Global Commodity Chains and the Marxian Law of Value

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Abstract: This paper develops a Marxian critique of the "global commodity chain" (GCC) paradigm. It is argued that this approach fails to provide an actual explanation of the phenomenon it sets about to investigate. Instead, it offers a typological description of the immediate manifestations of the determinations at stake. As a consequence, the GCC approach one-sidedly conceptualises the relations among individual capitals within a commodity chain as the simple result of relations of power (or co-operation), that is, of direct social relations. By contrast, this paper argues that the latter are concrete mediations of the inner laws regulating the indirect social relations among individual capitals: the process of global competition through which the formation of the general rate of profit asserts itself. On this basis, it develops an alternative account of the social determinations underlying the genesis, structure and evolving configuration of GCCs as an expression of the unfolding of the Marxian "law of value".

Keywords: global commodity chains, Marx, law of value, capitalist competition

> . . .and all science would be superfluous if the form of appearance of things directly coincided with their essence (Marx 1981:956).

Introduction

The global commodity chain (GCC) approach can be regarded as a highly influential framework for the study of contemporary economic processes to have emerged out of the academic debates around the so-called "globalisation" question.[1] It is part of a growing number of diverse traditions that have been converging into what could be labelled a "network-led development paradigm" (Sturgeon 1998). These related approaches see the problematic of development through the lenses of some variant of the concepts of "chains" or "networks" (Henderson et al 2002:448).[2] Without wanting to downplay the differences between the varied intellectual traditions in this broad group of perspectives, they all share a common set of assumptions and concerns. First, they all recognise the novelty of phenomena generally associated with the "globalisation" of the capitalist economy, which they define in terms of the emergence of a pattern of global dispersion with functional integration of economic activities (Dicken 2003:12). Second, they see the configuration of global production networks of firms as fundamental

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drivers of these economic transformations and, therefore, as the context in which to rethink the problematic of development (Yeung 2007:1). In particular, participation in these networks or chains is considered to be a central determining factor of different developmental outcomes by providing opportunities for "upgrading" of firms that can spill over to the rest of the national economy (Kaplinsky 2000; see Bair 2005:167ff, for a critical assessment of the concept of upgrading).

This focus on the sectorally specific structure and dynamics of global industries could be said to resonate with the broader resurgence of interest in the economic, cultural and spatial "life" of particular commodities among geographers (Bridge and Smith 2003; Castree 2001). In this sense, Leslie and Reimer (1999) identify the GCC approach as one of three perspectives that have recently revived academic attention to the specificities of different sectors, the other two being the systems of provision approach mainly associated with Fine and Leopold (Fine and Leopold 1993) and the commodity circuits found, for instance, in Cook and Crang's work on "circuits of culinary culture" (Cook and Crang 1996). But while these latter two groups of literature tend to concentrate on the production–consumption linkage (and, as a consequence, on the nature of the connection between "economy" and "culture" in capitalism), it is the former strand of research that fundamentally puts issues of economic and industrial organisation at the centre of the inquiry (Smith et al 2002). Insofar as this paper is concerned with organisational aspects of the changing forms of global competition, I shall therefore restrict the critical discussion that follows to the GCC approach.

There is no doubt that studies informed by the GCC approach have provided rich empirical descriptions of the functional articulation of particular branches of industry dispersed across the globe. In effect, research stemming from the GCC tradition offers very detailed and informative accounts of the current forms of intra-capitalist competition in different commodity chains. Those studies can therefore be taken as a useful empirical starting point for the investigation of the more general determinations that underlie the relationships among the different individual capitals along each chain. However, some further questions arise concerning its contribution to our comprehension of the contemporary forms of global capital accumulation. In the first place, a critical assessment of the GCC approach should evaluate its merits as a framework for the study of international development. Such an overall assessment of the GCC approach as a tool for the comprehension of uneven development in global capitalism is not, however, the path that I shall follow in this paper.[3]

My aim here is much more modest but, at the same time, focuses on an aspect that has remained unexplored in the critical literature: this paper subjects to critical scrutiny the very concept of commodity chain through the lens of the Marxian "law of value". Given this limited scope, the paper will only examine one of the two constitutive components of the notion of GCCs. Thus, the discussion focuses on the determinations of the "chain form" taken by the current forms of capitalist competition at the expense of analytically "bracketing" its global dimension. To freely borrow a useful distinction from Yeung (2007:4), I centre the examination of GCCs on the "organisational fix" in GCCs and not so much on its "spatial fix". While the latter idea originally developed by Harvey (2006) refers to the geographical relocation undertaken by capital in order to maintain its profitability, the former tries to capture the way in which global lead firms reorganise their network of suppliers in order to maximise their valorisation. As Harvey himself remarks in the *Limits to Capital*, even if it does not provide a full picture of the social processes at stake, a separate engagement with the changing organisational arrangements of capital can nonetheless offer valuable insights into what is a distinctive concrete form taken by the accumulation process (Harvey 2006:139).

Through a critical appraisal of the general foundations of the GCC approach, I make the following two main points. In a more critical vein, I shall argue that despite its informative character, the GCC approach does not actually provide an explanation of the very specific phenomenon that it sets to investigate. What commodity chain studies do is simply to offer, through an essentially inductive-empiricist methodology, a typological description of the immediate outer manifestations of the determinations at stake. This failure firmly to explain the nature of GCCs is expressed, for instance, in the disjuncture between the portrayal of the particular dynamics internal to each industry and the general dynamics of the "system as a whole". Secondly, and more constructively, this paper offers an alternative account of the social determinations underlying the genesis, structure and evolving configuration of GCCs on the basis of the Marxian critique of political economy. In this way, I recast the phenomenon of GCCs by putting forward more solid theoretical foundations for the comprehension of this novel form of capitalist competition on a world scale.

In this endeavour, I intend to echo Neil Smith's appeal for a "return to theory" in radical economic geography (Smith 1989). As he argued in the late 1980s, much of the work among critical geographers tended to react to the abstract and formalistic general models of traditional location theory by re-emphasising empirical research on specific industries and places and aiming at capturing the detail and complexity of particular cases. While there is much to commend in this preoccupation with particularity, Smith reported how this shift towards empirical research had eventually come at the expense of a renunciation of theory and had dangerously slipped into a new empiricism that was incapable of shedding light on the general movement involved in the changing uneven geography of capitalism (Smith 1989:154–156). More recently, Jamie Gough noted how this theoretical gap still remained more than 10 years after Smith's original call and reinstated the need to found the understanding of scalar economic relationships on the fundamental processes of capitalist economies (Gough 2003:25). Difference or particularity, he further argued, should be comprehended out of the contradictory development of the general movement (as differentiation of a contradictory totality), rather than as an irreducible and self-subsistent singularity that escapes determination by the motion of the fundamental social forms of capitalist production (Gough 2003:29). As Hudson puts it in a recent appraisal of the state of progressive radical geography, the Marxian "law of value" remains vital to "elucidate the decisive social relationships specific to capitalism and to the contemporary world" (Hudson 2006:379); and, one could add following Harvey's reflections on the Marxian notion of the capital circulation process (Harvey 1996:64–66), as the fundamental general social process that gives unity and content to the different particular moments or differentiations of the movement of modern social life. This obviously includes a phenomenon as concrete as the formation and dynamics of GCCs, whose current study can arguably be shown to suffer from all the shortcomings and risks of empiricism denounced by Neil Smith 20 years ago. This paper thus takes up this intellectual challenge and offers some elements for filling this theoretical gap in the study of GCCs.

