



MODULE 2

*The effects of trade on women's well-being
and economic empowerment:
Evidence and research methodologies*

1 Introduction

Although manufacturing has historically been a male preserve, the adoption of export-oriented policies by developing countries from the 1960s and 1970s onwards saw a massive influx of women workers into labour-intensive manufacturing production. They constituted between 70 to 90 per cent of the workforce in countries such as Mexico, Puerto Rico, the Republic of Korea and Singapore, and most of them were obtaining formal non-agricultural employment for the first time. The literature on the “feminization of labour” has explained this unprecedented preference for female labour in export-oriented production as a result of intense international competition that demanded the use of relatively cheap labour to cut costs. Standing (1989, 1999) even argued that the implementation of SAPs, including trade liberalization, had led to a “global feminization of labour”. Although this claim has been debated and a number of scholars have shown that feminization can reverse itself over time, it is clear that trade has significant gendered consequences.

Building on the concepts introduced in Module 1, this module focuses on the impact of trade liberalization on women's economic empowerment and well-being. Module 3 then examines the ways in which gender inequality can affect trade performance. Trade has many different aspects that are reflected in terms such as trade policy, trade liberalization, trade protectionism, etc., introduced in Module 1. In this module, we are mainly concerned with trade liberalization, or the removal of trade barriers in the form of tariff and non-tariff barriers that obstruct the free flow of goods and services, and its impact on women's economic empowerment. We also discuss the impact of trade expansion that may accrue, for example, due to improved trade logistics.

Trade affects economies by altering the structure of production, employment patterns, income and the relative prices of goods and services. Each of these has a gender dimension that must be considered while designing and implementing trade policy. Here, we account for these dimensions by examining how trade liberalization affects women in the market sphere as wage workers, producers, traders, consumers and tax payers, as the impact of trade will vary based on women's roles in the economy. There is, of course, an overlap between these roles, and ideally a researcher should assess the net impact of trade policy to ascertain the final outcomes. For the interested reader, we also provide brief summaries of research papers that illustrate the various approaches and meth-

odologies that can be used to analyse the effects of trade on women's share of employment³³ in an Annex at the end of the module.

At the end of this module, students should be able to:

- Illustrate the full range of channels and interactions through which trade liberalization can affect women as wage workers, both in terms of employment and earnings, as producers, traders, consumers of imported goods and of public services, and tax payers;
- Distinguish between the predictions of standard trade theory as applied to the question of gender inequality and those of the heterodox framework;
- Critically review research papers that explore various dimensions of the gender effects of trade and assess their strengths and weaknesses.

2 Women as wage workers

Most of the research on the impact of trade liberalization focuses on women in wage employment and assesses how their employment and income are affected through an increase (or decrease) in exports and imports. Because trade theory makes categorical predictions about how employment and income will shift when a country liberalizes trade, there has been significant research interest in whether these predictions are confirmed empirically. Trade theory can also be interpreted as having specific predictions for gender equality with respect to employment and wages. Since the research on gendered employment and wage effects is vast, the section on women as wage workers is longer than the others. We first present the employment effects of trade liberalization, including the quality and patterns of employment, followed by wage effects.

2.1 Employment effects

2.1.1 Theoretical expectations

2.1.1.1 Standard theory³⁴

Standard trade theory asserts that a country's comparative advantage in trade is based on its factor endowments (labour or capital) and that it will export those commodities that use its relatively abundant factor most intensively. Accordingly, the Heckscher-Ohlin-Stolper-Samuelson (HOSS) theorems predict that returns to the relatively abundant factor that is used more intensively in exports will rise as the demand for

it increases (Heckscher and Ohlin, 1991; Stolper and Samuelson, 1941). Since developing countries are abundant in labour rather than capital, the returns to labour (wages) are expected to rise when trade is liberalized. Another way to think about this framework is in terms of skill level: If rich countries are abundant in high-skill labour and poor countries in low-skill labour, trade will increase the returns to low-skill labour in the latter. If women are assumed to form a bulk of the low-skill labour pool, then trade liberalization should increase the demand for women's labour and lower the demand for male labour. Female wages are expected to rise while male wages are supposed to fall, leading to a lower gender wage gap. This interpretation of standard trade theory leads to the prediction that trade liberalization promotes gender equality.

These arguments have been challenged on both theoretical and empirical grounds.³⁵ To start with, "endowments of female unskilled wage labour" characterize a number of developing countries but not all of them (e.g. some countries are relatively rich in agricultural resources; in others women are relatively well educated). Moreover, since gender discrimination cannot be assumed to be natural, it is hard to use the natural factor

endowments model as a basis for the analysis of a phenomenon so influenced by social norms (Tejani and Milberg, 2010).

2.1.1.2 Heterodox perspectives

Heterodox theorists have argued that trade is based on absolute or competitive advantage as elaborated by Adam Smith (1776/2009) rather than on comparative advantage (see Box 9). That is, a country that produces a good more cheaply will dominate the international market and outdo its competitors. International competition is the main driver in this narrative and it stimulates the search for lower cost labour as firms compete on absolute unit costs rather than relative costs.³⁶ Firms seize on existing gender inequalities such as the gender wage gap and hire women to bring down the costs of production, particularly in labour-intensive activities for which they are considered suitable. Women thus serve as a source of competitive advantage for export-oriented firms that face intense competition in the international market, and the demand for their labour rises. As we will see in the section on wages (Section 2.2), it is not necessary that women's wages rise as a result; trade may perpetuate or even exacerbate existing gender inequalities.

Box 9

Comparative advantage vs. competitive advantage

The principle of comparative advantage suggests that countries compete on relative unit costs. Accordingly, a country exports the goods and/or services it can produce at a relatively lower cost at home, and imports those goods that it can buy at a relatively lower cost from abroad. In the simplest trade setting (i.e. the Ricardian one), trade occurs as long as the parties have different relative efficiencies. Take for example two countries, *Rich* and *Poor*; and two goods, airplanes and footwear. Assume that *Rich* can produce airplanes at a relatively lower cost than footwear – that is, it has a comparative advantage in the production of airplanes. *Poor* can produce footwear at a relatively lower cost than airplanes – that is, it has a comparative advantage in the production of footwear. In a closed economy, both countries produce both goods. But when they lower their barriers to trade, it will be efficient for both of them to specialize in the production and export of the good they can produce domestically at a relatively lower cost. Country *Rich* will specialize in the production and export of airplanes while abandoning the production of footwear, which it will import from *Poor*; country *Poor* will specialize in the production and export of footwear and abandon the production of airplanes, which it will import from *Rich*.

In this setting, inequalities emerging from trade liberalization are purely transitional and not accounted for. Empirical evidence has however shown that trade liberalization may result in patterns of specialization (and persistent trade imbalances) that systematically disadvantage one country in relation to the other. Heterodox economists have instead proposed the principle of competitive or absolute advantage to better capture these trade patterns and outcomes. In this framework, countries compete on absolute unit costs (rather than relative costs) and use different strategies such as unit cost reduction and price-cutting to outperform their competitors and gain market share. Take the example used above and assume that country *Rich* enjoys lower absolute unit cost in the production of both airplanes and footwear – that is, it has a competitive advantage in both goods. Then, *Rich* exports both airplanes and footwear and *Poor* stands to have its domestic industry undermined by competition or even to become a net importer of both goods if trade is liberalized. (In such a case, *Poor* can choose to promote and strengthen domestic production capacity before it liberalizes trade to ensure that its industries can compete, of course within the limits of WTO rules if it is a WTO member.)

Source: Shaikh (2007).

When compared to comparative advantage, it means that even if a country can produce a labour-intensive good more efficiently than a capital-intensive good (it has a comparative advantage in the former) it might not be able to export, and could even have its industry decimated through trade if its trading partner produces both goods more cheaply.

2.1.2 Existing evidence

In this sub-section, we present the findings of numerous studies that have analysed the gendered employment effects of trade. Trade liberalization brings about changes in the structure of production of a country, with some sectors expanding (e.g. export-oriented production) and other sectors contracting (e.g. import-competing production). Women and men work in different economic sectors, with women clustered in fewer sectors and men more evenly distributed across occupations and productive activities. Gender roles in both households and labour markets also tend to be rigid (although not unchangeable). Female workers and producers are less likely to enter the expanding sectors – unless these are traditionally female sectors such as garments – due to entrenched gender norms and limited access to productive resources and training. Trade may or may not contribute to gender equality in employment and an improvement in working conditions, depending on a range of factors, including economic structure, trade composition and labour market institutions.

A comprehensive assessment of the gender-differentiated employment effects of trade should distinguish impacts across agricultural, manufacturing and service sectors as well as between different employment statuses (e.g. wage work vs. self-employment). The effects of both export expansion and import displacement should be taken into account. When considering expanding sectors, the analysis should examine changes in the quality of jobs as well as their quantity, by exploring for instance the gendered nature of informalization processes and work vulnerability associated with increased international competition. A further question might be whether the new jobs created for women are available only in traditionally female sectors and occupations (such as textile production) or whether they reduce either vertical or horizontal gender segregation. Finally, it will be important to understand whether the jobs generated by trade offer sustainable gains in the long term. Overall, employment effects from greater trade openness are expected to be gendered because of the different distribution of women and men across tradable

and non-tradable sectors, combined with limited substitutability between female and male labour due to rigid gender roles.

2.1.2.1 Agriculture

The limited evidence, both from sub-Saharan Africa and elsewhere, shows that the impact of growing agricultural exports is generally less favourable to female than to male farmers. There is evidence that even when a crop is traditionally female-intensive, its commercial exploitation causes men to enter the sector and take over production and/or marketing. This was the case for groundnuts in Zambia (Wold, 1997), rice in the Gambia (von Braun *et al.*, 1994) and leafy vegetables in Uganda (Shiundu and Oniang'o, 2007).

Women in agriculture-based economies seem to be benefiting from incorporation into international trade more through wage employment opportunities on estate farms or packing houses than directly through product markets. Women are often preferred for this type of work as they are seen as secondary workers and relatively easier to lay off due to their lower bargaining power (Barrientos *et al.*, 2004). Their employment on commercial farms, on the other hand, tends to vary greatly by crop (Chan, 2013).

Wage employment in non-traditional agricultural export (NTAE) production has emerged as a significant source of employment for rural women, particularly in Latin American countries such as Colombia, Ecuador, Brazil, Chile, Mexico and Peru as well as in some African countries such as Kenya, Uganda, Zambia, South Africa and, more recently, Ethiopia. Still, the NTAE sectors employ a very small share of the rural labour force in general and the scope for their future expansion is limited (Fontana and Paciello, 2009). There are also regional differences in how NTAEs affect gender equality. In sub-Saharan Africa, the rise of cash crop exports has resulted in more employment opportunities for men rather than women (Wamboye and Seguíno, 2012).

In terms of policy, dynamizing the traditional crop sector can be a way to address existing gender inequalities in agriculture, for women are over-represented in the production of staple foods and in local marketing activities. Linking smallholders to public stockholding schemes for food security, e.g. to require that government or international agencies procure foodstuff from local producers rather than meet requirements through imports (UNCTAD, 2009), could be one way forward. Yet, to be socially inclusive and gender-sensitive, rather than exclusionary, strategies geared to dynam-

ize the traditional subsistence-oriented sector should also effectively acknowledge and tackle gender-specific obstacles that hinder the ability of women to efficiently engage in commercially oriented agriculture. Training women in some of the capital-intensive activities in commercial agriculture, such as operating computerized irrigation and cooling systems and driving tractors, can increase their participation, particularly in higher-paid and permanent jobs (Barrientos *et al.*, 2004). In sub-Saharan Africa, while trade has had mostly negative effects on women's relative and absolute employment, higher investment in infrastructure that reduces women's care burdens has had a strong positive effect, highlighting again the importance of reducing and redistributing care work to enable women to respond to employment opportunities (Wamboye and Seguíno, 2012).

The feminization of employment through export orientation appears to be more common in the manufacturing sector and in semi-industrialized economies than it is in agriculture-based economies or in mineral resource-rich countries, as we will see in the next sub-section.

2.1.2.2 Manufacturing

Several studies have documented a positive relation between the share of basic manufactures in exports and the female share of employment in a number of developing countries (Wood, 1991; Joekes, 1995; Seguíno, 1997, 2000). This trend found in earlier studies continues to hold for middle-income countries, but only on average, for there are important differences across regions, industrial structures and processes (see e.g. Tejani and Milberg, 2010). An overwhelming characteristic of this increase in female employment is that it is concentrated in labour-intensive, low value added and low wage export industries such as garments, textiles, leather and toys where the quality of jobs and prospects for advancement are limited. In fact, the term "feminization of labour" has been used to refer not only to the increase in women's share of employment but also to the extension of insecure working conditions, which traditionally characterized female jobs, to male jobs (Standing, 1989, 1999).

