

Global Value Chains or Global Poverty Chains? A new research agenda

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Global Value Chains or Global Poverty Chains? A new research agenda

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GLOBAL VALUE CHAINS OR GLOBAL POVERTY CHAINS? A NEW RESEARCH

AGENDA

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Abstract

Global Value Chain (GVC) analysis is part and parcel of mainstream development discourse and policy. Supplier firms are encouraged, with state support, to 'link-up' with trans-national lead firms. Such arrangements, it is argued, will reduce poverty and contribute to meaningful socio-economic development. This portrayal of global political economic relations represents a 'problem-solving' interpretation of reality. This article proposes an alternative analytical approach rooted in 'critical theory' which reformulates the GVC approach to better investigate and explain the reproduction of global poverty, inequality and divergent forms of national development. It suggests re-labelling GVC as Global Poverty Chain (GPC) analysis. GPC's are examined in the textiles, food, and high-tech sectors. The article details how workers in these chains are systematically paid less than their subsistence costs, how trans-national corporations use their global monopoly power to capture the lion's share of value created within these chains, and how these relations generate processes of immiserating growth. The article concludes by considering how to extend GPC analysis.

Key Words: Global Value Chains, Global Poverty Chains, Immiserating Growth, Chain Governance, Labour, Development

"Theory is always for someone and for some purpose" (Robert Cox, 1981).²

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1 INTRODUCTION

This article argues for a fundamental reformulation of the Global Value Chain (GVC) concept to better comprehend global dynamics of wealth concentration, and the (re)production of poverty and inequality. It argues that GVC analysis is ill-placed to investigate, analyse and theorise how global value chains contribute to generating these polarising trends, and that the concept of Global Poverty Chains (GPCs) represents a better starting point.

Contemporary global capitalism is characterised by extreme inequalities in wealth and poverty (Edward and Sumner: 2015). For example, the wealth of the world's richest 62 people, who between them own more than half of the world's population, rose by 44% between 2010 and 2015. Over the same period the wealth of the bottom 50% of humanity fell by approximately 38% (Oxfam: 2016). In 2010 the International Labour Organisation (ILO) calculated that there were approximately 942 million working poor (almost 1 in 3 workers globally living on under US\$2 a day) (ILO/KILM 2011).

The ILO calculates poverty using the World Bank's international poverty lines of US\$1 and \$2 a day Purchasing Power Parity – where \$1 a day represents 'extreme poverty' and \$2 a day just 'poverty' (Chen and Ravallion 2004). People who live above these poverty lines are held to be not poor. David Woodward (2015) suggests a slightly higher global poverty line, of US\$5 PPP a day. If adopted, the ILO would have to concede that the majority of the world's labouring class lives in poverty (see also NEF: 2010).

The World Bank's poverty line reflect the international equivalent of what US\$1 or US\$2 could have purchased in 1985 in the United States. Despite their regular updating, as Reddy and Pogge and others have pointed out, these

²³] Cox, W.R. (1981) 'Social Forces, States and World Orders: Beyond International Relations Theory', *Millennium: Journal of International Studies*, 10(2): 126-55. p.128

amounts of money could purchase hardly anything then, or now (Reddy and Pogge: 2005, and Reddy and Lahoti: 2016). These poverty lines are also unidimensional: They are concerned only with the costs of consumption (the meaning of purchasing power parity). They take no account of other, multidimensional, forms of poverty, such as back-breaking labour and unsafe living conditions.

As will be argued here, while hundreds of millions of workers across the global south earn more than \$1, \$2 or \$5 PPP a day, these wages do not cover their subsistence costs. They live, effectively, in poverty. In order to survive they have to work many additional hours, with negative consequences for their health. But according to institutions such as the World Bank and publications such as *The Economist*, these workers are not poor.

In his seminal essay 'Social Forces, States and World Orders', Robert Cox (1981) distinguished between 'problem-solving' and 'critical' theory. The former accepts given socio-economic structures and enquires into how transformations (can) occur within them. Critical theory, by contrast 'does not take institutions and social and power relations for granted but calls them into question by concerning itself with their origins and whether they might be in the process of changing' (1981, 129).

Cox noted that 'problem solving' theory makes frequent and valuable contributions to human knowledge. However, he argued that such research and knowledge is predicated upon an assumed theoretical acceptance of existing structures, and further, that such acceptance often leads to their naturalisation, and the de-legitimation of alternative theoretical and political agendas. One characteristic of much 'problem-solving' theory, especially when it informs a policy agenda, is that it presents itself in universalistic terms and (deliberately) ignores critical interpretations of the same sociological

phenomena, in particular those based upon contrary ontological foundations. I suggest here that institutional GVC analysis is rooted in the problem-solving tradition of social science.³

Despite its limitations (see below), institutional GVC analysis does, nevertheless, capture important novel features of global capitalism. In particular, its conception and analysis of chain governance illustrates with empirical clarity the fallacy of the idea of the ‘free market,’ and how relations between and within firms are coordinated and planned. It conceptually breaks out of the methodological nationalist straightjacket that has so long constrained much development thinking. It identifies how lead firm chain governance impacts upon supplier firm upgrading strategies. In sum, it illuminates effectively how corporate decisions and practices in one part of the world impact upon developmental processes in another part of the world.

However, the problem-solving, and this article argues problematic, aspects of GVC analysis are at least three-fold. Firstly, it takes as given the existence of trans-national corporations and does not seek to disempower them vis-à-vis poorer countries, and/or the labour forces employed by/for them. Rather, and secondly, it ideologically and practically enhances TNC power by advocating that potential supplier firms ‘link up’ with them. Thirdly, it promotes the establishment of large wage-labour forces and their employment by TNCs, their subsidiaries and suppliers. The problem-solving orientation of the GVC approach is evident in its developmental bias. The defining characteristic of institutional and much academic GVC literature is the portrayal of supplier firm ‘upgrading’ as a route to poverty reduction and development.

³ The arguments made here apply equally to mainstream Global Commodity Chain (GCC) and Global Production Network (GPN) approaches, although I do not elaborate on what I consider to be the relatively minor differences between them.

Comparatively little GVC literature, by contrast, sets out to investigate how global value chains contribute to the (re)production of world poverty and inequality.⁴ Two notable contributions from within the GVC/GCC/GPN literature that have attempted to do so however, are Barrientos, Gereffi and Rossi (2011) and Phillips, Bhaskaran, Nathan and Upendranadh (2014). They recognise that employment by GVC supplier firms can have deleterious effects upon workers, including poverty pay and unfree labour. However, neither contribution identify the roots of such processes - lead firm monopolistic, value-capturing and profit-maximising strategies combined with exploitative supplier-firm strategies of capital accumulation. Such partial approaches to poverty and exploitation therefore risk obscuring as much as they explain.

Interestingly, the primary objective of the original iteration of the GCC approach, from within World Systems Theory was to explain the reproduction of the world's unequal core – semi-peripheral – peripheral structure. From this perspective, Immanuel Wallerstein (1974, 2000) argued that “there is no such thing as national development.” In a similar vein Giovanni Arrighi (1990, 15-16) argued that development ‘cannot be generalized because it is based on relational processes of exploitation and...exclusion that presuppose the continually reproduced poverty of the world’s population’.

Since the mid-1990s all iterations of Global Commodity Chain analysis – whether Global Commodity Chain, Global Value Chain or, most recently, Global Production Network (GPN) approaches – have been concerned principally with issues of what kinds of local-level institutional arrangements and global linkages generate regional development.

⁴ This article builds on the author’s previous work on GVCs (Selwyn: 2012, 2013, 2015, 2016).

The conception of Global Poverty Chains advanced here does not, however, argue for a straight return to WST's prime concern (global inequality), nor does it discount the possibilities, as Wallerstein and Arrighi did, of 'national development'. Rather, it holds that *national capitalist development* (understood as economic growth, industrial expansion/diversification and capital accumulation) is determined by the transformation of class relations. National states and firms can generate capitalist development through establishing large labouring classes and presiding over their systematic exploitation. Such dynamics may, and in the contemporary world often do, generate 'immiserating growth' – where capital accumulation/rising profitability and impoverishment of labour, are two sides of the same coin of capitalist development.⁵

The intended intellectual contribution of this article is four-fold. First, whilst mainstream GCC/GVC/GPN approaches focus upon inter-firm relations, this article prioritises the analysis of capital-labour relations, and places labouring class concerns at its heart. This provides, second, an alternative vantage point from which to deconstruct the forms of development that these economies are experiencing. Third, it offers the beginnings of a new perspective and methodology to address reasons for the simultaneous systemic concentration of global wealth and the reproduction of widespread global poverty. Finally, it hopes to re-orientate GVC analysis away from its 'problem-solving' application towards a more transformative emancipatory agenda.

