International Labour Office

ILO Research Paper No. 14

Global supply chain dynamics and labour governance:

Implications for social upgrading

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May 2016

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ISSN 2306-0875 (web pdf)

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Acknowledgements

This paper is supported by the Research Department in the International Labour Organization (ILO). The author is grateful to two anonymous reviewers for their valuable comments and suggestions. The author also would like to thank Marva Corley-Coulibaly, Takaaki Kizu, Rafael Peels, Pelin Sekerler Richiardi and Christian Viegelahn at ILO for their helpful comments on earlier versions of the paper. The usual disclaimers apply.

Abstract

Global supply chains (GSCs) have become an integral part of the global economy, changing the patterns of trade, investment, and production in global industries. While the rise of GSCs poses new opportunities and challenges to workers, its impacts have yet to be fully understood. Building on a growing body of literature on GSCs and labour standards, this paper examines how the emergence and change of the fragmented cross-national production system affects social upgrading in developing countries, focusing on the impact of private governance on labour conditions and workers' rights. It discusses emerging trends in GSCs during the post-crisis period and their impacts on social upgrading, highlighting the unevenness of social upgrading and the role of global buyers in the differentiation of labour conditions among workers. The paper discusses the role of private voluntary standards in governing labour relations in GSCs, and their limitations and tensions with buyers' purchasing practices. It concludes with a discussion of the future of labour governance in GSCs in terms of improving the effectiveness of private governance and building a complementary and synergistic relationship across private, public and social governance for sustainable economic and social upgrading in GSCs.

Keywords: global supply chains; labour standards; private governance; purchasing practices; shifting end market; social upgrading; synergistic governance

JEL classification: F13; F23; F66; J81; J83

1 Introduction

The rise of global supply chains (GSCs) as a new mode of production, trade, and investment is challenging our existing understanding of the way the global economy works, and how countries, firms, and workers are integrated into global industries and advance their position therein (OECD, 2013, 2014; UNCTAD, 2013; Baldwin, 2009). GSCs are defined as "demand-supply relationships that arise from the fragmentation of production across borders, where different tasks of a production process are performed in two or more countries" (ILO, 2015a: p.132).[1] In GSCs production is fragmented into a narrow range of tasks and spatially and organizationally dispersed to multiple firms and factories across national borders. Countries and firms tend to be involved in only a part of the entire value-adding stages and trade intermediate goods across countries for further processing. International trade has increased at the level of intermediate goods (e.g., parts and components) and value-adding tasks ('trade in tasks') through coordinated transactions between suppliers and buyers (OECD, 2013; WTO and IDE-JETRO, 2011; Sturgeon and Gereffi, 2009). The entire chain of activities is increasingly driven by multinational enterprises (MNEs). The UNCTAD (2013) estimates that approximately 80 per cent of global trade is linked to the global supply chains of MNEs either as *intra-firm* (between parent companies and their affiliates or among the affiliates) or as *inter-firm* trade (between unrelated companies) (p.135). MNEs' commercial and supply chain strategies have significant consequences on the degree and mode of a country's or firm's participation in GSCs as well as workers' economic and social gains therein (De Marchi et al., 2014; Barrientos et al., 2011).

The level of a country's participation in GSCs increased between 1995 and 2008 in many OECD countries and in most emerging and developing economies (Figure 1). Among the 59 economies in the OECD Global Value Chains Indicators dataset, India and China are the two countries where the GSC participation index rose most (93 per cent and 85 per cent, respectively).[2] Only two countries, Cambodia and South Africa, experienced a decline of GSC participation during this period. The number of GSC-related jobs increased over the past decade and according to an ILO estimate, the number of people employed in GSCs rose from 296 million to 453 million between 1995 and 2013 in 40 advanced and emerging economies where data are available. In these countries, GSC-related jobs accounted for 21 per cent of total employment in 2013, compared to 16 per cent in 1995 (ILO, 2015a: p.132).[3]

While the rise of GSCs presents various opportunities and challenges to workers, the impact has yet to be fully understood. Building on a growing body of literature on labour standards in GSCs, this paper examines how the emergence and change of GSCs affects workers in developing countries in terms of

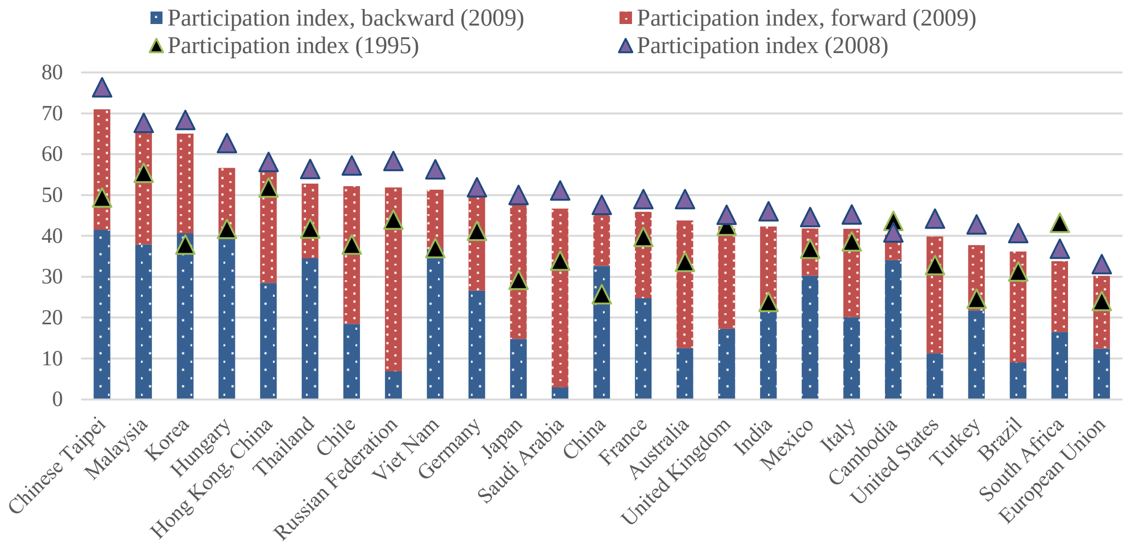
[1] A few related concepts, notably global value chains (GVCs) and global production networks (GPNs), are used interchangeably with GSCs in this paper, and some of the references and data sources cited in the paper also use these terms interchangeably. See Henderson et al. (2002), Lee (2010) and Sturgeon (2001) for a discussion of these concepts.

[2] The GSC participation index is calculated as the sum 'backward participation' (imported inputs used in exports) and 'forward participation' (exports of intermediate goods used in third countries' exports) as a share of the country's gross exports (Backer and Miroudot, 2013). The OECD GVC Indicators dataset (May 2013) covers 18 industries in 59 countries, including 34 OECD and 23 non-OECD countries, plus the European Union and the "rest of the world."

[3] The participation indices declined in 2008-2009 in most of the countries in the dataset (except Malta), which is related to the declining trade of intermediate goods in the past several years (Constantinescu et al., 2015). Similarly, the share of GSC-related jobs in total employment decreased between 2008 and 2013 in most of the emerging economies (Brazil, China, Indonesia, Mexico and the Russian Federation) (ILO, 2015a: pp.134-5).

'social upgrading.'[4] Social upgrading refers to the process of improvement in the rights and entitlements of workers as social actors and enhancement of the quality of their employment. It includes measurable improvements in labour standards like the size of employment, wages, and working hours, as well as advances in enabling rights, which tend to be less quantifiable, such as freedom of association and the right to collective bargaining (Barrientos et al., 2011). The paper focuses specifically on the effect of private forms of governance in GSCs on social upgrading of workers linked to GSCs and the possibility of a complementary or synergistic relationship it could have with public and social governance. While private labour standards were initially embraced by many MNEs and civil society organizations (CSOs) as a realistic and "second-best" option (Locke, 2013: p.9), and as they could address social upgrading in GSCs better than public governance, their effectiveness has been challenged in recent years, prompting a search for alternative paths to further advance labour standards in GSCs (Mayer, 2014; Locke, 2013; Locke et al., 2013a). This paper attempts to review and synthesize the findings from the fast-evolving literature regarding the impacts of GSCs on social upgrading in developing countries.

Figure 1. GSC participation index, 1995, 2008 and 2009 (in per cent)



Note: The total participation index for 2009 is the sum of backward (lower part of the column) and forward participation (upper part).
Source: Compiled from the OECD Global Value Chains Indicators: https://stats.oecd.org/Index.aspx?DataSetCode=GVC_INDICATORS, accessed on July 17, 2015.

The paper is organized as follows: the next section discusses some of the key mechanisms through which GSC actors and local dynamics influence labour conditions. Section 3 examines emerging trends in GSCs, particularly after the global economic crisis of 2007-2008, and their impacts on social upgrading. Section 4 outlines private, public and social forms of governance in GSCs and discusses the role of global buyers and private standards and their limitations in improving labour standards in GSCs. It also addresses emerging issues and their implications for the future of labour governance, focussing

[4] This paper follows the World Bank's country classification, which defines lower- and middle-income countries as 'developing countries.' (https://datahelpdesk.worldbank.org/knowledgebase/articles/378834-how-does-the-world-bank-classify-countries). This paper also uses the term 'emerging economies,' which generally refers to the countries that experienced a rapid economic growth in recent decades and/or those in a transitional phase to developed economies, notably Brazil, Russia, India, and China (BRIC).

on improving the effectiveness of private governance; the interactions of different governance forms; and complementary and synergistic governance for sustainable upgrading in GSCs. The final section concludes.

2 Shaping labour standards in developing countries GSCs

How labour conditions and workers' rights in developing countries are affected by economic globalization, or increased cross-national flows of goods, capital, and people, and how MNEs, states, and other actors shape the relationship has been under intense debate (Berliner et al., 2015; Ronconi, 2012; Mosley, 2010; Greenhill et al., 2009). On the one hand, there is a persistent concern that developing countries would deregulate labour regulations and lower labour standards competitively to attract MNEs and induce foreign investment, and the 'race to the bottom' thesis suggests that it would drive down labour conditions in many developing countries competing with one another (Davies and Vadlamannati, 2013; Olney, 2013; Chan, 2003). On the other hand, critics argue that there is little evidence for this thesis. It is found that there is little impact of economic globalization on labour market deregulation (Potrafke, 2013), or it may have even a positive effect, or lead to a 'race to the top,' under certain conditions (Vadlamannati, 2015). This suggests that a subtle approach is needed to fully understand the relationship of global economic integration and labour standards (Berliner et al, 2015; Mosley and Uno, 2007). For instance, different modes of integration have different effects on labour standards; while trade openness and arm's-length production relationship is likely to negatively impact labour standards and enforcement, FDI inflows could have a positive effect (Payton and Woo, 2014; Ronconi, 2012; Mosley, 2010).

As more countries and jobs are directly and indirectly linked to GSCs, labour standards are increasingly influenced by the structure and governance of GSCs. The initial optimism that participation and economic upgrading in GSCs, or moving to higher value-added value chain activities, would result in social upgrading has been moderated considerably and the evidence from recent empirical studies shows that the relationship is not always positive (Locke, 2013; Rossi, 2013; Barrientos et al., 2011), and it sheds light on the disjuncture between economic and social gains (Kaplinsky, 2000). Actual outcomes on the ground are determined by complex interactions between global dynamics, such as global buyers' strategies, and local conditions, such as labour market dynamics and regulatory environments in the supplier country. They are also affected by the interactions of private actors (e.g., MNEs and local suppliers), public (e.g., the state) and social actors (e.g., non-governmental organizations, NGOs), as the strategies of both suppliers and buyers are embedded in broader national and international institutional environments (Gereffi and Lee, 2016; Lakhani et al., 2013; Lund-Thomsen and Nadvi, 2010). In this section, two key dynamics are discussed to show how GSCs shape labour conditions: global buyers' sourcing and location strategies, and local labour market and regulatory environments.

