Poverty Chains and Global Capitalism

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Abstract

The proliferation of global value chains (GVCs) is portrayed in academic and policy circles as representing new development opportunities for firms and regions in the global south. This article tests these claims by examining original material from non-governmental organizations’ reports and secondary sources on the garment and electronics chains in Cambodia and China respectively. This empirical evidence suggests that these GVCs generate new forms of worker poverty. Based on these findings the article proposes the new Global Poverty Chain (GP) approach. The study critiques and reformulates principal concepts associated with the GVC approach – of value-added, rent and chain governance - and challenges a core assumption prevalent within GVC analysis: that workers’ low wages are a function of their employment in low productivity sectors. Instead it shows that 1) many supplier firms in the global south are as, or more, productive than their equivalent’s in the global north; 2) that (often predominantly female) workers in these industries are super exploited (paid wages below their subsistence requirements); and that 3) chain governance represents a lead firm value-capturing strategy, which intensifies worker exploitation.

Key Words: Global Value Chains, Global Poverty Chains, Exploitation, Labour, Development

“Theory is always for someone and for some purpose” (Robert Cox, 1981).

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1 INTRODUCTION

The world’s total labour force has grown from approximately 2.3 billion in 1990 to 3.4 billion in 2017 (World Bank: 2017). More dramatically, the number of workers in exporting industries across the globe quadrupled between 1980 and 2003, and continues to expand (IMF 2007: 162). Recent years have seen increased interest about whether workers benefit from employment in exporting industries. Much of this research has been carried out within the Global Value Chain (GVC) academic and policy communities (Barrientos, Gereffi and Rossi: 2011, Brewer: 2011, Coe and Hess: 2013, Lund-Thomsen and Lindgreen: 2014, Smith et al.: 2014, Egels-Zandén and Lindholm: 2015, Bair and Palpacuer: 2015, Ruwanpura: 2016, Mosley: 2017). In general, within the GVC policy community, the above question has been answered in the affirmative, and has often been framed in win-win terms. For example, OECD Secretary General Angel Gurr’ia argues that ‘[e]veryone can benefit from global value chains . . . [and that] ‘encouraging the development of and participation in global value chains is the road to more jobs and sustainable growth for our economies’ (2013) (see also ILO: 2013, OECD\WTO\World Bank: 2014, World Bank: 2017). Similarly, the primary position within academic GVC analysis is that ‘development requires linking up with the most significant lead firm in the industry’ (Gereffi: 2001, 1622). While prevalent, these views are not absolute. UNCTAD’s 2017 Trade and

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2 https://data.worldbank.org/indicator/SL.TLF.TOTL.IN
3 The GVC concept denotes ‘the full range of activities that are required to bring a product from its conception, through its design, its sourced raw materials and intermediate inputs, its marketing, its distribution and its support to the final consumer’ (See https://globalvaluechains.org/concept-tools). In this article, and for the sake of simplicity I use the term GVC as an umbrella term referring also to the Global Commodity Chain (GCC) and Global Production Network (GPN) approaches (but see Campling and Selwyn: 2018, for a nuanced discussion of, and distinction between, these frameworks).
Development Report characterises increasing concentration of power within GVCs as representing the creation of ‘a new form of global rentier capitalism to the detriment of balanced and inclusive growth for the many’, where ‘the winner take most’ (UNCTAD: 2017, 119, 125).

This article tests the claims that workers benefit from employment in GVCs by examining original material from non-governmental organizations’ reports and secondary sources on the garment and electronics chains in Cambodia and China respectively. This empirical evidence suggests that, contrary to optimistic claims, these GVCs generate new forms of worker poverty. Based on these findings the article suggests that such chains should be renamed and re-theorised as Global Poverty Chains (GPCs).

The empirical findings and theoretical reformulations are significant for development theory and policy in two ways. They suggest the need to re-think the purported benefits of global integration, and to place greater emphasis on collective actions by labouring classes and pro-labour policies by states to better workers’ conditions in such industries.

Following this introduction the remainder of this article is organised into the following sections. Section 2 discusses recent GVC literature addressing the labour question and argues that poverty analysis rooted in a concept of dignified work and a living wage facilitates investigation into costs and benefits to workers of employment in export industries. Section 3, drawing upon Robert Cox (1981), distinguishes between problem-solving and critical GVC analysis in order to highlight how keys concepts in the problem-solving GVC framework – of value-added, rent, and governance – lend themselves to positive interpretations of the impacts of global integration upon labour. This critique provides the basis for the article’s alternative theorisation of GVCs as GPCs. Section 4 provides an account of the capital-labour dialectics of the global business revolution, and challenges
dominant assumptions about the direct relationship between productivity and wages. Section 5 draws extensively upon Non-Governmental Organisations’ and secondary literature sources to highlight workers’ poverty pay and conditions in Cambodian garment and Chinese electronics chains respectively. Section 6 summarises the article’s findings and concludes with suggestions for further research.

2 GVC Analysis, Poverty Analysis and Labour
The question of whether workers benefit from employment in globalised industries is an open one. In part the answer depends on the metric employed and methodology of such analysis (see below). Relatively early GVC-based studies found that workers in supplier firms earned higher wages than those for workers in non-traded sectors (for an overview see Nadvi: 2004). A recent cross-sectoral study of apparel, wood furniture, automotive, and mobile phone GVCs found, however, that economic and social upgrading [improved firm level competitiveness and better working conditions, respectively] has occurred in just over a quarter of cases analysed (Bernhardt and Pollack: 2016).

As will be argued below, much GVC analysis has a limited conception of the constitutive role of labour, changing class relations in the formation and functioning of GVCs, and ways in which employment in GVCs can generate new forms of worker poverty. This article argues that the proliferation of GVCs has been based upon a) the prior establishment of large, poor (and thus cheap) labour forces (through processes such as rural displacement and industrial restructuring) and that b) their subsequent incorporation into GVCs generates new forms of labouring class poverty.

While much GVC analysis explains workers’ poverty wages as a consequence of their employment in low productivity industries this article
shows the contrary to be the case. Workers’ poverty is a consequence of employers’ ability to pay them very low wages and to subject them to harsh working and living conditions as part of their capital accumulation strategies.

This article begins from the Marxian precept that labour exploitation is a core dimension of capitalism: Workers are systematically paid less than the value they produce for their employers. Under certain circumstances, this unequal and exploitative relationship can generate various forms of worker poverty. Such poverty entails both very low wages and bodily degradation (for the analytical significance of poverty as physical degradation see Mezzadri: 2017). As Marx warned, ‘Capital…takes no account of the health and the length of life of the worker, unless society forces it to do so’ (Marx: 1990, 381, emphasis added).

The causal relationship between employment and worker poverty is explained here through the application of the concept of super-exploitation, which specifies how workers are remunerated below their social reproduction costs (Marini: 1973, and below). The notion of social reproduction costs implies a ‘moral element’ in the definition and calculation of poverty (Marx: 1990, 275). These costs are determined in part by socially accepted or enforced norms governing workers’ living and working conditions.

