

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Dünhaupt, Petra; Herr, Hansjörg; Mehl, Fabian; Teipen, Christina

# **Working Paper**

Opportunities for development through integration in global value chains? A cross-sectoral and cross-national comparison

Working Paper, No. 140/2020

## **Provided in Cooperation with:**

Berlin Institute for International Political Economy (IPE), Berlin School of Economics and Law

Suggested Citation: Dünhaupt, Petra; Herr, Hansjörg; Mehl, Fabian; Teipen, Christina (2020): Opportunities for development through integration in global value chains? A cross-sectoral and cross-national comparison, Working Paper, No. 140/2020, Hochschule für Wirtschaft und Recht Berlin, Institute for International Political Economy (IPE), Berlin

This Version is available at: https://hdl.handle.net/10419/216823

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





Institute for International Political Economy Berlin

# Opportunities for Development through Integration in Global Value Chains?

Authors: Petra Dünhaupt, Hansjörg Herr, Fabian Mehl, Christina Teipen

Working Paper, No. 140/2020

# Editors:

Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Martina Sproll, Christina Teipen, Markus Wissen, Jennifer Pédussel Wu, Reingard Zimmer

**Opportunities for Development through Integration in Global Value Chains?** 

A Cross-sectoral and Cross-national Comparison\*

Petra Dünhaupt, Hansjörg Herr, Fabian Mehl and Christina Teipen

Berlin School of Economics and Law, Institute for International Political Economy (IPE)

**Abstract** 

In traditional trade theory, it is generally assumed that the development of export-oriented industries in the Global South can create the conditions for technological spillover effects, productivity increases and social welfare gains. However, based on the results of comparative

case studies in four sectors (apparel, automotive, electronics and IT services) and six emerging

and developing countries (Bangladesh, Brazil, China, India, South Africa, Vietnam), successful

economic integration into global value chains is not necessarily associated with better working

conditions, nor with positive employment and welfare effects. It also becomes clear that the

country-specific context of a particular industry plays a greater role in determining these effects

than is often assumed. Here the decisive factors are in particular the national system of

industrial relations and the power of trade unions. At the same time, it can be asserted from this

study that without coherent industrial policy strategies it is not possible to realize the

opportunities for development that arise as a product of deeper integration into the global

economy.

**JEL Classification Codes:** F10, F63, O57

Keywords: Trade Theory, Economic Development, Global Value Chains, Economic

Upgrading, Social Upgrading

Contact:

christina.teipen@hwr-berlin.de

\* This article summarises results of an international and interdisciplinary research project (project no. 2017-233-1) on economic and social upgrading in global value chains, funded by the Hans Böckler Foundation. To this end, case studies were prepared by our international project partners from the automotive (Brazil, China, India, South Africa), clothing (Bangladesh, China, India, Vietnam), electronics (Brazil, China, Vietnam) and IT services (China, India) sectors (see also Dünhaupt et al. [2019] and Herr et al. [2020]). We would like to thank the Hans Böckler Foundation for its financial support and our project partners for their collaboration. A German version of this article was published in WSI-Mitteilungen 6/2019 (Dünhaupt et al. 2019).

2

# 1 Introduction

Since the mid-1980s, the liberalisation of goods and capital markets, lower transport costs and constant innovations in the field of information and communication technologies have led to a dramatic increase in global trade flows and to enormous changes in the international division of labour. Multinational enterprises (MNEs) have increasingly relocated production abroad and have built up globally distributed supplier networks. As a result, the share of international trade in global gross domestic product (GDP) has risen from around 8.7% in 1995 to 13.6% in 2017, with the most rapid growth coming from value chains, which necessitate multiple border crossings in the production of a good (WTO 2019).

For the analysis of these developments within the social sciences, the concept of global value chains (GVC) has become established (Bair 2005). While the globalisation processes in the global North described here are discussed primarily against the background of job relocations or – since the Corona crisis - bottlenecks of material procurement, the integration of economies of the Global South in GVCs has become a dominant developmental paradigm of liberal trade theories and international organisations (see Gereffi 2013). It is assumed that the development of export-oriented industries can create the conditions for technological spill-over effects, productivity increases and social welfare gains. However, our studies show that there is no inherent connection – neither between integration in GVCs and economic upgrading, nor between economic and social upgrading.

In the following sections, we will take a closer look at the factors determining whether companies and countries of the Global South benefit from deeper integration into the global economy. To this end, a brief overview of various sociological, political economy and macroeconomic theoretical approaches is first given (Section 2). Then, based on the collected case studies, country- and sector-specific findings are compared (Section 3). Finally, conclusions are drawn for further theory development and recommendations are made for trade union and industrial policy strategies (Section 4).

# 2 Opportunities and risks of integration in GWCs for countries of the global South

Economic theories generally assume that GVCs enable countries of the global South to industrialise relatively easily; while industrialised countries normally took decades to build competitive industries, countries can now rapidly specialise in the manufacturing of individual components (Baldwin 2011). Integration into the supply chains of MNEs takes place either through foreign direct investment (FDI) or by becoming an independent supplier. While up to the 1970s many governments of the global South regarded MNEs as part of the "development problem", since the 1990s MNEs are often seen as part of the solution and governments have widely attempted to attract them with special incentive programmes (UNCTAD 1999). This is because, in principle, FDI can lead to technology transfers and other spill-over effects and contribute to growth in the recipient country. Possible transmission channels for these positive effects on growth are intensified competition, imitation by domestic companies, and also backward and forward linkages. In addition, governments can demand joint ventures and direct technology transfers, and knowledge transfers can be achieved through the exchange of employees and managers between foreign and domestic companies (UNECA 2016). For MNEs, the outsourcing and relocation of production to the countries of the global South is conducive to reduced costs, increased flexibility and the opening up of new markets. Reduced costs are mainly achieved through lower wages in the countries of the Global South and increased economies of scale, but can also be achieved through lower labour and environmental protection standards, lower employee participation rights or lower taxes (Anner 2015a). Nevertheless, GVCs are often seen by governments of the global South as an instrument for creating urgently needed and relatively well-paid jobs in the manufacturing sector, particularly in countries with high underemployment. Indeed, empirical studies show that export-oriented sectors often have wage levels above the national average and better working conditions (World Bank 2016).

