

TOWARDS MONITORING MUTUAL TRADE-GENDER LINKS

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ABSTRACT

In the light of increased attention to the monitoring of trade impacts, this paper explores the relationship between trade and gender. After a review of the literature, a provisional set of indicators will be proposed for monitoring trade and gender links. Some of the indicators will be applied to the bilateral trade agreement between the European Union and Mercosur. The preliminary findings for some of the indicators seem to support the trends emerging from the literature that there is a risk that gender inequality for the developing country trading partner increases rather than reduces with intensified trade with a trading partner in the developed world. But the indicators may also point at endogenous effects of gender equality on the gains from trade. The paper therefore argues for coherence between trading partners' trade policies and gender policies.

1. INTRODUCTION

Recently, a renewed interest has appeared in trade impacts on labour conditions, poverty, and the environment. Concerns about negative effects of globalisation, such as increasing capital flows, regional trade agreements, and the expansion of export processing zones in an increasing number of developing countries, are raised louder with every international policy gathering. Not only by anti-globalisation or alternative globalisation demonstrators, who join at G-8, EU, World Bank and WTO meetings around the globe. Many NGO's who do not deny the inevitability of globalisation and who reject EU protectionism of its agricultural sector, raise their voices against negative impacts of rapidly increasing trade, capital flows and property rights acquisitions. Many NGO's speak from their own experiences with deteriorating environmental conditions and insecure livelihoods of local farmers and small scale producers who see their markets immerse with cheap imports. Or they fear negative impacts from trade in the long run such as a further deterioration of the terms of trade for developing countries, more informalisation of labour through subcontracting, and more insecurity of employment, investment, and export earnings in "a race to the bottom" driven by short term capital flows as well as by TNC relocations maximising their gains in global value chains. Some NGO's are particularly concerned about gender impacts of trade, that is, differentiated trade impacts on men and women².

But the chorus of critique on the present structure, or better, the lack thereof, and the pace of globalisation is becoming more diverse. NGO's are no longer the only ones expressing concerns about negative trade impacts. Governments and academics join the chorus with their own timbre, raising concerns about effects of WTO rules on human rights (UN, 2000), demonstrating methodological and statistical inconsistencies in the analyses that favour rapid trade expansion (Jan Kregel, 2000; Dani Rodrik, 2000; Robert Went, 2001), and challenging from an insider's perspective the policies of World Bank, IMF as well as WTO, because of their unfounded dogma's as well as their political biases (Joseph Stiglitz, 2000). The European Union has announced to carry out a Sustainability Impact Assessment (SIA) of its bilateral trade agreements (European

² For example, the International Gender and Trade Network (IGTN) and the Informal Working Group on Gender and Trade (IWGGT) with members in Africa, Asia, Latin America, Europe and North America have lobbied the WTO on gender issues since the start of the WTO halfway the 1990's (WIDE, 1996; 1997; IWGGT 1998; WIDE and other NGO's 1999; Angela Hale and Jennifer Hurley 2001; IGTN, 2001; IWGGT 2001).

Commission 2000a, p. 26), in which gender might be one of the variables to be studied. Such an initiative would be a first step towards an analysis of trade impacts on a variety of realms in life.

As I will argue in this paper, gender *is* importantly related to trade, influencing trade outcomes and at the same time influenced by trade decision making procedures, trade patterns, and trade volumes. At least two arguments would justify a gender analysis in the study of impacts of international trade. First, the well-known fact, acknowledged by feminist economists like Ruth Pearson and Diane Elson since the 1970s (Pearson, 1998), that with increased exports, female labour force participation has increased in developing countries. The female employment share in export industries in developing countries that specialise in manufacturing exports is around 75%. For example, in South Korea 75% of the labour force in export industries is female, in Mauritius 80% and in Malaysia 86% (Adrian Wood, 1994: 96). Second, research on gender effects of Structural Adjustment Programmes (SAPs) during the 1990s has indicated that SAP measures have affected women differently from men while at the same time an increase in women's labour appeared crucial for the success of SAPs. Negative gender effects of SAPs, that is, a worsening of the gender gaps, were found in variables such as unemployment rates, wages, unpaid labour time, health care access, female school enrolment, as well as a rise in the share of female headed households. Feminist economists have also pointed out that gender distortions in markets (wage discrimination, limited access to credit, biased land property rights) as well as in public services (male-biased educational systems, male-biased agricultural extension services) have limited the effectiveness of SAPs, for example by reducing the impact of a currency devaluation on exports, or by increasing food insecurity at household level (Pamela Sparr, 1994; Isabella Bakker, 1994; Nilufer Cagatay, Diane Elson and Caren Grown, 1995; Mark Blackden and Chitra Bhanu, 1999). Since increased openness to trade makes a central part of most SAPs, it is not unlikely to expect a relationship between gender and trade as well, and in both directions.

The objective of this paper is threefold: first, it will briefly review the literature on gender and trade relationships, second, it will propose a set of gender-and-trade indicators for the monitoring of trade agreements, and third, with an illustration of some indicators in a case study, the paper tries to come up with policy suggestions for more coherence between trading partners' gender policies on the one hand and their trade policies on the other hand.

The next section will start with a review of the literature on the relationship between trade and gender. In section three, the findings so far will be operationalised for the monitoring of gender impacts of trade and trade impacts of gender, through a set of gender-and-trade indicators. Section four will apply some of the indicators in a case study on the bilateral trade agreement between the EU and Mercosur. Finally, section five will present some policy suggestions to improve the link and stimulate coherence between trading partners' gender policies and their trade policies.

2. LITERATURE REVIEW ON THE RELATIONSHIP BETWEEN GENDER AND TRADE

From: The Economist, 15 January 1994, p. 65 (quoted by Charlotte Hooper, 2000: 68-69):

"Ripe for Rape:

Asia's businessmen have had their eyes on Myanmar's rich resources for a while. Unlike most of its neighbours, it still has teak forests to be felled and its gem deposits are barely exploited."

Below, a brief review of the economic literature on the relationship between gender and trade will be presented. There is not much research done in this area, so the bibliography is rather short, based on the literature that I was able to track. The review will be structured as follows:

1. Macro economic effects: these include discussions on the relationships between trade on the one hand and economic growth, wellbeing, and gender inequality on the other hand
2. Labour market effects: these include discussions of women's employment, the gender wage gap, and occupational segmentation in export production
3. Socio-economic effects: these include issues like food security, women's empowerment, and women's livelihood strategies, including effects on women's unpaid labour time.

2.1 Macroeconomic Effects

Nilufer Cagatay (1996) discusses underlying relations between macro economics and gender, such as: the gender division of labour between paid and unpaid work in which women do the majority of unpaid work; negative labour force participation effects of women's unpaid time burden; and the low status and low pay in typical 'feminine' occupations. Then, the paper lists some gender impacts of trade: feminisation of the labour force when export industry specialises on low skilled labour; a risk of wors-

ening work circumstances for women in export industry; and a risk of downward harmonisation of labour standards, including those that are particularly relevant for women (for example ILO conventions regarding maternity leave, home work, equal treatment in employment, and equal wages for work of equal value).

