ultimately empowering for women. Labour markets are comprised of a hierarchy of jobs, differentiated not only by the size and regularity of the pay packet, but also by social protection, stability, working conditions, skills development and promotion prospects. Access to "good" jobs and "bad" jobs is determined by numerous factors other than education, including the structure of the economy, existing global and macroeconomic conditions, and processes of social and economic stratification that identify who is the most "deserving" of high status work, especially during challenging economic times when good jobs are scarce. Even today, women (and racially or ethnically "subordinate" groups) are more likely to be concentrated in poorly paid and informal forms of work, with little or no social or legal protection (ILO, 2015). Therefore, access to work may not be particularly empowering, especially where women continue to bear primary responsibility for unpaid care work.

Theorizing exclusion in gendered labour markets

To understand employment dynamics by gender in developing countries, in particular, how workers are allocated to various sectors and jobs, an analytical framework is needed that helps explore the determinants of intergroup inequality (sometimes known as horizontal inequality). Intergroup inequality typically reflects salient forms of stratification; that is, systems that create and reinforce social and economic hierarchies, bolstered by institutions as well as norms and stereotypes, in which some groups are identified as more deserving than others (Darity, 2005).[3] From this perspective, hierarchies based on gender are not primarily due to differences in individual characteristics such as education;[4] rather, there are systemic conditions that reproduce stratification over time, which are embedded in institutions and buttressed by social and psychological processes that construct gender roles in ways that economically advantage men as a group relative to women. For instance, widely-held gender stereotypes that suggest women are less suited for paid work due to their responsibility for unpaid care work, or their presumed lower skills, promote a set of structured advantages for men and corresponding disadvantages for women.[5]

Over time, the primary mechanisms by which gender stratification is reproduced are exploitation and exclusion. Exploitation is characterized by one group (women) being paid less than the value of what it produces, even relative to other workers. Women's unpaid work as carers, which supports the reproduction of human capacities essential to a functioning market economy, is an example. The "crowding" of women in labour-intensive export industries, where firms' greater mobility, and thus bargaining power, enables them to suppress wages, thus bolstering profits and export competitiveness, is another example (Bergmann, 1974).

The second mechanism is exclusion (or opportunity hoarding), whereby members of the dominant group monopolize valuable positions or resources. In the labour market, this may take the form of women's exclusion from access to "good" jobs that offer conditions consistent with decent work. Opportunity hoarding intensifies when "good" jobs are in short supply, leading to rationing on the basis of social forces (Smeeding, 2016). Exclusion is facilitated by norms and stereotypes concerning the suitability of different types of work for men and women, respectively, based on their gender roles. In the case of a dominant norm that women should provide the bulk of caring labour for children, the elderly and the sick, for example, women are less likely to be hired for jobs in skill- and capital-intensive industries that require on-the-job training, since firms may fear losing the "sunk costs" of their investments in training. Instead, women are seen as "secondary" wage earners, more appropriately suited to labour-intensive, low-skill or high-turnover jobs.

These mechanisms of gender stratification operate across many aspects of economic life. They provide a foundation for dual or segmented labour markets, which allocate employment in ways that reflect and perpetuate prevailing gender hierarchies both within and outside labour markets.

Theories of dual or segmented labour markets posit the existence of two technologically and institutionally distinct labour markets: the core and peripheral sectors.[6] These are distinguished by different wage-setting mechanisms and conditions of work, barriers to mobility between the labour markets and rationing of access to jobs in the privileged core sector. Dual

labour markets can be viewed as having a "glass wall", with institutional practices and social norms making it difficult to move from the peripheral to the core sector (Das, 2013).

Jobs in the core sector are highly coveted. These jobs are more likely to be in the formal sector of the economy where firms offer higher wages, various benefits, greater job security, opportunities for job upgrading and better regulated working conditions. Firms in the core sector often have market power, generating rents that can be shared with workers, and they can offer higher wages relative to those in the peripheral sector. Higher profitability also enables more investment, boosting productivity and further increasing the gap between workers in the core and peripheral sectors (Gordon et al., 1982).

In contrast, jobs in the peripheral labour market are more insecure, intermittent and generally "dead-end", with fewer opportunities for on-the-job training and upward mobility. Firms in the peripheral sector tend to have little market power and thin profit margins, which inhibit the sorts of investments that raise productivity and wages.[7] The peripheral labour market in developing countries is comprised largely of informal service sector jobs, as well as agriculture and small-scale, often informal, manufacturing (Vanek et al., 2014).

The availability of, and thus access to, good jobs in the core sector depends first and foremost on the structure of an economy. The processes of development linked to industrialization, where economies of scale and scope promote more rapid productivity growth, also hold promise for expanding opportunities in core sectors. While industrial policies can facilitate structural change, macroeconomic conditions also help determine the availability of jobs in the core sector, including the level of demand and a country's trade and investment relations with the rest of the world. In recent years, patterns of stalled industrialization or premature deindustrialization have been observed in a number of developing countries, thus limiting the growth of industrial sector jobs (*TDR 2016*).

Consequently, competition for the fewer jobs available intensifies, triggering the forces of stratification that influence job access. Dominant groups tend to hoard the opportunities that remain, partly by promoting norms and stereotypes that exclude women or other workers that are not members of the dominant group. In well-paid jobs, such as in capital-intensive or information technology industries, opportunity hoarding may be facilitated by stereotypes portraying women as less technically adept than men, and therefore less qualified for such positions. In several developing countries it has been found that, paradoxically, women are less likely to be employed in certain activities (e.g. construction or agriculture) as they become more mechanised and less physically arduous (Ghosh, 2009) because of stereotypes concerning suitability for the skills required. Research also shows that this type of opportunity hoarding worsens during times of economic hardship and insecurity (Darity et al., 2006).

Employers may also perpetuate stereotypes by "crowding" women into jobs such as in labour-intensive export manufacturing, as a means of depressing women's wages and lowering export prices. For example, Elson and Pearson (1981) noted that women are ascribed as having "nimble" fingers, making them uniquely qualified for jobs in assembly operations.[8] It is more likely, however, that the desirability of women for these jobs is related to their perceived docility in a sector where labour constitutes a large proportion of total production costs.

According to conventional economic thinking, competitive markets should eliminate such gender discrimination over time, as non-discriminating profit-maximizing firms would outcompete firms that do discriminate by hiring less costly workers, thus raising their profit margins (Becker, 1957). Evidence does not support this hypothesis, however. Labour market segregation by gender is widespread and persistent in both developed and developing countries, and is a major cause of gender wage differentials (ILO, 2015; World Bank, 2012; UN Women 2015). Similarly, it was believed that trade liberalization could be a force for lowering gender-based wage discrimination in domestic labour markets, but the contrary has been found to occur when export orientation and trade liberalization have increased (Artecona and Cunningham, 2002; Berik et al., 2004; Busse and Spielmann, 2006; Braunstein and Brenner, 2007; Domínguez-Villalobos and Brown-Grossman, 2010; Menon and Van der Meulen Rodgers, 2009).

Indeed, the profit motive may induce firms to actively engage in segregating workers by race and gender, as a divided workforce would likely exhibit less solidarity and thus have weaker bargaining power. Moreover, in segregated labour markets, men are less likely to demand higher wages for fear of either losing

their jobs or being relegated to peripheral labour markets that offer the kinds of low wages and poor working conditions that women endure (Hartmann, 1979). Insofar as this dynamic is occurring, there are also likely to be negative effects on the labour share of income resulting from women's exclusion from good jobs. This depresses aggregate demand and ultimately slows economic growth.

D. Inclusion and exclusion in employment: Gender trends[9]

1. Including women, excluding men?

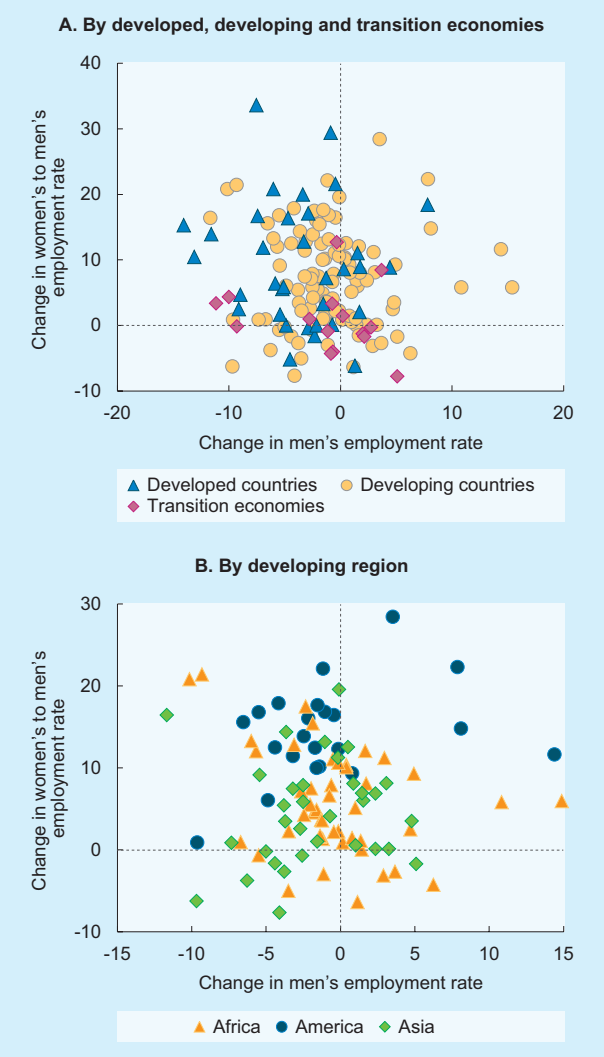
In most countries, women's employment rates relative to men's have been rising since 1991 (the first year for which gender-disaggregated sectoral employment data are widely available) – a positive sign in terms of gender equality. Various push and pull factors have contributed to this phenomenon. Women desire employment on its own merits, and also because earning their own incomes outside the traditional family expands their choices in a wide variety of areas. Indeed, a recent global survey found that 70 per cent of women (and 66 per cent of men) interviewed would prefer that women work at paid jobs, including a majority of the women not currently in paid employment (Gallup and ILO, 2017). To the extent that there are good jobs to be had, higher levels of education increase the opportunity cost of forgoing market work. The declining rates of fertility and increases in the productivity of unpaid work that accompany development can lessen women's time constraints and increase their ability to access the labour market. However, women may also be "pushed" into employment as a result of the impact of global stagnation and unemployment on men's earnings, economic crises, cuts in public provisioning, or simply the increasing commodification of daily life that accompanies hyperglobalization, regardless of level of development. This response by women to lower household earnings or cuts in public spending is dubbed "distress" sales of labour.