The remainder of this article is organised as follows. Section two outlines ways in which capital-labour relations can be poverty-inducing. Section three

⁵ This GPC approach could potentially be combined fruitfully with the emerging global wealth chain (Wigan and Seabrooke: 2014) and global inequality chain (Campling and Quentin: 2016) approaches.

provides an account of the global business revolution and its basis in and contribution to global wage differentiation. Section four draws upon Non-Governmental Organisation, media and civil-society research and secondary academic literature, to illustrate poverty-inducing dynamics associated with employment within GVCs. Section five concludes the article by identifying avenues for further Global Poverty Chain-orientated research.

2 CAPITALISM AND EXPLOITATION

Institutional GVC analysis deny tacitly claims that global capitalism rests upon poverty-generating exploitative social relations. This is not surprising given that common-sense conceptions of capitalism portray it as a sphere of developmental opportunity (Wood: 1999). For example, former UN Millennium project director Jeffrey Sachs rejects arguments that proliferating sweatshops in emerging economies rest upon exploitative and poverty-inducing work. '[R]ich-world protestors' he argues 'should support increased numbers of such jobs' because these 'sweatshops are the first rung on the ladder out of extreme poverty' (Sachs 2005, 11). Sach's and institutional GVC proponents make such arguments because workers in (most) sweatshops earn above the World Bank-designed International Poverty Line (\$1.90 PPP 2015).

Such arguments draw upon neoclassical precepts that deny capitalism's exploitative basis. Rather, they argue that because the capital-labour relationship is a) contractual, and b) provides more income to workers than prior to their signing it and fulfilling their contractual obligations, then it is mutually advantageous to capital and labour. A transaction that leaves both actors better off than before, however unevenly, is mutually beneficial and so cannot be exploitative (it is 'Pareto optimal'). For example, in his influential

Why Globalisation Works, Martin Wolf (2005, 183) argues that '[It] is right to say that transnational companies exploit their Chinese workers in the hope of making profits. It is equally right to say that Chinese workers are exploiting transnationals in the (almost universally fulfilled) hope of obtaining higher pay, better training and more opportunities'.

So, how can freely-entered into contractual relations co-exist with, or be based upon, exploitative relations?

2.1 Capital-Labour Relations and Immiserating Growth

Firms' survival in capitalist markets is dependent upon their ability to match or sustain sector-wide profitability. If they cannot do so they will be unable to raise sufficient funds to invest as much as their competitors, and will be eventually outcompeted and forced out of business. How do rival firms attempt to maintain or raise their profitability to, or above, the sector-wide profit rate? They can do so in relation to other firms and in relation to their workers.

In relation to each-other, Schumpeter identified how firms seek out new technologies, new markets, new sources of supply, and new ways of making things. (Schumpeter: 1987). If they are the first firm in the market to be able to identify and take advantage of these possibilities they can reap super-profits – those well above the sector-wide average - because they can cut costs while selling their product at the market rate. These innovative drives and practices are given pride of place within GVC analysis, as representing forms of upgrading.

But such strategies are only one side of coin of capitalist competition. The other is (strict) labour management. However, institutional GVC analysis' strengths in identifying inter/intra-firm dynamics of upgrading are undermined

by its weakness in identifying and/or theorising competitive capital-labour dynamics. For this reason the approach has been characterised as suffering from ‘firm-centrism’ (Selwyn: 2012) and ‘network essentialism’ (Taylor: 2012).

The ‘secret’ of capitalist profit, Marx (1990) argued, was 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 a number of means:

- Increasing *Relative Surplus Value* extraction: Through the intensification of the working day through technological and managerial innovations and/or through reducing the costs of labour power. The former strategy concerns the introduction of new productivity-enhancing technologies, and the management of the labour process to increase labour productivity within a given time-frame of the ‘normal’ working day (about 8 hours in northern countries, often over 10 hours in many southern countries). The latter strategy concerns the reproduction of labour power outside the workplace. For example, if workers can purchase cheaper wage goods then the cost of reproducing their labour-power falls, enabling firms to push down nominal wages.
- Increasing *Absolute Surplus Value*: Through lengthening the working day without increasing wages proportionately;
- *Immiseration*: Through pushing down real wages.
- *Super-Exploitation*: Through paying workers’ less than the costs of reproducing their labour power.

Firms’ pursuit of one, another, or a combination of these strategies is contingent. Where workers’ organisations and (sometimes) states have been able to impose regulations upon and win concessions from firms, then it is

more difficult for the latter to reduce wages and conditions to socially unacceptable levels. On the other hand, where a permissive and supportive environment exists, firms can attempt to raise their profitability through imposing the worst kinds of labour practices upon their labour forces. It will be argued below that the globalisation 'project' has been the establishment of such a permissive environment to facilitate strategies of worker-improverishing capital accumulation.

3 THE GLOBAL MANUFACTURING SYSTEM

In *The End of the Third World*, Nigel Harris (1987) argued that the emerging global manufacturing system represented the end of the 'classical' division of labour where northern countries produced and exported manufactured goods and imported primary goods from the South. He argued that '[t]he process of dispersal of manufacturing capacity brings enormous hope to areas where poverty has hitherto appeared immovable, and makes possible new divisions of labour and specializations which will vastly enhance the capacity of the world to feed everyone'. (Harris: 1987, 202).

The formation of geographically dispersed, functionally integrated global value chains, 'governed' by lead firms, represents the outcome of a successful attempt by these firms and their predecessors, supported by states and international institutions, to escape the core economy profitability crisis of the 1970s. A central reason for (re)locating production in new, previously non-industrialised regions are low wage costs. As Charles Whalen (2005, 35) notes, '[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 transport, logistics and information technology revolutions enabled simultaneous global dispersal and ever-closer functional firm integration. Within the contemporary global manufacturing system, southern countries produce a voluminous range of industrial inputs and outputs, including fabricated metal goods, electronics equipment, chemicals, transport equipment, furniture, a whole range of textiles, in addition to agricultural products and extractive materials (UNIDO: 2011).

The global manufacturing structure of world trade is increasingly intra-firm, between affiliates of the same corporation located in different countries. The OECD estimates that around one third of world trade is intra-firm (Lanz and Miroudout: 2011). The percentage of world trade that occurs between nominally independent supplier firms and lead firms is often higher: '90 percent of US exports and imports flow through a US TNC, with roughly 50 percent of US trade flows occurring between affiliates of the same TNC' (Dicken: 2011, 20-21).

TNCs derive an increasing share of their profits from overseas activities. Foreign affiliates accounted for approximately 17 percent of US TNCs' worldwide net income in 1977, 27% in 1994 and 48.6% 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%) and CEE [Central and Eastern European] countries (3.9%) since the beginning of the 1990s'. (UNCTAD: 2003, 17).

Leading proponents of the GVC approach explain lead firm chain 'governance' from the perspective of transaction cost economics (TACE) (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. From the TACE perspective such assimilation increases productive and allocative efficiency (Varman: 2012).

Remarkably, Gereffi, Humphrey and Sturgeon (2005) do not consider lead firm profit-maximisation and/or value appropriation strategies as determinants of global value chain governance patterns. Discursively, their formulation represent a mutually-beneficial (win-win) firm-centrism where capital-labour relations are absent and where lead firm actions are interpreted as contributing to enhanced chain-wide efficiency. The effect of the TACE application to GVC analysis is to naturalise and justify TNCs existence and their governance practices.

US TNC's occupy the pinnacle of (and through chain governance, actively contribute to the management of) the global wealth-poverty hierarchy. As Sean Starrs documents:

American companies have the leading profit-shares among the world's top 2,000 firms in eighteen of twenty-five sectors, and a dominant position in ten – especially those at the technological frontier. In a reflection of this global hegemony, two fifths of the world's millionaire households are American' (Starrs: 2014, 95).

