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# **International Outsourcing, Employment, and Inequality: Some Issues**

– *Draft for discussion*\* –

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## 0. International outsourcing: Just media hype or a real threat for jobs in the North?

The term ‘outsourcing’ has made headlines for several years now, and spectacular announcements of plans to re-locate jobs to low-cost destinations by corporations such as IBM have fuelled fears of job losses (Wall Street Journal, 12 March 2004). Furthermore, market research companies have presented some alarming headline statistics predicting massive future job re-locations and reinforced these fears (Forrester 2002, 2004a and 2004b). Outsourcing has been hotly debated in the United States (especially during the 2004 presidential campaign), but also in Europe. A prime example for the prominence of the issue in the old world are the extensive considerations that can be found in the recent reports produced by the French Senate’s *Groupe de travail sur la délocalisation des industries de main-d’oeuvre* (Grignon 2004) and the *Conseil d’analyse économique* (Fontagné and Lorenzi 2005).<sup>1</sup>

The controversy on outsourcing must be put in the context of the wider debate on trade and global economic integration. Here, a prominent concern has been that many developing countries have been left and benefited little from globalization.<sup>2</sup> Others have argued that the rapid opening to trade and financial flows has made developing countries prone to crisis, and resulted in significant economic and social cost (see e.g. Lee 1998). More recently, the intervention by Nobel laureate Paul A. Samuelson (2004) has questioned the standard conclusion of trade economists that industrialized countries gain from trade and specialization. He disputes the “popular polemical untruth” that welfare gains from trade necessarily exceed any losses. Instead, he argues that a technical progress in China can induce a permanent loss in the per capita income of the United States – to the extent that it reverses any US gains from trade over autarky.

This paper discusses some of the issues brought forward in the debate on international outsourcing. It starts by defining the term and then maps the different attempts made in the literature to measure the extent and development of outsourcing. It further considers the explanations given for the rise in outsourcing and discusses how the literature views the employment effects, both in the countries that outsource and those that host outsourced activities. Special attention is given to the potentially adverse effects on wage inequality and social exclusion. Finally, it identifies three areas emerging from the literature that are of particular relevance to the ILO’s mandate that would warrant the development of adequate policy responses.

## 1. Definitional issues: What is meant by ‘international outsourcing’?

Although there is an intuitive understanding of what outsourcing means, the precise definitions given to the term differ throughout the literature. Expressions such as ‘offshoring’, ‘offshore sourcing’, ‘vertical specialization’, ‘fragmentation’, ‘delocalization’ and ‘global production sharing’ that are often used as synonyms, or to describe closely related phe-

<sup>1</sup> These reports can also be consulted for a comprehensive coverage of the French literature on the topic.

<sup>2</sup> See the discussion in Chapter II.2. of the Report by the World Commission on the Social Dimension of Globalization (2004).

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nomena. For example, Arndt states that “[o]ffshore sourcing occurs when some activities involved in the making of a product are performed abroad” (Arndt 1997: 71). To Egger and Stehrer “[...] ‘outsourcing’ [...] means the international splitting of production processes either within or between firms to exploit new, technologically feasible gains from specialization” (Egger and Stehrer 2003: 61), but Jones and Kierzkowski refer to the “splitting up of a previously integrated production process into two or more components” as “fragmentation” (Jones and Kierzkowski 2001a: 18; see also Jones and Kierzkowski 1990). Grossman and Helpman use the term “outsourcing” and emphasize that it “means finding a partner with which a firm can establish a bilateral relationship and having a partner undertake relationship-specific investments so that it becomes able to produce goods or services that fit the firm’s particular needs” (Grossman and Helpman 2002: 2).

In addition to the above definitions that describe a qualitative aspect of the outsourcing process, other authors have put forward definitions that lend themselves more readily to measurement: they normally use the foreign content in a final product as a basis. For example, Görg et al. (2004) define “international outsourcing as the value of imported [services and non-services] intermediates” (ibid.) and Amiti and Wei (2004) speak of international outsourcing when they mean “the procuring of service or material inputs by a firm from a source in a foreign country” (ibid.: 6). Feenstra and Hanson exclude energy inputs and hence “measure outsourcing as the share of imported intermediate inputs in the total purchase of non-energy materials” (Feenstra and Hanson 1996: 240). There is, however, some uneasiness about this definition since e.g. the purchase of foreign steel by a car-maker would fall under it – even though most people would hardly consider this to be a case of ‘outsourcing’. Feenstra and Hanson therefore suggest an additional, narrow definition of outsourcing that only contains intermediate inputs from the same industry (e.g. brakes and gearboxes in the case of the car-maker). This suggestion has since been taken up by others such as Geishecker and Görg (2004: 6) or Hijzen et al. (2004: 5f.). Contrary to this, Anderton et al. (2002) have widened the definition by including the import of final goods, as long as they originate from low-wage countries. The idea is that companies sometimes outsource the entire production of a product, but continue to sell it under their own brand name in their home market. Others have criticized this operationalization as an “excessively wide” measure for outsourcing (Egger and Egger 2001: 247).

## **2. Measurement issues: What is the extent of outsourcing, and how has it evolved over time?**

Following from the different definitions of outsourcing, there are a number of possible approaches to measure the extent of outsourcing, and to track its evolution over time. These approaches sometimes face considerable data problems and often resort to ‘proxy’ measures, i.e. they do not measure outsourcing directly, but use those data that are available and reflect the concept under question the most closely. As a general rule, the preciseness of measurement will decrease as the coverage – both geographical and over time – is extended. Whereas data for a single point in time at the level of the individual firm can often contain a lot of detail, global time-series data will necessarily have to rely on crude proxies of international outsourcing. As several publications emphasise, “there are currently no reliable statistical indicators of the extent or nature of global outsourcing” (European Foundation for the Improvement of Living and Working Conditions 2004: 10). For the international sourcing of services, van Welsum regrets that “there are no official data measuring the extent of the phenomenon or its economic impact” (van Welsum 2004: 32). As the World Trade Organization (2005: 267) argues, one of the root causes for this is that outsourcing refers to management decisions made at the micro-level (i.e. to replace in-house production by the purchase of service inputs) that cannot be easily linked to trade statistics that are collected on the national and sectoral levels. Nonetheless, several

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statistical sources can illustrate recent trends in outsourcing. In what follows, they are organized according to the type of data used.

## Data on outward-processing trade

A number of studies have illustrated trends in outsourcing by making use of bilateral trade data that capture the re-import of products that were shipped abroad for assembly or processing. Baldone et al. (2001) show that EU producers of textiles and apparel have increasingly re-located some stages of their production, mainly to Central and Eastern Europe. For example, re-imports of apparel to the Netherlands were equal to 42.2 per cent of domestic production in 1994-96 (up from 20.4 per cent in 1988-90), and they increased in Germany from 10.8 per cent in 1988-90 to 24.1 per cent in 1994-96 (*ibid.*: 85). French and Italian producers have engaged in production outsourcing to a far smaller degree (with ratios of 4.9 and 2.3 per cent in the final year, respectively). The results presented by Egger and Egger (2001) indicate that this particular kind of 'outsourcing' is less prevalent in other sectors. According to their data, outward processing equalled only 0.249 per cent of gross production of all EU industries in 1995-1997 (*ibid.*: 247f.).

A similar picture emerges for the United States. Feenstra et al. (2000: 89ff.) utilize US customs data for the Offshore Assembly Program (OAP) and find a marked increase of re-imports in the Apparel (SIC 23) and Footwear and Leather (SIC 31) industries, mainly from Mexico and Caribbean countries. By 1993, OAP imports accounted for 6.4 per cent of all incoming shipments in the former industry (up from 1.1 per cent in 1981) and 8.5 per cent in the latter (up from 1.0 per cent in 1981). By contrast, OAP imports fluctuated around their initial level over the period for the Machinery (at 1.0 per cent or below), Electrical Machinery (between 2.4 and 4.0 per cent) and Transportation Equipment industries (below 1.0 per cent in all years but 1987).