2.1 Buyers' sourcing and location strategies

One of the key insights from the literature on GSCs is the way in which lead firms, notably global buyers, govern their supply chains and how it affects the creation and distribution of value among chain actors, including workers (Pietrobelli and Saliola, 2008; Gereffi et al., 2005). Global buyers' strategies regarding supply chains can set the key conditions for workers' well-being and rights by shaping the opportunities and constraints of suppliers' economic upgrading. For example, the buyers' 'make-or-buy' decision determines which chain activities are outsourced or kept integrated (Gereffi et al., 2005; Williamson, 1985), thus affecting the types of jobs available to workers.[5] The extent to which the buyer consolidates or diversifies its supply base can also influence social upgrading outcomes. In the post-crisis period, there has been a growing consolidation in many GSC segments, which has led to the rise of large and capable suppliers. Such consolidation could result in expanded opportunities for employment in the supplier factories, or by spatially concentrating, it may provide a fertile ground for collective actions for workers (Appelbaum, 2008). However, marginalization of smaller suppliers may lead to deterioration of labour conditions for workers in these factories (Cattaneo et al., 2010b). In addition, buyers' location decisions influence where GSCs create jobs. Such decisions are conditioned by endowment factors as well as other contingencies, such as exchange rates, transportation costs, trade agreements, and government incentives (Taplin, 2014). Furthermore, MNEs' frequent change of production locations (or its possibility) can affect the bargaining power of workers (ILO, 2014), often wiping out hard-fought social gains (Lee et al., forthcoming).

Recent GSC studies have paid a particular attention to the potentially negative effect of global buyers' sourcing and purchasing practices on labour conditions in their supply chains (Barrientos, 2013; Locke et al., 2013a). The upstream practices are even considered as the "root causes" of worsening labour conditions at the downstream of the chains (Locke, 2013: p.22). Specifically, a variety of rationalized supply chain management (SCM) techniques, while designed to enhance efficiency and responsiveness and facilitate 'global just-in-time' (JIT) sourcing and production on the buyers' side, are associated with a wide array of labour violations in the supplier factories, such as excessive working hours, involuntary overtime, and the widespread use of casual and temporary labour (Taplin, 2014: Barrientos, 2013; Oxfam, 2004; Insight Investment, 2004).[6] With these management strategies and techniques, the buyers often pass market uncertainty and risks onto suppliers, who transfer them to a more vulnerable group of workers (ILO, 2014).

For example, the effect of 'fast fashion' on the labour conditions in supplier factories in apparel GSCs is increasingly under public scrutiny (Plank et al., 2014; Rossi et al., 2014a; Taplin, 2014). Assisted by advanced information and communication technologies (ICTs) in inventory management, design and cutting and data transfer, the business strategy has been popularized by global brands like Zara and H&M to shorten lead time, minimize inventories, and offer consumers affordable fashion items more frequently. Studies have found, however, that this mode of global JIT production and related practices (e.g., the buyers' late orders and frequent change of suppliers and sourcing countries) put enormous pressure on suppliers to squeeze costs, shorten production schedules, and intensify work speed and loads, which leads to a deterioration of working conditions (Taplin, 2014; Locke, 2013). Similarly, in electronics GSCs, an increasing number of new products, highly fluctuating production volume, and

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[5] What tasks are outsourced is contingent on multiple factors, such as the complexity and codifiability of transactions as well as supplier capabilities (Gereffi et al., 2005). But, what is 'supposed to be outsourced' is not always 'actually outsourced' (OECD, 2013), suggesting the role of the buyer's strategic decision-making and socio-economic contexts the decision is embedded in.

[6] According to the ILO guidelines (ICSE-93), 'regular' workers are "those 'employees with stable contracts' for whom the employing organization is responsible for payment of relevant taxes and social security contributions and/or where the contractual relationship is subject to national labour legislation." 'Casual' workers refer to those "who have an explicit or implicit contract of employment which is not expected to continue for more than a short period" (ILO, 1993). 'Temporary' workers are defined as "workers who are engaged for a specific period of time, includes fixed-term, project or task-based contracts, as well as seasonal or casual work." (ILO, 2015b).

sudden ramp-up of production caused by last-minute orders increase uncertainty on the supplier side (ILO, 2014). In response, suppliers extensively use temporary workers and other casual forms of labourer (such as student interns),[7] who can be hired in peaks and fired in slumps, and stretch workers' overtime beyond legal limits, often without the buyers' awareness (ILO, 2014; Locke, 2013).

2.2 Local labour market and regulatory environments

The expansion of GSCs poses challenges to developing countries in regulating MNEs' activities and to improve labour standards in their supply chains, particularly in countries where labour regulations are less stringent with limited enforcement (Amengual, 2014). Such difficulties are intensified by the new dynamics as discussed earlier, which can influence working conditions indirectly by affecting local labour market and regulatory environments in the developing countries linked to GSCs.

Though many developing countries are eager to engage in GSCs by inviting foreign firms and assisting local firms to become their suppliers, the strategy generally prioritizes export growth and job creation to the quality of jobs and labour rights. Social upgrading is often neglected, or economic upgrading is pursued at the expense of social downgrading (Arnold, 2014; Barrientos et al., 2011). For example, working conditions and enforcing labour standards in export processing zones (EPZs) have been a highly contentious issue (Milberg and Amengual, 2008). Generally, EPZs are established as special regulatory areas within countries to promote exports by offering firms a variety of special incentives (e.g., tax exemption). However, some of the incentives, such as limits on unionization, and poor enforcement in labour standards can affect working conditions negatively in EPZs (McCallum, 2011; Milberg and Amengual, 2008).[8] And, in many developing countries, such lax regulatory environments are criticized for providing *de facto* support for labour wrongdoings in the export sector (Arnold, 2014; Taplin, 2014). The potential negative impact of government export policies driven by inward FDI on labour conditions is also pointed out in the case of China's industrial development. It is characterized by "state-in" and "state-out" processes, where governments offer various concessions to foreign investors, but they withdraw or weaken existing social safety nets for workers (Chan et al., 2013). While migrant workers from the rural area have been critical for China's export boom, social protection remains out of reach for the majority of them because of government policies (e.g., household registration system called 'hukou') that denies them full access to social welfare systems in cities.[9] And local governments still focus on pro-growth policies. As a result, a burden from industrial injuries and unemployment is often left onto individual workers along with their families and rural communities left behind (Chan et al., 2010).

Another notable aspect with regard to local environments is the impact of so-called 'outsourcing culture' often found in developing countries, where fleeting opportunities for getting big outsourcing

[7] While student interns are not legally defined as workers, recent studies on China document the widespread use of student interns in electronics production to maximize companies' flexibility to respond to demand changes. They are often hired involuntarily regardless of their training needs and barred from trade union membership and protection, but they are obliged to pay part of their wages to their schools as commission fees for placement (Smith and Chan, 2015; Brown and deCant, 2014).

[8] EPZs are not all negative to workers, however, Milberg and Amengual (2008) based on existing cases studies on EPZs in developing countries concluded that wages tended to be higher among EPZ workers than other sectors of the economy, and often issues like unionization were prevalent both inside and outside of EPZs alike.

[9] The Chinese government has recently initiated a reform to the hukou system, proposing a gradual easing of the distinction between rural and urban citizens, which would improve rural migrants' access to schools, health care and other public services in many cities (Buckley, 2014).

orders from global buyers generate negative working conditions for workers. It is exemplified by the sentiment expressed by a Bangladesh garment factory owner: “there’s money in the air – you just need to know how to grab it” (cited in Taplin, 2014: p.77). Such a mood creates frenzied moves by local business owners and suppliers to capitalize on the opportunities at the expense of labour standards. They often try to obtain as many orders as possible with little consideration of their own production capacity, which could result in excessive overtime and other violations of labour standards and workers’ rights. This phenomenon is likely to be more prevalent in price-based, intra-industry competition for orders for low value-added, labour-intensive products like garments, and in the void of adequate government regulations and enforcement (Jun, 2014; Hale, 2000). Firms may try to bypass even flawed regulations in whatever manners, including political corruption, which was found to have played a role in the Rana Plaza collapse in Bangladesh (Taplin, 2014).

As more jobs are influenced by GSCs, labour conditions in developing economies are increasingly shaped by multiple factors cutting across different nodes of GSCs and national boundaries. Global conditions such as global lead firms’ strategies significantly affect the level of social upgrading in supplier factories, but the latter is not solely determined by the former. Local dynamics such as national and local labour market regulations and their enforcement also play a significant role in mediating the effect of global dynamics and shaping the outcome. And, the way different factors interact with each other is also evolving over time. The next section discusses some of the recent dynamics in post-crisis GSCs and how they affect labour standards.

3 Emerging trends in post-crisis GSCs and labour standards

The emergence and expansion of GSCs in the global economy over the past few decades has been driven by multiple factors, notably declining trade costs facilitated by rapid advances in telecommunications and logistics, and liberalization and deregulation of international trade and investment. The expansion was also facilitated by corporate strategies to extend supply chains abroad through offshoring and outsourcing in pursuit of efficiency, market access and new resources, and local suppliers’ growing participation in foreign buyers’ supply chains, particularly in developing economies (OECD, 2013).

While these factors continue to play a role, a few notable trends have emerged in GSCs over the past several years (Gereffi, 2014; Cattaneo et al., 2010a). Some of the earlier trends, for example, the rise of South-South trade have accelerated since the global economic crisis of 2007-2008, whereas others like growing geographic and organization concentration have become more prominent during the crisis. These emerging dynamics in post-crisis GSCs and their impacts on labour standards raise a new set of questions regarding how GSCs can (re)shape the conditions for social upgrading in developing countries, and particularly whether these new developments have any positive or negative effect on labour standards in GSCs (Lee and Gereffi, 2015; Nadvi, 2014; Kaplinsky et al., 2011).

This section highlights some of these emerging trends – the rise of the Global South, the growing role of emerging market MNEs (EMNEs), growing geographic and organizational concentration in GSCs, and the expansion of casual and temporary workforce – and their impacts on social upgrading. Many of these changes are still unfolding, and the answer to the questions remains open with contrasting possibilities. Thus, this section does not intend to offer any definite answer to the questions, which would require further research.[10]

3.1 Shifting end markets to the global south

The significant increase in South-South trade has led to shifting end markets in GSCs to the Global South. Post-war economic growth in the developing world was largely based on exporting manufacture goods to advanced-economy markets like the United States (US) and Western Europe, and the value chain linkage of the South-to-North trade was controlled by Western buyers through offshoring and outsourcing (Hamilton and Gereffi, 2009). This conventional flow, however, began to shift from the 1990s as more exports from developing countries headed to other developing economies. Between 1995 and 2012, the share of South-South trade in world trade has more than doubled, from 12 to 26 per cent, while North-North trade accounted for 34 per cent in 2012, down from 51 per cent in 1995 (Horner, forthcoming). The shift intensified in the wake of the recent global crisis, as stagnant market demand slowed import growth in post-crisis advanced economies, while emerging economies, particularly those with large domestic markets, experienced relatively robust import growth (Cattaneo et al., 2010a). Between 2005 and 2010, many emerging economies expanded their merchandise imports rapidly – Brazil (147 per cent), India (129 per cent), China (111 per cent) and South Africa (51 per cent), while growth was much slower in the European Union (27 per cent) and the US (14 per cent) (WTO, 2011). The rapid expansion in the Southern end market was attributed not only to rising consumer demand following decades of economic growth but also to the growing import of primary and intermediate goods from other developing countries, fuelled by the rapid expansion of manufacturing in emerging economies like Brazil, China and India (Kaplinsky et al., 2011).

At the same time, the growth of regional supply chains is also spurring the growth of South-South trade in Africa, Asia and Latin America. More products from developing countries are made for regional consumption instead of exports to advanced economies. Regional supply chains are facilitated by rising consumer demand in Southern markets as well as the growth of EMNEs and the regional expansion of their supply chains. For instance, South African and Kenyan supermarkets have been establishing regional supply chains across the eastern part of the sub-Saharan African region (Barrientos et al. forthcoming). South African clothing firms have used factories in Lesotho and Swaziland to serve not only their domestic markets but also other markets in the region (Morris et al., 2011).