However, integration into GVCs does not automatically lead to economic development (World Bank 2016). In the case of firms specialising in simple, low value-added activities such as component assembly, spill overs of skills and technologies rarely occur, and high levels of competition among suppliers due to low barriers to entry further aggravate the situation and lead to asymmetric power relations between MNEs and suppliers. This, combined with the low prices of inputs and profit transfers, means that a large part of the income generated in GVCs

flows to MNEs, who use these GVCs as part of their profit maximisation strategy. This is possible because many of the MNEs are in an oligopolistic constellation on the sales side and in a demand oligopoly or monopoly on the purchasing side. The resultant low profit margins in the countries of the global South reduce the scope for investment and dampen domestic demand. In order to realise higher value-added, companies must therefore try to initiate economic upgrading, of which four forms can be distinguished: product upgrading (better quality products), process upgrading (more efficient technologies and work processes), functional upgrading (attainment of a higher function in the GVC) and intersectoral upgrading (expansion into a new sector) (Humphrey / Schmitz 2002). Economic research generally assumes that the possibilities of upgrading depend strongly on the forms of governance between lead firms – usually MNEs – and their suppliers (Gereffi et al. 2005). Here, governance refers to the "authority and power relationships that determine how financial, material, and human resources are allocated and flow within a chain" (Gereffi 1994: 97).

Compared to the closely related approach of global production networks (Henderson et al. 2002; Coe / Yeung 2015), the approach of Gereffi et al. (2005) has the advantage for our purposes of analytically distinguishing between five basic types of GVC governance: a) market relations, b) "modular", c) "relational", d) "captive" and e) "hierarchical". The type of governance is determined by a combination of three factors: the complexity of the activity to be carried out, the extent to which information and knowledge of the activity can be codified, and the level of competence of the supplier. In market relations, many suppliers and buyers are assumed to act largely independently of each other. In the case of "modular governance", the lead company has its entire product being produced by a contract manufacturer and only performs functions itself such as research, marketing or sales. The contract manufacturer must be able to deliver the finished product in sufficient quality, which requires a relatively high level of technological and organisational competence, depending on the industry. "Relational governance" implies a set of complex and long-term interactive relationships between suppliers and lead firms, where the lead firms often retain a segment of the manufacturing process. In this case, the supplier must also have a certain elevated level of technological and organisational competence. In "captive governance", the lead company dictates the production method to the supplier to the last detail, and often provides the supplier with the necessary inputs. The activities of suppliers in "captive governance" are generally simple, and thus suppliers can be easily replaced and the risk of copying the technology in use is low or irrelevant. "Hierarchical governance" describes the vertical integration of production within a

company, where all major decisions are made by the parent company, and includes the case of foreign direct investment in subsidiaries. Put simply, economic upgrading is most likely to occur in those constellations where there is less power asymmetry between client and supplier, and such governance constellations often differ considerably depending on the industry.

For the connection between economic and social upgrading, different paths are discussed, and also increasingly the role of employees and trade unions (Gereffi / Lee 2016; Newsome et al. 2015). Besides national institutional systems (Barrientos et al. 2011), the restructuring of GVCs and social upgrading processes also depend on the respective country's industrial policy (Gereffi / Sturgeon 2013).

In the following case studies<sup>1</sup>, we therefore examined in four selected sectors the combined effects of distribution of labour according to the logic of trade theories, governance constellations in GVCs and systems of industrial relations, and the relative strength of trade unions for upgrading processes. The case studies examine countries with traditionally stronger (South Africa and Brazil) and weak (India, China, Vietnam, Bangladesh) trade unions. Regarding economic upgrading, we compare the role of domestic and foreign firms, and regarding social upgrading, we focus on wage negotiations, working conditions, and workers' voice.

# 3 Results

#### 3.1 Automotive sector

The leading global automobile manufacturers, still predominantly from countries in the global North, have established production facilities in all regions of the world through FDI. Relational governance is the dominant form of governance between these lead companies and their first-tier suppliers, as the complexity of the production undertaken requires long-term cooperation and frequently results in mutual dependencies. The highly specialised first-tier suppliers are often also MNEs that are located in the same clusters abroad.

Although jobs in the automotive industry are associated with above-average salaries and good working conditions across most countries, the increasing introduction of neo-Taylorist and

 $^{1}$  The case studies were collected by researchers from countries of the global South on the basis of a common set of questions and indicators. These were then revised several times with intensive feedback and compared

set of questions and indicators. These were then revised several times with intensive feedback and comparby the authors of this article.

strongly performance-oriented production and management models has led to a trend towards more flexible employment and an increase in temporary work in many instances (Lüthje 2014). Working conditions in countries of the Global South are often deteriorating, particularly in downstream suppliers, indicated by lower wages and trade union density.

