

Trade-Related Employment For Women In
Industry And Services In Developing
Countries

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Occasional Paper 5, August 1995

United Nations Research Institute for Social Development
United Nations Development Programme

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ISSN 1020-3354

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Preface

The Fourth World Conference on Women, to be held in Beijing in September 1995, provides an opportunity for the world community to focus attention on areas of critical concern for women worldwide — concerns that stem from social problems embracing both men and women, and that require solutions affecting both genders. One of the main objectives of the Conference is to adopt a platform for action, concentrating on some of the key areas identified as obstacles to the advancement of women. UNRISD's work in preparation for the Fourth World Conference on Women focuses on two of the themes highlighted by the United Nations Commission on the Status of Women:

- inequality in women's access to and participation in the definition of economic structures and policies and the productive process itself; and
- insufficient institutional mechanisms to promote the advancement of women.

The Institute's Occasional Paper series for Beijing reflects work carried out under the UNRISD/UNDP project, **Technical Co-operation and Women's Lives: Integrating Gender into Development Policy**. The activities of the project include an assessment of efforts by a selected number of donor agencies and governments to integrate gender issues into their activities; the action-oriented part of the project involves pilot studies in Bangladesh, Jamaica, Morocco, Uganda and Viet Nam, the goal of which is to initiate a policy dialogue between gender researchers, policy makers and activists aimed at making economic policies and productive processes more accountable to women.

This paper is intended to contribute to the project's policy dialogues. It considers current changes in the international economic context as they affect the evolution of employment structures, and analyses their implications for women's employment in the trade-related manufacturing and services sectors.

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August 1995

Dharam Ghai
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Executive Summary

The external economic environment is exercising an increasingly important influence on the structure of production and the rate of economic growth in developing countries. International markets have been greatly “liberalized” since 1948, i.e. world tariff levels have been reduced, despite periodic protectionist actions by Northern countries. Accordingly, the profitability of selling in foreign markets has increased for developing country producers (taken as a single category). Complementing this, domestic policies in many countries have become less biased against exporting, to the extent that the formerly widespread autarkic approach to industrialization has now been almost universally abandoned in the developing world.

In keeping with the trend towards liberalization, the value of goods and services traded internationally has increased relative to the value of goods and services sold on domestic markets. Within the total, the shares of manufactured goods and, latterly, services have risen steadily at the expense of trade in primary commodities. Despite their traditional specialization in commodities, the developing countries have succeeded in building up their presence in these new markets.

In addition to the historical growth in the value of international trade, the contemporary “globalization” of the world economy — which stems from improvements in telecommunications and information technology and the opening of many local markets to foreign investors, especially in services — has further intensified the interpenetration of local and international market forces worldwide.

The evolution of employment structures in general, and employment possibilities for women in particular, have been significantly affected by these developments. Any investigation of changes in women’s income earning prospects in the course of development must now take account of the international dimension.

The growth in international trade and the effects of globalization have both so far favoured women’s participation in paid employment. The increased absorption of women workers into manufacturing in developing countries has clearly been driven by changes in trade performance, in two senses. On the one hand, women have been the actively preferred labour force in exporting industries, and on the other, the change in trade orientation has entailed the relative decline of privileged male employment in autarkic industry. Women now comprise about one third of all industrial sector workers in developing countries.

Roughly speaking, while changes in employment opportunities for women in the industrial sector have historically been due to trade liberalization, changes in services employment — which are likely to dominate the picture more and more in the future — are attributable to the effects of globalization. This is having a twofold effect on women’s employment opportunities. First, new jobs are being created in information-based industries, which use telecommunications

infrastructure to access cheap, educated female labour in developing countries for operations such as data processing, much as the improvement in international physical transportation links facilitated expansion earlier of production capacity in clothing and electronics in developing countries. This amplification of female-intensive employment into some service operations is paralleled by the recent expansion of exports of fruit, flowers and vegetables, again based largely on use of female labour, from some developing countries. While the phenomenon was first noted in Mexico, it is clear that for some East African countries, notably Kenya, this activity has greatly expanded in recent years. It may represent the main or even the only immediate possibility for viable engagement in international non-commodity markets for many of the least developed countries, particularly in sub-Saharan Africa, where the female labour force is poorly equipped, as a result of failings in educational provision, for work in modern sector industry.

Secondly, globalization is facilitating the establishment in developing countries of branches of service sector transnational corporations (TNCs), such as banks and insurance companies selling to consumers, and specialist producer services (e.g. advertising, accounting, legal services) meeting the needs of other enterprises. Often these establishments supply services to other countries in the region. Globalization is also encouraging the relocation of some former back-office functions within TNCs, on cost grounds. Some analysts see in this process the probable total geographical fragmentation of the operations of TNCs around the globe, and indeed the final demise of the national identity (as Northern- or Southern-based) of some TNCs.

In all these cases, new employment is created locally in the services sector, spread across both low and high skilled grades. Evidence of the gender implications of such employment creation is extremely sparse, but there is some evidence (e.g. for Malaysia) that the preference for female labour experienced in manufacturing carries over into new trade-related services, in both low and higher skilled segments. The preconditions for this are in place, to the extent that women are already well-represented in the services sector in developing countries, and in professional and technical occupations across all sectors. Gender biases in educational provision in developing countries, whereby women are concentrated in arts and humanities subjects, and in professional areas such as the law, lend support to speculation that expansion of trade-related services may represent an important new source of relatively well-paid employment opportunities for women in the future.

The causes and extent of trade-related employment gains for women can be explained in terms of the interaction between the economic characteristics of North-South trade and the operation of gender relations in the labour market and the gender biases in educational provision.

Developing countries' comparative advantage in international trade in manufactures has rested — and to a considerable extent continues to do so — on exports of labour-intensive manufactured goods — typically clothing and certain assembly-type stages of electronics goods

production. The differences in the level of technological sophistication embodied in these products (and others like them, e.g. food processing as similar to clothing) do not undermine this conclusion. But they do have consequences for the structure of firm ownership and the nature of trade regulations in different sorts of industries. Entry to the low technology clothing industry is relatively easy for new firms and clothing firms are predominantly small and local; consolidation of control by capital has not been possible. Accordingly, the bulk of clothing production in developing countries is by autonomous firms competing against Northern-based producers in rich country markets; the latter have responded by persuading Northern governments to put in place a notoriously restrictive, quota-based trade régime (the Multifibre Arrangement).

In electronics, by contrast, the high capital cost of high-technology production methods makes market entry for new firms extremely difficult, and world electronics production is dominated by a small number of TNCs, which have not wished to see final product prices raised in destination markets and have resisted imposition of tariffs and quotas on electronics components and products. The trade régime which resulted has facilitated the rapid rate of exports of electronics from developing countries. TNCs located much of the separable assembly stages in production of micro-circuits, computers and telecommunications equipment in developing countries to take advantage of low wages and maintain competitive position against their rivals. Thus the theory of comparative advantage, based on the stylized fact of lower wages in developing countries, is able to explain the pattern of North-South trade flows in industries across the technological spectrum.

Women are concentrated as workers within all parts of relatively labour intensive operations in the industrial sector, in both North and South. The fundamental reason for this concentration is that women, for a variety of socially determined reasons, directly or indirectly discriminatory in character, are paid lower wages than men. Typically the ratio of female:male wages is about two thirds. Hence women are the source of the lowest of low-wage labour available and the mobilization of women into the export sector in developing countries can be logically interpreted as the ultimate expression of the forces of comparative advantage.

Neo-classical economists explain the wage differential by gender in terms of women's lesser educational attainments and the consequences of their truncated or intermittently interrupted involvement in wage employment. But a much deeper analysis is needed. Hierarchical gender relations in society at large are clearly manifested in the labour market too. There are actual or perceived gender-based differences in workers' involvement in paid employment which have acted to restrict women's employment opportunities. For example, women are commonly prevented by statute from working night shifts, which limits their possibilities of employment in continuous process industries; women are similarly perceived of as in need of protection from heavy and dangerous work — both permeated by conceptions of masculinity — and thus

largely excluded from engagement in heavy industry; women leave employment periodically for childbearing, which carries over into expectations of women's lack of commitment and relative docility in the face of dismissal and poor treatment; and this, combined with the fact that women typically (though by no means always) enter the labour market with lesser levels of educational attainment, translates into a perception that women are suited to "lesser skilled" and therefore appropriately lesser paid jobs — in itself another gender-based, socially constructed inference rather than an objective feature of reality.

For all these reasons, women have been crowded into particular segments of the labour market, where the relative imbalance of demand and supply serves to reinforce wage settlements lower than in other parts of the employment structure. From a gender perspective, therefore, the public policy problem is particularly severe. So many factors interact to maintain the male-female wage differential and pattern of labour market segmentation and the educational and life-cycle decisions which women make — or have made for them — on the basis of it, which serve to perpetuate the inequitable gender order.

Since one of the main goals of gender equity is the reduction in women's economic dependence, the increased incorporation of women in trade-related wage employment in developing countries may be interpreted as a positive development. But evaluation of the changes depends on two other main factors: first, equality of female and male wages is crucial if the patterns of female dependence and subordination are to be broken; and second, the terms of employment in trade-related activity must be equitable if the new trade-related demand for female labour is to lead to any consolidation in women's position in the labour market. On the first point, the evidence is mixed and inconclusive. On the one hand, data on wages in export processing zones, where employment of women in export production has been concentrated to date, suggest that women's wages relative to men's are deteriorating over time. Evidence from some of the case study countries in the UNRISD/UNDP project for which this paper was prepared seems to support this hypothesis. On the other hand, some recent data analysed for a set of 12 developing countries suggest a process of steady improvement over time in women's relative wages in the manufacturing sector. With respect to working conditions, it is clear that expansion of female employment in export factories, where job security is limited, represents a deterioration in the average conditions of employment in this sector, even though cyclical demand conditions in the industries concerned play a part. There is ample evidence, for example, of calculated actions of employers to prevent women building expectations of long-term employment and the seniority wage structure and career progression possibilities that might be associated with it.

In respect of both aspects of the situation, the precautionary principle must be applied as the guide for public policy and action by interested parties such as women's groups. Developing country governments need to ratify ILO Convention 100 and enact equal wage and opportunity legislation, if it is not already on the statute book. More difficult, they need to ensure sound and effective mechanisms for implementation of that legislation.

NGOs, the women's movement and any other groups acting for women's interests need to be vigilant in preventing any moves towards greater wage inequality. Lessons can surely be learned internationally from the experiences of similar groups in developed countries.

Two other possible arenas for action present themselves. First, the potential for equal wage provisions to be promoted as part of — perhaps the least controversial part of — putative “social clauses” in international trade agreements should be explored. The effort to include general social clauses in trade agreements has been strongly resisted by developing country governments which see them as a veiled protectionist device; developed countries are divided and the ILO, for example, is split down the middle over the issue. But the topic may be shelved rather than permanently dead in international fora and women's groups might take advantage of the pause to re-examine the issues, consider their position and lobby their own governments accordingly to take a stand in international negotiations.

The second forum is the “sub-political” arena of civil society, in which the international environmentalist groups have been so influential. The recent case of Shell's reversal of policy over disposal of an old oil-rig in direct response to pressure from Greenpeace is a graphic recent case. Women's interest groups (both Northern and Southern) could bring their own strength to bear similarly directly on TNCs, which are likely to become an increasingly important actor in, and to have an increased influence over, labour markets and employment practices towards women in developing countries. Vigilance over TNCs' employment practices in general and equal wage payments by gender in particular could be monitored locally, information published, good and bad employers identified and representations made for improved practices for women employees. There is vast potential for international alliances between women's organizations worldwide for movement on this issue — indeed, in keeping with the globalization of the world economy, international action may not only be appropriate but necessary for promotion of gender equity in this connection.

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Abbreviations and Acronyms

ARTEP	Asian Regional Team for Employment Promotion
Dh	Moroccan Dirham
EPZ	export processing zone
GATT	General Agreement on Tariffs and Trade
ILO	International Labour Organization
MFA	Multifibre Arrangement
NIC	newly industrializing country
R&D	research and development
Tk	Bangladeshi Taka
TNC	transnational corporation
WTO	World Trade Organization

SECTION 1

Introduction

The purpose of this paper is to inform the work of the UNRISD/UNDP project “Technical Co-operation and Women’s Lives: Integrating Gender into Development Policy”. It describes contemporary changes in the international economic context as they affect the evolution of employment structures, and attempts to analyse how women’s labour market prospects in developing countries are being affected.¹ The paper helps to illuminate the broad parameters for the five national studies being prepared for the project and aims to provide a basis for comparison between them in terms of their relation to the evolving world economy.

One of the premises of the argument of this paper is the idea that developments in the international economy, i.e., the scale and pattern of international economic transactions and the forces driving them, are having a determining influence on the prosperity of developing economies and on income earning possibilities for their citizens. The relevance, and excitement, of these developments from a gender perspective is that the process manifestly does not preclude the participation of women as economic agents: indeed, women are centrally involved, and their involvement is crucial to a country’s prospects of economic growth.

The fundamental question that forms the background to policy discussions in this area is whether this participation is equitable or exploitative of women. Are the terms on which women are involved in such activity inequalitarian, as in other spheres of economic and social life? Do the quantity and quality of female employment in trade-related activity present an avenue for the improvement of women’s economic position? This paper addresses this question — without claiming to be able to answer it definitively, given the poor state of the necessary data — by reference to trade-related developments in different economic sectors and to differences in countries’ experiences of trade and industrialization.²

The paper first sets out what is known about the relation between different types of industrialization and female employment in the light of evolution in regulatory arrangements for world trade, and, secondly, raises a new issue: the significance, in relation to female employment, of the rapid expansion in international transactions in services. The

¹ The paper covers only the industrial and services sector; gender issues in agriculture are not addressed, except for a brief discussion of non-traditional horticulture in Section 5.

² A second question is also raised: what benefits do women, as individuals, gain from this employment? This depends on income and cost sharing arrangements among individuals of different age and gender, within households and at the broader social level, as set by social relations of gender. It is not clear that the benefits flowing to women from trade-related employment are distinctive in this connection, and since the topic falls outside the remit of this paper it is not pursued any further here.

organization of the paper is as follows: Section 2 discusses matters on which information and interpretation are relatively clear cut. This mainly concerns historical experiences in developing countries concerning the relation between the growth and structure of industrial capacity and the demand for female labour, (Sections 2.2 and 2.3), with the relevance of international trade regulations between developed and developing countries explained (Section 2.4).

Section 3 concerns new developments in international markets as they are now affecting national production structures and women's employment prospects. It focuses on the new activities of transnational corporations and the recent rapid expansion of international transactions in services. New information technologies are at the root of many of these changes, but the relocations patterns taking shape cannot be understood without reference, again, to the rules — and lack of rules — that govern international trade in services and the underlying factor endowments of developing countries that determine their competitive position in various types of economic activity. Much of this section is speculative because the empirical evidence is sparse and unsystematic, and often lacking altogether, especially as regards the gender dimension of change. Nevertheless there is enough information for certain trends to be evident, and there are strong pointers for particular concerns regarding women's involvement.

The final concluding section (Section 5) identifies issues on which research needs to be done, and on which, for policy purposes, monitoring of developments is important.

The paper also discusses (in Section 4) the situation in the five countries selected for attempts at policy dialogue on gender issues under Phase II of the UNRISD/UNDP project: Bangladesh, Jamaica, Morocco, Uganda and Viet Nam. This selection of countries covers a range of national situations: three low income and two low-middle income countries (according to the World Bank classification); or, cut another way, three countries — not the three lowest income countries — with a poor record on human development, and two with a good record in this respect. Of the five countries, two are well established in world markets for manufactures and international services transactions (Jamaica and Morocco); while two countries are on the brink (actually or prospectively) of becoming substantial exporters (Bangladesh and Viet Nam). Uganda, by contrast, is an agriculturally based economy with no export capacity in its small industrial sector, and apparently limited prospects of attaining this, according to analyses of the causes of international competitiveness in industrial and services production: a fact which reflects the extreme marginalization of African economies from the non-commodity international economy over the past decade.

SECTION 2

Understanding the Past: Trade and the Gender Dimension In Manufacturing

2.1 Overview

Development of industrial capacity is an integral part of national economic growth. Increases in agricultural productivity have been crucial to sustainable development, even where, as in East Asian countries, the strategic focus has been on non-agricultural development; but no country has so far achieved per capita income of more than US\$ 1,000 on the basis of development and modernization of agriculture alone (Riedel, 1993: 420).

This paper will argue that **the extent to which industrialization generates employment opportunities for women in developing countries has been determined by the trade orientation of industrial production.** Industrialisation under a strategy of national autarky provides “jobs for the boys”, i.e., for a male “labour aristocracy”, whereas the types of industry that expand in response to foreign market opportunities in an open trading régime rely heavily on the use of female labour. **In the contemporary era, no strong export performance in manufactures by any developing country has ever been secured without reliance on female labour.**³

This comes about because of certain universal regularities in the composition of exports of manufactures and related patterns of labour use by gender. The breakthrough into exports of manufactures typically begins for a low-income country with exports of clothing, footwear and processed foods, followed (if diversification takes place) by production of micro-circuits and electronic products for consumer or business use. In both of these broad product categories women workers constitute the majority of the manufacturing sector workforce.