Whilst in its earlier days (from the mid1990s to the early 2000s) GVC analysis shied away from theorising labour’s constitutive role in the formation and reproduction of such chains, over the last decade or so there has been a veritable flourishing of such research, much of it from a critical theoretical perspective. Newsome, Taylor, Bair and Rainnie’s (2015) edited collection places

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5 This article complements other analyses of the relations between contemporary globalisation and dynamics of labour impoverishment, including on family farming in Sub-Saharan Africa (Rigg: 2006), the working poor in Western Europe (Pradella: 2015), the proliferation of child, family and working poverty in the UK (Armstrong: 2017), new forms of coerced labour (McGrath: 2013, Le Baron: 2015), the globalisation of informal and ‘flexible’ labour (Bernards: 2018), and the ranks of 'circulating' labour across South Asia (Pattenden: 2016).

One of the difficulties, however, of assessing the developmental potentials and pitfalls for labour associated with GVC inclusion is that the dominant conception of poverty across development studies and GVC communities is the World Bank’s ‘dollar-a-day’ approach. This conception enables, and arguably encourages, positive interpretations of the relationship between globalisation and the prevalence of poverty. For example, Director of the UN sustainable development solutions network Jeffrey Sachs argues that ‘sweatshops are the
first rung on the ladder out of extreme poverty’ (Sachs 2005, 11). However, Sachs’ argument holds only because workers in (most) sweatshops earn enough so that they consume above the World Bank-designed International Poverty Line (IPL) ($1.90 PPP 2015). The Bank’s IPL is arbitrary, in that it does not actually calculate workers’ survival needs. If it were to do so, it would reveal that many groups of workers in global value chains are experiencing new forms of poverty (see Reddy and Pogge: 2002, Sumner: 2016, Selwyn: 2017). In contrast to arbitrary conceptions of poverty, Bolwig et al; (2010, 179) argue that ‘poverty itself is a political and moral, not an analytical, term’ and ‘assessments of the ‘poverty’ impact of value-chain restructuring and governance should be alive to the whole range of meanings and concerns that animate both policy jargon and popular discourse about poverty.’

In this vein, the following analysis deploys the Clean Clothes Campaign (CCC) and Asian Floor Wage (AFW) approach to poverty wages vs living wages. This concept of a living wage derives, initially, from the United Nations’ Declaration of Human Rights (1948), article 23 on the right to work, which holds that a worker is entitled to the right to ‘just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity’. According to the CCC\AFW, a living wage:

should be earned in a standard working week (no more than 48 hours) and allow a... worker to be able to buy food for herself and her family, pay the rent, pay for healthcare, clothing, transportation and education and have a small amount of savings for when something unexpected happens. (https://cleanclothes.org/livingwage/calculating-a-living-wage).

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According to CCC\AFW’s conception of a living wage, an adult worker requires 3,000 calories a day to be able to carry out their work and ‘needs to be able to support themselves and two other ‘consumption units’ [1 Consumption unit = 1 adult or 2 children] (ibid).

If this conception of a living wage is set as a developmental base-line, and deployed as a methodology to investigate the relationship between employment in globalised industries and worker poverty, then much of what is labelled as development needs to be re-thought. When workers in GVCs do not earn living wages, this article argues that such GVCs should be renamed as Global Poverty Chains (GPCs).

3 PROBLEM-SOLVING vs CRITICAL GVC ANALYSIS
This section outlines key concepts associated with problem-solving GVC analysis. It then reconstructs them, from an historical materialist perspective, for deployment as a critical GVC/Global Poverty Chain approach. Table 1 and Figure 1 provide short-hand visualisations of what is at stake, theoretically and politically, in this de\re-construction.

GVC analysis’ can be traced back as far back as the critical World Systems Theory’s (WST) Commodity Chain (CC) approach, popularised during the 1970s. According to WST, the core – semi-periphery – periphery structure of the world system was reproduced through unequal exchange between peripheral towards core regions. Arguably, the transformation of the chain concept’s orientation - from critical to problem-solving theory - began with Gereffi, Korzeniewicz and Korzeniewicz’s (1994) and Gereffi ‘s (1994) formulation of the Global Commodity Chain (GCC). Unlike CC’s concern with dynamics of unequal exchange over the longue durée, GCC analysis was orientated towards detailing contemporary influences of TNC-led global restructuring upon developmental processes in the
global south. The constitutive categories of the new approach were governance structure, territoriality, input-output structure, institutional environment, and the distinction between buyer-driven and producer-driven commodity chains (Gereffi et al., 1994, Gereffi: 1994, Gereffi: 1995). Notably, in the GCC approach production is theorised as an input-output structure (where raw materials are transformed into final products), rather than as an exploitative social sphere.

In their portrayal of forces driving the proliferation of GCCs, Gereffi et al (1994) drew upon Michael Porter’s (1990) distinction between ‘lower’ and ‘higher’ order competitive advantages, derived from neoclassical notions of lower and higher value added economic activities. Cheap labour is an example of the former, while product differentiation, brand reputation, industrial upgrading and customer relations are examples of the latter. Neither Porter nor Gereffi et al observed, nor sought to theorise, the co-dependent\co-productive relationship, through GCCs, of these different forms of competitive advantage (or, how one form relies and\or depends upon the other). This analytical and theoretical distinction would be very important for subsequent analyses of lead firm governance and simplified conceptions of supplier firm upgrading strategies.7

Since the mid 1990’s the GCC has morphed into the GVC approach. The latter is much more explicitly policy orientated than the former, aiming to identify where higher value-adding activities occurs in these chains, and to facilitate

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7 Much literature on supplier firm upgrading is beset by (at least) a triple fallacy. The fallacy of composition (where what works for one firm as an upgrading strategy is held to work for all firms); of comparison (if one firm can upgrade, so can all firms) (Selwyn: 2015, 256), and of distribution (where the ‘social upgrading’ of some workers’ conditions is understood to be generalizable to all workers, rather than as often occurs, at the expense of other workers (Bair and Werner: 2015). For example, the high-tech revolution that has yielded the Iphone rests upon the proliferation of manufacturing assembly production by workers in companies such as Foxconn, and upon the mining of metals such as cobalt, aluminium and copper, often under condition of forced labour, in mines across the global south. The majority of GVC analysis, when discussing the conditions and remuneration of workers in these nodes of the chain do not enquire into the systemic chain dynamics that simultaneously create good jobs in the global north and bad jobs in the global south.
upgrading towards them (Gereffi et al, 2001). The GVC approach has been taken up by states, international institutions, and agencies as a developmental tool-box (see Werner et al, 2014). As alluded to in figure 1 and table 1, this shift is of foundational importance to conceptualising dynamics of, and allocating rewards from, economic growth.
### Table 1: Contested Concepts in GVC Analysis: Some Markers