An Outline of the GCC Approach

The concept of GCCs aims to capture the novel type of inter-firm linkages that articulate the functional integration of globally dispersed activities that characterise the present era of globalisation (Gereffi 1994:96). As a unit of analysis, the concept of GCC refers to:

> . . . the full range of activities, *including coordination*, that are required to bring a specific product from its conception to its end use and beyond. This includes activities such as design, production, marketing, distribution, support to the final consumer, and governance of the entire process (Gibbon and Ponte 2005:77).

As Bernstein and Campling note (2006b:439), the main focus of commodity chain analysis lies in the realm of the relation between individual capitals. In particular, GCC research has attempted to illuminate the different types of international network forms that co-ordinate the division of labour underlying each final product and that cannot be grasped through the traditional binary opposition between "market" and "hierarchy" (Gereffi, Humphrey and Sturgeon 2005; Palpacuer and Parisotto 2003). As Gereffi, Humphrey and Sturgeon note against the predictions of transaction cost approaches and building on the insights of network theories, "co-ordination and control of global-scale production systems, despite their complexity, can be achieved without direct ownership" (2005:81). These different ways of articulating complex global production systems are reflected in varied and shifting governance structures.

The concept of governance was originally devised to depict the diversity of authority and power relationships that give overall co-ordination to the division of labour within the commodity chain. Specifically, the governance structure was seen by Gereffi as socially mediating the material interdependency that characterises the "input–output structure" of each GCC (ie the sequence of value-adding economic activities), insofar as it determines "how financial, material, and human resources are allocated and flow within a chain" (Gereffi 1994:97). This was all the more necessary since that input–output structure had a globally dispersed coverage. In turn, this concept of governance is intimately connected with the concept of the "driveness" of GCCs or, what amounts to the same thing, the role of lead firms as "chain drivers". These are the most powerful firms which effectively command the overall commodity chain co-ordination due to their ability to exert control over the other nodes of the network of firms (Bair and Dussel Peters 2006; Gereffi 2001:1622). In this early formulation, the concept of GCC was underpinned by a "strong" notion of chain drivenness (Bernstein and Campling 2006a), in which lead firms strategically exerted their power in order to configure GCCs for the benefit of their own profitability. In this sense, GCC analysis was seen to be a methodology that could shed light on the intrinsic connection between power and profits. According to Gereffi, "profitability is greatest in the relatively concentrated segments of global commodity chains characterized by high barrier to the entry of new firms" (2001:1620). In "apportioning roles to key players" within a network of firms (Kaplinsky 2000), lead firms end up regulating how much profit accrues at each stage of the chain (Gereffi 2001:1620).

Now what is the source or material basis of the relative power of each firm (and in particular that of chain drivers)? The answer to this question leads us to what is another key element of the GCC approach, namely, the related concepts of economic rents and barriers to entry (Kaplinsky 2000:122). Lead firms obtain their exceptional profitability as a result of their capacity to generate different kinds of rents, which are defined as "returns from scarce assets" (Gereffi 2001:1620). These scarce assets, which can be tangible (machinery), intangible (brands) or intermediate (marketing skills), provide the foundation for the emergence of barriers to entry and thereby give rise to those different sorts of extraordinary economic rents: technological, organisational, brand-name, relational and so on (Gereffi 2001:1621). Moreover, these assets provide the basis for the definition of the core competencies that lead firms will tend to monopolise (eg R&D, design, manufacturing, marketing and so on).

Although there is no a priori precise node in the chain where a lead firm will tend to be situated (ie lead firms are not necessarily involved in the making of the finished product and can be located upstream or downstream from manufacturing, see Gereffi 2001:1622), early GCC empirical research claimed that there were two main types of commodity chains: producer-driven commodity chains (PDCCs) and buyer-driven commodity chains (BDCCs). The former tend to predominate in capital and technology intensive industries (automobiles, computers, aircraft and electrical machinery) and generally involve a powerful manufacturer that has tight control over a vertically organised network of suppliers consisting of several tiers. Core competencies are usually final assembly and R&D (Bair 2005:159). BDCCs tend to predominate in lighter, labour-intensive industries (apparel, toys, footwear, consumer electronics); their organisation is generally under the command of "big buyers" (designers, retailers, brand-name firms) that monopolise the functions of design, marketing and distribution, and that outsource the whole manufacturing stage (as opposed to components) to a more horizontally organised and decentralised network of small and medium-sized firms (Bair 2005:159).

Subsequently, partly as a response to criticisms of the simplistic nature of the PDCC/BDCC dichotomy and partly as a result of further empirical observation of different and changing configurations of commodity chains, Gereffi and his colleagues came up with a more complex typology involving five different types of chain governance (Gereffi et al 2005).[4] This five-fold typology also reflects the more recent incorporation into the GCC approach of insights from the new economic sociology, with its emphasis on notions like "embeddedness" and "networks".[5] In this new characterisation of types of GCC, governance structures "move along a spectrum that starts with un-embedded 'arms-length' market relations, moves through modular, relational and captive value chains, and culminates in 'hierarchy', which relates to the complete vertical integration of production within a unitary transnational enterprise" (Taylor 2007:534).[6] The constitution of each particular type of commodity chain is a function of three key determinants: the complexity of transactions, the ability to codify transactions, and the capabilities in the supply-base (Gereffi et al 2005:87). In turn, each of the five governance types along the spectrum from market to hierarchy involves increasing degrees of explicit co-ordination and power asymmetry (Gereffi et al 2005:87). In consonance with the new economic sociology literature, this new typology emphasises that the embeddedness of economic transactions in broader social relations leads to the co-ordination of inter-firm networks not only through sheer power relations, but also through "trust" and "mutual co-operation". Still, the point remains that in all cases the emphasis lies in the way in which these networks of firms are socially regulated through a certain degree of what GCC theorists call "explicit co-ordination", that is, they are not completely evanescent and impersonal. In other words, linkages between firms in commodity chains are regulated through relatively stable direct (ie conscious and voluntary) social relations.

Now there is no doubt that studies informed by the GCC approach have provided rich empirical descriptions of the functional articulation of particular branches of industry dispersed across the globe. In effect, research stemming from the GCC tradition offers very detailed and informative accounts of the current forms of intra-capitalist competition in the different "commodity chains". However, a closer scrutiny of the foundations of the theoretical edifice of the GCC approach suggests that it does not actually provide a satisfactory explanation of the constitution and dynamics of commodity chains. In the next section, I substantiate this point through a more critical engagement with the concept of GCC with a focus on the foundational contributions to the GCC approach, that is, when it was still explicitly formulated as a theoretical development within the world-systems tradition. As I shall argue, the theoretical difficulties in connecting the particular characteristics of GCCs with the general dynamics of capital as a whole do not only stem from its more recent shift to a meso/micro level of analysis, as reported by Bair (2005) in her survey of the intellectual evolution of the GCC paradigm (through the incorporation of insights from the new economic sociology and management/industrial organisation theory literature). Rather, I argue that those weaknesses can be traced back to the original formulations of the GCC approach, that is, when it was still explicitly concerned with establishing a firm connection between the social constitution of "globally dispersed networks of firms" and the "structural properties" of the world economy as a whole.[7]