Jayati Ghosh's (1996) paper runs parallel to Cagatay's, while focusing on Asia. Next to the gender effects mentioned by Cagatay, such as feminisation of the labour force, occupational segregation and its continuation in new sectors, and deterioration in women's work status, Ghosh mentions two other factors. First, discrimination between women workers on the basis of their age and marital status (younger women and unmarried women being preferred over older and married women). Second, Ghosh mentions unemployment and underemployment of women, since not only demand for female labour has increased but also female labour supply has gone up dramatically over the past two decades in Asia.

Nilufer Cagatay, Diane Elson and Caren Grown (1995) have edited a special issue of *World Development* on relationships between gender and macro economic policies. Some of the contributions to the special issue include attention to trade and will be discussed below. Nilufer Cagatay and Sule Ozler (1995) have shown empirically, with cross country data, that with an increasing export orientation (and structural adjustment, leading to a worsening of the income distribution), the share of women in the labour force increases. Their model therefore includes a variable measuring feminisation of the labour force and controls for the well-known U-shaped relationship between women's labour force participation and GDP per capita. William Darity (1995) develops a macro economic model for a low income economy that specialises on agricultural exports ('cash crops') combined with a gender division of labour in which men grow and reap the earnings from cash crops and women specialise in growing food crops but also work on men's plots. This model introduces an important variable referring to gender inequality within the household, expressing male control over female labour. With a model exercise of a currency devaluation, Darity is able to show that such an export-stimulating measure does not necessarily lead to increased agricultural exports, since women may not want to offer their labour to men's plots if they do not receive a fair share of the returns from the cash crops (leading to a so called low 'supply response' in the economy). His model also shows that women's unpaid labour time as well as leisure time reduces, the more control men have over women's labour, with possible negative effects on women's nutrition. Korkut Ertürk and Nilufer Cagatay (1995) pres-

ent an empirical analysis of the relationships between feminisation of the labour force, unpaid housework, and economic growth through export orientation. Their Post-Keynesian model assumes feminisation of the labour force to be included in the investment function (women earn lower wages than men so more female labour implies a cost advantage for a firm), and intensity of female household labour as part of the savings function (unpaid production of household goods and services saves on household consumption expenditures). In an application of their model to Turkey, the gender variables in the savings function appear to be inversely related to household income, whereas the gender variable in the investment function is positively related to GDP growth. A different effect is foreseen for high income and low income countries: in low income countries, feminisation is less likely to support export-oriented economic growth than in high income countries.

Five years after the successful special issue of *World Development*, Caren Grown, Diane Elson and Nilufer Cagatay (2000) again edited a special issue on relationships between gender and macro economic policy, this time with more explicit attention to trade. Relevant contributions to the special issue are reviewed below. Elissa Braunstein (2000) develops a structuralist model in which she is able to assess gender effects of open economies with high capital mobility. First, if women's relative wages would rise, output would decline, but if women would gain more autonomy from men in terms of a more equal sharing of housework, output would increase. So, in Braunstein's model, export oriented economic growth benefits from more gender equality in the household but not from increased female bargaining power vis-à-vis capital, and subsequent higher wages. Marzia Fontana and Adrian Wood (2000) construct a neo-classical, CGE model and apply it to data from Bangladesh. The equilibrium model distinguishes male and female labour as well as the unpaid economy and leisure. The data show that women in Bangladesh have much less leisure time than men, who enjoy almost four times as much leisure. Furthermore, women do most of unpaid work while men do most of paid work. The model serves to assess effects of four trade related experiments: (1) a rise in world food prices (for example following a reduction in protection of the EU agricultural sector), (2) a rise in foreign capital inflow, (3) export incentives in manufacturing, and (4) female intensive manufactured exports. The results of the model experiments are as follows: A rise in world food prices has relatively small effects on men and women, but a clear though small decline in women's total wage bill. A rise in foreign capital inflow increases leisure time and decreases paid labour time for

men and women alike. Both are expected to enjoy a wage increase, women more than men, increasing women's wage bill. Export incentives in manufacturing increases employment for men and women in manufacturing but decreases wages, for women almost three times as much as for men. Nevertheless, women's total wage bill increases, because of the enormous increase in hours that women work in the manufacturing sector. Finally, the effects of female intensive exports are measured (in Bangladesh mainly garments). This experiment is a more realistic version of ad (3), since it includes feminisation of the export sector, as is indeed the case in Bangladesh as well as in many other export-oriented countries. Hence, female employment rises more than men's, both in manufacturing as well as for all market sectors together. Women's wages rise, whereas men's wages decrease, reducing the gender wage gap, and contributing to a large increase in the female wage bill. This increase is at the cost of women's leisure time and unpaid labour time, more so than for men, with possible negative effects on children's wellbeing.

Stephanie Seguino (2000a and 2000b) contributes both to *World Development* and to *Feminist Economics* with an insightful analysis of the relationship between gender inequality, investment, and growth. In these two articles, Seguino challenges a recent World Bank study by David Dollar and Roberta Gatti (1999), who argue that gender inequality is bad for growth. Dollar and Gatti use differences in school attainment between men and women and differences in male and female life expectancy as variables that influence GDP growth. They conclude that the wider the gender gap in these variables, particularly in education, the slower economic growth, because human resources are wasted, which is inefficient. Hence, their policy advice to developing countries is to reduce gender inequality in order to stimulate economic growth. Seguino however, uses a different variable to measure gender inequality: the male/female wage gap. In her cross-country regression analyses (one global and one for Asia), Seguino shows that wage inequality and GDP growth are positively correlated. In other words, the wider the wage gap, the higher growth. Comparing her variable with those of Dollar and Gatti, Seguino finds that wage inequality has a much stronger (and positive) effect on growth than inequality in the educational and health variables analysed by Dollar and Gatti. Hence, her rather sad conclusion is that in total, considering different gender inequality variables, gender inequality is "good" for growth, in countries that have an export-orientation. She provides two explanations for this unfortunate relationship: (1) low female wages represent an important comparative advantage for export industries

which employ on average 75% women, and (2) a lower total wage bill in an industry increases the profit rate, and hence, resources available to import the latest technology.

2.2 Labour Market Effects

Adrian Wood has studied employment effects of trade between developed and developing countries and he argues that increased trade has decreased manufacturing employment for unskilled workers in developed countries. On the gender distribution of this employment loss in OECD countries, Wood (1991) has a remarkable statement: while female manufacturing employment has increased in absolute terms as well as relative to men in developing countries, it has not fallen, as a share of total manufacturing employment, in developed countries. Wood is able to attribute the stable female share in manufacturing employment to trade because his indicator controls for economy-wide trends in female intensity (including the U-shaped curve of female labour force participation with income per capita)³. One of his own explanations for this so called ‘Wood asymmetry’ is that developed countries might have replaced male labour with cheaper female labour in import substituting industries. Others, however, challenge Wood’s research findings, and argue either that trade has not led to employment losses in developed countries at all, or that the female share of manufacturing employment did go down in OECD countries, as predicted by trade theory. The first issue involves an extensive academic debate that will not be dealt with here. On the gender issue, various contributions were found.