## Input-output tables

Many researchers have relied on input-output tables to measure outsourcing. These tables generally break down the inputs received by each industry according to the industry of origin and their source (domestic or foreign) and state the value added by the industry itself – the sum of which is an industry's total output. This makes it possible to calculate the share of foreign inputs contained in the final product, and therefore the degree of outsourcing as defined by several of the above quoted authors. Given that inputs are listed by supplier industry, both the broad and the narrow definition of outsourcing, proposed by Feenstra and Hanson (1996), can be operationalized. The approach, however, is not without drawbacks. Hijzen et al. (2004) point out that outsourcing of the final production stage (as in the case of outward processing trade) will not be captured by input-output tables.

National statistical offices provide one source for input-output tables. Hijzen et al. (2004) had access to those from the United Kingdom and calculated the ratio of intermediate inputs over the value added in the industry (not gross output or total inputs, as done elsewhere). In the narrow version (that takes into account only inputs from the same industry), the share went up from 15.2 per cent in 1984 to 18.6 per cent in 1995, and it increased from 45.9 (1984) to 48.8 per cent (1995) under the broad definition (non-weighted averages across all industries). A more recent study for the United Kingdom by Amiti and Wei (2004: 33) shows that growth in outsourcing during the 1990s was mainly due to developments in non-tangible inputs. The authors distinguish between service inputs and manufactured inputs and find that in the years from 1998 to 2001 the latter was around its 1992 level, 28 per cent of total non-energy inputs, after having peaked at just over 30 per cent in the mid-1990s. In contrast, the share of imported service inputs has been on a steady rise between 1992 (3.5 per cent) and 2001 (5.5 per cent). For Germany, Geishecker and Görg

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(2004) find an even steeper increase in total outsourcing during the 1990s. The narrow measure of outsourcing, here expressed as a share of gross output, increased from just over 5 per cent in 1991 to more than 8 per cent in 2000, and the broad version from under 11 per cent to just over 15 per cent (ibid.: 18).<sup>3</sup>

Campa and Goldberg (1997) report a similar result from their four-country study of manufacturing industries. The input-output tables used by them do not differentiate between domestic and imported inputs; rather Campa and Goldberg combine them with data on import penetration to derive a similar measure. For the United States, the estimated share of imported inputs from manufacturing industries in total production rose from 4.1 per cent (1975) to 8.2 per cent (1995), and for the United Kingdom from 13.4 per cent (1974) to 21.7 per cent (1993). While the measure of outsourcing for these two countries falls somewhere between the narrow and the broad definition as described above, the data for Canada and Japan include all imported inputs (and hence apply the broad definition). The imported inputs share rose from 15.9 per cent (1974) to 20.2 per cent (1993) in Canada, but fell from an already low 8.2 per cent (1974) in Japan to only 4.1 per cent (1993). Among all the countries surveyed, Japan therefore stands out as the single country where the use of foreign inputs actually declined. Strauss-Kahn (2003) faces a similar data-problem in her study of France and proceeds like Campa and Goldberg (1997). Her within-industry measure of outsourcing rose from 4.9 per cent in 1977 to 7.3 per cent in 1993, while the broad measure increased from 9.2 per cent to 13.8 per cent over the period (ibid.: 25).

Standardized input-output tables produced by the OECD (1995) better facilitate cross-country comparison. They cover the G-7 nations plus Australia, Denmark and the Netherlands for the period from ca. 1970 to ca. 1990 in intervals of approximately five years. Even though the number of countries included is small, they still capture roughly 60 per cent of world trade. Geographical coverage was extended in a later – but not compatible – issue for the mid-1990s that includes a total of eighteen OECD countries alongside with China and Brazil (OECD 2002). Hummels et al. (2001) base their measure of ‘vertical specialization’ on the earlier dataset and calculate the “value of imported inputs embodied in goods that are exported” (ibid.: 77). This ratio grew from an average 0.162 to 0.198 over the 20-year-period covered (export-weighted). In nine out of ten countries the ratio increased, with Japan again being the single exception. Additional data from national sources show rising ‘vertical specialization’ for Ireland, Taiwan Province of China and the Republic of Korea, and a particularly sharp increase in Mexico (from 0.10 in 1979 to 0.32 in 1997) that reflects the growth of export processing in the country’s *maquiladoras*. Yi (2003) provides an extension on the article by Hummels et al. (2001), exploring the impact of vertical specialization on the volume of world trade.

## Trade statistics for intermediate inputs

Since outsourcing will generally generate trade in intermediate products, other researchers have attempted to map the flow of such products. While ready-to-use statistical compilations such as the UNCTAD Handbook of Statistics (UNCTAD 2004a) and others that are based on the UN’s COMTRADE database have the advantage of comprehensive coverage across time and countries, the approach necessarily relies on “rather arbitrary classifications of goods into intermediate and final” (Hummels et al. 2001: 76). Yeats (2001) tries to find a way around this by concentrating on the machinery and transport equipment group (SITC 7) where parts and components can be identified with relative ease (under SITC Revision 2). He can demonstrate that the share of parts and components in all OECD

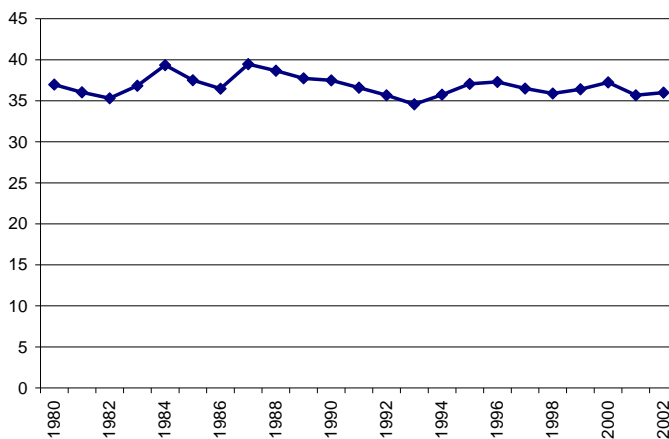
<sup>3</sup> Note that the different denominators of the ratios make it impossible to directly compare the extent of outsourcing across these three studies; they only allow to assess relative trends.

exports from this group rose from 26 to 30 per cent between 1978 and 1995. Nonetheless, this is no direct evidence of increased outsourcing since the parts and components that are recorded in trade statistics might not have been used for further manufacturing, but for repair and maintenance purposes. However, sectoral studies reinforce the view that outsourcing is a likely driving force behind these changes. For example, Nunnenkamp (2004: 32f.) reports that the content of imported intermediaries per car produced in Germany has almost quadrupled in real terms between 1980 and 2002, while intermediates exports grew by 170 per cent.

### Box 1: Trade in Automotive Parts and Accessories

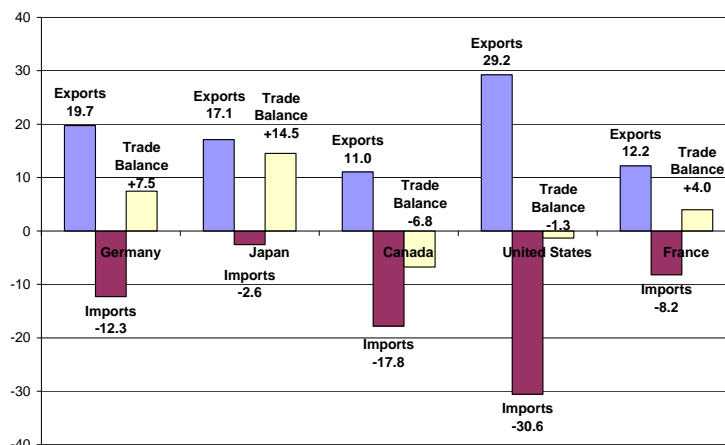
While studies such as that of Yeats (2001) show that trade in intermediate products has risen slightly over the past two decades, the available data also show that the import of intermediaries is by no means a new phenomenon. This can be illustrated by using the automotive industry as an example. The Standard International Trade Classification (SITC) Group 784 contains the most important parts and accessories of motor vehicles (such as bodies, brakes, gearboxes and axles). Even though trade in dollar terms has grown rapidly since 1980, this expansion has been roughly in line with total trade in motor vehicles (SITC groups 722, 781, 782 and 783). The first graph shows that worldwide trade in parts and accessories (calculated as the sum of exports and imports divided by two) expressed as a percentage of trade in finished motor vehicles has fluctuated between 35 and 40 per cent since 1980.