<table>
<thead>
<tr>
<th>Issue of GVC Analysis</th>
<th>(Problem-Solving) GVC Analysis</th>
<th>(Critical) Global Poverty Chain Analysis</th>
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<tbody>
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<td></td>
<td>Key Concept</td>
<td>Theoretical Roots</td>
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<tr>
<td>Value</td>
<td>Value-added</td>
<td>Porterian business strategy and neoclassical economics</td>
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<td>Distribution of Value</td>
<td>Rent</td>
<td>Ricardo and Schumpeter</td>
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<td>Chain Coordination</td>
<td>Governance</td>
<td>Trans-action cost economics (Williamson)</td>
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The neoclassical\Porterian notion of value-added is conceived as the difference between prices paid for inputs and prices received for outputs. Value-added is held to occur solely within firms, and value ‘cannot leak to other firms or be captured from them’ (Smith: 2012: 6. See, e.g. Taglioni and Winkler: 2016). In GVC analysis notions of value-added are supplemented by Schumpeterian conceptions of innovation and rent (where the latter refers to economic returns from possession of\access to scarce resources). Raphael Kaplinsky (2004) shows how such innovations are designed to raise entry-barriers (increase the costs) to other firms to participate in activities from whence lead firms generate high rates of value-added and derive their greatest profitability (portrayed in the smile-curve in figure 1).
According to the above schema, workers’ low wages are a function of their employment in industries with low entry barriers, and thus subject to intense cost competition (e.g. Kaplinsky: 2004). Such industries are characterised by low productivity and limited scope for value-added. Better wages for workers result from raising firm-level productivity, competitiveness and value-added (e.g. World Bank: 2017). Such arguments, however, cannot explain why workers employed in supplier firms within GVCs in the global south are often more productive than workers doing the same jobs in the global north, whilst earning only a fraction of the wage (and see section 4.3. below).

Marx’s labour theory of value (including his understanding of surplus value distribution) and later applications of it, provides an alternative starting point from which to investigate relations between firms, between capital and labour, and dimensions of worker exploitation and impoverishment under capitalism.

The ‘inner secret’, as Marx (1990) put it, of capitalist profit is capital’s ability to reap a greater portion of value from workers’ labour power (surplus value) than the cost of its initial purchase. Firms can increase the surplus value
appropriated from workers through increasing rates of a) relative surplus value extraction (intensification of the working day); b) absolute surplus value extraction (lengthening the working day); c) immiseration (by pushing down wages); or d) super-exploitation (paying wages that do not satisfy workers’ subsistence requirements), and/or combinations of a-d).

Capitalist exploitation is not only an ‘economic’ matter (of surplus value extraction) but entails the degradation of labour: ‘[I]n…. its insatiable appetite for surplus labour, capital oversteps not only the moral but even the merely physical limits of the working day. It usurps [workers’] time for growth, development and healthy maintenance of the body.’ (Marx: 1990, 375-6, and for a contemporary theorisation, Mezzadri: 2016).

Whether firms pursue one, another, or a combination of surplus value extraction strategies, and the extent of the associated labour degradation is an empirical and conjunctural question. For example, Selwyn, Musiolek and Ijarja (2018) show how the Eastern and Central European footwear sector has experienced long term wage repression (immiseration) and the dismantling of welfare provision, generating a situation where workers are now super-exploited. In other cases, working classes may be formed (for example, through rural dispossession and urbanisation) and subject to dynamics of super-exploitation in recently established economic sectors (Delgado-Wise and Veltmeyer: 2016).

The concept of super-exploitation lies in the background of Marx’s Capital, As the primary objective there is to uncover and explain the general form of capitalist exploitation.⁸ (In order to posit his theory of surplus value production and extraction, he assumes that labour power is paid for by capitalists according to its value, or costs of production). It was, however, taken up and applied by

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⁸ But see Capital Vol 3, chapter 14, section 2 which is entitled ‘Depression Of Wages Below The Value Of Labour-Power’ (Marx: 1974).
Marxist dependency theorists, in particular by Ruy Mauro Marini to explain the dialectical relationship between economic growth and labouring class poverty in Latin America. As Marini (1973, 71-2) wrote, The sub-continent’s productive structure ‘is... based in greater exploitation of the workers’ [than in the economic core], and ‘technical progress made possible capitalist intensification of the rhythm of the worker’s labour, increasing his productivity and, simultaneously, sustaining the tendency to remunerate him at a lower rate than his real value’ (Marini, 1973: 71–72).

John Smith (2016), following Andy Higginbottom (2009), uses the concept of super-exploitation to delineate core dynamics of 21st Century Imperialism, arguing that much of the surplus value extracted from impoverished workers in the global south is captured by lead firms. This article concurs with Smith here. It disagrees with him, however, over is his claim (following Lenin: 1999) that such dynamics of value capture also benefit northern workers on aggregate. By contrast, it argues, complementing Araghi (2003), that the provision of a mass of very cheap wage goods produced under conditions of super-exploitation in the global south facilitates intensified wage repression and exploitation (including super-exploitation), across the global north (Selwyn: 2017a, b, Hammer et al., 2015).9

As part of his analysis of the dynamics of exploitation in production, Marx discusses what happens to surplus value as it is distributed beyond the productive sphere:

The capitalist who produces surplus-value — i.e., who extracts unpaid labour directly from the labourers, and fixes it in commodities, is, indeed,

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9 Smith also tends to see northern capital as benefitting primarily from super-exploitation of ‘southern’ workers, while underplaying ways in which it accelerates local capital accumulation, industrialisation and power augmentation across parts of the global south.
the first appropriator, but by no means the ultimate owner, of this surplus-value. He has to share it with capitalists... who fulfil other functions in the complex of social production. Surplus-value... splits up into various parts... and take on various mutually independent forms, such as profit, interest, gains made through trade, ground rent, etc... (Marx: 1990, 709).

In his discussion of modern landed property, Marx notes that:

Wherever natural forces can be monopolised and guarantee a surplus profit to the industrial capitalist using them...there the person who by virtue of title to a portion of the globe has become the proprietor of these natural objects can wrest this surplus profit from functioning capital in the form of rent (Marx, 1974, 773, emphasis added).