Susan Joeques and Ann Weston (1994) describe trends in the relationship between gender and trade. They emphasise the employment gains of trade for women in developing countries, both in export manufacturing (in TNC’s and EPZ’s) as well as in services. Moreover, they hold that “(..) manufacturing export employment generally provides women in developing countries with better opportunities than alternative employment even if the conditions are poor compared to those available for men in the same country, or for women in manufacturing industries in developed countries.” (Joeques and Weston, 1994, p. 82)

Marzia Fontana, Susan Joeques and Rachel Masika (1998) explore possible analytical linkages between trade and gender and add six brief case studies. Their prelimi-

³ Although within the group of developed countries, there are countries that show a decline in female intensity, like Germany by 10% and the UK by 15%.

nary findings are that in export-oriented countries, gender inequality in labour markets is the basic problem of gender and trade, whereas in agricultural export countries, the lack of women's land rights appears to be the main problem for women to benefit from trade. In their policy recommendations, the authors point at the need for labour standards, possibly including social clauses in WTO policies, company codes of conduct, and fair trade networks. Informalisation issues, and gender effects of informalisation are often not analysed with a direct relationship to trade, rather, trade is often taken as the context for such analyses. Guy Standing (1999) gives an insightful overview of the parallel flexibilisation and feminisation of labour in developing countries and relates this trend to trade, without going into details on this link. Another article should be mentioned, in which women's informal jobs, particularly home based work, are analysed as part of global value chains of goods that are traded through and between TNC's. Marilyn Carr, Martha Alter Chen and Jane Tate (2000) point in this article at the uneven distribution of the gains of trade for home based workers, who are predominantly female and restricted in their bargaining opportunities by their traditional gender roles. The link with trade is suggested as a "race to the bottom", in which low wage countries try to stay competitive by cutting wages through informalising, and subsequently also feminising, labour.

On the US economy, Robert Baldwin (1995) finds that wage differences among women have increased twice as much compared to wage differences among men, and also in the UK and France wage inequality increased more among women compared to men. Contrary to the 'Wood asymmetry', this may indicate a trade-off caused by trade between the US and developing countries, in which women workers in developing countries gain and women workers in the US lose in terms of relative wages. Robert Lawrence (1996) finds that outsourcing of low skill production by OECD based multinationals is taking place, as expected. Either this would be leading to employment losses or to stagnating employment growth in OECD manufacturing. The biggest employment losses due to outsourcing seem to be in female intensive sectors, such as textiles.

Bartholomew Armah (1994) has studied trade effects on women's employment in the services sector in the US in more detail. His study begins by distinguishing trade sensitive service industries, like finance, transportation, wholesale and retail trade, as well as health, education, and social welfare, which are all relatively skill intensive. From these US data it appears that women are more often employed in trade sensitive

services sectors than men, even more so for black and hispanic women. Hence, women appear to be more vulnerable to employment losses due to international trade than men, with minority women being most vulnerable. However, data also show that over the 1980's there was a net employment gain for the trade-related services sectors in the US, indicating that trade has benefited women in the services sectors. But in a follow-up article, Armah (1995) found that male workers benefited more from employment gains in the services sector than female workers, even though men in this sector were less educated and less skilled compared to female employees. He also assessed that the trend is worsening: employment gains of trade in the services sector are decreasing, while women's gains, particularly minority women's gains, decrease fastest. In his conclusions, Armah notes that apparently not just comparative advantage explains trade in services, with high skill levels being the US comparative advantage, but also other factors, such as economies of scale. These may explain why low skill jobs in the US did gain rather than lose in international trade in services. For Japan, Yumiko Yamamoto (2000) found a similar disadvantage for women as in the US. Her preliminary conclusion from analysing data over the period 1970-1994, is that in relatively female intensive sectors, both men and women see their wages decline, but women more than men. Greater capital intensity seems to improve earnings for both sexes, but more so for men than for women. Gunseli Berik (2000) focuses on the experience of Taiwan, a country that exposes a continuous success of the export-led growth strategy. Her case study shows that with time, women's employment share in export manufacturing decreases while the gender wage gap reduces, but only because men's wages suffer more than women's wages.

David Kucera and William Milberg (2000) have applied a factor content analysis to gender effects of trade between OECD and non-OECD countries, challenging the Wood asymmetry. They found that in most of the ten OECD countries included in their study (particularly Australia, Canada, Japan, the Netherlands and the United States) trade-related employment losses disproportionately affect women workers. This result is calculated over a longer period of time than Wood did in his study. Kucera and Milberg introduce three indicators to measure gender effects and correct for technological change as well as for trade volume volatility and increased female labour force participation. The explanation they provide for the gender bias in employment losses in the OECD because of trade with non-OECD countries lies in the type of industries that suffer from import penetration from developing countries. These industries are, among

others, textiles, apparel, leather, and leather goods industries. This finding suggests further difficulties for women's employment when the Multi-Fiber Agreement will be phased out as agreed in the GATT Uruguay Round. Furthermore, Kucera and Milberg hint at other, non-trade, factors that may reduce or reinforce the gender bias. These factors, particularly labour market policies and social policies, are the object of a study by Mary Gregory (2000). She has studied the consequences of trade and other macro-economic trends for the labour market position of the low skilled in Europe. She concludes that on average labour market policies and social policies in the EU have helped to protect the disadvantaged workers, but in doing so, they benefited women less than men. Despite women's increased educational attainments, in many European countries now equal with men, women earn lower wages, are more likely to be employed in low skilled jobs and experience higher unemployment rates. This makes women in Europe more vulnerable to trade than men.

2.3 Socio-Economic Effects

Although increasingly researched outside economics, socio-economic effects of globalisation, and of trade in particular, have hardly entered economic research. This might, at first sight, be explained by the difficulty to quantify socio-economic variables like women's empowerment or unpaid work, and, perhaps, by a silent division of labour between economists and other social scientists in which economists tend to specialise in research on economic growth, export earnings, investment, as well as labour market effects, leaving the more complex, qualitative variables to be studied by other social scientists. On the other hand, however, feminist economists have repeatedly argued that social risks (like food insecurity, household disintegration, and child neglect) and unacceptable burdens of unpaid labour deserve far more attention in economic policy analyses. Research into such socio-economic links however, is heavily dependent on quantitative and qualitative data which, unfortunately, are hardly available beyond the case study level. It is therefore, that in this section only a few studies are mentioned.