In the early stages, female employment gains in manufacturing employment were particularly strong in Asia, especially in the four East Asian "Tigers",³⁷ but also Bangladesh and Sri Lanka in South Asia, and Malaysia, Indonesia, Thailand and the Philippines in South-East Asia. Expansion was more limited in Latin America, most notably Mexico, but also Central America and the

Caribbean (Fontana, 2007). In sub-Saharan Africa, Mauritius experienced a tenfold growth in female employment in manufactures between the 1980s and early 1990s (Pearson, 1999). In Lesotho, as described in Box 10, jobs in the apparel sector grew from around 10,000 in 1999 to 48,000 in 2004 and most of them were filled by women (UNCTAD, 2012). Madagascar experienced a remarkable expansion of about 150,000 jobs in the apparel sector during the period 1997–2003, more than doubling the value of its exports (from \$200 million to almost \$500 million). The industry experienced a downturn following the phasing out of the Multi-Fibre Arrangement (MFA),³⁸ but exports picked up again in 2006, reaching about \$600 million in 2007. The expansion of the garment industry provided significant employment opportunities for women, as more than 80 per cent of the new jobs were filled by female workers (UNCTAD, 2008).

The employment gains of women in some countries should not obscure the fact that these may have come at the expense of women workers in other countries. In the 1980s and 1990s, the increase in labour-intensive manufacturing exports produced mostly by female workers in developing countries also resulted in the destruction of jobs held by women in high-income economies, due to import competition. Kucera and Milberg (2000) found, for example, that the expansion of OECD trade with developing countries over the 1978–1995 period resulted in disproportionate job losses for women in OECD countries, who constituted the majority of workers in import-competing industries such as textiles, footwear and leather goods.

Moreover, export-oriented jobs are highly dependent on the trade policy environment, and changes in preferential market access, tariff rates, exchange rates and wage rates can lead to large export declines or even trigger the wholesale relocation of industries to other countries. The end of the MFA, which had partially shielded African exporters from more competitive Asian suppliers, led to large export declines in a number of low-income African countries; currency appreciation and higher wage costs resulted in a massive relocation of labour-intensive manufacturing from the East Asian first-tier countries to South-East Asia in the 1980s. The apparel industry in Lesotho is highly dependent on the preferential tariff rates and special rules of origin under the Africa Growth and Opportunities Act, a trade agreement with the United States (see Box 10). If the agreement and particularly the rules of origin are not renewed in 2015, it can potentially decimate the apparel industry and

seriously impact the livelihoods of the predominantly female workforce (UNCTAD, 2012).

The intensified trade competition among developing countries following the complete phase-out of MFA quotas under the terms of the ATC in 2005 also brought about a shift of related exports and employment from Central America and Africa to

Asia, and especially to China. China and India increased their shares of imports to the European Union and the United States while economies such as the Dominican Republic, El Salvador, Fiji, Nepal, South Africa and Mauritius, among others, experienced absolute declines in their textile and garment exports, with female jobs being especially affected (Berik, 2011; Otobe, 2008; Valodia, 1996).

Box 10

Trade, structural change and employment implications for women: The case of the apparel sector in Lesotho

There have been major changes in Lesotho's structure of production and trade over the past thirty years – most notably the fast expansion of supply capacity in the apparel sector and a relative shift in the composition of exports towards apparel. These structural developments are largely the outcome of trade policy.

One instrument in particular has been critical in shaping Lesotho's competitive edge in apparel exports: unilateral, non-reciprocal duty-free and quota-free access to the United States for Lesotho's apparel products under the African Growth and Opportunity Act initiative, coupled with a relaxation of the rules of origin under AGOA to permit the use of inputs from third countries in the production of these apparel exports to the United States. Under AGOA, Lesotho's apparel exports to the United States almost tripled between 2001 and 2004.

The study argues that the trade-led expansion of Lesotho's apparel industry has created opportunities for women's empowerment and well-being through job creation in export-led sectors, but it has also contributed to new patterns of inequality and vulnerability. Under AGOA, Lesotho's clothing industry grew to be the country's single largest employer with some 48,000 jobs in 2004, compared with only about 10,000 in 1999. Women still make up the bulk of this workforce. The Lesotho case study shows that trade policy (in this case, preferential access to markets in the United States) can play a catalytic role in job creation for women. Most significantly, trade-led developments have created a large number of new jobs for underprivileged, relatively unskilled women who would otherwise have little chance of being formally employed.

However, there are qualifications to be made and some aspects that need to be critically assessed. Some of the major areas of concern raised by the study include the quality (wages, working conditions and potential for skill development) of the jobs created, spillover effects within the economy and new patterns of vulnerability to external shocks. Above all, wages in the textile and apparel sectors are low in real terms and allow for the coverage of basic subsistence expenses only. Working conditions are hard. Furthermore, segregation of women in the unskilled/labour-intensive nodes of production and the segregated nature of tasks within each node have significantly limited skill development.

Source: Musselli and Zarrilli (2012) and UNCTAD (2012) for the study on Lesotho.

2.1.2.3 Services

The expansion of exportable services appears to have become another source of employment for women, especially in the information technology (IT) sector in countries like India, the Philippines, Jamaica and Mexico (Mitter *et al.*, 2004; Prasad and Sreedevi, 2007). Evidence however points to a marked occupational segregation by gender in this sector, with women mostly concentrated in data processing and men dominating the better paid high-skilled positions such as programming (Wajcman and Lobb, 2007; Patel and Parmentier, 2005). In the IT sector in India, for example, women are reported to account for about half

of the workforce employed in business process outsourcing, but for only a quarter in the higher value-added software development segments (Sengupta and Sharma, 2009).

2.1.3 Quality of trade-related employment

Do these newly created jobs for women comply with labour standards? As we have already mentioned, they do not appear to provide secure or long-lasting employment opportunities. Most of the evidence on the quality of trade-related female jobs comes from case studies of Export Processing Zones (EPZs) and, to a less extent, NTAE sectors.

EPZs have been integral to the export-led growth strategy of many industrializing countries. According to ILO statistics, women workers constituted around 70 per cent of EPZ employment in 2006, ranging from a low of 10 per cent in Bahrain to 90 per cent in Jamaica and Nicaragua (Boyenge, 2007). Employers in EPZs often segregate women in unskilled positions that do not provide opportunities for training and promotion and suppress their union rights (Doraisami, 2008; Berik, 2006). Especially in apparel and footwear industries, where suppliers face tight shipping deadlines and seasonal peaks in demand, excessive overtime is widespread (Berik and Rodgers, 2010; Amengual and Milberg, 2008). Working conditions are often very poor and factories do not observe basic fire and safety regulations as the building collapse and fires in 2013 in some Bangladeshi garment export factories showed.

Local firms producing for global supply chains increasingly hire home-based workers to cut costs. These workers tend to be more vulnerable than other categories of workers and are unable to improve their terms of employment. While home-based work predominantly draws on women's labour, men have also been increasingly employed to work from home, for instance in India's import-competing manufacturing sectors (Rani and Unni, 2009).

Similar situations of vulnerability are found in NTAEs where women wage workers appear to be working in more precarious positions than men. For instance, in Tanzania, 85 per cent of the casual workers engaged in planting, harvesting and grading on flower farms are women, while men occupy managerial positions (Fontana and Paciello, 2009). In Bangladesh, women fry catchers and sorters receive around 64 per cent of what men earn and tend to be segregated in the most insecure nodes of the shrimp chain (Gammage *et al.*, 2006). Working conditions in packing plants in the lemon sector in northern Argentina also remain rather poor, despite increasing pressures to comply with better standards (Ortiz and Aparicio, 2007).

There have been a number of multi-stakeholder initiatives to improve the quality of export-related jobs as a result of consumer pressure, such as the Ethical Trade Initiative (in the United Kingdom) and the Apparel Industry Partnership (in the United States) that involve the adoption of voluntary codes of conduct by firms in the North while sourcing from suppliers in the South (Barrientos, 2001; Barrientos and Smith, 2005). Suppliers are required to observe some core labour

standards, and monitoring and reporting is done on a regular basis to ensure compliance. However, voluntary initiatives cannot replace the legal enforcement of core labour rights and standards within countries. In many cases, developing countries have the requisite laws to protect labour rights on the books but their implementation and monitoring need to be significantly improved. The Better Work programme, launched by ILO and the International Finance Corporation, ensures that core labour standards and national labour laws are observed in factories by conducting regular audits, facilitating dialogue between workers and management and building stakeholder involvement and support for its activities with government agencies and unions. The Better Work programme is currently run in nine countries and the Better Factories initiative in Cambodia has been particularly noted for its success.³⁹

2.1.4 Impact on gender-based employment segregation

In most developing countries, employment segregation by gender has only marginally declined over the last three decades, despite the increase in female labour force participation. Female workers have remained in traditionally female jobs, with little chance to enter previously male-dominated sectors and occupations (Fontana, 2009) that are better paid and offer greater chances for advancement. Gender segregation is widely prevalent in horticultural and commodity value chains: vertically, women are crowded in low value-added work while men are generally in better paid and more secure jobs; at the horizontal level, women predominate in harvesting, slicing, grading and packing fruit while men operate machinery and do loading and other heavy work (Chan, 2013).

In the manufacturing sector, women are concentrated in very few industries, namely garments, textiles and electronics, while their share of employment in sectors such as chemicals, wood products and metallurgical industries is much lower. This kind of gender segregation or crowding in a few industries also serves to keep women's wages low. In Bangladesh, for example, women have remained highly concentrated in one single subsector – ready-made garments – while other textile subsectors that are more capital-intensive are still dominated by men (Fontana, 2007). In knitwear, the sector with the seemingly best prospects in the post-MFA phase, women constitute only 14 per cent of the labour force (Kabeer and Mahmud, 2004; Bhattacharya *et al.*, 2008). In Mexico, maquila employment (i.e.

assembling imported material to be exported as final product) for men has risen significantly more than for women in recent years because of the increased importance of industries such as transportation equipment.

Recent trends appear to suggest that the process of the feminization of manufacturing export employment may decline over time as economies shift to the production of higher value-added goods. The study by Tejani and Milberg (2010), reviewed in the Annex, offers fresh evidence on this phenomenon in middle-income countries in both South-East Asia and Latin America. The authors find that trends in the female share of employment in manufacturing are strongly correlated with technological conditions or the labour productivity and capital intensity of production. That is, women are preferred for low productivity jobs and the female share of employment tends to decline as countries upgrade their manufacturing sectors and labour productivity rises. The authors found that this was the case in South-East Asia from 1985 to 2007, while Latin America displayed the opposite trend during the same period: the female share of employment rose as labour productivity and capital intensity of production fell. Women made impressive gains in terms of education in both regions during this period, so skill differences between men and women cannot be the primary reason why technical change is associated with defeminization. The authors rather emphasized that persistent gender norms and stereotypes segment women into "gender appropriate" activities that tend to be low skilled and with low value added.

In many developing countries, the gender gap in education has closed rapidly in primary education and to a lesser extent in secondary education though drop-out rates for girls continue to be a problem as does the quality of education. Although women might now be better educated, they may still lack job-specific technical skills because they do not receive on-the-job training, because they are segregated into activities that do not have much opportunity for skill development or because of gender segregation in vocational or technical training programmes. This problem can be addressed in different ways in terms of policy. First, relevant government authorities (such as EPZs) can co-finance or offer partial rebates to firms that mandate the participation of women in training programmes for higher-skilled activities. Second, governments can take steps to reduce gender biases in admission policy and instruction in technical training programmes and promote the participation of women in traditionally male-dominated vocations (Tejani, 2011).

2.2 Wage effects⁴⁰

Female labour is on average rewarded less than male labour. This is true for all countries for which data exist (Oelz *et al.*, 2013). There are two main reasons for why women's average wages remain lower than men's universally, though the gender wage gap has shrunk in some countries over time.⁴¹ First, women are paid less than men for work of equal value due to gender-based discrimination (FAO *et al.*, 2010), including norms that designate men as breadwinners and women as secondary workers.⁴² Second, women tend to be crowded or segmented into stereotypical "feminine" activities like nursing and teaching and labour-intensive manufacturing industries, such as textiles, garments and electronics, due to entrenched gender norms and stereotypes about women's abilities and the types of work that are "suitable" for them (Oelz *et al.*, 2013). This segregation creates downward pressure on wages and reduces women's average earnings relative to men's, thus contributing to the gender wage gap. In addition, these activities are considered low skill and tend to attract lower remuneration, though the designation of work as high and low skill is itself a contentious matter.

We have seen that greater trade integration has led to a rise in women's access to paid employment in some developing countries, but what about their earnings? Have trade-related jobs offered women higher wages relative to alternative jobs available to them? Have they contributed to the narrowing of the gender wage gap?

2.2.1 Theoretical expectations

Standard and heterodox approaches offer different predictions as to the effects of trade on pay differentials between women and men in developing countries.

2.2.1.1 Standard theory

Within neoclassical economic theory, two arguments suggest gender equitable effects of trade expansion: standard trade theory (the HOSS theorem) and Gary Becker's theory of labour market discrimination (Becker, 1959). As outlined in the previous section, according to HOSS, trade expansion in developing countries is expected to increase the demand for relatively abundant, lower-skilled labour and reduce wage disparities among groups of workers.⁴³ To the extent that women workers predominate in lower-skilled jobs and men cluster in higher-skilled jobs, this theory predicts rises in women workers' wages in unskilled jobs relative to men in skilled jobs, and hence a decline in the gender wage gap.