The global business revolution is a vehicle for lead firms to seek to enhance their global positions and strategies for extended capital-accumulation and profit maximisation in relation to supplier firms, would-be competitor firms, and labouring classes.

3.1 The Global Business Revolution

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, price. 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 preside, at a distance, over heightened labour-exploitation. They have also contributed to their ability to capture value from other actors within the chain (Smith: 2012).

TNCs began pursuing this 'revolution' in the 1980's and 1990s through increasing spending on Research and Development, on branding, through 'a massive increase in expenditure by the world's leading firms on IT hardware, software and services', and through a 'merger frenzy' (Nolan: 2003, 302- 303). 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 percent of the total R&D spending of the G1, 400, while the bottom 100 firms account for less than 1 percent of the total' (Nolan: 2014, 750).

A consequence of lead firms' concentration on core competencies has been that a 'cascade effect' is operating across industrial sectors, generating intense pressure upon first and then second-tier suppliers to merge, acquire and themselves follow TNC's strategies. Peter Nolan argues that:

Large capitalist firms now stand at the centre of a vast network of outsourced businesses which are highly dependent on the core system[] integrators for their survival. The system[] 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, 317–318).

As part of the process of centralising their economic power Strange and Newton (2006, 184) suggest 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'. 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, in the United States, significant import price declines (of over 40% between 1986 and 2006) have benefitted US firms engaged in computers, electrical and telecommunications products, clothing, footwear, textiles, furniture, chemicals and miscellaneous manufacturers (including toys) (Milberg: 2008, 433).

3.2 The Global Business Revolution and Wage Rate Determination

Institutional development and much GVC discourse maintains that workers' low wages reflect their employment in low-productivity economic sectors (e.g. Taglioni and Winkler: 2014). The International Labour Organisation contends, for example, that 'poverty should be less associated with employment in a higher-productivity economy', and that:

[a]s 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 (ILO: 2013: 12, 1).

In more popular terms, Martin Wolf (2005, 175) maintains that “the evidence on the [proportionate] relationship between productivity and wages is overwhelming.” Whilst Wolf hints at a direct relationship between productivity and wages, the ILO suggests that there must at least be a positive correlation between the two.

The assumption that wages are determined by, and correspond to productivity is a mainstay of institutional GVC analysis. Its policy-consequences are to prioritise enhancing firm-level competitiveness over increasing workers’ rights and wages. It portrays firm-level upgrading from the perspective of capital, and encourages workers to do the same.

But these assumptions are not based on rock-solid evidence. In the 1990s, for example, Doug Henwood (1995, 33) showed how US firms in the Mexican Maquila sector were 85% as productive as their US-based counterparts, but paid their workers only 6% of the wages compared to 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 certainly far more extreme than in the home country’⁶. Similarly, Robert Wade (2008, 380) notes that for undertaking essentially the same work ‘[t]he best-paid bus drivers in the world get thirty times the real wages of the worst-paid’.

Productivity can be measured by dividing the output of a productive process by its input. Table 3.1 provides calculations of productivity in autos and textiles in the early 2000s by value (dividing worker value added in US\$ by their

⁶ <http://column.global-labour-university.org/2012/08/t-shirt-economics-labour-in-imperialist.html>

average salary). 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.⁷

Table 3.1: Country Ranking – Productivity (Automobiles and Textiles)

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

⁷ It is instructive to quote here Adam Smith's observation about British manufacturer's self-portrayal: 'Our merchants frequently complain of the high wages of British labour as the cause of their manufactures being undersold in foreign markets, but they are silent about the high profits of stock. They complain of the extravagant gain of other people, but they say nothing of their own. The high profits of British stock, however, may contribute towards raising the price of British manufactures in many cases as much, and in some perhaps more, than the high wages of British labour' [8]." (Adam Smith. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Book IV, Chapter 7, Part 3, <https://www.marxists.org/reference/archive/smith-adam/works/wealth-of-nations/book04/ch07c.htm>)

Source: UNIDO (2006), Adapted from Kerswell (2013, 513).

Whilst more research is undoubtedly needed on productivity-wage relationships, it is plausible to argue that wage rates 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 (often purposefully pro-capital), the third weak, and where firms utilise relatively advanced technologies, they can benefit from higher productivity levels than those in core economies, which can raise their profitability through increasing value extracted and appropriated.

4 Global Poverty Chains: Three Case Studies

This section provides empirical examples of labour conditions, wages, and socially-determined reproduction costs in GPC's in three globally-orientated industries. In doing so it advances three core arguments. First, lead firms use their oligopoly power to capture the lion's share of the value created in each chain. Second, employment in these industries does not represent 'the first rung on the ladder out of extreme poverty' (Sachs 2005, 11), but, on the contrary, generates new forms of poverty. Third, lead firms play a significant part in generating these poverty-inducing conditions which in turn enables them to capture the majority share of value created in these chains.

The following three examples exist within a broader panoply of super-exploited labouring classes (workers whose income does not match their subsistence costs). These include homeworkers and circular migrants across South Asia (Mezzadri: 2014, Pattenden: 2016), the ‘feminisation’ of poverty-paying work (Hite and Viterna: 2005, Dhital and Feruglio: 2016), and expanding slave and coerced labour forces (ILO: 2005, McGrath: 2013).

4.1 Textiles

Approximately 30 million workers are employed in the fast-expanding global garment industry (Clean Clothes Campaign (CCC): 2014, 28). There are regular media reports about abusive working conditions in these industries, ranging from extremely low pay, to child labour and forced labour. Most horrifically, in Bangladesh in April 2013 1,113 garment workers were killed and 2,500 injured following the collapse of Rana Plaza, an 8 story building in which textile factories operated.

Women workers predominate in this industry. In their analysis of Bangladeshi export garment industries Kabeer and Mahmud (2004, 108) argue that ‘employers regard their female workforce as dispensable labour to be exploited ruthlessly for a period of time and then replaced by the apparently unlimited supply of young women flowing in from the countryside in search of such work’. In his overview of the apparel sector across 17 countries John Pickles (2012, 105) documents how, from the mid 2000s onwards, ‘wage levels were driven below subsistence costs’.⁸

The extent of retailer (lead-firm) power in the garment industry is illustrated by table 4.1, which disaggregates the sale price of a T-shirt made in Bangladesh and sold in Germany by H&M for €4.95 (Norfield: 2012, 2014):

⁸<http://www.capturingthegains.org/pdf/ctg-wp-2012-13.pdf>

Table 4.1 T-Shirt Sale Price Disaggregation

€0.40	Cost of 400g of cotton raw material bought from the US by the factory in Bangladesh
€1.35	Price H&M paid per T-shirt to the Bangladeshi company;
€1.41	After adding 0.06 euros per shirt for shipping costs to Hamburg in Germany;
€3.40	After adding some 2.00 euros for transport in Germany, shop rent, sales force, marketing and administration
€4.16	After adding 0.60 euros net profit of H&M plus some other items;
€4.95	After adding 19% VAT, paid to the German state.

Source: Norfield (2012).

Norfield (2014, 1) estimates that the average labour cost to produce 1 T-shirt is between 2-3 cents and reports that ‘One worker at the factory, even after a 17% pay rise, earned just 1.36 euros per day based on a 10-12 hour day. The machine she works with produces a target of 250 T-shirts per hour’.

Large-scale export-orientated textile production has been established across Cambodia. It began producing garments for export in the 1990s following state-sponsored subsidies to overseas capital (comprising tax holidays and duty-free imports of machinery and material) and bilateral trade agreements with the US, the EU and Canada. In 2014 its garment exports totalled approximately \$5.7 billion dollars. The majority of factories engage in ‘cut-and-trim’ activities – producing clothes with imported textiles and designs provided by global buyers. Factories vary in size, ranging from those employing more than 8,000 workers to small-scale home-based production units. Women make up over 90 percent of the workforce. In 2014 Cambodia’s garment sector

employed over 700,000 workers (excluding home-based workers) (Human Rights Watch: 2015).