Since *China* joined the World Trade Organization (WTO) in 2001, there has been massive growth in the Chinese automotive industry, which is now the largest in the world in terms of production volume. State industrial policy plays a major role in the success of the industry. For example, foreign manufacturers are obliged to enter into joint ventures with local companies, and local content requirements (LCRs) have favoured the emergence of a domestic supply industry. Although international joint ventures still dominate, some local producers have managed to functionally upgrade and establish independent brands. Working conditions in the industry are generally considered to be relatively good, although stagnating or declining real wages and increasing labour intensity can be observed, especially in individual supplier companies at the lower end of the GVC (Lüthje 2014). Poor treatment of temporary workers is considered a major reason for the increasing strike activity in the sector (Zhang 2015).

*India* originally pursued a strategy of building up domestic lead companies, but this strategy was only partially successful. Although domestic companies occupy a dominant position on the national market, they are only globally competitive in niche segments (Sturgeon / Van Biesebroeck 2010). The sharp rise in exports since economic liberalisation in 1991 is a prime indication of successful economic upgrading. However, the share of domestic value added in exports has declined at the same time, the sector saw only moderate increases in both net valueadded and profits as a result of the strong growth in car production, and real wages are also showing a stagnating trend. Noteworthy is the strong increase in temporary work at all levels of the sector, from 13% (2000) to 46% (2015) of the total workforce, indicating increasing segmentation of the workforce and precarisation of working conditions (Jha / Kumar 2019). Contrary to the widespread assumption that integration into global automotive value chains goes hand in hand with the creation of formal and well-paid employment relationships, the Indian case shows the opposite trend: the majority of jobs are informal and thus not subject to national labour regulation, which would nevertheless be difficult to enforce due to the weakness of the trade unions (Barnes 2018). A further reason for this development can be found in the governance structure of the national sector, which is characterised by a comparatively high proportion of small and medium-sized suppliers with "captive" rather than "relational" relationships with clients.

South Africa, with the end of the apartheid regime in 1994, became a target country for the establishment of production facilities of leading automobile manufacturers and suppliers. Today, this subsector offers the largest number of jobs in the industrial sector, but the dominance of foreign MNEs at all stages of the value chain is greater here than in any of the other countries studied. So far, there has been no functional economic upgrading. However, in contrast to China or India, relatively strong and independent trade unions and sectoral collective bargaining exist in the industry. This has led to social upgrading in the form of rising wages and better working conditions (Mashilo 2019), but against the background of the South African labour market with high official unemployment of around 30%, only a small portion of the labour force has benefited from this. In addition, within the industry, the divisions between component and original equipment manufacturers are cemented by separate collective bargaining agreements. Thus, for example, a ban on precarious temporary work could be enforced for original equipment manufacturers, while for the component manufacturers, the proportion of temporary workers could only be limited to 35%.

In *Brazil*, too, the automotive industry is one of the country's most important manufacturing sectors. However, despite industrial policy incentives and the large domestic market, it has not been possible to establish a relevant domestic car brand. Similar to South Africa, the domestic supply industry is dominated by foreign MNEs, and this also results in profit outflows and a high deficit in the primary income balance. The union density in individual production locations in the automotive industry is relatively high, and wages and working conditions are especially good for workers of the industry's end-product producers. Similar to the situation in South Africa, workers in the automotive industry earned significantly more than workers in most other industries, although in Brazil, too, workers working for original equipment manufacturers earned more than those working for component suppliers (dos Santos et al. 2019). However, the economic downturn since 2014 and the political developments since 2017 have put pressure on the traditionally strong position of trade unions in Brazil, casting doubt on whether employees in the industry will be able to defend their relatively privileged positions in the future.

# 3.2 Apparel industry

In the apparel industry, the major brands and retail companies, as lead companies, have outsourced almost all production to companies in low-wage countries. They either have direct "captive" relationships with these companies or use large intermediaries. Due to the extremely intense global competition between these manufacturers of less complex products, lead companies have greater market power and can largely dictate purchase prices and conditions of delivery. This extremely strong power asymmetry between companies in the global North and producers in the countries of the global South has led to a race to the bottom, and as a result, the export prices of the latter have fallen sharply. Low-wage competition is accompanied by a disregard for workers' interests, and excessive overtime is the norm: on the one hand because of low hourly wages, and on the other hand because of fluctuating production orders and short-term delivery targets (Anner 2015b).

China is the largest apparel exporter, accounting for 35 % of world exports, well ahead of the next largest exporters Bangladesh (6.5 %) and Vietnam (5.9 %) (WTO 2018). The majority of companies producing for export are Chinese-owned (Lüthje et al. 2013). The 2008/2009 crisis acted as a catalyst for structural change, which led to three economic upgrading strategies (Butollo 2013): firstly, many producers have started to develop their own brands in order to sell them domestically; secondly, many companies are investing in new machinery to increase productivity; thirdly, Chinese garment manufacturers are increasingly following the trend of lean production with the aim of reducing inventories and optimizing the processes between customers and manufacturers. However, despite some successful upgrading, 60% of Chinese suppliers remain at the lower end of the value chain with correspondingly low profit margins. The record of social upgrading is also modest: export-oriented companies employ predominantly female migrant workers (Liu 2018), working conditions are generally rather poor (Witt 2015), and, due to Chinese legal restrictions, independent trade unions are nonexistent (Hui 2018). However, the low wages of the sector have risen over the past ten years, due both to an increase in minimum wages and to growing labour shortages in some regions. These rising costs have led some larger Chinese companies to start outsourcing production to surrounding low-wage countries.