While the Schumpeterian notion of rent associates all entrepreneurial profits with greater competitive capacity based upon superior resources, Marx’s conception of surplus value distribution and rent illustrates, in addition, how some capitalists that do not preside over production are able to ‘wrest’ portions of surplus value away from others (and Selwyn: 2014). As Quentin and Campling (2018, 44) put it ‘firms using intellectual property ownership of brands are performing the ‘class function’ of modern landed property... in the sense that they are not creating value but appropriating it in the form of ground rent’.10

As will be detailed in the following section, the global business revolution is characterised by the rise of what Peter Nolan (2003) calls ‘systems integrators’, where TNCs have outsourced low cost labour-intensive activities whilst focussing

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10 Further research is undoubtedly required to understand dynamics of labour exploitation, and surplus value generation in and distribution through other GVC ‘nodes’ or activities, such as in design, branding and logistics activities (but see Newsome: 2010, Flecker, Haidinger, and Schönauer: 2013 and Quentin and Campling: 2018).
upon strengthening their ‘core competencies’. The latter are costly and complex activities upon which other actors in the value chain are dependent, making them vulnerable to systems integrators’ value capture strategies. Such core competencies include research and development, product design, and the financing and management of new production.

So far this section has outlined how a critical GVC approach might conceive of surplus value production and distribution amongst different capitals. But how is the process systematised and reproduced over time and space? Leading proponents of the GVC approach, following Williamson (1979), explain lead firm chain ‘governance’ from the perspective of transaction cost economics (TCE) (Gereffi, Humphrey and Sturgeon: 2005). Where transaction costs are potentially high (caused, for example, by lack of trust, cheating, lack of or highly complex information) then corporations will, in one way or another, assimilate or seek to organise/coordinate economic activities in order to reduce these costs. Reduced transaction costs through chain governance is portrayed as increasing allocative efficiency within and between firms and generating win-win outcomes for lead and supplier firms (and usually, by implication, for the workers employed within them). Remarkably, Gereffi et al., (2005) do not consider lead firm value appropriation strategies as determinants of global value chain governance practices.

An alternative explanation for the global dispersal and functional integration of production under lead firms’ auspices can draw on Stephen Hymer’s (1976, 25) argument that ‘the motivation for investment [overseas are]... the profits that are derived from controlling the foreign enterprise’. Lead firm chain governance facilitates their control at a (geographical and legal) distance. Such control may reduce transaction costs, but more significantly it enhances value-capture opportunities.
How do the above divergent conceptualisations of value formation and transfer within GVCs impact on thinking about labour agency? Critical scholarship has drawn upon EO Wright (2000) and Beverly Silver’s (2003) analysis of workers’ structural and associational power within GVCs (Selwyn: 2012, Brookes: 2013, Lund-Thomsen: 2013). Rather than conceiving of development as a trickle-down process, whereby improvements in workers’ pay and conditions follow enhanced profitability for capital, these studies prioritise workers’ collective action as a potential source of such ameliorations. Such scholarship, while not considered further in this article, could provide part of an action-orientated political economy married to critical GVC analysis.

For the purposes of this article, then, three aspects of surplus value creation, realisation and distribution are pertinent: 1) Employers use workers’ labour power to produce commodities embodying use and exchange values, in the process generating more value than the initial cost of the labour power – surplus value; 2) Surplus value is realised once products have been sold; and 3) Control over dispersed production, procurement, marketing and sale activities represents a source of power for firms that do not preside directly over production, to capture value in the forms of rents, from those that do (portrayed in the misery curve in figure 1). The next section explores further some of these dynamics.

4 THE GLOBAL BUSINESS REVOLUTION, PRODUCTIVITY AND WAGE RATE DETERMINATION

The formation of lead-firm governed global value chains is, in part, the outcome of attempts by core economy firms, supported by states and international institutions, to escape the world economic profit crisis of the 1970s. Having escaped this crisis, globalised production became an increasingly important
element of northern firms’ competitive strategy. As Charles Whalen (2005, 35) noted over a decade ago, ‘[t]he prime motivation behind offshoring is the desire to reduce labour costs ... a U.S.-based factory worker hired for $21 an hour can be replaced by a Chinese factory worker who is paid 64 cents an hour.’

The global trade structure is increasingly intra-firm, between affiliates of the same corporation located in different countries. Around one-third of world trade is intra-firm (Lanz and Miroudot 2011). The percentage of world trade that occurs between nominally independent supplier firms and lead firms is often higher: ‘90 per cent of US exports and imports flow through a US TNC, with roughly 50 per cent of US trade flows occurring between affiliates of the same TNC’ (Dicken 2011: 20–1).

TNCs derive an increasing share of their profits from overseas activities. Foreign affiliates accounted for approximately 17 per cent of US TNCs’ worldwide net income in 1977, 27 per cent in 1994 and 48.6 per cent by 2006 (Slaughter 2009: 16). Rates of return on foreign investment have been ‘consistently higher in developing countries (5.8%) than in developed (4.4%)... countries (3.9%) since the beginning of the 1990s’ (UNCTAD 2003:17). US TNCs occupy the pinnacle (and, through chain governance, actively contribute to the management) of the global wealth–poverty hierarchy (Starrs: 2014).

Lead firms govern global supply chains by establishing and imposing a range of requirements upon supplier firms – including product specifications, production conditions, delivery times and, most significantly, prices. Lead firms have concentrated increasingly upon their ‘core competencies’ – areas where they possess or can establish a competitive advantage vis-à-vis other lead firms and/or where they can establish powerful relations over supplier firms. These strategies enable lead firms to outsource risks, costs of production and supply
and to preside, at a distance, over heightened labour exploitation (Robinson and Rainbird: 2013).

TNCs began pursuing the global business revolution in the 1980s and 1990s through increasing spending on research and development, branding, IT and related services and through a ‘merger frenzy’ (Nolan 2003: 302–3). In the mid-2000s the world’s top 1,400 (the G1,400) firms invested US$445 billion in research and development. The top 100 firms ‘account for 60 per cent of the total R&D spending of the G1,400, while the bottom 100 firms account for less than 1 per cent of the total’ (Nolan 2014: 750). A consequence of lead firms’ concentration on core competencies has been a ‘cascade effect’ across industrial sectors, generating intense pressure upon first- and then second-tier suppliers to merge, acquire and themselves follow TNCs’ strategies:

Large capitalist firms now stand at the centre of a vast network of outsourced businesses which are highly dependent on the core systems integrators for their survival. The systems integrators possess the technology and/or brand name which indirectly provides sales to the supplier firms. They are therefore able to ensure that [they] obtain the lion’s share of the profits from the transactions between the two sets of firms. (Nolan 2003: 317–18).

A stark case of these forces is the way Apple’s profit for the iPhone in 2010 constituted over 58 per cent of its final sale price, while Chinese workers’ share was 1.8 per cent (figure 2).

Figure 2: Distribution of value for the iPhone, 2010
A partial consequence of the centralisation of TNCs’ economic power is that “‘monopsonistic” buyer[s] [can] ... push down the prices of supplies to marginal cost and thus extract the full profits from the sales of the final goods from a smaller capital stake’ (Strange and Newton 2006: 184). William Milberg calls this the ‘mark-up effect ... [through] which the lead firm in the global value chain is able to raise the mark-up over costs, not in the traditional oligopoly fashion of raising product prices, but through the control of input costs’ (Milberg 2008: 429). For example, significant import price declines (of over 40 per cent between 1986 and 2006) have benefited US firms engaged in computers, electrical and telecommunications products, clothing, footwear, textiles, furniture, chemicals and miscellaneous manufacturers (including toys) (ibid, 433). The ability of TNCs to appropriate the lion’s share of value generated within GVCs is reliant, in part, upon the political-economic (re)production of very cheap labour by local states and capitalist classes.