**Trade in Automotive Parts (SITC 784) as Percentage of Total Motor Vehicles Trade (SITC 722, 781, 782 and 783), 1980-2002**



The data further show that three of the five largest exporters of motor vehicles were also net exporters of parts and accessories: Germany, Japan and France recorded substantial trade surpluses, while the United States and Canada had imports in excess of exports.

**Trade in Automotive Parts (SITC 784), 2002 in billion US\$**



Data Source: UNCTAD Handbook of Statistics 2004.

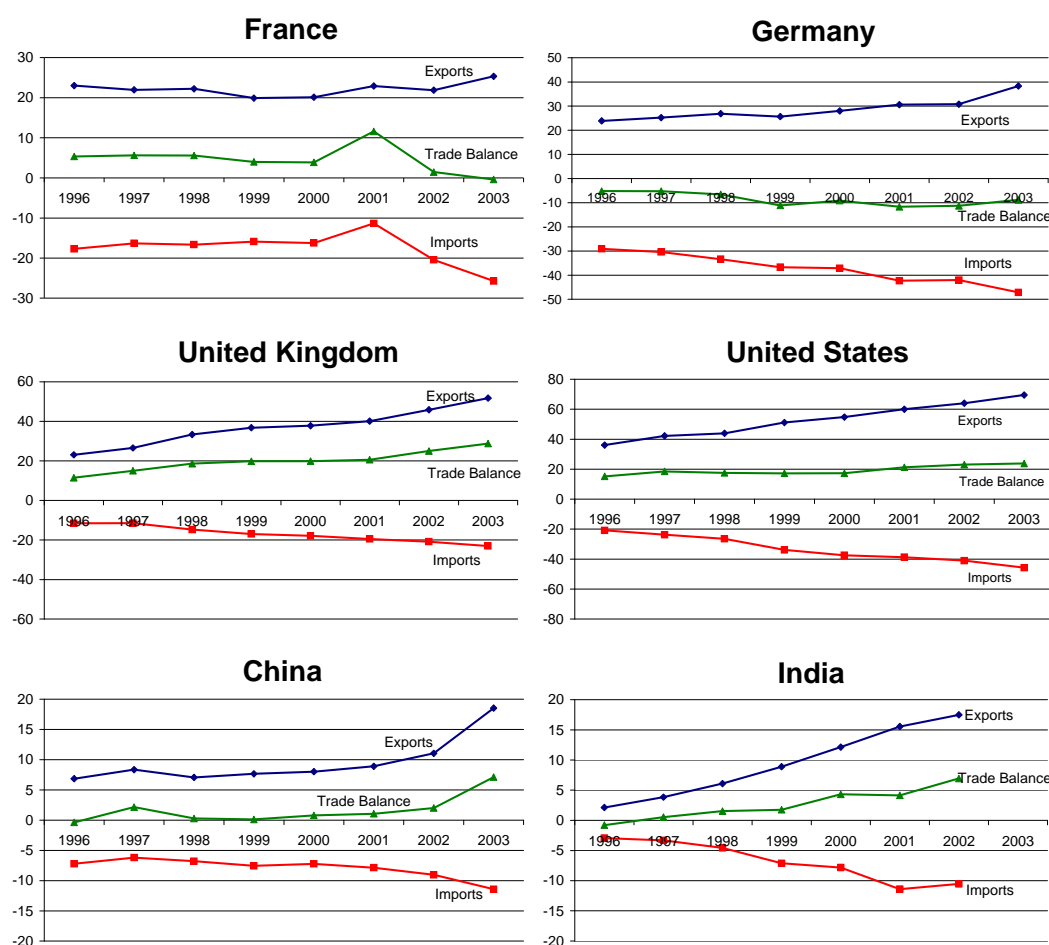
## Trade statistics for services

As the United Kingdom example cited above reflects, outsourcing of service inputs still accounts for only a small portion of total outsourcing. But given its continuous growth, concentrating solely on statistics for intermediate manufactured, or other tangible goods inputs would mean missing an important, dynamic part of the overall picture. It is therefore useful to supplement such statistics with data on trade in services. Precisely this task was undertaken by Amiti and Wei (2004) who draw on the IMF's Balance of Payments (BoP)

### Box 2: Some Evidence on Trade in Services from the IMF's Balance of Payments Statistics

The IMF's Balance of Payment data allow taking a closer look at recent developments in the two service categories that Amiti and Wei (2004) concentrate on: 'computer & information services' and 'other business services'. Aggregating the two categories, the graphs below show the trading positions of four main industrialized trading partners alongside with those of China and India. While both the United Kingdom and the United States have maintained or increased their substantial trade surpluses from 1986 to 2003 (around 20 billion US\$ per year), Germany has recorded a deficit over the entire period, and France saw its surplus diminish. The graphs also show the rapid rise of India and China as service exporters: Starting with relatively minor exports seven years ago, they each expanded their exports to just under 20 billion US\$ – close to those of France. However, as the World Trade Organization (2005: 277ff.) cautions, these figures should be taken with a grain of salt, given the large discrepancies between reported exports and imports on a global level. In the case of bilateral trade between India and the United States, two of the largest trading partners, India reported exports to the United States worth 6.8 billion US\$ in 2003, while the United States only recorded imports from India worth 0.9 billion US\$. The WTO argues that these figures can only be reconciled "if one takes into account the earnings of Indian IT specialists which are [...] considered by the US Department of Commerce as residents" (WTO 2005: 280). According to a WTO estimate, such earnings that should not have been included in Indian export statistics could explain as much as 4.8 billion US\$ of the discrepancy. Indian export statistics are thus likely to be an overestimate of actual exports.

### Imports and Exports of Computer and Information Services and Other Business Services, 1986-2003 (in billion US\$)



Source: IMF Balance of Payments Statistics Yearbook 2004.

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statistics for ‘computer & information services’ and ‘other business services’ – two categories that much of the recent public debate has concentrated on. While the trade statistics do not differentiate by the use of these imports, they are typically (and in contrast to service imports such as travel or education) demanded by firms – and not final consumers – and are therefore a good proxy for services outsourcing.

The data confirm that the import of ‘computer & information services’ and ‘other business services’ has been growing rapidly in many countries, sometimes doubling relative to GDP within a decade. For the United States, imports equaled 0.1 per cent of GDP in 1983, 0.2 per cent in 1993 and 0.4 per cent in 2003; for the United Kingdom the figures are higher at 0.9 (1983), 0.7 (1993) and 1.2 per cent (2003). Other industrialized countries such as Germany, France and the Russian Federation Russia report higher figures (between 1.4 and 2.4 per cent of GDP for 2002), but some developing countries like Angola (35 per cent), the Republic of Congo (22 per cent) and Mozambique (17 per cent) have even higher import ratios. Some of the industrialized nations named above are also among the worlds top exporters of services (see Box 2).

For business services, by far the larger of the two categories, the United States is in fact the biggest exporter, followed by the United Kingdom and Germany, well ahead of India ranking 6<sup>th</sup> and China ranking 14<sup>th</sup>. The United Kingdom and the United States are also the two countries with the greatest trade surplus in business and computing services, while Japan and Germany have the greatest deficits (ibid.). Using a wider definition (total exports of services, excluding government services) and WTO data, van Welsum (2004) produces broadly similar results. However, the inclusion of other services dilutes the market shares of China (2.5 per cent) and India (1.5 per cent).

## **Business surveys**

The data on the rapid rise of cross-border services outsourcing must, however, be put into perspective. To do so, business surveys are a valuable complementary source. For example, the Centre for European Economic Research (2005) conducted a large-scale survey among 4,400 German companies and found that some 87 per cent of them had outsourced some or all of their IT-related activities. However, the lion’s share of the contracts went to domestic suppliers: Only 0.1 per cent of the surveyed companies awarded contracts to overseas service providers, and 5.9 per cent to companies from other EU countries (ibid.).

## **Conclusion: Outsourcing is an age-old phenomenon, but services have added dynamism**

Overall, the results of recent research seem to indicate that there has been a rise in outsourcing, particularly since the early 1990s. The phenomenon is most widespread in labour-intensive industries such as consumer electronics, leather goods and apparel where production is re-located from the old OECD countries to low-cost destinations such as Mexico, the Caribbean and Eastern Europe. Imported parts and components are also an important factor in the motor vehicles and other manufacturing industries, which have relied on production sharing for several decades. Although trade in business services and computer and information services is still at a nascent stage, it is the most dynamic and fastest growing area. Developing countries like India and China have managed to gain a share in this market, but are still far behind the leading exporters of these services, the United States and the United Kingdom, that continue to enjoy substantial trade surpluses.