Maria Sagrario Floro (1995) has analysed case studies on combined effects of structural adjustment and export orientation of developing countries on women's unpaid labour. The studies that Floro reviews show that structural adjustment as well as export orientation require not only changes in the labour market behaviour of households, but also adaptations in unpaid tasks, use of public services, food consumption,

and the strategies to combine paid labour with childcare, housework and community work. Floro concludes from these studies that it is in particular women who bear the burden of these adjustments in households, which shows from their increased paid and unpaid labour time and their increased work intensity. This, in turn, appears to have negative effects on women's wellbeing as well as on child wellbeing.

Myriam Vanderstichele (1998) has carried out a descriptive case study on gender effects of trade in Ghana, hinting at opportunities and constraints for women traders, particularly small scale traders, displacement of food production by cash crop production for export, leading to increased food prices, and women's limited access to credit, transport, and marketing facilities, which influence the extent to which they can benefit from trade liberalisation.

Helen Safa (1999) has done qualitative research in the Dominican Republic on the effects of the female intensive export strategy on women's wellbeing. Her major finding is that there is a remarkable parallel between the increase in female headed households and single mothers living in extended families, divorce and unwillingness by women to remarry on the one hand and the increase in women's employment in the EPZs on the other hand.

2.4 Gender and Trade: A Complex Relationship

The above review shows that the study of relationships between trade and gender has been neglected too long. Trade does seem to have important effects on gender (in)equality, such as the wage gap and the female employment share across sectors. At the same time gender (in)equality does seem to have important consequences for the success of trade, both directly in terms of competitiveness and export volumes as well as indirectly in terms of economic growth, poverty reduction and wellbeing. However, the studies reviewed above do not unanimously point in the same directions of trade and gender relationships. For example the evidence of trade impacts on the gender wage gap is inconclusive: some suggest a narrowing of this gap while others maintain that the gap will persist because it would function as a precondition for high levels of manufacturing exports. Also, some studies find opposing trends in developing countries and developed countries, whereas others challenge this dichotomy. The obvious conclusion is that gender and trade relationships are complex both with regard to the dimensions of time and geographical area as well as because of the high number of endogenous variables involved.

Further research is much needed for the analysis of the complexities involved in feedback effects, for example through the gender division of labour and women's bargaining power at household level, as well as the analysis of multiplier effects, for example through wage discrimination and increased female labour supply. In particular there is a need for studies that analyse long run gender effects of trade as well as studies that focus on gender effects in sectors that are particularly affected by international trade⁴.

3. GENDER AND TRADE INDICATORS

3.1 Methodological Limitations

Although research on gender and trade relationships has developed only very recently and many relationships have to be analysed in more detail, academic studies to date as well as research done by NGO's point out that gender *does* matter in trade. Rather than awaiting more conclusive research results to come in the next decade, impact studies of trade may already include gender dimensions in order to monitor gender impacts of trade along side the monitoring of other impacts, such as environmental impacts. This would not only imply a pragmatic approach in making trade impact studies more comprehensive but it might also help research on trade and gender by providing information on gender variables related to trade.

Here, I will propose a set of fourteen gender-and-trade indicators that could either be used in impact studies of multilateral trade at global or regional level or for the purpose of monitoring bilateral trade agreements. To be of practical use for policy makers both in the area of trade policy as well as in the area of gender policy, the indicators should be simple, and based on easily accessible gender disaggregated data. Furthermore, for reasons of comparison between countries as well as over time, the indicators should preferably be quantitative rather than qualitative. These selection criteria have resulted in a choice for indicators that have in most cases the shape of elasticities. These will be formulated in terms of trade elasticities of gender inequality, for example a trade elasticity of the gender wage gap in manufacturing, or a trade elasticity of the gender gap in unpaid labour time.

Elasticities however, have a serious methodological disadvantage: they do not

⁴ UNCTAD has just organised an "Expert Meeting on Mainstreaming Gender in Order to Promote Opportunities" in Geneva, 14-16 November 2001, which may help to develop trade impact studies on gender equality (UNCTAD, 2001).

imply a causal relationship, not even a correlation, between the two variables expressed in the nominator and denominator. Therefore, this formulation of gender-and-trade indicators has a serious limitation for use in policy formulation and evaluation. On the other hand, the elasticities are formulated on the basis of the empirical studies on gender and trade reviewed above, and hence, they do in fact build on statistical assessments and model exercises of underlying relationships between trade and gender variables. Nevertheless, the gender-and-trade elasticities should be treated with caution.

A deeper methodological problem which indicators cannot address and which is also hardly addressed in the literature reviewed, is that labour market effects, including gendered labour market effects, attributed to trade may find their causes not necessarily in trade as such, but in underlying or related economic phenomena, such as technological change (partly transmitted between developed and developing countries through FDI), changes in aggregate demand, macro economic policies, labour supply factors, as well as labour market institutions and policies⁵. In order to address this issue, I share the position taken by Michael Burda and Barbara Dluhosch (1999) who conclude that trade and technology factors are not mutually exclusive explanations for labour market changes, but are part and parcel of the same phenomenon. In their view (as in Mary Gregory's referred to above) it depends on the actual labour market institutions and policies to what extent both factors will have an impact on employment and wage levels. Hence, when I refer to trade, I imply trade in the broadest sense, including related capital flows and institutional changes.

A third limitation of gender-and-trade indicators is the difficulty to distinguish trade impacts on gender (in)equality occurring from trade between two trading parties from impacts arising from trade with third parties as well as from intra-regional trade. Finally, there is an enormous lack of gender disaggregated data in trade statistics as well as in other data sets. Labour market data sets do have some degree of gender dis-

⁵ Some authors hold that they are able to separate these factors. For example, Robert Baldwin (1995) argues that shifts in employment and wages depend less on international trade than on technology, labour supply, and the demand for goods and services. Also Robert Lawrence (1996) notes that it is not so much trade which is responsible for the loss in employment for low skilled labour in developed countries, but technological developments that reduce the ratio of blue collar to white collar labour everywhere, in OECD countries as well as in developing countries. Others argue that trade factors and other factors cannot be separated in the models used so far. For example, Edward Leamer (1999) admits that models based on the Heckscher-Ohlin theory as well as the Stolper-Samuelson theorem are simply not able to disentangle trade and technological change as underlying causes of changes in relative wages for low skilled labour between developed and developing countries. (See for a general paper on gender effects of global finance, van Staveren 2002).

aggregation although the reliability of the data on women's labour market position is often doubtful since women's work tends to be more informal, part-time, and flexible compared to men's work. Data on unpaid labour, especially on the gender gap in unpaid labour, is very scarce, and despite agreements made at the UN Women's Conference held in Beijing in 1995, National Accounts of most countries still do not include satellite accounts for unpaid labour.

3.2 Trade Elasticities of Gender Inequality

The denominator of the trade elasticities consists of either of the three following measures of trade (in these measures, i refers to a country or a region and j refers to a bilateral trading partner, or a trading block, or to all trading partners).

- trade volumes as a share of GDP of a country or a region: $(EX_{ij} + IM_{ij})/GDP_i$,
- bilateral or regional trade volumes as a share of total trade of a country or region: $(EX_{ij} + IM_{ij})/(EX_i + IM_i)$
- openness measured as tariff reductions of $x\%$ (for arguments in favour of this measure, see Dani Rodrik, 2000).