The *Vietnamese* garment industry, on the other hand, remains at the lowest end of the GVC without any significant economic upgrading initiatives. In 2015, 70% of the more than 2,500 exporting companies were only engaged in 'cut, make and trim' (CMT) (Do 2017). Large foreign producers and (formerly) state-owned companies dominate the export sector, but in addition, there are also many small companies including home production that focus on the domestic market (Goto 2012). The labour-intensive clothing, textile and shoe industry provides a large proportion of manufacturing jobs in Vietnam (39 % in 2016). The industry employs

predominantly younger women, some of whom are permanently employed, but often earn only the statutory minimum wage (Huynh 2017). In recent years, violations in the areas of occupational safety, health protection and working hours have been reported repeatedly (Better Work Vietnam 2019). Although there are no independent workers' representatives in Vietnam's state-socialist system of industrial relations, wildcat strikes have become the most important strategy for achieving higher wages, special bonuses and other payments, such as for overtime, and better working conditions. In most cases the strikes are temporarily successful, but workers are then confronted with the fact that there is no mechanism for long-term solutions in terms of freedom of association and collective bargaining (Anner 2017).

In *Bangladesh*, the production of clothing is of extraordinary importance to the overall economy, with a share of around 80% of exports and around 25% of GDP. The industrial sector initially developed thanks to special economic zones and FDI (Curran / Nadvi 2015). In the meantime, the majority of manufacturing companies are in local ownership, although these companies are mostly in "captive" supply relationships with European, North American or Asian clients. Despite rapid growth in export volume and employment (now at approx. 4 million workers, mostly young women), it has not yet been possible to initiate any industry-wide functional upgrading away from low-value-added activities, even though there has been an overall increase in productivity (Moazzem / Sehrin 2016).

The country's most important competitive advantage continues to be its very low wages, which have hardly risen in real terms over the past decades and are often not sufficient to provide a livelihood. The degree of unionisation is very low, and industry unions are weak, highly fragmented and in some cases also affected by legal restrictions on freedom of association (Rubya 2015). Similar to Vietnam, wildcat strikes are a common means of articulating and achieving workplace demands. However, companies and the government usually respond to these protests with harsh repression, so that they are at best only successful temporarily or in a small subset of cases (Siddiqi 2017).

Bangladesh's garment industry has long been under special international observation due to poor working conditions, inadequate building security and an anti-union environment - even before the Rana Plaza accident in 2013 with more than 1100 deaths. Due to its uniqueness as a legally binding "multi-stakeholder" agreement (Gereffi / Lee 2016), the Bangladesh Accord signed in 2013 is considered an important milestone in the non-governmental regulation of labour standards in GVCs. This agreement between international purchasing companies and

national and international trade unions obliges international buyers to enforce safety standards in the production facilities of their suppliers. There have been some improvements in building safety since then, but local business associations and the government increasingly perceived the agreement as an interference in national affairs and as a form of paternalism (Zajak 2017). In January 2020, it was agreed upon that the Bangladesh Accord will transition into a new institution (RMG Sustainability Council) which will provide domestic employers and the government with a strengthened role.

#### 3.3 Electronic hardware

The electronic hardware industry is characterised by "modular governance" structures. The leading companies, such as Apple, operate predominantly without their own production facilities. Instead they concentrate on their technology leadership, design, branding and sales, while production is mainly carried out by contract manufacturers, for example Foxconn (Sturgeon / Kawakami 2010). In addition to procurement and logistics, the contract manufacturers are mainly responsible for the assembly of components (Sproll 2010). In turn, the brand companies, but especially the contract manufacturers, purchase parts and components from a large number of suppliers. Some of these suppliers are also large MNEs, such as Microsoft and Intel, but can also be very small companies that produce components with very low added value (ILO 2014). Samsung and LG Electronics are two large lead companies from South Korea that are deviating from this trend by largely relying on vertically integrated inhouse production (Delautre 2017).

In recent years, *Vietnam* has become one of the most important low-cost locations for the production of electronic goods, especially mobile phones. Even more than the country's garment industry, the sector is dominated by foreign MNEs (especially Samsung), which account for 99% of the total export value. Production activity is limited to the assembly of imported components; Vietnamese companies as suppliers are not integrated into the value chain (Goto / Arai 2017). Thus, despite very high growth rates, learning processes that trigger functional upgrading have not occured (Do 2019). The results of this case make it particularly clear that the creation of industrial jobs alone - some of them with high proportions of women – cannot be necessarily interpreted as a sign of social upgrading. In the factories, it is predominantly unskilled young women who are precariously employed (Goto / Arai 2017), and because the wage level is below the living wage, the workers are forced to work overtime on a

regular basis. In addition, very poor working standards have been observed, along with direct negative impacts on health. In contrast to the garment industry, strikes rarely occur in the Vietnamese electronics industry, despite working conditions appearing to be much worse than in the clothing industry (Do 2019).