Trade liberalization may influence wage disparities not only by affecting the relative demand for various types of workers but also by influencing discriminatory practices. Reinterpreting Becker's theory (1959) in an open economy context, some scholars (for instance Black and Brainerd, 2004) assert that liberalization is likely to lead to competitive pressures that will reduce the scope for employers to discriminate, including discriminating against women. Female workers in this framework are assumed to be equally skilled/productive as male workers. Firms pay male workers a "wage premium" or a wage that is higher than the marginal product of labour because of their gender; discrimination here is conceptualized as a cost to the firm rather than an advantage. The prediction is that import competition will induce firms in concentrated industries (i.e. those industries in which a few large firms take up a large percentage of the market) to cut the wage premium to male workers. This will reduce the gender wage differential.

2.2.1.2 Heterodox perspectives

By contrast, according to the heterodox perspective, persistent discrimination is consistent with a competitive economy (see e.g. Darity, 1989; Darity and Williams, 1985). In this approach, wages are determined by the relative bargaining power of groups of workers, which are shaped by worker skills and job characteristics. In the context of a hierarchy of jobs and the threat of joblessness, certain groups of workers are better placed to bargain for and maintain favourable employment conditions. Firms may also find it advantageous to keep a lower wage workforce with weaker bargaining power while paying higher wages to a small group of more skilled workers at the same time. When exports expand, on the other hand, women may experience job gains but not necessarily a decline in wage discrimination, since discrimination may be a conscious employer strategy to boost profits.

In the case of import expansion, job competition among workers in import-competing industries is likely to adversely affect the wages of workers who are in a weaker position in terms of their seniority, skills or sector of employment. In this context, women workers may be more vulnerable to job losses. In sum, the heterodox approach gives more attention to unequal power between workers and employers, as well as between different workers, and is less optimistic about the possibility that gender wage gaps would narrow even when female workers gain access to new jobs.

2.2.2 Existing evidence

There are numerous studies that have shed light on the effects of trade liberalization on women's relative wages; the results vary according to the country and sectors studied. Evidence on changes in female and male wages associated with trade liberalization however tends to be rather scarce and limited to formal manufacturing and a few (mainly middle-income) countries. Data mostly exclude the informal sector and sometimes also small businesses in the formal sector, which is where many women work, thus providing a somewhat incomplete picture of the manufacturing sector (Fontana, 2007). The information on wages is often not comparable over time and across countries because of differences in definitions. For example, some surveys report daily wages while others measure monthly or annual wages. Different studies often use wages from different sectors of the economy or occupations, and often (and surprisingly) wage data for males and females are not disaggregated by skill level. Overall, the gender wage gap is still large in most countries even when there has been rapid growth in exports that employed female labour – a fact for which there are different interpretations (Fontana, 2007).

2.2.2.1 Trends in female wages linked to trade

Empirically, two broad sets of studies linking gender pay differentials with trade can be distinguished in the literature: studies that analyse levels in female wages and their trajectory over time, and studies that examine female wages relative to male wages, i.e. the gender wage gap. Some research shows that wage levels and non-wage benefits are generally better in EPZ factories than in alternative employment in the economy and suggests that monthly earnings from employment in EPZs are high enough to keep households above the local poverty line (e.g. Glick and Roubaud, 2006, for Madagascar; and Kabere and Mahmud, 2004, for Bangladesh).

Studies of EPZs in Mauritius, Mexico and Central America however provide some contrary evidence. In Mauritius, real monthly earnings in large EPZ establishments have tended to be below average earnings in large non-EPZ establishments; in addition, during 1991–2004, the gap between EPZ earnings and non-EPZ earnings widened (Otoabe, 2008). Similarly, a study that examined trends in wages in export-oriented assembly factories in Mexico (*maquilas*) after two decades of operation found that EPZ workers constitute the lowest paid workers in the local labour market (Fussel, 2000). It shows that, over time, *maquiladoras'* employers reduced average

real wages and increasingly drew on a workforce of older married women with low schooling (and hence weaker bargaining power than other female workers with better alternatives).⁴⁴

These divergent findings may partly stem from the way wages have been measured in these studies which mostly use either monthly or an-

nual data. The use of monthly or annual wages in comparing export-oriented sectors and other sectors without taking into account working hours is likely to overstate the relative advantage of EPZs over other employment since long hours and excessive overtime are endemic in the EPZs. Ideally, studies should use hourly wages as standard practice but this type of data is rarely available.

Box 11

How are wages measured?

According to the ILO definition, “wage” refers to total gross remuneration, including regular bonuses received by employees during a specific period of time worked as well as time not worked, such as paid annual leave and paid sick leave. Employees include regular employees, workers in short-term employment, casual workers, outworkers, seasonal workers and other categories of workers holding paid employment jobs. In practice, especially in low-income countries, the wage statistics that are collected do not fully reflect all these components.

Wages can refer to all employees, in which case we call them “economy-wide wages”, or to a subset, such as employees in manufacturing or full-time employees. Gender differences in economy-wide wages can result from various effects: a “sectoral employment effect” that reflects the fact that a higher number of women than men tend to work in low-paying jobs; and a “female wage effect” that reflects gender pay differentials within sectors, resulting from either direct or indirect discrimination. The fact that women in many countries tend to crowd into few relatively low-paying jobs can also be a form of discrimination.

Wage data are most commonly available on a monthly basis but hourly wages are preferable as the amount of working hours performed by women and men in a month can vary a great deal (e.g. in many developed countries, more women than men work in part-time jobs).

“Raw gender wage differentials” do not control for productivity as measured by job tenure and education, for example, or by other personal worker characteristics. This omission is often criticized but the key goal in comparing raw wage gaps is not to assess whether employers pay employees fairly but to get an estimate of the structural barriers to gender equality in paid labour, whether through pre-market discrimination in education and training, or within labour markets, via job segregation and wage discrimination.

Most of the studies reviewed in Section 2.2 of this module do indeed control for productivity. They use the “residual gender wage gap”, which is that part of the wage gap that remains unexplained even after accounting for differences between the educational and work experience characteristics of female and male workers. The studies use the “unexplained” gender wage gap because their interest is in measuring possible direct earning discrimination associated with trade.

For further details on measurement issues regarding gender wage differentials, you can also refer back to Section 3 in Module 1.

Source: UNCTAD Secretariat.

2.2.2.2 Trends in gender wage gaps linked to trade

As far as analyses of gender wage gaps are concerned, most existing studies examine Becker’s hypothesis (outlined in Section 2.2.1.1) and generally find no support for the argument that trade competition reduces gender wage discrimination. A cross-country analysis of gender wage gaps for 161 detailed occupations and 83 countries during the 1983–1999 period (Oostendorp, 2009) found no evidence that the gender gap declined with trade expansion in low- and lower-middle

income countries. Some evidence in this regard is found only in high-income economies.

One of the first studies to test the open economy version of Becker’s theory found that in the United States, during the 1976–1993 period, import expansion indeed contributed to the decline in gender wage discrimination in less competitive manufacturing industries (Black and Brainerd, 2004). This conclusion was challenged by showing that the decline in the residual manufacturing gender wage gap in the United States during that period was driven by changes in the

composition of the female labour force rather than by a reduction of discrimination against women (Kongar, 2005). In other words, it was the departure of low-skilled women workers rather than the decline in wage discrimination against them that increased average female wages relative to male wages in concentrated industries. By contrast, in the competitive industries, the female share of low-wage production occupations augmented while average female wages deteriorated.

Research related to developing countries has mostly produced evidence contrary to Becker's hypothesis. In the case of Taiwan Province of China, increased import expansion was associated with a rise in the gender wage gap between 1980 and 1999 (Berik *et al.*, 2004). The authors interpreted the adverse impacts of import expansion on gender wage gaps as the outcome of disproportionate lay-offs of women workers in the manufacturing industries, such as textiles and electronics, and noted the institutional resistance to reducing discrimination against women in the labour market.

Becker's hypothesis was tested for India for the period 1983–2004 and it was found that the country's industrial and trade liberalization policies since 1991 were associated with wider gender wage gaps in manufacturing industries (Menon and Rodgers, 2009). In Mexico, the residual gender wage gap declined in concentrated industries over the period 1987–1993, once differences in human capital characteristics were accounted for (Artecona and Cunningham, 2002). Yet, there are questions as to whether the results in the paper are statistically significant. The authors also found that greater exposure to trade increased the economy-wide gender wage gap.

Other studies of major exporting countries with strong demand for women's labour seem to

suggest that the discriminatory portion of the gender wage gap increased between 1995 and 2005.⁴⁵ In Bangladesh, for instance, female wages in apparel industries went from 66 per cent of male wages in 1990 to 50 per cent in 1997 (Paul-Majumder and Begum, 2000). When controlling for worker skills, the female to male wage ratio was 95 per cent in 1991–1995 but declined to about 75 per cent by 2006 (Bhattacharya *et al.*, 2008). In China, the discriminatory portion of the gender wage gap also widened in the 1990s (Maurer-Fazio *et al.*, 1999).

In sum, the available research suggests a much slower narrowing of the gender wage gap in developing countries than standard trade theory would predict. As it was observed earlier, women's lower education compared to men's as an explanation of female workers' inability to move into higher-paying jobs appears increasingly weak in light of women's educational gains in recent years. However, women's limited access to vocational training is still likely to be valid as an explanation. In addition, skills are filtered through gender norms: stereotypes about women's and men's suitability for certain types of work and perceptions of women's and men's abilities influence employer hiring practices. For example, in the context of industrial upgrading, women may not be able to shake off their association with unskilled work, and with the relative growth of the service economy they may be perceived as more suitable for lower-paying occupations such as caring jobs that are consistent with gender norms (Berik, 2011).

Other factors, such as the increased mobility of foreign investors in the context of decentralized global production and the related weakening of labour rights that have often accompanied trade liberalization in developing countries, are likely to also play a role in inhibiting greater equality in pay between female and male workers.

Box 12

The impact of trade liberalization on women as workers: A summary

Trade liberalization impacts women in their role as workers by influencing their employment and wage patterns. Both standard and heterodox theories have accounts of how trade affects gender differentials in employment and wages but they differ on the channels through which this takes place and in their conclusions.

(a) In the standard view, changes in prices are the main channel through which adjustments occur. Building on the notion of comparative advantage, standard trade theory (the HOSS theorem) suggests that developing countries specialize in and export lower-skill intensive goods because they have abundant low-skill labour and can produce this type of good relatively cheaply. When trade is liberalized, higher global demand raises the price of this good and boosts income. Under the assumption that female workers in developing countries have lower average skills than male workers, standard theory can be interpreted as predicting that firms demand more female labour as a result of trade. While women's wages increase, men's wages decrease and, consequently, the gender wage gap narrows.

Box 12

The impact of trade liberalization on women as workers: A summary

(b) In the heterodox view, forces of competition drive the analysis. Trade liberalization intensifies international competition and rival firms increasingly rely on existing gender inequalities to reduce unit costs in order to survive. Although firms demand more (cheap) female labour as a result, this does not necessarily translate into an increase in female wages as the standard theory suggests. Women's wages may or may not rise as firm competitiveness depends on keeping labour costs low. Additionally, under the assumption that female labour supply is relatively elastic, it is impossible to know *a priori* whether the gender wage gap will widen or narrow.

Country case studies show that the impact of trade on women as workers also differs according to the sector of economic activity. Women have particularly gained from trade in the labour-intensive manufacturing sectors through increased employment opportunities: the so-called "feminization of labour". In the agricultural sector, trade liberalization has resulted in fewer opportunities for women as compared to men. Trade in services has also expanded job opportunities for women though they remain segmented in low value-added work. The gains in all sectors need to be assessed against the job losses resulting from import-competing sectors. Moreover, the quality of jobs created and persistent gender segregation are also relevant issues to be considered when assessing the impact of trade liberalization on women's employment.

Source: UNCTAD Secretariat.

3 Women as producers

Now that we have seen how women as wage workers might be affected by trade liberalization in terms of shifts in employment patterns and income, we turn our attention to the possible impacts on women farmers and small-scale entrepreneurs in the manufacturing sector. Though many women have gained employment as wage workers in export-oriented production, we will see that the impact of trade on women producers can be quite different.

3.1 Theoretical expectations

The HOSS model suggests that countries gain from trade because it shifts relative prices and allows each country to produce more efficiently and consume more goods than before. Consider the case in which two countries produce two goods with two factors of production (labour and capital). Under free trade, a country will produce that good in which it has a comparative advantage, or the one that uses its abundant factor more intensively. Accordingly, the domestic price of the good in which the home country has a comparative advantage (or its export good) will rise. This is because under free trade, excess demand for this good in the foreign country will cause its world equilibrium price to rise.⁴⁶ Exporters in the home country stand to benefit from expanded markets and better prices for their products. Thus women as producers also stand to gain if they can avail of opportunities to export their products.

Next we must consider the effects of the elimination of import tariffs on domestic producers.

Tariffs reduce import demand and allow domestic producers to both increase supply and sell a good at a price higher than the world price, thus making a surplus in the process that is equal to the price difference times the additional supply. When tariffs are eliminated under free trade, domestic producers will face a fall in revenues due to the loss of this "producer surplus".