By contrast, nations that have attempted self-sufficiency in industrial production, covering both production of “light” consumer products and heavy and “continuous process” industrial plant, have tended mostly to employ male labour in the manufacturing sector. Where women have been employed they have been concentrated in the same product subsectors that first achieve international competitiveness when exports are encouraged.

This paper analyses and explains this pattern of gender specialization in industrial employment and reliance on female labour in subsectors of industry that develop export capacity. Two fundamental questions for gender policy that arise from this situation are also addressed in this paper. The first is: does reliance on female labour persist as export capacity is deepened and diversified in later stages of development? The second is: does mobilization of women into a country’s industrial labour force through growth of exports enhance women’s overall position in the

³ Support for these assertions is found in the following sections.

labour market in terms of the quality of jobs provided and in remuneration?

2.2 Production structures and employment in industry under autarkic protection versus export orientation

Developing country governments have historically differed very considerably in their industrialization strategies. At the two extremes of policy are autarkic industrialization for industrial self-sufficiency, and industrialization in a fully open or relatively liberal trading régime, responding to international market demand and supplying foreign as well as local markets. Many countries have changed their policy stance over time, moving along the policy spectrum away from complete autarky towards greater openness; consequently a hybrid of policies is often found in practice, with elements from both strategies coexisting.

The underlying rationales and the policy measures used to implement different industrialization strategies are well known. Autarkic strategies, viable in their purest form only for large economies, were driven by three concerns. The first was an often nationalistic desire to establish an integrated industrial structure. The second was the belief that conditions in international markets were inherently biased against developing country producers. The bias arose either because cartels and oligopolies based in industrialized countries colluded to resist new entrants, or because trading conditions were structurally distorted, essentially as a result of demand conditions, against the kinds of primary commodities that developing country producers could supply. The third was that protection was necessary before countries could become competitive internationally. This refers to the policy of giving “infant industry” protection from established foreign producers to local businesses during their start-up period.

In principle, the goal of autarkic development was to attain complete national self-sufficiency in manufactured products by building capacity at all levels of an integrated vertical producer chain. The industrial sector was to produce the whole range of producer and consumer products, ranging from heavy basic supplies and raw materials (metals, industrial chemicals, power generation); to production of components and parts; and to production of consumer goods.

The governments of many large developing countries, especially in Latin America and South Asia, favoured autarkic industrialization, and it was of course the governing strategy in the centrally planned socialist economies. But the approach found widespread favour throughout the developing world, including the larger East Asian economies. However, autarkic industrialization proved a costly policy to governments and to the population at large. Protection allowed persistent cost inefficiencies and entailed the emergence of quasi-rents and rent-seeking behaviour by firms. Sometimes subsidies to producers were very large, as was the overpricing of consumer goods to local markets relative to international prices. The maturation of domestic producers proved elusive: vested interests emerged to defend the economic rents that could be made

behind trade barriers and resisted their reduction. Another consequence of protection was that the tariff structures imposed on imports cheapened the cost of capital and encouraged more capital intensive production methods than the real local relative cost of capital and labour would have led to. On the other side, the spectacular economic success of the East Asian nations, which gave a central place to export production and succeeded in penetrating world markets to an unprecedented degree, tended to highlight the failures of the autarkic approach and to suggest that other industrialization strategies might be more successful.

For these reasons, and under the pressure of the requirement under structural adjustment programmes that governments reduce public spending, eliminate industrial subsidies and liberalize trade, which the debt crisis of the early 1980s made developing countries subject to, autarky and import substitution are now largely abandoned as the prevailing approach to industrialization in developing countries.

The alternative strategy, now so much in the ascendant worldwide, is export-oriented or export-promoting. This strategy is premised on the possibility of exploiting international comparative advantage in trade, and the idea that international competitiveness is attainable more or less immediately by developing country producers in certain manufacturing product categories. These categories are identified on the basis of the factor proportions used in production. In conformity with developing countries' abundance of labour resources and scarcity of capital, compared to developed countries, products made by relatively labour intensive methods are expected to be internationally competitive.

An export-oriented industrial strategy is put into effect through a set of macro-economic policies, which typically include devaluation of the local currency (making product sales in foreign markets more attractive), lower tariffs on imported materials and components, improvements in the administrative treatment of exporters, such as "fast track" provision of operating permits, and sometimes favourable tax treatment for exporters by way of special tax holidays, etc.

Producers based in export processing zones (EPZs) often benefited from a complete set of such preferences, but they also applied to other locations to a greater or lesser extent (World Bank, 1992). EPZs were set up largely to attract foreign investment, for provision of capital, market expertise and/or technology, according to the particular needs of the local economy (ILO/UNCTC, 1988). EPZs have assumed different levels of significance in leading the export drive in different developing countries. In the Asian countries they were used largely to bring in technology and marketing expertise to help penetrate foreign markets, since high local savings rates meant there was no marked shortage of finance capital. Consequently, even in the smaller countries such as Singapore, EPZ-based exporters account for a relatively small part of total industrial output and exports. By contrast, in small island countries (e.g. the Dominican Republic, Jamaica and Mauritius) and in large countries where an autarkic industrialization strategy otherwise generally prevailed (e.g. India), EPZs were a way of attracting investment to add to sparse local supplies of capital. Experienced foreign producers were

induced to provide the major part of the country's manufactured exports, operating in export enclaves sealed off from the protectionist policies in force elsewhere in the economy.

The export oriented industrialization strategy has been remarkably successful, demonstrating good performance, by any and all economic criteria, including sustained increases in real wages and low rates of unemployment from the 1970s onwards (Turnham, 1995). It has proven successful not only in the East Asian "miracle" countries which first embarked on such policies in a major way, i.e., the Republic of Korea, Taiwan Province of China, Singapore and Hong Kong, but in other countries which followed their example later, such as Malaysia, Thailand and Indonesia in South-East Asia; most recently and spectacularly, China; and Brazil and Mexico in Latin America and Tunisia in North Africa, which together loosely constitute what has been called the "second generation" of NICs (newly industrializing countries). All have promoted export industry and achieved rapid growth in their share of world markets. Latterly India, the last large developing country economy to have remained dedicated to the autarkic model, has liberalized trade and opened its markets to foreign investors. And another group of countries in Eastern Europe, notably Romania and Hungary, have adopted the same approach, promoting the expansion of export industry as their leading sector.

While export production appears to have been the main ingredient or manifestation of the "Asian Miracle", the precise role that export-promotion policy played in the East Asian success story is a matter of keen and continuing debate. The significance of export growth as representing the cause or the effect of general economic growth is disputed, as is the precise role of government policies in the process (Little, 1989 vs. Wade, 1990). The relevance of the Asian experience to other developing countries may also be limited, given the historical conditions specific to East Asia (Riedel, 1993). Nevertheless, the international financial institutions, notably the World Bank, which set the economic policy reform agenda for borrowing developing countries, have in Structural Adjustment Programmes advocated a trade liberalizing agenda based on a simple model of the East Asian experience, claiming that such policies are conducive to the creation of an internationally competitive industrial sector and inimical to the maintenance of inefficient local industry. Certainly, the experience of many sub-Saharan African countries, which have seen the collapse of local manufacturing capacity and disinvestment by foreign capital, is proof of the latter (Riddell, 1990; Bennell, 1995). But they have not managed to develop any export capacity in non-traditional products. Simple trade liberalizing policies have certainly not on their own been universally effective in promoting exports and growth.

Although the 1960s and 1970s were generally characterized by import substituting industrialization in developing countries, and the 1980s by the spread of market liberalization policies, there has been considerable variation in the timing of the shift away from protected industrialization in different countries. As noted, the East Asian tigers, starting with Hong Kong, were the first to begin active promotion of exports of

manufactures in the early 1960s. Some Latin American countries (e.g. Colombia and the Dominican Republic) also began early to explore ways of generating foreign exchange in pockets of non-traditional export production, without changing their generally protectionist policy stance. The result is that at any time a mixture of industrialization policies have been in effect.⁴ The policy mix has also however reflected the fact that even those countries that most prominently swung over to export promotion did not espouse a simple trade liberalizing, free market approach for the whole of the industrial sector. In particular, large segments of non-exporting manufacturing industry are maintained, often in the state sector and with considerable subsidy, in the East Asian countries, co-existing with the export sector (Riedel, 1993).

These countries have been able to maintain protected and/or subsidized heavy industrial structures in tandem with their exporting sectors because their high domestic savings rates have given them immunity from the dictates of the international financial institutions in matters of economic policy. Their overall industrialization strategy is to foster both export capacity and production capacity in non-competitive but strategically valuable lines in different parts of the industrial sector. The performance of some of the protected industries lends support to the case for long-term infant industry protection — the Republic of Korea exports steel and is a major world shipbuilder, testament to the possibility of eventual attainment of international competitiveness in the heavy industrial field. Most subsidized heavy industry still has virtually no links of any kind with the export sector (Riedel, 1993).

The product categories that have dominated developing countries' export drive in manufactures comprise a range characterized by marked labour intensity of production (Yeats, 1988). Developing countries have achieved a greater share of world markets in these kind of products than in any other. A broad grouping of classic labour intensive, sometimes primary product-based products — comprising clothing, processed foods, drink and tobacco, leather and footwear — exported by developing countries accounted for 24 per cent of world exports in 1989 (UNCTAD, 1992: Annex Table III-1). Clothing remains the classic start-up product for developing country producers to export on their own account. It continues to dominate the manufactures export basket of many of the poorest developing countries. In 1993 clothing accounted for 56 per cent of the merchandise exports of Bangladesh, 49 per cent of Sri Lanka, 53 per cent of Mauritius, and 20 per cent of China (GATT, 1994: Table III.42). In total, clothing accounts for approximately 6 per cent of developing countries' total exports (see Table 1). Processed food products are another major item, which accounts for a major part of manufactured exports in countries such as Morocco and Bangladesh, although a country's possibility of exporting such products depends on an arbitrary distribution of suitable primary raw materials (e.g. fish and

⁴ Pearson (1992), while pointing correctly to the complexity of the situation, perhaps goes too far in denying any historical progression from autarkic to export oriented industrial strategies. Such a transition can be said in any event to be predicated within the autarkic approach.

shrimp in these two cases).⁵ The predominance of such labour intensive items in developing countries' manufactured exports gives empirical support to theories of resource endowments-based comparative advantage as the basis for trade.

Measurement of research and development (R&D) expenditure levels of different industries gives another measure of relative factor use in the production process. R&D measures the expenditure by firms in pursuit of improvements in production technology, which are usually then embodied in changes in machinery and equipment. For this reason high R&D is strongly associated with capital intensity. Developing countries' market share in world trade is much higher in low R&D sectors than in high R&D sectors. They amounted to 24 per cent of low R&D products in 1989, (15 per cent in 1970), compared to 15 per cent in high R & D products in 1989 (compared to 2.5 in 1970) (UNCTAD: 1992, Annex Table III-1).

The perhaps surprisingly high figure for developing countries' share of high R&D product categories has two explanations. First, many of the countries classed among the developing countries have in economic terms in effect graduated from that group, in terms of their per capita income, technological capacity and factor endowment. The composition of their manufactured output has changed accordingly towards more capital intensive, R&D dependent activities.

The second reason relates to the fact that the high R&D product category includes office machines and computers, electronics components and telecommunications equipment. These have been among the fastest growing product groups in world trade. Table 1 illustrates the rapidity of their growth over the period 1980-1981 to 1990-1991. These products have seen their share of developing countries' total exports increase nearly five times over that period, with annual growth rates in export values in some of the component product groups as high as 43 per cent per annum (automatic data processing equipment), 30 per cent per annum (office machinery and automatic data processing equipment parts) and 17 per cent per annum (semi-conductors). (UNCTAD, 1993: Table 4.3). By 1990-1991 electronics exports from developing countries amounted to almost twice the value of clothing exports.

Nevertheless, the difference between these products and the classic export manufactures is more apparent than real with respect to the economic characteristics of the production methods used in developing countries. Much electronics production in developing countries has the peculiar dual characteristic of being both high R&D and labour intensive. Although the electronics industry is, in all its heterogeneity, essentially the bearer of the modern technological revolution and has extremely high R&D levels, production of electronics products involves many distinct and separable activities. The work carried out in developing countries concerns only a small part of the total range of

⁵ It may be because of this absolute link with the presence of particular primary resources that the food processing industry seems to have received much less research attention in the international trade literature than its importance to developing countries as a source of exports warrants.

production activities. It mainly consists of assembly-type operations, using imported components, with factor use ratios at the labour intensive end of the range. Simple cost considerations dictated that electronics companies, right from the beginning, located them in lower wage countries, by analogy with the world distribution of production capacity in clothing and other technologically simple labour intensive processes. The growth of electronics in developing countries' manufactures exports does not disturb the explanatory power of the comparative advantage model.

The differing technological level of the clothing and electronics industries does however have other consequences. The high R&D level of the electronics industry is reflected in its dominance worldwide by giant Northern-based TNCs, which have the organizational capacity to seek cost savings by scattering integral parts of the production process. By contrast, the clothing industry, in which R&D levels are low, includes many more indigenous developing country producers. In the few cases where TNCs are present in this industry, they are small or medium sized and sometimes based in developing countries themselves (United Nations, 1994). International production links certainly exist in the clothing industry, but they tend to take the form of sub-contracts between separately owned firms, rather than command chains between head offices and subsidiaries of TNCs.⁶

The labour intensity of clothing and other classic manufactures exports has two corollaries. First, the relatively small capital commitment required makes for ease of entry to the sector by new firms. There is little place in this sector, on the domestic or world level, for collusive behaviour or restrictive business practices by established firms to keep out new entrants. Market conditions as well as the low level of technology therefore make international markets in these products a prime candidate for indigenous competitors from new source locations. This is not to say that technology in this sector is static. There are quite marked changes over time in the ranking of countries' unit labour costs (see Table 2), which reflect changes in both wage rates and labour productivity (United Nations, 1994a). Even so, rises in labour productivity in these ("light") product categories tend to lag significantly behind those in other ("heavy") parts of industry (UNCTAD, 1993). Technical progress, although real, has therefore not undermined the relative labour intensity of clothing production within the modern industrial sector.

The second corollary has to do with the nature of employment in these sectors and the characteristics of the sectoral workforce, to which we now turn.

⁶ This is based on case study evidence; no estimate of the overall share of sub-contracted production or of production by TNC subsidiaries in developing countries' total exports of clothing is available.

2.3 Gender composition of the industrial labour force and export orientation

The employment of women workers in industry seems universally to fit a particular pattern. The demand for female labour is lowest in direct production jobs in heavy industry and highest in light, labour intensive manufacturing production. Even in centrally planned economies, where the overall share of women workers has historically been high because female labour was mobilized into industry as well as into other sectors, the same employment profile of men and women occurs.

One symptom of this pattern of labour specialization by gender is that the clothing industry — the classic labour intensive industry — absorbs a disproportionate share of female workers. More than two thirds of the global labour force in the clothing industry is accounted for by women and the industry accounts for almost one fifth of the total world female labour force in manufacturing (UNIDO, 1993a).

The economic characteristics of production, especially the relative shares of the main production factors, capital and labour, vary among branches of manufacturing. This indirectly helps explain the distribution of female employees by branch as well as the competitiveness of branch products in international markets.

While it is now generally known that in developing countries the production of manufactured exports relies on female labour (United Nations, 1995), the extent to which trade expansion has drawn women into the labour force in developing countries and the underlying economic logic of the process is not so well known.

Women constitute a high proportion of the labour force in some conspicuous parts of developing-country export-oriented manufacturing (clothing and electronic products, and export processing zones). In developed countries, women are over represented in the sectors on which manufactured imports have been concentrated, and under-represented in the manufacturing sectors which export to developing countries (Wood, 1991:168).⁷

The association of growth of exports with the feminization of the industrial labour force has held in all developing countries, whatever their level of income, or the previous pattern of female employment, or the qualifications and experience of the female labour force, or — perhaps most striking of all — the cultural norms pertaining to women taking paid employment. Experience in the case study countries, discussed below in Section 4 illustrates this clearly.

⁷ Nevertheless, Wood finds that in developed countries, increased trade with developing countries has, perhaps surprisingly, not worked to diminish the share of women workers in industry. Various possible explanations of this are given, to do with a generalized pressure for substitution of female for male labour throughout industry, change in occupational structures, etc. The issue is not pursued any further in this paper.

The main — though not the only — factor behind the differential distribution of male and female workers in different branches of industry is the gender gap in wages in manufacturing, based on discrimination in the labour market.