In contrast to Vietnam, large multinational companies in the electronics sector have settled in Brazil not primarily because of low labour costs, but because of high import duties on electronic communications equipment and the large domestic sales market. In terms of activities, final assembly of imported components is also predominant, but in contrast to Vietnam, there are still some domestic firms among the suppliers and even final manufacturers (Salas et al. 2019; van Wetering et al. 2015). However, productivity and profit rates have stagnated over time and there has been little sign of product or functional upgrading. The sector was also affected by the domestic economic crisis since 2014, resulting in declines in production and employment. However, both compensation of employees and working conditions are significantly better in comparison to Vietnam. On one hand, this is due to Brazil's strict labour laws and the guarantee of compliance with these by the state, and on the other hand, the traditionally strong position of independent trade unions (Campos et al. 2017). For example, the plants of Samsung and Foxconn in Brazil are among the few locations of these companies that have been unionised (Salas et al. 2019). However, similar to other industries, such as the automotive sector, it is feared that the economic downturn, combined with the ongoing anti-union liberalisation of labour since 2017, will have a negative impact on the social upgrading achieved so far in these industries.

#### 3.4 IT services

Compared to other sectors, the IT services industry is overall more heterogeneous due to its strong growth and its sometimes high innovation dynamics. The market breaks down into a group of large MNEs and many small and medium-sized enterprises (Fernandez-Stark et al. 2011). The governance structure is also not uniform, but differs depending on the business segment and complexity of the service. Outsourcing and relocation to countries of the global South has increased strongly since the 1990s. The potential for economic and social upgrading is high compared to other industries, but varies within the industry according to the business segment, from standardisable routine services to the development of innovative software products. Employees with high qualifications can translate their individual bargaining power

in the labour market into relatively high wages, but there are also large segments with overqualified employees under neo-Tayloristic working conditions and low wages. Organisation in trade unions and collective bargaining are the exception, leading to high wage dispersion and heterogenous working conditions.

*India* occupies a special position within the global IT services value chain because, on the one hand, it is by far the most important target country for offshoring in the industry and, on the other, it has domestic, globally competitive 'champions' - unlike most emerging and developing countries. In 2017, for example, five Indian companies were among the world's top 25 companies in the sector in terms of sales (Snowdon / O'Donoghue 2018). In addition to low labour costs by global standards, the relatively high level of qualification of many employees represents a competitive advantage for the country. Many local companies have undergone considerable economic upgrading. Compared with advanced economies, however, the industry's per capita value-added is low, as more simple activities tend to dominate overall (Schaffland 2017). The findings on social upgrading are ambivalent. Wage development in the sector is better than is generally seen in the Indian national context, but working conditions often offer little potential for creativity or innovation and are strongly controlled by customer specifications. Nevertheless, in contrast to the overwhelming majority of the population, employees are formally employed – albeit in an industry that is subject to numerous exceptions under labour law, for example regarding working hours. Thus, excessive overtime and night work are widespread (Noronha / D'Cruz 2020). As in other countries, the degree of unionisation in the sector is very low. Labour turnover is comparatively high, with the emigration of local IT professionals playing a large role (D'Costa 2017).

IT services are also playing an increasingly important role in *China*. In contrast to India, IT hardware production in China is far more important for the wider information and communications industry than the country's IT services (Schaffland 2017). This means that, for example, the well-known company Huawei offers both hardware equipment and services. Compared to India, China has initiated a much broader catching-up industrialisation process in the IT sector. Unlike the automotive industry, the sector has developed without significant FDI and by sealing itself off from foreign MNEs, meaning that comprehensive industrial policy support from the government, coupled with high domestic demand for IT products, has been responsible for driving the catching-up process (Lo / Wu 2014). As part of it, China is actively pursuing the digital transformation of its industrial production (Butollo / Lüthje 2017). However, in terms of the relocation of functions from the industrialised countries, the Chinese

IT services sector has so far played only a minor role. Political reservations are likely to be decisive in this regard, but also the higher language barriers compared to India. Given the lack of independent trade unions, social upgrading depends heavily on regional labour markets within China and the individual bargaining power of the workers (Zhu / Morgan 2018). Examples can be found of both typical low-wage employment as well as corporate cultures with stable employment relationships and high salaries. Similar to India, however, long working hours seem to be widespread.

#### **4 Conclusion**

Overall, our comparative studies show that power asymmetries along the value chains that are industry-dependent, as well as the positioning of companies within supply chains, have a significant influence on upgrading processes. However, neither the sector in question nor the form of governance alone can provide sufficient explanation for economic or social upgrading. In China's automotive industry, for example, we observe far more economic upgrading than in South Africa or Brazil. In the automotive industry in South Africa and Brazil – despite only minor economic upgrading – substantial social upgrading has occurred due to the influence and strength of independent trade unions. In the same industry in India, this has not occurred due to the relative weakness of organised labour. In the electronics industry in Brazil and Vietnam, economic upgrading has been low. However, in Brazil, labour standards were again relatively good due to union strength, minimum wage policy and state regulation, while in Vietnam conditions were extremely poor due to the lack of independent unions and the assertiveness of state policy in this direction. Economic upgrading in China's IT sector is broader in scope and far more pronounced than in India, while social upgrading in both countries can be considered as mixed. In the garment industry in Vietnam and Bangladesh, both social and economic upgrading is weak.

Our studies also show that foreign direct investment is no guarantee for economic catching-up processes. A transfer of technologies and skills can be expected only when FDI is linked to the host country's domestic value added. Under these conditions, FDI has the potential to play an important role in the economic development of a country. However, even when FDI has positive spillover effects in host countries, mainly product and process upgrading can be expected. Functional and intersectoral upgrading must be considered an exception, as lead-firms have no incentive to transfer core competences to potential competitors. Important for

the realization of positive FDI effects in the global South is that it is regulated and linked to requirements that foreign investors have to fulfil. For example, the inclusion of FDI in an industrial policy strategy – including joint ventures, requirements to use local suppliers, support for own brands – has led to a rapid catching-up in China. The case of Brazil shows that where industrial policy strategies have failed, as in the automotive sector, FDI has been able to make the final production of almost completely foreign car brands competitive, but without any significant economic upgrading.