The nominator of the elasticities includes a variety of measures of gender inequality, as they have been developed in support of monitoring gender equality objectives agreed during the 1995 UN Women's Conference, for example in a report for UNIFEM by Diane Elson (2000), and in the Human Development Reports by UNDP since 1995 when the Gender-Related Development Index (GDI) was introduced. Mostly, these measures will entail labour market variables such as the gender wage gap or female/male employment shares. But also specific gender variables would be needed in order to monitor trends in variables that are often excluded from existing macroeconomic or labour market data sets, such as the gender gap in unpaid labour time and in leisure time.

1. *Trade elasticity of the gender gap in human development*

The gender variable for this elasticity would be GDI, which measures gender inequalities in the Human Development Index (UNDP, 1995 and subsequent years). Alternatively, RSW (Relative Status of Women) may be used for the gender variable since this variable does not depend on the absolute GDP level of a country (see Geske

Dijkstra and Lucia Hanmer, 2000) and hence measures gender inequalities more accurately than does GDI.

2. *Trade elasticity of the gender gap in earned income*

This elasticity uses the gender variable of female earned income share (Y^f/Y). Y^f is measured as the share of GDP that is earned by women for which data can be found in the Human Development Report. The female earned income share can be regarded as the relative monetary reward for women to all their labour, paid as well as unpaid, as has been argued by Dijkstra and Hanmer (2000).

4. *Trade elasticity of gender inequality in labour force participation or export employment*

This elasticity measures as a gender variable the female share in the labour force (L^f/L) or, more specifically, the female employment share in export industry (L_{ex}^f/L_{ex}), or sectoral female employment shares such as the female employment share in agricultural export production (L_{ex-agr}^f/L_{ex-agr}), in manufacturing export production (L_{ex-man}^f/L_{ex-man}), and exports in services (L_{ex-ser}^f/L_{ex-ser}).

4. *Trade elasticity of gender inequality in employment in import-competing sectors*

The gender variable for this elasticity (L_{imc}^f/L_{imc}) measures female intensity in employment in import competing sectors. Again, this variable can be disaggregated over sectors: ($L_{imc-agr}^f/L_{imc-agr}$), ($L_{imc-man}^f/L_{imc-man}$), and ($L_{imc-ser}^f/L_{imc-ser}$). These data might also help in the selection of sectors for sectoral studies on the relationships between gender and trade variables.

5. *Trade elasticity of the gender wage gap*

This elasticity uses the gender wage gap as gender variable (W^f/W^m), possibly focusing on manufacturing (W_{man}^f/W_{man}^m).

6. *Trade elasticity of relative women's wages in the export sector*

The gender variable for this elasticity is the difference in women's wages in export sectors compared with average women's wages (W_{ex}^f/W^f). This variable might be disaggregated into (W_{ex-agr}^f/W_{agr}^f), (W_{ex-man}^f/W_{man}^f), and (W_{ex-ser}^f/W_{ser}^f).

7. *Trade elasticity of the gender gap in unemployment rates*

The gender variable in this elasticity measures female unemployment over male unemployment (U^f/U^m), and may also be disaggregated over sectors: ($U^f_{\text{ex-agr}}/U^m_{\text{agr}}$), ($U^f_{\text{ex-man}}/U^m_{\text{man}}$), and ($U^f_{\text{ex-ser}}/U^m_{\text{ser}}$).

8. *Trade elasticity of the gender gap in unpaid labour time and leisure time*

The gender variable in this elasticity measures women's leisure time relative to men's (LT^f/LT^m) or women's unpaid labour time relative to men's ($UNPT^f/UNPT^m$).

9. *Trade elasticity of gendered job segregation*

The gender variable used here is often referred to as the Index of Dissimilarity (ID)⁶. It would be insightful though, to measure the ID for the export sector (ID_{ex}) and import competing sector (ID_{imc}) separately.

10. *Trade elasticity of women's purchasing power for food*

The gender variable in this elasticity measures women's purchasing power for food [$(Y^f/\text{female population})/P_{\text{food}}$]. This variable reflects women's gender role in some cultures to provide their household with food from their own income or production (particularly relevant for sub-Saharan Africa as well as for female headed households in urban areas in all regions of the world). This indicator may be relevant only in the case of a substantial share of agricultural exports in a country's trade volume, since only then a crowding out of food production, and hence increasing food prices, might be expected.

11. *Trade elasticity of childcare and child wellbeing*

The gender variable in this elasticity is, like the former one, actually an indirect gender variable: it does not measure gender differences but consequences of women's gender roles resulting from a particular gender division of labour in the household. This variable might have different shapes for developed and developing economies. For developed economies, the relevant variable might be the length of waiting lists for (qual-

⁶ ID values range between 0 (no segregation) to 1 (total segregation). ID is calculated in its most simple version as the female share in occupation x over the female share in the labour force minus the male share in occupation x over the male share in the labour force.

ity) childcare, while for developing economies the relevant variable might be the rate of child malnutrition. In both cases, there are two options for the denominator: either, as in the indicators above, trade variables, or women's employment share in export industry corrected for trends in female labour force participation $(L_{ex}^f/L_{ex})/L^f$.

3.3 Qualitative Gender-and-Trade Indicators

Changes in some gender variables may not so much be attributed to increased trade volumes but to other factors related to trade. These factors may be of cultural or political character (for example expressed in the female share in trade delegations). Alternatively, structural gender inequality variables in an economy may affect potential gains from trade.

12. Implementation of gender relevant ILO Conventions

Relevant ILO conventions for monitoring gender equality (in particular in Export Processing Zones) are:

- ILO Convention 87 on freedom of association
- ILO Convention 100 on equal remuneration
- ILO Convention 111 on discrimination
- ILO Convention 156 on workers with family responsibilities
- ILO Convention 183 on maternity protection

Monitoring the implementation of these conventions, and in particular finding out the reasons why countries feel unable to implement these, may indicate to what extent increased openness to trade might inhibit the implementation.

13. Gender inequality in access to resources

Depending on their cultural and political histories, economies tend to have different structural limitations for women's access to resources. Therefore, a set of access indicators, which measures gender gaps in access to credit, land, and education, would enable the monitoring of improvements in gender equality in these areas over time. These access indicators have a clear two-way relationship with trade, because they both influence the volume of trade (with gender distortions in input markets the outcomes in domestic as well as international product markets will be sub-optimal) and the extent to

which women are able to benefit from trade, as employees, as entrepreneurs, and as traders.

14. Gender balance in trade delegations

At decision making levels of the WTO (Ministerial Conference) as well as in bilateral trade delegations, the majority of decision makers appear to be men. A reduction of this imbalance may lead to more gender-awareness of trade policy decision making, although this is not necessarily so. Gender awareness among trade delegates, irrespective of their sex, seems at least as relevant to push consistency between trading partners' gender policies and their trade policies.