Some productive activities can be rendered unviable as domestic producers cannot compete with the fall in prices due to import competition and are driven out of the market altogether. Trade alters the structure of production by expanding some sectors and contracting others, thus generating significant adjustment costs that are higher if the production base is narrower and the export potential is lower (Beviglia-Zampetti and Tran-Nguyen, 2004).

3.2 Existing evidence

3.2.1 Agriculture

A large number of women in developing countries are crowded in the agricultural sector where they are likely to be small and marginal farmers or work as unpaid labour on family farms. Women most often work in subsistence agriculture and produce staples for own consumption. Generally, agricultural productivity in many developing countries tends to be low and underemployment in the sector is high. When examining the gender ramifications of trade policy in agriculture, it is useful to distinguish between the subsistence-oriented staple food segment on the one hand, and export cash crops on the other.

3.2.1.1 Subsistence-oriented staple food production

There are two discrete trade policy issues related to import penetration and the “modernization” of the subsistence sector to increase its commercial orientation.

(a) Import penetration

Cheap food imports as a result of trade liberalization can reduce the domestic price of agricultural produce and erode women's already meagre earnings in the sector. This was the case in the Philippines where over a third of the women in agriculture were engaged in rice farming. Liberalization of the rice market between 2001 and 2005 led to a reduction in the domestic price of rice and reduced incomes for both men and women small-scale farmers in the rice value chain (UNCTAD, 2008). Tariff protection for crops that are vital for food security and for the livelihoods of poor households can be used as a policy instrument here, though compatibility with WTO trade rules needs to be worked out. It should be stressed, in this respect, that in most developing countries, the gap between the bound and applied MFN rates (the so-called “binding overhang”) is fairly large for agricultural products.⁴⁷ This allows for significant leeway in adjusting border protection to stimulate domestic staple food production. Constraints in manipulating import levies, however, may arise from regional agreements.⁴⁸ Domestic support measures can also be proactively used to stimulate production. Such measures include price support, though within the *de minimis* threshold.⁴⁹ Compensation for the “losers” from trade can also be considered although this is a short-term solution and does not address the question of alternative livelihoods for the concerned producers.

When assessing the extent to which domestic staple food production is displaced by cheap imports, it is also important to consider the degree to which local markets are insulated from competition. Poor transport and trade logistics, among others, increase transaction costs and tend to insulate more remote markets. If we take the example of Rwanda, most food imports are directed to Kigali and few urban areas; rural markets in remote areas continue to be mainly supplied by subsistence-oriented farmers. Yet, infrastructure constraints are being removed quickly through coordinated investment in roads, electrification and cold-chain storage, and import penetration is likely to increase in rural regions (UNCTAD, 2014).

(b) Modernization of the traditional subsistence-oriented sector

In the long term, the goal of many primarily agrarian societies is to move from a largely subsistence-oriented agricultural sector to a more commercially-oriented one, sustaining growth and adding value to products through processing (e.g. the case of Rwanda). From a gender perspective, questions arise as to whether the modernization of agriculture would imply a change in mode or scale of production: from small scale to large scale, from labour intensive to capital intensive. This shift may pose significant challenges for rural women who tend to be relatively disadvantaged compared to men in terms of capabilities (lower literacy rate of rural female heads of households) and access to productive resources (land, credit, etc.). Proactive measures are needed to ensure a gender-sensitive modernization of the traditional staple food sector.

A related issue is land diversion. Agricultural modernization schemes typically envisage land consolidation and acreage expansion for a few prioritized crops (typically the major internationally traded cereals, like maize, wheat and rice). This may occur at the expense of the so-called “secondary crops” (roots and tubers, such as cassava and pulses) that have significant local importance in dietary terms and that tend to be “female” crops in many contexts. The same problem arises with respect to agribusiness expansion. Poor farmers in many developing countries are also increasingly abandoning or selling their farms, leading to land concentration in the hands of a few large commercial enterprises, including foreign companies. For example, in the Philippines, a study reports that rural women have been pushed by large NTAE businesses into increasingly less fertile land or even been displaced to cities and tourist zones, where they work as domestic workers or sex workers (Beviglia-Zampetti and Tran-Nguyen, 2004).

3.2.1.2 Cash crops for export, with a focus on non-traditional segments

Trade liberalization can benefit women farmers by providing expanded markets for export as well as opportunities to integrate into global supply chains as producers.⁵⁰ Emerging trends seem to indicate that small farmers, many of whom are women, are often not in a position to compete in overseas markets. They face a particular set of constraints relating to land tenure systems, poor infrastructure, limited access to credit and often a lack of the technical expertise required to comply with regulations and output standards (Fon-

tana and Paciello, 2009). Evidence that women as producers face more severe challenges in accessing international markets than their male counterparts, and that women traders tend to be confined to local markets, can be found in Samoa, Mozambique and other sub-Saharan African countries (Carr, 2004; Beviglia-Zampetti and Tran-Nguyen, 2004). In addition, women producers face various market access constraints related to phytosanitary standards, technical barriers to trade, and product and process regulations that they find difficult to meet (Beviglia-Zampetti and Tran-Nguyen, 2004). They also face market entry barriers, such as private standards or voluntary labelling requirements. Not only do these market access and entry barriers have to be eased, women producers also need technical expertise and training to deal with them.

A related development, particularly in NTAEs, is production under contract farming and other out-grower schemes. Under these contractual arrangements, the farmer agrees to supply a specified quantity and quality of a specific agricultural product at an agreed time; the buyer (typically a processor, trader or retailer chain “off-taker”) commits to purchase the product and, in some cases, advances finance or supply inputs and provides extension services, the costs of which are deducted from the final settlement payment. The gender ramifications of these schemes are not straightforward. On the one hand, off-takers often prefer to source from the most commercially oriented farmers so as to reduce transaction costs of supervision and counterparty risks. This tends to crowd out marginal and vulnerable rural smallholders, many of whom are women. For instance, women farmers get a very small share of contracts from agro-processing firms to grow export crops: during the 1990s, they obtained only 3 per cent of contracts in Guatemala and less than 10 per cent in Kenya (Kabeer, 2012). On the other hand, some buyers may structure their procurement to enable the participation of women, particularly when reputational or sustainability issues are at stake (especially if the produce is sold as “socially sustainable” in high-income consuming countries). In this case, the buyers may act as catalysts for the empowerment of rural women. Beyond gender considerations, contract farming and other models of structured supply chains raise concerns about over-dependence and abuse of position. These concerns can be more effectively addressed when local authorities step in and “frame” the broad terms of the bilateral deal: which suggests a shift from bilateral contractual relationships (between farmers and off-takers) to triangular public-private partnerships (involving farmers, off-takers and the public sector).

Nevertheless, there are numerous successful cases in which women producers have been able to take advantage of export opportunities for agricultural produce and increase their earnings, often by forming local associations and obtaining the right technical and financial assistance. For instance, the government of Burkina Faso along with international NGOs and the UN initiated a project to assist women shea producers in the country to improve their production of the crop and link them up to export markets. Women's producer associations pooled resources to buy machinery so that they could sell more profitable shea butter instead of raw nuts and successfully linked up to global markets. They receive regular technical training to observe export quality standards and attend trade fairs to make contact with buyers (UNCTAD, 2008). In Uganda, women produce 80 per cent of NTAEs and have been successful in expanding their businesses and getting access to credit because they own land (Randriamaro, 2005), which highlights the importance of strengthening women's property rights and their entitlements to land. Because it is easier for small-scale farmers to gain access to global value chains when they form cooperatives or producer organizations, it is important for policymakers to enhance women's access to these organizations as they tend to be male-dominated or to promote women producers organizations (Fontana and Paciello, 2009).

Ultimately, the ability of rural women to effectively integrate into global supply chains depends on the corrective action taken by governments to redress gender-based inequalities and constraints as well as the incentives that off-takers in structured chains have to source from women.

3.2.2 Manufacturing

Aside from agriculture, women are also engaged as small-scale producers or home-based micro-entrepreneurs of manufactured items such as handicrafts, garments, textiles, food products, etc. These enterprises typically have a low capital base, low productivity and are often based on home premises. That is, women's enterprises tend to be mostly informal and “survival-oriented” rather than formal and “accumulation-oriented” (Kabeer, 2012). As in agriculture, gender-based constraints in small-scale production, such as lack of access to capital, technical and business training, marketing skills, education and heavy care burdens that have to be managed simultaneously, mean that enterprises run by women often tend to grow more slowly and are generally less profitable than those run by men (Kabeer, 2012).⁵¹

Trade integration transforms nearly every aspect of business and puts pressure on small-scale producers to upgrade their technologies, increase productivity and compete with cheaper and often better quality imported goods. Trade liberalization is often associated with industry consolidation and expansion as large and/or foreign firms make incursions into traditional and local markets in which SMEs may have found a niche (OECD, 2004). Given their constraints, women entrepreneurs in particular find it difficult to cope with the higher competition and may have their livelihoods eroded as a result, which was the case in Viet Nam (Tuyet Mai, 1998) and in Samoa (AusAID, 2008), for instance. In such cases, trade protection for items of particular relevance for SMEs can be a policy option; sector specific industrial policy including preferential terms of credit, technical support and export subsidies can also address some of the problems faced by small entrepreneurs. For enterprises that go out of business, reskilling programmes might be necessary to reintegrate owners into the labour market as workers.

On the other hand, trade liberalization can also give women entrepreneurs the opportunity to access new export markets and increase their earnings. However, for the same reasons discussed above, women-owned enterprises are much less likely to acquire the necessary technical and legal expertise and the ability to market their products effectively. Rather, formal and accumulation-oriented enterprises are more likely to take advantage of export markets.

In some countries, small- and medium-scale formal sector enterprises owned by women have benefited from selling in export markets though, as in the case of Kenya, where these businesses tend to be owned by women with university education, entrepreneurial backgrounds, some managerial experience and supportive husbands (Stevenson and St. Onge, 2005). Women entrepreneurs from different industries in Ethiopia have also successfully established export associations to pursue their business interests, promote their products, participate in trade fairs, build capacity of their members and mobilize resources (Solomon, 2008). However, as was the case in agriculture, the ability of women entrepreneurs to take advantage of export opportunities will depend in part on the policy support they receive to foster competitiveness and increase productivity, output and access to new markets. For instance, making working capital and finance available for expansion, introducing women entrepreneurs to buyer networks, providing training on business management and

marketing skills as well as expertise on product standards, labelling requirements and trade regulations can significantly enhance the export potential of small-scale enterprises.

4 Women as traders

4.1 Theoretical expectations

Theoretically, as outlined earlier, trade liberalization is expected to reduce the price and increase the availability of imported goods. For women who trade in local and domestic products, trade liberalization can displace their means of livelihood and erode their incomes while women who sell imported goods can be expected to benefit. On the other hand, trade liberalization is expected to provide exporters and potential exporters the opportunity to access new markets and fetch better prices for their goods.

4.2 Existing evidence

In many countries, women are crowded in the services sector as petty traders of goods and services, such as street vendors, itinerant sellers and small shop owners. These occupations tend to be highly informal and insecure and act as a buffer for women who have little education, who are displaced from agriculture or are not able to find alternative employment. Trade liberalization can affect the prices of the goods they sell, the markets they can access and the income they earn. In countries where women sell locally produced, traditional or other domestic goods, the availability of cheap imports can erode their income and livelihood and shrink their markets. However, cheap imported goods can also become a source of livelihood for women who sell these goods in the domestic market for a living. For instance, in Angola, women in urban areas trade cheap imported goods informally, since oil-induced macroeconomic distortions in the country – particularly the excessive appreciation in the real exchange rate – tend to crowd out productive activities such as agriculture and light manufacturing that could absorb the female workforce and provide women with decent incomes. In some cases, women have also established cooperatives and travel to China, South Africa and Brazil to buy cheap goods and resell them in the domestic market (UNCTAD, 2013).

Women tend to dominate informal cross-border trade particularly in Africa; gender-sensitive trade facilitation policies therefore have a critical role to play in empowering women. Gender-spe-

cific obstacles create significant competitive disadvantages for female cross-border traders and they need to be tackled so as to unleash women's full entrepreneurial potential, which is in turn likely to promote export competitiveness, trade expansion and economic growth (an issue dealt with in Module 3).

Some scholars have suggested that regional trade agreements might be best suited to benefit women because neighbouring markets are likely to be more familiar and easier to deal with (Carr, 2004, as cited in Randriamaro, 2005). However, some regional trade agreements explicitly discriminate against small-scale traders and disadvantage women in the process. Jamaica's integration into the Caribbean Single Market and Economy allows the free movement of only certain categories of skilled workers in the area and therefore limits the opportunities of unskilled workers, which include many women, to provide their services in the region (UNCTAD, 2009). This is also likely to magnify existing cleavages between skilled and unskilled workers.

The evidence suggests that women traders have greater difficulty in accessing export markets than their male counterparts not only because they lack information and networks but because they are crowded in petty and local trading activities that do not offer much potential for expansion and growth when trade is liberalized. For instance, in the Gambia, women in the fisheries sector are small-scale traders who buy and sell fresh produce locally while men predominate in exports of frozen and smoked fish and commercial fishing. Dynamization of the fisheries sector through the expansion of trade runs the risk of excluding women who are not well positioned to be integrated into supply chains or of endangering their access to fresh fish supplies (UNCTAD-EIF, 2014).