The Limits of the GCC Framework

Although rarely noted by commentators, it is remarkable that one of the founding works in the GCC paradigm by Gereffi, Korzeniewicz and Korzeniewicz (1994) explicitly situated the emerging approach broadly within the intellectual lineage of monopoly capital theory; or rather, in what the world-systems approach shared with it.[8] Thus, building on the contribution to the book *Commodity Chains and Global Capitalism* by Hopkins and Wallerstein (1994), the editors of the volume stated that "monopoly and competition are key to understanding the distribution of wealth among the nodes in a commodity chain" (Gereffi et al 1994:2). The argument was that competitive pressures were unevenly distributed along the chain. While innovation or, more generally, the possession of "strategic assets" allowed core-like nodes in the chains to be relatively insulated from the forces of capitalist competition, peripheral firms bore the transfer of competitive pressures onto their shoulders (Gereffi et al 1994:3). Accordingly, profitability was said to be distributed along the chain following the relative intensity of competition within different nodes (Gereffi et al 1994:4). Moreover, the possession of strategic assets gave those core firms not only higher profitability (due to greater "market power"), but also the overall power to control forward and backward linkages along the chain.[9]

My claim is that the GCC approach is ill-equipped to explain this phenomenon, which is so central to its very own object of inquiry. In effect, it is to be noted that the above account of the formation and dynamics of commodity chains simply presupposes what needs to be explained. Thus, the differential power among firms to appropriate profits is seen to derive from the capacity of some capitals to generate barriers to entry, which is in turn premised on their relative monopoly over some strategic "scarce asset", that is, one which expresses the capacity to actively participate in the development of the forces of production. But surely the determination of those assets as relatively "scarce" presupposes that other firms within the chain are systematically unable to have their own strategic assets, that is, they lack the magnitude of capital necessary to generate their own barriers to entry. Otherwise, all firms along the chain would have their own "strategic asset", making the possession of those assets cease to be relatively scarce, and leading to the disappearance of the material basis for the differential capacity to command the chain and appropriate higher profits. GCC analysis simply assumes the power differential among capitals and then "explains" the emergence and dynamics of commodity chains on the basis of it as the strategic choice made by lead firms through which they arbitrarily impose the particular conditions for the overall circulation (hence valorisation) of all other capitals along the chain. But although this might be descriptively accurate, it simply presupposes that all other capitals do not have the power to contest that organisational leadership and will therefore have no choice but submissively to accept to valorise at a lower rate of profit. As we can see, this inability to provide a sound explanation of its very object of inquiry has accompanied the GCC approach from its world-systems origins, broadly based as it was in monopoly capital theory.

The rest of the paper argues that the Marxian "law of value" can provide firmer foundations for the comprehension of the nature and dynamics of GCCs. As Marcus Taylor (2007) notes in a recent attempt to conceptualise GCCs from the perspective of the Marxian critique of political economy, this endeavour requires us to rethink the precise relation between those embedded economic activities that GCC research so vividly describes and the more general global dynamics of capital accumulation. "Embedded" social relations, Taylor rightly points out, cannot be understood as self-subsistent constellations but as moments in a circuit of capital spanning production and circulation (Taylor 2007:536). More concretely, the fundamental question lies in the connection between the essentially indirect nature of the general social relation that regulates capitalist production, and the varied direct social relations through which the establishment of the unity of the former is eventually mediated at particular nodes of social division of labour. In other words, what needs to be uncovered is the inner connection between the self-expansion of capital on an ever increasing scale through the unfolding of the "law of value" (the content) and the relatively enduring direct social relations between particular individual capitals within a chain, that is, "embeddeness" and "networks" (the form). The problem with the GCC approach in all of its variants is that it does not grasp the relations among individual capitals beyond their immediate appearances. It is thereby unable to uncover the content of the phenomenon under investigation behind its outward manifestations and actually inverts the latter into the very cause of the phenomenon itself. Thus, it sees the constitution of commodity chains as essentially governed by direct social relations of command (or co-operation). This in turn leads to the inability of GCC research to comprehend the underlying unity of the process of capitalist competition and its inner laws and, therefore, to an inability to connect the particular dimensions of GCCs (including the embedded or direct social relations that mediate the material interdependency among its participants) with the general dynamics of the "system as a whole". This connection, I argue below, is precisely what the Marxian "law of value" can help elucidate.

GCCs as an Inner Moment of the Process of Capital Circulation

Some first steps in the direction of recasting GCCs through the lenses of the Marxian critique of political economy have been already made by radical economic geographers. For example, Hudson rightly remarks that to "conceptualise production in terms of GPNs [Global Production Networks, GS] is to do no more—and no less—than to recognize the practical realities of capitalist economies", which are fundamentally "centred upon commodity production, the production of things with the intention of sale in markets, and value expansion via the production and realization of surplus-value" (Hudson 2008:425). However, this is only implicit in the GCC approach and needs to be made explicit by extending that framework "beyond "the commodity" per se and towards the commodity as an embodied form of value (Smith et al 1999). The "biographies" of commodities are in this light the way in which they move within and beyond the circuits of individual capitals (Hudson 2001, 2008).

I agree that this is the correct starting point for a Marxian take on the phenomenon of GCCs, insofar as it locates the latter within the general nature of capital as self-expanding value. However, I think that there is still a theoretical gap to be filled by unfolding the precise mediations that connect this more abstract determination of capital with the systematically more concrete level of abstraction at which the phenomenon of commodity chains has to be located, namely, the relations of cross-branch competition between individual capitals (ie capitalist firms). The question that needs to be addressed is why and how the unity of the circulation process of capital is achieved through the characteristic relations between individual capitals that structure commodity chains. Let me expand and reframe this question by firstly looking more closely at the general nature of capital.

One of the most potent scientific discoveries of Marx's critique of political economy was that capital is neither simply a thing (for example, the instruments of production), nor productive unit or legal entity (ie a firm), nor a social grouping sharing common characteristics and interests (ie "business" or "the bourgeoisie"). In its general determination as self-valorising value, capital is actually a materialised social relation between commodity owners differentiated into social classes which, in its fully developed form as total social capital, becomes inverted into the very (alienated) subject of the process of social reproduction and its expansion in its unity (Marx 1976:763).[10] Thus, capital is essentially the movement of self-expansion of the objectified general social relation between private and independent human beings which, in its own process, produces and reproduces the latter as members of antagonistic social classes (Marx 1976:723–724; 1978:185). All moments of the human life process thus become inverted into material bearers of the lifecycle of capital or, as Harvey highlights, they become forms assumed by the flow of value in its circulatory process (Harvey 1996:63). Subsumed under the capital form, the alienated content of social life becomes the production of surplus value or the formally boundless quantitative progression of the general reified form of social mediation (Marx 1976:251–257).

Although this content governs the movement of capital as a whole or as an alienated collective power, the total social capital is nonetheless the product of the private and independent form taken by social labour. The general unity of the movement of the total social capital cannot be established immediately. It is thereby indirectly established through the exchange of commodities resulting from the apparently autonomous actions of individual capitals in competition with each other, as each of them pursues the maximisation of its profitability through the expanded reproduction of their formally independent cycles of valorisation. In their simplest form, those cycles can be represented through the well-known general formula of capital.

$$M - C \left\langle \begin{matrix} LP \\ \\ Mp \end{matrix} \right. ...P...C' - M'$$

where M is money capital, C is commodity capital, P is productive capital, L is labour power, Mp is means of production, – is circulation process and "..." represents production process.