4. THE BILATERAL TRADE AGREEMENT BETWEEN THE EU AND MERCOSUR: A CASE STUDY

This section introduces a case study on a bilateral trade agreement that was initiated in 1995 and has been agreed very recently (2000/2001): the trade agreement between the European Union and the four Mercosur countries (Argentina, Brazil, Paraguay and Uruguay). The finalisation of the agreement was preceded by a significant increase in trade already over the past few years, which makes it possible to measure some initial trade impacts. Trade between EU and Mercosur has increased over the period 1995-1999 with 12%, from 38,100 million US \$ in 1995 to 42,601 mln US \$ in 1999 (see tables 1, 2, and 3). Moreover, the EU has become the most important trading partner for Mercosur, having taken over this position from the US. About 50% of Mercosur trade is with industrial countries, half of which with the EU. The other 50% of Mercosur trade is with developing countries, less than half of which internally, that is, with other Mercosur countries (IMF, 2000). So, for Mercosur, EU is the largest trading partner, with even higher trade volumes than trade within Mercosur. For the EU however, trade with Mercosur is only 1% of total trade while 60% of EU trade is internal (IMF 2000).

Besides the pre-agreement increases in trade volumes between Mercosur and the EU, there are two other arguments for choosing this trade agreement for a case study on gender-and-trade indicators. First, the EU has committed itself since 1995 to integrate ("mainstream") gender equality in *all* its internal and external policies. In 1995, the European Commission accepted a resolution on the inclusion of gender issues in development co-operation, which was turned into a Council Regulation in 1998. Ac-

According to this regulation, all micro, meso, and macro policies should take women's and men's position into account. In 1996, the European Commission initiated a gender mainstreaming approach, which should lead to the incorporation of equal opportunities for women and men into *all EU policies and activities*. The mainstreaming efforts are developed in a 'Community Framework Strategy on Gender Equality' for the period 2001-2005. This strategy explicitly seeks to mainstream gender equality in internal EU policies as well as in external relations of the EU with third countries. Moreover, the EU has explicitly acknowledged that also its trade policies cannot and should no longer be excluded from the integration of gender objectives (European Commission, 2000). Second, Mercosur countries are not uncritical about a rapid expansion of trade. While Brazil and Uruguay have opened their borders significantly since the mid-1980's, Argentina and Paraguay have been more cautious (Rodrik, 2000). Moreover, in Mercosur, discussions have just started on the social impacts of the regional trade agreement, while impacts of external trade are even less predictable and more difficult to control.

Table 1. Trade Volumes Mercosur-EU, 1995-1999 (mln US \$)

	1995	1999	Change (%)
Mercosur exports to EU	17,872	19,137	7.1
Mercosur imports from EU	20,228	23,464	16.0
Total trade EU-Mercosur	38,100	42,601	11.8

(Sources: IMF Direction of Trade Statistics Yearbook 2000, Washington D.C.: IMF)

Table 2. Mercosur Imports from EU 1995-1999 (mln US \$)

	1995	1999	Change (%)
Argentina	5,618	7,145	27.2
Brazil	13,700	15,410	12.5
Paraguay	312	282	- 9.6
Uruguay	598	627	4.8
<i>Total</i>	<i>20,228</i>	<i>23,464</i>	<i>16.0</i>

(EUROSTAT, 2001 on <http://europa.eu.int/eurostat>)

Table 3. Mercosur Exports to EU 1995-1999 (mln US \$)

	1995	1999	Change (%)
Argentina	4,339	4,702	8.4
Brazil	12,912	13,855	7.3
Paraguay	178	141	- 20.7
Uruguay	443	439	- 0.9
<i>Total</i>	<i>17,872</i>	<i>19,137</i>	<i>7.1</i>

(EUROSTAT, 2001 on <http://europa.eu.int/eurostat>)

By way of example for the application of the gender-and-trade indicators proposed in section 3, data on the bilateral trade between Mercosur and the European Union will be used to calculate just a few of the indicators over the period 1995-1999. For the denominator two of the three options presented in section 3 are available: bilateral trade as a percentage of GDP or bilateral trade as a percentage of total trade (the option of tariff reductions is not yet applicable since over the period 1995-1999 the trade agreement was not yet operating). The increase in bilateral trade as a share of GDP for Mercosur was from 3.83% in 1995 to 3.98% in 1999, or an increase of 3.9% (see table 4). The increase in bilateral trade as a share of total trade for Mercosur was from 26.2% in 1995 to 27.3% in 1999, or an increase of 4.2% (see table 5). Rounding off these two figures, we take the denominator for the elasticities to be 4%. Indicators will only be calculated for Mercosur and not for EU because for EU the trade share with Mercosur is very small, both as a percentage of EU GDP as well as, as a share of total EU trade (see tables 4 and 5).

For Mercosur, those indicators will be calculated for which easy accessible data can be found.

Table 4. Bilateral Trade Share in GDP for EU and Mercosur 1995-1999 (%)

	1995	1999	Change
EU			
Bilateral Exports/GDP	0.33	0.45	36.4
Bilateral Imports/GDP	0.25	0.29	16.0
Bilateral Trade/GDP	0.58	0.75	29.3
Mercosur			
Bilateral Exports/GDP	1.80	1.79	-0.6
Bilateral Imports/GDP	2.03	2.19	7.9
Bilateral Trade/GDP	3.83	3.98	3.9

(Calculations by author on basis of IMF Direction of Trade Statistics Yearbook 2000, Washington D.C.: IMF: GDP data from World Development Reports 1997 & 2000, Washington D.C.: World Bank.)

Table 5. Bilateral Trade to EU as share of total Mercosur Trade 1995-1999 (%)

	1995	1999	Change
Bilateral exports/total Mercosur exports	25.5	25.6	0.4
Bilateral imports/total Mercosur imports	26.9	28.8	7.1
Bilateral trade/total Mercosur trade	26.2	27.3	4.2

(Calculations by author based on data from IMF Direction of Trade Statistics Yearbook 2000, Washington D.C.: IMF)

Trade elasticity of the gender gap in human development and earned income (indicators 1 and 2)

Data on the Gender Development Index (GDI) for 1995 and 1999 for the Mercosur countries show that the index has slightly improved over this period, from 0.755 to 0.782, an increase of 3.6% (UNDP 1998 and 2001). However, the improvement was so small, that a t-test for means difference was not significant at the 0.1 level. Hence, the elasticity is zero, pointing at a perfect inelastic relationship between trade and GDI. In other words, the increased trade between Mercosur and the EU has not been able to impact on the gender gap in human development in the Mercosur region.

For the gender gap in earned income a similar story holds: the difference is positive but too small to be statistically significant: 3.0%, from 27.1% of earned income in 1995 to 27.9% of earned income in 1999 (UNDP 1998 and 2001). Again, the relationship seems inelastic, suggesting that the increased trade was unable to improve the gender gap in earned income in the Mercosur region.