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### 3. How are trends in outsourcing best explained?

A major driving force behind international outsourcing are international differences in factor prices (see e.g. Nunnenkamp 2004; Kohler 2002). Given that capital is generally more mobile than labour, price differences are usually greatest for labour. Outsourcing labour-intensive production stages to a low-wage country can hence be seen as a “vehicle for arbitraging” on these differences (Kohler 2004). While there are potentially large arbitrage gains to be made, several barriers restrict the feasibility of international outsourcing. Among them are technological limits to decompose the production process, customs tariffs and transportation costs. Hence, as these barriers are overcome (or as factor price differences widen) the extent of outsourcing is expected to grow. Several researchers have thus sought to make this link in order to explain the rise in outsourcing.

#### Reductions of trade barriers

Venables (1999) develops a simple model to demonstrate that as trade costs fall, fragmentation of production becomes feasible. One interesting implication of his model is that when the final production stage is re-located to the country where a final good is consumed, overall trade in value terms might actually fall since exports of intermediates replace exports of finished products. Trade will only grow as a result of outsourcing when intermediates that were previously produced domestically are imported (*ibid.*). While Venables assumes that intermediary goods cross one border at most, Yi accounts for the fact that “[v]ertically specialized goods or goods in process cross multiple international borders while they are being produced” (Yi 2003: 55). When they incur a tariff upon crossing every border, tariffs accumulate and can make production fragmentation unfeasible. However, a small decrease in the tariff rate can lower the overall cost below a critical threshold and generate a large effect. Yi uses this logic to explain the non-linear response of trade volumes to tariff reductions. He develops a model that explains more than 50 per cent of US trade growth since the early 1960s (by his account substantially more than standard trade models). In addition to a general fall in tariffs, regional free-trade agreements such as NAFTA have often facilitated the outsourcing of production stages (see Arndt 2002). The reduction of trade barriers between West and East Europe after 1990 and the subsequent integration of Eastern European countries into the European Union is another example (see Egger and Egger 2005).

#### Declining transportation costs

In contrast to this, a review of the available data on transportation cost by Hummels (1999) suggests that changes in freight costs have played a comparatively minor role. While his research confirms that the cost of air transport has fallen substantially over the past 50 years, he concludes that – contrary to conventional wisdom – the cost of ocean transport has actually risen. At the same time, changes in the rate structure have favoured long-distance shipments relative to shorter distances (*ibid.*: 21). The picture is of course entirely different if one looks at transmitting information as opposed to the cost of moving merchandise. While the cost of telecommunication was prohibitively high only a few decades ago, the price for a single voice circuit has become almost infinitesimally small during the 1990s (see Blake and Lande 1999: Table 12). This rapid decline plays a major role in services outsourcing – a call centre in India to serve British customers would have been unthinkable until very recently.

## Technological change

More generally, technological change is often cited as one of the enabling factors for outsourcing (see e.g. McKinsey Global Institute 2003: 4). The ILO’s World Employment Report 2001 analyses how advances in computing and network technology have led to ‘spatial dynamics’ in teleworking, call-centres, software production and information-processing work (ILO 2001: 126ff.). The 2004 edition of the report continues the discussion on the subject and asserts that the ITC revolution has enabled an expansion of outsourcing to the services industries (ILO 2004: 86). And in the words of the World Investment Report 2004, the possibility to store and transmit information digitally has led to the ‘tradability’ of services that were formerly considered non-tradable (UNCTAD 2004b: 148). The new developments in communications technologies have had an important impact even in manufacturing. Hummels et al. (2001: 94) suggest that “the sequential nature of vertical specialization” make “oversight and coordination of production” an important restraining factor that can be overcome more easily with the help of modern technology.

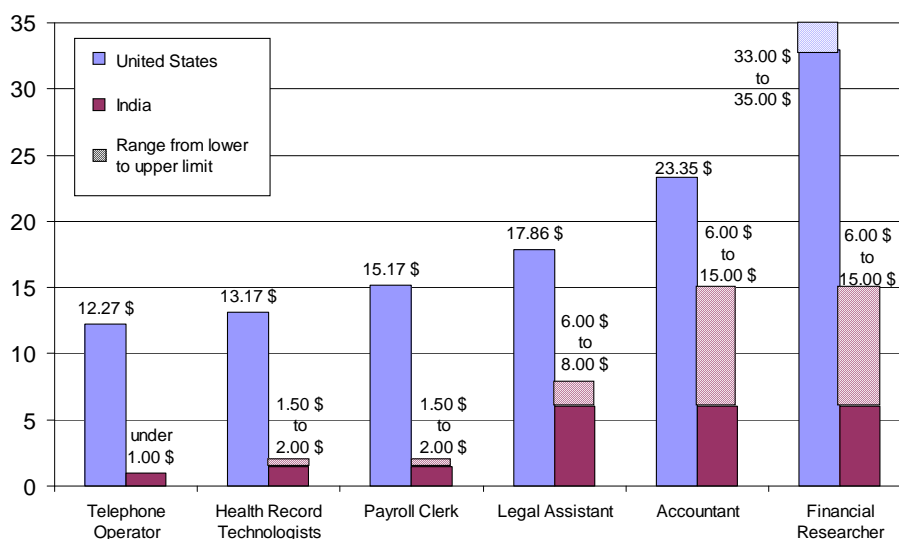
## Availability of low-wage labour

A fundamental, but often not explicitly mentioned change that has brought many millions of low-wage workers into the global economy is the opening of China’s and India’s labour markets (see e.g. ILO 2004: 86). This means that the effective wage differential between the industrialized economies and the lowest available wage rate has widened substantially; wages in some services professions are only a fraction of those paid in the United States (see Box 3). India has also positioned itself as a location with a skilled labour force,

### Box 3: Wage Differences as a Driving Force for Services Outsourcing

A fundamental driving force behind outsourcing is the difference in labour costs (see e.g. Dossani and Kenney 2004: 10ff.). While this has long been the case for manufacturing, the advances in information and communication technology have made outsourcing a viable option for services. Bardhan and Kroll (2003) have illustrated the potential for cost saving by contrasting average hourly wages in the United States (as published by the US Bureau of Labor Statistics) with the typical range in India (based on their own research). Their results show that Indian wages in medium-skill occupations like health record technologists or payroll clerks are typically 10 to 20 per cent of those in the United States. However, the wage differential is smaller for higher-skilled professions such as accountants or financial researchers where Indian workers get a higher percentage of their US counterparts.

**Hourly Wages for Selected Occupations in the United States and India, 2002/2003 (in US\$)**



Source: Bardhan and Kroll (2003).

especially in IT-related services (see Box 4). Similarly, the transformation in Central and Eastern Europe has effectively added millions of workers, many of them highly skilled, to the globalized labour force – and this in close proxy to the industrialized economies of Western Europe. Richard Freeman (2005) argues that the opening of these countries, and their embracement of capitalism, has effectively doubled the global labour force from 1.47 billion to just below 3 billion workers.

Empirical studies have investigated the relevance of the aforementioned factors in a firm's decision to outsource production stages to a foreign country. For the manufacturing sector in Austria, Egger and Egger (2003: 633f.) report that outsourcing to Eastern Europe is essentially low-wage seeking and was boosted by the reduction of tariff barriers after 1990. A study of the EU apparel sector concludes that "labor costs, along with geographical and cultural proximity, are the most important reasons for the original choice of a given country as a processing partner" (Baldone et al. 2001: 102). The research has, however, an additional finding: Once a choice has been made, outsourcing firms are unlikely to reverse it – even when, at a later stage, cheaper labour becomes available in another country. This finding becomes plausible when outsourcing is seen to involve substantial search-costs and relationship-specific investments as well as effort to the establish trust between partners in an environment of often non-enforceable contracts (Grossman and Helpman 2002).