This recent rise of the Global South and shifting end markets in GSCs raises the question of what will be the impact on social upgrading. On the one hand, social upgrading in South-bound GSCs is likely to occur if the chains provide better opportunities for economic upgrading. Although economic upgrading does not necessarily lead to social upgrading (Barrientos et al., 2011), it can provide one, if not the only, of the pre-conditions under which social gains are likely to increase. There are several factors that may favour the economic upgrading of developing country suppliers in South-South chains. Regional

[10] There are other significant new trends in GSCs that are not discussed in detail in this paper but warrant further analysis of their potential impacts on social upgrading in developing countries. For instance, there is a growing interest in 'back-shoring' of manufacturing activities, or bringing manufacturing jobs back (Bailey and De Propris, 2014; Kinkel, 2012). While it has been a topic of the public policy debate in many advanced economies since the economic crisis (Landler, 2012), evidence is still thin and mixed regarding how prevalent back-shoring is, and how many companies are actually concerned about returning the jobs to advanced economies (Bailey and De Propris, 2014; Fratocchi et al., 2014), let alone its potential effects on social upgrading at both the origin and destination of jobs.

markets and value chains in the South can facilitate their engagement in high value-added activities like designing and branding, offering an alternative path to global chains for economic upgrading (Morris et al., 2011; Navas-Alemán, 2011). Lower entry barriers with less capital and technology requirements in Southern chains can enable smaller local firms to engage in GSCs, which could increase employment opportunities for workers. These firms can also leverage their experience and knowledge of the home market to better compete in other Southern markets against global firms with, for example, so-called 'frugal innovations' – developing products or services especially designed for low-income consumers in developing countries (Zeschky et al., 2011), while the developmental consequences of such practices have yet to be fully assessed (Knorringa et al., 2016).

On the other hand, generally weaker labour standards and less pressure on labour issues from civil society (e.g., NGOs and consumers) in the South can affect social upgrading negatively. For example, compared to chains destined to Northern markets with higher social standards, Southern markets may not require firms to maintain strict labour standards, while they may do so on product safety and quality standards (Kaplinsky and Farooki, 2010). This could make firms less committed to social upgrading. Moreover, consumers play an increasing role in global labour governance, as shown in the example of various social labels that aim to leverage consumer power in advanced economies to promote better working conditions (Bair et al., 2014; Donaghey et al., 2014). But if Southern consumers are less willing to pay premiums for social labels, firms may also be less interested in upgrading working conditions in their supply chains (Lee and Gereffi, 2015). Furthermore, if alternative buyers with loose standards are present, developing country suppliers may be able to avoid buyers with higher standards with little worry of being penalized for non-compliance, undermining the effectiveness of the model based on the compliance of private buyer standards (Locke, 2013; Fransen, 2012). These possibilities point to the expectation that the growth of South-South trade and more GSCs destined to Southern markets may lead to social downgrading, or the deterioration of labour standards.

3.2 The rise of emerging market MNEs

The growth of outward investment from emerging-market firms is making the EMNEs an increasingly important actor in shaping social and economic conditions, including labour conditions both at home and abroad, in developing and developed countries, and also as lead firms, suppliers or both ((Sacchetto and Andrijasevic, 2015: Giuliani et al., 2014; Ramamurti and Singh, 2009). However, an important question of significance is what role EMNEs will play in social upgrading in their supply chains, how they would address it and whether their responses would be different from MNEs from advanced economies. There is a possibility that they may not be active in advancing labour conditions in their supply chains, given that, as noted earlier, they are embedded in institutional environments characterized by lower labour standards with relatively weaker pressure from civil society in their home countries. Furthermore, some EMNEs are based on the 'high-volume, low-cost' business model, which aims to provide a product or service affordable to a large population with low incomes. But the model tends to rely on the extensive outsourcing of 'non-core' activities to a large pool of contract workers (Sarkar et al., 2013). It can create divergent social upgrading between a smaller number of regular, skilled 'core' workers and a large group of casual and temporary workers with precarious employment, similar to the effect of global buyers' JIT sourcing practices (see Section 2.1).

GSC scholars pay a particular attention to the role of large transnational first-tier suppliers from emerging economies, questioning whether these more established suppliers would be helpful to improve labour standards in GSCs. On the one hand, the fact that these large suppliers are better positioned for economic upgrading generates the expectation that they may be able to address the power asymmetry with big global buyers, for example, by passing on the cost increase to the buyers or exercising a greater control over the production process (Appelbaum, 2008). This rebalancing of the power relationship could mitigate some of the negative effects on working conditions of the buyers' pressure for cost reduction and JIT sourcing. On the other hand, it is also suggested that power asymmetries persist even between major first-tier suppliers and their global buyers. For example, the value captured by Foxconn, a prominent first-tier contract manufacturer for Apple, is extremely small, compared to the gains by Apple and other high-end component suppliers (Dedrick et al., 2011). Further, the pace of production is virtually dictated by their buyers, significantly undermining the suppliers' ability to improve labour standards in their factories (Chan et al., 2013; Lee and Gereffi, 2013). As many of the top-tier suppliers are less dependent on branding and less visible to many consumers compared to their brand buyers, they are less likely to face consumer pressure for improving labour standards (Merk, 2014).

3.3 Growing geographic and organizational concentration

GSCs are increasingly geographically and organizationally concentrated in many sectors. The fragmentation and decentralization of production through GSCs has led to the increased participation of developing countries in global industries, as indicated by the rise in GSC participation indices in many developing countries (OECD, 2013). However, evidence emerging from a number of industries indicates that the key nodes of GSCs in many industries have become geographically concentrated in a few emerging economies, such as Brazil, China and India, with abundant labour supply, large and dynamic domestic markets, and sizable local supplier base with manufacturing expertise (Staritz et al., 2011; Cattaneo et al., 2010a). Also, much of the manufacturing nodes in GSCs are significantly clustered in a few Asian countries, while other regions like Latin America and Africa play a greater role in supplying inputs like commodity products.[11]

At the same time, consolidation takes place at the organizational level across the key segments of GSCs. Today, just a few global lead firms control the manufacture of large commercial aircraft, carbonated drinks, and smart phones, and four to six MNEs dominate the global markets of beer, elevators, heavy-duty trucks, personal computers, and digital cameras (Nolan, 2012). Global lead firms are getting bigger through mergers and acquisitions (M&A) leading to the exit of many rivals. These lead firms are rationalizing their supply chains, working with a smaller number of larger, more capable first-tier suppliers and intermediaries strategically located in large emerging economies (Gereffi, 2014). The effort is motivated not only to reduce costs but also to control the risk in the face of tightened standards pertaining to product safety and quality and social and environmental concerns (Maertens and Swinnen 2009). This has led to consolidation in the middle-section of GSCs and the rise of transnational contract suppliers like Li & Fung (apparel), Yue Yuen (footwear), and Foxconn and Flextronics (electronics), which cater to multiple global brands simultaneously (Appelbaum, 2008; Sturgeon and Lee, 2005).

[11] In apparel, for instance, China alone accounted for over 40 per cent of the world's exports and along with the other five leading exporting countries – Bangladesh, Italy, India, Turkey and Viet Nam – represented 64 per cent of the world's export value in 2010 (Bernhardt, 2013). In mobile phones, the five largest exporting countries exported 73 per cent of the world's mobile phones in value, and 61 per cent of the world's exports came from three East Asian economies – China, Republic of Korea and Hong Kong – in 2011 (Lee and Gereffi, 2013).

Finally, the downstream segments of the GSCs like marketing and sales are also increasingly controlled by bigger and more powerful retailers like Walmart and brand buyers like Apple (Hamilton et al,, 2011; Humphrey, 2007).

This increasing consolidation and rationalization of GSCs prompts the question of whether labour conditions are increasingly polarized and segmented in GSCs between different groups of workers, e.g., between those in emerging economies where production is concentrated and those in other developing countries where global buyers have exited,[12] between workers for large suppliers who benefit from the suppliers' economic upgrading and their global buyers' labour codes, and those working for smaller suppliers that are marginalized in the consolidated supply chains. The concern is amplified by the widespread use of casual and temporary workforce and the expansion of the informal sector. It is questioned whether more flexible modes of production adopted by consolidated buyers such as fast fashion would expand temporary employment with precarious conditions and therefore reinforce the polarization of labour conditions among workers.

3.4 The expansion of casual and temporary employment

While the growth of casual and temporary workforce is nothing new in advanced economies (Kalleberg, 2009), non-standard forms of employment are increasing in many developing countries where GSCs play significant roles in export growth and employment (ILO, 2015b). In China, dispatched agency workers doubled in number to 60 million between 2008 and 2012. In India, contract labour increased in manufacturing from 13 per cent to 20 per cent between 1994 and 2006 (Rossman, 2013). In Mexico, approximately 60 per cent of workforce in electronics were temporary agency workers in 2009, and it was about 90 per cent in some companies. In Thailand, agency workers accounted for over a half of the approximately 500,000 workers in the electronics industry (Holdcroft, 2012).

Despite the fact that temporary employment can give workers flexibility in time use and some even prefer it to regular, full-time jobs, it is often associated with a wide range of social downgrading outcomes, including wage discrimination, job insecurity, poor health of workers, lack of employee benefits, inadequate skill training, weak bargaining power, and a low-level of unionization. Furthermore, temporary employment can affect a firm's performance negatively, through a higher number of defective products and hamper economic upgrading (ILO, 2014). This leads to the question whether economic upgrading through GSC participation, when it involves an extensive use of temporary employment, only benefits certain groups of workers, i.e., regular, full-time, male, high-skilled, whereas the same benefits may not be extended to other groups of workers, i.e., temporary, part-time, female, low-skilled and migrants. Even within the same factory, wages, paid leave, health services, skill training, and labour rights might be provided in a discriminatory manner in favour of the former groups of workers (Lee et al., forthcoming; Plank et al., 2014).

Furthermore, as more GSCs have evolved into a complex network of firms with multiple tiers of suppliers, supply chains extend to the informal sector, such as small-scale, household-based work (Barrientos et al., 2011). While the informal economy has long been an important source of employment in developing countries, economic globalization is considered to further accelerate the rise of informal

[12] In the apparel GSCs, for instance, the phase-out of the Multi-Fiber Arrangement (MFA) and the global crisis in 2007-08 led to the concentration of apparel production to Bangladesh, China, Turkey and Viet Nam, primarily at the expense of Mexico and Central American and Caribbean suppliers to the US and North African and Eastern European exporters to EU-15 (Gereffi and Frederick, 2010).

jobs (Bacchetta et al., 2009), and the fragmentation of value-added activities facilitates the use of informal labour for a narrower range of production activities, often for the least sophisticated tasks (Shepherd, 2013). Yet, the empirical question to be answered is whether increased GSC participation intensifies the informality of work, and whether informal jobs are more prevalent in firms or sectors linked to GSCs than in those that are not.

With regard to promoting labour standards, the presence of informal sector in GSCs poses additional challenges. They are generally characterized by lack of reliable information and this significantly limits transparency and traceability and makes it much difficult to monitor and intervene in labour conditions in the informal part of the GSCs. Furthermore, the rise of informality can affect the effectiveness of any attempt to reduce the violations of labour standards. It is found that in the face of external scrutiny such as buyers' audits, suppliers often turn more hazardous jobs to lower-tier suppliers or informal sectors where transparency is quite limited (Hurley, 2005; O'Rourke, 2003). Informal sector/employment may serve as a buffer for suppliers against the pressure for social upgrading but at the expense of the effectiveness of any efforts to improve labour standards.

4 Governance and social upgrading in GSCs

As production processes are sliced into a narrow range of tasks and spatially and organizationally dispersed across countries and firms, 'GSC governance,' or coordinating and integrating the fragmented activities, has become critical (Ponte and Sturgeon, 2014; Gereffi et al., 2005).