These contradictory forces can be observed in figure 4.2, which plots changes in women's employment rates relative to those of men over the period 1991 to 2014. Figure 4.2A shows this relationship by level of development, and figure 4.2B by developing region. In the majority of all these countries, women's relative employment rates rose at the same time as men's employment rates fell (the upper left quadrant in each figure), reflecting potentially conflictual gender equality in the sense that improvements for women may have been occurring at the expense of men.[10]

There are some notable differences by country grouping. Starting with the top panel, 55.9 per cent of the sample is in the gender conflictual quadrant (see upper left), with 64.7, 56.3 and 33.3 per cent of developed and developing countries and transition economies, respectively, in that quadrant. Note that gender conflictual outcomes can also occur if both women's and men's employment declines, but women's employment declines more slowly than men's. These represent over 20 per cent of cases (18 of the 85 countries) in the gender conflictual quadrant, with developed countries and transition economies accounting for two thirds of this subset. In 53.4 per cent of the transition economy group, both women and men lost employment; among those where both women's and men's employment participation declined, women's relative employment increased (i.e. women lost employment at a slower rate than men) in just under half the cases (3 out of 7 countries). This pattern was also pronounced among developed countries, but in most of these cases women's employment stayed essentially level while men's declined (5 out of the 9 developed countries where both women and men lost employment, but women lost at a slower rate than men). The widespread decline of men's employment in developed countries is linked to the lasting effects of the financial crisis, though it began even before that crisis and was exacerbated by the Great Recession.

Turning to the lower panel gives a sense of developing-country differences by region. In the Asia region, which has a large concentration of countries (44.1 per cent) in the "gender conflictive" quadrant (upper left), women gained at men's expense. The rest of the region shows a roughly even split between the upper right and lower left quadrants. Women's employment rates declined in a number of countries in the region, both among countries that started with high participation rates (China and Thailand), and those where such rates were already low by global standards (India and Turkey). In the Africa region, 55 per cent of countries are located in the gender

FIGURE 4.2 Changes in women's to men's employment rates versus men's employment rates, 1991–2014
(Percentage points)



Source: UNCTAD secretariat calculations, based on ILO modelled employment rates.

Note: Employment rates refer to the proportion of the wage-earning population, aged 15 years and older. Changes are percentage point changes in 3-year average values. Also note that the axes in figure B are different from those used in figure A in order to better illustrate regional differences.

conflictive upper left quadrant, with nearly two thirds witnessing declines in men's employment. Some of these declines were quite significant (e.g. more than 5 percentage points in Kenya, Mauritius, Nigeria and South Africa). The vast majority of countries in the developing America region (77.3 per cent) are in the upper left quadrant, with increases in women's relative employment as men's employment declined; the other countries from that region are in the upper right quadrant, showing increases in both women's and men's employment rates.

While women's employment has been rising in most countries (with some notable exceptions) regardless of level of development, the associated improvement in gender equality – as measured by women's employment relative to men's – has been partly driven by substantial declines in men's employment. Given the push and pull factors driving women's labour force participation, highlighted above, it is worrying that distress sales of labour might be playing a role in what superficially appears to be greater gender equality in employment. That is, women's higher relative employment rates in a number of countries are likely to be due not to job competition between women and men, but rather, to women taking on inferior jobs in order to maintain family incomes in response to men's declining job opportunities and slow wage growth. This highlights the importance of achieving "inclusive" gender equality, in the sense of improvements for women not being at the expense of men. This partly depends on the overall state of an economy. Increasing women's employment participation without addressing demand-side constraints, or acknowledging the widespread failure of growth – when it occurs – to generate good jobs, will merely escalate labour market competition, ultimately to the detriment of both women and men.

2. Industry and "good" jobs

As noted above, gender stratification plays an important role in allocating jobs within segmented labour markets, especially as competition for core sector work intensifies. Although women's employment relative to men's has been rising in most developing countries for more than two decades, their share of "good" jobs has been falling. That is, during the past 25 years of growing global integration, women have been increasingly excluded, as compared to men, from prized jobs, even as their educational attainments and labour force participation have risen. In this chapter, jobs in the industrial sector (rather than agricultural or services sectors) are used as a proxy for "good" jobs, for reasons outlined below.

In most trajectories of productivity-enhancing structural change and development, the processes of industrialization and the shifting of resources – including labour – into higher productivity sectors support aggregate productivity growth. However, it is through the expansion of higher productivity work in the modernizing, increasingly diversified industrial sector that labour initially accesses the higher incomes

that accompany industrialization and development, ultimately building domestic aggregate demand and sustaining aggregate productivity growth. (In this sense, for growth to be sustained it must also be inclusive.) When these connections fail to materialize, or weaken, stalled or premature (de)industrialization dampens the prospects for inclusive development.

Higher value-added, knowledge-intensive services, which account for a more substantial share of employment than industry in developed countries, have recently been emphasized as an alternative to the lacklustre job-generating performance of industry in developing countries. However, in developing countries, in particular, the services sector alone is not likely to provide a sufficient alternative to industry for the generation of "good" jobs, especially if it is disconnected from a dynamic industrial sector (Kucera and Roncolato, 2016; *TDR 2016*). Relative to the industrial sector, jobs in the services sector are more likely to be informal and insecure, with lower productivity and thus lower wages, especially for women. They most probably reflect the growth of low-productivity (often traditional) services rather than the beginnings of long-term dynamism – a type of disguised unemployment that ultimately reflects the failure of growth to generate enough decent work. Accounts of the links between globalization and informalization echo these problematic dynamics (Bacchetta et al., 2009). Even India, which is often cited as an exemplar of the growth of high-productivity services as a conduit for growth and development, has failed to produce many good jobs in this sector (Chandrasekhar and Ghosh, 2014).[11]

Measures of decent work, as defined by the International Labour Organization (ILO), provide a good basis for comparing the quality of employment in services and industry. Decent work is defined as work that is productive, has workplace protections, and offers social protection and prospects for individual development (such as skills upgrading). In the absence of an international dataset on decent work opportunities by sector, a measure of relative job quality can be calculated using the ratio of labour productivity in the services sector to that in the industrial sector (see table 4.1 by region). The rationale for this comparison is that higher productivity measures are associated with greater remuneration and benefits. This is not the same as saying that industrial workers are more "productive" than services sector workers. Trying to measure services sector productivity is controversial, partly because of the difficulty in measuring outputs. Indeed, for the services sector at least, productivity measures can be thought of more as a consequence of wages than a cause. Hence, higher relative productivity in developed countries in this sector partly reflects higher per capita incomes. Regardless, lower productivity measures indicate lower wages. Among developing regions, to varying degrees, services sector labour productivity is lower than industrial labour productivity (with ratios less than 1). The median for all non-developed regions is close to 0.75, suggesting that average productivity is roughly 25 per cent lower in the services sector than the industrial sector.

TABLE 4.1 Ratio of services sector to industrial sector labour productivity, 1991–2015

Region	*Mean*	*Median*
Full sample	0.89	0.87
Developed countries	1.04	1.05
Developing countries	0.79	0.75
Africa	0.83	0.75
America	0.72	0.74
Asia	0.82	0.74
Transition economies	0.83	0.75

Source: UNCTAD secretariat calculations using the World Bank, *World Development Indicators* (*WDI*) and *Penn World Tables* databases.
Note: Sectoral productivity is calculated as the value added of sectoral output relative to the number of employees in that sector; unweighted means and medians for country groups are for the period 1991–2015.

Based on these data, for developing countries, there is a positive association between the services sector's relative productivity and the relative concentration of men in that sector. That is, the higher the aggregate labour productivity in the services sector relative to the industrial sector, the higher too is men's concentration in that sector relative to women's (with a correlation of 0.43 for the developing countries in the sample). To the extent that these measures of relative productivity mirror relative wages, this outcome is in line with the predictions about how gender stratification manifests in dual or segmented labour markets: the better the jobs, the more likely it is that members of the dominant group will "opportunity hoard", and thus the less likely it is that members of the subordinate group, in this case women, will have those jobs.

Given that jobs in the industrial sector are more likely to be part of the core labour market (that is, formal jobs with associated benefits and protections) than jobs in the agricultural or services sectors, this chapter

uses relative access to industrial jobs as a proxy for gender equality.[12] Evaluating the absolute and relative trajectories of employment in this sector affords insights into whether and to what extent growth has been inclusive from a gender perspective.

3. Women's exclusion from "good" jobs

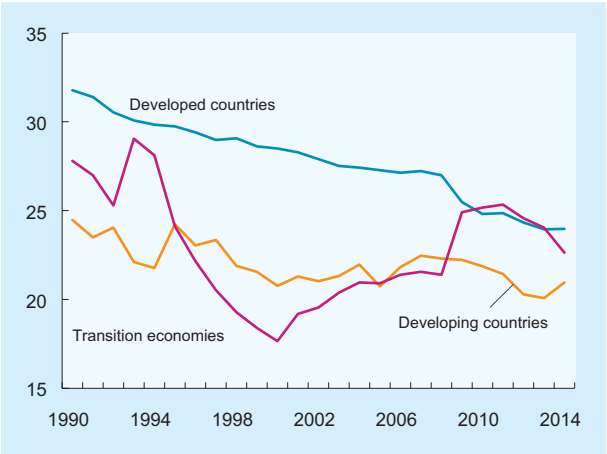
At the outset, it is important to note that the overall availability of industrial sector jobs has declined since the early 1990s, for both women and men. On average, industrial sector employment as a percentage of total employment declined in all groups of countries − developed, developing and transition economies (figure 4.3). The decline was the most pronounced in developed countries. Using three-year averages to compute changes in the share of industrial employment in total employment, developed and developing countries and transition economies experienced declines of -7.8, -3.5 and -5.2 percentage points, respectively, between 1990 and 2014.