This is a substantial allegation. Table 3 presents the sort of first line of evidence usually raised in support of it. It shows female earnings as percentage of male earnings in manufacturing in a number of developing countries with values mostly ranging between 50 and 80 per cent. (The data are not available for other countries.) But these are crude data, which reflect not only differences in levels of pay (if any) but also differences between men and women in hours worked (men usually work significantly longer hours, except in some East Asian countries) and occupational distribution of male and female workers (men usually have a higher share of higher paid, higher skill level jobs). Adjustment for such factors has to be done, if like is to be compared with like.

But it is not straightforward to carry out this adjustment. Analytically, the method most commonly used to identify the true wage gap by gender takes data on individuals' earnings (instead of the plant level data collated by the ILO which generates the information in Table 3), together with information on individuals' labour characteristics which may be relevant to their level of pay, such as age and/or years of work experience, educational qualifications, and marital status. "Earnings functions" calculated separately for women and men on this basis can then show whether different wage structures exist for men and women, i.e., whether given attributes (such as education and experience) are valued differently for women and men — in which case gender discrimination in the technical sense exists. The existence of such differing pay structures has to be proved to uphold the claim that women are the source of the cheapest labour. The exercise also makes it possible to estimate what proportion of the crude earnings gap (as in Table 3) is accounted for by the different labour characteristics of men and women in the labour force, and how much is accounted for by differences in wage structure, i.e., by gender discrimination.⁸

Calculation of earnings functions and the estimation thereby of wage discrimination is a major econometric exercise which has only been carried out for a relatively small number of country or sector data sets. In almost every case, a true, discriminatory wage gap by gender is identified (Birdsall and Sabot, 1991; Psacharopoulos and Tzannatos, 1992; Terrell, 1992; Barbezat, 1993). Table 4 is a summary of the

⁸ Studies of the sources of the gender gap in earnings commonly show for example that there is a divergence in wages by gender at the point of marriage. Men are awarded an often explicit "breadwinner" premium on marriage, but women's rate of pay is reduced in the stated expectation that their domestic obligations will diminish their work attendance and work performance (Gannicott, 1986 for Taiwan Province of China; Appleton et al., 1995 for Africa; World Bank, 1995 for developed countries). Another cause of the divergence, reinforcing the female:male earnings difference among older workers, is that women commonly lose pay seniority after any break for maternity (Terrell, 1992).

findings of the main studies. It shows that in ten of the eleven countries studies represented, more than half the wage gap by gender is attributable to different pay structures applying to male and female workers, and less than half is explained by variations in workers' individual characteristics. In other words, a discriminatory wage gap of 10-25 per cent is the norm.

If wage discrimination is as pervasive and substantial as this suggests, why are women not the preferred source of labour in manufacturing across the board? A mixture of economic and socio-political reasons can be invoked in explanation. First and foremost is the economic reason that the cost of labour is more pertinent to employment decisions taken in labour intensive enterprises than in other types of industry. The labour intensive producer operating in a competitive market (local or foreign) is obliged to keep the wage bill, the main cost of the business, as low as possible. Employing women minimizes the wage bill without sacrifice of labour productivity.⁹

By contrast, enterprises using capital intensive techniques of production, especially but not only when they are in a protected, uncompetitive market situation — as usually obtains under an autarkic industrialization strategy — do not have a strong incentive to seek to minimize labour costs within total production costs. The total cost of labour is, by definition, low relative to the cost of capital. Indeed, the employer may pay a premium to labour (a high level “efficiency wage”) in order to secure worker loyalty and keep the rate of labour turnover low, important where labour productivity is high because of the capital intensity of the production process and there is an associated high opportunity cost of disruption to production. The level of union organization is generally higher in this sector, even though there is no strong evidence that unions are actually effective in raising wages¹⁰ as opposed to other benefits. In political economic terms, workers in the capital intensive sector are able, through the general strength of their wage bargaining position, to secure a share of the rentier profits actually or potentially available to enterprises behind protective barriers (Balassa, 1988).

As well as these narrowly political economic factors, there are reinforcing social reasons to explain why the “labour aristocracy” that emerged in capital intensive sectors should have been male. Men and women's differing, socially constructed characteristics as workers match employers' differing requirements of their workforce in different sub-sectors, to produce a concentration of male and female workers in heavy and light manufacturing respectively. The main dimensions of differentiation flow from a variety of distinctive, socially constructed constraints on women as part of the gender order. These affect women's

⁹ A few studies have been done in the clothing industry comparing male and female workers' individual productivity; they show little difference, even in a few cases that women have the edge (Joekes, 1987). Moroccan clothing producers believe that the quality of women's work is superior to men's, while men's work rate is higher (Joekes, 1982); the same views are also observed among Brazilian employers (Humphrey, 1987).

¹⁰ See Turnham, 1995 and the research findings on a number of Latin American countries reported in Psacharopoulos and Tzannatos, 1992.

“employability” with respect particularly to their working hours, to their perceived suitability to do heavy and dangerous work, and to their perceived lesser labour force commitment and skills.

First, the technical characteristics of operation of capital intensive, heavy industrial processes interact with a set of common restrictions against women working at night or doing heavy or dangerous work. Highly capitalized production activities require to be in continuous utilization to amortize the capital invested as quickly as possible; in some cases, e.g. chemical process industries, there are additional technological imperatives for continuous operation of the plant. In either case, two or three shift working is required of the workforce, normally on a rotating basis. Women are commonly forbidden by statute in developing countries from working varying shifts; where reasons are cited, they concern domestic care obligations along with the impropriety of women travelling at night (Anker and Hein, 1986).

Similarly, cultural norms concerning gender identity (again sometimes expressed in labour legislation) tend to prohibit women from carrying out work where heavy lifting or dangerous tasks are involved, as in metal working industries, for example. These restrictions also have a cultural rather than physiological basis. Women do carry out much other hard physical labour, e.g. in road construction gangs in South Asia: if the “lifting” limitation related purely to actual physiological capability, no additional screening criteria to this effect would need to be applied. The notion of “dangerous” work is similarly closely associated with concepts of “masculinity”.

“Protective” labour legislation, prohibiting women from night working and heavy lifting, has the paradoxical result of protecting men’s jobs: it limits women’s access to an important class of jobs (Anker and Hein, 1986), mostly in heavy industry, rather than protecting women’s health and safety in employment, as ostensibly intended.

Secondly, the characterization of women workers as “unstable” workers, “lacking commitment” to the labour force and lacking skills, are interrelated allegations. The main basis for them all lies in women’s periodic withdrawal from employment, even if only on a short-term basis, for childbearing, and for the alleged lack of priority women give to job performance subsequently when they thereafter assume more domestic responsibilities (caring for family members). This is supposed to result in higher absentee rates among women, lack of flexibility to perform overtime and so on.

Women’s intermittent withdrawal from the labour market has other consequences, notably a lower level of skill among women workers. This is because it reduces women’s lifetime earnings from employment (irrespective of the wage rate), which in turn leads to a lower level of investment in the education of girls by their families compared to boys, and to a lower level of investment in training of women workers by employers compared to male workers.

A gender critique of these various claims reveals that many of them are spurious and that none is straightforward and empty of gender bias. They are best interpreted as constituting the structure of underpinnings and rationalizations for discrimination against women in the labour market.

Many employers in fact pre-empt any effect that women's withdrawal from employment might have on production by unilaterally truncating their period of employment. In many instances, employers require women to leave after giving birth, or even on marriage (Barbezat, 1993). Furthermore, some employers clearly find high turnover in the labour force advantageous. In industries, such as semi-conductors, where the demand for labour fluctuates sharply over time with the economic cycle, high turnover reduces costs. Women are employed partly because their alleged high turnover makes for a "flexible" workforce; by extension, women are seen as less likely to protest layoffs. Enquiries into short-term absentee rates often reveal no gender difference, with women's absences for reasons of health or domestic duties matched or outweighed by men's absences due to excessive drinking (Anker and Hein, 1986). And "it is no longer unusual in many countries¹¹ to find that women's educational attainment is, on average, higher than men's" (Barbezat, 1993). In other countries, however, overall levels of female educational attainment are not significant for employers. A female workforce with educational attainment as high or higher than male workers may be available to manufacturing employers, always at lower wage cost, if other employment opportunities for women are sparse.¹²

The pattern of female labour force participation found historically in industrialized countries, whereby women did indeed withdraw altogether from employment when they had children, resuming employment years later when they were grown, was always much less common in developing countries and is becoming ever less so (Barbezat, 1993).

As with the issue of arduous and dangerous "male" jobs, the question of the respective skill levels of men's and women's work is problematic in many ways. The skill grading of jobs — an apparently clear-cut concept — also turns out to be complex and problematic and linked with the gender of the operative as much as with any neutral objective definition. That is to say, jobs are more likely to be defined as unskilled when held by women than by men (Phillips and Taylor, 1980). There is very little information on skill levels and training requirements in jobs of different kinds in industry. For instance, there is little evidence that the training periods for male workers in modern capital intensive industry are inherently longer than for women workers in labour intensive manufacturing. Where training periods for women are short (e.g. in garments) it is sometimes the case that women enter the workforce with some initial competence in the relevant skills, gained in the home environment or in school, which because shared by all women, is not

¹¹ This includes Jamaica and several countries in Latin America.

¹² Again this is a somewhat speculative statement, based on case study evidence. There is a remarkable lack of systematic information about the educational level of the workforce, in different sectors and overall, in developing countries. Data on educational attainment relate to the population as a whole rather than to those in the labour force or in employment.

appropriately rewarded by the employer.¹³ The gender bias in the process of skill definition feeds into the grading of jobs. Differential grading of men and women workers is a major contributory factor in the gender wage differential.

Nevertheless, these various beliefs about the character of women's labour force participation persist. They contribute to the exercise of "statistical discrimination" against women in employment based on gender stereotyping rather than fact¹⁴ and to employers' normal unpreparedness to pay women equal wages to men. Employers' negative attitudes towards women workers are particularly important in developing countries where there is often a very large surplus of workers interested in obtaining jobs in the modern sector (Anker and Hein, 1986).

Finally, the phenomenon of differences in the sectoral pattern of employment of female and male workers in itself may help to perpetuate the existence of gender discrimination in a vicious circle. It contributes to segmentation of the labour market along gender lines, and the possibility (actuality) of different wage structures and wage outcomes in the different sectors as the particular market conditions work themselves out. Both occupational segregation and within-occupation wage differentials contribute to the overall difference in wages by gender (Barbezat, 1993).

Labour market segmentation models have been quite influential in attempts to conceptualize the determinants of the gender wage gap.¹⁵ But recent research shows that they have limits as an explanatory factor. Reducing occupational segregation may not reduce the wage gap proportionally, and conversely increased segregation may not be incompatible with reductions in the wage gap over time. Thus, while the degree of occupational segregation by gender has been decreasing in most regions, it has been stable or increasing in some South and East Asian countries and yet the size of the wage gap by gender in the manufacturing sector has been decreasing in all cases (Tzannatos, 1995). In the Asian region, women's employment concentration has increased in better paying occupations within the industrial sector. The rapid recruitment of women into labour intensive exporting sectors and increased segregation that follows does not necessarily of itself imply an increase in the gender wage gap.

In the light of this analysis, it is clear why developing countries' abandonment of fully autarkic industrialization strategies and their entry to international markets in manufactures has been accompanied by an increasingly female-intensive pattern of employment.

¹³ This is the "nimble fingers" argument about one aspect of gender discrimination, particularly associated with the work of Elson and Pearson (see Elson and Pearson, 1981).

¹⁴ The concept was developed by Arrow as one of a number of alternative, non-mutually exclusive causal models of gender discrimination in the labour market (see Barbezat, 1993 and Birdsall and Sabot, 1991, for expositions).

¹⁵ They appealed particularly to institutional economists, but by focusing on market processes were not anathema to neo-classical economist.

The strength of this general preference for women workers in export industry is graphically illustrated in the scatter diagram shown in Figure 1, reproduced from Wood (1991). This shows the relationship between changes in manufactured export performance and changes in the percentage share of women in the total manufacturing workforce between the early 1960s and the mid-1980s. As countries have raised the share of products exported to the North in total manufacturing value added, the female intensity of the industrial labour force has risen. There is clearly a very strong, positive relationship.¹⁶ Among all the countries for which data was available, there is no case where a rise in export share was achieved without a rise in the proportion of women in the industrial workforce.

The feminization of the industrial labour force with trade expansion has clearly relied on the increased availability of female labour, and female labour force participation rates have risen in many parts of the developing world, especially in East Asia and Latin America (Schultz, 1990). But Wood's study shows that there is no underlying tendency for the share of women in the industrial labour force to have risen over time. **In other words, the increased absorption of women workers in manufacturing has been driven by changes in the trade performance of developing countries.**

The universality of the feminization of the industrial labour force in developing countries' exports is perhaps surprising in one respect: have the large gender gaps in education in developing countries not hampered the process? Wood believes that primary education is an essential attribute in the modern sector labour force (Wood, 1994). Women in most developing countries have been discriminated against in educational provision. But restricted opportunities for women in wage employment, together with a higher propensity for more educated women to seek wage employment, mean that, as suggested above, in many developing countries, even those with minimal total educational provision, a pool of women with some education is available to industrial enterprises.

Nevertheless, educational levels may help explain variations in the composition of manufactures exports among developing countries. The educational level of the workforce is lower in clothing (and other classic, relatively low technology operations) than in electronics. There is evidence to this effect in studies of the Dominican Republic, the Republic of Korea and Mexico (see Baden and Joekes, 1993). Production methods in clothing manufacture have been subject to some technological improvements over time (computer aided design, mechanized cutting, etc.) which have affected certain job grades¹⁷, but in

¹⁶ Using Ordinary Least Squares, the regression equation for these data has a statistically significant coefficient (0.31), and an R2 of 0.45. The intercept passes through zero, meaning that any secular tendency for the share of women workers in industry to increase can be discounted.

¹⁷ These posts tend to be filled by male workers. This is part of the reason why the labour force in exporting industries is not completely female. The other is that in clothing (but not in electronics) some men continue to be taken on in production line positions (paid a higher wage) to act as agents of social control:

the main production line machinery and methods and the tasks carried out by production line workers have not been radically changed from the early days of mass production. Production of electronics products, by contrast, takes place in high-tech conditions, sometimes under stringent atmospheric controls, with operatives working to graphically complex specifications with precision machinery. That a higher level of education is required in the workforce for production of electronics products than in clothing seems intuitively plausible.

While all developing countries with export capacity in manufactures export clothing, the production of office and telecommunications equipment for export is highly concentrated in those regions of the developing world where the levels of female education are relatively high. The East Asian nations largely totally dominate developing country exports of electronics products. The Asian countries are also notable for their high levels of female education: average years of schooling for women in the population as a whole are, for example, 6.7 in Korea, 5.4 in Hong Kong, and 5.0 in Malaysia¹⁸, compared to 2.7 years among all developing countries (0.9 years in the least developed countries and 9.6 in industrialized countries) (UNDP, 1992). By contrast, in countries where clothing is the proportionately largest product category in manufactured exports, the average level of women's education is lower [e.g. Bangladesh (0.9), Tunisia (1.2), Morocco (1.5), and Indonesia (2.9)] (ibid.).

The argument that education of women increases a countries' export propensity in manufactures has not been proven statistically (Berge and Wood, 1994). Thus it cannot yet be added to the list of the many social benefits of women's education, which has convinced policy makers in a number of developing countries to give female educational provision higher priority (for a succinct recent statement, see World Bank, 1995a). The government in Pakistan, for example, has committed itself to a programme to improve female enrolments in the belief that continuation of the present, extremely poor levels of provision of education for girls will penalize the country's international competitiveness in the future.¹⁹ Electronics exports from developing countries now outstrip exports of clothing. If their faster rate of growth continues, the association between export capacity and the availability of an educated, female workforce may become important in future, and countries which fail to provide education to women will find themselves unable to break into this increasingly important part of the world market.

they break up female solidarity and are used to set a faster work rate (Joekes, 1982).

¹⁸ The figure was 3.1 in Singapore in 1990 but probably much higher among younger women, because the situation is changing so rapidly: female enrolment in secondary education now exceeds the male rate (UNDP, 1992).

¹⁹ Of course, commitment to increase the appallingly low level of educational provision to women in Pakistan should not need to rely on instrumental arguments such as these.

2.4 Trade regulations and manufactures exports

Over the past forty years the increase in value of world trade has exceeded world output growth in every year except one (1982). The growth of trade has undoubtedly been facilitated by the trend towards trade liberalization, which is usually viewed as one of the great economic achievements of the Bretton Woods era. In the late 1940s world tariffs on manufactures averaged 40 per cent. Under the auspices of successive rounds of the GATT, the figure has been brought down to 5 per cent (Stevens, 1994). The implementation of the Uruguay Round, the last round of global trade negotiations under the GATT, will bring down the average tariff level even further.²⁰

In developing countries, the shift in domestic policies in favour of openness to trade and the rapid expansion of export capacity in the industrial sector had the result that (starting of course from a very low base) there was a more rapid rate of increase in manufactures exports from developing countries than from developed market-economy countries from the mid-1970s to 1990. Without the restraints and discriminatory provisions of world trade regulations as they impact on developing countries, the gains would probably have been even greater.