4.1 Governance in GSCs and relevance to social upgrading

GSC governance differs according to *the type of actors* who primarily initiate it (Gereffi and Lee, 2016):

Private governance involves regulating transactions among firms. It mainly pertains to coordination of inter-firm transactions and allocation of financial, material, and human resources between suppliers and buyers. It can also address social and environmental dimensions, as exemplified by corporate codes of conduct. In GSCs, private governance is driven by lead firms like global buyers and brand manufacturers, often through their own private standards. Private governance also play a role in place-based production systems, such as industrial clusters and districts, where joint actions are taken at local or national level or through business and industry associations to facilitate the coordination of inter-firm relationship (Schmitz and Nadvi, 1999).

Public governance is exercised by governments at various levels within the nation-state as well as international organizations like the United Nations (UN) and the International Labour Organisation (ILO). For example, at the supranational level, ILO core conventions provide the guidelines for labour standards and workers' rights. Bi- or multi-lateral trade agreements (e.g., NAFTA) can play a role in shaping the dynamics of GSCs by granting a preferential market access (Bair and Gereffi, 2001) as well as influencing social upgrading through 'social clauses' in the agreements (ILO, 2013; Polaski, 2003). At the local level, public governance entails laws and regulations set by national and sub-national governments. National labour laws and their enforcement can directly influence the labour conditions of workers across the country, and the level of enforcement may vary even within a country (Amengual, 2014). Other measures such as, competition policy, investment regulations, and immigration policy can affect them indirectly.

Social governance is driven by various types of civil society organizations (CSOs), which include workers' organizations like labour unions as well as NGOs, community-based organizations, and various non-state, non-profit organizations. It explicitly aims to address workers' rights and labour standards, including union actions and codes of conducts initiated by NGOs (Barrientos and Smith, 2007). Because it is rarely mandatory, social governance generally resorts to the actions of private firms or governments that have direct power to enforce codes or regulations. For example, labour unions use collective bargaining and workers' actions like strikes to influence buyers and suppliers in GSCs, and other CSOs affect social upgrading at both global and local levels by deploying various forms of activism, including 'naming and shaming', petitions, boycotting, and protest (Selwyn, 2013; Vogel, 2010). Since different actors have different capacities and abilities to influence social upgrading, each type of governance has both its own merits and limitations in regulating labour conditions in GSCs effectively.

Private governance is based on voluntary actions, limiting its effectiveness. Although suppliers may have an incentive for compliance to access the buyers' supply chain, and private governance can be tailored to specific conditions in a given chain, its coverage tends to be limited in that it only applies to workers in complying factories or firms, or only regular workers in many cases with casual and temporary workers as well as a large group of workers outside the chains little affected. In contrast, public governance is generally legally binding with a strong legal basis. It is inclusive as it affects all the workers in a given country regardless of whether they work or not in GSC-linked factories. Yet, the effectiveness of public governance is generally much limited in regulating transnational activities like GSCs. Finally, since social governance is rarely mandatory, other factors such as reputational risk or multi-stakeholder involvement determine its effectiveness (O'Rourke, 2006; Dolan and Opondo, 2005). While the engagement of multiple – public, private and social – stakeholders, and 'multi-stakeholder initiatives' (MSIs), can make social governance more effective (see Table 1), it may be subject to potential tensions and conflicts among the actors (see Section 4.3).

The rise of GSCs has posed a challenge for national governments to enforce labour standards in such cross-national activities. MNEs often take advantage of a regulatory void in developing countries, whether it is due to the developing country government's weak capability or lacking willingness to enforce labour standards. The void was intensified by a series of deregulation in developing countries. This has prompted a discussion of global "governance deficit" (Mayer and Gereffi, 2010), as well as growing calls for ''grounding" globalization (Webster et al., 2008), or "re-embedding" the market (Mayer and Pickles, 2014).[13]

A few alternatives have been proposed as a way to fill the gap in labour regulations in GSCs (Mayer and Pickles, 2014; Locke, 2013). One is to include a 'social clause' in bi- or multi-lateral trade agreements. Trade agreements with labour provisions have increased in the past two decades, and their positive impacts on labour conditions have been reported in the case of the Dominican Republic (ILO, 2013; Schrank, 2013). Yet, their effectiveness can be limited by the opposition of developing countries that may consider such provisions as a trade barrier (Haworth and Hughes, 1997), and the fact that they are essentially an instrument signed between states and do not necessarily reflect the complexity of

[13] A series of more recent research, however, suggests that the regulatory gap should not be overstated. It sheds new light on the persisting and renewed importance of the state and government bureaucracies in improving the effectiveness of labour governance independently and combined with private and social forms of governance (Toffel et al., 2015; Amengual, 2014; Pires, 2013; Schrank, 2013). See Section 4.3 for more discussion.

trade through GSCs. There are also various efforts from inter-governmental organizations like the ILO and other UN agencies, notably the ILO core labour standards, the UN Global Compact, and the OECD Guidelines for Multinational Enterprises, as well as tripartite pacts such as the Bangladesh Accord to establish a fire and building safety program in the country's garment sector. However, some of these 'principle-based' standards lack effective monitoring mechanisms and rely on national governments' actions to be effective in implementation.[14] In this context, despite its constraints noted above, private governance emerged as a more realistic and "second-best" solution (Locke, 2013: p.9) compared to national labour regulations to address labour concerns in a globally fragmented production system (Mayer and Gereffi, 2010; Barrientos and Smith, 2007; O'Rourke, 2006).[15]

4.2 Private labour standards: Compliance-based model and capability-building approach

Table 1 illustrates various forms of private labour standards (Donaghey et al., 2014; Mayer and Pickles, 2014; Fransen, 2012). While corporate codes of conduct are set by lead firms and implemented through internal or external monitoring, other forms of private standards generally require a varying degree of cooperation between MNEs or their collectives (e.g., industry associations) and other public and civil actors, including inter-governmental organizations, labour unions and NGOs. Implementation mechanisms vary by the types of standards, including internal first- or second-party self-monitoring by MNEs or suppliers, third-party certifications by independent auditors, social labelling (e.g., Fair Trade), voluntary self-obligation to ethical principles, and development of joint-training programmes involving employment relations institutions.

The literature points to the conditions under which private compliance model is more likely to be working to improve labour standards in GSCs. These include the presence of lead firms to drive the chain, strong collective actions by consumers or advocacy groups, alignment of social and commercial incentives, and worker representation and participation in decision-making (Mayer and Gereffi, 2010). It is also suggested that a close collaboration between buyers and suppliers, or between auditors and factory managers, guided by mutual trust, respect and reciprocity, plays a role in facilitating supplier compliance as long as it does not hinder the objectivity of monitoring (Locke et al., 2009). In contrast, too rigid enforcement of standards and buyers' exit in response to non-compliance can have a negative impact on workers and working conditions, such as job losses (Pike and Godfrey, 2014). Finally, the compliance model is likely to be more effective in improving some labour standards, such as health and safety, than in others, notably freedom of association and collective bargaining (Locke, 2013; Anner, 2012).

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[14] The level of monitoring and enforcement varies by standards; for example, the ILO has a "supervisory system" to monitor whether its core labour standards are respected (ILO, 2015c).

[15] The prevalence of private standards in GSCs is not limited to labour standards but a broader phenomenon in various areas, from product safety to environmental footprints. It relates to the buyers' efforts to ensure the quality of products in distantly organized production systems (Ponte and Gibbon, 2005). The rise of private standards, or "privatization of labour standards" (Bartley, 2005), which also coincided with a growing attention of global buyers in corporate social responsibility (CSR) for their business activities. As supplier factories confront intense public scrutiny and criticisms of labour wrongdoings, their CSR initiatives have extended beyond the boundary of those firms (van Tulder, 2009).

Table 1: Implementation and examples of private labour standards

Type	Sponsor	Implementation	Examples
Corporate code of conduct	Lead company	First- or second-party self-monitoring of MNCs at the firm and supplier levels	Levi Strauss, Nike, Reebok, Starbucks' C.A.F.E. Practices
Multi-stakeholder standard (industry-led model)	Multi-industry associations, societal groups	Second-party monitoring of MNCs at the firm and supplier levels; focus on verification rather than certification	Ethical Trading Initiative (ETI), GlobalGAP, Utz-Certified, Worldwide Responsible Apparel Production
Multi-stakeholder standard (transnational institution-led model)	Intergovernmental institutions, NGOs, multi-industry associations	Voluntary self-obligation to ethical principles, or nonfinancial reporting practices	UN Global Compact, ILO's Core Labour Standards, OECD Guidelines for Multinational Enterprises, ISO 26000
Multi-stakeholder standard (societal-led model)	Societal groups, NGOs, religious organizations, unions, and multi-industry associations	Mostly third-party certification of specific production facilities; some communicated through a recognizable consumer label	Social Accountability 8000 (SA 8000), Fairtrade Labeling, Forest Stewardship Council (FSC), Fair Labor Association
International framework agreement (IFA)	Global union federations; MNCs	National/local employment relations institutions	Accor Hotels-IUF, Carrefour-UNI, Danone-IUF, H&M-UNI, Telefonica-UNI, Volkswagen-IMF[16]

Source: Donaghey et al. (2014: p.235)

Despite some progress, there is a growing concern in recent years that a voluntary compliance model has reached a limit in improving labour standards in GSCs (Rossi et al., 2014a; Locke, 2013). For example, Locke (2013) points out that the key assumptions underlying the compliance model do not hold in many aspects. First, unlike the assumption that buyers have 'asymmetric' power relations with suppliers allowing them to enforce their own standards, buyer power is not always as strong and absolute in reality as it is assumed (Miller, 2014). Suppliers could find alternative buyers with lower standards, and buyers rarely leave supplier factories to punish non-compliance. The exit is even discouraged by labour groups because of its potentially negative effects on the workers and communities left behind (Pike and Godfrey, 2014). In addition, supplier's actions are generally less influenced by compliance officers, who are mandated to address labour conditions, than sourcing officers, who focus on supply chain efficiency including cutting costs. Second, the auditing process is often flawed in that collected information is not accurate and up-to-date as it is intended. In many cases, a bureaucratic process of 'checking the boxes' fails to unearth the underlying causes of non-compliance. Furthermore, the prevalence of multiple different buyer standards even in the same sector creates "code overload" (Mayer and Pickles, 2014: p.24), leading to "monitoring fatigue" on the supplier side (Locke, 2013: p.27). In response, some suppliers only symbolically and superficially implement buyers' codes without any real commitment (Boiral, 2007).

[16] IUF (International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Association); UNI (UNI Global Union); IMF (International Metalworkers' Federation).

With recognition of these limitations of the traditional compliance-based model, a "capability-building" approach has emerged as an alternative or complementary model (Distelhorst et al., forthcoming; Locke, 2013). It mainly aims to assist suppliers in accumulating various capabilities necessary to improve labour conditions. It focuses on providing workers and managers with the *ability* to comply with labour standards (Milberg and Amengual, 2008). Education and learning is considered as important as inspection and deterrence. Buyers are expected to lend support to suppliers for skill upgrading, technological learning, and managerial enhancement (Ivarsson and Alvstam, 2010). The examples of the private governance programs focusing on capability-building include the Fair Labor Association's (FLA) Sustainable Compliance Initiative, Social Accountability International's certification process (SAI 8000), and the ILO's Better Work program.

Excessive overtime, for example, has been a persistent problem in EPZs and GSC-linked firms in developing countries despite continuing monitoring and the efforts to change the incentives of managers and workers. The capability-building model approaches the problem by focusing on improving production quality and processes in a way that reduces (the demand for) overtime. For instance, production delays due to inefficient supply chains and production processes are among the common causes for overtime. Thus, the incidence of overtime can be reduced by identifying such causes and changing supply chain and production management practices through consultation and training (Milberg and Amengual, 2008). By combining traditional factory monitoring with capability-building and root cause analysis (Locke, 2013), the model aims to a 'race to the top,' instead of a 'race to the bottom'.