The kernel density functions displayed in figure 4.4 provide evidence of the degree of sectoral employment segregation by gender in developing countries in 2013. This figure shows the distribution of countries according to two ratios that compare women to men: women's employment-to-population rate relative to men's, with a sample mean of 61.8 per cent; and the ratio of women's concentration in industrial employment to men's concentration, with a sample mean of 47.2 per cent. The latter measure is referred to as "women's relative concentration in industrial employment" for the remainder of the chapter, and it proxies for women's relative access to good jobs. As illustrated by the shapes of the curves in figure 4.4, women's relative concentration in industry is much more widely dispersed, and lower, on average, than women's relative employment participation overall.

This is evidenced by a decline in women's relative employment concentration in the industrial sector since 1991, from an average of 70.2 per cent in 1991 to 47.2 per cent in 2013 (figure 4.5).[13] This phenomenon occurred in all developing-country regions, with African countries showing the largest decline (table 4.2). Even in Asia, where industrialization and export-oriented manufacturing have been more substantial, a decline in women's concentration in "good" jobs in the industrial sector can be observed, although their relative share in employment rose.

Figure 4.6 contrasts the distribution of developing countries by percentage point changes between 1991 and 2013 for two measures of women's relative (to men's) employment share: in total employment and in the industrial sector. The horizontal axis displays

FIGURE 4.3 Trends in industrial employment as a share of total employment, 1990−2014

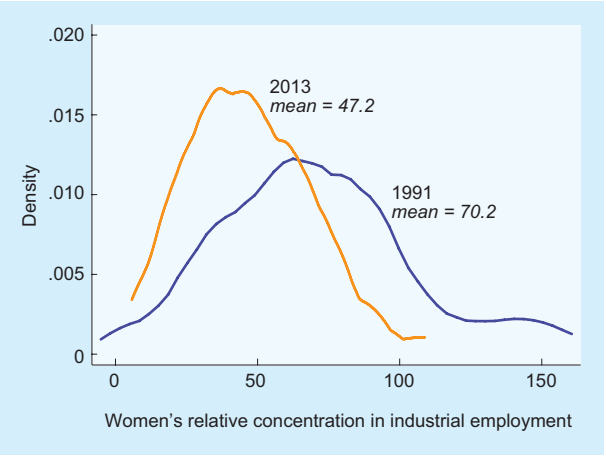


Source: See figure 4.2.
Note: Values refer to the unweighted average by year for country group, which is consistent across years.

FIGURE 4.4 Distribution of developing countries by women's to men's economy-wide employment rates and shares of industrial sector jobs, 2013

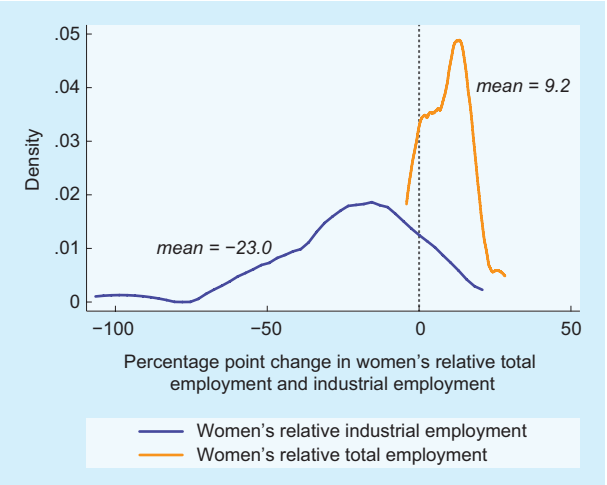
Source: See figure 4.2.
Note: Women's relative concentration is calculated as three-year average of the share of women employed in the industrial sector relative to men's share. Developing country group is consistent across figures 4.4, 4.5 and 4.6, and differs from the (larger) group illustrated in figure 4.1, as the current group is limited to countries for which there is data on women's industrial share of employment across the particular years considered.

FIGURE 4.5 **Women's relative concentration in industrial sector employment, developing countries, 1991 and 2013**



Source: See figure 4.2.

FIGURE 4.6 **Change in women's relative concentration in industrial employment and total employment in developing countries, 1991–2013**



Source: See figure 4.2.

TABLE 4.2 **Employment ratios of women to men, and relative concentration of women in industrial employment, by developing region, 1991 and 2010**

(Per cent)

	Ratio of women's to men's employment rates		*Relative concentration of women in industrial employment*	
Developing region	*1991*	*2010*	*1991*	*2010*
Africa	53.0	57.2	91.8	47.9
America	48.0	61.1	67.9	53.1
Asia	46.3	51.0	59.3	47.2
South Asia	42.0	46.7	63.8	40.8
East Asia	62.2	73.2	75.9	33.1
West Asia	25.2	28.0	22.1	36.5
South-East Asia	62.8	66.9	87.9	66.1

Source: UNCTAD secretariat calculations, based on ILO data, extracted from the World Bank, *WDI* database (accessed 15 February 2017).

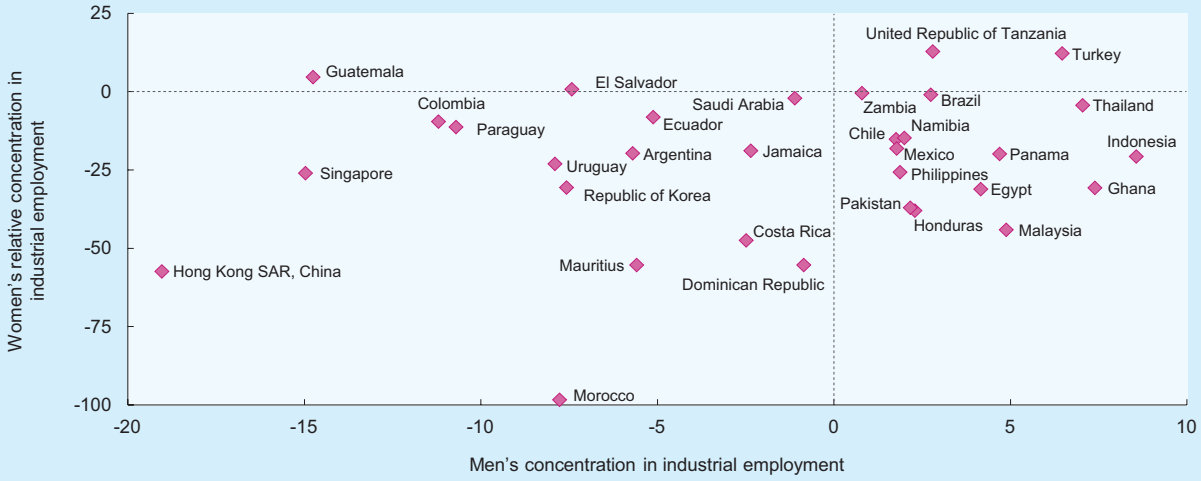
Note: The data are based on three-year averages.

values for the percentage point changes, while the vertical axis gives the corresponding incidence or percentage density of each of these values. What is important to consider is the shape of each curve, and its relative position along the horizontal axis. The ratio of women's to men's total employment increased, on average, by 9.2 percentage points, and countries are tightly grouped around that average, as illustrated by the steep curve. The curve is also centred primarily on positive values, as illustrated by its position relative to the vertical zero-intercept line, indicating an increase in women's relative total employment in the vast majority of countries (91 per cent) over the period. Conversely, women's share in industrial employment relative to men's declined by an average of 23 percentage points, and most of the curve is situated to the left of the zero-intercept line, illustrating that the vast majority of countries (88 per cent) experienced a decline of women's share in industrial employment relative to men's.

Figure 4.7 shows the same percentage point changes in women's relative industrial employment as in figure 4.6, except that here it is by individual country, and is juxtaposed against the percentage point changes in men's concentration in industrial employment. Women's relative share in industrial jobs declined in the vast majority of countries between 1991 and 2013; in about half of these cases, men's share in industrial employment declined as well. This is indicative of both a reduction in labour demand in the industrial sector and of women's industrial employment rate falling faster than men's. These patterns provide evidence of gender-based job rationing: as industrial sector employment has declined, women's access to that employment has become more restricted.

Taken together, these figures indicate that over the past 25 years, gender stratification in labour markets has become worse, in the sense that women are increasingly excluded from good jobs, and are,

FIGURE 4.7 **Percentage point changes in women's relative and men's absolute concentration in industrial employment, selected economies, 1991–2013**



Source: See figure 4.2.

instead, crowded into work that is less remunerative and secure. Thus, contradictory forces appear to be at work in developing-country labour markets: women's increasing relative share of paid jobs, but their growing exclusion from "good jobs", suggesting the "crowding" of women in poor quality employment. This process has occurred in the context of the industrial sector's weakening role as a generator of high-quality employment, manifested as deindustrialization in developed and middle-income economies and stalled industrialization or premature deindustrialization in developing countries (*TDR 2016*).

The decline in women's relative concentration may also be due to the changing structure of the industrial sector itself, coupled with relatively rigid gender-differentiated employment in that sector. As countries upgrade to more skill- or capital-intensive production and away from labour-intensive production, where women's employment has been most notable, a falling concentration of women in the industrial sector may result. Indeed, it has been found that in the manufacturing sector, a process of defeminization of employment has been occurring since the mid-1980s (Kucera and Tejani, 2014; Tejani and Milberg, 2016).

E. Assessing gender-based exclusion in the context of structural change, globalization and growth

The previous section sketched the changing gender dynamics of employment in the industrial sector, arguing that patterns since the 1990s have been showing an increasing exclusion of women from good jobs as overall job quality has declined. This section turns to a more precise, causal investigation of this exclusion in terms that reflect some of the core issues at stake discussed in chapter II. In particular, it uses an econometric analysis of cross-country, time series data to evaluate the impacts of four sets of factors: (i) structural transformation and the inclusiveness of technological change; (ii) the structural and policy consequences of hyperglobalization; (iii) overall growth; and (iv) changing conditions on the supply side of the labour market. It is important to note that the resulting estimated effects are averages for the sample as a whole (developing and developed countries are evaluated separately). This is both a weakness and a strength. It is a weakness because it abstracts from the specificities of particular economies, and a strength because it uncovers systemic features of the global economy – a central concern in the current era of hyperglobalization and of this *Report*.