Continued discrimination against developing countries takes several forms.²¹ First, levels of tariff are higher the more processed the product (tariff escalation). For example, the average developed country tariff on fresh fruit is seven per cent compared to 17 per cent for processed fruit. Tariff escalation is a disincentive to developing countries to adding value to their primary materials by moving into agricultural processing and manufacturing. It is not yet clear whether the Uruguay Round will reduce tariff escalation.²² Second, quotas (quantitative restrictions on imports to industrialized countries' markets) are far more common on developing countries' exports than on developed countries' exports. Non-tariff measures cover 28 per cent of all developing country exports to the North overall; more than half of clothing exports are restrained in this way. Finally, strict product standards applied to imported goods (regarding e.g. food ingredients, labelling) can have an arbitrary character and seem intended as much to be obstacles to intending

²⁰ The Uruguay Round, concluded in December 1993, had as one of its provisions the replacement of the GATT itself with a new organization with greater powers, the World Trade Organisation (WTO). The Round was marked by a much greater participation of developing countries in the negotiations than in previous rounds. It marks the consolidation of the principles of rule observance and non-discrimination in global trade, the commitment to eventual removal of existing restrictions and extension of liberalization to new sectors (e.g. agriculture, services, intellectual property) and the ending (except for the least developed countries) of preferential treatment of developing countries. See Stevens, 1994 for a summary analysis of the impact of the Uruguay Round on developing countries.

²¹ The illustrative examples in the rest of the paragraph are drawn, unless otherwise stated, from Joekes and Weston, 1994.

²² Jane Kennan, personal communication.

exporters as protection to consumers. In terms of manufactures alone, and disregarding quotas, even after the implementation of the Uruguay Round, developed countries will still be imposing tariffs averaging 4.3 per cent on developing countries' exports, compared to 3.9 per cent on imports from other developed countries.²³

The two main categories of developing country exports to industrialized countries, clothing and electronics products, face special trading rules. As noted, the labour intensity of clothing production makes the clothes produced in low wage locations strongly competitive in rich country markets, and the ease of market entry for new clothing firms makes it difficult for established rich country producers to exercise monopoly powers and keep out market rivals. Hence, the weight of producer influence has gone into the creation of one of the most intricate and restrictive of all sets of trade rules, the MFA (Multifibre Arrangement).

The MFA has constituted the most notorious exception, to date, to the liberalizing tendencies in world trade. At last, the Uruguay Round contains a commitment on the part of industrialized countries to phase out the MFA. But the schedule is slow (a 10-year period of phasing out) and qualified, e.g. it allows for the imposition of "transitional safeguards" on certain product groups. Action is allowed against individual exporting countries if it can be demonstrated by the importing country that overall imports of a product were entering the country in such increased quantities as to cause serious damage — or to threaten it — to the relevant domestic industry and that there was a sharp and substantial increase of imports from the individual country concerned (GATT Secretariat, 1994). This opens the door to protectionist measures again, of the kind invoked frequently under the MFA in the past by industrialized countries against developing countries.

The MFA comprises a series of rolling bilateral arrangements between the main groups of industrialized countries (the United States, the European Community and Japan) and individual developing countries, containing lists of items of clothing subject to quota. Thus year by year a developing country would face a new set of restrictions on, for example, the number of pairs of men's trousers, or women's dresses, that it could legally export to a particular country destination. Specifications were laid down in terms of the permitted fabric composition of garments as well as the items of clothing concerned. Within countries, various methods were employed for allocating the quotas amongst local clothing producers, ranging from export permit auctions (in Hong Kong) to industry association-government negotiations (in the Dominican Republic). In countries which produced close to their quota allocation, a cat and mouse game developed of producers inventing new items/fabric mixes to step outside the itemized restrictions, at least until the list was revised (as in

²³ The downside of the progressive liberalization of tariffs to developing countries is that it erodes the preferential agreements that many groups of countries had secured for access to developed country markets. Two examples are the Caribbean Basin Initiative, giving lower tariff rates into the USA for products originating in Caribbean countries, and the series of Lome Agreements between the EC and the ACP countries (mostly former British and French colonies in the Caribbean, Africa and the Pacific region).

Hong Kong); or scanning other countries' lists and investing in locations where particular quotas were under-filled [one example being Korean investors who set up operations in the Dominican Republic to gain extra access to the North American market (Joeke, 1987)].

Quota-hopping investment of this kind, which has intensified in recent years, had a double-edged effect. While it may have been a significant factor in helping establish the clothing industry in new locations, it penalized countries which were too successful in such ventures by imposing a ceiling on their expansion. While experienced producers such as Hong Kong were adept at finding their way round the MFA restraints, albeit at the considerable cost of retooling production year by year, and some countries (e.g. the Dominican Republic) became skilful at obtaining a favourable deal for their clothing producers in annual quota negotiations with the United States, middle ranking producers had the growth and consolidation of an indigenous clothing sector blocked (especially if their exports were dominated by quota-hopping foreign investors). The clearest gains under the old system were experienced by the newest entrant countries, whose chances of breaking into the industry at an internationally competitive level may have been facilitated by the provisions of the MFA.

GATT economists predict a 60 per cent increase in trade in clothing with the phasing-out of the MFA. Most of that gain will accrue to relative newcomer countries, such as Pakistan, Bangladesh, China and India, which would sooner rather than later have hit restraints under the MFA, where they had not already done so (Atkinson, 1994). Weaker countries which might have been next in line to benefit (e.g. perhaps Viet Nam) may therefore find it more difficult to enter.

Another, little noticed bias has existed in the MFA against the establishment of indigenous production capacity in clothing in developing countries. The quota restraints of the MFA were in some instances overridden by trade provisions (such as "Super 807" of the United States trade laws) which applied trade taxes and quotas in full only on articles wholly produced in the exporting country or in a third country. Articles which included materials or components originating in the importing country itself had preferential access in that duties were levied only on the residual value of the product). Thus, for instance, the much greater expansion of the Tunisian compared to the Moroccan clothing industry, despite the fact that wages are significantly higher in Tunisia, is attributed to its far higher share of sub-contracted production in total output (World Bank, 1993b). This feature of the trading régime has acted against the forces of comparative advantage which would have favoured the expansion of poorest country exporters.

Trade in electronics products has faced less restrictive trade regulations. This is largely because of the greater worldwide prevalence of intra-firm trade in this industry, as discussed above. More exactly, it reflects the greater "globalization" or presence of transnational corporations in this field than in clothing. Production of some electronics components was devolved by TNCs to developing countries from the very early days of production, on labour cost grounds. There was, until the East Asian

producers entered the field on their own account, no North-South competition as such. Relocation of components production to lower wage developing countries was in fact an instrument of intra-Northern TNC rivalry. Accordingly, TNCs did not press their governments to impose trade restraints on imports of electronics components or assembled products, since they largely represented intra-firm transactions. Super 807-type provisions were introduced under pressure from TNCs to prevent trade duties being levied on intra-firm trade and on trade between parent and sub-contractor. It may not therefore be entirely due to the rapidity of technological progress that trade in electronics equipment has increased so rapidly, far to supersede clothing exports from developing countries. The greater openness of trade in this area has been a facilitating factor.

Finally, the quirks of trade restraint have shaped the pattern of export production and women's employment opportunities in industry in another way. The attraction of Export Processing Zones (EPZs) — where women's wage labour opportunities in manufacturing have been notably concentrated (see Section 2.5) — in developing countries has rested mainly in the fact that EPZ producers are exempt from paying import duties on raw materials and components. Exporters based in EPZs using imported materials of industrialized country origin were able both to import materials free of duty and, if in a position to take advantage of Super 807-type arrangements, to have the final product imported back into that country free of duty except on the value added share, roughly represented by the labour cost element. In countries where high protective tariffs otherwise applied, this was a considerable saving. Elsewhere, and as tariff levels in developing countries have been reduced, the fiscal aspect weighed less heavily in producers' choice of EPZs as operating sites, as against their administrative convenience, infrastructural services etc.

2.5 A gender audit

While changes in industrialization strategy in developing countries have led to increased absorption of women as wage labourers into the modern sector, there are other questions to be asked as part of an assessment of this job creation from a gender perspective. Does the proportion of women employed remain high or fall over time? What happens to gender pay relativities as exports increase and industrialization proceeds? Have women in those developing countries with the greatest experience of participation in world markets in manufactures attained a more secure and beneficial position in the labour market as a result?

Scarcely any research has been done into these questions. Data limitations make it impossible to give proper answers to these fundamental questions for any one country, let alone in general. But some observations are relevant.

First, the evidence as to whether or not the demand for labour in export manufacturing remains female-intensive over time in quantitative terms is mixed. Wood's (1991) study shows that the high female share in the labour force has persisted in the large East Asian economies even after

diversification. On the other hand, there are some later, apparent counter-examples which give cause for concern. These relate to changes in the gender composition of employment in certain EPZs.

EPZs are the epicentre of export manufacturing production in most developing countries and a strong concentration of women workers is found in them (see Table 5). With only one exception, they employ much higher proportions of women than manufacturing enterprises outside EPZs (in the exceptional case, Trinidad and Tobago, EPZ is a misnomer: the zone is an import processing zone). This paper does not attempt to sort out employment in export manufacturing as a whole from employment in EPZs and in foreign enterprises. Overlap within the three categories varies from country to country within the developing world. No estimates exist of the share of the manufacturing labour force involved in export production as such (not surprising, since many firms supply domestic as well as foreign markets); the workforce in EPZs is often taken to stand for the export manufacturing sector as a whole, but this is not correct, since exporting firms, especially but not only in Asian countries, are also found outside EPZs in all regions.²⁴

Nevertheless, it is important to understand the reasons for the fall in the share of women in some EPZs from the very high levels existing previously. In factories in the Mexican maquiladoras (the EPZ zone along the border with the United States) the proportion of women employed fell markedly during the 1980s from 77 per cent of the total workforce in 1982 to 60 per cent in 1990 (Baden and Joekes, 1993). There have also been falls in the share of women in EPZs in Singapore (World Bank, 1992) and Mauritius (from approximately 80 per cent to 60 per cent over the mid-1980s) (Frisen and Johansson, 1993; Roberts, 1992).

A cross-country study of EPZs carried out by ILO/UNCTC hypothesizes that the fall in the share of women workers in EPZs is a general phenomenon (see Figure 2 reproduced from this source) (ILO/UNCTC, 1988). Given that clothing and electronics (the main industries) are more female-intensive than other industries, it is proposed that the share of women workers in EPZs is related to the extent of product diversification, explaining both variations across countries in the share of women workers in EPZs and the decline in the share over time in some locations. Figure 3 shows the general relation between female intensity in the workforce and output composition of EPZs.

Both Mexico and Singapore exemplify their middle-income status and evolving factor endowment in having relatively high shares of more capital intensively produced goods in their basket of manufactures exports. In particular, they have both decreased the share of clothing in their exports to extremely low levels (just over 2 per cent of total merchandise exports in each case in 1993 (GATT, 1994: Table III.42)

²⁴ The literature on gender aspects of EPZ employment is reviewed in Baden and Joekes, 1993. Wood's cross-country analysis of the causes female intensity in manufacturing employment overall, reported in section 2.4, used national level manufacturing sector data from ILO sources in investigating the feminization of the manufacturing labour force, the statistically proper measure.

compared to 5-6 per cent in the early 1980s). The falling female share in the industrial workforce in EPZs in the two cases may thus indeed probably be attributed to product diversity.

The main form of diversification in the Mexican export border zone (*maquiladoras*) has been expansion of automotive assembly for the United States market. A strong cultural legacy of masculine metal-working means this industry employs mainly male workers, except in ancillary and finishing positions. The transportation equipment industry in the *maquiladoras* employed 33 per cent women workers, compared to around 80 per cent in electronics and 83 per cent in textiles and garments (ILO/UNCTC, 1988:66). But Mexico is unique among developing countries in having a long land border with a major rich country market, which favours bulky exports. Auto assembly may not flourish elsewhere.

Along with the Republic of Korea and Taiwan Province of China, Singapore has pursued its goal of product upgrading and deepening of the employment structure through a concerted policy of investment in technology and skills, through technology inflows (in capital goods imports, high technology foreign investment, and technical co-operation) and expansion of education in science and technology.²⁵ Singapore's remarkably high share of R&D in gross domestic investment (29 per cent, which far outstrips the rate in any other Asian developing country) (Lall, 1994:20) and the extremely high proportion of manufacturing employment provided by TNC affiliates (58 per cent) (United Nations, 1994) are other aspects of this policy.

While the gender gap in education in East Asian countries, including Singapore, is generally not large compared to other regions, gender disparities are evident in an enrolment gap at tertiary level and in the mix of courses and subjects taken by male and female students at this level. There is a strong bias towards science and technology subjects among male students. The swing back from female intensity in Singaporean manufacturing may thus be attributable, as a proximate cause, to the fact that women workers with the requisite technical qualifications are not available for recruitment to new technical and other skilled grades, because relatively few women have had access to the necessary subject education. More information is needed on the gender composition of employment in these grades, which to be equitably staffed we would expect to see employ 40-50 per cent women in keeping with the gender composition of the total labour force. The extreme female-labour intensity of employment in assembly-type operations is, as we have seen, a symptom of women's inferiority in the labour market and a swing towards more balanced representation would not necessarily be a negative development. As will be seen in Section 4.2, there is some evidence that in the East Asian region women do have a strong presence in scientific and technical positions in some countries in the information processing industry and in some branches of services.

²⁵ Singapore, Taiwan Province of China and the Republic of Korea have total enrolment rates in science and technology subjects at university/college level of the order of 50 per cent higher than in Latin America and about five times higher than Egypt, which has the highest rates in Africa (United Nations, 1992: Table III-3).

The Mauritian case is quite different from Mexico and Singapore. The fall in the share of women cannot be explained by product diversification and changes in the factor intensity of production or skill mix of employment. There has been no output diversification, indeed the dominance of the clothing industry has increased (accounting for 89 per cent of EPZ production in 1990). The fall in the share of female workers has been attributed to a combination of factors: the exhaustion of the local female labour supply, the introduction of shift working to improve plant utilization levels (but without changes in technology or production methods) and the abolition of the male minimum wage (previously set higher than the female wage rate) (Frisen and Johansson, 1993).

Employers' preference for female labour is unproblematic where the unemployment rate is much higher among women than men (as in most Latin American countries, see United Nations, 1995) or where the general labour supply situation is generally tight (as in East Asian countries). In some other cases, employers' exercise of preference for female labour at lower rates of pay has been a cause of severe social tension. When male unemployment rates are very high, pressures arise for men to be given access to such jobs as are available, invoking aspects of gender identity such as the "male breadwinner" ethic. Such pressures were in evidence in the Dominican Republic in the mid-1980s in areas where men were dismissed in large numbers from the failing sugar industry. Employers were at that time resisting this pressure — more exactly, they were prepared to recruit men but only at the prevailing rate of pay, which men refused to accept without an additional "male worker" premium, despite their high rates of unemployment (Joeques, 1987). It is reported that the Mauritian government was persuaded to drop the high legal minimum wage for male workers because of men's hostility to the exclusive access to modern sector jobs given to women in EPZs (Frisen and Johansson 1993; Roberts 1992). It is a positive development here from a gender perspective that men have taken work, apparently without a wage premium.²⁶

How far do falling shares of women workers in EPZs undermine the female-intensive export industrialization thesis? There is no necessary inconsistency in the short term. If the export orientation pioneered in EPZs spreads to the rest of the economy, and newly exporting firms outside EPZs employ female labour while EPZs move away from the extreme female intensity displayed in their early days, the gap between female labour shares in EPZs and non-EPZs illustrated in Table 5 will be narrowed from both sides, with the overall sectoral trend continuing upwards.

²⁶ Barbezat (1993) discusses the factors determining change-overs in the gender composition of the workforce by occupation, with respect to issues of the relative length of labour queues among each gender, customary gender biases, etc., similarly to those suggested as relevant here. But the theoretical literature, which is in any case inconclusive as to causation, discusses only developed country circumstances and is confined almost entirely to cases of switching from male to female employment, not the reverse.

But if non-EPZ firms also follow EPZs in due course and move to shift working, change the skill mix of employment (without training existing female employees and moving them up the job grade hierarchy) and so on, then the female share in the sectoral labour force may peak at a certain point. If women's employment proves to be confined to technologically low grade parts of industry, and change in the composition of the labour force in EPZs is a harbinger of gendered labour demand patterns elsewhere, indicating failure on the state's part to provide gender balance in educational provision and on employers' part to train women employees to higher level work, we may indeed be in a historically limited phase of the mobilization of female labour, with no consolidation of women's position in the labour market thereafter.