_Wages and Productivity in Global Value Chains_
Problem-solving GVC approaches associates workers’ low wages with their employment in low-productivity economies (e.g., Taglioni and Winkler 2014). For example, Economists in the Employment Trends Unit of the International Labour Office contend that ‘poverty should be less associated with employment in a higher-productivity economy’, and that, ‘As higher levels of productivity facilitate higher average earnings from labour, there is a direct link between labour market outcomes – in terms of both the quantity of available jobs and the productivity of the workforce – and the middle class standard of living enjoyed by the majority of people in the developed world’ (Kapsos and Bourmpoula 2013: 12, 1, emphasis added).

Arguments that low wages in poor countries reflect low productivity levels are problematic. First, they often fail to differentiate between national average productivity and the productivity of firms integrated into dynamic global value chains. It is likely that national average productivity in poor countries will be lower than that in rich countries because of the former’s relatively large subsistence agriculture and small-scale, mostly low-tech industrial sectors. However, the opposite is often the case in larger high-tech export-orientated firms. In such workplaces, lead firms require suppliers to adopt advanced technologies to meet world market quality requirements at low cost. Here, worker productivity may be comparable to if not higher than that in similar firms in rich countries, while their pay may be ten, twenty or thirty times less than that of workers in rich countries (Ness: 2015, 10-13).

Second, the productivity–wage relation is determined primarily, not by firm-level productivity, but by labour’s social reproduction costs and by the

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11 For example, an OECD\WTO\World Bank publication argues that ‘Global value chains reflect 21st century production and provide potential mechanisms for countries… to improve income, employment, and productivity’. Further, ‘…GVCs enable countries to specialise in areas of comparative advantage, thus enhancing productivity growth and supporting wages and income’ (2014, 10).
balance of power between capital and labour. Where social reproduction costs are low, and where states have instituted a capital–labour relation where workers are dependent on excessive overtime and/or other sources of wage and non-wage supplements to sustain themselves, then regardless of productivity, firms will find it relatively easy to pay workers poverty wages. Third, it is wrong to assume that workers are rewarded according to the value they produce. Rather, capitalists seek continually to maximise profit by extracting as much surplus value as possible from workers. Whether or not workers receive a greater or lesser share of the value they produce is dependent upon the balance of power between capital and labour, often instituted by states.

The above arguments are supported by a range of data. In the 1990s, for example, Doug Henwood (1995: 33) showed how US firms in the Mexican maquila sector were 85 per cent as productive as their US-based counterparts, but paid their workers only 6 per cent of the wages of the US-based workers undertaking comparable tasks. Tony Norfield (2011) writes about Foxconn that its ‘level of technology is not so different from that which would be available in the home country, but the conditions of labour exploitation are... far more extreme than in the home country.’ Robert Wade (2008: 380) notes that, for undertaking essentially the same work, ‘the best-paid bus drivers in the world get thirty times the real wages of the worst-paid.’ And, in her study of US TNCs’ overseas investment strategies Mona Ali (2016, 1014) concludes that ‘[t]he rising insecurity of workers...is reflected in across-the-board increases in labour productivity...alongside declining wage shares’.

Productivity can be measured by dividing the output of a productive process by its input. Table 2 provides slightly dated calculations of productivity in autos and textiles in the early 2000s by value (dividing worker value added by their wages). It shows that Mexico and India have higher productivity rates than
the US and Germany in autos, and that Brazil, Thailand and Mexico have higher productivity rates than the US and Germany in textiles (Kerswell 2013). The implications are that barriers to enhancing workers’ wages and conditions are not low productivity but (supplier and lead) firm profit-maximisation strategies.
Table 2  Country productivity ranking (automobiles and textiles)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Value added per worker (annual US$)</th>
<th>Wages per worker (annual US$)</th>
<th>Average Productivity (Worker Value Added/Wages per worker)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automobiles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>2000</td>
<td>102,000</td>
<td>11,700</td>
<td>8.69</td>
</tr>
<tr>
<td>India</td>
<td>2003</td>
<td>22,817</td>
<td>4,575</td>
<td>4.99</td>
</tr>
<tr>
<td>US</td>
<td>2002</td>
<td>231,729</td>
<td>54,157</td>
<td>4.28</td>
</tr>
<tr>
<td>Thailand</td>
<td>2000</td>
<td>13,555</td>
<td>4,680</td>
<td>2.85</td>
</tr>
<tr>
<td>Germany</td>
<td>2003</td>
<td>89,117</td>
<td>56,425</td>
<td>1.58</td>
</tr>
<tr>
<td><strong>Textiles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>2004</td>
<td>12,353</td>
<td>3,584</td>
<td>3.45</td>
</tr>
<tr>
<td>Thailand</td>
<td>2000</td>
<td>6,583</td>
<td>2,318</td>
<td>2.84</td>
</tr>
<tr>
<td>Mexico</td>
<td>2000</td>
<td>14,983</td>
<td>5,292</td>
<td>2.83</td>
</tr>
<tr>
<td>US</td>
<td>2002</td>
<td>66,483</td>
<td>27,223</td>
<td>2.44</td>
</tr>
<tr>
<td>Germany</td>
<td>2003</td>
<td>43,881</td>
<td>30,974</td>
<td>1.42</td>
</tr>
</tbody>
</table>


Global wage differential reflect less in-firm productivity levels than (at least a combination of) 1) the socially determined costs of wage-labour force reproduction, 2) labour market institutions (that do or do not seek to link wage rates to productivity) and 3) the ability of labouring-class organisations to achieve ‘progressive’ wage settlements (Moseley 2008). Where the first variable is very low, the second pro-capital and anti-labour, and the third weak, and where firms utilise relatively advanced technologies, they can benefit from higher productivity levels than those in core economies whilst paying poverty wages, facilitating increasing surplus value extraction and appropriation (and Ali: 2016).

5 GLOBAL POVERTY CHAINS: CASE STUDIES

This section provides empirical examples of super-exploitative working and living conditions and wages in highly globalised sectors integrated into buyer-driven value chains, focussing on Cambodian garments and Chinese electronics respectively. It shows that workers in these sectors are 1) highly productive 2)
receive base wages that are insufficient to meet their individual reproduction needs (let alone their dependents’) social reproduction requirements 3) are required by firms (often by force) and by economic necessity (as a consequence of insufficient base wages) to undertake large amounts of overtime, and as a consequence of 1-3, they are 4) physically and emotionally degraded.