1. The econometric model

This section describes the variables used to measure the four sets of factors noted above, all of which help explain changes in women's concentration in industrial sector employment.

Structural transformation and the gender inclusivity of technological change

To capture the dynamics of structural transformation, the model includes both industrial employment as a share of total employment and industrial value added as a share of GDP. Increases in either represent productivity-enhancing structural changes that are a key source of catch-up development (*TDR 2016*). Though the two measures may seem likely to be too highly correlated with one another to warrant separate treatment, their effects on employment are in fact likely to be contradictory, and therefore need to be assessed independently of each other. Specifically, while the growth of industrial value added suggests increased availability of good jobs (thus creating opportunities for an increase in women's relative concentration in such jobs as labour demand in this sector rises), the consequent employment generated may be insufficient to move much of the labour force into higher productivity (and paid) work. Given the stratification dynamics discussed in the chapter, this sort of employment failure would be expected to affect women more than men. Indeed, analyses of premature deindustrialization and its link with the middle-income trap suggest that it is the failure of the industrial employment channel, and not the share of industrial value added in GDP, that poses the biggest challenge to inclusive growth (Felipe et al., 2014; Rodrik, 2016; *TDR 2016*).

The model uses the capital-labour ratio as a proxy for technological sophistication; an increase represents a shift towards more capital-intensive production. As noted above, a number of studies have linked defeminization of employment in manufacturing in recent decades to processes of technological upgrading, even more so than changes in trade. Given that the model controls for women's education relative to that of men (discussed under labour supply below), a negative association between capital intensity and women's relative concentration in industrial employment would suggest a gender asymmetry in the employment costs of technological change.

Structural and policy consequences of globalization

The extent of global integration is measured by the shares of trade and foreign direct investment (FDI) in gross domestic product (GDP). In econometric studies, trade is measured in a variety of ways. Most studies simply take exports plus imports as a share of GDP, but due to the increasing import content of exports among developing countries, such measures can be misleading. As discussed in *TDR 2016*, what seems to matter more for growth and development (not to mention employment) is the value added aspect of trade. Therefore, this model uses the share of net exports of manufactures (exports less imports) in GDP as a proxy.[14] The traditional association between exports of manufactures and the feminization of industrial employment, at least when the former is more labour-intensive, is often cited as a benefit of export-led growth strategies (*TDR 2016*). Similarly, to the extent that FDI is linked with exporting labour-intensive manufactures, or more industrial activity overall, it could expand women's relative access to industrial employment.

While trade and FDI quantify the extent of an economy's global integration, they are not, in and of themselves, proxies for trade policy, as a variety of trade policies can coexist with high levels of trade or FDI. Trade policy can be restrictive even while exports are being encouraged. Trade policy stance is measured by tariffs (more precisely, applied tariffs weighted by the share of product imports), with higher values indicative of less trade liberalization.[15,16] Clearly, the push for deregulation of global markets has been spearheaded in an important sense by the push for wholesale trade liberalization and by a narrowing of policy space for managing trade (UNCTAD, 2014). How such policies play out in terms of employment is not clear. The orthodox stance on trade policy is that less of it gives more of everything else – growth, development and high-wage employment. Discussions of global value chains (GVCs), in particular, which have come to dominate narratives on trade for developing countries, highlight the importance of importing for exporting and hence warn against the folly of taxing imports. If such trade is an important generator of industrial sector employment opportunities for women, more restrictive trade policy stances, as measured by import tariffs, may undermine gender equality.

Fiscal policy stance, measured as the share of government consumption in GDP, is included to reflect the extent of a government's involvement in economic activities. Given the prevalence of austerity in macro policy-making in most countries during the period under study, and associated efforts to limit the size of government, it is important to understand how public spending affects gender equality in employment. In many developed countries, since the public sector is a significant source of employment for women, they are likely to suffer the most from cuts in public spending (Karamessini and Rubery, 2014). However, such cuts would primarily affect women employed in the services sector, effectively increasing the share of industry in women's overall employment. On the other hand, if public spending were to be associated with either more industrial sector activity (perhaps as a result of implementing industrial policy or crowding in private industrial investment more generally) or an easing of burdens on women's unpaid care through the provision of social or physical infrastructure, one would expect a positive association between the two.

Economic growth

Per capita GDP growth is included to directly assess whether aggregate growth improves women's relative opportunities in industrial employment. A number of other model variables are also likely to be correlated with growth, but this connection is statistically weak for developing countries in the sample. Presumably, all else remaining equal, stronger growth should ease job competition and be associated with more women accessing higher quality jobs in industry. However, as discussed throughout this *Report*, the effects of growth will depend on its structure and the distribution of its benefits. "Jobless growth" or growth that generates only poor quality jobs are challenges associated with recent growth trajectories, for both developed and developing countries, which implies that growth may not alleviate gender-based job competition.

Labour supply controls

The last set of variables reflects labour supply controls. Given that industrial sector jobs tend, on average, to be more skill-intensive than other types of work, the model controls for gender differences in education, measured as the ratio of women's to men's gross secondary school enrolment rates. One would expect that, as this ratio increases, so will women's relative concentration in industrial sector employment. The model also includes women's labour force participation relative to that of men. More women in the labour market might suggest that more of them have access to industrial sector jobs. However, if labour markets are segregated by gender, as women increase their labour force participation relative to men, these new labour market entrants may be crowded into non-industrial sectors, thus lowering women's relative share of industrial sector employment. This is particularly likely as the overall quality of jobs declines and job competition by gender intensifies. Including these controls highlights the potential for improving gender equality by targeting the supply side of the labour market –through lowering gender gaps either in education or in employment participation.

2. Main findings

Table 4.3 presents the results of the analysis for the period 1991−2014, which includes a set of three specifications each for developing and developed countries separately, as a number of the results differ significantly for the two groups (table notes include econometric details).[17] Columns (1) and (2) include all the variables discussed above, columns (3) and (4) exclude per capita GDP growth and columns (5) and (6) exclude industrial value added as a share of GDP as well. The discussion focuses on developing countries, with the developed-country results used primarily as a contrasting reference, and it takes the full model (columns (1) and (2)) as the basis for calculating the magnitude of effects.

Because the variables are taken in log-log form, coefficient estimates can be interpreted as the percentage change in women's relative concentration in industrial employment as a result of a 1 per cent change in the independent variable in question, with two exceptions: the coefficients for per capita GDP growth and net manufacturing exports as a share of GDP give the percentage change in women's relative concentration in industrial employment as a result of a 1 percentage point increase (as opposed to a 1 per cent increase) in either variable. In interpreting the relative impact of the variables, it is important to consider how much the variables actually change (i.e. a 1 percentage point increase in per capita GDP growth, which only varies by a few percentage points, is much "larger" than the same change in net manufacturing exports as a share of GDP, which varies much more). For this reason, the discussion below focuses on the

TABLE 4.3 Determinants of women's relative access to "good" jobs, developing and developed countries

Dependent variable: Women's relative concentration in industrial employment

	Developing (1)	*Developed* (2)	*Developing* (3)	*Developed* (4)	*Developing* (5)	*Developed* (6)
Industrial emp./total emp.	0.350*	-0.148	0.350*	-0.166	0.372**	-0.012
	(0.180)	(0.171)	(0.180)	(0.168)	(0.164)	(0.127)
Industry value-added/GDP	0.099	0.217	0.101	0.229		
	(0.138)	(0.143)	(0.133)	(0.138)		
Capital-labour ratio	-0.283**	-0.198***	-0.284**	-0.200***	-0.297***	-0.218***
	(0.110)	(0.063)	(0.111)	(0.063)	(0.098)	(0.064)
Net manufacturing exports/GDP	0.006*	-0.001	0.006*	-0.001	0.007**	-0.001
	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Inward FDI/GDP	-0.001	0.004	-0.001	0.006	-0.003	0.005
	(0.024)	(0.005)	(0.025)	(0.004)	(0.024)	(0.005)
Weighted tariff	0.062**	0.087***	0.062**	0.087***	0.064**	0.081***
	(0.028)	(0.018)	(0.029)	(0.018)	(0.028)	(0.019)
Government consumption/GDP	0.156*	0.045	0.153*	0.003	0.144*	-0.051
	(0.080)	(0.115)	(0.079)	(0.101)	(0.079)	(0.084)
Per capita GDP growth	0.000	0.003				
	(0.003)	(0.002)				
Women's/men's labour force participation	-0.468	-0.952**	-0.468	-0.984**	-0.437	-0.947**
	(0.334)	(0.404)	(0.333)	(0.401)	(0.335)	(0.351)
Women's/men's secondary school enrolment	0.191	0.387**	0.190	0.395**	0.200	0.379**
	(0.295)	(0.185)	(0.293)	(0.189)	(0.268)	(0.176)
Observations	437	599	437	602	443	653
R-squared	0.267	0.728	0.267	0.728	0.277	0.742
F-stat	8.41	66.24	9.35	54.51	9.16	56.84
Number of countries	61	33	61	33	62	34

Note: All variables except for net exports of manufactures as a share of GDP and per capita GDP growth are measured in logs. All regressions are based on annual observations for the period 1991−2014, and include country fixed effects; constants are not reported. The model is of the form: $Wind_{it} = \alpha + \beta X_{it} + \mu_i + \varepsilon_{it}$, where $Wind_{it}$ is women's relative concentration for country i at time t; X is a vector of independent variables, μ is the country fixed effect, and ε is the error term. Robust standard errors, all of which are clustered by country, are shown in parentheses. All variables passed unit root tests except for employment variables, which could not be tested because of gaps in the time series; therefore the specification has been modified to include deterministic drift via the intercept term. Including time dummies for the Asian financial crisis and the most recent global financial crisis of 2008–2009 does not affect the results. Further details on data are provided in the data appendix. Statistical significance is indicated as follows: * 10 per cent; ** 5 per cent; *** 1 per cent.

economic significance of the estimates by assessing the impact of a variable's average or mean change on women's relative concentration in industrial employment. Table 4.4 shows sample mean and standard deviations; these are used in combination with the coefficient estimates to assess economic significance.