Trade elasticity of gender inequality in employment (indicators 3 and 4)

Female labour force participation increased in Mercosur, as almost in every country between 1995 and 2000 (see table 6a). The female share in total employment in three of the four Mercosur countries (no data were available for Paraguay) increased from 39.77% in 1995 to 40.88% in 1999 (see table 6b), or with 2.8%⁷. The elasticity can be calculated as $dL^f/d\text{trade} = 2.8/4 = 0.7$. The indicator shows a positive but rather inelastic relationship, suggesting that increased trade with the EU is not reflected in a parallel increase in the female employment share.

Table 6a. Female Labour Force Participation rates in Mercosur 1995-2000

	1995	2000
Argentina	23.6	26.4
Brazil	31.8	32.8
Paraguay	21.4	22.9
Uruguay	35.4	37.4
<i>Mean</i>	<i>28.1</i>	<i>29.9</i>

(ILO, Yearbook of Labour Statistics 2000. Geneva: ILO)

⁷ T-test significant at 0.1 level.

Table 6b. Female Share in Employment in Mercosur 1995-1999 (%)

	1995	1999
Argentina	38.07	40.00
Brazil	39.88	40.27
Paraguay	-	-
Uruguay	41.36	42.36
<i>Mean</i>	<i>39.77</i>	<i>40.88</i>

(Calculated from ILO, Yearbook of Labour Statistics 2000. Geneva: ILO)

At the level of the two most important trade sectors for Mercosur-EU trade, agriculture and manufacturing (see table 7), data was available for Argentina and Brazil, the two largest Mercosur economies. The table shows that for these countries around 90% of imports from the EU are manufactures, whereas less than 40% of exports are manufactured goods and over 60% of exports are agricultural products. In other words, the trade pattern between Mercosur and the EU is still very traditional.

Table 7. Trade Structure Argentina and Brazil with EU in 1999 (%)

	Imports from EU (%)		Exports to EU (%)	
	Agr.	Man.	Agr.	Man.
Argentina	3.5	92.5	77.8	16.4
Brazil	6.9	88.2	62.1	37.1

(EUROSTAT on <http://www.europa.eu.int/>)

When we now look at the female share in employment in these two sectors for Argentina and Brazil⁸, we see a gendered picture: the agricultural sector has become more male intensive while manufacturing has become more female intensive over the four year period (see table 8).

⁸ For Paraguay no data were available for the years 1995 and 1999. Uruguay showed a slight increase in the female employment share in agriculture and a small decrease in the female share in manufacturing. This is the reverse of the trends observed in Argentina and Brazil, but it should be noted that in Uruguay over the period 1995-1999 all employment in agriculture and manufacturing decreased in absolute terms, for men and women alike.

Table 8. Female Share in Sectoral Employment in Mercosur 1995-1999 (%)

	1995	1999	Change
Argentina			
Agriculture	21.62	13.18	- 39.0
Manufacturing	26.78	37.50	40.0
Brazil			
Agriculture	34.41	33.97	-1.3
Manufacturing	27.32	29.35	7.4
<i>Mean agriculture</i>	<i>28.02</i>	<i>23.58</i>	<i>-15.9</i>
<i>Mean manufacturing</i>	<i>27.05</i>	<i>33.43</i>	<i>23.6</i>

(Calculated from ILO, Yearbook of Labour Statistics 2000. Geneva: ILO)

If we calculate the trade elasticity of the female employment share for these two sectors, we see a different picture emerging. For the agricultural sector, the indicator would be $dL_{agr}^f/dtrade = -15.9/4 = -4$. For the manufacturing sector, the indicator would be $dL_{man}^f/dtrade = 23.6/4 = 6$. Both indicators now appear to be elastic, the agricultural one negatively related to trade, the manufacturing one positively related to trade. In other words, the increased trade with the EU might have induced, at least partially, a masculinisation of agriculture, an already strongly male dominated sector in the Mercosur area, and at the same time a feminisation of manufacturing, which is a new phenomenon for the region, but following trends in other areas in the developing world.

The masculinisation of agriculture is not very surprising: agriculture is the major export sector to the EU and Mercosur farmers fear competition from farmers in the Easter European countries that will form part of the EU in future (Wolf Grabendorff, 1999). Hence, with increased job competition in a macho culture where the ideal of the male breadwinner is strong, agricultural jobs are likely to become even more typified as masculine than before⁹.

An explanation for the feminisation of manufacturing employment is more difficult to find. Stephanie Seguino (2000a and 2000b) has argued for Asia that feminisation of manufacturing has occurred because of the large increase in manufacturing exports based on low female wages. However, Mercosur's exports are mainly agricul-

⁹ The extra agricultural jobs that emerged for women in Argentina might consist of predominantly flexible work in the fruit sector, labelled as unskilled and, parallel to the low wages, typified as "feminine" (see, for example, Elizabeth Jelin, Matilde Mercado and Gabriela Wyczykier, 2001 on homework in Argentina; and Stephanie Barrientos, 1999 on female workers in the fruit export sector in Chile).

tural¹⁰. Mercosur imports more manufacturing products from the EU than it exports to the EU. Bartholomew Armah (1994) has argued for a developed country (the US) that the female employment share tends to be higher in trade sensitive sectors. This might, in combination with the ‘Wood asymmetry’ for OECD countries, explain the increased female employment share in manufacturing in Mercosur. Manufacturing is not so much an exports sector, but rather an import competing sector in Mercosur. Hence, job protection by men in the labour market across sectors may have led to an increase in the female employment share in the vulnerable manufacturing sector. It is important to note that such a gendered labour market reaction to trade in Mercosur seems to fit better the predictions in the literature for OECD countries than those for developing countries.

Trade elasticity of the gender wage gap (indicator 5)

The ILO database does not provide gender disaggregated data on wages for Argentina and Uruguay. For Brazil the data show that the gender wage gap improved from 75% in 1995 to 81% in 1999 and in Paraguay it worsened considerably over the same period, from 81% to 59%. These data however do not provide sufficient information to monitor the gender wage gap in relation to trade.

Trade elasticity of the gender gap in unemployment rates (indicator 7)

For the gender gap in unemployment Mercosur countries again differ: In Argentina, the gender gap reduced from 1.35% to 1.14%, while in Brazil it increased from 1.38% to 1.53% and in Uruguay it increased slightly. On average, however, the gender gap in unemployment rates remained the same (see table 9 below). So, the trade elasticity of the gender gap in unemployment rates is zero, as the increased trade is unable to reduce the gender gap in unemployment.

¹⁰ Figures on manufacturing exports from all of Latin America to EU suggest its value is even declining from 9,322 mln US\$ in 1995 to 8,935 mln US\$ in 1997. Consequently, the share of manufactures in exports from Latin America to the European Union reduced from 24.4% to 22% (UNCTAD, 2000).