We move on now from investigating changes over time in the **quantity** of trade-related employment open to women to consider the issue of the **quality** of trade-related employment, including pay. The issue can be broken down into two parts. The first concerns cross-sectional evidence about the nature of women's employment in trade-related activities, compared to non-exporting activities; and the second relates to hypotheses about likely changes over time in the relative wages in the export sector compared to other activities and gender differentials in pay within the sector.

At the most general level, it is clear that new employment options in manufacturing represent a significantly better opportunity for women than the alternatives, especially but not only in the least developed countries. Physical working conditions are generally better in the modern industrial sector than in the informal sector, in terms of levels of dust, heat, light, and noise, with the biggest enterprises providing the best conditions (World Bank, 1992; ILO/UNCTC, 1985). Nevertheless, high-level health hazards exist in some activities, e.g. use of carcinogenic substances and risk of eyestrain in electronics and micro-circuitry production, which have not been adequately assessed. The literature also contains many accounts of the physical hardships entailed for factory women working extremely long hours under arduous conditions (Baden and Joekes, 1993), with no discretion over the timing or extent of work.

With respect to earnings, there is little doubt that even the worst paid factory jobs are a better alternative for women to low or unpaid work in the agricultural sector and to the poorly paid, usually non-contractual, work in urban areas to which their income earning opportunities are otherwise limited (ILO/UNCTC, 1985; Joekes and Weston, 1994). Whether women consider that the extra pay is more than sufficient compensation for the demanding conditions of factory work is another question on which the literature is mixed.

But a proper assessment of the effects of trade expansion requires evidence of employment conditions in trade-related compared to other employment within the manufacturing sector which is not available. There is information, as before, on the situation in TNCs and in EPZs compared with other firms, although, as noted, neither of these is necessarily a good proxy for the manufacturing export sector.

Within the manufacturing sector TNCs pay marginally higher wages than local firms, in both developed and developing countries (UNCTAD, 1992) and there is no reason to think that exporting TNCs do not conform. Several reasons are advanced to explain this: the occupational mix often differs between TNCs and local firms (the wage comparison should be adjusted to take account of this, but data do not allow it); TNCs are larger than the average firm; high product quality requirements in export-oriented firms lead the TNC employer to be prepared to pay a wage premium to workers skilled in particular operational methods to retain their loyalty (another application of the efficiency wage argument); and finally, political caution leads TNCs to wish to stand as good employers, above local criticism (*ibid.*).

If there is any concentration in women's employment opportunities in TNCs, then, and taking employment in TNCs as trade-related in the broadest sense, trade-related employment may give access to relatively good jobs for women. Whether this extends to improvement in pay differentials by gender is not known. On the one hand, for political reasons TNCs might be expected to observe equal wage legislation more punctiliously than local firms, where equal wage legislation exists. On the other, TNCs are merely incrementally "better practice" employers; it would be surprising if they countered labour market norms to the extent of ignoring the cost advantages presented to them by the prevailing gap in wage levels by gender and paid more equal wages to female employees than do local firms, even where equal pay conventions exist, and certainly not where they do not.²⁷

Information on employment practices and relative wages in EPZs has some limited relevance. Much research into employment conditions and pay in EPZs has been done, from widely varying perspectives. The feminist literature tends to concentrate on employment terms and conditions, but usually from an absolutist position, i.e., neglecting any comparison with conditions in non-EPZ firms. Equally unsatisfactorily, research into relative wages between EPZ and non-EPZ firms takes an aggregate view, but mostly ignores the gender dimension.

As regards, first, overall wage relativities in EPZ firms compared to non-EPZ firms in manufacturing, some sources (e.g. World Bank, 1992) assert that wages in EPZs are uniformly higher. But counter-cases certainly exist, e.g. in India and Mauritius, where wages are "definitely lower than in the surrounding national economy" (Starnberg Institute, cited in Baden and Joeques, 1993:15). This conforms to the idea of an EPZ "salary life cycle" as proposed by ILO/UNCTC: "in its early days, an EPZ generally offers wages which are slightly higher than other local wages. As the EPZ develops the wage differential gradually decreases and after 10 or 15 years it is not infrequent to observe that wages in EPZ industries are somewhat lower than other local wages" (ILO/UNCTC, 1988:102).

²⁷ The concluding section of the paper suggests that there may be some scope for advocacy and international action to influence TNCs' employment practices for the better, especially in settings where equal wage legislation exists.

Such assessments of comparative wages ought to be adjusted for differences in the gender composition of workforce inside and outside EPZs, given prevailing gender gaps in wages in manufacturing (Baden and Joeke, 1993). If, however, the gender composition of the respective workforces remains constant over time²⁸ this suggests a secular decline in earnings for women relative to men. The fall in the female: male pay ratio over the 1980s in Sri Lanka (see Table 2) may reflect this, because in this case EPZs account for a significant proportion of total manufacturing sector employment (27 per cent in 1987) and 88 per cent of EPZ workers were women. If however, the female share of the EPZ workforce rises over time, this would in itself account for some of the relative decline in average wages. The question remains open.

The very high share of women currently in EPZs makes direct investigation of gender pay relativities inside EPZ firms problematic: occupational segregation may be so complete that, for instance, no men may be employed in the line-operative positions occupied by women. The few case studies of EPZ employment that address gender differences in pay nevertheless all report systematic underpayment of women workers compared to men, where they work in similar jobs. In some countries there is statutory provision for all firms, including those in EPZs, to pay women less than men; in other cases, such as Mauritius, Korea, Malaysia, Taiwan Province of China and the Dominican Republic, payment of overtly lower wage rates for women is recorded (Baden and Joeke, 1993). The only indication that EPZ employers might prove themselves better employers than the norm in gender terms, and challenge prevailing gender inequalities in pay, comes from the Dominican Republic — but, as noted, by attempting to level down men's wages rather than levelling up women's.

The last piece of anecdotal evidence relevant to pay relativities in trade-related employment comes from the new, rapidly expanding clothing industry Bangladesh. The wage gap by gender is extremely small in this case, with the female:male ratio in wages almost unity (0.97) (see Section 4). A female labour force has been mobilized with great speed in circumstances where wage employment for women outside agriculture was previously virtually non-existent.²⁹ One interpretation of the situation is that in order to create the kind of (female) workforce that experience in other countries suggests they will find most satisfactory, employers have offered women high start-up wages, on a par with male wages, even in the virtual absence of other opportunities in the modern sector, and with great gender disparities in income elsewhere in the economy. If this "kick-start" hypothesis is correct, employers may begin to exploit women's vulnerable labour market position once a female labour supply is established, and, as in agriculture, pay female wages below the male rate.

²⁸ Though, as discussed above, this situation may not obtain.

²⁹ Haiti may be a similar case. The ratio of female:male wages was unusually high (0.87; see Table 4), in a situation where almost the only wage employment available to women was in the short-lived export manufacturing sector, largely producing baseballs for the US market.

Moving now to changes in pay relativities over time, the first point to be made is that there is a clear prediction from international trade theory that over the long run trade will raise aggregate incomes and wages in developing countries. There is no doubt that incomes and wages in the export-oriented East Asian miracle countries have risen spectacularly over a relatively short time, and given their weight as exporters, that a statistical correlation exists between trade and wage increases. The micro-level mechanisms which might bring about this outcome, and more precisely how wages move in exporting firms compared to others, and the gender dimension of these changes, have not been researched.

The export sector may or may not prove to be a leading wage sector and may or may not affect the gender wage differential. If the export sector expands rapidly with high profitability as a price taker in world markets, then there may be scope for workers to share in the profits, and employers may be prepared to pay a wage premium to secure the best workers and retain their loyalty. Such a tendency might cover both increases in the average wage in manufacturing and in the female:male wage ratio, to the extent that women are concentrated in the export sector and there is a spillover effect which raises the level of wages women expect in other sectors (holding female labour supply conditions constant).

On the other hand, if producers' competitiveness is threatened, or market conditions are uncertain for cyclical or other reasons, exporters may look to ways of cutting costs — especially of labour, and especially perhaps of female labour — and thus, other things being equal, increase the gender wage gap.

Another way of addressing the possibility of changes in the wage gap can be derived from a simple model of dual (male and female) labour markets. In a trade-expansionary context the demand for female labour increases faster than for male labour, so that female wages also rise relatively fast and there is a tendency to “convergence” between female and male wages over time. But the world is not simple and many complicating factors could exist. Female labour supply might increase so rapidly that it offsets any tendency for employers to offer higher wages to women; the composition of the female labour force might change over time to include larger numbers of those groups (e.g. older, married women, as discussed above, or female heads of household) prepared to accept low relative wages, for reasons to do with the nature of the conjugal contract. Finally, the boundaries between male and female segments of the labour market are not fixed. It is clear that in other contexts the gender division of labour is revised in response to changing circumstances, though the fact of division persists (e.g. with respect to environmental change, see Leach, Green and Joeke, 1995). In the labour market context, redefinition of the segments certainly does take place, in terms of changing stereotyping of male and female jobs (Barbezat, 1993). The systematic shift away from recruiting women with changes in the skill composition of employment, discussed above, could be interpreted as a means for ensuring that excess labour supply conditions are maintained in the low wage female segment, countering any movement towards convergence of wages by gender.

The empirical testing of these various possibilities remains to be done. The only study carried out so far is by Tzannatos (1995),³⁰ which deals with very general question of changes in women's earnings over time with economic growth. Information is given on changes in relative wages for female and male workers over the 1980s at both national and sectoral levels for six countries (Côte d'Ivoire, Brazil, Colombia, Philippines, Thailand and Indonesia). The results are reproduced in Table 6. Relative wages for women have risen steadily in all cases, with reductions in the gender wage ratio ranging between 4.5 per cent points (Colombia) to 12.8 percentage points (Philippines). Tzannatos interprets his findings very positively, suggesting that women's labour market situation may be improving in developing countries in the contemporary period much faster than it did historically in the developed countries. The data do not allow the role of trade expansion in the process to be examined rigorously. Women in the two countries where export growth has been particularly rapid (Thailand and Indonesia) have shared in this outcome, but their performance is not exceptional.

The sources of this improvement are identified and vary between countries. Indonesia and Thailand are distinctive for the fact that reduction in the wage gap attributable to changes in the sectoral distribution of women's employment in favour of higher paying sectors (i.e., manufacturing) has been the highest. That the largest sectoral shift in female employment towards manufacturing should be found in the two most export-oriented countries in the sample is quite consistent with the argument of this paper. The increase in the share of the female labour force in manufacturing has been associated with only a very small increase in women's relative earnings within the sector in Indonesia, and a somewhat larger increase in Thailand. This suggests that wages may be higher in the export sector within manufacturing, compared to other branches of manufacturing where women are employed, to a small extent in Indonesia, and more significantly in Thailand.

In any event, data on other countries, presented in Tables 3 and 7, though not exactly comparable, do not fully bear out his findings. Table 3 gives data on female:male earnings in manufacturing (the figure of most interest to the argument presented in this paper) for a number of developing countries in different regions which show that there is no trend towards amelioration over time, most especially not in Hong Kong, Singapore or the Republic of Korea. Indeed, at the national level the Republic of Korea has the largest gender gap in wages on record. Table 7 presents national level data, such as Tzannatos uses. Among the 15 developing countries for which time series data are given, 10 show a rise in the ratio but four show a fall, and one shows no change.

Two lessons can be drawn from this. The first is that clearly more research is necessary on this crucial topic. The second is that the crude data, but also Tzannatos' analysis, do not take account of an important parametric change. The relative educational levels of the female population, who represent the pool from which female labour is drawn,

³⁰ Also by report an unpublished study by Susan Horton of the University of Toronto, Canada, not available to the author at the time of writing.

has been rising in most countries outside Africa (see the forthcoming UNDP **Human Development Report 1995**). In particular, the marked rise in female wages in the Philippines reported in Table 6 may be attributable to the very strong increase in women's educational attainments in that country (for instance, women's enrolment rate at secondary level is now higher than men's (World Development Report, 1993). That is to say, there should in any event be greater parity in women's earnings in the economy as a whole and in manufacturing in particular, with increases in educational levels. Slight rises in the female:male wage ratio might have to be discounted for this reason. The proper index, in other words, for which changes over time and the possible effects of trade expansion need to be investigated is the degree of wage discrimination to which women are subject.

SECTION 3

Looking to the Future: New Patterns In Trade and Production Organisation

3.1 Overview

This paper has argued that growth in manufactures exports in developing countries has had a highly significant gender impact in raising the level of women's participation in wage employment in the modern sector, but that it has failed to improve the terms of women's insertion in the labour market. The world is seeing very marked changes, however, in the nature and composition of world trade,³¹ and in the cross-country links between and within enterprises. To limit the discussion to the manufacturing sector alone is to turn away from current realities of the globalizing economy. The issue, from a gender perspective, is whether the past effects in manufactures are likely to be replicated in future in these new areas, as trade expands. Are the same economic forces at work, and likely to produce the same outcome for women?

New technologies are permitting wide-ranging reorganization of production processes worldwide with employment implications. This is reflected in new production arrangements within transnational corporations (TNCs) and new patterns of foreign investment, as well as rapid changes in the balance of different types of international economic transactions, specifically the rise in internationally traded services. Trade rules have had an uneven effect on the pattern of trade and geographical distribution of services so far, but under the Uruguay Round steps were taken to harmonize and liberalize treatment of service transactions, so the trends are likely to continue or even intensify. Even though extremely little is known about the employment effects of such changes in developing countries so far, and there has been no assessment of the

³¹ The scale and pace of the changes in world trade are obscured in academic research by reliance on established methods of statistical data collection in which, for example, there is concentration on merchandise trade to the exclusion of services. The difficulties with measuring production and trade in services, noted later, help explain why data collection methods have not evolved faster.

gender aspect, it is important that these developments be brought to researchers' and policy makers' attention.

3.2 Transnational corporations

During the 1990s, there has been a renewal of academic interest in TNCs as agents of economic globalization. The debate on the "new international division of labour" that started in the 1970s concentrated on the relocation of certain TNC activities to low wage sites in the developing countries; but now the interest in TNCs is much more far-reaching. The climate in developing countries has changed dramatically over the past decade to become much more welcoming of foreign investment as a source of capital for investment and as a means of technology transfer in a reasonably manageable form (Lall, 1994). The amount of foreign direct investment flowing internationally has increased and developing countries in total have been taking an increasing share. The main changes in the geographical pattern have been that Latin American countries, from having been the source of capital flight in the early 1980s, have become a major destination region for new investment; that China has emerged, in the 1990s, as by far the largest developing country destination for foreign investment, and in fact to receiving the second largest inflow of foreign investment of any country in the world after the United States; and that Africa seems, by contrast, to be suffering actual disinvestment in recent years, to compound the region's other woes (Lall, 1994; Bennell, 1995).

The nature of foreign investment has also changed. Much is now in portfolio investment, in large part made possible by privatization offers by developing country governments of state owned enterprises; this is particularly important in India (another major new destination) and in Latin American countries.³² But perhaps the most significant change of all has been the spread of TNCs, via foreign investment, into new activities such as infrastructure and services. The share of services in the total world stock of foreign investment rose from an estimated 25 per cent in 1970 to 50-60 per cent currently. TNCs are the dominant providers in certain service sectors in developing countries (UNCTAD, 1992:166), such as hotels, construction, information technology (including software, hardware maintenance and related services), accountancy, management consultancy and advertising (Bailey et al., 1993:243-4).

Contemporary changes in TNC production organization are distinct from the previous period of expansion in at least three ways. First, they are more integrally dependent on new information technology. The first wave of TNC relocation to low-wage sites was made possible by improvements in transportation, but present day activities depend fundamentally on the improvements in telecommunications and computer-based information processing technology which comprise what is sometimes referred to as "telematics". The precise pattern of spread of new investment is further related to the new technologies, in that

³² This is a direct result of structural adjustment policies.

telecommunications allow links between all time zones: in a competitive environment, TNCs now need to have involvement in markets (mainly financial) for every hour of the 24 hours in the day. This is another reason to explain the growth of investment to the Asian region, which fills in the time zone gap between Europe and North America (neither Africa or Latin America benefit from this new imperative).

Second, TNCs are now active in supplying regional markets. The pattern of intra-firm and arms-length market trading by TNCs now includes not only old-style South to North exportation, and supply by TNC affiliates to local markets in large formerly protected economies in the developing world, such as India and Brazil, but also production for regional markets. Intra-regional trade has grown faster than total world trade over the past decade (e.g. intra-Asian trade grew at 9.5 per cent per annum from 1980-1992, compared to growth in world trade of 5.5 per cent per annum (Joekes and Weston, 1994:6).³³ The proportion of world trade conducted within regional groupings now accounts for 50.4 per cent of world trade, compared to 41 per cent in 1958 (WTO, 1995). Formal regional economic arrangements have multiplied in recent years; for example 33 new arrangements were notified to the GATT in 1990-1994, compared to 11 for the whole of the 1980s (ibid.).