5 Women as consumers

5.1 Consumers of imported products

5.1.1 Theoretical expectations

According to standard trade theory, one of the advantages of trade liberalization is the welfare enhancing effect it has on consumers. With the imposition of a tariff, consumer demand for a good shrinks because its domestic price rises. However, with the removal of a tariff, consumers can consume more of this good at a lower price and both import demand and supply increase at the new lower price. Thus women as consumers can also be expected to benefit from trade liberalization.

5.1.2 Existing evidence

Women in general earn lower incomes and have higher rates of poverty than men, and basic consumption goods form a large proportion of their consumption basket. If trade liberalization lowers the price of basic consumption goods it will impact women differentially to that extent. For Cape Verde, a study by UNCTAD (2011a) found that the elimination of tariffs on food products had a pro-poor bias and significantly impacted the welfare of female-headed households who spend a large share of their income on food. With a 10 per cent decline in the price of basic foodstuff, the proportion of people below the poverty line declined by 2.6 percentage points. In Ghana, trade liberalization in agriculture benefited urban women who were net buyers of food but hurt women farmers who saw their incomes decline due to competition from cheaper imports (Randriamaro, 2005).

Similarly, in Bhutan, it was found that the reduction of the import tariff on rice also had a pro-poor bias because the share of income spent on purchasing rice fell sharply as income rises. However, this needs to be netted against the impact on rice producers in the country who were not part of the study (UNCTAD, 2011b). It should be noted, however, that the impact of tariff reduction on food imports can be limited to the extent that women are subsistence farmers and consume mostly what they produce.

5.2 Consumers of public services

Because trade integration can affect women in a myriad of ways, it is important to investigate all likely impacts and assess the net impact of policy changes. In addition to the direct impact on prices, wages and employment, tariff reductions can also affect women indirectly as consumers of public services. Revenue losses for governments due to the elimination of tariffs or a reduction in trade taxes⁵² can lead to cutbacks in social expenditure that disproportionately affect women due to their domestic and reproductive roles and responsibilities. Trade policy can thus lead to shifts in fiscal policy that in turn have gendered consequences.

5.2.1 Theoretical expectations

As outlined in Module 1, gender-aware macroeconomics brings the sphere of non-market work, including unpaid care work, domestic work and reproduction, into the macro-level analysis. National output here is considered as a product of four interdependent sectors: the private,

public, domestic and voluntary sectors. Market production would not be possible without the unpaid domestic and care work done by women in the household because it creates vital human and social capital (Elson, 2002). Therefore, it is important that any trade or macroeconomic policy shifts analyse the implications for the domestic sector as well.

For instance, in a simple economic model where injections of aggregate demand (government spending, investment and exports) equal leakages (savings, taxes and imports), gender equality can improve if government spending specifically benefits females, such as through investing in education or reducing the care burden. This would be an expansionary and “gender cooperative” effect of fiscal policy, while a decline in such spending would be contractionary and “gender conflictive” (Seguino, 2012).

5.2.2 Existing evidence

Trade taxes are an important source of revenue for African countries. During the 1990s, they provided 28 per cent of the region's total revenue, for instance, while tariff revenues comprised 2 per cent of GDP in the median sub-Saharan African country and up to 4 to 6 per cent in non-median countries (UNECA, 2004). Trade liberalization created serious fiscal challenges for the region and was consistent with successive declines in public investment starting from the 1980s until the 2000s (UNECA, 2004). Zouhon-Bi and Nielsen (2007, as quoted in UNCTAD 2011a: 26), found that in Cape Verde tariff liberalization as part of the EPAs would lead to a reduction of 80 per cent in tariff revenue and a 16 per cent fall in government revenue overall, a very significant drop.

If governments reduce expenditure on health-care, social services and programmes or education to make up for these losses in revenue it means that women's care burdens and their expenditure on basic services will increase. Women already bear the bulk of responsibility for household tasks, child-rearing and other care work as compared to men and face considerable time poverty. These additional burdens could mean that they have to drop out of the labour force or forego opportunities to earn income and time

for rest and leisure. Alternatively, the additional responsibilities can spill over to young girls at home whose education might suffer as a result (Elson, 1993). With higher rates of poverty in general, the additional expenditure on basic services can have deleterious effects on living standards, health and well-being as they require that tough choices be made on spending priorities. In the gender-aware macroeconomic framework, such reductions in social spending would be contractionary and “gender conflictive.”

The scaling back of public infrastructure spending, including electricity and water, can seriously disrupt productive and household activities, leading to a loss of income, longer hours spent on domestic work and possible public health problems. Revenue losses and resulting fiscal austerity policies can also constrain the ability of governments to put in place social protection mechanisms and safety nets to contain some of the negative effects of liberalization (Randriamaro, 2005) or to implement cash transfer programmes and daycare facilities that benefit poor households and women in particular.

Women's care burden may increase as a result of privatization programmes implemented unilaterally or in the framework of agreements on trade in services liberalization. Some developing countries have privatized the provision of water, sanitation and other public services, with the hope of achieving greater efficiency or as a precondition for obtaining loans from international financial institutions. The results of these experiences are mixed. While in some cases private participation has contributed to increasing the availability and quality of services, in other cases the opposite has happened, with non-profitable regions and poor communities being particularly penalized.

It is clear from this discussion that macroeconomic and trade policies have effects on the market as well as non-market spheres. Specifically, economic policy brings about resource reallocations that place (or ease) obligations and constraints on households but also affects gender dynamics within households. A small but growing body of research focuses on the impact of trade policy on intra-household dynamics; the interested reader can learn more about key ideas and research papers in the literature from Box 13.

Box 13

Trade policy and intra-household dynamics: A brief note

Sociologists and anthropologists have long called attention to the fact that men and women have different rights and responsibilities within households and that gendered norms have an impact on decision-making processes and intra-household allocation of key resources such as food and time.

It is only recently, however, that economists have started to look inside the households and acknowledged the importance of different constraints and preferences among family members. Still, the impact of trade policy on intra-household dynamics is the least studied topic within the trade and gender literature. The following are some of the channels through which trade expansion affects intra-household dynamics:

- (a) Trade expansion may create or destroy sources of independent income for women and hence affect their influence over household decisions.
- (b) Since men and women have different expenditure patterns, who the earning member is determines which goods are purchased and whom they benefit in the family. For instance, women tend to spend a higher amount of their income on food, education for children and basic necessities while men tend to spend higher amounts on alcohol and tobacco.
- (c) Trade causes changes in the prices of goods consumed by the household and this is also likely to have gender-specific effects. Higher prices of foodstuff may make it difficult for all members of the household to be fed adequately and the preference may be to feed men and boys over female members of the family.
- (d) Increases in trade-related employment affect how the family members spend time on non-market care work: women who are employed may have less time for rest; some of the care work may be redistributed to men or other members of the family; children, and especially girls, may also have to take on their mothers' domestic responsibilities.
- (e) Trade liberalization leads to changes in tax revenues and this in turn may affect the public provision of social services. Younger and older, male and female members of households need these services to different degrees.

For more information on the impact of export-oriented agriculture on intra-household dynamics see von Braun and Kennedy (1994), Katz (1995), Elson *et al.* (1997), Newman (2002), Fontana (2003), and UNCTAD (2011a). For studies related to the manufacturing sector, see Hewett and Amin (2000), Kabeer (1995, 2000), Sender and Smith (1990), Sender (2002), Gates (2002), Dominguez *et al.* (2010), and Kuttner *et al.* (2012).

Source: UNCTAD Secretariat.

6 Women as tax payers

As in the case of women as consumers of public services, we consider here another indirect effect of the fall in tariff revenues as a result of trade liberalization. Apart from cutting social spending, governments may try to offset the fall in revenue by increasing taxes. However, taxation policy is also not gender-neutral and we need to analyse how a shift in the tax structure or regime affects women differentially.

6.1 Theoretical expectations

The gender dimension of taxation is a relatively new field and concepts in this area are still being developed. Here we rely on the framework offered by Stotsky (1997) and developed further in Elson (2006) and Grown and Valodia (2010). Because women and men have different positions in the economy, which is itself a gendered structure (refer to Module 1), tax policies affect them differently. Stotsky (1997) pointed out that tax policy can have explicit or implicit biases

against women. In the first case, tax regulations themselves treat women differently, such as in personal taxation, while in the second case, they impact women inadvertently due to their social and economic location. Elson (2006) went a step further and made the case that personal income tax systems should not simply be "unbiased" but rather seek to transform inequitable gender roles in society by eliminating incentives for their continuation and by redistributing care work.

6.2 Existing evidence

Over 125 countries now apply indirect VAT (Bird, 2005, as cited in Grown and Valodia, 2010). It is well known that the use of VAT on basic consumption goods, or an increase in the VAT rate, will have a regressive effect on income distribution because it affects the poorest households that spend the highest share of their income on basic goods the most. As we have already outlined, women in general earn less than men and have higher rates of poverty so a VAT will have a gender-biased impact. In a set of simulation

studies that reduced or zero-rated key items in the basic food consumption basket of different countries, Grown and Valodia (2010) reported that poor and female-headed households in Argentina, Morocco and Uganda experienced a decline in their tax incidence as a result. India was the only exception in which the tax incidence of poor female-headed households did not decrease. Correspondingly, it can be expected that a rise in VAT will also have significant gender-adverse effects if it is used to compensate for losses in tariff revenues.

On the other hand, direct taxes on income usually affect men more than women, since men tend to own more wealth and have higher incomes. If governments try to compensate for the loss of tariff revenues by increasing income taxes, this may have an indirect adverse effect on women. When taxes are applied to joint household income rather than individual income, it increases

the applicable tax rate and creates disincentives for women to enter the labour market (Huber, 2005; Tax Justice Network, 2011). Alternatively, it may encourage women to drop out of the labour force if they are already working. Additional increases in the income tax rate will exacerbate these disincentives. For example, dual earner households in Argentina pay higher taxes than male breadwinner households and the system of deductions in the personal income tax structure creates disincentives for women to enter the labour market (Grown and Komatsu, 2010).

If governments must raise taxes *in lieu* of the loss in tariff revenues, evidence suggests that increasing taxes on luxury goods such as cars, boats and electronics while reducing or maintaining rates on basic necessities such as food, fuel and children's clothing can have a pro-poor and gender equitable impact (Grown and Komatsu, 2010).

Table 5

Summary of channels of interaction from trade to gender

| Women's economic role | Channels | | Possible effects |
|------------------------------|--|-----------------------------|---|
| Workers | (1a) Standard theory (HOSS): Prices of low-skilled goods in developing countries rise as a result of trade. | Employment and wages | (1a) Demand for female labour rises as women are considered low-skilled. Demand for male labour falls as they are considered high-skilled. Women's wages rise, men's wages fall and the gender wage gap decreases. |
| | (1b) Standard theory (Becker): International competition makes it costly to hire men when it is cheaper to employ women. | | (1b) Demand for female labour rises due to competition. Demand for male labour falls as it is relatively more costly to hire them. Women's wages rise, men's wages fall and the gender wage gap decreases. |
| | (2) Heterodox theory: International competition drives firms to using existing inequalities to reduce unit costs. | | (2) Demand for cheaper female labour rises due to the gender wage gap. Women's wages may or may not rise as firm competitiveness depends on keeping labour costs low. Labour supply is considered relatively elastic. The gender wage gap may increase or decrease. |
| Producers and traders | (1) Increased competition from imported products. | Livelihoods | (1) Lower income for women producers who face competition from cheaper imported products (unless they produce for own consumption). |
| | (2) Lower import prices as a result of tariff cuts. | | (2) Lower income for women who are petty traders of locally produced goods due to higher competition; higher income for women traders who sell cheaper imported goods on the domestic market. |
| | (3) Higher prices for export goods. | | (3) Higher income for women producers and traders if they are able to export. |

Table 5

| Summary of channels of interaction from trade to gender | | | |
|---|--|-------------------------------|--|
| Women's economic role | Channels | | Possible effects |
| Consumers | (1) Lower import prices of consumption goods as a result of tariff cuts. | Welfare | (1) Increase in poor and female-headed households' welfare if the resulting cheaper goods form a part of the basic consumption basket. |
| | (2) Higher prices of basic services as a result of trade in services liberalization. | | (2) Reduction in women's access to basic services due to higher prices. |
| | Lower government spending – social expenditure – as a result of tariff cuts. | Public social services | Reduction in the supply of public and social services to the detriment of women. |
| Tax payers | Governments raise taxes to compensate for a loss in revenues as a result of tariff cuts. | Taxation | (1) Higher direct and indirect tax incidence. (2) Women fall out of and/or are discouraged to enter the labour market. |

Source: UNCTAD Secretariat.