More specifically, the concrete form in which individual capitals assert their class unity as "aliquot parts" of the total social capital is the process of formation of the general rate of profit (Marx 1981:298–300, 312). This is the inner or essential determination of the general social relation between capitalist firms. However, the concrete realisation of this inner determination could be mediated under certain circumstances by the establishment of relatively stable direct social relations between certain individual capitals; for instance, relations of hierarchy and power such as those that structure GCCs. The elucidation of those determinate circumstances is precisely what a critical investigation of the social constitution of GCCs should be directed towards. The intellectual challenge, then, is to comprehend the differentiation of the valorisation capacities of individual capitals along the chain as an expression of the global unfolding of the "law of value", that is, through the formation of the general "world market rate of profit" (Bonefeld 2006:51). In the next two sections, I show why and how the direct social relations governing GCCs are concrete mediations in the process of competition through which the formation of general rate of profit—and therefore, the unity of the movement of the total social capital—asserts itself.

Capitalist Competition and the Differentiation of Individual Capitals

In *Capital* Marx develops the inner determinations regulating the competition among individual capitals of different branches of the division of social labour through his discussion of the formation of the general rate of profit and the "transformation of values into prices of production".[11] As Marx argues in those pages, the formation of the general rate of profit takes the concrete form of a tendential equalisation of average rates of profit across the different branches of industry. This would seem to leave us disarmed in the face of the central feature of GCCs that needs to be explained: the configuration of chains with capitals of different profitability and under the overall command of a lead firm that systematically appropriates extraordinarily high profits.

And yet I do not think that this should be the end of the story, a fatal blow for the potentiality of the critique of political economy to cast light on contemporary forms taken by global capitalist competition and described in the GCC literature. Drawing on the work of Iñigo Carrera (2003:ch 5) I argue that what Marx provides in those pages is the simpler or more abstract form taken by the formation of the general rate of profit. The affirmation of the unity of the total social capital through the determination of its private fragments as "equally valorised values" (Iñigo Carrera 1995) is further realised in the form of its self-negation, that is, by differentiating their valorisation capacities. Here it is important to emphasise that this process of differentiation does not constitute, as monopoly capital theories (the GCC approach among them) would have it, the absolute opposite of the formation of a general rate of profit as the fundamental law regulating the relation between individual capitals. Instead, it involves a further concretisation of that very same law.[12]

The key to these more concrete determinations, however, are not to be found where Marx explicitly addresses the competition among the multiplicity of capitals comprising the total capital of society. But they can be found several pages later in volume 3 of *Capital*. Specifically, Marx hints at this problem in the context of his discussion of the genesis of capitalist ground rent when he is unfolding the peculiarities of small-scale peasant ownership (Marx 1981:940ff). There Marx unfolds the category of "small capital" and shows that its valorisation is not regulated in the same form as normal capitals. More generally, what Marx effectively offers us in those pages is the basic elements to further develop the determinations of the qualitative differentiation between normal and small capitals which, as shown below, will prove of paramount importance for the explanation of GCCs on the basis of the law of value. While Marx only unfolds those determinations in the specific context of agrarian capital (ie industrial capital valorised in agriculture), the work of Iñigo Carrera (2003:ch 5) insightfully shows that their applicability is broader and can actually be generalised to industrial capital as a whole. Moreover, he draws additional implications from the reproduction of small capitals which, I believe, cast further light on the constitution of commodity chains.

As has been forcefully argued by many Marxist scholars (Shaikh 2006; Weeks 2001), the dynamics of capitalist competition that mediate the production of relative surplus value by the total social capital is not the judicious and orderly social process ideologically presented by neo-classical economics. Rather, it is marked by a fierce warfare that results in the uneven development of the productive forces within and across branches of production (Smith 2008). Individual capitals that cannot keep up with the demands of the competitive battle (essentially and ultimately—though not exclusively—revolving around the increase of the productivity of labour), eventually face bankruptcy and displacement from the market. This is the concrete form that mediates the process of concentration and centralisation of capital that Marx emphasised as characterising the dynamics of the accumulation of capital through the production of relative surplus value (Marx 1976:776–777). However, as Iñigo Carrera points out (2003:124), this process does not necessarily take the simple form portrayed by Marx. In effect, the liquidation of individual capitals that are unable to keep up with the scale needed to set into motion the socially normal methods of production (ie to function as normal or average capitals) does not have to be the immediate outcome of their defeat in the competitive struggle. Besides the recourse to other temporary sources of competitiveness like the abnormal extension of the working day or intensification of labour (Clarke 1999), there are still other ways in which they can extend their agony. The key to this expanded lifespan lies in the determinations of *small* capitals that I mentioned above.

In effect, I have pointed out that the valorisation of agricultural small capitals is not regulated by the average rate of profit of normal capitals. Instead, it is regulated either by the value of the means of subsistence needed for the material reproduction of the peasant or, additionally, by the interest paid on the price of land. This differential valorisation capacity can be generalised for all industrial capitals. In this case, only in very extreme circumstances will the rate of valorisation fall down to the equivalent of the wage that the small capitalist receives (i.e., the case of the family business whose owner is on the verge of proletarianisation). More generally, the rate of valorisation of small capitals in non-agricultural branches of production is usually regulated by the interest rate on the liquidation value of their productive assets (Iñigo Carrera 2003:124). In other words, their valorisation capacity is determined by the rate of interest that those capitals of restricted magnitude could yield if they closed down business and were turned into interest-bearing capitals. Accordingly, this rate of valorisation will vary with the specific concrete magnitude of different small capitals, since the aforementioned rate of interest will vary in each case.[13] Small capitals actually constitute a stratification of capitals of different magnitudes, some of which might only slightly differ from normal capitals, to the point of being imperceptible through impressionistic observation (Iñigo Carrera 2003:124). This means that, at first sight, some small capitals can look impressively "big". The point is that they nonetheless do not reach the specific magnitude needed to be turned into normal capitals, that is, they do not reach the "definite minimum of capital [that] is required in each line of business to produce commodities at their price of production" (Marx 1981:843).

The crucial point for this discussion is the following: if, as is likely to be the case, the rate of interest tends to be below the general rate of profit, then the higher costs springing from the smaller scale and/or the obsolete means of production used could be compensated by the lower rate of profit. The limit to the survival of small capitals is thereby given by the extent to which the price regulating their valorisation (determined by their cost price plus the interest rate on the liquidation value of their respective assets) manages not to rise above the price of production regulating the valorisation of normal capitals.[14] This strictly determined limit is therefore subject to the general development of the productivity of labour in each particular branch of industry, which in turn expresses the changing pace and forms of production of relative surplus value by the total social capital. Moreover, inasmuch as the concentration and centralisation of capital nonetheless marches forward, the limit for the subsistence of small capitals moves continuously upwards over time. But as long as the pace of the increase of the productivity of labour determines a normal price of production that does not fall below the price that regulates the valorisation of small capitals, the latter can continue accumulating despite their inability to keep up with the development of the capitalist productive forces due to their reduced magnitude.

In fact, if the price that regulates the valorisation of small capitals is actually lower than the normal price of production that regulates the valorisation of normal or average capitals, the latter become effectively excluded from those branches of social production. What we effectively have here is an "entry barrier" for normal capitals, which are unable to compete with smaller capitals that set into motion a lower productivity of labour but which compensate those higher costs through a considerably lower rate of profit. And this has fundamental consequences for the development of the productive forces of social labour. To put it simply, since small capitals are by nature incapable of being at the vanguard of technological development, their reproduction and dominance in whole branches of production acts as a reactionary barrier to the unfolding of the plenitude of the potentialities of the revolutionary transformation of the material conditions of social labour through the automation process.