Social upgrading has three sources according to the results of our case studies:

Firstly, it results from independent and strong trade unions. Social upgrading in the automotive sector in South Africa and Brazil in terms of real wages, working conditions and labour rights was not achieved because of market-liberal policies, but can be attributed to the influence of South African and Brazilian trade union movements, and also to governments that enforced labour laws and were at least not hostile to trade unions.

The *second* source of social upgrading can be found in national economic policy with the objectives of generally increasing the country's productivity and attaining high growth rates via macroeconomic management including industrial policy and stimulating demand. If such policies lead to a relative shortage also of low-skilled workers, real wages and working conditions tend to improve even without government interventions. This is particularly true of China. The country has been able to achieve significant increases in real income in virtually all sectors, especially those characterised by a technological catching-up process. However, this variant, being mainly focused on economic upgrading, does not address all aspects of social upgrading, such as the representation of workers' interests through independent trade unions and free wage bargaining.

The *third* source can be found in agreements such as the Bangladesh Accord. In this case, agreements between actors along the value chain have led to social upgrading – although only in relation to the safety standards of production facilities and buildings. Apart from the Bangladesh Accord, very few of the approaches to vertical governance of labour standards in the form of regulations along global value chains or avenues for transnational solidarity discussed in the relevant literature (Broembsen / Harvey 2019) have been reflected in the case studies examined here. <sup>2</sup>

\_

<sup>&</sup>lt;sup>2</sup> Of course, this is methodologically also a result of the case selection.

Overall, our case studies conclude that economic and social upgrading are primarily national phenomena and (at least so far) largely dependent on *national policies*. Establishing significant leeway for countries of the Global South to implement economic and social policies would then require support from international organisations, as well as civil society and trade union actors in countries of the Global North.

Consequently, it is of key importance for the achievement of economic and social upgrading to focus on the possibilities for national political interventions in global value chains. Asymmetries along global value chains, determining patterns of trade, capital movements and profit transfers, shape globalisation and thus the economic and social inequalities between countries. If the market mechanism is allowed to work freely, economic and social inequalities within and between countries will further rise. Clientelistic isolated solutions (as in the case of the South African automobile industry with its strong trade unions) can improve real wages to a certain extent and can lead to relatively good working conditions. But such solutions can only dampen the asymmetries in global value chains, with the result that only small parts of the population in countries of the Global South will win, with no general catching-up processes that would bring average living standards closer to those of industrialised countries. As lowskilled jobs are transferred to a number of countries in the Global South, a large group of less qualified workers will lose out in the Global North. This economic perspective therefore leads to the conclusion that policies should be pursued that allow for both economic and social upgrading across the whole society across the whole of society. Otherwise, wage dispersion and inequality will continue to increase within and between countries, except for a small number of countries in the Global South whose comprehensive national developmental policies are able to achieve a catching-up (at least to a certain extent) with countries in the Global North.

# References

Anner, M. (2015a). Labor Control Regimes and Worker Resistance in Global Supply Chains, Labor History 56 (3): 292–307.

Anner, M. (2015b). Stopping the Race to the Bottom: Challenges for Workers' Rights in Supply Chains in Asia. FES Briefing Paper. Hanoi: FES Vietnam, December 2015.

- Anner, M. (2017). Wildcat Strikes and Better Work Bipartite Committees in Vietnam Toward an Elect, Represent, Protect and Empower Framework. Better Work Discussion Paper 24. Geneva: International Labour Office.
- Bair, J. (2005). Global Capitalism and Commodity Chains: Looking Back, Going Forward, Competition and Change 9(2): 153-180.
- Baldwin, R. (2011). Trade and Industrialisation after Globalisation's 2nd Unbundling: How
  Building and Joining a Supply Chain are Different and Why it Matters, NBER Working
  Paper 17716;
  http://siteresources.worldbank.org/INTRANETTRADE/Resources/Baldwin\_NBER\_
  Working\_Paper\_17716.pdf, [Accessed: 21 April 2020]
- Barnes, T. (2018). Making Cars in the New India: Industry, Precarity and Informality.

  Cambridge: Cambridge University Press.
- Better Work Vietnam (2019). Annual Report 2019 An Industry and Compliance Review Vietnam.
- Butollo, F. (2013). Moving Beyond Cheap Labour? Industrial and Social Upgrading in the Garment and LED Industries of the Pearl River Delta, Journal of Current Chinese Affairs 42(4): 139–170.
- Butollo, F. and Lüthje, B. (2017). "Made in China 2025": Intelligent Manufacturing and Work.

  In: Briken, K./Chillas, S./Krzywdzinski, M./Marks, A. (Eds.). The New Digital

  Workplace. How New Technologies Revolutionise Work. London: Palgrave, pp. 42–61.
- Broembsen, von M. and Harvey, J. (2019). Decent Work for Homeworkers in Global Supply Chains: Existing and Potential Mechanisms for Worker Centred Governance. Global Labour University (GLU) Working Paper 54, Geneva: ILO.
- Campos, A., Gomes, M. and Schipper, I. (2017). Labour Conditions at Foreign Electronics

  Manufacturing Companies in Brazil Case Studies of Samsung, LGE and Foxconn.