A recent quantitative study (Distelhorst et al., forthcoming) across over 300 factories in 11 developing countries in Nike's GSCs provides empirical support for the efficacy of the capability-building model. The study finds that the adoption of lean manufacturing is positively associated with compliance to labour standards, particularly in wages and working hours. However, they also find that the effect of the advanced managerial practice is heterogeneous. The positive relationship is not observed in other social upgrading outcomes such as health and safety. The effect is strong in some countries like India but much less in China, posing further questions on the condition under which improved managerial practices are likely to increase compliance. Also, the capability-building model may be applicable to large and resourceful buyers like Nike and their long-term suppliers, but may not be very effective in supply chains characterized by a fragile and fleeting buyer-supplier relationship (Distelhorst et al., forthcoming; Locke, 2013).

4.3 Emerging issues and implications for labour standards in GSCs

While private standards continue to play an important role in improving working conditions in GSCs, the limitations of private voluntary standards has led to a search for alternative paths for social upgrading (Mayer, 2014; Rossi et al., 2014a; Locke, 2013). Such efforts have become complicated with the recent structural changes in GSCs. For instance, geographical and organizations' concentration in GSCs can increase the effectiveness of private standards in the countries or firms where production is concentrated, whereas their roles may be much limited in those that are not within the supply chains. This sub-section discusses emerging issues and questions, focusing on improving the effectiveness of private governance and building a complementary and synergistic governance for sustainable social upgrading in GSCs (Mayer, 2014; Locke, 2013; Amengual, 2010).

4.3.1 Improving the effectiveness of private governance

Regarding the future of private governance, a first set of questions involves how to make private labour standards more effective. Being aware of the potential conflicts between their sourcing practices and corporate social responsibility (CSR) efforts, buyers can take a more proactive approach to change their sourcing practices so as to minimize labour violations in their supplier factories and reduce potential risk. Buyers can also increase payment to their suppliers so that the latter can use the resources to initiate and sustain social upgrading (Miller, 2014).[17] This would entail buyers to take on the additional costs by sacrificing their profit margins.[18] However, such actions could limit flexibility in their supply chain management and undermine their 'bottom line' in a highly competitive global market. Or, they may pass the costs to the consumers, particularly those in advanced economy markets who are willing to pay premiums to the products produced in a socially responsible manner. The extra costs can also be absorbed by increased efficiency or productivity gains in supplier factories (e.g., through retraining a skilled and motivated workforce) and across the supply chains (e.g., through collaboration in sourcing, testing and warehousing) (Miller, 2014; Williams, 2013).

A more intriguing question is whether social upgrading has any positive impact on economic upgrading. In other words, is there any "business case" for social upgrading? (Rossi et al., 2014b: p.9) The underlying logic is that if social upgrading helps suppliers or buyers to improve their bottom line, they are more likely to be committed to improving labour standards. Sarkar et al. (2013) find, for example, that improved labour conditions in Indian IT services, prompted by competition for skilled workers in short supply, pushed the firms to move up to higher value-added activities to capture more economic gains. Though the study mainly pertains to IT professionals and high-skilled workers, it also relates to broader questions that have yet to be examined more explicitly. For example, to what extent can workers impact the way in which a country or firm is integrated to GSCs and can move up the supply chains? How do GSC dynamics interact with workers' actions and do they lead to social upgrading? (Selwyn, 2013; Coe, 2012) And, more generally, how does labour "co-constitute" GVCs? (Riisgaard and Gibbon, 2014: p.183)

The second set of questions regarding the future of private governance involves how recent GSC changes affect the effectiveness of private standards and the compliance-based model, specifically, and labour governance in GSCs in general. Overall, geographical and organizational concentration in GSCs can affect private governance both positively and negatively. On the one hand, the rising concentration of the key nodes of GSCs to a few emerging economies can make a negative impact on employment and other social upgrading outcomes in different parts of the developing world, where the majority of countries and firms would be left out with fewer linkages to GSCs and a more limited prospect of economic and social upgrading. Similarly, the fact that global lead firms are increasingly working with a smaller set of more capable and large suppliers that are able to comply to private labour standards can

[17] The fact that labour costs for suppliers in many industries account for a relatively small portion of the total value created in the supply chains makes it compelling to look at pricing that would promote higher pay for suppliers, or "sustainable pricing" (Miller, 2014: p.104). For example, in a study of Apple's iPhone and iPad value chain, Kraemer et al. (2011) find that direct labour costs for assembly of these products in China only accounted for less than 2 per cent of their retail prices, while more than a half of the total value captured was attributed to Apple.

[18] In a notable move in 2010, Marks and Spencer, a UK supermarket, announced a plan to ensure that the prices it pays to its suppliers are adequate to pay a fair living wage to workers in the least developed countries, starting with Bangladesh, India and Sri Lanka by 2015 (Marks and Spencer, 2014).

lead to the marginalization of a large number of smaller suppliers that are unable, and it would have a detrimental effect on a large group of workers working for the suppliers. Furthermore, the fact that even large first-tier suppliers have to manage slim margins against their brand buyers, which are very powerful (Lee and Gereffi, 2013) suggests that the former's ability to provide decent working conditions is constrained, as shown in substandard working conditions provided by first-tier suppliers in garment GSCs (Merk, 2014).

On the other hand, the concentration can make the implementation of private governance focus on a relatively small set of countries where production is concentrated, which could help increase the efficiency and effectiveness of monitoring and enforcement. Also, concentrated buyers with stronger power to drive the chains could improve the effectiveness. Through a closer coordination and collaboration, lead firms and their first-tier suppliers can make a concerted effort for social upgrading as long as both actors take it as seriously as their economic bottom line and supply chain efficiency. Also, large transnational first-tier suppliers, as they become more visible to CSOs, could become subject to intense public scrutiny and labour actions on a large scale that could disrupt the entire supply chains (Appelbaum, 2008). This could enhance the overall transparency of GSCs and increase the incentive for large contract manufacturers to act more responsibly and to improve social standards. Therefore, we empirically still need to answer the question of under what conditions rising concentration is likely to bolster or undermine the effectiveness of private standards in GVCs.

Finally, more research is needed on labour standards and standard compliance at the lower tiers of GSCs. The rising concentration in GSCs increases visibility in some parts of the chains, such as first-tier suppliers, while it generates a greater number of smaller suppliers at the lower-tiers of the supply chains that cater to the large transnational suppliers. A recent study on public and private standards in health and safety in lower-tiers of electronics GSCs suggests that the suppliers' compliance is impacted by neither private nor public standards (Nadvi and Raj-Reichert, 2015), particularly in industries like electronics where hundreds of smaller suppliers rely on only a handful of large contract manufacturers. They are also not subject to a similar level of external scrutiny by CSOs as their buyers are. The study highlights that the mechanism to make firms comply with any labour standards may vary across different nodes of GSCs.

4.3.2 Competition, complementarity or synergy: Interactions of governance and social upgrading

The growing awareness that private voluntary standards alone are insufficient to advance labour standards in GSCs has led to a search for alternative governance forms as well as a broader set of actors beyond buyers and suppliers (Gereffi et al., 2014; Rossi et al., 2014b). This more holistic approach pays attention to multiple governance forms and actors that coexist and interact, and provide various social upgrading paths taken by different actors (Locke et al., 2013b; Puppim de Oliveira, 2008). Gereffi and Lee (2016), for instance, specify six distinctive trajectories to social upgrading, depending on the type of actor who play a central role: market, global buyers' CSR programs, multi-stakeholder initiatives, labour, industrial clusters, and governments. Each path is distinctive in terms of key drivers and mechanisms, and relies mainly on one of the governance forms, private, public or social governance, as shown in Table 2.

Table 2: Key Drivers, Mechanisms and Actors of Social Upgrading

Paths	Key drivers	Main mechanisms	Major actors
Market-driven	Market competiveness	Market supply and demand	Buyers; consumers; suppliers
CSR-driven	Global buyer's reputation and purchasing power	Compliance to buyers codes; social audits	Global buyers
Multi-stakeholder-led	A broad-based coalition for standard-setting, monitoring, capability-building and sanctions	Multiple, standardized, social standards; capability-building & cooperation	International NGOs; global buyers; local actors
Labour-centred	Workers' grievance; exercise of bargaining power	Monitoring; collective bargaining; social dialogue; strikes; sabotages	Workers; labour unions
Cluster-centred	External CSR pressure; collective efficiency	Collective standard-setting, implementation, support	Cluster firms; industrial association; cooperatives
Public governance-led	Public pressure; experimentalist approach to improve workers well-being	Strong labour law; law enforcement	National, regional, and local governments

Source: Gereffi and Lee (2016)

Furthermore, different governance forms or upgrading paths may coexist but also interact with each other; they can compete with each other, or may complement one another (Gereffi and Lee, 2016; Locke et al., 2013b).[19] In the scenario of *competition* and *displacement*, multiple forms of governance compete with one another and this could pre-empt, displace or crowd out some competing forms. For example, there has been a persistent concern that private governance like voluntary corporate codes of conduct may weaken or displace public labour governance, such as local regulations or labour unionism (Esbenshade, 2004; O'Rourke, 2003; Justice, 2002). In fact, criticizing fair and ethical trade initiatives for their limited scope, Neilson and Pritchard (2010) argue that such initiatives tend to "supplant traditional regulatory formations anchored in the national state" (p. 1847). Some empirical support for the displacement hypothesis is found in Bartley's (2005) study of the emergence of private governance in the U.S. apparel sector. Private codes of conduct were initiated as a way for manufacturers and retailers to avoid their legal liability for labour abuses by sub-contractors and fend off or pre-empt government intervention against sweatshops. However, the study also emphasizes that the rise of private labour regulations did not simply lead to the displacement of public regulations by private ones. The increased prominence of private codes of conduct made firms more, not less, vulnerable to claims of legal liability as it became more difficult for them to claim a lack of knowledge of or control over their supply chains, and social activists used it as an opportunity to broaden the domains for corporate accountability in GSCs.

Therefore, an alternative possibility is *complementarity* among different forms of governance and related actors, leading to the emergence of a 'hybrid system of regulation' (Oka, forthcoming; Chung,

[19] This part on the interactions of different governance forms is drawn from Gereffi and Lee (2016), but considerably expanded with much recently published or forthcoming articles. The author is grateful to one of the anonymous reviewers for help on expanding it.

2015; Amengual, 2010; Polaski, 2006). As noted above, each governance form has its own strengths and weaknesses, which could make them complementary (Rodríguez-Garavito, 2005). In reality, one form of governance relies on other forms of governance. The effectiveness of one measure often hinges on that of the others, or one form reinforces other forms (Amengual and Chirot, forthcoming; Mayer and Pickles, 2014). For instance, many corporate codes of conduct (private governance) have integrated ILO core labour standards as broader guidelines and require suppliers to abide by national labour laws (Gilbert et al., 2010; Kolk and van Tulder, 2004). Private firms in Cambodia used ILO's compliance evaluation reports in their sourcing decision-making (Polaski, 2006). Moreover, different issues can be addressed more effectively by different governance forms (Locke et al., 2013). Labour unions and increased managerial capabilities, for example, may play a significant role in improving wages and regulating working hours, but not so much in health and safety issues, which may be better addressed by state regulations (Distelhorst et al., forthcoming; Oka, forthcoming).

Complementarity can take place without explicit coordination among actors (Coslovsky and Locke, 2013). In an example of the Dominican Republic, private auditing created the effect of complementing state regulations by freeing up and directing scarce public resources to monitoring 'less visible' firms in the informal sector (Amengual, 2010). It is also possible that different actors can work together with the intention of governing labour standards. For example, in Cambodia, the government and an industry association worked with the ILO and the US government to improve labour conditions in the garment sector, at the same time ensuring the access of the local firms to the US market (Polaski, 2006). In Argentina, labour inspectors utilized their linkages and coalitions with pro-enforcement societal groups to mobilize material, informational and political resources to improve enforcement of labour standards (Amengual, 2014).