Within Cambodia's garment industry the labour process is extremely intense, characterised by continual productivity drives. Employment rights are minimal. Employers require workers to meet very high daily task targets. For example, they must produce 1,200 'difficult design' and 2,000 'simple design' garments in an 11 hour shift. Workers are subject to tight surveillance. As one testifies:

We cannot go to the toilet when we want. If we go three times during the day it is considered too much. They announce it on the speaker: "Don't go to the toilet. You cannot produce a lot and meet your targets. You need to sew faster" (Human Rights Watch: 2015, 62).

Working conditions are so harsh that workers regularly faint at work as a consequence of the intensity of the labour required of them and their poor working conditions (Arnold: 2013, Clean Clothes Campaign: 2013). Overtime is a necessity for most workers as their regular wages are insufficient to meet their daily needs (table 4.2). While the government limits overtime to 2 hours per day, this is not legally enforced and the economic pressures upon workers to exceed these hours are intense. Most workers in the large Cambodian textile factories work between 3 and 5 hours overtime a day (Human Rights Watch: 2015, 58).

Table 4.2 Legal Minimum Wage vs Living Wage: Eastern Europe and Asia Compared

Eastern Europe (including Turkey)	Minimum Wage as a Percentage of Living Wage	Asia	Minimum Wage as a Percentage of Living Wage
Slovakia	21%	India	26%
Ukraine	14%	China	46%
Romania	19%	Bangladesh	19%
Moldova	19%	Cambodia	21%
Georgia	10%	Malaysia	54%
BiH	25%	Sri Lanka	19%
Macedonia	14%	Indonesia	31%
Bulgaria	14%		
Croatia	36%		
Turkey	28%		

Source: Clean Clothes Campaign (2014, 34).

These dynamics have generated numerous strikes and protests by workers, which have met brutal state responses. For example, in December 2013 the Labour Ministry announced an increase in the minimum wage from \$80 to \$100 per month, effective from February 2014. Workers responded by holding large-scale demonstrations demanding a \$160 minimum wage, citing a tri-partite (government, industry and trade-union) report recommending a living wage of between \$157 and \$177. The state's response to workers' protests was brutal:

Overnight on January 2 and 3, hundreds of police and gendarmes were deployed to clear workers protesting... On the morning of January 3, the authorities sent a large force of gendarmes to seize control of the area, some of whom fired their assault rifles towards the crowds, killing six

people. A person beaten by gendarmes later died of his injuries. Twenty-three human rights defenders and workers arrested during these incidents were later charged with responsibility for the violence, tried and convicted, and sentenced to prison terms, despite there being no evidence against them. Their sentences were all suspended, but they remain at risk of imprisonment. No gendarmes were prosecuted (Human Rights Watch: 2015, 40).

It is not only the workforces in formerly 'Third World' countries that suffer from dynamics of immiserating growth. Across a number of post-socialist countries and in Turkey, approximately 3 million workers labour in the garment industry (table 4.2).⁹ The main export markets are Germany and Italy. For approximately 9 million people (workers and dependents) these workers' wages represent their principal livelihood. The workers are predominantly young and middle aged women, and they are subject to similar productivity-based pressures as those in Cambodian factories.

The Clean Clothes Campaign (2014) argues that these workers need a living wage, which it defines as 'sufficient to meet basic needs of workers and their families and to provide some discretionary income', in order to work and live in dignity. It found, however, that legal minimum wages are 'often the ceiling instead of the bottom line for wages' (Clean Clothes Campaign: 2014, 26, 29).¹⁰

Wages received by workers in Eastern Europe and Turkey's garment industries are often even lower, as a ratio of the living wage, than those

⁹ This section is based upon Clean Clothes Campaign (2014). In the post-socialist countries around 700,000 workers were formally employed and 350,000 were informally employed in 2013. In Turkey the figures were 508,000 (formally employed) and 1.5 million (informally employed) in the garment and leather industry (CCC: 2014, 14).

¹⁰ The CCC's conception of the living wage derives from the Universal Declaration of Human Rights (UDHR, 1948), Article 23 (3).

received by workers in East Asia (table 4.2). Consequently, workers cannot live on their wages alone. As one Turkish workers, quoted by the CCC, said 'If we only depended on our wages, we would starve to death' (Clean Clothes Campaign, *ibid*, 38).

How then, do workers and their families survive on poverty wages? Many workers and their extended families cultivate subsistence agriculture to subsidise their wages and save on food costs. Employers in a number of the Eastern European countries studied by the CCC 'build factories in rural areas where people are clearly engaging in agriculture and thus have additional income'. Other survival strategies include working overtime – up to 20 hours a week. Debt and eliminating any family expenditure on 'non-emergency' health services, heating, and school supplies, limiting travel, buying only the cheapest foods and second hand clothes and stealing electricity represent other survival strategies (*ibid*, 44, 45).

In its survey of garment industry workers, the CCC concludes that in Eastern and South Eastern Europe '[J]ust like in Asia, the legal minimum wages are poverty wages. In all research countries... the legal minimum wage is set far below a subsistence minimum... [T]he legal minimum wage...consolidates poverty rather than eliminating it' (CCC: 2014, 32).

4.2 Food and Agriculture

The production, distribution and consumption of food has been transformed fundamentally over the last four decades. For an increasing number of food commodities, production is orientated towards sale for profit in distant markets, rather than for self or local-consumption.

Philip McMichael (2000) characterises this transformation as the dismantling of the 'national food regimes' and agriculture's upward integration

into new circuits of globalised capital. National food regimes, designed by nation states to produce food to feed their populations were dismantled and replaced with increasingly globally-orientated agriculture, designed to earn foreign exchange to pay off combinations of debt and structural adjustment loans. Rapidly concentrating (first northern, now increasingly southern) retail capital has engaged in a 'retail revolution' based on new systems of procurement and supply and have integrated many of the producers from these newly established agricultural systems (Reardon et al., 2003).

States across the global south facilitated this transformation through the 'modernisation' of agriculture - introducing high-tech machinery to displace labour and raise existing labour's productivity, stimulating the use of a wide-range of chemical inputs (from fertilizers to pesticides), and high yield crops. In Brazil, for example, more than 30 million workers left the rural sector between the 1960s and 1980s (Welch: 2006).

Across Latin America new sub-sectors producing non-traditional agricultural exports (NTAX's) have boomed. These include cut flowers from Ecuador, wine and fruits from Chile, peanuts from Nicaragua, winter vegetables from Peru, Mexico and Guatemala, Soy from Argentina and Brazil - have become important new sources of foreign exchange. NTAX's have transformed the countryside across Latin America through: 1) the increasing dominance of local agricultural systems by trans-national capital, 2) the displacement of the peasantry and its conversion into a rural proletariat, 3) the use of casualised work practices by employers, 4) the predominance of women workers in NTAX sectors, and 5) 'the articulation of local agricultural systems to the global supermarket' (Robinson: 2008, 58).

Giant retailers such as WalMart, Carrefour, and Tesco have occupied centre-stage in the contemporary globalised food system. Northern (and

increasingly southern) retailers now stock a vast range of fresh fruits and vegetables, cultivated from across the globe, available 52 weeks of the year, and produced under strict retailer requirements. These requirements govern the shape, size, colour, sugar-content levels, quantity, timing of delivery, and types of packaging which exporters must meet if they are to sell to global retailers. The global retail revolution has been both cause and effect of a long term process of retail market concentration. For example, the combined market share of the four largest US grocery retailers grew from 14% in 1984 to around 55% in 2001 (Swinnen and Vandeplass: 2010, 111).

The above-noted requirements, in addition to continual cost-down pressures, can be imposed upon producers because the latter compete aggressively with each other to supply northern retailers. Northern retailers and importers have enjoyed falling cost-prices. For example, in the USA, between 1986 and 2006, the average annual percentage change in import prices for Beverages, Fruit, vegetables and nuts, meats and fish fell by 0.41%, 0.58%, 0.62% and 0.91%, respectively (Milberg, 2008, 432).

The power of global retail capital, and its ability to capture very large shares of value from agricultural production, was illustrated by Conroy et al's (1996) study of melon production in El Salvador in the relatively early stages of the global retail revolution (table 4.3). In 1991 while a pound of Salvadorian melon retailed in the United States for 65 cents, only about half a cent contributed to the farmer's income, of which workers received only a fraction (Conroy et al;1996, 105-107).