#### **Box 4: The Rise of India as a Exporter of IT-related Services**

While wage differentials between India and developed countries like the United States can account for the drive to outsource activities to India (see Box 3 above), they cannot explain why India has been immensely more successful in exporting IT-related services than other countries with similar – or even lower – wage levels. The key to the phenomenal growth in Indian service exports since the early 1990s is that the country was able to offer high-quality IT-related services, easing the skill-shortages that became particularly severe in the developed countries during the boom years of the late 1990s. Kumar and Joseph (2004) attribute this success in IT world markets to a series of strategic policy choices that build the country's export capacity. As far back as the 1970s, the Indian Government recognized the potential of the software sector, and subsequently the first degree courses in computer sciences were offered. The tertiary-level training capacities were further extended under the Computer Manpower Development Programme, launched in 1983. In addition to courses offered at public institutes, privately run centres established a range of courses since the early 1980s, many of which have since been accredited (see *ibid.*: 7ff.). The rapid growth in the number of graduates with degrees in computer science and related engineering and technology disciplines was arguably "crucial for software success" in India (Arora and Gambardella 2004: 8). However, as a result of the sector's rapid growth, some Indian companies now find it hard to recruit adequately trained professionals (see Vijayabaskar et al. 2001).

Public policy was not limited to investment and promotion of education. The Department of Electronics played an active role in fostering the industry, most notably by establishing networking infrastructure during the 1980s, and from 1990 onwards by setting up Software Technology Parks in cities such as Mumbai and Bangalore. The parks provided firms with the necessary infrastructure, especially high-speed communication links (see Kumar and Joseph 2004: 9ff; Kumar 2001: 5). This was supplemented by promotional measures such as tax and import duty exemptions, and an early relaxation of foreign ownership rules. Kumar and Joseph hence call the Indian success "a typical case of proactive state intervention wherein the Government laid the foundation and the industry took off with greater participation by the private sector" (Kumar and Joseph 2004: 1). Another crucial factor that helped the export-led growth in IT-related services was the emigration of Indian IT specialists who provided links between the emerging Indian software industry and the established companies abroad (see Arora and Gambarella 2004: 10f.). While the companies that provide outsourced software services – either on-site in the developed countries or from India – are mainly home-grown (see Kumar 2001: 31f.), India has also managed to attract many export-oriented FDI projects. A survey commissioned by UNCTAD found that the country had received a total of 118 greenfield and expansion projects in IT-related services during 2002-2003. With a share of 19 per cent in worldwide projects within this category, India was the FDI leading destination in numerical terms – ahead of the United Kingdom (12 per cent) and China (9 per cent) (see UNCTAD 2004b: 161ff.).

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## 4. The employment effects of outsourcing

### Employment effects in developed countries

Dramatic estimates of outsourcing activities have stirred up a great deal of public debate about the employment impact of outsourcing. For example, Forrester Research predicts that by 2015, Europe will lose more than 1 million jobs as a result of ‘offshoring’ to overseas service providers (Forrester 2004a). An even greater impact is predicted in the United States, with an estimate of 3.3 million jobs lost during the same period. The claim was first made by the consultancy in 2002, and then it was revised it slightly upwards two years later (Forrester 2002, 2004b). Others believe that this figure is still ‘conservative’ and estimate that in the United States alone some 14 million jobs are ‘at risk’ as a result of outsourcing (Bardhan and Kroll 2003). On the other hand, some studies argue that “fears about job losses, however reasonable they might be, tend to overplay the likely impact of offshoring” (McKinsey Global Institute 2003: 9). By the latest estimates from McKinsey, offshore employment in services had reached 1.5 million jobs world-wide in 2003 and could grow to 4.1 million jobs by 2008 (Farrell et al. 2005a: 23f.). Still, this would equal only a small fraction of services employment in the developed countries (around 1.2 per cent).<sup>4</sup> Similarly, the World Employment Report 2001 concludes that “very few jobs in industrialized countries are contestable by developing countries” (ILO 2001: 140). A study commissioned by the Information Technology Association of America even predicts that offshore sourcing will lead to a net gain of 317,000 jobs in the United States by 2008 (ITTA 2004).

In part, the differences between the estimates arise because some studies refer to gross effects (or direct job losses through outsourcing), but others to net effects (and therefore take into account possible indirect job gains). While the first approach can deliver information on how many workers are likely to be displaced by outsourcing, only the second can be informative about the overall effects on employment. It takes into account that new jobs may also be created as a result of outsourcing: Firstly, there is a direct job creating effect since the fragmentation of production or service provision process entails need for co-ordination and supervision (see e.g. Burda and Dluhosch 2001). Secondly, outsourcing might lead to efficiency gains for the firm that re-locates some of its labour-intensive activities abroad and improve its overall competitiveness. In an influential paper, Arndt argues along these lines and concludes that by shedding “their less competitive operations” will make companies “more effective competitors in world markets for end products” (Arndt 1997: 77). Therefore, “offshore sourcing enhances [employment] in industries which make use of it” (ibid.). An empirical study that uses plant-level data for the Irish manufacturing sector confirms that productivity gains can be realized in the case of intermediate inputs, but that the evidence is less clear-cut for outsourcing of services (Görg et al. 2004: 12).

However, the conclusion that outsourcing improves competitiveness need not necessarily hold. Since competitiveness is a relative concept, not all producers of a certain good can gain a competitive advantage at the same time – even if all of them outsource production stages or service inputs. The argument that outsourcing enhances employment hinges on a supply side effect: If cost savings lead to cheaper production, prices will fall and this shift in the supply curve should stimulate higher demand for the product (see e.g. Amiti and

<sup>4</sup> While this puts the dimension of outsourcing into perspective, it would be misleading to equate the number of jobs created through outsourcing in transitional and developing countries with the number of jobs lost in developed countries, as will be argued below.

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Wei 2004: 16). This can in turn cause higher output, a growth in the remaining activities and subsequent employment gains. On the other hand, the initial job losses in the outsourcing country can lead to losses in income, and to a shift in the demand curve. It is therefore possible that the new equilibrium is at a lower level.

A different approach is to understand the net employment effects of outsourcing through the framework of fragmentation (going back to Jones and Kierzkowski 1990). Jones and Kierzkowski (2001a and 2001b) model what can happen when a formally integrated production process is broken down into two (or more) segments that can be traded internationally. One possibility is that a country that was able to produce the integrated product ceases to produce the labour-intensive segment (or, in the alternative terminology, *outsources* it), but remains competitive in world markets for the more capital-intensive segment and becomes an exporter for this segment. If the country is relatively capital-abundant, it will employ more labour in producing the fragment than it previously used to produce the integrated product (Jones and Kierzkowski 2001b: 374). At the other extreme is the possibility that a country is initially “second best” in either of the segments of an integrated product, but has the most competitive *average* cost structure. However, once it becomes possible to fragment production, either segment will move to the country best in producing it. In this case, the country loses all production (and employment) as a consequence of fragmentation (ibid: 377ff.). Jones and Kierzkowski can thus explain opposite employment outcomes from within a single theoretical framework, and attribute them to a country’s factor endowments.

It then becomes an empirical question whether job gains will be sufficient to offset job losses, and whether a positive net effect remains. Relatively few studies have addressed this issue. Among them is the recent paper by Amiti and Wei (2004) who examine the job effects of service outsourcing for the United States and the United Kingdom. They summarize their main finding as follows:

“When the U.S. economy was decomposed into 450 sectors, a faster growth in outsourcing at a sector level is associated with a small negative growth in jobs in that sector [...]. However, when the U.S. economy was decomposed into 96 sectors [...] there is no correlation between job growth and growth of outsourcing at the sector level. These results seem sensible. At sufficiently disaggregated levels, every outsourced job is a job lost. Hence, job growth and outsourcing may be negatively related. At the other extreme, for the economy as a whole, outsourcing is likely to change only the sectoral composition of the jobs, but not necessarily the aggregate level of employment.” (ibid.: 17)

The results for the United Kingdom are similar and support the assumption that outsourcing services has no negative net effect on manufacturing employment, while no robust result was obtained for services employment (ibid.: 19f.). While these findings are highly informative in themselves, they contain no information about the effects of non-service outsourcing. Further, they only cover two countries with particularly flexible labour markets.