Workers in Chinese electronics sectors appear able to meet their own physical reproduction costs, but only through excessive overtime with deleterious consequences for their health. In the Cambodian case, even with overtime, many workers are unable to meet their individual physical reproductive requirements. These cases suggest that when judged against the living wage criteria outlined in section 2 above, rather than representing ‘the first rung on the ladder out of extreme poverty’, employment in these industries generates new forms of worker poverty.

Cambodian Garments

Following the end of the Cold War, and under the leadership of the Cambodian People’s Party, economic development in Cambodia was predicated upon attracting Foreign Direct Investment to stimulate export led growth, based upon cheap labour. The garment industry expanded, from next to nothing in 1994, to around 320 registered (and countless unregistered) factories by 2012 (Salmivaara: 2018, BFC: 2016, Arnold: 2013), with employment in the sector reaching over half a million by 2015 (Human Rights Watch: 2015, 1). Around 90% of workers are rural-urban migrant women (Arnold: 2013, 4). The sector is predominately owned by Asian capital. Chinese capital has the largest presence (around 33%), followed by investors from Taiwan, Hong Kong and South Korea, whilst Cambodian ownership is around 3% (BFC: 2016,).
The 1997 labour law guarantees a minimum wage designed to ensure workers enjoy a decent standard of living. It defines overtime as work in excess of the normal 8 hour working day, limits it to 12 hours a week, and states that such practices can only be deployed ‘exceptionally’ (Asian Floor Wage: 2012, 51, 65, Salmivaara: 2018, 334). These stipulations are not a reality for most workers in the garment sector.

Overtime, which is often compulsory (i.e. forced), characterises the sector. A 2013 survey by Better Factories Cambodia found 94% of factories deploying overtime as a regular rather than ‘exceptional’ strategy, and 74% requiring workers to undertake more than 2 hours overtime per day\12 hours per week.\(^{12}\) Many workers in large Cambodian textile factories work between three and five hours overtime a day (Human Rights Watch 2015: 58).

Historically, workers’ wages have been low, and prone to downward pressures. They declined by 22% between 2001 and 2011 (Workers Rights Consortium: 2013). However, between 2014 and 2016, as a consequence of a rising tide of workers’ militancy, the minimum wage in the garment sector increased from $US 100 to 140 a month.\(^{13}\) Rather than signifying an unambiguous improvement for workers, however, these wage increases have been met by employers with work intensification and the cutting of non-wage benefits.

There are two principal employment categories in the sector: undetermined duration contracts (UCDs) and fixed-duration contracts (FDCs) (Economic Institute of Cambodia: 2008). Up until the mid 2000s, the majority of workers in registered garment factories were employed under UCDs – with


entitlements to benefits such as sick and maternity leave, paid holidays and regular, albeit very low, wages. Since then, across the sector, fixed duration contracts have been cut from six to three months, and have become increasingly widely deployed, with workers consequently losing many non-wage benefits (Arnold: 2013, 11, Kang et al: 2009).

Wage increases have also been offset by employers through reduced overtime payments, from double-time to only 30% above the normal working time wage rate (Human Rights Now: 2015, 3). Whilst productivity targets have always been high, they have been intensified further since the wage increases of 2014-2015 (ILO: 2017). There are reports of factories reducing the size of work teams whilst requiring workers meet the same daily task targets.\footnote{14 http://www.dw.com/en/cambodian-garment-workers-stay-poor-while-dressing-the-west/a-37796952} In one example, workers produce 1,200 ‘difficult design’ and 2,000 ‘simple design’ garments in an eleven-hour shift (Human Rights Watch: 2015).

Workers labour under poor conditions, ranging from lack of health and safety provision to overly hot working conditions. One consequence of these pressures are high numbers of workplace faintings, reaching approximately 1,806 in 2015 across the garment and footwear industry (Human Rights Now: 2018).\footnote{15 http://hrn.or.jp/eng/news/2018/03/06/cambodia-mass-faintings/} These mass faintings have been explained as a consequence of insufficient calorie intake caused by inadequate pay and excessive overtime (Barria: 2014).

Table 3 illustrates the discrepancy between workers’ calorie requirements and their actual consumption. It is based upon the assumption that in order to lead a healthy life workers conducting physically demanding labour over extended durations and under tough conditions (such as very hot working environments) require 3,000 calories a day.
Table 3: Monthly worker food intake, compared to recommended 3000 calorie food basket (2012/2013).

<table>
<thead>
<tr>
<th>Item</th>
<th>Current Monthly Quantity (Kg)</th>
<th>Calorie Value (Kcal)</th>
<th>Cost (Riel)</th>
<th>Cost (US$)</th>
<th>Needed for Healthy Diet (Kg)</th>
<th>Calorie Value (Kcal)</th>
<th>Cost (Riel)</th>
<th>Cost (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals &amp; Carbohydrates</td>
<td>7.8</td>
<td>22355</td>
<td>19000</td>
<td>4.75</td>
<td>13.8</td>
<td>49567</td>
<td>35250</td>
<td>8.81</td>
</tr>
<tr>
<td>Meat</td>
<td>2.8</td>
<td>4210</td>
<td>46000</td>
<td>11.50</td>
<td>4.5</td>
<td>68880</td>
<td>78000</td>
<td>19.50</td>
</tr>
<tr>
<td>Fish</td>
<td>3.1</td>
<td>3822</td>
<td>25000</td>
<td>6.25</td>
<td>5.8</td>
<td>7485</td>
<td>44250</td>
<td>11.06</td>
</tr>
<tr>
<td>Eggs</td>
<td>1.2</td>
<td>1116</td>
<td>7400</td>
<td>1.85</td>
<td>3.1</td>
<td>2838</td>
<td>19200</td>
<td>4.80</td>
</tr>
<tr>
<td>Milk</td>
<td>0.5</td>
<td>335</td>
<td>1250</td>
<td>0.31</td>
<td>0.6</td>
<td>402</td>
<td>1500</td>
<td>0.38</td>
</tr>
<tr>
<td>Beans and Pulses</td>
<td>0.9</td>
<td>892</td>
<td>4800</td>
<td>1.20</td>
<td>2.0</td>
<td>1845</td>
<td>11000</td>
<td>2.75</td>
</tr>
<tr>
<td>Vegetables</td>
<td>4.6</td>
<td>2880</td>
<td>26500</td>
<td>6.63</td>
<td>7.9</td>
<td>4147</td>
<td>46000</td>
<td>11.50</td>
</tr>
<tr>
<td>Fruit</td>
<td>2.2</td>
<td>1148</td>
<td>7950</td>
<td>1.99</td>
<td>4.0</td>
<td>2157</td>
<td>15000</td>
<td>3.75</td>
</tr>
<tr>
<td>Oil</td>
<td>0.5</td>
<td>4500</td>
<td>4000</td>
<td>1.00</td>
<td>0.7</td>
<td>6300</td>
<td>5600</td>
<td>1.40</td>
</tr>
<tr>
<td>Sugar</td>
<td>1.0</td>
<td>3980</td>
<td>4200</td>
<td>1.05</td>
<td>2.0</td>
<td>5970</td>
<td>6300</td>
<td>1.58</td>
</tr>
<tr>
<td>Drinks</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Spices</td>
<td>0.5</td>
<td>-</td>
<td>500</td>
<td>0.13</td>
<td>0.5</td>
<td>-</td>
<td>500</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>47938</strong></td>
<td><strong>184100</strong></td>
<td><strong>46.03</strong></td>
<td><strong>90291</strong></td>
<td><strong>300100</strong></td>
<td><strong>75.03</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Labour behind the Label (2013).