Table 9. The Gender Gap in Unemployment Rates for Mercosur, 1995-1999 (%)

	Male 1995	Female 1995	F/M ratio 1995	Male 1999	Female 1999	F/M ratio 1999
Argentina	16.5	22.3	1.35	13.3	15.2	1.14
Brazil	5.3	7.3	1.38	7.9	12.1	1.53
Paraguay	-	-	-	-	-	-
Uruguay	8.0	13.2	1.65	8.7	14.6	1.68
<i>Mean</i>			<i>1.46</i>			<i>1.45</i>

(ILO, Yearbook of Labour Statistics 2000. Geneva: ILO)

Below, in table 10, the gender gap in sectoral unemployment rates for agriculture and manufacturing are presented for the two Mercosur countries for which these data were available, Argentina and Uruguay. In both countries, the gender gap in unemployment rates went up in agriculture, but went down in manufacturing.

Table 10. The Gender Gap in Sectoral Unemployment Rates for two Countries, 1995-1999 (%)

	F/M unemployment ratio 1995	F/M unemployment ratio 1999
Argentina		
Agriculture	0.48	0.95
Manufacturing	2.05	1.52
Uruguay		
Agriculture	1.14	1.57
Manufacturing	2.15	2.01

(Calculated from ILO, Yearbook of Labour Statistics 2000. Geneva: ILO)

An explanation for the increased gender gap in agricultural unemployment in Argentina and Uruguay may parallel the decrease in female intensity in agricultural employment. An explanation for the reduced gender gap in manufacturing unemployment in Argentina and Uruguay may run parallel to the feminisation of manufacturing employment in Mercosur. But, female unemployment rates remain higher than male unemployment rates in the manufacturing sector.

An underlying explanation for both the higher female employment share and a decrease in the gender gap in unemployment rates in the manufacturing sector in Mercosur may also lie in the persisting low technical intensity of Mercosur manufactured exports (Ricardo Markwald and Joao Bosco Machado, 1999, Tables 5.2, 5.3, and 5.4). At low levels of technology, substitution of male labour for female labour is more likely to happen, because of the low skill levels required and the competition on low wages at those skill levels in the tradable sector.

Gender balance in trade delegations (indicator 14)

This indicator is zero, since all heads of EU trade delegations in MERCOSUR are male according to EU information (<http://europa.eu.int/comm/trade/bilateral/>), and, as far as can be assumed from the names of the delegates, almost all other members of the delegations are male as well. The value of this indicator shows a serious gender bias in the negotiating process on the trade agreements on the side of the EU.

As the limited number of examples for the values of the gender and trade indicators shows, more data needs to be collected and analysed, also for the non-economic indicators. Furthermore, data would need to be collected at the sector level. This seems to provide not only more information, but also a more significant application of the indicators. However, such detailed application of the indicators to the bilateral trade agreements between EU and MERCOSUR goes beyond the purposes of this paper¹¹.

5. PRELIMINARY CONCLUSIONS

With all the limitations attached to the set of gender-and-trade indicators proposed in section 3, and the shortcomings of the data on the indicators calculated in section 4, some of the trends expressed in the literature were nevertheless highlighted with the help of the case study on Mercosur-EU trade. The paper has indicated that a gender analysis of trade, and in particular monitoring of trade agreements with gender-and-trade indicators, seems to be useful in two, interrelated, regards. First, for monitoring gender equality in trade, and second, for a better understanding of the effectiveness of trade as a growth and development strategy for a developing country.

The gender-and-trade indicators seem to be able to indicate to what extent trade might contribute to gender equality in human development and in the labour market. The case study on the trade agreement between Mercosur and the EU does not give much reason for optimism about this relationship. The increased trade parallels ambiguous changes in gender equality. The trade elasticities for various gender variables appeared to be zero (GDI, earned income, gender wage gap, gender gap in unemployment rates) or very low (female employment share). The preliminary results for intersectoral gender-and-trade indicators in Mercosur are even more ambiguous with elastic

¹¹ A first step towards such a sectoral gender analysis of trade can be found for example in Lineke Stobbe (2000) who studied gender effects of globalisation as well as of intra-Mercosur trade of the Argentine auto components industry.

indicators for the female employment share in the two tradable sectors, agriculture (loss of female employment share) and manufacturing (increasing female employment share). A closer look at the trade *pattern* between Mercosur and EU reveals that the trend of increasing sectoral gender segregation is paralleled by a similar divergence in trade vulnerability between the two sectors. Agriculture is the main export sector, growing steadily though slowly, while manufacturing is the major import competing sector, facing rapidly increasing imports from the EU, while value-added in manufacturing exports remains low. Hence, it is the increasingly feminised manufacturing sector in Mercosur which is the most vulnerable sector in trade with the EU, facing severe import competition¹². This striking parallel between the trend of sectoral gender segregation as well as a gender wage gap in Mercosur in the one hand and the traditional trade pattern with the EU on the other hand, suggests a second conclusion from the paper.

A particular trade pattern (and volume) may not only impact on a social variable such as gender equality, but the social variable may in turn influence the trade pattern and volume, as the literature reviewed suggests. Mercosur exports to the EU have low value added and involve low levels of technology and skills, both in agriculture and in manufacturing. In manufacturing, the level of technology in exports to the EU is even lower than for intra-Mercosur trade. So, the external trade pattern is not only traditional because it relies so much on agricultural exports from South to North, but also manufacturing exports to EU specialise in labour intensive and low skill products, even though the level of education of the labour force in Mercosur is quite high, with even high gender equality. Hence, the external trade pattern of Mercosur reflects a locked-in situation, with little long run benefits in terms of technological advancement, skill upgrading, and competitiveness. Or, in other words, trade with the EU seems to keep the Mercosur region locked-out from technological development and skill upgrading, *despite* the high levels of human capital for men and women in the Mercosur labour force.

The paper suggests that these two phenomena in Mercosur-EU trade – little progress in gender equality and a traditional trade pattern – are not unrelated. A similar trend may be operating as in the manufacturing exporting developing countries in Asia,

¹² For Argentina, for example, the single clearly female dominated sector (clothing and apparel), increased its female intensity (female/male employment share) from 2.23 in 1995 to 2.68 in 1999 (ILO, 2000). It is this sector which was mentioned by Kucera and Milberg (2000) as being among the most vulnerable import competing sectors.

where Seguino (2000a and 2000b) found a causal relationship between gender inequality in wages and export-based GDP growth. Also in the trade pattern of South America, gender inequality might be more than “just” a social variable, among other variables influenced by trade, such as poverty or the environment. Although the case study in this paper serves only as an illustration for the application of gender-and-trade indicators, while much more research on the relationships between gender and trade is needed, the paper suggests that gender inequality may be at least partially responsible for keeping the region locked-in a constraining trade situation, with low female wages and sectoral gender segregation as major endogenous variables.

While much more research is needed in this area, gender-and-trade indicators do seem to be a useful tool for the monitoring of mutual relationships between trade and gender variables, reflecting and adding to some of the trends that have been observed in the literature so far. Moreover, for policy makers, the indicators may appear helpful for their efforts to enhance coherence between different types of policies, such as trade policies and gender policies.

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