  Good Electronics Network, <a href="https://goodelectronics.org/labour-conditions-foreign-electronics-manufacturing-companies-brazil/">https://goodelectronics.org/labour-conditions-foreign-electronics-manufacturing-companies-brazil/</a> [Accessed 21 April 2020].
- Coe, N. M. and Yeung, H. W. (2015). Global Production Networks: Theorizing Economic Development in an Interconnected World. Oxford: Oxford University Press.

- Curran, L. and Nadvi, K. (2015). Shifting Trade Preferences and Value Chain Impacts in the Bangladesh Textiles and Garment Industry, Cambridge Journal of Regions, Economy and Society 8(3): 459–474.
- D'Costa, A. P. (2017). International Mobility, Global Capitalism, and the Changing Structures of Accumulation: Transforming the Japan-India IT Relationship. London/New York: Routledge.
- Delautre, G. (2017). The distribution of value added among firms and countries: The case of the ICT manufacturing sector. Geneva: ILO (Research Department Working paper Nr. 16).
- Do, C. (2017). The Missing Link in the Chain? Trade Regimes and Labour Standards in the Garments Footwear and Electronics Supply Chains in Vietnam. Friedrich-Ebert-Stiftung, <a href="http://library.fes.de/pdf-files/bueros/vietnam/13334.pdf">http://library.fes.de/pdf-files/bueros/vietnam/13334.pdf</a> [Accessed 21 April 2020].
- Do, C. (2019). Social and Economic Upgrading in the Electronic Supply Chain in Vietnam.

  Unpublished Manuscript.
- dos Santos, A., Dari Krein, J. and Maracci Gimenez, D. (2019). Global Value Chains Economic and Social Upgrading. The Case Study of the Automobile Sector in Brazil. Unpublished Manuscript.
- Dünhaupt, P., Herr, H, Mehl, F., Teipen, C. (2019): Entwicklungschancen durch Integration in globale Wertschöpfungsketten: ein Länder- und Branchenvergleich. In: WSI Mitteilungen 72, 403-411.
- Fernandez-Stark, K., Bamber, P. and Gereffi, G. (2011). The Offshore Services Value Chain:

  Upgrading Trajectories in Developing Countries. International Journal of
  Technological Learning, Innovation and Development 4(1-3): 206–234.
- Gereffi, G. (1994). The Organization of Buyer-Driven Global Commmodity Chains: How U.S. Retailers Shape overseas Production Networks. In: Gereffi, G and Korzeniewicz, M. (Eds.). Commodity Chains and Global Capitalism. Westport CT: Greenwood Press, pp. 95-122.

- Gereffi, G. (2013). Global Value Chains in a Post-Washington Consensus World, Review of International Political Economy, DOI:10.1080/09692290.2012.756414.
- Gereffi, G., Humphrey, J. and Sturgeon, T. (2005). The Governance of Global Value Chains.

  Review of International Political Economy 12(1): 78–104.
- Gereffi, G. and Lee, J. (2016). Economic and Social Upgrading in Global Value Chains and Industrial Clusters: Why Governance Matters. Journal of Business Ethics 133(1): 25-38.
- Gereffi, G., and Sturgeon, T. J. (2013). Global value chain-oriented industrial policy: The role of emerging economies. In: Elms, D. K. & Low P. (Eds.). Global value chains in a changing world. Geneva: World Trade Organization, Fung Global Institute and Temasek Foundation Centre for Trade & Negotiations, pp. 329–360.
- Goto, K. (2012). Is the Vietnamese Garment Industry at a Turning Point? Upgrading from the Export to the Domestic Market. In: Fukunishi, T. (Ed.). Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report). Chousakenkyu Houkokusho, IDE-JETRO.
- Goto, K. and Arai, Y. (2017). More and Better Jobs through Socially Responsible Labour and Business Practices in the Electronics Sector of Viet Nam. Geneva: International Labour Office.
- Henderson, J., Dicken, P., Hess, M., Coe, N., and Yeung, H. W. C. (2002). Global production networks and the analysis of economic development. Review of International Political Economy 9(3): 436-464.
- Herr, H., Teipen, C., Dünhaupt, P., Mehl, F. (2020): Wirtschaftliche Entwicklung und Arbeitsbedingungen in globalen Wertschöpfungsketten. Düsseldorf: Hans Böckler Foundation (working paper Forschungsförderung No. 175, https://www.boeckler.de/pdf/p\_fofoe\_WP\_175\_2020.pdf).
- Hui, E. S.-I. (2018). Hegemonic Transformation. The State, Laws, and Labour Relations in Post-Socialist China. New York: Palgrave Macmillan.
- Humphrey, J. and Schmitz, H. (2002). How Does Insertion in Global Value Chains Affect Upgrading in Industrial Clusters?, Regional Studies 36(9): 1017–1027.

- Huynh, P. (2017). Developing Asia's Garment and Footwear Industry: Recent Employment and Wage Trends. ILO, Asia-Pacific Garment and Footwear Sector Research Note No. 8, October 2017.
- ILO (2014). Ups and Downs in the Electronics Industry: Fluctuating Production and the Use of Temporary and Other Forms of Employment. Issues Paper for Discussion at the Global Dialogue Forum on the Adaptability of Companies to Deal with Fluctuating Demands and the Incidence of temporary and Other Forms of Employment in Electronics, International Labour Office, Sectoral Policies Department, Geneva: ILO.
- Jha, P. and Kumar, D. (2019). India's Participation in the GVCs and Some Implications for Economic and Social Upgrading: A Case Study of the Automobile Sector. Unpublished Manuscript.
- Liu, M. (2018). A Report on China Apparel Industry: Social and Economic Upgrading.