Third, the ways in which TNCs organize their production facilities among countries is changing. The current phase has been called a “complex integration” strategy (United Nations, 1994). It comprises the full dispersal of corporate departments across the globe, to take advantage of telecommunications possibilities and time zone straddling, setting cost considerations specific to each departmental operation against factor costs and availabilities in different locations, subject only to some market proximity constraints for products where transportation costs are particularly high or follow-up service capabilities particularly important.

The process of international specialization and integration of production units by TNCs in this way is one of the key features of economic globalization. As an example of how developed the process has become: the production schedules of a machine tool plant in the Philippines, part of and serving other units in a global TNC, are subject to more or less continuous updating by telecommunications according to the evolving production requirements of the other units round the world (ibid.).

This example should not obscure the fact that the globalization process — like the underlying foreign investment and the resultant trade flows — is by no means confined to the relocation and establishment of new operations by Northern TNCs in developing countries. The web of international financial, production and trading links is being spun even more densely among Northern countries than between the North and the South. Northern-based TNCs, despite the growth in the share of

³³ Despite much controversy, the balance of opinion now is that regional blocs do not rest on a strongly protectionist philosophy, have not undermined the general liberalization of trade and indeed may help promote it. Even so, the global Uruguay Round embodies commitments that go further than most regional arrangements (**Financial Times**, 27 April 1995).

investment going to developing countries, are more likely to invest in capacity in another Northern market. Moreover, Southern-based TNCs are emerging as a significant force, especially enterprises from the Republic of Korea and India. Most of their investment is to other, lower-income Asian developing countries, for some of which foreign investment originating from another developing country accounts for over 40 per cent of total inward investment (UNCTAD, 1992). Some of the new industrializing Asian countries have thus successfully made the transition from export platform to exporters of capital in their own right.

The complex integration strategy is significantly different from earlier forms of TNC strategy in other respects too. In previous periods, TNCs either had affiliates which were “stand-alone” operations, self-sufficient production units supplying large and/or protected developing country markets, replicating products of the parent organization; or they practised “simple-integration strategies” based on “outsourcing”, relocating certain production activities for production of final or intermediate products to developing countries (UNCTAD, 1992). The latter is the kind of production organization that was analysed in the “New International Division of Labour” debate and fuelled the growth of labour intensive export capacity in developing countries in the 1970s and 1980s, of which the gender impact was discussed above in Section 2. The application of complex integration strategies heralds the far wider dispersion of production facilities and employment throughout the world. In respect of employment, it suggests the creation of a deeper employment structure than existed under previous strategies in new locations, because the establishment of back-office functions and whole departments, usually classified as “services”, entails the setting up of a more balanced occupational hierarchy than in assembly operations or autonomous, light industrial plants serving local markets. Data on the remuneration of employees in different sectors in foreign affiliates of US-based TNCs in developing countries bear this out: while remuneration of employees in manufacturing in developing countries is approximately 30 per cent of home-country employees, in services the ratio is two thirds (UNCTAD, 1992:33).

Tables 8 and 9 give some data on employment creation by TNCs. Table 8 shows that the rate of change of employment in affiliates in different regions by TNCs based in various Northern countries in the 1980s was highest in the developed countries, but also that it proceeded at a high rate (close to or above 10 per cent per annum in most cases throughout the 1980s) in developing countries as a whole. Within the developing world, however, the experience is uneven with the African and West Asian regions conspicuous by the decline in employment in most cases. Although data for the growth of overall employment in industry and services in the relevant countries are not available, it seems likely that employment growth in TNCs is faster and that the share of TNCs in total employment is rising accordingly.

Table 9 sets the scale of TNC employment in developing countries in perspective, giving data on the share of the economically active population and in the paid labour force employed in TNC affiliates, in all sectors and in manufacturing.

No up-to-date disaggregation is available of these employment data by gender. Thus, we do not know what specific gender effects the latest developments in TNC production are having on women's employment opportunities (although developments in services give some clue; see Section 3.3). The classic study of women workers in transnational corporations (ILO/UNCTC, 1985) has information only up to the early 1980s. That study found that while TNCs in total employed only a very small proportion of the total labour force in developing countries, and very unevenly among regions, employment in TNCs had also been growing relatively fast. The proportions of men and women among TNC employees was thought to have remained approximately constant overall between 1960 and 1980, with the majority of employees being male and women accounting for around 20 per cent of the total in all sectors. Whether this represented a higher proportion of jobs for women than in comparable employment in the sectors and countries concerned is not possible to judge from this study.³⁴

Overall, the issue has to be kept in perspective. As is the case for total TNC employment (see Table 9), employment for women is in aggregate a minor factor in employment creation in developing countries. The phenomenon is nevertheless significant in two ways. First, it is undeniably important in the few countries where TNC operations are concentrated, especially where, as in Singapore and Mauritius, for example, the country is small. Second, as noted, TNC in some respects lead local employers in employment practices, even if by a small margin, and thus contribute to raising the general quality of employment. They may also in some cases (as in Morocco, for example, Joeques, 1982) have taken the initiative in recruiting female employees, and helped to challenge local cultural resistance to women's participation in the labour force and break down previous patterns of gender segregation in the labour market.

3.3 The internationalization of services

Apart from changes in the production organization of TNCs, the other new development in the global economy is the internationalization of services. The scale of growth in internationally traded services has been such that it now ranks roughly equal with trade in commodities, accounting for about 20 per cent of the total (manufactures trade, at 60 per cent, is the most important part of world trade) (GATT, 1994).

The growth of the tertiary sector in general is one of the best known and unassailable correlates of national income growth. In industrialized countries, the services sector accounts for by far the biggest share of output and employment. But the global internationalization of the services sector may be accelerating the pace of change in middle income

³⁴ Note that the "stand-alone" strategy probably predominated even into the 1980s, as a response to protected import substitution industrialization policies in developing countries (see Section 2.2 above), and also that TNCs have a major presence in minerals and other such male-intensive sectors.

developing countries — especially but not only in Asia — compared to what has historically been experienced elsewhere.

The main activities in the services sector in industrialized countries comprise health and education provision, commerce, travel, financial services, public sector employment, and domestic service. The predominance of some of these activities (particularly health and education) reflects the status of the products concerned as “superior” goods in the economic sense, on which personal expenditure rises as a proportion of income as income increases. In other respects (e.g. large public administrations for the delivery of social security benefits) the large size of the service sector reflects the fact that industrialized country governments spend approximately 50 per cent of their budgets administering income transfer programmes of one kind or another for the population.

The supposed tendency for labour productivity to improve more slowly in these activities than in industry is usually held to explain the historically relatively fast growth of employment in these areas (UNCTAD, 1992), and is the basis of the normal prediction that relative employment growth will continue in future. But the computerization of many services functions (e.g. in banking) in industrialized countries in the 1980s and 1990s and job losses associated with this means that simple extrapolation from the past is not in order.

In any event, domestic services sector expansion has in large measure accounted for the steadily increasing absorption of women into the labour force in developed countries in recent years.³⁵ The services sector is also a source of employment for many women in developing countries, although its relative importance and women’s representation within services varies significantly among regions. In 1980, the services sector was estimated to employ 69 per cent of the total female labour force in Latin America, compared to 13 per cent in Asia and 19 per cent in Africa and the Middle East (ILO/UNCTC, 1985:9). In terms of representation, the health and education sectors are heavily reliant on female labour in all countries but in other parts of the sector the situation is quite variable (see Table 10). Thus, in Latin America, where the proportion of the female labour force is particularly high in services, the bulk of that employment is in low-paid domestic service; whereas in the Middle East and North Africa, while the overall share in services is about average for the developing world (given the low rate of female labour participation), retailing and commerce, where women workers are few, account for scarcely any part of female services employment.

Trade in services is only relevant to part of the activities across the services sector as a whole. Traded services cover services supplied from one country to another; services in one country supplied to the consumers of another (for example, tourism); services provided through the presence of service-providing entities of one party in the territory of another (for example, banking); and services provided by nationals of

³⁵ Thus women workers fared relatively well in employment terms in the recession of the early 1980s, being sheltered in the services sector which proved relatively immune to the downturn. The same has not applied in the 1990s.

one party in the territory of any other (for example, consultancies, construction projects) (GATT Secretariat, 1994).

In terms of the type of activity, this includes some familiar, traditional services, and some which are new, linked particularly with the explosive growth in telecommunications and other information processing capacity, in telematics (UNCTAD, 1992). Examples of old style activity are travel and tourism, transportation of goods and labour services (though in the latter case, to the traditional pattern of individual labour movement and ensuing transfers of remittance income, is added the new phenomenon of contract labour services where a workforce is exported temporarily in the construction of turnkey projects). These are important, large scale activities, some of which are of great national importance to some developing countries. Tourism is also a strong growth area,³⁶ though subject to enormous variation in any case as a function of both cyclical fluctuation in incomes in the tourist-sending areas and political circumstances (for example, perceptions of terrorism).

Nevertheless, it is the new-style traded services which have seen the most rapid rate of growth. In part this is a reflection of new market possibilities, and the fact that the telematics revolution allows foreign entities, experienced in these activities in industrialized countries, to make international sales or to set up affiliates abroad to serve distant markets. Construction, accounting, advertising, management consultancy, data processing (of credit cards transactions, air travel data, data entry to CD-ROM etc.) and software production are examples of the first; banking and insurance and reinsurance are examples of the second. Table 11 reveals that developing countries have on average much lower rates of take-up of insurance by businesses and individuals than developed countries. It gives an indication of the potential that TNCs in services see for the realization of new markets in upper-middle income developing countries. Not only are these countries exhibiting the fastest sustained rates of growth of any countries in the world, with relatively equal distribution of personal incomes which might predispose to wide uptake of new services, but expenditure shares in services of these kinds are proportionally low and markets are therefore ripe for realization.

The growth in new services markets covers the supply of financial and other services, such as insurance, to consumers and to corporations and businesses. There has been an evolution in the functions and composition of the services sector, comprising the rise of specialist services and the emergence as stand-alone activities of back-office functions that were formerly embedded in manufacturing firms and not ranked as separate economic entities. Together these tendencies constitute a general externalization of services, of which an important part involves new international transactions. Both the spread of TNC investment into new markets in financial services and so on, and the expansion of stand-alone corporate services, have been associated with the worldwide trend towards liberalization of financial and currency markets as well as contingent on new technologies. Telecommunications are the vehicle for

³⁶ Including sex tourism and the entertainment industry, which are present on a huge scale in some countries, e.g. Thailand.

international transmission of the usually intangible products of services activities, which makes it much more difficult to measure than merchandise trade, especially because intra-corporate transactions of this kind are not reflected in any kind of financial flow (UNCTAD, 1992).

The unparcelling and relocation of industrial back-office services functions which comprise part of the growth of international services are manifestations of TNCs “complex integration” strategy, as discussed above. The emergence of new corporate services to stand alone, implying in effect a shift in the categorization of such activities from one economic sector (industry) to another (services) means that there is a spurious element to the growth in services, driven by quirks of statistical data collection. Data on services expansion are in some respects therefore more significant as indicators of changes in production organization than as indicators of changes in total production and the growth of economic activity. Nevertheless, overall the various difficulties of measurement of trade in services are thought to produce a significant downward bias in estimates of world trade in services (GATT, 1994:90). The difficulties include lack of agreement among countries on definitions, frequent misclassification of transactions as factor income or transfers, failure of several large countries to report services trade at all, failure to register many transactions at all, especially because measurement is through the financial reporting system and transactions are not mirrored in a financial flow — e.g. intra-firm transactions — are not captured at all (*ibid.*).

The services sector has in recent years become much more important in foreign direct investment; it accounted for 40 per cent of the total originating in the major industrialized countries in 1980 (Bailey et al., 1993). With respect to Japanese foreign direct investment, for which data are available separately (Watanabe, 1993), investment in the tertiary sector was US\$ 164 billion over the five year period 1986-1990, compared to US\$ 57 billion in manufacturing (Watanabe, 1993). The absolute amount invested was highest in North America and Europe, but it was very substantial in Latin America (where investment in services amounted to US\$ 22 billion, including US\$ 13 billion in finance and insurance, compared to US\$ 2 billion in manufacturing) and also in Asia, although here the concentration on services was much less marked (e.g. US\$ 15 billion, of which US\$ 3.5 billion was in finance and insurance, compared to US\$ 11 billion in manufacturing) (Watanabe, 1993).³⁷ Internationally supplied producer services exist at all stages of the production process: upstream (feasibility studies, market research, product design), “onstream production of goods” (e.g. quality control, equipment leasing), “onstream parallel” (accounting, personnel management, legal services; management consultancy) and “downstream” (marketing, advertising, transportation, distribution) (UNCTAD, 1992). This proliferation of activities illustrates why, with changes in production organization, the services sector has expanded so rapidly worldwide.

³⁷ No comprehensive, detailed data exist for it to be possible here to present investment data for modern trade-related services alone.

The trade regulatory conditions under which trade in international services has developed are hybrid. International transactions in some activities (e.g. in the financial sector) essentially invoke the rules of establishment of an enterprise in a foreign nation — which range from very tight, often absolute, national government restrictions concerning foreign investment in the national (i.e., non-EPZ) setting, to freedom to establish, subject to conformity to national standards in particular sub-sectors and so on (Hindley, 1991). Widespread relaxation of establishment provisions over the past few years, connected to the general liberalization of foreign investment laws in developing countries, has greatly facilitated expansion.

In “labour services”, by contrast, trade provisions are effectively ceded to consular and immigration procedures which have the power to confer — more often to deny — temporary right of abode to individuals. The rules have been highly discriminatory between individuals according to their skill qualification, and show no sign of harmonization or liberalization among countries. As a trade transaction, movement of labour remains uniquely and immediately subject to contemporaneous national political considerations.

Finally, transmission of data by telecommunications, the whole field of telematics, has been completed unregulated and beyond the scope of conventional trade regulations set up to deal with the imposition of quotas and tariffs on merchandise trade (Hindley, 1991). Nevertheless, the Uruguay Round enshrines a new non-discriminatory principle for foreign providers of services (similar to that for manufactures) though governments’ right to maintain national standards is upheld — for prudential measures concerning deposits in the financial sector, for example (GATT Secretariat, 1994). One of the main tasks of the new World Trade Organisation is to move forward with the task of harmonizing trade rules for specific services sub-sectors and extending their scope beyond those established for cross-border trade in tangible goods.

Reflecting the heterogeneity of the international services sector, developing countries’ export capacity is very disparate. But broken down into its component parts, the pattern becomes clearer.

For some traditional services, very particular endowments determine the pattern of trade (e.g. natural resources or national heritage for tourism). For labour remittances, exports may seem to be dependent on “push” factors, or the absence of resources (i.e., low national income in the sending country) in the context of a regional history of labour movements. But this is not the whole story. While some of the main labour exporting countries (e.g. Lesotho, Egypt, Sudan, Pakistan and Bangladesh)³⁸ fit the case, there is also some selectivity towards countries with above-average human resources, in the shape of educational attainment in the population. Sri Lanka and the Philippines are cases in point. It is interesting that in both, the gender gap in

³⁸ All these countries derived 35 per cent or more of their total export revenue from remittances in 1988 (United Nations, 1992:197).

education is not severe, and that, perhaps for this reason, individual women migrants figure importantly among the total stream.

In the case of other services, however, the conventional model of comparative advantage applies, with the proviso that educational resources would seem to be a very significant element (Hindley, 1991). All the cases of capacity in the new international services sector in developing countries rely on the existence of a pool — either national or local — of well-educated labour. The largest exporters of commercial services from developing countries are (in order of value in 1993) Hong Kong, the Republic of Korea, Mexico, Taiwan Province of China, China, Egypt, the Philippines and Malaysia (GATT, 1994, Table 9). There is a substantial overlap with the list of countries that rank highly among developing country exporters of manufactures. Some individual small countries, notably in the Caribbean, are more heavily dependent on services exports but have only a small share of world trade. These are also all countries with a strong educational record, and where the gender gap in education is relatively small; in fact in Jamaica (as in some other Latin American countries) there is a reverse gap, with women outperforming men in educational attainment.³⁹

There has been no comprehensive assessment of employment generation in international services in the developing countries, or of the gender implications. The available evidence suggests that in parts of the services sector, the situation in export manufacturing is being replicated. In others, however, there is a real prospect of a high level of women's involvement without compromise of employment quality. The newness of these sectors may have allowed them to escape the fixed patterns of gender stereotyping which have confined women to inferior occupational positions in industry.

Employment in tourism, like commerce — but unlike manufacturing — is an area where local cultural practices related to gender influence the outcome for women significantly. In Muslim countries in particular, few women are employed in this sector, although the share of services as a whole in female employment is on a par with other regions. The issue may turn on concepts of seclusion and physical separation of the sexes, which make provision of services by women in a public space to strangers improper. Nevertheless, the situation is not absolutely fixed in terms of gender segmentation and past experience may not carry over to future limitations on women's employment possibilities in this field.