The reproduction of small capitals has another implication which is crucial for the comprehension of the formation of commodity chains: the release of surplus value by small capitals (Iñigo Carrera 2003:126ff). If concrete circumstances are such that small capitals manage to sell their commodities at a price that stands above the one determined by their specific rate of valorisation but below the price of production of normal capitals, then a potential surplus profit emerges.[15] However, although this surplus profit is borne by the commodities produced by small capitals, their competition over that extraordinary mass of abstract social wealth eventually leads them to expand production and drives their prices down to a level determined by their specific rate of valorisation.

Does this mean that the surplus profit vanishes into thin air? Certainly not. Although it slips through the fingers of small capitals, it ends up in the hands of some of the normal capitals that valorise in directly neighbouring branches of the division of labour and with which they relate in the sphere of circulation. Assuming, for the sake of argument, that small capitals are suppliers of inputs for those normal capitals, the latter will benefit from a permanent flow of extra surplus value derived from the purchase of inputs at prices below their normal price of production (ie at a "pseudo" price of production). In turn, this means that those successful normal capitals that end up monopolising the market relation with small suppliers will systematically obtain a higher than normal rate of profit.[16]

What are the implications of all these further mediations in the concrete forms taken by the competition among individual capitals beyond the simple equalisation of the average rates of profit described by Marx? In a nutshell, we can now see that the unfolding of the intra-capitalist competitive battle generates a three-fold differentiation among individual capitals. First, there are normal or average capitals whose rate of profit is tendentially equalised at the level of the general rate of profit. Second, there are small capitals, the losers in the competitive war that nonetheless manage to extend their lifespan through systematic valorisation at a rate of profit below the general one. Third, there are some normal capitals that, through the appropriation of the surplus profit freed up by small capitals, systematically valorise at higher than average concrete rates of profit. I shall term this latter kind of individual capital enhanced normal capital.[17]

In brief, a hierarchy of individual capitals with differential valorisation powers emerges out of the immanent dynamics of competition that mediate the establishment of the unity of social capital as the concrete subject of the exploitation of the collective labourer. Two important points should be emphasised in this regard. First, this is not simply a short-term phenomenon but can reproduce itself over relatively long periods of time. Still, this differentiation cannot persist indefinitely as the aforementioned objective limits to the reproduction of small capitals are eventually reached. The precise forms and timing of its internal dynamics ultimately depend on the pace of the contradictory development of the productive forces of social labour as an attribute of the total social capital, that is, on the concrete forms taken by the production of relative surplus-value on a world scale in the course of capitalist development.

Second, this hierarchical differentiation of capital does not derive from, or result in, the suspension or transcendence of the general law regulating the competition process, that is, the capitalist law of value or the formation of the general rate of profit, through the emergence of a "monopoly sector" that stands above and dominates a "competitive" one. Quite to the contrary, as I hope to have shown: it is the concrete expression of the pure unfolding of the formation of the general rate of profit beyond its simpler forms (as discussed by Marx in *Capital*). The law of value continues to operate with full force across the whole capitalist economy. Moreover, the above discussion implies that value is not simply created within each chain or network of firms and then contingently captured in different degrees by each participant, as implied by GCC analysts. Instead, value is created by the living labour of workers in the economy as a whole and appropriated through the objective process of formation of the general rate of profit by each individual capital.

What follows from this is that the power relations among individual capitals are not, as GCC analysts would have it, the cause of their differential valorisation capacities. It is the other way round: because the law regulating the competition process—the formation of the general rate of profit—takes concrete shape through the differentiation of the concrete valorisation capacities of each kind of individual capital, the indirect social nexus among the latter is expressed through unequal or hierarchical relations. This means that although the establishment of the concrete rate of profit of each capital in the chain is mediated by their respective exercise of power in the sphere of circulation (thereby appearing as the simple outcome of those unequal market relations, i.e. as a relation of subordination), it is actually strictly and objectively determined in accordance to the laws of movement of capital as whole.

Rethinking the Nature of Power in GCCs

This latter point bears on a more general question that has recently caught the attention of geographers investigating the dynamics of GCCs, namely, the nature of power in networks of firms (Hess 2008; Rutherford and Holmes 2008; Smith 2003). The debate can be seen as motivated in part by the dissatisfaction with what has been considered as a reified understanding of power in Marxist or structuralist approaches. This allegedly is a view of power as "thing" that can be possessed and used to advance certain vested interests, and which exists in particular, privileged social loci (for instance, in the headquarters of TNCs or in the state) (Marques 2007). It is, as post-structuralists would have it, a "centred" conception of power. In light of the shortcomings of this traditional Marxist view to make sense of the diversity and apparent contingency of power relations in production networks, many geographers have tended to adopt a more "decentred" or "diffuse" view of power as immanent to the singularity of the specific social field in which it is exercised or, alternatively, as a relational effect of social interaction (Allen 2003). The latter view in particular has been highly influential among proponents of the GPN approach who draw on action network theory (ANT) (Coe et al 2008). Finally, some scholars have tried to find a compromise between the two extremes of "structural determination" and "relational contingency" through either a "weak" version of ANT (Castree 2002; Smith 2003) or by recourse to insights from critical realism (Marques 2007; Rutherford and Holmes 2008; Sayer 2004).

I believe that the approach developed in this paper offers a perspective on power in commodity chains which, although drawing on the Marxian critique of political economy, differs from what is usually depicted as the Marxist position in the debate, namely, that the dynamics of GCCs or GPNs are directly controlled at will by the (structurally determined) economic authority and power of TNCs, and maybe indirectly through their privileged influence on the policies of a relatively autonomous state (Rutherford and Holmes 2008). More generally, it suggests that the whole terms of the debate on power in commodity chains or production networks might be in need of rethinking. It seems to me that the prevailing understandings of power and domination tend to grasp them, as Postone puts it in relation to what he calls "traditional" Marxism, "in terms of the concrete domination of social groupings or of institutional agencies of the state and/or the economy" (Postone 1998:62). This not only applies to those "structural" approaches that focus on the "idea that we are under the control of a political or economic authority" (Allen 2004:23). Inasmuch as they focus on the concrete immediacy of direct social relations, it also applies to relational approaches as well.

My own approach points to a different understanding of the inner or essential nature of power and domination in capitalism. As Postone (1998:62) notes, what is specific to capitalist domination is its impersonal and abstract character. This is not simply the domination of one kind of actor over another (ie the command of lead firms over the network of suppliers emphasised by structuralist and realist approaches). But neither is it the open relational effect of the contingent mobilisation of resources by actors in a network. Rather, it is the abstract rule of all "actors" by the autonomised movement of the general objectified form of social mediation, namely, value (Iñigo Carrera 2003). As Marx puts it in volume 2 of *Capital*, "the movement of industrial capital is this abstraction in action" (Marx 1978:185). This is not an insight to be upheld only in relation to the more abstract determinations of capitalist society, to be then dropped or somehow restricted when more concrete phenomena like power relations in commodity chains are considered.[18] The "concrete" power that each actor in a commodity chain exercises (both "power to" and "power over") is actually an expression of the "abstract" power that capital exercises over all of them.