  Unpublished Manuscript.
- Lo, D. and Wu, M. (2014). The State and Industrial Policy in the Chinese Economic Development. In: Xirinachs, J.M.S., Nübler, I., Kozul-Wright, R. (Eds.). Transforming Economies: Making Industrial Policy Work for Growth, Jobs and Development. Geneva: ILO, pp. 307-326.
- Lüthje, B. (2014). Labour Relations, Production Regimes and Labour Conflicts in the Chinese Automotive Industry. International Labour Review 153(4): 535–560.
- Lüthje, B., Luo, S. and Zhang, H. (2013). Beyond the Iron Rice Bowl Regimes of Production and Industrial Relations in China. New York: Campus Verlag.
- Mashilo, A. (2019): Auto Production in South Africa and Components Manufacturing in Gauteng Province. GLU Working Paper No. 58, Geneva: ILO.
- Moazzem, K. G. and Sehrin, F. (2016). Economic Upgrading in Bangladesh's Apparel Value Chain during the Post-MFA Period: An Exploratory Analysis. South Asia Economic Journal 17(1): 73–93.
- Newsome, K., Taylor, P., Bair J. and Rainnie, A. (Eds.) (2015). Putting Labour in its Place:

  Labour Process Analysis and Global Value Chains. London: Palgrave/Macmillan

  Education.

- Noronha, E. and D'Cruz, P. (2020). The Indian IT Industry: A Global Production Network Perspective. IPE Working Paper No. 134/2020, Berlin.
- Rubya, T. (2015). The Ready-Made Garment Industry: An Analysis of Bangladesh's Labor Law Provisions After the Savar Tragedy. Brooklyn Journal of International Law 40(2): 686–718.
- Salas, C., Rocha, A.M. and Welle, A. (2019). Electronic industry and Global Value Chains in Brazil. Structure and evolution 2003-2015. Unpublished Manuscript.
- Schaffland, H. (2017). Globalisierung von Forschung und Entwicklung in der IKT-Industrie:

  Verlagerung der Innovationsschwerpunkte in dynamische
  Schwellenländer. Wiesbaden: Springer Gabler.
- Siddiqi, D. M. (2017). Before Rana Plaza: Towards a history of labour organizing in Bangladesh's garment industry. In: Crinis, V. and Vickers, A. (Eds.): Labour in the Clothing Industry in the Asia Pacific. London: Routledge, pp. 60–79.
- Snowdon, J. and O'Donoghue (2018). What Does the IT Services Market Look like in 2018?

  HFS Research, 30 Aug 2018, <a href="https://www.hfsresearch.com/market-analyses/what-does-the-it-services-market-look-like-in-2018">https://www.hfsresearch.com/market-analyses/what-does-the-it-services-market-look-like-in-2018</a>, [Accessed 22 April 2020].
- Sproll, M (2010). High-Tech für Niedriglohn: Neotayloristische Produktionsregimes in der IT-Industrie in Brasilien und Mexiko. Münster: Westfälisches Dampfboot.
- Sturgeon, T. J. and Kawakami, M. (2010). Global value chains in the electronics industry: was the crisis a window of opportunity for developing countries? Washington: The World Bank, Policy Research Working Paper 5417.
- Sturgeon, T. J. and Van Biesebroeck, J. (2010). Effects of the Crisis on the Automotive Industry in Developing Countries A Global Value Chain Perspective. World Bank Policy Research Working Paper 5330.
- UNCTAD (1999). World Investment Report 1999 Foreign Direct Investment and the Challenge of Development.
- UNECA (2016). Transformative Industrial Policy for Africa, United Nations Economic Commission for Africa.

- van Wetering, H., Gomes, M. and Schipper, I. (2015). Brazil, the New Manufacturing Hotspot for Electronics? Good Electronics Network, <a href="https://reporterbrasil.org.br/wp-content/uploads/2016/09/Brazil-the-new-manufacturing-hotspot-for-electronics.pdf">https://reporterbrasil.org.br/wp-content/uploads/2016/09/Brazil-the-new-manufacturing-hotspot-for-electronics.pdf</a> [Accessed 22 April 2020].
- Witt, E. (2015). Arbeitsbedingungen in der Textil- und Bekleidungsindustrie in China im 21.

  Jahrhundert Lösungsansätze zur zeitgemäßen Umsetzung sozialverträglicher

  Unternehmenspolitik, <a href="https://d-nb.info/1075317371/34">https://d-nb.info/1075317371/34</a>, [Accessed 22 April 2020].
- World Bank (2016). Jobs in Global Value Chains, Jobs Notes Issue No. 1.
- WTO (2018). World Trade Statistical Review 2018.
- WTO (2019). Global Value Chain Development Report 2019, Geneva.
- Zajak, S. (2017). International Allies, Institutional Layering and Power in the Making of Labour in Bangladesh. Development and Change 48(5): 1007–1030.
- Zhang, L. (2015). Inside China's Automobile Factories. The Politics of Labor and Worker Resistance. Cambridge: Cambridge University Press.
- Zhu, J. and Morgan, G. (2018). Global Supply Chains, Institutional Constraints and Firm Level Adaptations: A Comparative Study of Chinese Service Outsourcing Firms. Human relations 71(4): 510–535.

Imprint
Editors: Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Martina Sproll, Christina Teipen, Markus Wissen, Jennifer Pédussel Wu, Reingard Zimmer
ISSN 1869-6406
Printed by HWR Berlin
Berlin April 2020