However, as Anderton et al. (2002) argue, labour market institutions are likely to make a difference on the way an economy adjusts to the effects of outsourcing, through changes in employment or in relative wages. Their study for Sweden, Italy, the United States and the United Kingdom contains no information on the absolute employment effects, but they show that outsourcing is associated with a relative decline in demand for less-skilled labour as reflected in falling employment and wage-bill shares for low-skill labour (ibid.). The authors use imports from low-wage countries as a (very wide) proxy for outsourcing which they operationalize as imports from non-OECD countries (based on the OECD-membership before 1994; see ibid.: Fn. 10). Kucera and Milberg (2003: 604) use the same measure to examine how growing import penetration from these countries has affected absolute employment in the manufacturing sector (albeit without labelling it ‘outsourcing’). Based on a factor content analysis they estimate that trade with non-OECD coun-

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tries, from the late 1970s to the mid-1990s, cost a total of 3.5 million manufacturing jobs in ten old OECD member-countries. It is important to bear in mind that this should not be equated with the net effect of outsourcing, and that gains in the service employment could potentially offset the job losses. Falk and Koebel (2002) take a different approach in their study of the German manufacturing sector. They conclude that the growing demand for imported intermediates and purchased services is a consequence of output growth, and does not substitute domestic labour inputs (*ibid.*: 582).

A potential source of error in most conventional studies is the assumption of inter-sectoral independence, i.e. they assume that jobs are lost in the sector that outsources. Egger and Egger (2005) argue that neglecting any interdependence of industries is “a major shortcoming, since the estimated wage and employment effects of international outsourcing may be downward biased, if inter-sectoral multiplier effects are ignored” (*ibid.*: 351). This critique also applies to some of their own, earlier research for Austrian manufacturing (Egger and Egger 2003).

### **Are jobs “exported” from one country to another?**

On a global scale, outsourcing is likely to have positive effects on employment. In addition to the effects of output growth, the employment intensity of production might increase. If different factor scarcities drive outsourcing, re-location of production or services to a country with relative abundance of labour should change the factor mix used for production or service provision towards higher employment intensity, i.e. more jobs will be created in the ‘South’ than are lost in the ‘North’. Agrawal et al. (2003) provide examples of why it makes sense, from a business stand point, to reengineer service provision processes (or production methods) towards greater use of labour, while decreasing the use of capital. Cheaper labour also allows companies to carry greater “slack” to meet peak demand, hence increasing the quality of service delivery (see e.g. Dossani and Kenney 2004: 13).

What follows from this, however, is also that the new jobs created in the ‘South’ will have a lower productivity than those that are lost in the ‘North’ (since more work hours are spent in producing the same output). Nonetheless, from the perspective of the southern country, this can still mean (and will generally mean) that labour is shifted to a higher-productivity use than before. But there is an additional effect: The availability of low-wage labour can make it feasible to carry out activities where the cost previously exceeded the value created (see *ibid.*; Agrawal et al. 2003; Bhagwati et al. 2004: 99). It is thus possible that a job created in the ‘South’ is not just a job re-located from the ‘North’, but a genuinely new job. As UNCTAD emphasises in the World Investment Report 2004, outsourcing is not a “zero sum game” and “[j]obs created in [service] exporting locations through offshoring do not equal jobs lost in importing countries” (UNCTAD 2004b: 176). It would thus be misleading to look at the employment effects in terms of jobs being “exported” from one country to another.

### **Employment effects in developing and transitional countries**

It is difficult to say with any certainty how much employment is generated in the host countries as a result of outsourcing. This is true for manufacturing outsourcing (where one would, contingent on the definition used, have to distinguish between the production of intermediate inputs and final products), but even for services outsourcing. For India, the National Association of Software and Services Companies (NASSCOM) estimates that IT-Enabled Services/Business Process Outsourcing accounted for just over 250,000 jobs in

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fiscal 2003-04 (up from 106,000 in 2001-02). The software exporting sector employed another 270,000 people, compared to 170,000 two years earlier.<sup>5</sup> A survey by UNCTAD indicates that these job gains make India the greatest net beneficiary in the developing world (UNCTAD 2004b: 169ff.). Although this represents a substantial number of job opportunities, it is relatively minor in relation to India's rapidly growing labour force. Moreover, a detailed study shows that there are "high entry barriers based on caste, class and gender in the software [and IT-enabled] labour market in India" that work against already disadvantaged groups (Vijayabaskar et al. 2001: 46).

According to UNCTAD, the Philippines have also seen a rapid growth in service centres; the call centre industry alone gives employment to some 27,000 people. Malaysia and Singapore have also received investments into new software development centres or have been selected to host the regional headquarters of multinational enterprises. In Latin America and the Caribbean, Brazil, Chile, Costa Rica and Mexico have attracted investments into service centres by major international companies that have re-located back-office support or software development, among others. In Africa, investment has mainly been in call-centres. Here, South Africa has been the prime location and now employs close to 80,000 people to handle calls from overseas customers,<sup>6</sup> with countries like Ghana, Mauritius, Morocco, Senegal and Tunisia following. In Eastern Europe, the Czech Republic, Poland and Hungary have received major investments by multinationals into service centres; among them are DHL's new European IT centre in the Czech Republic and the re-location of Philips' European accounting services to Łódź (see UNCTAD 2004b: 169ff.). It is, however, difficult to decide whether a company's decision to concentrate certain activities in one location to reap the benefits of economies of scale should qualify as 'international outsourcing' or 'offshoring' just because this location happens to be a transitional or emerging economy.

While the number of jobs created as a result of outsourcing or re-location of in-house service provision is likely to grow in the future, there are supply-side constraints that restrict future growth. Although the above cited figure on the "doubling of the global workforce" (Freeman 2005) suggests that labour supply is abundant, only a small fraction of the new entrants have college education in disciplines relevant to the skilled segment of services outsourcing – such as engineering, accounting and finance, life sciences and medicine. A recent study by the McKinsey Global Institute estimates that there are some 33 million young professionals with such degrees in 28 developing and transitional sample countries that include the main outsourcing destinations such as India, China, Russia and Brazil (see Farrell et al.: 2005b). However, interviews with human resource managers of multinational companies suggest that only 13 per cent of these would be suitable for actual employment, given obstacles such as insufficient language proficiency, cultural barriers and lower educational standards. Competition from domestic companies and lack of regional mobility further reduces the pool. As a result, McKinsey estimates that only "2.8 to 3.3 million [...] young professionals are available for hire by export-oriented service offshoring companies" (Farrell et al. 2005b: 50). However, the study also indicates that, with the possible exception of engineering, demand falls far short of supply in the short term (Farrell et al. 2005c: 22ff.). By 2008, total offshore service employment in eight high-skills job categories is expected to reach 1.24 million, up from an estimated 0.57 million in 2003 (Farrell et al. 2005a: 24ff.). Extrapolating to all job categories (including support staff), McKinsey arrives at the already cited total of 4.1 million outsourcing-related services jobs by 2008, up from 1.5 million in 2003 (ibid.). However welcome such a job creation would

<sup>5</sup> See various fact sheets on [www.nasscom.org](http://www.nasscom.org).

<sup>6</sup> While substantial, this number must be put into perspective, and appears minor if compared to the roughly 540,000 agents that were employed by call centres in the United Kingdom (see Department of Trade and Industry 2004: 26).

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be, it is obvious that it does not by itself solve the un- and underemployment problem that developing and transitional countries face.

## 5. Effects on skill differentials and inequality

### Skill bias, income inequality and social exclusion in developed countries

Looking at the employment impact of outsourcing exclusively in terms of the number of jobs lost or gained would mean missing an important part of the picture. After a careful survey of the available evidence, a publication by the European Union concludes that “the impact on employment in the EU may not be so much a quantitative one, in terms of absolute decline in the numbers of jobs, but a qualitative one” since the remaining jobs (and the newly created ones) were “likely to demand relatively high skill levels” (European Foundation for the Improvement of Living and Working Conditions 2004: 12). Similarly, Bhagwati et al. (2004) argue for the United States that low-skills, low-wage jobs in call centres, for example, will be lost, while higher-skilled jobs in medical, legal and other services will be gained as a result of insourcing – with little overall net gains or losses (ibid.: 110). This skill-bias implies that the transition from one job to another can be difficult for individual workers. There can thus be substantial adjustment costs at the micro-level even when the overall number of jobs does not decline. The problem is exacerbated when job losses accumulate in one region (see Rowthorn 2004: 11f. for an example). Given the distributional consequences and the danger that unskilled workers or other groups may be excluded from the labour market, this becomes an area of high social and political relevance (see Box 5 for a related aspect, the gender dimension of outsourcing).