7 Conclusion

In this module, we have learned about the likely impacts of trade liberalization on women's economic empowerment as predicted by standard and heterodox theories, as well as reviewed existing empirical evidence on the topic. It is clear by now that trade liberalization affects women differently depending on their position in the economy. For instance, women as workers might find increased employment opportunities in export factories but women who are small and marginal farmers may suffer as a result of cheap food imports. There is some overlap between these roles: women as consumers may also benefit from the availability of cheaper food items. Thus, it is important to conduct a comprehensive assessment of the net impact of trade liberalization policies on different groups (including women) before

their implementation so as to ensure that trade plays the role of reducing and not exacerbating existing inequalities. It must also be borne in mind that although trade liberalization creates jobs and income for women in labour-intensive manufacturing, they are generally poor in quality, limited to some industries and with few opportunities for advancement. On the policy front, more needs to be done to improve the quality of export-oriented jobs as well as to ensure that women who are producers and traders are able to take advantage of potential export opportunities. Policies to compensate the "losers" in the process of trade integration or to reskill workers who were employed in industries that got adversely affected by trade are also important. On the other hand, trade protection for particular sectors that are critical for food security and poverty alleviation is also a viable policy option.

Exercises and questions for discussion

1. Describe the channels through which trade can impact women's economic empowerment. Do the effects of trade policies and/or trade expansion on women's employment and income differ according to the different roles women play in society? If yes, how?
2. What are the effects of export expansion on the gender patterns of employment? Could these effects be sector specific? And if so, how does export expansion impact women employed in the sector experiencing it? Also, illustrate the possible gender employment effects of an increase in imports.
3. Explain the concept of "occupational segregation". Do you think that women suffer more from occupational segregation? If yes, explain why. Does trade exacerbate women's segregation in particular types of occupations?
4. What is the gender wage gap and what are its implications for women and for the labour market? What is the role that gender segregation plays in the gender wage gap?
5. Explain the concept of "feminization of labour" and its implications for women and for sector/country competitiveness.
6. How do we expect trade to influence gender patterns of intra-household allocation of resources and time?
7. The gendered employment effects of trade may or may not contribute to gender equality, depending on a range of factors and preconditions. Discuss what these factors and preconditions may be in relation to two countries of your choice.
8. Suppose that female employment has recently increased in your country, mostly because of the development of a new EPZ. At the same time, there is also evidence of poor compliance with labour standards. What sort of recommendations would you put forward to your government to address this problem and still maintain international competitiveness?
9. A large number of women in developing countries are crowded in the agricultural sector. Explain the impact that increased imports of agricultural and food products could have on women as agricultural producers and consumers of food products. Explain why the impact may vary depending on whether women produce for own consumption or for the market.
10. Only a small share of women in developing countries is involved in formal employment and receives wages. Many poor women in particular tend to receive income from other sources such as informal employment in non-tradable services, or profits from small-scale self-employment in agricultural or non-agricultural activities. How will trade expansion affect their earnings?
11. Imagine your country is in the process of negotiating a trade agreement. How would you go about assessing the import competition effects on both production and consumption? What sort of evidence would you need to generate to expose the gender characteristics of production and consumption in those sectors that are likely to be affected?
12. Tariff reductions due to trade liberalization may affect women indirectly as consumers of public services. Explain why women are likely to be affected more than men. Explain the distinct effect that changes in fiscal policy (for example changes in the rates of income taxes or indirect taxes, such as the VAT) could have on women and men.

ANNEX

Review of selected approaches and methodologies

This Annex reviews a set of studies that illustrate the range of approaches and methodologies available to researchers who would like to analyse the impact of trade liberalization on employment, one of the best researched topics in the field. Of the four papers presented here, all except the first (which analyses economy-wide labour market participation) examine trends in manufacturing, reflecting the relative abundance of empirical work and data in this sector.

As the reader will observe, the question of how changes in trade patterns affect gender inequality in employment has been tackled in various ways. Researchers have chosen different lines of inquiry as well as scopes of analysis and used different measures for the variables of interest.

A1 Wamboye and Seguíno (2012): “Economic structure, trade openness and gendered employment in sub-Saharan Africa”

Context

This paper investigates whether greater trade integration has increased women's employment opportunities in sub-Saharan Africa. It considers women's overall access to work both in relative and absolute terms (but with no detail for specific economic sectors) and measures openness in practice.

The authors indicate that, given women's lack of resources to facilitate their mobility between sectors in export production in sub-Saharan Africa, men's employment opportunities may have increased more than women's, in contrast to outcomes in semi-industrialized economies.

The authors are interested in the impact of trade on women's employment opportunities not only through export expansion but also through import liberalization, and hence disaggregate the trade openness variable by using exports and imports as a percentage of GDP separately in some of their regressions.

Another valuable contribution of the paper is that it attempts to differentiate effects on countries with different structures of production and trade (such as oil producers, mineral exporters

and non-mineral exporters) and pays attention to other factors likely to influence women's labour supply, such as a country's physical infrastructure (including electrification, clean water and transport that could reduce the time women spend doing unpaid work).

Data and methodology

The paper uses two estimation methods: fixed effects (FE) and two-stage least squares (TSLS). These are applied to an unbalanced panel including data for 38 economies over a twenty-year period (1990–2010). FE estimation captures country-specific factors that influence gendered employment and that are not otherwise captured by the independent variables. The authors use TSLS as a robustness check and to address the potential endogeneity of the regressor; the degree of gender equality may itself influence the rate of economic growth and may also respond to changes in the trade share.

The dependent variables are measured as: (a) the female minus the male employment-to-population ratio for those 15 years and over; and (b) the female employment-to-population ratio. The employment-to-population ratio is a broad measure of access to work and allows one to capture economy-wide changes in job gains relative to the population. It has the added advantage of being an easily available indicator. However, it offers no sector-specific information and it is important to note that increases in (a) can occur due to higher female employment ratios or lower male employment ratios.

The independent variables include: (a) trade openness, measured as the sum of exports and imports as a percentage of GDP, or just exports or imports as a share of GDP; (b) the growth rate of real GDP per capita to capture the effects of aggregate demand on gendered employment; (c) manufacturing and agriculture value added as a share of GDP to account for gendered effects on employment stemming from changes in sectoral demand and in economic structure; and (d) physical infrastructure to account for factors that may affect the time women spend in unpaid work and their labour market supply (this is captured by two variables: the proportion of the population with access to improved sanitation facilities and the number of telephone lines per 100 people).⁵³

The analysis compares outcomes in oil-exporting countries and two groups of non-oil exporters: mineral-exporting countries (MECs), and non-mineral-exporting countries (NMECs).

Findings

The estimation results offer a mixed picture. Constant other factors, trade liberalization negatively affects women's absolute and relative employment in NMECs. The effects are positive in MECs but not robust across estimation methods. If we disaggregate trade variables into exports and imports and then further into subgroups, gender effects vary across sectors and countries with differing economic structures. For example, both imports and exports have a negative effect on women's relative employment rates in NMECs and MECs; yet, imports have a positive effect in MECs. At a greater level of detail, the authors find that "food imports and exports produce a neutral gendered employment effect" but manufacturing imports and exports lower women's employment relative to men's (in other words, men appear to gain more). While trade has mostly negative effects, infrastructure has a strong positive effect both on women's relative and absolute employment. The results are robust to different estimation techniques, model specifications and samples. The authors conclude that infrastructure improvements may play an important complementary role to improve women's access to employment created by trade expansion.

There are limits to what can be observed from aggregate cross-country analyses. To better understand channels of transmission, such studies must be supplemented by country-specific analyses.

A2 Kucera, Roncolato and von Uexkull (2012): "Trade contraction and employment in India and South Africa during the global crisis"

Context

This paper explores a different question than Wamboye and Seguino (2012), focusing on single countries and following a simulation rather than an estimation approach. The recent global crisis of 2008–2009 is estimated to have led to a significant, albeit temporary, decline in global trade (WTO, 2010). The authors set to investigate the employment effects of the crisis in South Africa and India resulting from reductions in exports to the EU and the United States around 2009. They do so by looking at direct (e.g. job destruction in export-producing sectors), indirect (e.g. job changes in other sectors of the economy linked to the export-producing sectors through backward

or forward linkages) and induced employment effects (e.g. job changes resulting from changes in household expenditure) by differentiating the impact on workers by gender and skill. In other words, they ask: If one could isolate the effects of trade contraction from other simultaneous events, what would the job losses across all industries in the concerned economy be, disaggregated by gender? Would the overall employment changes be gender- (and skill-) neutral?

The main contribution of the paper is to develop a method to calculate gender-specific job losses not just in the sector directly affected by the crisis but through repercussions in all other sectors of the economy. Even if global trade has already begun to recover, the authors argue that their exercise is still useful as it offers a comprehensive assessment of the potential costs associated with greater openness in countries such as India and South Africa, which have dramatically increased their engagement with the world economy in the last decade. Their approach helps in identifying particular industries and workers that may be especially at risk and hence could usefully inform government crisis responses in the future. The same approach could in principle be applied to the study of other policy changes such as trade liberalization episodes or tax reforms. Its value lies in underscoring for policymakers the importance of not targeting only those sectors that are directly affected by a shock.

Data and methodology

As ever, the extent to which an issue can be accurately explored is determined by the availability of data. The authors can rely on rich data on the structure of both the Indian and the South African economy (including employment patterns) in the form of social accounting matrices (SAMs). For their trade data, however, because of the lack of up-to-date export statistics at the detailed industry level for both India and South Africa, they use mirror statistics on imports from the two countries reported by the EU (Eurostat) and the United States (United States International Trade Commission) but they do not include trade in services (which would be substantial) because of a lack of sufficient information.

A SAM can be described as an extended input-output table with much greater institutional detail. It includes not only information about productive activities in the economy but also incorporates other institutions and markets such as factors of production (i.e. labour, land and capital) and different household types. Each of the accounts in the SAM can be constructed and dis-

aggregated in such a way as to provide insights into the roles of different socio-economic groups in the generation and distribution of income in a country. The SAMs for South Africa and India cover formal as well as informal establishments and workers and provide a fine level of detail for the gender and skill composition of employment in specific industries, enabling one to separate out, for example, female-intensive sectors from male-intensive ones.

The modelling approach of Kucera *et al.* (2012) consists of a Leontief multiplier analysis in which a change in demand is represented by a change in exports from India and South Africa to the EU and United States, respectively. These changes cause changes in production, which in turn cause changes in employment.

In developing countries with extensive informal employment and underemployment, the estimation of changes in employment via changes in production is not straightforward. The authors note that what they refer to as employment declines represented in terms of full-time equivalent jobs may in fact translate in many cases into movements from formal into informal employment or increases in underemployment. Thus their results should be seen simply as an average measure of the negative impact on workers through some combination of job and income losses.

Employment changes for both women and men are proportionate to actual female and male shares of employment in the SAM base years. In other words, the assumption is that employers would not make distinctions by gender (or education) in the face of job destruction or creation, maintaining the same ratios of men and women in their workforce. This is, by the authors' own admission, a somewhat strong assumption that however does not detract from the main objective of the exercise. This consists of broadly identifying, by gender, sectors and groups of workers that could be either directly or indirectly vulnerable to a particular form of trade contraction.

Findings

The simulations show that India and South Africa have experienced substantial employment declines as a result of the crisis in Europe and the United States alone. A large share of these declines has occurred in the sectors not immediately exposed to trade, resulting from income-induced effects. In South Africa, industries with higher shares of male workers have been disproportionately affected by employment declines,

while no evidence of gender bias (in either way) is found in India.

This study usefully illustrates how a shock originating in the tradable goods sector can have wide-ranging spillover effects and shows the gender composition of the labour force that may be affected by such a shock.

A3 Rani and Unni (2009): "Do economic reforms influence home-based work? Evidence from India"

Context

This paper chooses yet another way of looking at issues related to gendered employment in the manufacturing sector. While the studies reviewed so far do not distinguish between different employment statuses, Rani and Unni focus specifically on home-based workers, one of the most vulnerable categories of workers usually hidden from official statistics. They investigate whether greater integration in global production chains and higher competition in India have led to the reorganization of work, with an increase in sub-contracted workers of the home-based variety, and whether women and men workers have been affected differently by these changes. Rani and Unni use a quantitative approach and look at the issue from both a macro and a micro perspective.

Data and methodology

At the macro level, the authors estimate simple ordinary least squares (OLS) regression equations to analyse factors explaining changes in the share of home-based work in the Indian manufacturing sector. They include a cross-section of 54 industry groups at the three-digit industry level of the International Standard Industrial Classification (ISIC) and broadly cluster these industry groups based on whether they are export oriented, import competing or mostly non-tradable. The dependent variable in the model is calculated as percentage change in the share of home-based workers during the 1995–2000 period and is constructed separately for male and female workers. Independent variables include: changes in value added, capital intensity and wage rates for each of the industry groups, and two trade policy variables to capture openness in practice. These two variables are: (a) the change in the import-weighted average tariff rate applied on goods entering the country, and (b) the change in non-tariff barriers (price control measures, finance control measures and

quantity control measures) calculated from the Nicita and Olarreaga dataset (Nicita and Olarreaga, 2006).

Conventional sources of data on employment such as population censuses and labour force surveys do not capture home-based workers well. Information on this employment group is generally not easy to find but India is an exception. The authors use a number of employment and unemployment surveys produced by the Indian National Sample Survey Organisation that, for the first time in 1999, introduced a question on place of work (including one's home as a place of work to identify home-based workers).