Industrial employment matters more than industrial value added

Beginning with industrial structure, industrial employment – as opposed to industrial value added – is a statistically and economically significant positive correlate of women's relative concentration in industrial employment in developing countries. This association exists across all the models, regardless of whether a control for industrial value added is included, as does the magnitude of the hypothesized effect. To get a sense of this magnitude, a one standard deviation increase from the mean in industrial employment as a share of total employment (6.7 percentage points) is associated with a roughly 11 per cent increase in women's relative industrial employment. That industrial value added is insignificant echoes the employment challenges identified in research on premature deindustrialization, and indicates that the declining job yield associated with current forms of industrialization also compromises the gender inclusiveness of growth and development. That is, job competition that results from deindustrialization disadvantages women more than men in terms of access to good jobs.

TABLE 4.4 Sample mean and standard deviations, developing and developed countries

	Developing countries		*Developed countries*	
	Mean	*Standard deviation*	*Mean*	*Standard deviation*
Relative women's/men's industrial emp.	56.85	25.92	42.50	12.80
Industrial emp./total emp.	21.72	6.65	28.06	5.79
Industry value added/GDP	32.63	11.62	29.12	5.40
Capital-labour ratio	90 796	72 191	275 771	96 748
Net exports of manufactures/GDP	-8.70	8.81	-2.03	8.58
Inward FDI/GDP	3.13	2.80	4.94	7.43
Weighted tariffs	7.85	5.05	2.44	1.73
Government consumption/GDP	13.13	3.61	19.50	2.91
Per capita GDP growth	2.74	3.56	2.21	3.39
Women's/men's labour force participation	61.01	17.19	81.88	8.30
Women's/men's secondary school enrolment	101.57	12.88	101.34	4.93

Note: See the data appendix for notes on sources.

Higher capital intensity lowers women's relative access to industrial sector jobs

The strong cross-sample results on the capital-labour ratio confirm the point, albeit at an aggregate level, that increases in capital intensity (and, by extension, improvements in average job quality) are associated with relative employment losses for women in industry in both developing and developed countries.[18] For developing countries, a one standard deviation increase in the capital-labour ratio, which almost doubles it (but is still far short of the developed-country mean), is associated with a 22.5 per cent decline in women's relative concentration in industrial employment. In response to these results, one might counter that increasing capital intensity is also associated with higher services sector productivity, which means services sector jobs are likely better, and therefore using women's relative concentration in industry as a proxy for gender exclusion from high-quality employment no longer makes sense. However, including services sector productivity relative to industrial sector productivity in the regressions (ignoring the controversies associated with measuring services sector productivity for the purposes of this discussion) does not substantially affect the estimates for developing countries; the coefficient estimate is actually positive and statistically significant in the developed-country specifications. The likely intuition is instructive: when services sector productivity is high, so is relative job quality, attracting *both* women and men to that sector. Controlling for the other factors included in the equation, men's employment shifts more than women's, suggesting once again women's concentration in lower productivity jobs, regardless of sector. That these relationships persist despite controlling for women's education relative to that of men, suggests that it is not a question of differential skills, but rather the sorts of gender stereotypes and discriminatory access to better jobs that characterize segmented labour markets.

Net (not total) exports of manufactures help, whereas FDI does not

The results on global integration are interesting. FDI does not seem to be important in influencing women's relative access to good jobs. On the other hand, the extent of trade, as measured by net exports of manufactures, is positive and statistically and economically significant, but only for developing countries. This is in line with the trade-related links between export-oriented manufacturing and women's employment (at least when controlling for the capital intensity of production). To get a sense of magnitude, if an economy moves one standard deviation above a zero trade balance on manufactures (plus 8.8 percentage points), the associated increase in women's relative concentration in industry is 5.5 per cent. As noted above, other measures of trade (total trade, or taking imports and exports separately) are not correlated with significant changes in women's relative access to industrial employment. This casts doubt on the popularity of using participation in global value chains (GVCs) as a proxy for successful globalization, or simply targeting women's involvement in GVCs as evidence of their greater inclusion in the benefits of trade. What seems to be more important is the extent of domestic value added in trade in manufactures.

Less trade liberalization is associated with more "good" jobs for women

Regarding trade policy as measured by weighted tariffs, interestingly, this is one of the more robust positive correlates of women's relative concentration in industrial employment, for both developed and developing countries. Increasing weighted tariffs by one standard deviation from the mean (5.1 percentage points) is associated with a 4 per cent increase in women's relative concentration in industry. That a more restrictive trade policy (i.e. less trade liberalization) seems to be associated with employment gains for women is not the same as saying trade per se is not good for inclusive development. As noted above, and as evidenced by the model's results on net manufacturing exports, the extent of trade or global integration is distinct from the policy environment that manages it. Less trade liberalization, especially in developing countries, may in fact promote the expansion of domestic manufacturing (as noted in *TDR 2016*), and thereby women's industrial employment. While trade expansion has the potential to contribute to inclusive growth and development by increasing access to foreign produced goods and contributing to additional sources of demand, unfettered import competition can compromise local manufacturing and the job opportunities that go with it, with negative consequences for gender equality.

Government spending expands women's relative take-up of "good" jobs

The results show that, in developing countries, a stronger fiscal policy stance is also associated with a higher share of women's employment in industry relative to men. If the developing country with the lowest value for government consumption as a share of GDP (at 5 per cent) were to increase its government spending to reach the mean of the developing-country sample (i.e. to 13.1 per cent), the associated increase in women's relative concentration in industrial employment would be 9.7 per cent. A further increase to the developed-country mean (19.5 per cent) would give a parallel increase of another 7.6 per cent. Looking at changes in industrial employment for women versus men (i.e. running the regressions separately for the numerator and denominator), indicates that relative shifts are driven by gains for women, and not losses for men, when fiscal policy is expansive. This suggests that government spending not only encourages more demand for labour in the industrial sector, but does so in ways that reduce job competition, and thus also opportunity hoarding for jobs in that sector. These relationships are only apparent in the developing-country sample. For developed countries, public spending is more closely associated with services sector employment, for both women and men.

The failure of growth to produce sufficient employment is also a failure for gender equality

Economic growth, on the other hand, is not a significant correlate when it is included, nor does it affect the magnitude and significance of the rest of the model's coefficients when it is dropped (as in columns (3)–(6)). Thus, growth does not appear to be an economically important factor in determining women's relative access to high-quality employment based on its record over the past couple of decades. This result indicates that the failure of growth to produce sufficient employment is also a failure for gender equality, and confirms that simply targeting growth, at least in the current global/macro context, will not, on its own, bring about inclusive development.

Increasing women's labour force participation is associated with increased segregation and crowding

Regarding the controls for labour supply, the positive coefficient signs on women's secondary school enrolment relative to men's are as predicted: women's higher education levels relative to men's result in their higher relative concentration in the skilled work associated with industrial sector jobs. However the relationship is significant only for developed countries. Perhaps more interesting and instructive are the results for relative labour force participation. The higher the ratio of women's to men's labour force participation rates, the lower is women's relative concentration in industrial sector employment. This result is consistent with the segregation and crowding hypotheses discussed above: as women's participation in the labour force increases, they tend to be crowded into services sector employment because their access to industrial sector jobs is blocked. Even though only the developed-country specification achieves statistical significance, the result for developing countries is economically significant: moving the sample average ratio of 61 per cent up by one standard deviation (plus 17.2 percentage points) is associated with a decline of 13.2 per cent in women's relative concentration in industrial employment.

This result highlights one of the problems with exclusively supply-side oriented calls for increasing women's labour force participation as a source of both growth and inclusivity. Increasing women's labour force participation on its own – without complementary policies that extend and structure aggregate demand in ways that spark the growth of good jobs – tends to compromise women's relative access to quality employment, with confounding results for gender equality in economic opportunities.

Summary

Considering the results together, the economically "largest" factors are those relating to structural change and technology. These seem to reflect a gender component to the broader literature on premature deindustrialization: as the availability of "good" industrial sector jobs declines, the consequent competition tends to be more costly for women's industrial employment than for men's. Technological change and the increasing capital intensity of production are particularly problematic for women, even after controlling for gender differences in education. An increase in employment opportunities in the industrial sector (as opposed to industrial value added) offers a gender inclusive alternative, but one that requires a sustainable expansion of demand for industrial goods. A similar point can be made with regard to globalization: higher net (not total) exports of manufactures improve industrial job prospects for women, as do public policies that provide some protection against import competition. An expansive fiscal policy also contributes to inclusion by increasing labour demand in ways that reduce job competition, thereby increasing women's industrial employment but not at the expense of men. Conversely, economic growth on its own is shown to have little impact on women's relative access to better jobs. Increasing women's labour force participation on its own – without supportive demand-side policies and structures to productively absorb these new market entrants – tends to worsen gender segregation and encourages the crowding of women into low value-added informal service sector activities. This ultimately compromises the benefits of market participation for both gender equality and development.

F. Gendered exclusion and the labour share of income

In light of the wider policy challenges around inclusiveness discussed in this *Report*, an important question is whether job segregation by gender has a negative impact on all workers as reflected in the labour share of income. Why is this important? Gender equality is a component of overall equality, and is thus an essential aspect of inclusive growth. But insofar as gender equality contributes to downward pressure on men's well-being and socio-economic status, gender-related conflict may emerge, which is troubling. Gender equality would then not only be associated with weakening the bargaining power of men vis-à-vis employers, it could also have negative externalities on wider aspects of well-being, such as increasing the incidence of household dissolution or intimate partner violence. This could have negative implications for the production of human capabilities – in the sense that poor outcomes for women compromise the overall quality of labour – and, ultimately, for long-term productivity growth.