Table 4.3 Distribution of Value in the Melon Chain

US Shipping and retailing	76.6%
International shippers	9.1%
Imported Inputs	5.1%
US brokers	2.6%
Packer and exporter profits	2.5%
Miscellaneous in-country services	3.5%
Farmer profits	0.6%

Source: Conroy et al (1996, 105-107).

In a related process, the transformation of coffee (the drink) marketing and consumption has been accompanied by a transformation in coffee bean production and sale. For example, in the UK during the two periods 1975 to 1989 and 2000 to 2009 coffee's import price fell from an average of 43% to 14% of its retail price (Seudieu: 2011). One study estimates that coffee cultivators receive less than 2 percent of coffee's final retail price (Oxfam: 2002). As Daviron and Ponte (2005) argue, the 'Coffee Paradox' of the late 20th and early 21st Century was sky-rocketing prices paid by northern consumers for coffee and the falling prices received by coffee farmers. The dynamics have contributed to the creation of impoverished labour forces around the world.

Under the Pinochet dictatorship Chile became a mass producer of fresh fruits and vegetables, such as table grapes, and shifted from producing traditional agricultural crops to wine grapes (Gwynne: 1999). By 2013, its agro-exports earned US\$11.6 billion, and Chile is often represented as a poster-child of neoliberal market-led growth.

During the table grape sector harvest period approximately 700,000 (mostly women) workers are employed to pick and pack the fruit for export.¹¹ Wages have been stagnant since the 1980s, as a consequence of the purposeful construction of a low-wage labour regime by Pinochet and his followers (Clarke: 2014). Alicia Muñoz, director of the National Rural and Indigenous Women's Association, describes how women 'break their backs doing double shifts [approximately 16 hours a day], to earn US\$ 800 or 1,000 a month.' Consequently, 'we have disposable workers, who as a result of exhaustion and the effects of pesticides are sick and unable to work by the age of 40 or 50'. Most of the women workers are also heads of household, thus enduring a particularly tough double-burden.

Brazilian sugar-cane production around São Paulo has boomed in response to rising bio-fuel demand, and through industrial restructuring has become increasingly capital-intensive since the early 2000s. Despite significant increases in productivity, workers receive three times less than the necessary wage to meet their living needs (Garvey, Tyfield and de Mello: 2015, 88).

In 2014 Mexico's export berry harvest was worth approximately US\$550 million. Workers pick strawberries and other fruits for export to the US. They receive 110 pesos (US\$7) for 10-hour working days with no overtime pay.¹² David Bacon (2015) describes the living conditions of one of the Mexican fruit pickers, Claudia Reyes (whose name has been changed to protect her identity):

Reyes' home in *Santa Maria de Los Pinos* is a cinderblock house with a concrete floor, an amenity many neighbours lack. Several years after

¹¹ REFS <http://www.ipsnews.net/2014/05/seasonal-agricultural-workers-left-chilean-boom/>

¹² <http://www.theguardian.com/world/2015/mar/25/mexico-baja-california-farm-workers-strike>, and <http://america.aljazeera.com/articles/2015/6/21/strawberry-pickers-strain-to-see-fruits-of-their-labor.html>

building it she still can't come up with the money to buy frames and glass panes for windows. She's also strung electrical conduit and plugs up the concrete walls, but the government provides no electrical service. "We buy candles for light at night, and I worry that some crazy person might break in and hurt me or the kids, because there are no streetlights either," she says.

During the six-month work season her family doesn't go hungry, but they only eat meat twice a week because a kilo costs 140 pesos (about \$8). Eggs cost 60 pesos (\$4) a carton, she says, "so it takes half a day's work just to buy one." She's paid by the hour, making 900 pesos a week, or 150/day (\$9), for the normal 6-day week.¹³

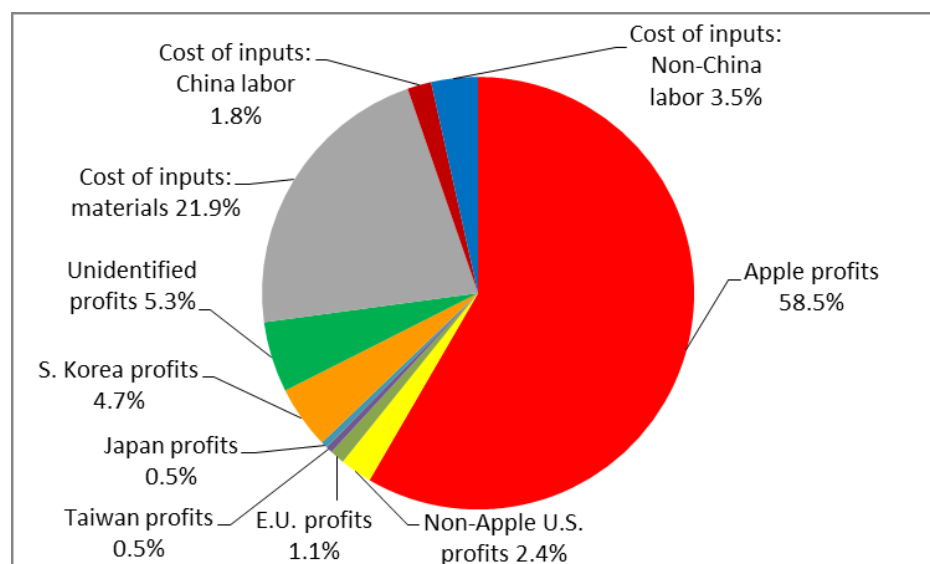
4.3 High-Tech

High tech consumer goods, 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 globe. In much institutional GVC analysis it is often assumed that these industries, embodying the latest hard and soft technologies (machines and management techniques) and subject to rapid innovation, generate high profits, relatively high wages and provide a sound basis upon which to achieve economic and social upgrading.

¹³ <http://davidbaconrealitycheck.blogspot.com/2015/08/the-pacific-coast-farm-worker-rebellion.html> A 2015 workers strike was partially successful. Employers ultimately agreed to raise wages by between \$9.50 and \$11.50 a day, guarantee overtime payments and social security benefits, grant legal recognition to a new worker's union and to create a fund for workers' housing. <http://wafmag.org/2015/08/womens-activism-bears-fruit-landmark-victory-for-farm-workers-in-mexico/>

Apple stands at the pinnacle of the high-tech chain. It controls its supply chain tightly through outsourcing component production and assembly to different firms across the globe which must respond quickly to its evolving design innovations. It maintains its market dominance through high investments in product innovation, use of patents to protect designs, and use of legal means (litigation) to enforce patents (Thompson: 2012). Kraemer, Linden and Dedrick (2011) show how Apple’s profit for the iPhone in 2010 constituted over 58% of its final sale price, while Chinese worker’s share was 1.8% (figure 4.1).

Figure 4.1 Distribution of Value for iPhone (2010)



Source: Kraemer, Linden and Dedrick (2011, 5).¹⁴

Apple also plays an important role in determining workers’ very long hours. As Christian Fuchs (2016) notes, its *Supplier Responsibility 2014 Progress Report* states how the company requires its ‘suppliers to achieve an average of 95 percent compliance with our maximum 60-hour week’ (Apple: 2014). This is in stark contrast to the International Labour Organisation’s Convention C030

¹⁴ Permission to use this table received from Greg Linden by email ON 30TH November, 2015.

on work hours which recommends upper limits of 48 hours per week and 8 hours per day respectively (and see below).¹⁵

There have been repeated media exposures of the poor conditions suffered by workers across the global high-tech sector. In Chinese computer assembly plants ‘workers are forbidden from talking during work, and are fined for not sitting properly....[in one plant] managers have the right to fire workers who step on the grass in the factory complex. In another factory, workers who are caught littering must wear a placard saying ‘I am a garbage producer’” (CAFOD, 2004, 33). In the early 2000s for example, the Catholic Agency for Overseas Development (CAFOD) exposed the industries practices of super-exploitation in Guadalajara, Mexico, detailing how:

Pay, although higher than that of workers in factories producing for the domestic market, is low: typically, US\$50-US\$100 a week at companies such as IBM....A worker must do excessive overtime to earn close to US\$100. A basket of basic food, rent, transport and clothing for a family of four amounts to about five times the legal minimum wage, and electronics workers typically earn less than half of the cost of that basket (CAFOD: 2004: 23).