The microanalysis involves the use of a multinomial model with one categorical dependent variable, which is the choice of undertaking home-based work relative to working elsewhere or not working at all. Explanatory variables range from educational level to religion, caste, location, age, having children or not, and other family circumstances. The main purpose of this component of the empirical investigation is to identify the most important determinants of women's participation in home-based work.

Findings

The authors find that only men's home-based work increased during the period of trade policy reforms while women had been working as home-based workers in large numbers over a long period of time and were less affected by the recent episode of trade liberalization than men. The authors conclude that the historically high share of women in home-based work, which did not show much change during the reforms, suggests that female participation in such work in India is more likely to have been determined by cultural and social norms than by the recent liberalization process. The findings from the micro-model show that women's decision to participate in home-based work is associated with low levels of education, lower caste status and religion. Moreover, participation in home-based work is higher among female heads of households and women with school-age children (compared with women having younger children).

Interestingly, the results show diverging patterns for export-promoting and import-penetrating industries. Export-oriented industries such as apparel and chemical product industries, which employ a large share of female workers in general and home-based work in particular, experienced a decline in the share of home-based work (though the number of home-based workers still

increased in absolute terms due to the overall growth in the sector). Import-penetrating industries such as machinery, TV and radio equipment saw an increase in the share of (mostly male) home-based workers. The finding from the macro-model that a growth in wage rates had a positive effect on the share of home-based work for males appears to corroborate the authors' hypothesis that the shift to this form of production in industries facing severe competition from imports could be a cost-cutting strategy. Because of high and rigid levels of gender employment segregation that preclude women's access to sectors like machinery and other technical equipment, the informalization of working conditions is thus extending to men.

A4 Tejani and Milberg (2010): "Global defeminization? Industrial upgrading, occupational segmentation and manufacturing employment in middle-income countries"

Context

The paper by Tejani and Milberg (2010) takes a cross-country perspective and asks whether the feminization of manufacturing employment associated with trade expansion in developing countries in the past still continues or if defeminization is becoming the new trend in middle-income countries in Latin America and South-East Asia.

The authors look at many facets of this question by exploring a number of reasons for a possible shift in the female intensity of manufacturing employment and by identifying differences in patterns between the two regions. They use a combination of descriptive statistics (looking at changes over time in a set of variables), simple correlations and scatterplots and examine broad regional trends as well as trajectories of particular countries. The study offers good insights into the direction that further investigations could take.

Findings

The paper describes trends in the female intensity of manufacturing employment over the period 1985–2007 for a sample of 60 high- and middle-income countries. It focuses on South-East Asia and Latin America and finds that these two regions have contrasting trends: While the Latin American and Caribbean middle-income countries in the sample experienced rising fe-

male intensity, most South-East Asian countries experienced a defeminization beginning in the mid-1980s (and starting from a relatively high level of female intensity compared to other industrialized countries).

Both regions experienced strong growth in merchandise exports over the period, which suggests that export growth *per se* does not determine shifts in the female intensity of employment. More specifically, using the latest ILO data, the authors find that there is no clear relationship between the average growth rate of exports and the rate of feminization. Most countries in their sample experienced export growth rates of 2–5 per cent per annum but this narrow range was associated with a broad range of changes in female intensity, including some rapidly feminizing countries (such as Brazil and Venezuela) and other rapidly defeminizing countries (such as Malaysia). They conclude that it is important to go behind export performance and explore underlying changes in industrial structure and labour market institutions to explain changes in the female intensity of employment.

The authors hence look further at the correlation between gender wage ratios and female employment intensity (for a smaller number of countries since wage data are not available for all the countries in their sample) and find again no consistent pattern.

They note that South-East Asia and Latin America underwent different industrialization processes, which might explain the divergent feminization

patterns in the two regions. While South-East Asian countries used exports to upgrade their manufacturing sectors into higher value-added activities, in most of Latin America, import substitution industrialization remained the primary policy approach throughout the 1970s and, after the crises of the 1980s, growth in manufacturing remained sluggish.

The authors test this hypothesis by measuring industrial upgrading as (a) capital intensity, and (b) value added per worker. The two regions show broadly symmetric patterns: in South-East Asian production, capital intensity is increasing while in Latin America, it is decreasing. The authors find that the growth of manufacturing productivity is negatively correlated to the growth of female intensity of employment and that higher levels of capital intensity in production are also associated with lower levels of female intensity.

The authors then go on to present data on the gender gap in education. They show that the gains in education for women at all levels are impressive in the two regions and that, especially in Latin America, women's enrolment in tertiary education exceeds that of males. Thus the argument of a skill mismatch (or a lack of education) as a key explanation for why the female share of employment tends to fall with higher skill intensity is not tenable. The authors emphasize that persistent gender norms and stereotypes that deem women to be unsuitable for technologically advanced or heavy work seem to be a more feasible explanation.

REFERENCES

- Amengual M and Milberg W (2008). Economic Development and Working Conditions in Export Processing Zones: A survey of trends. Working Papers 3. ILO, Geneva. Available at: <http://ilo.org/public/french/dialogue/download/wp3englishfinal.pdf>.
- Artecona R and Cunningham W (2002). Effects of Trade Liberalisation on the Gender Wage Gap in Mexico. Gender and Development Working Paper Series 21. World Bank, Washington DC. Available at: <http://siteresources.worldbank.org/INTGENDER/Resources/tradeartecona.pdf>.
- AusAID (2008). *Women in Business in Samoa. Key findings from the 2008 Scoping Mission*. Australian Agency for International Development, Canberra.
- Barrientos S (2001). Gender, Flexibility and Global Value Chains. *IDS Bulletin*, 32 (3): 83–93.
- Barrientos S and Smith S (2005). Fair Trade and Ethical Trade: Are There Moves towards Convergence? *Sustainable Development*, 13 (3): 190–198.
- Barrientos S, Kabeer N and Hossain N (2004). The Gender Dimensions of the Globalization of Production. Working Paper No. 17. ILO, Geneva.
- Becker GS (1959). *The Economics of Discrimination*. University of Chicago Press, Chicago.
- Berik G (2006). Growth with Gender Inequality: Another Look at East Asian Development. Department of Economics Working Paper Series No. 2006-3. University of Utah, Salt Lake City.
- Berik G (2011). Gender Aspects of Trade. In: Jansen M, ed. (2011). *Trade and Employment: from Myths to Facts*. ILO, Geneva. Available at: http://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_162297.pdf.
- Berik G and Rodgers Y (2010). Options for Enforcing Labour Standards: Lessons from Bangladesh and Cambodia. *Journal of International Development*, 22 (1): 56–85. University of Utah, Salt Lake City.
- Berik G, van der Meulen Rodgers Y and Zveglic JE (2004). International Trade and Gender Wage Discrimination: Evidence from East Asia. *Review of Development Economics*, 8 (2): 237–254.
- Beviglia-Zampetti A and Tran-Nguyen AN, eds. (2004). *Trade and Gender: Opportunities and Challenges for Developing Countries*. United Nations publication. Sales No. E.04.II.D.28. New York and Geneva.
- Bhattacharya D, Khatun F, Moazzem GM, Rahman M and Shahrin A (2008). *Gender and Trade liberalisation in Bangladesh: the Case of Ready-Made Garments*. Centre for Policy Dialogue, Dhaka.
- Black S and Brainerd E (2004). Importing Equality? The Impact of Globalization on Gender Discrimination. *Industrial and Labor Relations Review*, 57 (4): 540–559.
- Boyenge JP (2007). ILO Database on Export Processing Zones. Sectoral Activities Programme Working Paper 251. ILO, Geneva.
- Carr M, ed. (2004). *Chains of Fortune: Linking Woman Producers and Workers with Global Markets*. Commonwealth Secretariat, London.
- Chan M (2013). Informal Workers in Global Horticulture and Commodities Value Chains: A Review of the Literature. WIEGO (Global Trade) Working Paper No 28. Women in Informal Employment Globalizing and Organizing, Manchester and Cambridge.
- Darity W (1989). What's Left of the Economic Theory of Discrimination? In: Shulman S and Darity W, eds. *Question of Discrimination: Racial Inequality in the U.S. Labor Market*. Wesleyan University Press, Middletown.
- Darity W and Williams R (1985). Peddlers Forever? Culture, Competition and Discrimination. *The American Economic Review*, 75 (2): 256–261.
- Dequech D (2007). Neoclassical, mainstream, orthodox, and heterodox economics. *Journal of Post Keynesian Economics*, 30 (2): 279–302.
- Dolan C (2001). The good wife: struggles over resources in the Kenyan horticultural Sector. *Journal of Development Studies*, 37 (3): 39–70.
- Dominguez E, Icaza R, Quintero C, Lopez S and Stenman A (2010). Women Workers in the Maquiladoras and the Debate on Global Labour Standards. *Feminist Economics*, 16 (4): 185–209.
- Doraisami A (2008). The Gender Implications of Macroeconomic Policy and Performance in Malaysia. In: Berik G, Rodgers Y and Zammit A, eds. *Social Justice and Gender Equality: Rethinking Development Strategies and Macroeconomic Policies*. Routledge, London.

- Elson D (1993). Gender Relations and Economic Issues. *Focus on Gender*, 1 (3): 6–12.
- Elson D (2002). Macroeconomics and Macroeconomic Policy from a Gender Perspective. Public Hearing of Study Commission, Globalisation of the World Economy – Challenges and Responses. University of Essex.
- Elson D (2006). *Budgeting for Women's Rights: Monitoring Government Budgets for Compliance with CEDAW*. UNIFEM, New York.
- Elson D, Evers B and Gideon J (1997). Gender Aware Country Economic Reports: Concepts and Sources. GENECON Unit Working Paper 1. University of Manchester.
- FAO, IFAD, ILO (2010). *Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty, Status, trends and gaps*. FAO, IFAD and ILO, Rome.
- Fleck S (2001). A Gender Perspective on Maquila Employment and Wages in Mexico. In: Katz E and Correia M, eds. *The Economics of Gender: Work, Family, State and Market*. World Bank, Washington DC.
- Fontana M (2003). The Gender Effects of Trade Liberalisation in Developing Countries: A Review of the Literature. Discussion Papers in Economics. University of Sussex, Department of Economics.
- Fontana M (2007). Does Trade affect Men and Women Differently? Paper prepared for the PED-IADB Policy Forum on Trade and Poverty, Lima, 11 June 2007. Available at: http://www.pep-net.org/fileadmin/medias/pdf/files_events/fontana_pap.pdf.
- Fontana M (2009). The Gender Effects of Trade Liberalisation in Developing Countries: A Review of the Literature. In: Bussolo M and De Hoyos R, eds. *Gender Aspects of the Trade and Poverty Nexus: A Micro-Macro Approach*. Palgrave Macmillan, Basingstoke.
- Fontana M and Paciello C (2009). Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty: A Global Perspective. In: FAO, IFAD and ILO (2010). *Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty – Status, trends and gaps*. FAO, IFAD and ILO, Rome.
- Fussel E (2000). Making Labor Flexible: the Recomposition of Tijuana's Maquiladora Female Labor Force. *Feminist Economics*, 6 (3): 59–79.
- Gammage S, Swanberg K, Khandkar M, Hassan MdZ, Zobair Md and Muzareba AM (2006). A pro-poor analysis of the shrimp sector in Bangladesh. Paper presented at USAID Breakfast Seminar #12: A Pro-Poor Analysis of the Shrimp Sector in Bangladesh, 11 May. Available at: http://pdf.usaid.gov/pdf_docs/Pnad1601.pdf
- Gates L (2002). The Strategic Uses of Gender in Household Negotiations: Women Workers on Mexico's Northern Border. *Bulletin of Latin American Research*, 21 (4): 507–526.
- Glick P and Roubaud F (2006). Export Processing Zone Expansion in Madagascar: what are the Labour Market and Gender Impacts. *Journal of African Economies*, 15 (4): 722–756.
- Grown C and Komatsu H (2010). Methodology and comparative analysis. In: Grown C and Valodia I, eds. (2010). *Taxation and Gender Equity: A Comparative Analysis of Direct and Indirect Taxes in Developing and Developed Countries*. Routledge, New York and London.
- Grown C and Valodia I, eds. (2010). *Taxation and Gender Equity: A Comparative Analysis of Direct and Indirect Taxes in Developing and Developed Countries*. Routledge, New York and London.
- Heckscher B and Ohlin E (1991). *Heckscher-Ohlin Trade Theory*. MIT Press, Cambridge MA.
- Hewett P and Amin S (2000). Assessing the Impact of Garment Work on Quality of Life Measures. Presented at a seminar on the ready-made garments sector in Bangladesh, January. Bangladesh Institute of Development Studies, Dhaka.
- Huber E (2005). Gendered Implications of Tax Reform in Latin America: Argentina, Chile, Costa Rica and Jamaica. Prepared for UNRISD Project on Gender and Social Policy. UNRISD, Geneva.
- Joekes S (1995). Trade-related Employment for Women in Industry and Services in Developing Countries. UNRISD Occasional Paper 5. UNRISD, Geneva.
- Kabeer N (1995). Necessary, Sufficient or Irrelevant? Women, Wages and Intra-household Power Relations in Urban Bangladesh. IDS Working Paper 25. Institute of Development Studies, Brighton.
- Kabeer N (2000). *The Power to Choose: Bangladeshi Women and Labour Market Decisions in London and Dhaka*. Verso Books, London.
- Kabeer N (2012). Women's Economic Empowerment and Inclusive Growth: Labour Markets and Enterprise Development. SIG Working Paper 2012/1. School of Oriental and African Studies, UK Department for International Development and International Development Research Centre, London.