This question of how job segregation by gender – or its obverse, job integration by gender – affects the functional distribution of income has received relatively little attention in the inequality, growth and development literature, with the exception of a handful of studies that have produced ambiguous results (Zacharias and Mahoney, 2009).

Given gender wage gaps (a universal feature in labour markets around the world), and viewed statically, an increase in women's share of employment in a sector may depress average wages in that sector.[19] This suggests that men may benefit from job segregation that excludes women from better-paid, male-dominated sectors, thus providing an economic incentive for occupational hoarding. Job segregation by gender, however, also influences labour's bargaining power overall. Jobs in the core sector, which are dominated by men, especially industrial sector jobs, are increasingly rationed, as evidenced by the falling share of industrial employment in total employment (figure 4.3). The poor working conditions associated with women's jobs in the peripheral sector demonstrate to men the "cost" of job loss if they lose their privileged positions in the core sector. This effectively weakens the fallback positions and bargaining power of men working in the industrial

sector, depressing wages and making it difficult for workers to capture the benefits of any increase in productivity growth. These sorts of dynamics will exert downward pressure on the labour share of income, even though some subgroups of workers maintain privileged positions relative to others.

Building on the econometric work presented in section E, this section provides a preliminary, aggregate test of this proposition for developing countries over the period 1991–2013. It follows the panel data frameworks found in the few studies that econometrically evaluate the determinants of the labour share of income for developing countries (e.g. ILO, 2011; Jayadev, 2007; Stockhammer, 2013), but adds women's relative concentration in industrial employment as a variable that influences labour's bargaining power. The analysis also includes the ratio of women's to men's labour force participation to control for the potential wage effects of the changing structure of the labour force as women (who are systematically paid less than men) enter the labour market.

Table 4.5 presents results (with econometric details provided in the table notes), and includes two different specifications: fixed effects in column (1) and two-stage least squares in column (2), which accounts for the endogeneity of women's relative concentration in industrial employment. Because the emphasis is on the relationship between gender equality in the labour market and the labour share, the discussion is largely limited to these estimates. However, a few notes about the overall specification are warranted. In addition to the gender variables, controls include the set used above to measure structural transformation and the gender inclusivity of increasing capital intensity (industrial value added as a share of GDP, industrial employment as a share of total employment and the capital-labour ratio), as well as those used to measure the structural and policy consequences of globalization (trade and FDI as shares of GDP, weighted tariffs and government consumption as a share of GDP). Real interest rates are a standard in most specifications, and reflect the ability or willingness of governments to maintain low interest rates in the context of the liberalization of global capital flows.[20]

Because many of the regressors also determine women's relative concentration in industrial employment (as detailed in table 4.3), the results in column (2), which account for this endogeneity, are used as the basis for discussion. As with table 4.3, all the

TABLE 4.5 Determinants of labour share of income

Dependent variable: Labour share of income

	Fixed effects *(1)*	*Two-stage least squares* *(2)*
Women's relative concentration in industrial employment	0.080**	0.137**
	(0.037)	(0.055)
Women's/men's labour force participation	-0.154	-0.091
	(0.100)	(0.107)
Industrial emp./total emp.	-0.021	0.042
	(0.051)	(0.052)
Industrial value added/GDP	-0.183*	-0.258***
	(0.092)	(0.086)
Capital-labour ratio	0.033	0.071
	(0.064)	(0.066)
Trade/GDP	-0.037	-0.004
	(0.024)	(0.004)
Inward FDI/GDP	-0.005	-0.025
	(0.004)	(0.024)
Weighted tariffs	0.036**	0.039**
	(0.016)	(0.016)
Government consumption/GDP	0.157***	0.173***
	(0.055)	(0.058)
Real interest rates	0.000	0.000
	(0.001)	(0.001)
Observations	469	421
R-squared	0.446	0.481
F-stat	4.9	4.7
F-stat for excluded instruments		95.07
P value, Hansen J		0.28
Number of countries	48	48

Note: All variables except for real interest rates are measured in logs; regressions are based on annual observations for the period 1991–2014, and include country fixed effects; constants are not reported. The model is of the form: $LS_{it} = \alpha + \beta X_{it} + \mu_i + \varepsilon_{it}$, where LS_{it} is the labour share of income for country i at time t, X is a vector of independent variables, μ is the country fixed effect, and ε is the error term. Robust standard errors, all of which are clustered by country, are shown in parentheses. Further details on the specifications are provided in the note for table 4.3, and on data in the data appendix. Statistical significance is indicated as follows: * 10 per cent; ** 5 per cent; *** 1 per cent.

The two-stage least squares (2SLS) estimates are also run with country fixed effects; the endogenous variable is women's relative concentration in industrial employment, and the excluded instruments used for the first stage include the lagged value for women's relative concentration and net exports of manufactures as a share of GDP. Further diagnostics for the 2SLS specification include the first stage F-statistic for excluded instruments, which is applied to the null hypothesis that the model is underidentified or weakly identified; this statistic surpasses commonly applied critical values. (Staiger and Stock (1997) propose a rule of thumb that with one endogenous regressor, an F-stat of less than 10 indicates weak instruments.) The P-value for the Hansen J test of over-identifying restrictions indicates a failure to reject the null, implying that the instruments are valid in the sense of being uncorrelated with the error term and correctly excluded from the second stage equation.

variables (except for real interest rates) are taken in logs, so that the coefficient estimates can be interpreted as the percentage change in the labour share of income that is associated with a 1 per cent increase in the independent variable in question.

In both specifications listed in table 4.5, women's relative industrial concentration (that is, increased job integration in the industrial sector) has a positive and statistically significant effect on the labour share of income. Thus, efforts to improve women's access to high-quality jobs in the industrial sector (and by extension reduce their crowding into lower quality jobs) can be a win-win for both women and men. It can thereby reduce gender conflict as women's relative employment rises. To gain a sense of magnitude, and using the estimates in column (2), between 1991 and 2013 the sample mean of women's relative concentration decreased from 70.2 to 47.2 per cent (as illustrated in figure 4.5), which was associated with a 4.7 per cent decline in the labour share. Considering that the sample mean of the labour share of income declined by about 4 per cent between the early 1990s and the late 2010s, the potential impact of changes in women's relative share of industrial employment was economically very significant by comparison.

Interestingly, the same change in the ratio of women's to men's labour force participation (which increased by about 9 percentage points between 1991 and 2013) was associated with a decline in the labour share of 1.6 per cent (which is statistically insignificant). So while there is some (weak) evidence of a negative association between women's increasing entry into the labour market and the labour share, when that entry is associated with "good" jobs, there is a net positive effect on the labour share of income.

The following are some brief comments on the other results. Among the controls for structural transformation, the only variable with a substantial and statistically significant impact on the labour share of income is the share of industrial value added in GDP, which is strongly negative. A 10 per cent increase in the share of industrial value added in GDP, (which would typically be a modest increase from say 20 per cent to 22 per cent of GDP) is associated with a 2.6 per cent decline in the labour share of income. The implication is that independently of the impact of industrialization on employment (which is one of the other controls included in the regression), industrialization on its own has not been associated with better aggregate outcomes for workers in terms of the labour share in national income. It is not enough for countries to industrialize; it has to be accompanied by good jobs in order to improve overall conditions for labour. This highlights the employment challenges associated with current processes of industrialization in developing countries, and the increasing inequality that results.

By contrast, more expansive fiscal policies along with less trade liberalization are associated with higher labour shares. And while none of the other measures of globalization appear to be significant, it is worth noting that exports as a share of GDP exert the negative correlation that appears for trade in column (1), and this persists if it is included on its own in column (2), while imports as a share of GDP show no effect. These results are in line with how one might expect global competition in export markets to manifest in terms of exerting downward pressure on labour shares.

In sum, then, this analysis indicates that occupational hoarding by gender – as reflected in women having less access to industrial sector jobs (and their crowding into lower quality jobs) – has a significant negative impact on the labour share of income. This class dynamic thus appears to be gender cooperative in the sense that what is good for women workers is also good for labour overall, including men. These findings also confirm the importance of being precise about the sorts of – and especially the context for – gender equality interventions that policy promotes, as some prescriptions can ultimately be counterproductive. In cases where access to core sector or "good" jobs is declining, increasing female labour force participation will constrain wage growth, setting in motion a low-wage growth path characterized by increasing economic insecurity and gender conflict, with poor prospects for sustainably or substantially enhancing future well-being.

G. Conclusions

This chapter illustrates how gender exclusion in the current global era follows prevailing social norms and economic structures. Singular supply-side perspectives treat women's increasing employment participation as an unqualified boost for gender equality, without accounting for how wider economic circumstances and policies determine the implications for women's well-being, as well as the impact on men. In many countries, women's employment participation is increasing as that of men declines, and what appears to be more gender equality is partly due to the exclusion of men. Because the current era of growth and globalization has failed to produce sufficient high-quality jobs, women have been increasingly integrated into the labour market only on inferior terms, with gender becoming one of the ways that economic opportunity and security are rationed. This worsens overall inequality by lowering labour's share of income, with negative consequences for aggregate demand and, ultimately, growth.

This connection reveals how inequality can breed more inequality, a point also underscored in chapter V of this *TDR*, but only from the perspective of the causes and consequences of financial crises. The expanding reach of markets, increasing global integration, and the structural changes that have accompanied them have worsened conditions for labour. And gender has become an unfortunate aspect of how inequality manifests and persists.

However, policy can play a major role in reversing this development. The employment losses associated with structural and technological change have been especially costly for women's access to the higher quality jobs associated with industrial sector work in developing countries. Combating gender stereotypes and otherwise fostering and facilitating women's access to core sector employment, especially through social infrastructure investments that better enable women to combine paid work and their responsibilities for care, are important interventions to consider. Pairing such efforts with demand-side interventions, including through more expansive fiscal stances, can increase the demand for labour and make growth more gender inclusive. This would also improve economic prospects for men. On the question of trade, more is not necessarily better. What matters is the extent of domestic value added, at least in manufacturing. Trade policy stances involving less liberalization of imports seem to support women's relative access to industrial work in ways that preserve men's access to employment as well, suggesting that managing trade can improve the gender inclusivity of development. On its own, growth has not done much to improve gender inclusion in employment, partly because of its failure to generate sufficient employment overall.