Even if two parents are working full-time for these better-paying-than-domestic firms, they could not afford a basic basket of goods without working many overtime hours.

In China’s Pearl River Delta, the very low-cost labour employed by Apple’s suppliers are guaranteed by a state-designed and regulated labour-

¹⁵http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312175:NO

regime. The *Hukou* system of household registration segments the labour market by establishing a temporary migrant labour pool of rural workers, who are classified as non-residential workers in urban areas, and who experience lower pay and legally inferior rights and conditions to their urban counterpart. This 'floating population' comprises up to 70% and 80% of workers in the manufacturing and construction sectors respectively (Ngai and Chan: 2012, Freidman: 2014, Clelland: 2014, Foster and McChesney: 2010).

In 2010, Foxconn, one of Apple's principal Asian suppliers, employed around 500,000 workers in its factories in Shenzhen and Chengdu. It rose to infamy that year following reports of 18 attempted suicides by workers, 14 of which were fatal (Ngai and Chan: 2012). Foxconn employs a military-style labour-regime. At the start of the day managers ask workers 'how are you?' and staff must reply 'Good! Very good! Very, very good!' After that they must work in silence, monitored by managers and with strict limits on toilet breaks. Pay is very low, and overtime is often the only way that workers can earn enough to live on. Following the attempted and actual suicides, and a wave of strikes and protests, Foxconn raised wages by up to 25% (SACOM: 2010, 9).

Following these events, rising criticism of Apple for its suppliers' treatment of workers, discovery of child labour in its supply chain, and the firms' own expansionary objectives, the TNC contracted an another supplier – Pegatron near Shanghai – claiming that the move would contribute to raising labour standards. The contracting of Pegatron saved Apple approximately US\$61 million a year because the former can supply Apple with cheaper components based upon even lower wages and worse conditions than Foxconn (China Labour Watch: 2015).

Pegatron workers earn around 21% less than their counterparts at Foxconn and have worse weekday and weekend overtime rates. In 2014,

Pegatron workers worked on average 60 hours overtime a month and over half of its worker's work over 90 hours overtime a month. 'Workers desire overtime because their base wages...cannot meet the local living standard' (China Labour Watch: 2015).

4.4 Implications for Northern Workers

The establishment of a super-exploited labour forces across the global south is the bed-rock upon which the global manufacturing system rises. The creation of this labour pool also has profound consequences for workers in the global north in at least four ways.

First, the production of cheap goods across the global south and their export to the global north have lowered the costs of northern wage and capital goods. Lowering the former reduces the costs of reproducing labour power (and can contribute to pushing wages down). Lowering the latter reduces the costs of capital investments (such as new machineries and services) (Milberg: 2008, Strange and Newton: 2006, Nolan: 2003).

Second, 'offshoring' contributes to the restructuring of labour markets in ways very unfavourable to labour. For example, between 1979 and 1999, '[a]fter losing their job, sixty per-cent of service workers reported taking a pay cut when becoming reemployed'. Further

'[l]ong periods of unemployment and large declines in income are likely to persist among those affected by offshoring. Of the dozen occupations projected by the U. S. Department of Labour to produce the most jobs in the nation by 2008, half of them pay poverty wages. These high-growth jobs include janitors, cashiers, and home health aides' (Whalen: 2005, 37).

Third, a long-term process of labour repression in the north, through states' and firms' strategies of demobilising labour has cut radically workers' wages. According to the Washington-based Pew Research Centre:

[A]fter adjusting for inflation, today's average hourly wage has just about the same purchasing power as it did in 1979, following a long slide in the 1980s and early 1990s and bumpy, inconsistent growth since then... [I]n real terms the average wage peaked more than 40 years ago: The \$4.03-an-hour rate recorded in January 1973 has the same purchasing power as \$22.41 would today.¹⁶

Fourth, the threat of offshoring represents a Damocles sword that firms and states across the global north hang above the heads of 'their' labouring classes, as they seek to raise the rate of labour exploitation (which they call raising productivity). Jack Welch, the former CEO of General Electric told his shareholders that "we must remove that lower 10 percent, and keep removing it every year - always raising the bar of performance." (cited in Upchurch: 2014). This strategy has become known as 'performance management', 'forced ranking', and 'rank and yank' where managers classify workforces according to their productivity with the objective of removing the least productive workers. According to one estimate up to 60% of US firms employ such techniques.¹⁷ Such management techniques are designed to raise labour productivity and increase competition between workers, the latter the better to reduce possibilities of labour solidarity. In the context of stagnant wages, these

¹⁶ <http://www.pewresearch.org/fact-tank/2014/10/09/for-most-workers-real-wages-have-barely-budged-for-decades/>

¹⁷ <http://www.wsj.com/news/articles/SB10001424052970203363504577186970064375222>

productivity increases are retained primarily by firms' shareholders (Lazonick and O'Sullivan: 2000).

5 CONCLUSIONS

This article has sought to advance Global Poverty Chain (GPC) analysis as a critical-theoretical alternative to institutional GVC analysis. As a consequence of its problem-solving approach the latter presents persistent poverty as a consequence of *exclusion* from *productive* employment, or as a consequence of deleterious local-level labour market practices. This discursive framing leads analysis away from a rigorous investigation of how the formation and functioning of global value chains has been predicated upon and contributes to the (re)production of global poverty.

The core difference between GVC and GPC analysis is that the former is concerned with inter-firm dynamics, hence firm-centric. It conceives of upgrading in Schumpeterian terms, of firms seeking out new technologies, new markets, new sources of supply, and new ways of making things. Its prime focus is supplier firm efficiency, competitiveness, adaptability and ability to link-up to dynamic lead firms in 'value-adding' ways.

The Global Poverty Chain analysis approach is concerned primarily with labouring class conditions within global value chains. It recognises that Schumpeterian forms of upgrading represent supplier firm strategies to enhance competitive capital accumulation. However, it prioritises analysis of the labour regimes that underpin upgrading processes. It identifies how poverty-inducing employment relations can underpin upgrading within global value chains.

Geographically differentiated forms of exploitation are co-constitutive of the global labour regime. The formation and expansion of super-exploited labouring classes across the global south facilitates northern firm accumulation strategies. The latter can threaten 'their' workers with outsourcing in order to repress wages, lengthening the working day, and intensify work (immiseration, absolute surplus value extraction and relative surplus value extraction). The production of very cheap goods by super-exploited workers across the global south enables northern workers to maintain relatively high levels of consumption whilst experiencing stagnant/falling wages.

To expand and deepen the concept of GPCs areas for further research could include:

- 1) Investigation into the productivity-wage level link. What are the developmental implications of relatively highly productive industries locating in relatively low-wage regions in terms of workers' human development, lead firm strategies to maintain their status as 'system integrators' and forms and processes of global stratification?
- 2) The ways in which GPC's are co-productive of global wealth and inequality chains.
- 3) The extent of lead firm influence over employment conditions within their supplier firms. As noted in section 4.3 above, Apple sets upper working time expectations that exceed those expected of formal-sector workers in the global north, and appear to act as supplier firm guidelines;
- 4) Mechanisms, practical and theoretical, that would lead to a more equitable distribution of value throughout the chain, implications for chain governance, and how such distributions could alleviate worker poverty;

5) Attempts by labouring classes and their organisations to utilise GVC/GPC analysis to better their bargaining power vis-à-vis supplier and lead firms.

This article's contribution has been to identify and theorise how GPCs are constitutive of contemporary global capitalism and, in so doing, to problematize much of the 'common- sense' that is pervasive throughout the development industry. By reformulating GVC analysis from a critical-theoretical perspective, it aims to identify avenues of investigation, theorisation, and activity (policies, practice and collective actions) that contribute to the poor's struggles against exploitation. From a GPC perspective workers' actions to limit (and potentially transcend) exploitation and to obtain higher portions of value becomes a core concern for critical development research, theory and practice.