The skill-bias of outsourcing is an area that has been subject to intense academic research, especially with respect to the countries that outsource (and to a lesser degree for those that provide service or goods inputs). Feenstra and Hanson (2001) develop a simple theoretical model where the production of a low-skill labour intensive input is outsourced. They can show under different specifications that this will depress the relative demand for low-skill labour within industries, and that relative wages for low-skilled workers will fall. They emphasise that the employment shift in favour of skilled workers occurs *within* industries, whereas standard models of trade can only explain shifts *between* industries (generally from low-skill to high-skill industries). Outsourcing thus has effects similar to those of skill-biased technological change (ibid.: 20), and adds to the labour market consequences of the latter. On the other hand, Kohler (2002) concludes from his general equilibrium model that the distributional consequences are not determined by the factor-intensities of the production stage that is outsourced, but by the factor intensities of the activities that remain in the domestic economy. Since these increase in value, it may well be that unskilled labour actually benefits.<sup>7</sup> Similarly, Jones and Kierzkowski (2001a) can not only model how the loss of a labour-intensive production segment will lead to a drop in unskilled wages, but also that – under certain conditions – wages will actually rise. They stress that they do not wish “to dispute the wisdom of the observation that losses of labor-intensive activities to other countries in trade spells trouble for unskilled labour, but to suggest that this is not always the case” (ibid.: 29). Put together, the theoretical literature suggests that the mechanism is more complex than often assumed, and warrants empirical investigation.

<sup>7</sup> A similar point was previously made by Arndt (1997).

### Box 5: The Gender Dimension of Outsourcing

The mainstream economic literature remains largely silent about the gender implications of outsourcing. This is a somewhat crucial omission since some of the jobs that are most in danger are dominated by female employment. For manufacturing, this is the case in the textiles, apparel, leather and leather goods industries that have all seen a substantial re-location away from the industrialized countries. The rising import penetration for these goods therefore often led to a disproportionate fall in female employment in the old OECD countries. Kucera and Milberg (2000) can show that this was crucial to the gender-biased, negative employment effects caused by an expansion in trade with non-OECD countries. For the service sector, the re-location of call centres from the high-income countries to lower-wage destinations could again affect female employment disproportionately. Estimates for the United Kingdom show that about two thirds of all call centre-agents are female, and women would thus bear most of any potential job losses (see Department of Trade and Industry 2004: 61).

There is a similar gender dimension on the receiving end of outsourcing. Ngai (2004) reports for the Shenzhen Special Economic Zone in China that “more than 90 per cent of the labour force in the light manufacturing industries was young, female, and under 25 years of age” (ibid.: 30). While the establishment of factories producing for European and North American corporations provides female migrant workers with job opportunities absent in the rural areas, the jobs created often do not constitute ‘decent work’. For example, a case study of a typical garment factory in Shenzhen by the NGO Chinese Working Women Network gives testimony of a lack of rights at work (including no protection against unfair dismissal). In contravention of Chinese law, working times were between 72 and 77 hours per week (Ngai 2004). Like in the case of China, the textiles and apparel sector is strongly dominated by female employment in most of the countries that produce for Western brands. Again, the general picture is that outsourcing has helped to create jobs for women that are superior to traditional alternatives in e.g. agriculture, but that gender-biased wage discrimination and poor working conditions often remain issues of concern (see Tran-Nguyen and Beviglia Zampetti 2004: 141ff.). As Barrientos et al. (2004) argue, female employment is generally concentrated at the informal end of global production chains, leaving women without adequate social protection and job security.

Services outsourcing has also created numerous job opportunities for women in developing countries such as India and the Philippines. While precise data seem to be scarce, some studies suggest that women are still significantly under-represented and that female employment is concentrated in the relatively low-skilled segments of the software industry and in ITC-enabled services (for India see Vijayabaskar et al. 2001: 41).

There are a number of studies available that have addressed this task. Using data for the United States, Japan, Hong Kong and Mexico, Feenstra and Hanson (2001) show that outsourcing is indeed associated with a rising wage share for non-production (i.e., skilled) workers. This is consistent with their earlier finding that outsourcing explains roughly 15 per cent of the rise in relative wages of skilled workers, whereas technological change accounts for circa 35 per cent (Feenstra and Hanson 1999). Other studies support the same conclusion. For example, Anderton et al. (2002) demonstrate in their previously cited study that outsourcing (which they measure as imports from low-wage countries) has led to falling employment and wage-bill shares of low-skilled workers in the United Kingdom, the United States, Italy and Sweden. In a study for the United Kingdom, Hijzen et al. (2004) find that “international outsourcing has had a strong negative impact on the demand for unskilled labour” (ibid.: 17). For Germany, Geishecker and Görg (2004) show that outsourcing reduced real wages for workers in the lowest of three skill categories by 1.8 per cent during the 1990s, while those of workers in the highest group increased by 3.3 per cent due to outsourcing.

In the case of France, Strauss-Kahn (2003) argues that the country’s labour market institutions prevented large movements in relative wages and that outsourcing predominantly affected the employment prospects of unskilled workers. According to her findings, outsourcing “accounts for 11% to 15% of the within-industry shift away from unskilled workers toward skilled workers over the 1977-1985 period and for about 25% over the 1985-1993 period” (ibid.: 23). Much of the remainder can, however, be attributed to technological change. A similar result is reported by Egger and Egger (2003) for Austria, a country with one of the highest unionization rates in Europe. They find that manufacturing outsourcing to Eastern Europe had little effect on wage rates, and attribute this to union bargaining power and the centralized wage-setting process. Outsourcing did, however, have a significant skill bias in terms of employment prospects. They conclude that “[o]ut sourcing to Eastern economies accounts for about one quarter of the change in rela-

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tive employment in favour of high-skilled labour in the last decade” (ibid.: 639). In a more recent article, they concede that “these results are potentially as preliminary as those of others, since they were derived under the assumption of inter-sectoral independence” (Egger and Egger 2005: 353). However, they can show that indirect spill-over effects from one industry to another have substantial impact on employment, and that neglecting them leads to an underestimation of the employment impact of outsourcing (ibid.).

The empirical evidence is thus broadly in line with the theoretical argument that outsourcing of low-skill intensive production stages away from the high-wage countries predominantly affects low-skilled workers. They will, depending on labour market institutions, either suffer a fall in relative wages or see their employment prospects diminish. Falling relative wages and zero earnings in case of unemployment both work in the same direction and increase inequality of (market) incomes. International outsourcing has thus effects similar to those of labour-saving technological change, and adds to the consequences of the latter (see e.g. Feenstra and Hanson 1999 and 2001, Strauss-Kahn 2003). Gottschalk and Smeeding (1997) argue that the shift in demand from low-skilled towards highly-skilled workers was in fact a significant factor behind the rise in earnings dispersion which they can detect for most industrialized countries in the 1980s. In turn, rising earnings dispersion was a major cause of growing inequality of disposable household incomes (ibid.).<sup>8</sup> More recent studies confirm that income inequality has grown in many OECD-countries during the 1980s and 1990s (Atkinson 2003; Cornia et al. 2004).

Although the isolated contribution of outsourcing to rising income inequality is probably still relatively small, the dynamism of the phenomenon indicates that it is a factor that cannot simply be neglected. If the extent of outsourcing is to rise further, the downward pressure on low-skill wages will grow. Greater earnings dispersion does, however, not translate into higher income inequality in a quasi-automatic manner. As Atkinson (2004) emphasises, government policy has a significant impact on how changes in market incomes (i.e. prior to taxes and transfers) translate into changes in inequality of disposable incomes (i.e. after taxes and transfers). He investigates the redistributive impact of the government budget and finds remarkable differences between countries and across time. It is informative to look at the cases of Finland and the United Kingdom, two countries that saw significant rises in inequality of market incomes throughout the 1980s and early 1990s. In Finland, the Gini coefficient for market incomes grew by 10 percentage points between 1981 and 1994 (in particular due to rising unemployment in the early 1990s). This sharp rise in inequality was, however, “offset by the government budget to the extent that inequality in disposable income did not increase” (ibid.: 229). In the United Kingdom, inequality in market incomes grew less rapidly than in Finland. However, the redistributive impact of the government budget fell dramatically between 1984 and 1990 and amplified income inequality. Different policy choices in Finland (rising replacement ratios in case of unemployment, and a growth in total transfers) and the United Kingdom (less transfers, but also less progressive direct taxes and more regressive indirect taxes) clearly had a major impact on the distribution of disposable incomes (see ibid.). There is thus a role for public policy in coping with adverse distributive consequences of outsourcing.