This kind of approach does resonate with the Foucauldian view of power as ubiquitous, immanent and with the quality of a self-expanding subject (Kerr 1999:182). In this sense, it is indeed not "structurally" possessed or controlled by anybody. However, while Foucault ignored the question of the social constitution of this abstract form of power, Marx discovered its form determination as capital or self-valorising value, and the content of the latter in the alienated mode of existence of the movement of human productive activity (Kerr 1999:182). Thus, although the impersonal domination of capital has no privileged locus or centre, it does have unity and determinate forms of movement or "laws" through which the former is established. The "law of value" in all its complexity captures precisely that form-determined motion of alienated human practice. In its most developed form, this "abstraction in action" achieves unity through the formation of the general rate of profit. The latter is thereby not simply an abstractly economic process determining equilibrium prices, but the form through which the formal inversion of the materiality of the powers of human activity into powers of the objectified social relation acquires its plenitude in the overall movement of social reproduction (Iñigo Carrera 1995). The changing and differentiated "concrete" power relations characterising the governance of GCCs must therefore be grasped as particular mediations in that more abstract alienated general social process of overall circulation of the total social capital, that is, as outward manifestations of the inner workings of the abstract rule of dead over living labour. Thus, they are not to be conceived of as independent, self-subsisting "factors" that externally "modify" or "influence" the operation of the law of value, as happens with all undialectical understandings of the notion of "mediation". Instead, they need to be grasped as necessary modes of motion through which the law of value is further unfolded beyond the strictly "economic" forms springing from the indirect nature of the social relations of capitalist production. In the next section, I show that it is the differentiation of individual capitals engendered by the movement of the law of value that constitutes the general determination of, and gives unity to, the formation and changing configuration of GCCs and their forms of governance. The alleged "fluidity" and "diversity" of power relations emphasised by relational approaches is actually nothing but the outward appearance of the movement of the inner contradictions of the capital form, when grasped at the level of the relations of competition between individual capitals.

Genesis, Structure and Dynamics of GCCs in the Light of the Marxian Critique of Political Economy

After what might have seemed as a long-drawn diversion, let us now sketch out the relevance of the determinations discussed above for the comprehension of the configuration and dynamics of GCCs. Behind the different particular motives usually adduced by scholars for the formation of GCCs (eg taking advantage not only of foreign cheap labour, but also of "organisational flexibility" Gereffi et al 1994:6), I think there is a more general inner content underlying this novel social phenomenon, namely, commodity chains essentially are the social form through which certain normal capitals appropriate the surplus value released by small capitals.

The formation of commodity chains is therefore the concrete form taken by the competition among normal or average capitals over the extra surplus value that escapes the hands of small capitals. The deeper immanent purpose and prime mover of the outsourcing of manufacturing is therefore the multiplication of the sources of extra surplus value released by small capitals in the sphere of circulation, as particular functions of the social division of labour that were formerly done "in-house" and thereby actively participated in the tendential equalisation of the rate of profit at the general level, are now carried out outside the immediate reach of that social process. Similarly, "the contractual subordination of suppliers previously linked through 'open market' transactions" (Raikes et al 2000:396) involves the attempt by normal capitals to secure and protect the control over the outflow of surplus value released by particular small capitals. Thus, although it is true that one of the conscious motives for normal capitals to outsource manufacturing is the benefit to be obtained by the employment of "cheap labour" in low-wage locations, this line of reasoning simply assumes that those lower costs will not (entirely) translate into higher profits for contractors but will be appropriated by "lead firms". The determinations of the law of value developed in the previous section explain why this will necessarily be the case: although normal capitals are not the direct employers of those low-wage workers, they nonetheless end up appropriating part of the surplus value that corresponds to their exploitation.[19] The imposition of strict conditions for chain membership (eg the fixing of low prices for the suppliers' output) is the concrete form that mediates this transfer of surplus value from small to normal capitals. The same could be said of "organisational flexibility" which, as Raikes, Jensen and Ponte highlight, tends to be flexibility for the key agent in the chain (2000:396). From the perspective of the organic unity between the production and circulation of capital, "organisational flexibility" actually entails the optimisation of the overall turnover structure of normal capitals at the expense of higher circulation costs for all other capitals in the chain (through, for instance, accumulation of inventories or unfavourable conditions of commercial credit). More generally, the transfer of surplus value in the chain will always be mediated through the establishment of determinate conditions of turnover for each participating capital, since it is out of the whole cycle of valorisation (ie production plus circulation) that their respective concrete annual rate of profit emerges.[20]

To sum up, the geographically dispersed networks of firms that constitute GCCs are a concrete instantiation of the differentiation of capitals that mediates the establishment of the unity of social production through the formation of the general rate of profit. However, since that differentiation is necessarily mediated through the concrete specific relations established in the process of exchange of commodities between determinate capitals of varying magnitudes and valorisation capacities, the indirect relations of inter-branch competition end up taking the form of their opposite: direct relations of command (or maybe co-operation, see below).

The general determination of both the composition and governance structure of GCCs also follows from the differentiation of industrial capitals outlined above. Thus, although varying in its specifics with the particularities of each GCC (which can only be captured through detailed empirical research), it seems reasonable to suggest that all commodity chains generally comprise at least three qualitatively different kinds of capitals: enhanced normal capitals, normal capitals and small capitals. The peculiarities of the governance structure will surely vary according to the composition of the chain. While relations of command/subordination will tend to prevail in nodes where exchange relations between the normal and small capitals dominate (more "captive" forms of governance), more horizontal or "co-operative" relations will tend to prevail among normal capitals and, probably, also between enhanced normal capitals and normal capitals, or between small capitals ("modular" or "relational" governance structures). The simple reason for this is that hierarchical relations are more likely to be the concrete mediating form involved in the appropriation of an extraordinary surplus value freed up by small capitals. The "lead firm" or "chain driver" in particular will most certainly be a normal capital that, on the basis of the concrete particular circumstances and industrial trajectory of each chain, has found itself in a better situation to act as the key co-ordinating agent.[21] From that position, it will therefore be able to capture the surplus profits freed by small capitals within that chain and become an enhanced normal capital, or the strongest among them if there are other normal capitals that successfully manage to make a claim over those extraordinary profits flowing out of small capitals.

Take, for example, the case of the apparel industry until the mid-1990s, one of the most extensively researched GCCs (Bair and Dussel Peters 2006; Gereffi 1999; Gereffi and Memedovic 2003) and usually taken as an emblematic case of BDCC. Simplifying slightly, there are three main players in this particular chain: "big buyers" (branded marketers, retailers and branded manufacturers), garment producers and textile manufacturers. While textile manufacturers in the United States are large firms that use highly automated labour processes (Gereffi 1994:103), garment manufacturers are small, labour-intensive factories (Gereffi 1994:102). "Big buyers", for their part, are generally capitals specialising in the design, marketing and branding of commodities and having the overall leadership in the chain. They include fashion-oriented companies, department stores, brand-named companies, mass merchandisers and discount chains (Gereffi 1994:112). As Gereffi reports, developments since the 1980s meant that garment manufacturers were being "squeezed" from both ends of the apparel commodity chain by textile companies and retailers (Gereffi 1994:103). The specificities of this dynamic seem to indicate that while these two kinds of capital were normal capitals, garment producers were small capitals that released some of its potential surplus value in the sphere of circulation, which therefore became available for appropriation by the former. The role of big retailers as "chain drivers" can only mean that they were capturing the larger amount of that extraordinary surplus value through the establishment of the overall conditions of circulation of capital within the chain thereby becoming the strongest enhanced normal capital. However, the fact that textile producers were placing greater pressures on garment manufacturers for larger orders, high price of inputs and favourable payment schedules (Gereffi 1994:103), that is, shaping their turnover structure, suggests that they might have been participating in the appropriation of part of that extra surplus value as well.