According to the World Health Organisation a body mass index of less than 18.5 is underweight, and may indicate eating disorder and/or malnutrition. A survey of 95 garment workers in the Phnom Penh region in late 2012 and early 2013 found that 33% of participants had a BMI of between 16.00 and 18.49 (‘underweight’), and 3% had a BMI of under 16.00 (‘severely underweight’) (Labour Behind the Label: 2013, 11). This is not to say that garment workers’ conditions are worse than elsewhere in the economy. It does say that employment in the sector exposes workers to significant health risks and dangers.

As a consequence of their very low pay, rent is relatively high while living conditions are poor:

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A cleated gangplank runs from the alleyway up to the raised dilapidated shelter that houses all 11 members of the immediate family. A covered area, opened on one side to the outside, provides a gathering space for cooking and washing. Behind, two adjoining rooms sleep eight in one room, three in the other. There is power, as the hysteria of wires running through one room attests. There is no running water. A damp thickness of refuse carpets the ground below, nuzzled at the moment by an enormous rat….Neang pays a monthly rent of $30 (U.S.) for the shanty. The monthly utilities total 75,000 riels, or about $18 (Cambodian Centre for Human Rights: 2014, 15-16).¹⁷

These conditions have generated numerous strikes and protests by workers which, whilst pushing up wages, have been met with employer strategies to intensify work and cut non-wage costs and brutal state responses. For example, in response to mass demonstrations by workers demanding higher wages in December 2013, and following from its cheap-labour development strategy, the Cambodian state attacked the demonstrations, killing six and wounding many others (Human Rights Watch 2015: 40).

Electronics in China

High-tech electronics such as laptops, iPhones and iPads, represent icons of contemporary global capitalism, as their globally dispersed production and sale integrates workers, firms and consumers across the world, with China representing the world’s electronics assembly platform. In 2008, the foreign

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¹⁷https://cchrcambodia.org/admin/media/analysis/analysis/english/CCHR_Policy%20Brief%20on%20Garment%20Industry_(January%202014)_eng.pdf
invested sector accounted for 15-20% of national output, just under 60% of all exports and 90% of ‘high-tech’ exports (Kroeber: 2008, 33).

Giant firms like Pegatron and Foxconn supply Apple and other lead firms. Taiwanese-owned Foxconn is China’s largest exporter of high tech electronics consumer products, employs over one million workers across China, and rose to infamy in 2010 after a spate of worker suicides at its factories (SACOM: 2010).

Underpinning China’s role as the world’s electronics assembly platform is the largest migration in global history - around 270 million people have left the countryside for the towns between 1980 and the presents (Li, Ren and Freidman: 2016: 1Xix; Pringle: 2011). Under the now relaxed (hukou) household registration system rural residents move to work in towns and cities, but they are not entitled to any of the state and local government subsidised benefits for urban residents, and are generally expected to return to their home villages when they get old or lose their jobs (as with the massive, but temporary, home-bound waves of some 20 million rural migrants following the 2008 economic downturn and layoffs) (Pun and Koo: 2015, KW Chan: 2010). This ‘floating population’ comprises up to 70 per cent of workers in the manufacturing sector (Friedman 2014; Foster and McChesney 2012). In Foxconn’s Pearl River Delta plants, for example, between 75% and 80% of workers were rural-urban migrants (Lüthje and Butollo: 2017, 225).

The electronics labour force is increasingly male, as female infanticide (in response to China’s one-child policy) has skewed the gender ratio towards males (Chan, Pun and Seleden: 2013). Migrants’ wages are a fraction of those of formal urban workers, and in partial consequence, ‘neither can they depend on wages alone to live a decent life in cities nor can they obtain sufficient subsistence resources from their hometown villages’ (Feng: 2017, 608).
Apple stands at the pinnacle of the global electronics sector (see figure 2 above). It’s value chain management includes direct intervention in supplier firms’ labour processes. For example, it requires its ‘suppliers achieve an average of 95 percent compliance with our maximum 60-hour week’ (Apple Inc. 2014). This contrasts to the International Labour Organization’s Convention C030 on work hours, which recommends upper limits of forty-eight hours per week and eight hours per day respectively (Fuchs: 2016).

While workers’ base wages in the sector are insufficient for their individual reproduction requirements, they do appear able to attain these through vast amounts of overtime. In the process, however, they are also subject to various types of forced labour, and dangerous and health-damaging working conditions (China Labour Watch: 2014, 2015a, b, c, 2016a, 2017). The documentary film Complicit highlights the proliferation of occupational Leukemia in China’s electronics industry.18

Indicative research provides estimates about the discrepancy between monthly minimum wages and workers’ social reproduction requirements in two cities in the Guangdong provide (table 4).

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18 http://complicitfilm.org/
Table 4: Monthly Minimum Wage and Social Wage in Guangdong Province, China: April 2017

<table>
<thead>
<tr>
<th></th>
<th>Minimum Wage (Yuan and US$)</th>
<th>Social Wage (Yuan and US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guangzhou</td>
<td>1,895 Yuan$295</td>
<td>3,755 Yuan$584</td>
</tr>
<tr>
<td>Dongguan</td>
<td>1,510 Yuan$235</td>
<td>3,439 Yuan$534</td>
</tr>
</tbody>
</table>


Note: These calculations are based on the assumption of two working adults and one dependent child. Hence they are more conservative than the CCC\AFW conception of a living wage in section 2.

Over the last decade the Chinese state and local municipalities have raised minimum wages, in part as a response to growing labour unrest and labour shortages, and to expand the domestic market (Hung: 2015). Electronics manufacturers have responded to these, and other wage-inflating pressures, by further intensifying the labour process. Pun and Chan (2012, 400) quote a group of young workers responsible for processing cell phone casings in the Foxconn Shenzhen factory saying that “Production output was set at 5,120 pieces per day in the past, but it has been raised by 20 percent to 6,400 pieces per day in recent months.” At Pegatron Shanghai workers must assemble 450-500 motherboards per hour. Over half of its employees worked over ninety hours overtime a month because ‘their base wages ... cannot meet the local living standard’ (China Labor Watch 2015 a, 2). In the Dongguan Chenming Electronic Company, which assembles PC shells and cases, task targets are 2,000 products per day (China Labour Watch: 2016, 14).