The employment possibilities in newly traded services and corporate relocations may be of most interest from a gender perspective, although the lack of overall data makes it difficult to assess its likely quantitative significance. Case studies suggest that activities fall into two parts, distinguished by the occupational mix and skill level of employees.

³⁹ Note, for example, from Table 4, that decomposition of the wage gap by gender in Chile shows that employed women are better qualified than employed men; also that this does not, of course, eliminate the crude earnings differential; far from it: differences in wage structures are even more severe.

First are the “low skill” jobs in data entry. The situation here is almost a parody of the history of female-labour intensive industrialization under outsourcing: the workforce is 100 per cent female in the several cases that have been examined in the Caribbean (particularly Barbados and Jamaica), and high proportions are found in Malaysia (70 per cent), the Philippines and China (see Pearson, 1993; Dunn, 1995; Posthuma, 1987). The activities involved include the processing of air travel data, credit card transactions data, mail orders, etc. Well known examples from the Caribbean are the establishment by a TNC consortium of an early venture for processing airline data in Barbados (Gelb, 1995) and the Jamaican Digiport facility, analogous to an EPZ but where the infrastructure provision is in telecommunications. These facilities were set up to take advantage of low cost, well educated, English speaking female labour force within a 3-4 hour air journey from company bases in North America. The proximity was important at the time because documents for data entry had to be physically transported for processing; with the growth of computer networks and other forms of telecommunications this is now less of an issue, so long as communications infrastructure is in place.

Although in some economies, such as Jamaica, this sector has been an important source of new, relatively well-paid and prestigious jobs for women (Dunn, 1995; Pearson and Mitter 1993) some qualification is necessary. To judge from the few studies that have been done and newspaper reports, this type of employment seems to be very geographically limited to the countries mentioned and possibly also to India (Pandit, 1995). The technology also changes so rapidly in this field that future prospects are uncertain. For example, Posthuma (1987) reports on employment by the US publishing industry of women as word processor operators in China to transform manually typed manuscripts to printable form. This activity has been made completely obsolete since then with use of optical character recognition and new printing technologies. There are surely widespread possibilities of automation of other tasks, such as registration of credit card counterfoils, in due course. On the other hand, new opportunities may arise, such as the transformation of printed text by word processor operators into CD-ROM format.

The second sphere of services activities, which includes specialist producer services and relocated back-office services, seems also to hold mixed employment prospects from the gender perspective. It includes two main parts: higher level information technology processes, particularly customized software provision, and financial and other newly internationalized corporate services.

With respect to information processing, women have a smaller share of jobs in skilled categories (e.g. systems analysts, computer programming) than in lower skill jobs (e.g. data entry). Table 12 gives information for Malaysia. It shows that the share of women in lower skilled jobs is 50 per cent higher than in high-skilled (68 per cent of total employment in 1987 compared to 38 per cent). The information in this Table is notable for other reasons, too. It shows how rapidly the sector has been growing. Total employment more than doubled between 1975 and 1987 and

increased more than threefold for women, who comprised 67 per cent of all employees by 1987, compared to 49 per cent in 1975. The share of women has been rising in most but not all levels within the sector, albeit slowly and not uniformly within the high-skilled segment (there has been a fall in the share of women systems analysts as against a rise among computer technicians and programmers), and the share has been constant in the low-skilled segment since the mid-1980s.

This should be compared to the way employment opportunities have diminished for women in Singaporean EPZs with technological upgrading. Women's access to higher grade employment is clearly penalized to some extent by lack of scientific and technical training, as in Singapore. But in the Malaysian case, the restriction was evidently far from severe. The overall share of women in employment in this subsector is much higher than women's share of employment in the services sector overall (39.3 per cent in 1988-1990) (UNDP, 1992). Most strikingly, it has risen in the direct, high skilled segment, where women comprised 38 per cent in 1987 compared to 16 per cent in 1975.

The prospects for women's employment in other new, trade-related services such as finance and insurance — sectors in which, as noted above, foreign direct investment into developing countries, at least in Latin America and Asia, is marked — is not known. There is no readily available data on the female share in this segment in developing countries, although it has risen extremely rapidly in the recent past in industrialized countries (ILO, 1993). The share may also be quite high in some developing countries. In Malaysia, for example, a case study of two banks shows that women comprise 32 per cent of officer grade and above in both banks, with women spread throughout the managerial hierarchy; they also comprise 34 per cent of the officer grades in the civil service (Wahidin, 1994). The presence of women in the highest grades (those requiring post-secondary qualifications) is significant here, for studies of employment practices in banking in industrialized countries show that promotion through the ranks for women in clerical positions does not occur (Rajan, 1990). Moreover, as with data entry occupations, technological progress is proving to be highly labour displacing in the lower skill grades in financial services (*ibid.*). Any expansion of job opportunities for women in those grades in developing countries may be short-lived, although the probable surge in activity in this sector in middle income developing countries may give the opposite impression. Moreover, conditions of employment in these occupations, though relatively well-placed within the modern sector as a whole, have been deteriorating markedly in developed countries, to the extent that information technology overloads these jobs with previously managerial functions, without commensurate increase in remuneration (*ibid.*, 1990).

The general distribution of women in place in some of the relevant occupational strata in developing countries was given in Table 10. This shows that in developing countries women form a large share of the labour force in occupations that are particularly relevant to the modern services sector, notably highest level professional and technical occupations. Higher skill occupations such as these weigh significantly in the new, internationalized services sector, and account for the depth in

occupational structure in TNCs and the much higher ratio of wages of employees in TNC affiliates to wages of TNC employees in home countries in services than in other sectors (as noted above) (UNCTAD, 1992). **To the extent that expansion by TNCs in this area of activities continues, driving if not monopolizing growth in the internationalized services sector in developing countries, we may expect to see relatively well-paid and prestigious employment opportunities for women continue to grow proportionally.**

SECTION 4

The Situation in the Five Case Countries

In this section of the paper, the experience of the five countries included for activities under Phase II of the UNDP/UNRISD project is briefly assessed in relation to the foregoing analysis. They form a neat set of examples in this respect, serving to illustrate many of the points made earlier. The discussion focuses on these, rather than attempting to present a descriptive account of development experiences and gender relations in each case; this is done in each of the national background papers. The countries concerned are Bangladesh, Uganda, Morocco, Jamaica and Viet Nam.

Tables 13 and 14 present the available data on the share of manufacturing in national output and the composition of merchandise exports for the five countries. Three of the five countries — Bangladesh, Morocco and Jamaica — figure strongly among the developing countries that have rapidly expanded exports of manufactures, mobilizing female labour for the purpose. Table 13 shows that over the 1980s, particularly in the second half of the 1980s, Bangladesh and Morocco steadily increased the share of manufacturing output that was exported. Table 14 shows that by 1992, manufactures accounted for 81 per cent of merchandise exports in Bangladesh, and 55 per cent in Jamaica and Morocco. By contrast, Uganda has a manufacturing sector (contributing around 5 per cent of GDP) which is even smaller than in Bangladesh, which has not developed any ability to export.

The structure of manufactures exports is also revealing (Table 14). In particular, the share of clothing is indicative of the level of diversity in manufactures exports. On this count Bangladesh is distinctive for its extremely high dependence on clothing, which accounted for 72 per cent of total merchandise exports in 1992 (and 37 per cent of total exports in 1988 compared to 0.4 per cent in 1980-1981) (S.H. Rahman, 1992). Morocco and Jamaica had clothing shares of 25 and 13 per cent respectively. In both Bangladesh and Morocco, processed foods (mainly of fish and shrimp) are another important source of manufactures exports.

Among the developing countries which have adopted an export industrialization strategy, it is common to find the highest concentration on clothing and other highly labour intensive products in lowest income

countries. At GNP per capita of US\$ 220 in 1991, Bangladesh is indeed among the world's poorest countries.

The reliance on female labour for success in exports of manufactures in general and clothing in particular is apparent in all three countries. The share of women in the total labour force in manufacturing was 64 per cent in Bangladesh in 1994, compared to 35 per cent in both the other countries.⁴⁰

Bangladesh is the case of female-led industrialization, par excellence. It is interesting to note that Bangladesh was not included in Wood's data (Wood, 1991); its inclusion would have strengthened his results. Its degree of female intensity in manufacturing is extreme, far above the norm for other developing countries, but consistent with the very high share of clothing in export production. In garments enterprises, 70 per cent of employees are women (R.I. Rahman, 1993a).

Two small, city-wide sample surveys in Dhaka conducted by the ILO/ARTEP show that the export sector consists almost entirely of local enterprises (R.I. Rahman, 1993b). This is not surprising, given the predominance of clothing and the minimal importance of TNCs in the world clothing industry, as discussed above.⁴¹ However, it illustrates clearly the point that reliance on female labour in export manufacturing is not to be confused with the influence of foreign employers. Local employers follow economic logic in this matter no less than any international operator.

The case of Bangladesh is evidence that it is not absolutely necessary for a country to have a generally well-educated female population in order to break through into world markets in clothing. Bangladesh has a poor human development record, with 78 per cent illiteracy among adult women in 1990 (World Bank, 1995b). The general educational level of the population cannot be taken as proxy for the educational level of the available female labour force when wage opportunities for women are restricted. Up to the present, the rate of labour force participation among (albeit the relatively small number of) more educated women in Bangladesh has been extremely low (R.I. Rahman, 1992). The inference is that clothing employers may be able to recruit female workers from among this group of the population. Information on the educational level of women in the manufacturing labour force (and conversely on possible changes in labour force participation rates among women according to their educational level) would be very valuable in helping to confirm this possibility, or else to show that [(contrary to the assumption in Wood (1994)] a competitive, modern sector can be built up employing workers with minimal levels of education.

⁴⁰ UN WISTAT data for all three countries. The figure for Bangladesh is identical to that reported in the Bangladesh Statistical Yearbook (Bangladesh Bureau of Statistics, 1993), reporting the findings of the 1989 national labour force survey.

⁴¹ Note however that Table 16 reveals significant amounts of foreign investment into textiles, leather and clothing in some years. Data on the three branches separately are not available.

By contrast, important information is available on wage rates in the export sector in Bangladesh. Given the very recent emergence in Bangladesh of export capacity in manufacturing, and on analogy with the EPZ salary life-cycle effect noted in Section 2.5, it might not be surprising to find a lesser wage gap in manufacturing in this case (even though EPZs are not a feature of the Bangladesh export sector). And so it proves. The average weekly female wage in manufacturing is Tk 178 compared to Tk 283 for men (R.I. Rahman, 1993b:101); but this conceals the fact that among unskilled workers the gap is minimal, at 3.9 taka per hour for males and 3.8 taka for females (a female:male wage ratio of 0.97). [The wage ratios for other grades are 0.62 for skilled workers, 0.88 for clerical workers and 0.91 for executive and managerial (R.I. Rahman, 1993b:103)]. A concrete interpretation of the situation might be that employers, knowing of the prevalence of women workers in the industry in other locations, are prepared to pay equal wages — even in some cases perhaps a wage premium to women — at the early stages of export industrialization, in order to encourage women workers to come forward,⁴² — but once the labour supply pattern is established, gender discriminatory forces allow the wage gap to emerge (through a range of mechanisms, such as differential seniority payments, marital status bonus or discount, differences in employment contract status, differential job grading and so on, such as have been observed in other countries) (see e.g. Anker and Hein, 1986). The situation needs to be closely monitored; more importantly, it represents an opportunity for public action to prevent a wage gap by gender appearing among unskilled workers.

It has already been noted that in respect of both the share of the industrial sector in national output and the composition of merchandise exports, **Uganda** has not participated in this experience of female-intensive export industrialization. Uganda has no current capacity in export manufacturing and the share of manufacturing in GDP (5.4 per cent in 1990) is significantly lower than in Bangladesh (7.1 per cent) (see Table 13). However, Table 13 also reveals that this represents an outright deterioration: there has been an actual loss of previous manufacturing capacity in total and as regards ability to export (albeit very small). This is part of the particularly disastrous performance of the Ugandan economy over the past two decades, but it is not out of line with the process of deindustrialization throughout Africa (Riddell, 1990). Disinvestment from Africa by foreign capital has compounded the situation (Bennell, 1995). It is a poignant illustration of the intensifying marginalization of Africa in world trade in general in the contemporary period, and of Uganda's falling out of international markets in manufactures in particular.

Attempts in the literature to explain the marginalization of countries in sub-Saharan Africa from world trade have taken two main forms. Descriptive studies contrast the preconditions of economic success in the Asian miracle countries with the situation in African countries today, focusing on deficits in physical and policy factors such as low population density, the failure to transform peasant agriculture, poor infrastructural

⁴² Some element of defiance of local tradition would be required on women's part to undertake wage employment in new export industries.

provision and poor governance in the sense of absence of macro-economic policy stability (Riedel, 1993). A more analytical, but similarly pessimistic, approach focuses on the comparative factor endowment, with the refinement of decomposing labour into skilled and unskilled labour (Wood, 1994; Berge et al., 1994). According to this model, African countries are doubly penalized in terms of their comparative advantage in world trade by their low population:land ratio and by the very low levels of education in the population. The logic of comparative advantage debars them from developing capacity of entering world trade in manufactures, except perhaps in some niche markets, such as processed tropical foods.

The experience of neighbouring Kenya gives some cause for optimism that Uganda might indeed be able to develop export capacity in non-traditional products of this kind. Kenya's most rapidly growing export in the 1980s and 1990s has been horticultural products (flowers, high value fruit and vegetables, particularly green beans) (Stevens, 1990). Some of these products (e.g. green beans) are grown by large and small farmers, sometimes on contract to international food marketing companies and processors; they have the advantage, from an equity perspective, that their production is neutral by farm size, i.e., that small farmers can produce and market them as successfully as large.⁴³

Production of flowers for export is a different matter. Despite its agricultural character, it is in many respects closer to an industrial process: flowers are grown in large farms, often under plastic housing to allow for complete control of the micro-climate, feeding of the plants and administration of insecticides, etc. A contractual wage labour force is used, whose terms and conditions of employment are akin to those of industrial workers, except that the work is clearly seasonal. The other region of the developing world that has developed a similar production capacity has been Central and Latin America (e.g. production of strawberries and other fruits in Mexico, Chile, etc.). As in Kenya, these countries have been able to exploit their climatic and seasonal differences from those of the temperate Northern markets of the largest industrialized countries.

In terms of the analysis in this paper, the important point to note is that where production of these non-traditional, semi-processed agricultural products has been developed, it has relied — no less than in the case of clothing — on the specific use of female labour. But in the case of Uganda, this lies in a speculative future

In **Morocco**, export growth has been most pronounced in the clothing sector and in certain types of food processing [with 90 per cent and 50 per cent of production, respectively, currently exported (Belghazi, 1995)]. But exporting took root widely throughout manufacturing during the 1980s: in 1984, only 10 per cent of all manufacturing firms were

⁴³ There are very important gender issues here, to do with gender biases in the allocation of labour and control of land and crop revenues, which mean that women farmers - despite being the majority in many African countries - may not have access to this production on their own account or see much income benefit from it. This is not the place to discuss such issues in depth.

producing mainly for exports, but by 1990 the share had risen to 21 per cent (World Bank, 1993). Employment growth in the exporting sector has been extremely rapid, increasing by 24.5 per cent annually over the period 1984-1990 compared to annual growth of 2.8 per cent in the domestic sector (World Bank, 1993). Currently women account for 79 per cent of the labour force in the clothing industry (Belghazi, 1995).

Wage rates display a different pattern from Bangladesh. There is a large wage gap by gender in manufacturing throughout the urban sector: in 1991, the mean female:male ratio in hourly wages was 0.80 (7.4 Dh:9.2 Dh) (World Bank, 1993:33). The same ratio obtained for the urban labour force as a whole in 1993 (Belghazi, 1995). Information on changes in wages or in the wage gap by gender over time is mixed. The gender gap in wages may have widened overall over the period 1984-1989, because real wages in the export sector declined by 2.6 per cent per annum compared to increases in wages in the domestically oriented sector of 1.6 per cent per annum (World Bank, 1993). Women continue to be concentrated in the export sector, so that this is *prima facie* evidence, for the case of Morocco, against the convergence hypothesis discussed above in Section 2.5. On the other hand, Belghazi suggests that real wages in clothing have risen in recent years (to 1993) and that the female:male wage ratio has improved in this branch as exports have increased. The estimated level of gender discrimination in wages was significantly less in clothing than in most other sectors, at about half the level for urban employment as a whole (Belghazi, 1993). Morocco has seen an erosion of its position in the European market with the rise of much lower cost suppliers such as Bangladesh and more recently the entry of low-wage East European countries into the same section of the clothing market (see Table 2). Belghazi suggests that employers have sought to raise product quality control in response to market pressures, raising wages as part of this strategy in an attempt to retain good workers and reduce labour turnover (1995).