Furthermore, some suggest the notion of 'synergistic governance' that different governance forms can create a synergy when deployed together or, in order to make one form of governance more effective, actors leverage other governance forms (Mayer, 2014: p.354). Locke (2013) points out that private voluntary standards appear to be most effective when they are layered on and blended with public mandatory regulations. Private governance may have the greatest chance to succeed if it is combined with the engagement of other governance actors in the forms of multi-stakeholder coalitions, government actions, and sustained pressure from organized workers and other civic activists (Mayer and Gereffi, 2010). In a similar vein, Mayer (2014) argues that the state in some emerging economies like Brazil and China increasingly leverage private and social governance for improving labour conditions. For instance, the move by Apple in 2012 to take more responsibility for labour conditions in Foxconn factories that had allegedly led to a series of worker suicides was facilitated by the Chinese government's involvement through regulatory actions (e.g., mandated minimum wage increases) and more aggressive actions by Chinese workers, as well as the strong pressures from international NGOs (Gereffi et al., 2014).

This interest in complementary and synergistic governance prompts to re-evaluate the role of the state and state institutions in developing countries in regulating labour standards in GSCs (Toffel et al., 2015; Amengual, 2014; Pires, 2013; Schrank, 2013). Against their conventional portrait as ill-equipped with regulating labour practices in MNEs' transnational supply chains, a series of studies highlight the importance of such public institutions in complementing voluntary, transnational private standards and extending enforcement beyond "regulatory enclaves" (Posthuma, 2010: p.2) to those who are missed out by private governance (Distelhorst et al., 2015; Locke et al., 2013b). This was possible because workers' organizations, local and transnational CSOs, and international organizations pushed the state to activate its regulatory institutions, and state institutions became embedded in a wide network of private, social and other public actors at local, regional and global levels (Amengual and Chirot, forthcoming).

One notable implication of the complementarity and synergistic approaches is that interventions for promoting labour standards need to be multi-dimensional and multi-scalar (Coe, 2012). A sole focus on factory sites as a locus of intervention is often not so effective when buyers' practices play a key role (Locke, 2013). It also highlights the importance of the efforts to identify the most effective locations for strategic actions, or "leverage points," along various intersects of public, private and social governance (Riisgaard and Hammer, 2011; Juravich, 2007). For instance, there are differences between banana and cut flower supply chains in terms of buyer-supplier relationship, the relative power of producers, buyers and consumers, and forms of union organizations. These differences made the labour engage in different types of labour governance in the two GSCs, i.e., international framework agreements in banana and private labour standards in cut flower (Riisgaard and Hammer, 2011). However, we still need to have a better understanding about the conditions under which a more collaborative governance is likely to emerge, and which mix of public, private and social governance works well in different settings (Gereffi et al., 2014). More broadly, despite recent scholarly efforts (Gereffi and Lee, 2016; Lakhani et al., 2013), it remains an important challenge to fully theorize the interactions of and fundamental tensions between GSC dynamics that operate across countries and regions, and institutional contexts and dynamics at local and national levels where the supply chains are situated, and draw their implications for policy-making (Neilson and Pritchard, 2009).

5 Conclusion

This paper has examined the ways GSCs impact the opportunities and challenges for social upgrading of workers, focusing on the effect of private governance on labour conditions and rights. Based on an expanding body of the literature on GSCs and labour governance, the paper has discussed emerging issues and their implications for labour standards in GSCs in terms of the future of private standards, the role of the Global South, and the interaction of private, public and social governance in global labour governance.

The paper shows that global buyers' supply chain strategies, especially sourcing and purchasing practices, have drawn a considerable attention to the underlying causes of many labour violations in supplier factories, and the differentiation of labour conditions between regular and temporary workers. Post-crisis GSCs have intensified the possibility of segmented social upgrading and the wider use of informal work in GSCs, but at the same time, the question has emerged whether South-South trade would provide an alternative path for social upgrading. Private voluntary standards have been embraced by global buyers as a solution to fill the governance deficit in regulating labour in the fragmented cross-national production system. Despite the progress made, recent studies highlight the limitations of global buyers' private governance and its inherent tension with their own purchasing practices. To meet the challenges ahead and move beyond private governance, we need to better understand how to make private governance more effective so as to ensure a balance between commercial and social drivers, and how to create a complementary and synergistic relationship between private, public and social governance in GSCs.

References

Amengual, M. 2010. "Complementary labor regulation: The uncoordinated combination of state and private regulators in the Dominican Republic", in *World Development*, Vol. 38, No. 3, pp 405–414.

—. 2014. "Pathways to enforcement: Labor inspectors leveraging linkages with society in Argentina", in *Industrial and Labor Relations Review*, Vol. 67, No. 1, pp. 3–33.

—; Chirot, L. Forthcoming. "Reinforcing the state: Transnational and state labor regulation in Indonesia", in *Industrial and Labor Relations Review*.

Anner, M. 2012. "Corporate social responsibility and freedom of association rights the precarious quest for legitimacy and control in global supply chains", in *Politics and Society*, Vol. 40, No. 4, pp. 609–644.

Appelbaum, R.P. 2008. "Giant transnational contractors in East Asia: Emergent trends in global supply chains", in *Competition and Change*, Vol. 12, No. 1, pp. 69–87.

Arnold, D. 2014. "Workers' agency and power relations in Cambodia's garment industry", in A. Rossi, A. Luinstra, and J. Pickles (eds): *Towards better work: Understanding labour in apparel global value chains* (Basingstoke, Palgrave Macmillan), pp. 212–231.

Bacchetta, M.; Ernst, E.; Bustamante, J.P. 2009. *Globalization and informal jobs in developing countries*, (Geneva, ILO and WTO).

Bailey, D.; De Propris, L. 2014. "Manufacturing reshoring and its limits: The UK automotive case", in *Cambridge Journal of Regions, Economy and Society*, Vol. 7, No. 3, pp. 379–395.

Bair, J.; Dickson, M.A.; Miller, D. 2014. *Workers' rights and labor compliance in global supply chains: Is a social label the answer?* (London, Routledge).

—; Gereffi, G. 2001. "Local clusters in global chains: The causes and consequences of export dynamism in Torreon's blue jeans Industry", in *World Development*, Vol. 29, No. 11, pp. 1885–1903.

Baldwin, R. 2009. *Integration of the North American economy and new-paradigm globalisation*, CEPR Dicussion Paper Series No. 7523 (London, Centre for Economic Policy Research).

Barrientos, S. 2013. "Corporate purchasing practices in global production networks: A socially contested terrain", in *Geoforum*, Vol. 44, pp. 44–51.

—; Gereffi, G.; Rossi, A. 2011. "Economic and social upgrading in global production networks: A new paradigm for a changing world", in *International Labour Review*, Vol. 150(3-4, pp. 319–340.

—; Knorringa, P.; Evers, B.; Visser, M.; Opondo, M. Forthcoming. "Shifting regional dynamics of global value chains: Implications for economic and social upgrading in African horticulture", in *Environment and Planning A*.

—; Smith, S. 2007. "Do workers benefit from ethical trade? Assessing codes of labour practice in global production systems", in *Third World Quarterly*, Vol. 28, No. 4, pp. 713–729.

Bartley, T. 2005. "Corporate accountability and the privatization of labor standards: Struggles over codes of conduct in the apparel industry", in *Research in Political Sociology,* Vol. 14, pp. 211–244.

Berliner, D.; Greenleaf, A.R.; Lake, M.; Levi, M.; Noveck, J. 2015. "Governing global supply chains: What we know (and don't) about improving labor rights and eording conditions", in *Annual Review of Law and Social Science,* Vol. 11, pp. 193–209.

Bernhardt, T. 2013. *Developing countries in the global apparel value chain: A tale of upgrading and downgrading experiences*, Capturing the Gains Working Paper 2013/22, available at: http://www.capturingthegains.org/publications/workingpapers/wp_201322.htm [2 May 2016].

Boiral, O. 2007. "Corporate greening through ISO 14001: A rational myth?", in *Organization Science,* Vol. 18, No. 1, pp. 127–146.

Brown, E. V.; DeCant, K. A. 2014. "Exploiting Chinese interns as unprotected industrial labor", in *Asian-Pacific Law and Policy Journal,* Vol. 15, No. 2, pp. 149–195.

Buckley, C. 2014. "China moves to ease home-registration rules in urbanization push", in The *New York Times*, 31 July 2014. Available at: http://www.nytimes.com/2014/07/31/world/asia/with-urbanization-as-goal-china-moves-to-change-registration-rules.html?_r=0 [2 May 2016].

Cattaneo, O.; Gereffi, G.; Staritz, C. 2010a. *Global value chains in a postcrisis world: A development perspective* (Washington, DC, World Bank).

—. 2010b. "Global value chains in a postcrisis world: Resilience, consolidation, and shifting end markets", in O. Cattaneo, G. Gereffi, and C. Staritz (eds): *Global Value Chains in a Postcrisis World: A Development Perspective* (Washington, DC, World Bank), pp. 3–20.

Chan, A. 2003. "Racing to the bottom: International trade without a social clause", in *Third World Quarterly,* Vol. 24, No. 6, pp. 1011–1028.

Chan, C.K.C.; Pun, N.; Chan, J. 2010. "The role of the state, labour policy and migrant workers' struggles in globalized China", in *Global Labour Journal,* Vol. 1, No. 1, pp. 132–151.

Chan, J.; Pun, N.; Selden, M. 2013. "The politics of global production: Apple, Foxconn and China's new working class", in *New Technology, Work and Employment,* Vol. 28, No. 2, pp. 100–115.

Chung, S. 2015. "Explaining compliance: A multi-actor framework for understanding labour law compliance in China", in *Human Relations,* Vol. 68, No. 2, pp. 237–260.

Coe, N.M. 2012. "Geographies of production III: Making space for labour", in *Progress in Human Geography,* Vol. 37, No. 2, pp. 271–284.

Constantinescu, C.; Mattoo, A.; Ruta, M. 2015. "The global trade slowdown: Cyclical or structural?," IMF Working Paper WP/15/6 (Washington, DC, International Monetary Fund), available at: http://www.imf.org/external/pubs/ft/wp/2015/wp1506.pdf [2 May 2016].

Coslovsky, S.V.; Locke, R. 2013. "Parallel paths to enforcement: Private compliance, public regulation, and labor standards in the Brazilian sugar sector", in *Politics and Society,* Vol. 41, No. 4, pp. 497–526.

Davies, R.B.; Vadlamannati, K.C. 2013. "A race to the bottom in labor standards? An empirical investigation", in *Journal of Development Economics,* Vol. 103, pp. 1–14.

De Backer, K.; Miroudot, S. 2013. *Mapping global value chains,* OECD Trade Policy Papers No. 159 (Paris, OECD).

De Marchi, V.; Di Maria, E.; Ponte, S. 2014. "Multinational firms and the management of global networks: Insights from global value chain studies", in *Advances in International Management,* Vol. 27, pp. 463–486.

Dedrick, J.; Kraemer, K.L.; Linden, G. 2011. "The distribution of value in the mobile phone supply chain", in *Telecommunications Policy,* Vol. 35, No. 6, pp. 505–521.

Distelhorst, G.; Hainmueller, J.; Locke, R. M. Forthcoming. "Does lean improve labor standards? Management and social performance in the Nike supply chain", in *Management Science*.

—; Locke, R.M.; Pal, T.; Samel, H. 2015. "Production goes global, compliance stays local: Private regulation in the global electronics industry", in *Regulation and Governance,* Vol. 9, No. 3, pp. 224–242.

Dolan, C.S.; Opondo, M. 2005. "Seeking common ground – Multi-stakeholder processes in Kenya's cut flower industry", in *Journal of Corporate Citizenship,* Vol. 18, pp. 87–98.

Donaghey, J.; Reinecke, J.; Niforou, C.; Lawson, B. 2014. "From employment relations to consumption relations: balancing labor governance in global supply chains", in *Human Resource Management,* Vol. 53, No. 2, pp. 229–252.

Esbenshade, J.L. 2004. *Monitoring sweatshops: Workers, consumers, and the global apparel industry* (Philadelphia, Temple University Press).