However, the situation in BDCCs has more recently changed with the emergence of giant transnational contractors in East Asia. As Appelbaum (2008) shows, although this trend has been more pronounced in industries such as electronics, it has developed in the apparel and footwear sectors as well. Not only do these giant contract suppliers operate large modern factories (in contrast to the sweatshops of small contractors emblematic of the early phases of the apparel GCC), but they have also taken over many of the pre- and post-production functions previously centralised by "big buyers", including design, warehousing and control over logistics (Appelbaum 2008:73). According to Appelbaum, these dynamics seem to signal that a power shift in the apparel GCC has occurred, with the asymmetry between "big buyers" and contractors at least partly redressed (2008:71, 81). In effect, evidence seems to indicate that these giant contractors increasingly are in a better position to negotiate prices of output with giant retailers (2008:81). Interestingly, Appelbaum notes how these changes away from more "captive" governance structures comprising a highly decentralised network of small suppliers have been a largely unexpected development (2008:71). However, from the Marxian perspective outlined above, those recent transformations of BDCCs are far from unexpected and can be read as a predictable expression of the way in which the objective limits to the reproduction of small capitals (hence of more captive network forms) are reached. On the one hand, we have seen that the tendency for the concentration and centralisation of capital ultimately undermines the competitive edge of small capitals by increasing the productivity of labour of normal capitals to the point where their price of production sinks below the price that regulates the valorisation of the former. On the other hand, in light of the particular characteristics of giant suppliers described by Appelbaum, it seems plausible to consider those contractors as normal capitals that, as an expression of the previous point, have eventually managed to enter into (or grow within) branches of production formerly dominated by small capitals.[22]

Thus, the insights gained through the re-framing of the particularities of each GCC in the light of the more general determinations of the differentiation of the total social capital can provide more robust general foundations for the comprehension of this concrete social form. Specifically, this framework can adjust more flexibly to some of the empirical objections to the original formulation of the general features of governance structures that have been put forward in the literature. Raikes, Jensen and Pontes (2000:397–399), for example, have disputed the idea of single chain driver (contemplating the possibility of "multi-polar driving" or of varying degrees of "drivenness" in different nodes of the chain). Ponte and Gibbon (2005:5–6) have also taken issue with the more recent five-fold typology developed by Gereffi, Humphrey and Sturgeon, claiming that the different types of governance do not necessarily reflect the overall drivenness of a chain but can exist at different nodes of the same commodity chain. These objections to the over-simplistic original portrayal of the "governance structure" of commodity chains can be easily and more rigorously addressed armed with the determinations of the differentiation of individual capitals and the release of surplus value by small capitals that I discussed earlier. "Multi-polar driving" would simply signal the presence of more than one normal capital enhancing its accumulation via the appropriation of an extra surplus value from small capitals. Similarly, the existence of varying "degrees of drivennes" or of diverse "governance modalities" in the various links of a chain, would express the fact that there are at least three qualitatively different kinds of capitals of stratified valorisation capacities (enhanced normal capitals, normal capitals and small capitals) and, above all, that the category of small capital includes a wide spectrum of concrete magnitudes and rates of valorisation. The kind of exchange relations that mediate that process of differentiation in the sphere of circulation will differ accordingly. This greater complexity of "actually existing" GCCs and their dynamics of change can therefore be grasped on the basis of rigorous and clear criteria reflecting the general qualitative determinations of the different kinds of capitals that emerge out of the system-wide laws of motion of capital accumulation. By contrast, the GCC approach can only accommodate these variations by continuous ad hoc redefinitions and refinement of previous typologies based on inductive generalisations from particular commodity chains, that is, by permanently chasing a moving target. This inability to comprehend the immanent transformative dynamics in GCCs lies, again, in the inability to connect the particular determinations of each chain with the organic unity of the contradictory movement of capital as a whole through the unfolding of the law of value. As Harvey (2006:153) remarks, the organisational arrangements of capitalism are nothing but expressions of the workings of the law of value and, as such, they are more developed carriers of those very same contradictions. In this sense, it is in their nature to be subject to chronic instability and change, although always as concrete (self-negating) forms in which the general tendency for the concentration and centralization of capital ultimately asserts itself.

Conclusion

This paper has critically examined the GCC approach and the nature of GCCs. As I hope to have shown, GCC research offers a very useful empirical investigation of contemporary trends in the forms of global capitalist competition. However, it fails to root this novel phenomenon in the general laws of motion of capital as a whole. As a consequence, I have argued that the GCC approach cannot actually provide a firm explanation of the constitution and dynamics of its own object of inquiry. These shortcomings are not to be found in the more recent GCC research only, with its characteristic industrial organisation/management theory turn. It can even be traced back to its origins in the world-systems school.

Those difficulties can be overcome by re-considering GCCs in the light of the Marxian critique of political economy. The paper has shown that the latter can offer valuable insights into this social phenomenon by uncovering the way in which this industry-specific phenomenon mediates the underlying unity of the system-wide dynamics of the total social capital. To paraphrase Marx, the critique of political economy can illuminate the way in which this novel particular form taken by the competition among individual capitals across branches of production dispersed across the globe "force the inherent determinants of capital upon one another and upon themselves" (Marx 1973:651). In so doing, it can posit GCCs on more robust foundations, uncovering not only the true underlying content behind their emergence and initial configuration (the differentiation of industrial capital and the release of surplus value by small capitals in the sphere of circulation), but also the dynamic principle underlying their subsequent transformation and evolution away from more "captive governance structures" with the rise of a global supply base of giant contractors (the ways in which the tendencies for the concentration and centralisation of capital undermine the basis for the continued reproduction of small capitals).

This critical appraisal of the GCC approach has nonetheless been incomplete. For reasons of space, I have limited the discussion to the "network" aspect of GCCs at the expense of hardly addressing their global character and, therefore, their territorial dimension. This latter dimension cannot be ignored when attempting to provide a comprehensive assessment of this form of capitalist competition on a world scale. In turn, this global dimension bears on the question of the contemporary forms of the international division of labour. But the determinations behind the latter cannot be grasped by simply looking at the relations of competition among individual capitals. Rather, it requires that we descend into the "hidden abode of production" to uncover the modes taken by the global extraction of relative surplus-value by the total social capital through the exploitation of the global working class.[23] And it is by considering these two aspects in their unity that the implications of this theoretical critique can be fully appreciated. Needless to say, I cannot elaborate at great length on this in these concluding remarks (see Starosta forthcoming for a more extended discussion). Still, the discussion of the "organisation fix" provided in the paper already points to some implications for the reformulation of the GCCs framework for the study of particular global industries.

So how does one translate the theoretical critique outlined in this paper into the development of a sounder empirical research on GCCs? At the merely descriptive qualitative level there is not much to be advanced beyond what GCC analysts themselves have already recognised and addressed as limitations of earlier studies utilising the framework. It is precisely at that level where the strength of the approach resides.[24] However, there are other dimensions that could still be strengthened. First, there is a need to rethink the terms for the construction of typologies. The latter should not be based on inductive generalisations out of the particular direct social relations that mediate the exchange of capitalist commodities. Instead, I think that the relevant criterion for the identification of agents and their relations essentially lies in the qualitative differentiation of individual capitals outlined above. It is this differentiation only that can shed light on the real meaning and significance of those different "explicit forms of co-ordination" in the various nodes of the chain as mediating the circulation of value along the latter.