END

REFERENCES

Apple Inc. (2014). Supplier Responsibility 2014 Progress Report.

http://www.apple.com/supplier-responsibility/pdf/Apple_SR_2014_Progress_Report.pdf [accessed May 2016]

Arnold, D. (2013) “Workers’ agency and re-working power relations in Cambodia’s garment industry,” Capturing the Gains Working Paper 24, Manchester: Capturing the Gains and The University of Manchester, www.capturingthegains.org/pdf/ctg-wp-2013-24.pdf.

Arrighi, G. (1990). ‘The developmentalist illusion: A reconceptualization of the semiperiphery’. *Semiperipheral states in the world-economy*, pp.11-42.

Bacon, D. (2015). ‘The pacific coast farm worker rebellion’. *The Nation*, Online edition, 8/28/15 <http://www.thenation.com/article/the-pacific-coast-farm-worker-rebellion/> [accessed December 2015]

Bair, J. (2005). ‘Global Capitalism and Commodity Chains: Looking Back, Going Forward’. *Competition and Change* 9 (2): 153-180.

Banaji, J. (2003). ‘The Fictions of Free Labour: Contract, Coercion and So-Called Unfree Labour’. *Historical Materialism*, 11 (3): 69–95.

Barrientos, S., Gereffi, G. & Rossi, A. (2011). ‘Economic and Social Upgrading in Global Production Networks: A New Paradigm for a Changing World’. *International Labour Review*. 150(3–4): 319–340.

Bhagwati, J. (2004). *In Defence of Globalisation*. Oxford: Oxford University Press.

CAFOD. (2004). Clean up your computer: Working conditions in the electronics sector. London.

<http://www.cafod.org.uk/var/storage/original/application/phpYyhizc.pdf>

f [accessed May 2016]

Campling, L, and D, Quentin. (2016). 'Global inequality chains: Gender, class and tax in global production and wealth-distribution'. *Global Networks*. Forthcoming.

Chen, S. and Ravallion, M., (2004). 'How have the world's poorest fared since the early 1980s?'. *The World Bank Research Observer*, 19(2), pp.141-169.

China Labour Watch. (2015). 'Analyzing Labor Conditions of Pegatron and Foxconn: Apple's Low-Cost Reality'. CLW Report 107.

<http://www.chinalaborwatch.org/report/107> [accessed June 2015]

China Labour Watch. (2015). 'Something's Not Right Here: Poor Working Conditions Persist at Apple Supplier Pegatron'. CLW Report 109.

<http://www.chinalaborwatch.org/report/109> [accessed June 2015]

Clarke, T. (2014). 'Class Transformations in Chile's Capitalist Revolution'. *Socialist Register* 2015. Vol 51. 199-215.

Clean Clothes Campaign. (2013). 'Shop 'til they drop Fainting and Malnutrition in Garment Workers in Cambodia'.

[http://www.cleanclothes.org/resources/national-cccs/shop-til-they-](http://www.cleanclothes.org/resources/national-cccs/shop-til-they-drop)

drop [accessed April 2016].

Clean Clothes Campaign. (2014). *Stitched Up: Poverty wages for garment workers in eastern Europe and Turkey*. Clean Clothes Campaign.

<http://www.cleanclothes.org/resources/publications/stitched-up-1>

[accessed February 2016]

Clelland, D. (2015). The Core of the Apple: Degrees of Monopoly and Dark Value in Global Commodity Chains.' *Journal of World-Systems Research* 20.1: 82-111.

Conroy, M, D, Murray and P, Rosset. (1996). *A Cautionary Tale: Failed US Development Policy in Central America*. Boulder: Lynne Rienner.

Cox, R. (1981). 'Social Forces, States and World Orders: Beyond International Relations Theory', *Millennium: Journal of International Studies*, 10(2): 126-55. p.128.

Daviron B, and S, Ponte. (2005). *The Coffee Paradox: Global Markets, Commodity Trade and the Elusive Promise of Development*. London: Zed.

Dhital, S and F, Feruglio. (2016). 'From colonials to corporates: maternal mortality in Assam's tea gardens'. *Open Democracy*.

<https://www.opendemocracy.net/sukti-dhital-francesca-feruglio/from-colonials-to-corporates-maternal-mortality-in-assam-s-tea-gardens>. [Accessed June 2016].

Dicken, P. (2011). *Global Shift: Mapping the Changing Contours of the 21st Century*. Sixth Edition. London. The Guilford Press.

Edward, P. and A, Sumner. (2015). 'New Estimates of Global Poverty and Inequality: How much difference do price data really make?'. *Centre for Global Development Working Paper*, (403).

Foster, J, and R, McChesney. (2012). 'The Global Stagnation and China.' *Monthly Review*. 63(9): 3-21.

- Friedman, E. (2014). 'Alienated Politics: Labour Insurgency and the Paternalist State in China'. *Development and Change*. 45 (5): 1001-1018.
- Fuchs, C. (2016). 'Digital Labour and Imperialism'. *Monthly Review* 67 (8): 1-9. [monthlyreview.org /2016/01/01/digital-labor-and-imperialism/](http://monthlyreview.org/2016/01/01/digital-labor-and-imperialism/) [accessed May 2016].
- Garvey, D, Tyfield, and L, Mello. (2015). "Meet the New Boss... Same as the Old boss?'Technology, toil and tension in the agrofuel frontier.' *New Technology, Work and Employment*. 30 (2): 79-94.
- Gereffi, G. and Korzeniewicz, M. (eds). (1994). *Commodity Chains and Global Capitalism* (Westport,CT, Praeger).
- Gereffi, G, J, Humphrey & T, Sturgeon T. (2005). 'The governance of global value chains'. *Review of International Political Economy*. 12(1): 78-104.
- Gwynne R. (1999). 'Globalisation, commodity chains and fruit exporting regions in Chile'. *Tijdschrift Voor Economische En Sociale Geografie*, 90(2): 211- 225.
- Harris, N. (1987). *The End of the Third World: Newly Industrialising Countries and the Decline of an Ideology*. Harmondsworth: Penguin.
- Henwood, D. (1995). 'Clinton's Trade Policy'. In, F, Rosen and D, McFadyen (eds). *Free Trade and Economic Restructuring in Latin America*. New York.
- Hite, A and J, Viterna. (2005). Gendering class in Latin America: How women effect and experience change in the class structure.' *Latin American Research Review*. 40 (2): 50 -82.

Human Rights Watch. (2015). "Work Faster or Get Out": Labour Rights Abuses in Cambodia's Garment Industry'.

<https://www.hrw.org/report/2015/03/11/work-faster-or-get-out/labor-rights-abuses-cambodias-garment-industry> [Accessed January 2016].

ILO. (2005). *A Global Alliance Against Forced Labour*. International Labour Conference 93rd Session, Report I(B) Geneva ILO.

ILO/KILM, 2011. *Working Poverty in the World*.
<http://kilm.ilo.org/2011/download/Chap1AEN.pdf> [accessed 15 April 2016].

ILO (2013). 'Employment and Economic class in the Developing world' ILO Research Paper No.6 Authored by S, Kapsos and E, Bourmpoula. Geneva. International Labour Office.

Kerswell, T. (2013). 'Productivity and Wages: What Grows for Workers without Power and Institutions'. *Social Change*. 43 (4): 507-531.

Kraemer, K, G, Linden, and J, Dedrick. (2011). "Capturing value in Global Networks: Apple's iPad and iPhone." University of California, Irvine, University of California, Berkeley, y Syracuse University, NY. http://pcic.merage.uci.edu/papers/2011/value_iPad_iPhone.pdf.

Lanz, R. and S. Miroudot. (2011). 'Intra-Firm Trade: Patterns, Determinants and Policy Implications', OECD Trade Policy Papers, No. 114, OECD Publishing. <http://dx.doi.org/10.1787/5kg9p39lrwnn-en>

Lazonick, W, and M, O'Sullivan. (2000). 'Maximizing shareholder value: a new ideology for corporate governance.' *Economy and society* 29.1: 13-35.