While cushioning the effects of rising earnings dispersion is one policy option, policy can also attempt to contain rising inequality of market incomes itself. Of particular relevance in this context are labour market institutions and policies. In addition to their allocative and dynamic efficiency functions, they also have a role in promoting equity (van der Hoeven and Taylor 2000; van der Hoeven and Saget 2004). Instruments that can enhance equity include minimum wage legislation, employment protection, collective bargaining

<sup>8</sup> However, it should not be overlooked that a growing at the very top of the distribution, in part through capital income, is another significant factor (see Atkinson 2003).

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arrangements and active labour market policies. With their explicit focus on enhancing labour market participation, active labour market policies have a particular relevance in the context of outsourcing. Even if their primary focus is on allocative and dynamic efficiency through matching labour demand and supply, they can at the same time enhance equity by reintegrating displaced workers and by upgrading skills of low-skilled workers to match them with jobs that have higher skills requirements (see Auer et al. 2005). In the light of mixed evaluation results, Auer et al. recommend that active labour market policies “should evolve towards a more permanent policy instrument for the management of change” (ibid.: 78). The need for such an instrument will be greatest in the countries most affected by globalization; it is thus not surprising that spending on active labour market policies in OECD countries increases with economic openness (ibid.: 4).

## **Skill bias and income inequality in developing and transitional countries**

Simply put, the theoretical consequences are quite clear for the countries that *receive* outsourced activities: since they predominantly require low-skilled labour, workers in this group should benefit in the receiving countries at least. However, this need not be the case since activities that are considered to involve low skills might well be high-skilled from the perspective of a developing country (Feenstra and Hanson 1997). Again, the effect of outsourcing on wage dispersion remains open to empirical investigation. Unfortunately, the evidence collected to resolve the issue is still rather patchy. Feenstra and Hanson (1997) themselves offer some insights in the case of Mexico. Here, the outsourcing of production from the United States caused a sharp increase in the demand for skilled labour in the country’s northern border regions. Their estimations show that FDI into the *maquila* sector, that is closely associated with the outsourcing activities, can “account for a large portion of the increase in the skilled labor share of total wages” and an associated shift in relative wages (ibid.: 391). In a similar exercise, Egger and Stehrer (2003) examine the distributional effects of rising intermediate goods exports of fourteen manufacturing industries in the Czech Republic, Hungary and Poland during the 1990s. They find that, while the skill-premium in all three countries has risen over the period, outsourcing activities have helped to contain this rise. Thus, and in contrast to Mexico, outsourcing has worked in favour of unskilled labour there. A likely explanation for these diverging results is that the skill levels in Central and Eastern Europe are similar to those in the old EU countries, while there is a gap in terms of skill endowments between the United States and Mexico. The same would hold for outsourcing of IT services to India, where the increased demand for software engineers is likely to widen wage gaps. While strongly advocating the free trade in services on the merits of welfare gains, the World Trade Organization concedes that IT outsourcing “may not have a [...] favourable effect on income distribution” in India (WTO 2005: 289).

## **Returns on capital and labour**

In addition to shifts in the skill-premium, there is another channel through which outsourcing can affect inequality: general changes in the returns on labour (of all skill levels) relative to those on capital. Richard Freeman (2005) argues that the entry into the global workforce of workers from countries with relatively low capital stocks has led to a substantial decline in the global capital/labour ratio. This is likely to depress wages since it “shifts the balance of power in markets towards capital, as more workers compete for working with that capital” (ibid.). The power shift in favour of capital holds for trade in general, but also for the specific case of outsourcing. As discussed above, outsourcing enables companies to cut labour costs by a substantial margin while retaining identical levels of output, or even improving them. The McKinsey Global Institute (2003) estimates that the direct cost savings amount to 58 cents for every 1 US\$ a company spends on out-

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sourced services in India. In theory, these cost savings could be passed on to consumers, distributed to the company's remaining workforce (through increased wages), or kept as profits (and hence accrue to the owners of capital).

These distributional aspects are not discussed prominently in the literature, but there is no indication that Freeman's assessment is wrong and that workers in the developed countries are in a position to negotiate wage increases. While benefits to consumers do not directly influence the relative returns on capital and labour (and are hence neutral), McKinsey argues that outsourcing-induced cost-savings "will lead to higher profitability [and] increased [stock market] valuations" (McKinsey Global Institute 2003: 10). In the light of generally positive market reactions on the announcement of outsourcing plans, this assessment seems to be in line with the dominant perception among market participants. Given the intense competition among Indian service providers, it is not surprising that the additional income that accrues to Indian labour (by McKinsey's calculation 10 cents for every US\$ spent) and profits retained in India (another 10 cents) are relatively small if compared to the gains that accrue to the US. In sum, it seems likely that the "arbitrage gains" realized through outsourcing first and foremost increase the earnings of enterprises in the industrialized countries, with corresponding benefits for shareholders.

## **6. Discussion: What are the policy implications of outsourcing?**

The rising trend in international outsourcing has several implications for national and international policies that relate to the ILO's mandate. Three areas would seem of particular importance:

- Firstly, outsourcing has an employment-generating effect in developing countries. If it can be ensured that the jobs created are 'decent jobs', outsourcing could offer women and men a chance to work their way out of poverty. From this angle, outsourcing is a facet of globalization that has the potential to make it more 'fair' between countries.<sup>9</sup> On the other hand, this will be of little comfort to those workers in the developed world who see their own jobs put at risk by outsourcing. However, a thorough examination of the literature leads to the conclusion that the fears of job-losses due to outsourcing are often greater than the actual threat. The literature indicates that international outsourcing might even have a positive net effect on the quality and quantity of employment in the industrialized countries. Hence, the simplistic notion of jobs being "exported" from one country to another is often misleading.
- However, and this is the second main implication, outsourcing has important consequences for the labour markets in the industrialized countries. Since outsourcing is likely to shift the demand towards highly skilled workers, policy makers need to find ways to mitigate the social and economic cost of job losses for low-skilled workers. This necessitates not only adequate social safety nets, but also makes skills upgrading even more urgent as a strategy for the industrialized countries. Key to making outsourcing a 'win-win game' is to re-employ those workers that are made redundant in a productive way and to ease their transition into a new job (see ILO 2004: 79). Arguably, carefully designed active labour market policies have a role to play in achieving this objective (see Auer et al. 2005).

<sup>9</sup> This is one of the main themes of the World Commission on the Social Dimension of Globalization (2004).

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- Thirdly, outsourcing has potentially negative effects on inequality in both the South and the North. It has often led to a rising skill-premium and growing wage-differentials, or, when labour market regimes in the North prevent a fall in wages for low-skilled workers, it reduced the employment prospects of workers in this group. Moreover, it can weaken the position of workers versus the owners of capital, and change the relative returns on labour and capital. The development of policies that ensure social inclusion and distributional justice thus becomes a central issue if outsourcing is to be made politically and socially sustainable.

All of the above indicates that outsourcing is an aspect of globalization that requires active governance.<sup>10</sup> The policies needed create new sources of employment, to ease the transition of workers between jobs, and to contain rising inequality will differ between countries, but it is essential to recognize the challenge ahead. Actively managing change will be the best way to avoid a protectionist response, the initial instinct of many policy makers,<sup>11</sup> and to reap the potential benefits that outsourcing can bring for developed and developing countries alike.

<sup>10</sup> See the more detailed discussion by the World Commission on the Social Dimension of Globalization (2004: 54ff.).

<sup>11</sup> For an overview of existing and proposed anti-outsourcing legislation in the United States, see Klinger and Sykes (2004). The authors conclude that both the US constitution and the WTO's Government Procurement Agreement limit the ability of state and federal governments' attempts to restrict services outsourcing.

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