The question of care work also needs to be addressed as it is central to growth and sustainable development. In addition, women's primary responsibility for this kind of work is an ongoing source of gender inequality. Policy dialogues on the issue have constructively progressed in terms of what economist Diane Elson first proposed as the need to "recognize, reduce and redistribute" unpaid care work.[21] However, given the employment challenges associated with structural and technological change outlined above, part of gender inclusion for growth and development must be about transforming paid care work into decent work with the wage levels, benefits and security typically associated with industrial jobs in the core sector of the labour market. This is a challenging prospect for most economists to consider, as social services (of which care work constitutes a large part) – whether provided within or outside markets, or by the public or private sectors – are treated more as consumption goods than investments in the future. Moreover, they are systematically undervalued (and underpaid) largely because they are considered to be women's work. What investing in the care sector means in economic terms is thus not well understood in relation to some of the longer term development challenges such as raising aggregate productivity, structural transformation, technological change and transforming the social relations of production. A small but powerful body of literature has begun to grapple with some of these questions,[22] but the questions themselves need to become a more standard feature of growth analytics, rather than treated as special topics on care, if gender inclusion is to be incorporated into the overall economic system rather than treated as an outcome that requires some sort of ex post facto inequality "fix". ■

Notes

1 In this chapter, jobs in the industrial sector (rather than agricultural or services sectors) are used as a proxy for "good" jobs, for reasons outlined in section D.

2 This section draws from the discussions in Seguino, 2017; and Braunstein, 2011.

3 Race/ethnicity is another type of intergroup inequality that serves to create and perpetuate economic stratification. Gender is often combined with race/ethnicity or caste to intensify intergroup inequality.

4 Indeed, stratification processes can be the cause of intergroup differences in education.

5 Evidence of the universality of such norms can be found in the *World Values Survey* (see: http://www.worldvaluessurvey.org/), although there is variation between countries in the extent to which such norms prevail (Seguino, 2011).

6 Analyses of segmented labour markets often label the core sector the "primary" sector, and the peripheral sector the "secondary" sector. Because the terms "primary" and "secondary" sectors more typically refer to the agricultural/raw materials and manufacturing sectors respectively (with "tertiary" referring to services), this chapter uses the terms "core" and "peripheral" to differentiate between the primary and secondary sectors of the labour market.

7 In important ways, this segmentation can be applied globally, with the global division of labour amidst the increasing concentration of market power among a handful of firms limiting access to core-type work for many of the world's workers.

8 Economic theory would suggest that women's "special" skill in these tasks should have resulted in a wage premium, but instead such jobs are noted for their low wages relative to those in other manufacturing activities. This form of crowding is therefore more the result of stratification designed to benefit firms and male workers than of supply conditions, such as women's labour market skills.

9 This section, particularly the emphasis on the contradiction between women's growing share in employment and rising gender segregation, especially in the industrial sector, draws from Seguino, 2016.

10 One potential problem with using men's employment rates alone (as opposed to comparing them with those of women) is that with development, one would expect men to stay in school longer and retire earlier, leading to a decline in their employment rates among the population older than 15 years. Cross-country data limitations prevent the obvious fix of restricting the sample to prime working age adults. On the basis of available data, however, limiting the sample by age does not undermine the characterization highlighted in the text.

11 To the extent that employment growth in the services sector is partly driven by the outsourcing of activities previously provided within the manufacturing sector, such as janitorial or security services, such outsourced jobs tend to offer lower pay and greater insecurity than the same jobs in industry, indicating a loss in job quality (Tregenna, 2010).

12 An important caveat here is that not all industrial sector jobs are "good", especially the ones more likely to be held by women. However, relative to most jobs in the agricultural or services sector, industrial sector jobs are likely to be "better", even when they are not that "good".

13 The shapes of the country distribution of women's relative concentration in industrial employment in 2013 differ in figures 4.4 and 4.5 due to different scales on the x- and y-axes. The underlying data are, however, the same.

14 Many other measures of trade were also tried, including total trade, exports and then imports as shares of GDP, but none were statistically or economically significant.

15 Lower income countries tend to have higher tariffs and vice versa; thus a reasonable challenge to the specification is whether coefficient estimates for tariffs are picking up per capita GDP effects (that is, differences in income levels, not tariff behaviour). The correlations here are not very strong: -0.28 for developed countries and -0.30 for developing countries. Per capita GDP is not included in the model because of its high correlation with the capital-labour ratio (0.80 for developed countries and 0.85 for developing countries). At the same time, the correlation between the capital-labour ratio and weighted tariffs is quite low, at -0.17 for developed countries and -0.19 for developing countries. If any variable is picking up the effects of income, it is the capital-labour ratio.

16 Countries also use non-tariff measures to regulate trade, but higher tariffs tend to be associated with the use of more non-tariff measures as well (UNCTAD, 2013).

17 A statistical (Chow) test of the two models confirms that the two groups should be evaluated separately. Also note that a number of years − particularly for the early 1990s − are missing for many of the countries in the developing-country group. Thus, these results need to be interpreted with caution.

18 This association remains even if per capita GDP is included.

19 Indeed, one of the stylized facts of the literature on gender wage gaps in the United States and in many other countries is that the higher the proportion of women in a sector, the lower is the average wage (Levanon et al., 2009; Lansky et al., 2016).

20 Variables used by other studies that we do not incorporate, largely because of paucity of data given the time

series, include controls for labour market institutions, financial globalization and financial liberalization. Their absence is likely taken up in the country fixed effects; however, including the Chinn-Ito index, a measure of financial openness based on the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions* gives negative but statistically insignificant correlations with the labour share, and does not impact the other results.

21 See Elson (2017) for a recent perspective.

22 Some of this literature was reviewed in section B. For a more detailed discussion on these points, see: Braunstein, 2015; Ghosh, 2017; ITUC, 2016 and 2017; Razavi, 2007; and UN Women, 2015.

References

Agénor P-R, Canuto O and Pereira da Silva LA (2010). On gender and growth: The role of intergenerational health externalities and women's occupational constraints. Policy Research Working Paper No. 5492, World Bank, Washington, DC.

Aguayo-Tellez E (2011). The impact of trade liberalization policies and FDI on gender inequalities: A literature review. Background paper for the *World Development Report,* 2012. World Bank, Washington, DC.

Antonopoulos R, Kim K, Masterson T and Zacharias A (2010). Investing in care: A strategy for effective and equitable job creation. Working Paper No. 610, Levy Economics Institute of Bard College, Annandale-on-Hudson, NY.

Artecona R and Cunningham W (2002). Effects of Trade Liberalization on the Gender Wage Gap in Mexico. Working Paper No. 21, World Bank, Washington, DC.

Bacchetta M, Ernst E and Bustamante JP (2009). *Globalization and Informal Jobs in Developing Countries.* Geneva, International Labour Office and the World Trade Organization.

Becker GS (1957). *The Economics of Discrimination.* Chicago, The University of Chicago Press.

Bergmann B (1974). Occupational segregation, wages and profits when employers discriminate by race or sex. *Eastern Economic Journal,* 1(2): 103−110.

Berik G, van der Meulen Rodgers Y and Zveglich JE (2004). International trade and gender wage discrimination: Evidence from East Asia. *Review of Development Economics,* 8(2): 237–254.

Blecker RA and Seguino S (2002). Macroeconomic effects of reducing gender wage inequality in an export-oriented, semi-industrialized economy. *Review of Development Economics,* 6(1): 103−119.

Boserup E (1970). *Woman's Role in Economic Development.* London, George Allen & Unwin.

Braunstein E (2006). Foreign direct investment, development, and gender equity: A review of research and policy. Occasional Paper No. 12, United Nations Research Institute for Social Development, Geneva.

Braunstein E (2011). *Gender and Economic Development.* Nairobi, United Nations Human Settlements Programme (UN-HABITAT).

Braunstein E (2012). Neoliberal development macroeconomics: A consideration of its gendered employment effects. Research Paper 2012-1, United Nations Research Institute for Social Development, Geneva.

Braunstein E (2015). Economic growth and social reproduction: Gender inequality as cause and consequence. UN Women Discussion Paper No. 5, United Nations, New York.

Braunstein E and Brenner M (2007). Foreign direct investment and gendered wages in urban China. *Feminist Economics*, 13(3–4): 213–237.

Busse M and Spielmann C (2006). Gender inequality and trade. *Review of International Economics*, 14(3): 362–379.

Bussolo M and De Hoyos RE (2009). *Gender Aspects of the Trade and Poverty Nexus: A Macro-Micro Approach*. Washington, DC, Palgrave Macmillan and the World Bank.

Chandrasekhar CP and Ghosh J (2014). Growth, employment patterns and inequality in Asia: A case study of India. ILO Asia-Pacific Working Paper Series, International Labour Organization Regional Office for Asia and the Pacific, Bangkok.

Darity W, Jr. (2005). Stratification economics: The role of intergroup inequality. *Journal of Economics and Finance,* 29(2): 144–153.

Darity WA, Jr, Mason PL and Stewart JB (2006). The economics of identity: The origin and persistence of racial identity norms. *Journal of Economic Behavior and Organization,* 60(3): 283–305.

Das MB (2013). Exclusion and discrimination in the labor market. Background paper for the *World Development Report 2013.* World Bank, Washington, DC.

Doepke M and Tertilt M (2011). Does female empowerment promote economic development? IZA Discussion Paper No. 5637, Institute for the Study of Labor, Bonn.

Domínguez-Villalobos L and Brown-Grossman F (2010). Trade liberalization and gender wage inequality in Mexico. *Feminist Economics,* 16(4): 53−79.

Dollar D and Gatti R (1999). Gender inequality, income, and growth: Are good times good for women? Policy Research Report on Gender and Development, Working Paper Series, No. 1, World Bank, Washington, DC.

Elson D (2017). Recognize, reduce and redistribute unpaid care work: How to close the gender gap. *New Labor Forum,* 26(2): 52−61.