Marx, K. (1990) *Capital: A Critique of Political Economy*, Vol.1. London, Penguin

- McGrath, S. (2013). 'Fuelling global production networks with 'slave labour'? Migrant sugar cane workers in the Brazilian ethanol GPN'. *Geoforum*, 44 (1): 32-43.
- McMichael P (2000) *Development and Social Change: A Global Perspective* (2nd edn). Thousand Oaks, CA: Pine Forge Press.
- Mezzadri, A. (2014). 'Backshoring, local sweatshop regimes and CSR in India'. *Competition and Change*. 18 (4): 327-344.
- Milberg, W. (2008) Shifting sources and uses of profits: sustaining US financialization with global value chains, *Economy and Society*. 37:3, 420-451.
- Moseley, L. (2008). 'Workers' rights in open economies. Global production and domestic institutions in the developing world'. *Comparative Political Studies*, 41 (4-5): 674-714.
- NEF. (2010). 'How Poor is "Poor"? Towards a Rights-Based Poverty Line'. London. New Economics Foundation.
- Ngai, P and J, Chan. (2012). 'Global Capital, the State, and Chinese Workers: The Foxconn Experience'. *Modern China*. 38 (4): 383-410.
- Nolan, P. (2003) 'Industrial Policy in the 21st Century: The Challenge of the Global Business Revolution'. In. H-J, Chang (ed). *Rethinking Development Economics*. London. Anthem.
- Nolan, P. (2014). 'Globalisation and Industrial Policy: The Case of China'. *The World Economy*, 37 (6): 747-764.

- Norfield, T. (2011). T-Shirt Economics: Labour in the Imperialist World Economy. <http://column.global-labour-university.org/2012/08/t-shirt-economics-labour-in-imperialist.html> [accessed May 2016].
- Norfield, T. (2014). T-Shirt Economics Update. <http://economicsofimperialism.blogspot.co.uk/2014/09/t-shirt-economics-update.html> [accessed May 2016].
- Oxfam. (2002). *Mugged: Poverty in Your Coffee Cup*. <http://www.oxfamamerica.org/static/oa3/files/mugged-full-report.pdf> [accessed January, 2016].
- Oxfam. (2016). AN ECONOMY FOR THE 1 %: How privilege and power in the economy drive extreme inequality and how this can be stopped. https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bp210-economy-one-percent-tax-havens-180116-en_0.pdf [Accessed 21 May 2016]
- Pattenden, J. (2016). *Labour, State and Society in Rural India: A Class-Relational Approach*. Manchester. Manchester University Press.
- Phillips, N, R, Bhaskaran, D, Nathan & C. Upendranadh. (2014). 'The social foundations of global production networks: towards a global political economy of child labour'. *Third World Quarterly*, 35:3, 428-446, DOI: 10.1080/01436597.2014.893486
- Pickles, J. (2012). 'Economic and social upgrading in apparel global value chains: public governance and trade policy'. Capturing the Gains. Working paper 13. <http://www.capturingthegains.org/pdf/ctg-wp-2012-13.pdf> [accessed April 2016]

Pogge, T. and Reddy, S.G., 2005. How not to count the poor. Available at SSRN 893159.

Reardon, T., Timmer, C.P., Barrett, C.B. and Berdegue, J., 2003. The rise of supermarkets in Africa, Asia, and Latin America. *American journal of agricultural economics*, 85(5), pp.1140-1146.

Reddy, S. and R, Lahoti. (2015). '\$1.90 Per Day: What Does it Say?'. *New Left Review*. 97 (Jan-Feb): 106-127.

Robinson, W. (2008). *Latin America and Global Capitalism: A Critical Globalization Perspective*. Baltimore: The Johns Hopkins University Press. 2008.

Sachs, J. (2005). *The End of Poverty: How We Can Make it Happen in our Lifetime*. London: Penguin.

SACOM/ Students & Scholars against Corporate Misbehaviour (2010). 'Workers as Machines: Military Management in Foxconn'.

<http://germanwatch.org/corp/makeitfair-upd1010rep.pdf> [Accessed June 2015]

Schumpeter, J, A. (1987) *Capitalism, Socialism and Democracy*. London: Allen and Unwin.

Selwyn, B. (2012). 'Beyond Firm-Centrism: Re-Integrating Labour and Capitalism into Global Commodity Chain Analysis'. *Journal of Economic Geography*, 12 . (1): 205–226.

Selwyn, B. (2013) 'Social Upgrading in Global Production Networks: A Critique and an Alternative Conception'. *Competition and Change*. 17 (1): 75- 90.

Selwyn, B. (2014). *The Global Development Crisis*. Cambridge: Polity Press.

- Selwyn, B. (2015). 'Commodity Chains, Creative Destruction and Global Inequality: A Class Analysis', *Journal of Economic Geography*. 15(2): 253-274.
- Selwyn, B. (2016) 'Global Value Chains and Human Development: A Class-Relational Perspective'. *Third World Quarterly*.
<http://dx.doi.org/10.1080/01436597.2016.1156484>
- Seudieu, D. (2011). 'Coffee Value Chain in Selected Importing Countries'. International Coffee Organisation.
<http://www.ico.org/presents/1011/ICC-106-1-value-chain.pdf>
 [accessed April 2016].
- Slaughter, M. (2009). 'How U.S. Multinational Companies Strengthen the U.S. Economy'. Published by Business Roundtable and The United States Council Foundation. Spring 2009.
- Smith, J. (2012). The GDP illusion: Value added vs value capture. *Monthly Review* 64(3). <http://monthlyreview.org/2012/07/01/the-gdp-illusion/>
 [accessed 5 May 2016].
- Strange, R and J, Newton. (2006). 'Stephen Hymer and the Externalisation of Production'. *International Business Review*, 15, 180-93.
- Starrs, S. (2014). 'The Chimera of Global Governance'. *New Left Review*. 87: May- June. 81-96.
- Swinnen, J and A, Vandeplass. (2010). 'Market power and rents in global supply chains'. *Agricultural Economics*, 41: 109–120.
- Taglioni, D, and D, Winkler. (2014). "Making global value chains work for development." (2014). World Bank, Washington, DC.

- Taylor, M. (2007). 'Rethinking the global production of uneven development'. *Globalizations*, 4: 529–542.
- Thompson, N. (2012). 'Does Apple Have a Bruise?' *New Yorker* (5 October).
- UNIDO. (2006). Yearbook of Industrial Statistics. New York: United Nations.
- UNIDO. (2011). *Industrial Development Report*. New York: United Nations.
- UNCTAD. (2013). *Global Value Chains and Development: Investment and Value Added Trade in the Global Economy*. United Nations, New York.
- Upchurch, M. (2014). 'The internet, social media and the workplace'. *International Socialism Journal*. 141 (1). <http://isj.org.uk/the-internet-social-media-and-the-workplace/> [accessed 18 May, 2016].
- Varman, R. (2012). 'The Neoclassical Apology for Monopoly Capital'. *Monthly Review*. No. 64 (6). <http://monthlyreview.org/2012/11/01/the-neoclassical-apology-for-monopoly-capital/> [accessed May 12 2016].
- Wade, R. (2008). 'Globalization, Growth, Poverty, Inequality, Resentment, and Imperialism'. In J, Ravenhill (ed). *Global Political Economy*. Oxford. Oxford University Press. Second edition. 373-409.
- Wallerstein, I. (1974). 'The rise and future demise of the world capitalist system: concepts for comparative analysis', *Comparative Studies in Society and History*, 16(4), pp. 387–415.
- Wallerstein, I. (2000). Introduction to special issue on commodity chains in the world economy, 1590 to 1790, *Review*, 23(1), pp. 1–13.
- Welch, C. (2006). 'Globalisation and the Transformation of Work in Rural Brazil: Agribusiness, Rural Labour Unions and Peasant Mobilisation.' *International Labour and Working Class History*. 70 (1): 35-60.

Whalen, C. (2005). 'Sending Jobs Offshore from the United States,' *Intervention: A Journal of Economics* 2 (2): 33-40.

Wolf, M. (2004). *Why Globalization Works*. New Haven, CT: Yale University Press.

Wood, E. (1999). *The Origins of Capitalism*. New York: Monthly Review Press.

Woodward, D., (2015). Incrementum ad absurdum: global growth, inequality and poverty eradication in a carbon-constrained world. *World Economic Review*. 4: 43-62.

World Bank. (2002). *Globalization, Growth and Poverty: Building an Inclusive World Economy*. Oxford: Oxford University Press.