Fransen, L. 2012. *Corporate social responsibility and global labor standards: Firms and activists in the making of private regulation* (New York, NY, Routledge).

Fratocchi, L.; Di Mauro, C.; Barbieri, P.; Nassimbeni, G.; Zanoni, A. 2014. "When manufacturing moves back: Concepts and questions", in *Journal of Purchasing and Supply Management*, Vol. 20, No. 1, pp. 54–59.

Gereffi, G. 2014. "Global value chains in a post-Washington consensus world", in *Review of International Political Economy,* Vol. 21, No. 1, pp. 9–37.

—; Frederick, S. 2010. "The global apparel value chain, trade, and the crisis: Challenges and opportunities for developing countries", in O. Cattaneo, G. Gereffi, and C. Staritz. (eds): *Global value chains in a postcrisis world: A development perspective* (Washington, DC, World Bank), pp. 157–208.

—; Humphrey, J.; Sturgeon, T. 2005. "The governance of global value chains", in *Review of International Political Economy,* Vol. 12, No. 1, pp. 78–104.

—; Lee, J. 2016. "Economic and social upgrading in global value chains and industrial clusters: Why governance matters", in *Journal of Business Ethics,* Vol. 133, No. 1, pp. 25–38.

—; Regini, M.; Sabel, C.F. 2014. "On Richard M. Locke, the promise and limits of private power: Promoting labor standards in a global economy, New York, Cambridge University Press, 2013", in *Socio-Economic Review,* Vol. 12, No. 1, pp. 219–235.

Gilbert, D.U.; Rasche, A.; Waddock, S. 2010. "Accountability in a global economy: The emergence of international accountability standards", in *Business Ethics Quarterly,* Vol. 21, No. 1, pp. 23–44.

Giuliani, E.; Gorgoni, S.; Günther, C.; Rabellotti, R. 2014. "Emerging versus advanced country MNEs investing in Europe: A typology of subsidiary global–local connections", in *International Business Review,* Vol. 23, No. 4, pp. 680–691.

Greenhill, B.; Mosley, L.; Prakash, A. 2009. "Trade-based diffusion of labor rights: A panel study, 1986-2002", in *American Political Science Review,* Vol. 103, No. 4, pp. 669–690.

Hale, A. 2000. "What hope for 'ethical' trade in the globalised garment industry?", in *Antipode,* Vol. 32 , No. 4, pp. 349–356.

Hamilton, G.G.; Senauer, B.; Petrovic, M. 2011. *The market makers: How retailers are reshaping the global economy* (Oxford, Oxford University Press).

—; Gereffi, G. 2009. "Global commodity chains, market makers, and the rise of demand-responsive economies", in J. Bair (ed.): *Frontiers of Commodity Chain Research* (Stanford, CA, Stanford University Press), pp. 136–161.

Haworth, N.; Hughes, S. 1997. "Trade and international labour standards: Issues and debates over a social clause", in *Journal of Industrial Relations,* Vol. 39, No. 2, pp. 179–195.

Henderson, J.; Dicken, P.; Hess, M.; Coe, N.; Yeung, H.W.C. 2002. "Global production networks and the analysis of economic development", in *Review of International Political Economy,* Vol. 9, No. 3, pp. 436–464.

Holdcroft, J. 2012. *The triangular trap: Unions take action against agency labour.* Available at: http://www.industriall-union.org/sites/default/files/uploads/documents/Triangular_Trap/agency_work_final.pdf [2 May 2016].

Horner, R. Forthcoming. "A new economic geography of trade and development? Governing South–South trade, value chains and production networks", in *Territory, Politics, Governance*.

Humphrey, J. 2007. "The supermarket revolution in developing countries: Tidal wave or tough competitive struggle?", in *Journal of Economic Geography,* Vol. 7, No. 4, pp. 433–450.

Hurley, J. 2005. "Unravelling the web: Supply chains and workers' lives in the garment industry", in A. Hale and J. Wills (eds): *Threads of Labour: Garment Industry Supply Chains from the Workers' Perspective* (Malden, MA, Blackwell Publisher), pp. 95–132.

International Labour Office (ILO). 1993. *Resolution concerning the International Classification of Status in Employment (ICSE), adopted by the fifteenth International Conference of Labour Statisticians* (Geneva). Available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_087562.pdf [2 May 2016].

—. 2013. *Social dimensions of free trade agreements* (Geneva).

—. 2014. *Ups and downs in the electronics industry: Fluctuating production and the use of temporary and other forms of employment* (Geneva).

—. 2015a. *World Employment and Social Outlook: The changing nature of Jobs* (Geneva).

—. 2015b. *Non-standard forms of employment*, report for discussion at the meeting of experts on non-standard forms of employment, Geneva, 16 – 19 Feb. 2015, available at: http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/meeting document/wcms_336934.pdf [2 May 2016].

—. 2015c. *Applying and promoting international labour standards*, available at: http://www.ilo.org/global/standards/applying-and-promoting-international-labour-standards/lang--en/index.htm [10 Aug. 2015].

Insight Investment. 2004. *Buying your way into trouble? The challenge of responsible supply chain management* (London, Insight Investment Management and Acona).

Ivarsson, I.; Alvstam, C.G. 2010. "Supplier upgrading in the home-furnishing value chain: An empirical study of Ikea's sourcing in China and South East Asia", in *World Development,* Vol. 38, No. 11, pp. 1575–1587.

Jun, W. 2014. "Technology spillovers in the multinational outsourcing system and technological innovation in recipient countries", in *Social Sciences in China,* Vol. 35, No. 2, pp. 44–63.

Juravich, T. 2007. "Beating global capital: A framework and method for union strategic corporate research and campaigns", in K. Bronfenbrenner (ed): *Global unions: Challenging transnational capital through cross-border campaigns* (Ithaca, NY, Cornell University Press), pp. 16–40.

Justice, D.W. 2002. *Corporate social responsibility. Challenges and opportunities for trade unionists*. Available at: http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1009&context=codes [2 May 2016].

Kalleberg, A.L. 2009. "Precarious work, insecure workers: Employment relations in transition", in *American Sociological Review,* Vol. 74, No. 1, pp. 1–22.

Kaplinsky, R. 2000. "Globalisation and unequalisation: What can be learned from value chain analysis?", in *Journal of Development Studies,* Vol. 37, No. 2, pp. 117–146.

—; Farooki, M. 2010. "Global value chains, the crisis, and the shift of markets from North to South", in O. Cattaneo, G. Gereffi and C. Staritz (eds): *Global value chains in a postcrisis world: A development perspective* (Washington, DC, World Bank), pp. 125–153.

—; Terheggen, A.; Tijaja, J. 2011. "China as a final market: The Gabon timber and Thai cassava value chains", in *World Development,* Vol. 39, No. 7, pp. 1177–1190.

Kinkel, S. 2012. "Trends in production relocation and backshoring activities: Changing patterns in the course of the global economic crisis", in *International Journal of Operations and Production Management,* Vol. 32, No. 6, pp. 696–720.

Knorringa, P.; Pesa, I.; Leliveld, A.; Van Beers, C. 2016. "Frugal innovation and development: aides or adversaries?", in *The European Journal of Development Research,* Vol. 28, No. 2, pp. 143–153.

Kolk, A.; van Tulder, R. 2004. "Ethics in international business: Multinational approaches to child labor", in *Journal of World Business*, Vol. 39, No. 1, pp. 49–60.

Kraemer, K.L.; Linden, G.; Dedrick, J. 2011. *Capturing value in global networks: Apple's iPad and iPhone*. Available at: http://pcic.merage.uci.edu/papers/2011/Value_iPad_iPhone.pdf [2 May 2016].

Lakhani, T.; Kuruvilla, S. Avgar, A. 2013. "From the firm to the network: Global value chains and employment relations theory", in *British Journal of Industrial Relations*, Vol. 51, No. 3, pp. 440–472.

Landler, M. 2012. "Obama calls for tax breaks to return jobs from abroad". In *The New York Times*, 12 Jan. 2012. Available at: http://www.nytimes.com/2012/01/12/business/obama-seeks-tax-breaks-to-return-jobs-from-abroad.html [2 May 2016].

Lee, J. 2010. "Global commodity chains and global value chains", in R. A. Denemark (ed.): *The International Studies Encyclopedia* (Oxford, Wiley-Blackwell), pp. 2987–3006.

—; Gereffi, G. 2013. *The co-evolution of concentration in mobile phone global value chains and its impact on social upgrading in developing countries*, Capturing the Gains Working Paper 2013/25. Available at: http://www.capturingthegains.org/publications/workingpapers/wp_201325.htm [2 May 2016].

—; —. 2015. "Global value chains, rising power firms and economic and social upgrading", in c*ritical perspectives on international business*, Vol. 11, No. 3/4, pp. 319–339.

—; —; Lee, S. Forthcoming. "Social upgrading in mobile phone GVCs: Firm-level comparisons of working conditions and labour rights", in D. Nathan, S. Sarkar, and M. Tewari (eds): *Labour in global value chains in Asia* (New Delhi, Cambridge University Press), pp. 315–352.

Locke, R.M. 2013. *The promise and limits of private power: Promoting labor standards in a global economy* (New York, NY, Cambridge University Press).

—; Amengual, M.; Mangla, A. 2009. "Virtue out of necessity? Compliance, commitment, and the improvement of labor conditions in global supply chains", in *Politics and Society*, Vol. 37, No. 3, pp. 319–351.

—; Bartley, T.; Gereffi, G.; Passman, P.; Prakash, A.; Shapiro, I.; Short, J.L.; Toffel, M.W.; Jones, H.; Brown, D.; Mosley, L. 2013a. "Can global brands create just supply chains?", in *Boston Review*, May/June. Available at: http://www.bostonreview.net/forum/can-global-brands-create-just-supply-chains-richard-locke [2 May 2016].

—; Rissing, B: A.; Pal, T. 2013b. "Complements or substitutes? Private codes, state regulation and the enforcement of labour standards in global supply chains", in *British Journal of Industrial Relations*, Vol. 51, No. 3, pp. 519–552.

Lund-Thomsen, P.; Nadvi, K. 2010. "Global value chains, local collective action and corporate social responsibility: A review of empirical evidence", in *Business Strategy and the Environment*, Vol. 19, No. 1, pp. 1–13.

Maertens, M.; Swinnen, J.F.M. 2009. "Trade, standards, and poverty: Evidence from Senegal", in *World Development*, Vol. 37, No. 1, pp. 161–178.

Marks and Spencer. 2014. *Your M&S: Plan A report 2014*. Available at: http://corporate.marksandspencer.com/plan-a/b6867fa1340d482da1ebde62c099dd69 [2 May 2016].

Mayer, F. 2014. "Leveraging private governance for public purpose: Business, civil society and the state in labour regulation", in A. Payne and N. Philips (eds): *Handbook on the International Political Economy of Governance* (Cheltenham, Edward Elgar), pp. 344–360.

—; Gereffi, G. 2010. "Regulation and economic globalization: Prospects and limits of private governance", in *Business and Politics*, Vol. 12, No. 3, pp. 1–25.

—; Pickles, J. 2014. "Re-embedding the market: Global apparel value chains, governance and decent work", in A. Rossi, A. Luinstra and J. Pickles (eds): *Towards better work: Understanding labour in apparel global value chains* (Basingstoke, Palgrave Macmillan), pp. 17–39.

McCallum, J.K. 2011. *Export processing zones: Comparative data from China, Honduras, Nicaragua, and South Africa* (Geneva, ILO).

Merk, J. 2014. "The rise of tier 1 firms in the global garment industry: Challenges for labour rights advocates", in *Oxford Development Studies*, Vol. 42, No. 2, pp. 259–277.

Milberg, W.; Amengual, M. 2008. *Economic development and working conditions in export processing zones: A survey of trends* (Geneva, ILO).

Miller, D. 2014. "Regulating the 'wage effort bargain' in outsourced apparel production", in A. Rossi, A. Luinstra and J. Pickles (eds): *Towards Better Work Understanding Labour in Apparel Global Value Chains* (Basingstoke, Palgrave Macmillan), pp. 103–124.