There has also been a dramatic change in working conditions in recent years in Morocco; lower paid, temporary employment increased 2.5 times as fast as total employment and was concentrated in the export sector (World Bank, 1993). Another development was a marked shift in the composition of jobs among permanent workers in manufacturing, with a rapid decline in the share of unskilled workers from 75 per cent in 1984 to 42 per cent in 1990 (*ibid.*). Whether this reflects the conversion of a large number of unskilled workers from permanent to temporary contracts is not known, nor is the incidence of such changes by gender. But clearly these are ominous developments for the workforce as whole (*cf.* Standing, 1989) and, given women's relative lack of education, there are grounds for concern about the position of women especially. More detailed information on changes in wages over time is needed to understand the significance of these various developments.

Like Bangladesh, Morocco is notable for its very poor human development record in respect of education — which is even more striking in this case, given the much higher level of national income. The overall adult female illiteracy rate was 62 per cent in Morocco in 1990 (compared to an illiteracy rate of 1.4 per cent in Jamaica, for example)

(World Bank, 1995b); this disguises a significantly lower rate of illiteracy in the female population in urban areas (49 per cent in 1990-1991), although this is still a remarkably high figure by international standards. Not only is the female labour force participation rate very low, as noted, but rates of unemployment, taken to indicate a persons' active desire to take employment if it were available, are much higher among women than among men in urban areas (32 per cent compared to 17 per cent 1990-1991) (World Bank, 1993).

Expansion of the export manufacturing sector has created a completely new source of employment opportunities for women in both Bangladesh and Morocco. This employment is at rates of pay which represent a **major advance on pre-existing alternatives, even where that employment is exploitative in the sense of perpetuating a discriminatory gender wage differential.** In the case of Bangladesh, however, the expansion of employment in the clothing industry has not been exploitative in this narrow sense. In the case of Morocco some pressures tending to raise women's relative wage rates have been identified. But the situation in both countries requires careful monitoring and may require public action to safeguard and improve women's employment position.

Jamaica also has a substantial export manufacturing sector, but in connection with the subject of this paper its experience is much more interesting in respect of its presence in the international market in services. It is in fact a major, if not the major, country example of the replication of female-intensive growth in manufacturing in the new services sector, as discussed above in Section 3.3. First, it has seen the establishment of data-entry as an export activity on a significant scale. This industry employs women workers almost exclusively, in low-skilled but prestigious and relatively well-paid quasi-clerical jobs, many in the Digiport (an EPZ for services firms, with telecommunications in place of transportation infrastructure) (Dunn, 1995; Pearson, 1993; Pearson and Mitter, 1993). Since this sector is described in detail in the national background paper for the UNDP/UNRISD project (Dunn, 1995) it will not be discussed further here.

Second, Jamaica has seen more rapid growth of the financial sector than of any other sector over the past two decades. While GDP rose by 19 per cent over this period, the finance and insurance sector grew by 182 per cent and by 1989 it provided 9.1 per cent of Jamaican domestic product (ILO, 1993). Japanese FDI in Latin America (including Jamaica) has been concentrated in the services sector (Watanabe, 1993), and presumably contributed to this rapid expansion. Foreign investment in all sectors in Latin America is said to embody an increased export orientation (UNCTAD, 1994). Table 15 shows that export revenues to Jamaica from "Other private services" which includes financial services as well as data processing have grown rapidly in recent years though it is not possible to separate out their respective shares.

No data on the amount of employment so generated, nor of its gender breakdown, are available in this case. But it is surely significant that the Latin American region in general, and Jamaica in particular, are notable

for their very high rates of female education. In effect, they are the only countries in the world where educational attainments by women exceed those of men. The high skill and qualifications requirements of the new international services sector must predispose employers to invest and recruit female employees in locations where a pool of educated female labour is available.

It would be of great interest to monitor this situation, as a possible test case of the gender equity or employment creation in the new international services sector. The argument of this paper has been that it is in this sector that we may look for the best prospects for demand for women's labour on better terms of employment than evolve over time in the manufacturing sector. Gender considerations must add impetus to attempts to improve data collection systems for the services sector, and more immediately to the urgency of undertaking case study research to understand developments in this field.

Finally, let us consider the situation in **Viet Nam**. Viet Nam is a case of policy transition (since 1986) to a market oriented economy. It is a large (70 million population), poor (income per capita below US\$ 200 in 1993), agriculturally dominated country which has nevertheless — as a great virtue of its socialist past — a relatively good human development record. Educational levels in the population are well above the average for countries at the same income level (i.e., the adult literacy rate is 88 per cent; 84 per cent for women and 93 per cent for men (SIDA, 1992).

While a significant industrial sector was built up under autarky, the switch to market orientation and openness to trade has been reflected in strong growth of mainly primary exports, especially rice and oil; but also including labour-intensive manufactures, marine products and processed agricultural goods (World Bank, 1994). According to one estimate, 38 per cent of manufactured exports in the period 1986-1991 were of light industrial goods and handicrafts, such as shoes, embroidered clothing, lacquer goods, etc., the majority to Asian markets and much of the production under sub-contract from Asian firms (Moghadam, 1994:15). Macro-economic policy has been highly successful in controlling inflation and facilitating economic growth (of around 8 per cent per annum in recent years) but less so in mobilizing savings [the savings rate stood at 12 per cent of GNP in 1988-1990 (Riedel, 1993)]. Recent high external borrowing raises concerns about future levels of indebtedness and drastic cuts in the government deficit have had to be brought about by deep cuts in capital expenditure, jeopardizing much-needed infrastructural improvements (World Bank, 1994). Education and other social sectors have also been negatively affected, and there are indications that school attendance has been falling (SIDA, 1992:10).

The private sector is expanding: in industry, for example, state-owned industries accounted for 57 per cent of gross industrial production in 1989 compared to 69 per cent in 1976. About 30 per cent of the total labour force is now employed outside the state-owned and co-operative sectors (Moghadam, 1994).

In stark contrast to the situation in Bangladesh and Morocco, women's involvement in paid employment is high throughout the economy: thus, compared to a total female share of 52 per cent in the employed population, women comprised 43 per cent of the manufacturing workforce in 1989 (SIDA, 1992). This reflects a long-standing government policy to encourage female participation in production. However, the familiar pattern of occupational and branch segregation by gender obtains, men tending to dominate "certain physically demanding occupations...[while] in industrial branches requiring fine motor skills often exhibited by women, such as tailoring, weaving, knitting, the proportion of women is higher" (SIDA, 1992:14).⁴⁴ "In principle, men and women are both rewarded according to...their work. In practice, women predominate in the lower paid activities and [are underrepresented] in the management and skilled ranks" (SIDA, 1992: 15). Within the clothing industry, however, one case study found a somewhat different situation, with a "large presence of women at all levels, from university-educated managers of import-export departments to production workers...and everything in-between, including production managers and quality control managers" (Moghadam, 1994:20). In terms of qualifications and occupational grades, some under-representation of women is evident at the national level, but they are certainly present in force; thus, women comprised 37.3 per cent of "scientists, engineers and technicians engaged in research and experimental development" (a total workforce of 777,000 people) in 1988 (Moghadam, 1994:10).

There is no information on wages except for Moghadam's significant observation that there was no gap in wage payments by gender in the clothing firms (some state owned, some in the private sector, some associated with foreign enterprises) covered in her study (Moghadam, 1994).

The sectoral distribution of the labour force as a whole is distinctive for the very small share, in international terms, only 13 per cent, employed in trade and services (tourism, science, education, social services, finance, administration, etc.) in 1989 (Moghadam, 1994:7). Parts of these services, particularly trade and tourism, have higher shares of private employment than in any other part of the productive economy. Within the services sector, finance, credit and insurance also demonstrate the existence of significant private sector activity (ibid.).

At such low national income levels, the domestic surplus for investment cannot be expected to be adequate to generate rapid growth. To complement its small domestic savings, Viet Nam historically relied on high levels of external financing from the Soviet Union. With the collapse of the USSR, and in the shadow of US economic embargo, it suffered from a funding crisis which was not made up by credit from other sources (World Bank, 1994). This helps explain why the government managed to so drastically reduce the deficit (it had no choice but to do so) and also explains the hopes now placed on foreign direct

⁴⁴ Note that the type of explanation of occupational segregation by gender presented here was not subscribed to in Sections 2.2. and 2.3, because it reproduces gender stereotypes about worker characteristics and "appropriate" work.

investment. In recent years private capital inflows have become a major source of investment financing, with FDI attracted to Viet Nam as the seeming next Asian miracle country (Riedel, 1993). Table 17 gives recent data on foreign investment into Viet Nam. It shows that manufacturing and services (probably mostly tourism) are the main destination sectors. These investments seem likely to change the structure of production and employment and promote expansion of the services sector.

In terms of this paper, the conditions would seem to be in place for Viet Nam to expand export manufactures rapidly, probably — given its low wages — mostly in labour-intensive products. There is no reason to think that women would not form the bulk of the labour force for this effort, as they have elsewhere. Furthermore, the much higher level of education among women in Viet Nam than in Bangladesh and Morocco suggests that there might also be real possibilities for entry into international services for export, at relatively low skill levels (e.g. data processing) and at higher skill levels (software, etc.), on the Indian model (Pandit, 1995), perhaps to regional markets in the first instance. Nevertheless the possibility must be kept in perspective. Although — again as a fortunate legacy of the socialist period — there is a pool of well-qualified women professional and technical workers in Viet Nam, and the gender gap in education is not pronounced, average educational attainment among the population as a whole is not high. There is a large drop-off in attainment between primary and secondary levels, which particularly affects girls (SIDA, 1992). The low level of national income means that the domestic market for financial and other such internationalized services is small, relative to that of other established middle-income Asian countries, so that growth of such activities will have to be based on exports.

The issues for gender policy are, first, whether women will manage to retain their apparently equitable distribution throughout the occupational hierarchy in this sector as it expands and more foreign capital is involved. A second concern is whether a wage gap by gender might appear — the already high labour force participation rate of women may make labour supply conditions less elastic than elsewhere. Third, the growing services sector and the involvement of TNCs in tourism might lead to the emergence of new, well paying jobs, perhaps with an occupational structure less truncated and biased towards low-skill, low-paid jobs than the export manufacturing sector. It will be important for current and future gender equity that women are able to achieve and maintain equal employment opportunities and rewards with men in these emergent activities.

SECTION 5

Lessons for Gender Policy

This paper has discussed what is known from past experience of the relationship between industrialization and women's employment opportunities in developing countries, in the context of international trade, and what tendencies in the contemporary world economy seem to

have implications for women's employment in future. The analysis points to several areas of concern for gender policy

- **There is a possible relationship between the degree and duration of export orientation in manufacturing and the wage gap by gender.**

One hypothesis is that the wage gap by gender widens as export manufacturing capacity is consolidated. This proposition has never been systematically investigated, and the difficulties of testing it rigorously are obvious in view of the multiple determinants of changes in male and female wage rates and in wages and wage relativities over time. This indicates two needs for gender policy. First, there is a pressing need for research (or action-research) to investigate the hypothesis and to develop better understanding of the factors involved.

Second, the precautionary principle may be important for policy purposes in this connection. In other words, to ensure gender equity, it may be prudent for policy makers to give credence to the "wage divergence" hypothesis and draw up possible policy instruments to ensure that the more equitable pay relativities that seem to obtain at the early stages of the export industrialization process (as seen in Bangladesh and Viet Nam) endure.

There may be thought to be some inconsistency in advocating use of the precautionary principle before the particular mechanisms that come into effect are identified and understood in any particular case. A range of possible mechanisms have been suggested in this paper. Nevertheless, it is clear that tough monitoring and application of equal pay laws is the single main means of enforcement for pay policy, regardless of specific cause; so there is a general recommendation to governments to review the wage statutes and devote resources to enforcement of those laws in anticipation of greater calls for their use, and to NGOs and donor agencies to support advocacy groups able to press for action with employers and bring equal pay cases to the courts.

Experience in Bangladesh and Viet Nam is a counter to the argument that there is a necessary trade-off between pay equity and export success — that is, that a gender wage gap is in some sense necessary to competitive advantage in labour-intensive manufacturing. In those countries no such gap in wages proved necessary for entry into the international market in clothing. Government policy should seek ways of influencing the incentives facing employers in such a way that productivity improvements, rather than the socially unjust practice of reducing female wages, are seen as the best long-term means to cost cutting and maintenance of international competitiveness.

- **The distinction between educational attainment levels per se and the subjects in which women obtain educational qualifications will become increasingly important in future.**

Scientific, technical and managerial qualifications are all going to be important in giving women access to high-level jobs in the future,

particularly in export manufacturing industries, as they diversify and upgrade, and in the newly internationalized services sector. In most countries, women are underrepresented in technically skilled and in senior grades in industry, and so lose out as industrial capacity evolves and the production processes in use become more diverse.

Policies must be designed and implemented to bring about a more gender-equitable spread of students among different subjects at secondary and tertiary levels of education, with a view to increasing the numbers of scientifically and technically qualified women in the labour force. This may require a revision of curriculum and teaching practices starting from the lowest levels of primary school. But it is crucial if women's entry to the modern labour force in strength, brought about by building capacity in export manufacturing, is to be converted to a gain in women's labour force participation in all dimensions.

It may be particularly important to improve the educational and training situation with respect to employment in the new, internationalized services sector. While data entry and similar, low-skill operations may offer immediate prospects for job creation on a significant scale for women, in relatively prestigious work and at relatively good rates of pay, the work is extremely vulnerable to labour displacement from new technology. Work in this sector will be inherently insecure, and it does not carry promotion prospects for the women concerned. Similarly, many of the low-level jobs in the financial sector seem doomed to disappear. The best prospects for women, where indications are that access will not be denied, are in other branches of the financial and management corporate services sector. Governments must ensure that equity in educational provision, now so widely accepted as a policy goal at primary level, must be carried through to all levels and all subject departments of the educational and training system.

- **The evidence indicates that in many developing countries TNCs are becoming increasingly important as employers, especially in certain parts of the services sector.**

It may be an opportune moment in which to mount an audit of TNCs' employment practices and to enlist their support for gender equity in employment, as regards pay, promotion, and other practices. This applies especially strongly to education and training, for research shows that TNCs undertake more training than comparable local firms (Lall, 1994). Both governments — in their capacity as representative of the national interest — and labour organizations, as well as women's organizations, would have an interest in such an audit. In respect of their involvement in the new services sector, this would be unlikely to meet with any opposition from TNCs, because all the indications are that, if only in imitation of employment practices in their home countries, they emerge as good recruiters of women in this sector. Whether they are good employers subsequently in other respects is something that an audit would reveal.

The value of a gender audit of TNCs would be to identify any lagging employers; to indicate best practice in the sector, for the attention of

local firms as well as TNCs themselves and to serve as comparator for local employers; and to give notice that the issue is important, and will continue to be monitored by governments, in future. In a globalizing world, where governments' control over national macro-economic policy is being limited by trends in international markets, discretion over employment practices in the modern sector is an area where authority does remain with governments. In exercising this authority in the furtherance of gender equity, governments can take some action to ensure that internationalization of economic activity contributes to "human development" and the betterment of society.

Trade expansion thus opens up particular possibilities of leverage for social action groups concerned to bring about gender parity in employment. Developing country governments need to be made to ratify ILO Convention 100 and enact equal wage and opportunity legislation, if it is not already on the statute book. More difficult, sound and effective mechanisms for implementation of that legislation need to be in place. NGOs, the women's movement and any other groups acting for women's interests need to be vigilant in preventing any movement towards greater wage inequality, and be prepared to take action in the courts if necessary. Lessons can surely be learned internationally from the experiences of similar groups in developed countries.

Two other possible arenas for action present themselves. First, the potential for equal wage provisions to be promoted as part of — perhaps the least controversial part of — putative "social clauses" in international trade agreements should be explored. The effort to include general social clauses in trade agreements has been strongly resisted by developing country governments which see them as a veiled protectionist device; developed countries are divided and the ILO, for example, is split down the middle over the issue. But the topic may be shelved rather than permanently dead in international fora and women's groups might take advantage of the pause to re-examine the issues, consider their position and lobby their governments to take a stand in international negotiations.

The second forum is the "sub-political" arena of civil society, in which the international environmentalist groups have been so influential. The recent case of Shell's reversal of policy over disposal of an old oil-rig in direct response to pressure from Greenpeace is a graphic recent case. Women's interest groups (both Northern and Southern) could bring their own strength to bear similarly directly on TNCs, which are likely to become an increasingly important actor in, and influence over, labour markets and employment practices towards women in developing countries. Vigilance over TNCs' employment practices in general and equal wage payments by gender in particular could be monitored locally, information published, good and bad employers identified and representations made for improved practices for women employees. There is vast potential for international alliances between women's organizations worldwide for movement on this issue — indeed, in keeping with the globalization of the world economy, international action may not only be appropriate but necessary for promotion of gender equity in this connection.

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