In addition to labour process intensification some manufacturers are reducing workers’ overall compensation. Following the government of Shanghai’s increase of the minimum wage from $304 to $330 in April 2015 Pegatron followed suit. However, to offset the increase, it cut worker subsidies, increased
workers’ employment costs by making them liable for workplace insurance, and implemented other changes to the remuneration structure. Workers that worked 40 regular hours per week plus 40 weekend overtime hours per month were US$24.5 worse off, whilst without overtime they were US$60.9 worse off than prior to the increase of the minimum wage (table 5).

Table 5: Pegatron workers Income Before and After the 2015 Minimum Wage Increase (In US$)

<table>
<thead>
<tr>
<th></th>
<th>Busy Season (assuming 40 regular hours per week and 40 weekend overtime hours)</th>
<th>Offseason (assuming no overtime)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before the wage rise</td>
<td>After</td>
</tr>
<tr>
<td>Base Wage</td>
<td>304.3</td>
<td>349.5</td>
</tr>
<tr>
<td>Overtime Pay</td>
<td>244.9</td>
<td>281.2</td>
</tr>
<tr>
<td>Food Subsidy</td>
<td>42.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Performance Bonus</td>
<td>7.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Seniority Pay</td>
<td>42.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Skill Allowance</td>
<td>22.6</td>
<td>22.6</td>
</tr>
<tr>
<td>Meals</td>
<td>-60.3</td>
<td>-60.3</td>
</tr>
<tr>
<td>Insurance</td>
<td>0.0</td>
<td>-56.4</td>
</tr>
<tr>
<td>Total</td>
<td>582.3</td>
<td>557.8</td>
</tr>
<tr>
<td>Change after the raise</td>
<td>0.0</td>
<td>-24.5</td>
</tr>
</tbody>
</table>

Source: China Labour Watch (2016: 12).

Foxson and Pegatron house workers in their ‘dormitory labour system’ on and off factory grounds (Pun and Smith: 2007). In the former, workers typically number up to eight per room. In the latter, a China Labour Watch investigation describes accommodation comprising ‘a four storey building with 43 rooms on each floor and 14 beds to a room’ (China Labour Watch: 2015 b, 20). Whilst such conditions are often considered degrading (by workers and by investigators),
workers tend to favour them over the often unaffordable alternative of private sector renting (Pun and Chan: 2012).

In another attempt to reduce costs, firms are deploying new ways of accessing very cheap labour. Up to 9 million interns were working in manufacturing and other industries in 2010, many of whom are channelled into the electronics sector by their schools.¹⁹ Vocational schools benefit financially from these arrangements, as they may deduct commissions from interns’ salaries or get paid directly by factories. In some cases interns can make up the majority of the labour force.²⁰ Interns earn less than regular workers. Examples provided by the China Labour Bulletin include salaries as low as one fifth of a regular workers’ starting salary and also the payment of ‘living expenses’ instead of wages, as low as US$7 a month. Some of these interns are as young as 15 and therefore classify as child labour (China Labour Watch: 2015 b, 2016 c).

6 CONCLUSIONS
The predominant claim within GVC academic and policy communities is that workers benefit from employment in global value chains. Many of these claims are based upon conceptions of poverty/non-poverty derived from the World Bank’s International Poverty Line (currently $1.90 PPP 2015). But this IPL is an arbitrary measure. It was not designed, and cannot be used, to assess whether individuals can actually survive, still less meet their individual basic needs at such a level of consumption. If a poverty measure based upon workers’ individual and familial social reproduction requirements is deployed to investigate the

relationship between employment in GVCs and poverty generation/alleviation, then a profoundly different, and often negative, image emerges.

The article’s empirical sections show how workers in Cambodia’s garment and China’s electronics sectors labour under intense pressure to meet very high and rising productivity targets, receive base wages that are insufficient to meet their individual reproduction needs let alone their social reproduction requirements, undertake large amounts of overtime, and as a consequence of these combined pressures, are physically and emotionally degraded. Cambodian workers, even when they undertake extensive overtime, often find it difficult to earn enough to meet their individual basic calorie requirements. In China extensive overtime does appear to enable workers to meet (only) their individual reproduction requirements. In neither case, however, even with extensive overtime, do workers earn a living wage. The article explains these processes as outcomes of super-exploitation.

This article shows how core GVC categories - of value-added, rent and chain governance – and the claim (or assumption) that workers’ wages are determined by in-firm productivity - effectively bias problem-solving GVC research towards positive conclusions about the relationship between employment within globalised industries and workers’ livelihoods and/or how to achieve such beneficial outcomes. The empirical findings of this article suggest, rather, the need for a theoretical reformulation of core concepts and categories associated with the GVC approach in order to better see and explain dynamics of worker exploitation and poverty generation. To this end it advances the theory and methodology of Global Poverty Chain analysis. In pursuing this endeavour, it distinguishes between problem-solving and critical variants of GVC analysis. The former aims to comprehend and facilitate capitalist development across the global south. It views capital-accumulation as the basis of human development
and explains workers’ low wages as arising from low productivity, rather than from exploitation and lead firm value capture strategies. Its concept of supplier firm upgrading allocates primary development agency to firm managers, and legitimates the existence of TNCs and their global expansion. Combined with the World Bank’s arbitrarily low international poverty line it portrays employment in supplier firm factories as a route out of poverty.

This article’s GPC approach uses the concept of super-exploitation to highlight and explain how employment in GVCs may be predicated upon poverty wages and physical degradation. It deconstructs the developmental opportunities offered by TNCs to supplier firm regions of the world economy, illuminating how the former govern their supply chains in order to maximise value capture. By adopting the Clean Clothes Campaign\Asian Floor Wage conception of a living wage as its developmental base line, this article brings to the fore the ‘moral element’ of workers’ social reproduction costs (i.e. it conceives of workers as human beings with multiple needs, and as family members, rather than as atomised venders of labour power).

This article provides only an introduction to the GPC approach. The application of its core concepts and categories – the extraction and distribution of surplus value, chain governance as a power-based value-capture strategy, and its argument that the relationship between wages and productivity is determined primarily by social reproduction costs, all require further investigation and refinement. Further critical GVC and/or GPC research might include an investigation into the numbers and percentage of value chains in which workers’ do (not) receive living wages, the extent to which workers that do not receive living wages could do so through a fairer distribution of value across the chains, and mechanisms and policies to achieve such outcomes. Such investigation would necessitate improvements in our ability to trace value formation,
movement and capture throughout GVCs/GPCs chains. If it is found that workers in the majority of GVCs do not earn a living wage then the very term GVC, and its associated conceptual apparatus, will come to be seen as misguided at best. The Global Poverty Chain concept aims to illuminate the exploitative architecture of capitalist globalisation, and by doing so to facilitate thinking about alternative approaches to real human development.
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