Elson D and Pearson R (1981). "Nimble fingers make cheap workers": An analysis of women's employment in

Third World export manufacturing. *Feminist Review,* 7(1): 87−107.

Felipe J, Mehta A, and Rhee C (2014). Manufacturing matters… but it's the jobs that count. Economics Working Paper Series, No. 420, Asian Development Bank, Manila.

Fontana M (2009). The gender effects of trade liberalization in developing countries: A review of the literature. In: Bussolo M and De Hoyos RE, eds. *Gender Aspects of the Trade and Poverty Nexus: A Micro-Macro Approach*. Basingstoke, Palgrave Macmillan and The World Bank: 25–50.

Fontana M and Natali L (2008). Gendered patterns of time use in Tanzania: Public investment in infrastructure can help. Paper prepared for the IFPRI Project on "Evaluating the Long-Term Impact of Gender-Focused Policy Interventions". International Food Policy Research Institute, Washington, DC.

Gaddis I and Klasen S (2014). Economic development, structural change, and women's labor force participation: A reexamination of the feminization U hypothesis. *Journal of Population Economic,* 27(3): 639−681.

Gallup and ILO (2017). *Towards a Better Future for Women and Work: Voices of Women and Men*. Geneva, International Labour Organization.

Ghosh J (2009). *Never Done and Poorly Paid: Women's Work in Globalising India*. New Delhi, Women Unlimited Press.

Ghosh J (2017). Decent work and the care economy: Recognising, rewarding, reducing and redistributing care work. Working paper, Gender, Employment and Diversity Branch, International Labour Organization, Geneva (forthcoming).

Gordon DM, Edwards R and Reich M (1982). *Segmented Work, Divided Workers: The Historical Transformation of Labor in the United States*. New York, Cambridge University Press.

Haddad L, Hoddinott J and Alderman H, eds. (1997). *Intrahousehold Resource Allocation in Developing Countries: Models, Methods, and Policy.* Baltimore, Johns Hopkins University Press.

Hartmann H (1979). Capitalism, patriarchy, and job segregation by sex. In: Eisenstein ZR, ed. *Capitalist Patriarchy, and the Case for Socialist Feminism.* New York, Monthly Review Press: 206−247.

İlkkaracan I, Kim K and Kaya T (2015). The impact of public investment in social care services on employment, gender equality and poverty: The Turkish case. Istanbul Technical University Women's Studies Center and the Levy Economics Institute, Istanbul.

ILO (2011). *World of Work Report 2011: Making Markets Work for Jobs*. Geneva, International Labour Organization.

ILO (2015). *Women at Work Trends 2016*. Geneva, International Labour Organization.

ITUC (2016). Investing in the care economy: A gender analysis of employment stimulus in seven OECD countries. The Women's Budget Group and International Trade Union Confederation, London.

ITUC (2017). Investing in the care economy: Simulating employment effects by gender in countries in emerging economies. The Women's Budget Group for the International Trade Union Confederation and UN Women, London.

Jayadev A (2007). Capital account openness and the labour share of income. *Cambridge Journal of Economics,* 31(3): 423−443.

Karamessini M and Rubery J, eds. (2014). *Women and Austerity: The Economic Crisis and the Future for Gender Equality*. Abingdon and New York, Routledge.

Kaufman RL (2002). Assessing alternative perspectives on race and sex employment segregation. *American Sociological Review,* 67(4): 547–572.

Klasen S and Lamanna F (2009). The impact of gender inequality in education and employment on economic growth: New evidence for a panel of countries. *Feminist Economics,* 15(3): 91–132.

Knowles S, Lorgelly PK and Owen PD (2002). Are educational gender gaps a brake on economic development? Some cross-country empirical evidence. *Oxford Economic Papers,* 54(1): 118–149.

Kucera D and Roncolato L (2016). The manufacturing-services dynamic in economic development. *International Labour Review,* 155(2): 171−199.

Kucera D and Tejani S (2014). Feminization, defeminization, and structural change in manufacturing. *World Development*, 64: 569−582.

Lansky M, Ghosh J, Meda D and Rani U (2016). Introduction. In: ILO, *Women, Gender and Work, Volume 2: Social Choices and Inequalities*. Geneva, International Labour Office: 3–43.

Levanon A, England P and Allison P (2009). Occupational feminization and pay: Assessing causal dynamics using 1950-2000 U.S. Census data. *Social Forces,* 88(2): 865−891.

Menon N and Van der Meulen Rodgers Y (2009). International trade and the gender wage gap: New evidence from India's manufacturing sector. *World Development*, 37(5): 965–981.

Razavi S (2007). The political and social economy of care in a development context: Conceptual issues, research questions and policy options. Gender and Development Program Paper No. 3, United Nations Research Institute for Social Development, Geneva.

Razavi S, Arza C, Braunstein E, Cook S and Goulding K (2012). Gendered impacts of globalization: Employment and social protection. Research Paper 2012–3, United Nations Research Institute for Social Development, Geneva.

Rodrik D (2016). Premature deindustrialization. *Journal of Economic Growth,* 21(1): 1−33.

Samarasinghe V (1998). The feminization of foreign currency earnings: Women's labor in Sri Lanka. *Journal of Developing Areas,* 32(3): 303−326.

Seguino S (2010). Gender, distribution, and balance of payments constrained growth in developing countries. *Review of Political Economy*, 22(3): 373–404.

Seguino S (2011). Help or hindrance? Religion's impact on gender inequality in attitudes and outcomes. *World Development,* 39(8): 1308–1321.

Seguino S (2016). Global trends in gender equality. *Journal of African Development,* 18(1): 1−30.

Seguino S (2017). Engendering macroeconomic theory and policy. Working Paper, World Bank, Washington, DC (forthcoming).

Seguino S and Grown C (2006). Gender equity and globalization: Macroeconomic policy for developing countries. *Journal of International Development,* 18(8): 1081−1114.

Seguino S and Were M (2014). Gender, development, and economic growth in sub-Saharan Africa. *Journal of African Economies,* 23 (supplement 1): i18−i61.

Smeeding TM (2016). Multiple barriers to economic opportunity for the "truly" disadvantaged and vulnerable. *The Russell Sage Foundation Journal of the Social Sciences,* 2(2): 98−122.

Staiger D and Stock JH (1997). Instrumental variables regression with weak instruments. *Econometrica,* 65(3): 557−586.

Standing G (1989). Global feminization through flexible labor. *World Development,* 17(7): 1077−1095.

Staritz C and Reis JG, eds. (2013). *Global Value Chains, Economic Upgrading, and Gender. Case Studies of Horticulture, Tourism, and Call Center Industries*. Washington, DC, World Bank.

Stockhammer E (2013). Why have wage shares fallen? A panel analysis of the determinants of functional income distribution. Conditions of Work and Employment Series No. 35, International Labour Office, Geneva.

Tejani S and Milberg W (2016). Global defeminization? Industrial upgrading and manufacturing employment in developing countries. *Feminist Economics,* 22(2): 24−54.

Tregenna F (2010) How significant is intersectoral outsourcing of employment in South Africa? *Industrial and Corporate Change,* 19(5): 1427−1457.

UNCTAD (2013). Non-tariff measures to trade: Economic and policy issues for developing countries. Developing Countries in International Trade Studies, United Nations publication, New York and Geneva.

UNCTAD (2014). Looking at trade policy through a "gender lens": Summary of seven country case studies conducted by UNCTAD. United Nations publication, Geneva.

UNCTAD (*TDR 2016*). *Trade and Development Report*: *Structural Transformation for Inclusive and Sustained Growth*. United Nations publication. Sales No. E.16. II.D.5. New York and Geneva.

UN Women (2015). *Progress of the World's Women 2015-2016: Transforming Economies, Realizing Rights*. New York, UN Women.

Vanek J, Chen MA, Carré F, Heintz J and Hussmanns R (2014). Statistics on the informal economy: Definitions, regional estimates & challenges. Working Paper (Statistics) No. 2, Women in Informal Employment: Globalizing and Organizing (WIEGO), Cambridge, MA.

World Bank (2012). *World Development Report 2012: Gender Equality and Development*. Washington, DC, World Bank.

Zacharias A and Mahoney M (2009). Do gender disparities in employment increase profitability? Evidence from the United States. *Feminist Economics,* 15(3): 133−161.

Data appendix

Variable	*Explanation*	*Source*
Relative women's/men's industrial emp.	Women's relative concentration in industrial employment, which equals (women's industrial employment/women's total employment)/(men's industrial employment/men's total employment)	Calculation based on data from World Bank, *World Development Indicators* (*WDI*) database and ILO modelled estimates
Industrial emp./total emp.	Industrial employment as a share of total employment (per cent)	Calculation based on data from *WDI* database
Industry value-added/ GDP	Industry value added as a share of GDP (per cent)	*WDI* database
Capital-labour ratio	Capital stock at constant 2011 national prices (in 2011 dollars) divided by total employment	Calculated based on data from *Penn World Tables* 9.0
Per capita GDP growth	Annual per capita GDP growth based on real local currency (per cent)	*WDI* database
Net manufacturing exports/GDP	Manufacturing exports less manufacturing imports as a share of GDP (per cent)	Calculation based on data from UN *Comtrade* and *WDI* databases
Weighted tariffs	Weighted mean of applied tariff rate, all products (per cent), taken at the 2-digit HS level	Calculated based on the UNCTAD *Trade Analysis Information System* (*TRAINS*) database
Inward FDI/GDP	Net FDI inflows as a share of GDP (per cent)	*WDI* database
Government consumption/GDP	General government final consumption expenditure as a share of GDP (per cent)	*WDI* database
Women's/men's labour force participation	Ratio of women's to men's labour force participation rates, in the population aged 15–64 years (per cent)	Calculation based on data from *WDI* database and modelled ILO estimates
Women's/men's secondary school enrolment	Ratio of women's to men's gross secondary school enrolment rates (per cent)	Calculation based on data from *WDI* database
Labour share of income	Share of labour compensation, including estimates for the self-employed, in national income	*Penn World Tables* 9.0
Real interest rate	Real interest rate (per cent)	*WDI* database

Note: World Bank, *WDI* database (accessed December 2016).