- Kabeer N and Mahmud S (2004). Globalization, Gender and Poverty: Bangladeshi Women Workers in Export and Local Markets. In: Carr M, ed. (2004). *Chains of Fortune: Linking Woman Producers and Workers with Global Markets*. Commonwealth Secretariat, London.
- Katz E (1995). Gender and Trade Within the Household: Observations from Rural Guatemala. *World Development*, 2 (2): 327–342.
- Kongar E (2005). Importing Equality of Exporting Jobs? Competition and Gender Wage and Employment Differentials. The Levy Economics Institute's Working Paper Series No. 436. Dickinson College, Department of Economics, Carlisle.
- Kucera D and Milberg W (2000). Gender Segregation and Gender Bias in Manufacturing Trade Expansion: Revising the "Wood Asymmetry". *World Development*, 28 (7): 1191–210.
- Kucera D, Roncolato L and von Uexkull D (2012). Trade Contraction and Employment in India and South Africa during the global crisis. *World Development*, 40 (6): 1122–1134.
- Kuttner S, Record R and Phouxy K (2012). Labour practices and productivity in the Lao garment sector: perspectives from managers and workers. Better Work Discussion Paper No 8. ILO, Geneva.
- Lawson T (2013). What is this "school" called neoclassical economics? *Cambridge Journal of Economics*, 37 (5): 947–983.
- Maertens M and Swinnen JFM (2009). Trade, Standards and Poverty: the Case of Vegetable Exports from Senegal. *World Development*, 37 (1): 161–178.
- Maurer-Fazio M, Rawski T and Zhang W (1999). Inequality in the Rewards for Holding up Half the Sky: Gender Wage Gaps in China's Urban Labour Markets, 1988–1994. *The China Journal*, 41 (January): 55–88.
- McMichael P (2012). *Development and Social Change: A Global Perspective*. Fifth edition. Sage Publications.
- Menon N and Rodgers Y (2009). International Trade and the Gender Wage Gap: New Evidence from India's Manufacturing Sector. *World Development*, 35 (5): 965–981.
- Mitter S, Fernandez G and Varghese S (2004). On the threshold of informalization: Woman call centre workers in India. In: Carr M, ed. (2004). *Chains of Fortune: Linking Woman Producers and Workers with Global Markets*. Commonwealth Secretariat, London.
- Musselli I and Zarrilli S (2012). Trade Policy and Gender Inequalities: A Country-based Analysis. Global Thematic Consultation on Addressing Inequalities: The Heart of the Post-2015 Development Agenda and the Future We Want for All. UNCTAD/WEB/OSG/2012/4. UNCTAD, Geneva. Available at: http://unctad.org/en/PublicationsLibrary/webosg2012d4_en.pdf
- Newman C (2002). Gender, Time Use and Change: Impacts of Agricultural Export Employment in Ecuador. *World Bank Economic Review*, 16 (3): 375–396.
- Nicita A and Olarreaga M (2006). Trade, Production and Protection 1976–2004. *World Bank Economic Review*, 21 (3): 165–171.
- OECD (2004). Promoting SMEs for Development. Promoting Entrepreneurship and Innovative SMEs in a Global Economy: Towards a More Responsible and Inclusive Globalisation. Paper presented at the 2nd OECD Conference of Ministers Responsible for Small and Medium Sized Enterprises, Istanbul, 3–5 June.
- Oelz M, Olney S and Tomei M (2013). *Equal pay: An introductory guide*. ILO, Geneva.
- Oostendorp R (2009). Globalization and the Gender Wage Gap. *World Bank Economic Review*, 23 (1): 141–161.
- Ortiz S and Aparicio S (2007). How Labourers Fare in Fresh Fruit Export Industries: Lemon Production in Northern Argentina. *Journal of Agrarian Change*, 7 (3): 382–404.
- Otobe N (2008). The Impact of Globalization and Macroeconomic Change in Mauritius: What Next in the Post-MFA Era. Employment Working Paper No 9. ILO, Geneva.
- Patel P and Parmentier MJC (2005). The Persistence of Traditional Gender Roles in Information Technology Sector: a Study of Female Engineers in India. *Information Technology and International Development*, 2 (3): 29–46.
- Paul-Majumder P and Begum A (2000). The Gender Imbalances in the Export Oriented Garment Industry in Bangladesh. Gender and Development Working Paper Series No. 12. Development Research Group, Poverty Reduction and Economic Management Network, World Bank, Washington DC.
- Pearson R (1999). "Nimble Fingers" Revisited: Reflections on Women and Third World Industrialisation in the Late Twentieth Century. In: Jackson C and Pearson R, eds. *Feminist visions of development: gender, analysis and policy*. Routledge, London.
- Prasad PN and Sreedevi V (2007). Economic Empowerment of Women through Information Technology. *Journal of International Women's Studies*, 8 (4): 107–120.

- Randriamaro Z (2005). Gender and Trade: Overview Report. BRIDGE Development Gender. Institute of Development Studies, Sussex.
- Rani U and Unni J (2009). Do Economic Reforms Influence Home-Based Work? Evidence from India. *Feminist Economics*, 15 (3): 191–225.
- Seguino S (1997). Gender Wage Inequality and Export-led Growth in South Korea. *Journal of Development Studies*, 34 (3): 102–137.
- Seguino S (2000). Accounting for Gender in Asian Economic Growth. *Feminist Economics*, 6 (3): 27–58.
- Seguino S (2012). From Micro-level Gender Relations to the Macroeconomy and Back Again: Theory and Policy. In: Figart D and Warnecke T, eds. *Handbook of Research on Gender and Economic Life*. Edward Elgar Publishing, Glos and Massachusetts.
- Sender J (2002). Women's Struggle to Escape Rural Poverty in South Africa. *Journal of Agrarian Change*, 2 (1): 1–49.
- Sender J and Smith S (1990). *Poverty, class and gender in rural Africa: a Tanzanian case study*. Routledge, London.
- Sengupta R and Sharma A (2009). The EU-India FTA in Services and Possible Gender Impact in India: Concern Areas. Trade and Gender Series, Paper No 4. Centad and Heinrich Böll Foundation, New Delhi.
- Shaikh A (2007). Globalization and the myth of free trade. In: Shaikh A, ed. *Globalization and the Myth of Free Trade*. Routledge, New York and Toronto.
- Shiundu KM and Oniang'o R (2007). Marketing African Leafy Vegetables: Challenges and Opportunities in the Kenyan context. *African Journal of Food, Agriculture Nutrition and Development*, 7 (4). Available at: <http://www.ajfand.net/Volume7/No4/Shiundu-IPGR12-8.pdf>.
- Singh S (2002). Contracting Out Solutions: Political Economy of Contract Farming in the Indian Punjab. *World Development*, 30 (9): 1621–1638.
- Smith A (1776, reprinted 2009). *The Wealth of Nations*. Reprint. Thrifty Books, Blacksburg.
- Solomon D (2008). *Women Entrepreneurs Associations in Ethiopia: Opportunities and Challenges. Empowering Women Economically: Key to Development*. Centre for African Women Economic Empowerment, Addis Ababa.
- Standing G (1989). Global Feminization Through Flexible Labor. *World Development*, 17 (7): 1077–1095.
- Standing G (1999). Global Feminization Through Flexible Labor: A Theme Revisited. *World Development*, 27 (3): 583–602.
- Stevenson L and St. Onge A (2005). Support for Growth-Oriented Women Entrepreneurs in Kenya. Programme on Boosting Employment through Small Enterprise, Development Job, Creation and Enterprise Department. ILO and African Development Bank, Geneva and Tunis.
- Stolper W and Samuelson P (1941). Protection and Real Wages. *Review of Economic Studies*, 9 (1): 58–73.
- Stotsky JG (1997). How Tax Systems Treat Men and Women Differently. *Finance and Development*, 34 (1): 30–33. International Monetary Fund, Washington DC.
- Tax Justice Network (2011). Taxation and Gender: Why Does It Matter? Africa Tax Spotlight. Quarterly Newsletter of the Tax Justice Network. First quarter, Vol. 2.
- Tejani S (2011). The Gender Dimension of Special Economic Zones. In: Farole T and Akinci G, eds. *Special Economic Zones: Progress, Emerging Challenges and Future Directions*. Directions in Development Trade. World Bank, Washington DC.
- Tejani S and Milberg W (2010). Global Defeminization? Industrial Upgrading, Occupational Segmentation and Manufacturing Employment in Middle-Income Countries. Working Paper No. 2010-1. Schwartz Center for Economic Policy Analysis and Department of Economics, School for Social Research, New York.
- Tiano S (1994). *Patriarchy on the line: Labor, gender, and ideology in the Mexican maquila industry*. Temple University Press, Philadelphia.
- Tuyet Mai (1998). Vietnamese Female Entrepreneurs: Potentialities and Challenges. Women of Vietnam. AWORC. Available at: http://www.aworc.org/bpfa/pub/sec_f/ecco0002.html.
- UNCTAD (2008). Mainstreaming gender in trade policy: Case studies. Note by the Secretariat. Expert meeting on Mainstreaming Gender in Trade Policy. TD/B/C.I/EM.2/3. Geneva.
- UNCTAD (2009). Mainstreaming gender in trade policy. Note by the Secretariat. Expert meeting on Mainstreaming Gender in Trade Policy. TD/B/C.I/EM.2/2/Rev.1. Geneva.
- UNCTAD (2010). *Virtual Institute Teaching Material on Trade and Poverty*. United Nations publication. UNCTAD/SDTE/TIB/2007/4. New York and Geneva.

- UNCTAD (2011a). *Who is Benefiting from Trade Liberalization in Cape Verde? A Gender Perspective*. United Nations publication. UNCTAD/OSG/2011/2. New York and Geneva.
- UNCTAD (2011b). *Who is Benefiting from Trade Liberalization in Bhutan? A Gender Perspective*. United Nations publication. UNCTAD/OSG/2011/1. New York and Geneva.
- UNCTAD (2012). *Who is Benefiting from Trade Liberalization in Lesotho? A Gender Perspective*. United Nations publication. UNCTAD/OSG/2012/2. New York and Geneva.
- UNCTAD (2013). *Who is Benefiting from Trade Liberalization in Angola? A Gender Perspective*. United Nations publication. UNCTAD/DITC/2013/3. New York and Geneva.
- UNCTAD (2014). *Who is Benefiting from Trade Liberalization in Rwanda? A Gender Perspective*. United Nations publication. UNCTAD/DITC/2014/2. New York and Geneva.
- UNCTAD-EIF (2014). *The fisheries sector in the Gambia: Trade, value addition and social inclusiveness, with a focus on women*. United Nations publication. UNCTAD/DITC/2013/4. UNCTAD – Enhanced Integrated Framework, New York and Geneva. Available at: http://unctad.org/en/PublicationsLibrary/ditc2013d4_en.pdf.
- UNECA (2004). *Economic Report on Africa 2004: Unlocking Africa's Trade Potential*. United Nations publication. Sales No. E.04.II.K.12. New York and Geneva.
- Valodia I (1996). Work. In: Budlender D. *The Women's Budget*. Issue 1. IDASA, Cape Town.
- van Staveren I, Elson D, Grown C and Çağatay N, eds. (2007). *The Feminist Economics of Trade*. Routledge, London and New York.
- von Braun J and Kennedy E, eds. (1994). *Agricultural Commercialisation, Economic Development and Nutrition*. Johns Hopkins University Press for the International Food Policy Research Institute, Baltimore.
- von Braun J, John K and Puetz D (1994). Nutritional Effects of Commercialisation of a Woman's Crop: Irrigated Rice in The Gambia. In: von Braun J and Kennedy E, eds. *Agricultural Commercialisation, Economic Development and Nutrition*. Johns Hopkins University Press for the International Food Policy Research Institute, Baltimore.
- Wajcman J and Lobb LAB (2007). The Gender Relations of Software Work in Vietnam. *Technology and Development*, 11 (1): 1–26.
- Wamboye E and Seguino S (2012). Economic Structure, Trade Openness, and Gendered Employment in Sub-Saharan Africa. Unpublished paper. University of Vermont, Burlington. Available at: <http://www.uvm.edu/~sseguino/pdf/Wamboye.pdf>.
- Wold BK, ed. (1997). Supply response in a Gender-perspective: the case of Structural Adjustment in Zambia. Reports 97/23 – Statistics Norway. Statistics Norway, Oslo.
- Wood A (1991). North-South Trade and Female Labour in Manufacturing: An asymmetry. *Journal of Development Studies*, 27 (2): 168–189.
- WTO (2010). Trade to expand by 9.5 per cent in 2010 after a dismal 2009. WTO press release. PRESS/598, 26 March. Available at: http://www.wto.org/english/news_e/pres10_e/pr598_e.htm.