Morris, M.; Staritz, C.; Barnes, J. 2011. "Value chain dynamics, local embeddedness, and upgrading in the clothing sectors of Lesotho and Swaziland", in *International Journal of Technological Learning, Innovation and Development*, Vol. 4, No. 1–3, pp. 96–119.

Mosley, L. 2010. *Labor rights and multinational production* (Cambridge, MA, Cambridge University Press).

—; Uno, S. 2007. "Racing to the bottom or climbing to the top? Economic globalization and collective labor rights", in *Comparative Political Studies*, Vol. 40, No. 8, pp. 923–948.

Nadvi, K. 2014. "Rising powers' and labour and environmental standards", in *Oxford Development Studies*, Vol. 42, No. 2, pp. 137–150.

—; Raj-Reichert, G. 2015. "Governing health and safety at lower tiers of the computer industry global value chain", in *Regulation and Governance*, Vol. 9, No. 3, pp. 243–258.

Navas-Alemán, L. 2011. "The impact of operating in multiple value chains for upgrading: The case of the Brazilian furniture and footwear industries", in *World Development*, Vol. 39, No. 8, pp. 1386–1397.

Neilson, J.; Pritchard, B. 2009. *Value chain struggles: Institutions and governance in the plantation districts of South India* (Chichester, Wiley-Blackwell).

—; —. 2010. "Fairness and ethicality in their place: The regional dynamics of fair trade and ethical sourcing agendas in the plantation districts of South India", in *Environment and Planning A,* Vol. 42, No. 8, pp. 1833–1851.

Nolan, P. 2012. *Is China buying the world?* (Cambridge, Polity Press).

O'Rourke, D. 2003. "Outsourcing regulation: Analyzing nongovernmental systems of labor standards and monitoring", in *Policy Studies Journal,* Vol. 31, No. 1, pp. 1–29.

—. 2006. "Multi-stakeholder regulation: Privatizing or socializing global labor standards?", in *World Development,* Vol. 34, No. 5, pp. 899–918.

Organization for Economic Co-operation and Development (OECD). 2013. *Interconnected economies: Benefiting from global value chains* (Paris). Available at: http://dx.doi.org/10.1787/9789264189560-en [2 May 2016].

—; WTO; World Bank. 2014. *Global value chains: Challenges, opportunities, and implications for policy*, report prepared for submission to the G20 Trade Ministers Meeting, Sydney, Australia, 19 July.

Oka, C. Forthcoming. "Improving working conditions in garment supply chains: The role of unions in Cambodia", in *British Journal of Industrial Relations*.

Olney, W.W. 2013. "A Race to the bottom? Employment protection and foreign direct investment", in *Journal of International Economics,* 91, No. 2, pp. 191–203.

Oxfam. 2004. *Trading away our rights: Women working in global supply chains* (London).

Payton, A. L.; Woo, B. 2014. "Attracting investment: Governments' strategic role in labor rights protection", in *International Studies Quarterly*, Vol. 58, No. 3, pp. 462–474.

Pietrobelli, C.; Saliola, F. 2008. "Power relationships along the value chain: Multinational firms, global buyers and performance of local suppliers", in *Cambridge Journal of Economics,* Vol. 32, No. 6, pp. 947–962.

Pike, K.; Godfrey, S. 2014. "Workers' perceptions of compliance with labour standards: Assessing opportunities and challenges for better work in Lesotho's apparel sector", in A. Rossi, A. Luinstra and J. Pickles (eds): *Towards better work: Understanding labour in apparel global value chains* (Basingstoke, Palgrave Macmillan), pp. 191–211.

Pires, R.R.C. 2013. "The organizational basis of rewarding regulation: Contingency, flexibility, and accountability in the Brazilian labor inspectorate", in *Politics and Society,* Vol. 41, No. 4, pp. 621–646.

Plank, L.; Rossi, A.; Staritz, C. 2014. "What does 'fast fashion' mean for workers? Apparel Production in Morocco and Romania", in A. Rossi, A. Luinstra and J. Pickles (eds): *Towards better work: Understanding labour in apparel global value chains* (Basingstoke, Palgrave Macmillan), pp. 127–147.

Polaski, S. 2003. "Protecting labor rights through trade agreements: An analytical guide", in *UC Davis Journal of International Law and Policy,* Vol. 10, No. 1, pp. 13–25.

—. 2006. "Combining global and local forces: The case of labor rights in Cambodia", in *World Development,* Vol. 34, No. 5, pp. 919–932.

Ponte, S.; Gibbon, P. 2005. "Quality standards, conventions and the governance of global value chains", in E*conomy and Society,* Vol. 34, No. 1, pp. 1–31.

—; Sturgeon, T. 2014. "Explaining governance in global value chains: A modular theory-building effort", in *Review of International Political Economy,* Vol. 21, No. 1, pp. 195–223.

Posthuma, A. 2010. "Beyond 'regulatory enclaves': Challenges and opportunities to promote decent work in global production networks", in A. Posthuma and D. Nathan (eds): *Labour in global production networks in India* (New Delhi, Oxford University Press), pp. 57–80.

Potrafke, N. 2013. "Globalization and labor market institutions: International empirical evidence", in *Journal of Comparative Economics,* Vol. 41, No. 3, pp. 829–842.

Puppim de Oliveira, J.A. 2008. "Introduction: social upgrading among small firms and clusters", in J. A. Puppim De Oliveira (ed): *Upgrading clusters and small enterprises in developing countries: Environmental, labor, innovation and social Issues* (New York, NY, Routledge), pp. 1–21.

Ramamurti, R.; Singh, J.V. 2009. *Emerging multinationals in emerging markets* (Cambridge, MA, Cambridge University Press).

Riisgaard, L.; Gibbon, P. 2014. "Labour management on contemporary Kenyan cut flower farms: Foundations of an industrial–civic compromise", in *Journal of Agrarian Change,* Vol. 14, No. 2, pp. 260–285.

—; Hammer, N. 2011. "Prospects for labour in global value chains: Labour standards in the cut flower and banana industries", in *British Journal of Industrial Relations,* Vol. 49, No. 1, pp. 168–190.

Rodríguez-Garavito, C. A. 2005. "Global governance and labor rights: Codes of conduct and anti-sweatshop struggles in global apparel factories in Mexico and Guatemala", in *Politics and Society,* Vol. 33, No. 2, pp. 203–333.

Ronconi, L. 2012. "Globalization, domestic institutions, and enforcement of labor law: Evidence from Latin America", in *Industrial Relations: A Journal of Economy and Society,* Vol. 51, No. 1, pp. 89–105.

Rossi, A. 2013. "Does economic upgrading lead to social upgrading in global production networks? Evidence from Morocco", in *World Development,* Vol. 46, pp. 223–233.

—; Luinstra, A.; Pickles, J. 2014a. *Towards better work: Understanding labour in apparel global value chains* (Basingstoke, Palgrave Macmillan).

—; —; —. 2014b. "Introduction", in A. Rossi, A. Luinstra and J. Pickles (eds): *Towards better work: Understanding labour in apparel global value chains* (Basingstoke, Palgrave Macmillan), pp. 1–14.

Rossman, P. 2013. "Establishing rights in the disposable jobs regime", in *International Journal of Labour Research,* Vol. 5, No. 1, pp. 23–40.

Sacchetto, D.; Andrijasevic, R. 2015. "Beyond China: Foxconn’s assembly plants in Europe", in *South Atlantic Quarterly,* Vol. 114, No. 1, pp. 215–224.

Sarkar, S.; Mehta, B.S.; Nathan, D. 2013. *How social upgrading drives economic upgrading by Indian IT majors: The case of telecom IT services*, Capturing the Gains Working Paper 2013/27, available at: http://www.capturingthegains.org/publications/workingpapers/wp_201327.htm [2 May 2016].

Schmitz, H.; Nadvi, K. 1999. "Clustering and industrialization: Introduction", in *World Development,* Vol. 27, No. 9, pp. 1503–1514.

Schrank, A. 2013. "From disguised protectionism to rewarding regulation: The impact of trade-related labor standards in the Dominican Republic", in *Regulation and Governance,* Vol. 7, No. 3, pp. 299–320.

Selwyn, B. 2013. "Social upgrading and labour in global production networks: A critique and an alternative conception", in *Competition and Change,* Vol. 17, No. 1, pp. 75–90.

Shepherd, B. 2013. *Global value chains and developing country employment: A literature review* OECD Trade Policy Papers No. 156 (Paris, OECD).

Smith, C.; Chan, J. 2015. "Working for two bosses: Student interns as constrained labour in China", in *Human Relations,* Vol. 68, No. 2, pp. 305–326.

Staritz, C.; Gereffi, G.; Cattaneo, O. 2011. "Editorial", in *International Journal of Technological Learning, Innovation and Development*, Vol. 4, No. 1–3, pp. 1–12.

Sturgeon, T. J. 2001. "How do we define value chains and production networks?", in *IDS Bulletin,* Vol. 32, No. 3, pp. 9–18.

—; Gereffi, G. 2009. "Measuring success in the global economy: International trade, industrial upgrading, and business function outsourcing in global value chains", in *Transnational Corporations*, Vol. 18, No. 2, pp. 1–36.

—; Lee, J.R. 2005. "Industry co-evolution: A comparison of Taiwan and North American electronics contract manufacturers", in S. Berger and R. K. Lester (eds): *Global Taiwan: Building Competitive Strengths in a New International Economy* (Armonk, NY, M.E. Sharpe), pp. 33–75.

Taplin, I.M. 2014. "Who is to blame? A re-examination of fast fashion after the 2013 factory disaster in Bangladesh", in *Critical perspectives on international business,* Vol. 10, No. 1/2, pp. 72–83.

Toffel, M.W.; Short, J.L.; Ouellet, M. 2015. "Codes in context: How states, markets, and civil society shape adherence to global labor standards", in *Regulation and Governance,* Vol. 9, No. 3, pp. 205–223.

United Nations Conference on Trade and Development (UNCTAD). 2013. *Global value chains and development: investment and value added trade in the global economy* (Geneva), available at: http://unctad.org/en/publicationslibrary/diae2013d1_en.pdf [2 May 2016].

Vadlamannati, K.C. 2015. "Rewards of (dis)integration: Economic, social, and political globalization and freedom of association and collective bargaining rights of workers in developing countries", in *Industrial and Labor Relations Review,* Vol. 68, No. 1, pp. 3–27.

van Tulder, R. 2009. *Chains for change*, position paper for the Third Max Havelaar lecture, available at: http://www.maxhavelaarlecture.org/downloads/max_havelaar_lectures_2009_booklet.pdf [2 May 2016].

Vogel, D. 2010. "The private regulation of global corporate conduct achievements and limitations", in *Business and Society*, Vol. 49, No. 1, pp. 68–87.

Webster, E.; Lambert, R.; Bezuidenhout, A. 2008. *Grounding globalization labour in the age of insecurity* (Malden, MA, Blackwell Publishing).

Williams, P. 2013. *Fair wages and fair prices*, A report for the European Fair Trade Association. Available at: http://www.european-fair-trade-association.org/efta/Doc/fwfp-er.pdf [2 May 2016].

Williamson, O. 1985. *The economic institutions of capitalism: Firms, markets, relational contracting* (New York, NY, The Free Press).

World Trade Organization (WTO). 2011. *International Trade Statistics 2011* (Geneva).

—; Institute of Developing Economies-Japan External Trade Organization (IDE-JETRO). 2011. *Trade patterns and global value chains in East Asia: From trade in goods to trade in tasks* (Geneva and Tokyo), available at: http://www.wto.org/english/res_e/publications_e/stat_tradepat_globvalchains_e.htm [2 May 2016].

Zeschky, M.; Widenmayer, B.; Gassmann, O. 2011. "Frugal innovation in emerging markets", in *Research-Technology Management*, Vol. 54, No. 4, pp. 38–45.