This leads to the second point: the issue of quantitative evidence of profitability. For there is no other way of unequivocally identifying whether an individual capital is small, normal or enhanced than through a rigorous estimation of the concrete annual rate of profit (see endnote 9). This actually reflects the nature of capital itself. As qualitatively undifferentiated masses of values in process of expansion, individual capitals know no other difference than quantitative ones; or, better stated, they can only express qualitative differences through quantitative ones. Thus, the only synthetic expression of the differentiation of individual capitals lies in the concrete form taken by the degree of their valorisation capacity, that is, the annual rate of profit. In turn, this estimation can only be done on the basis of a detailed reconstruction of the specific forms taken by the turnover circuit of each capital as they flow through the different phases of their valorisation process.

A reformulated GCC empirical analysis would then consist in the reconstruction of the modalities in which the turnover circuits of the different chain participants intertwine in order to then uncover the diverse mechanisms through which some capitals transfer surplus value to others in the chain. Note, however, that this will not only be reflected in the prices at which commodities are exchanged (although that is very likely to be one of the most general and visible mechanisms), but in the establishment of all sorts of conditions that affect the circulation times and costs of each capital and, as a consequence, their respective concrete rates of profits. As mentioned above, the concrete profitability yielded by individual capitals emerges out their overall circulation process. Thus, any circumstance affecting the forms in which each capital passes through its different circulatory phases will be reflected in their profitability and accumulation capacity. These circumstances may include, among others, commercial credit conditions, differential access to financial credit, unfavourable storage costs, technology transfer royalties, specific tax credits or state subsidy schemes, and even most performance requirements for suppliers such as quality control criteria and the establishment of general standards, codes of conduct, etc. All these circumstances are bound to affect the times and costs of circulation of individual capitals, and as long as their negative effects on the unfolding of the turnover circuit are not compensated through higher prices, they entail a differentiation of concrete rates of profit. Consequently, they are all modalities of the transfer of surplus value between individual capitals in a chain that I unfolded in more abstract terms above. In this sense, the significance of the different "embedded" social relations and modes of governance established within each node should fundamentally be grasped as mediators in the uneven allocation of circulation conditions for the different participating capitals in the commodity chain. It is in relation to the intertwining of the individual turnover circuits of capitals qualitatively differentiated along the lines discussed earlier that those direct social relations matter.

A similar point could be made about the need to bring other actors into GCC analysis, a point forcefully made by many scholars both within that tradition and from related ones such as GPN research (Gibbon et al 2008; Henderson et al 2002). I could not agree more with this, although the crucial question remains as to how to conceptualise the role of those other actors in a commodity chain. Indeed, inasmuch as the turnover conditions of individual capitals are affected by a myriad of circumstances that cannot be reduced to those simply established through the action of direct members of a GCC, all actors that one way or another shape the turnover circuits of individual capitals in a chain need to be included in the picture. In this sense, it is worth highlighting the crucial role of credit, both commercial and financial, in the differentiation of turnover conditions. And this means the need to pay more attention to the role of financial institutions as actors in GCCs; which, incidentally, are noticeably absent in most GCC literature.

Another of these central actors is of course the state. Yet, the significance of state policies, at least as far as the organisational dimension of GCC analysis is concerned, lies in the ways in which they mediate but, once again, do not determine, the process of differentiation of capital through which the formation of the general rate of profit asserts itself. In other words, state policies are relevant as concrete forms taken by the circulation of value along the chain. Value-as-capital is not an inert substance waiting out there to be captured by the different actors in a chain on the basis of their respective possession or exercise of power (including that to "influence" or "shape" state policy), but it is the very subject whose circulatory movement takes the form of those power relations and state policies. And it is because the overall circulation of the total social capital takes the concrete form of the differentiation of the valorisation capacities of individual capitals that state policies have a differential impact on the conditions of circulation of each kind of capital. For instance, state policies promoting the formation of university–industry research networks in the Canadian automotive industry that favour OEMs (Original Equipment Manufacturers) and large parts suppliers over so-called SMEs are not simply the (externally related) cause or consequence of the asymmetrical relations of power to "capture value" in the chain (cf Rutherford and Holmes 2008). Instead, they are the concrete mediating form that gives course and reproduces the process of differentiation of valorisation capacities objectively stemming from the unfolding of the "law of value". What would need to be investigated is the precise way in which those policies affect the turnover circuits of those capitals to see how that impact is reflected on their respective rates of profit.

Without any doubt, this reformulation of GCC research would be very laborious and would require a huge (collective) effort. In particular, the practical difficulties involved are likely to be considerable (not least in terms of availability and accessibility of relevant information). Unfortunately, it is probably the only way to go beyond the mere description of GCCs and make progress towards a real explanation and comprehension of this most salient phenomenon in the contemporary configuration of the world market which is grounded in the organic unity of the movement of the total social capital. The need for stronger theoretical foundations for empirical GCC research does not stem from an abstractly "scientific" interest but arises from what, ultimately, should guide the work of radical intellectual labourers, namely, the progressive practical transformation of the world. If GCCs matter as an object of inquiry it is because their constitution and dynamics can affect our existence as social subjects in capitalism. But, more importantly, they matter because we can be active forces in their transformation through our conscious political intervention. Yet, it is only through an inquiry that goes beyond the description of the immediate appearances of social forms that we can discover the plenitude of the objective transformative potentialities immanent in them.

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Endnotes

[1] For a detailed account of the evolution of the GCC approach, see Bair (2005). A more concise presentation of the current state of the art can be found in Gibbon, Bair and Ponte (2008), while the collection of essays in Bair (2009) offers a broader and more in-depth overview. In this paper I use the term GCCs as a shorthand expression that includes the more recent re-labelling of the approach as global value chains.

[2] Related approaches include international production networks (Borrus, Ernst and Haggard 2000), global production networks (GPNs) (Henderson et al 2002) and the French *filière* approach (Raikes, Jensen M F and Ponte 2000). Although originally emerging in economic sociology, the GCC approach has been widely adopted within the discipline of economic geography (Birch 2008; Hartwick 1998; Hughes 2000, 2006; Hughes and Reimer 2004; Leslie and Reimer 1999). However, given its more explicit engagement with the spatiality of globalised networks of firms, the GPNs could be said to be more influential. For detailed comparative discussions of GPNs and GCCs, see the contributions by Bair and Hesse to the recent special issue on GCCs in the journal *Economy and Society* (Bair 2008; Hess 2008). In a nutshell, two crucial differences can be identified between the GCC and GPN approaches (Coe et al 2008:272). First, the GPN approach rejects the linear conception of inter-firm relations entailed by the "chain" metaphor, trying instead to incorporate all kinds of networks configurations. Secondly, GPN research encompasses all relevant sets of actors and relationships, while GCC analysts tend to focus on the governance of inter-firm transactions only. A thorough assessment of the GPN approach exceeds the scope of this paper. However, the latter shares with GCC research the conception of the immediacy and particularity of direct social relations in production networks as exhausting the content of the phenomenon under investigation. In this sense, I believe that critique in this paper could be extended to the GPN literature as well.

[3] See Bernstein and Campling (2006a, 2006b) and Taylor (2007) for critical discussions of the GCC approach as a tool for development research from a Marxist perspective. For a non-Marxist assessment, see Dussel Peters (2008), who provides a more sympathetic but still critical appraisal of the GCC approach as a framework for the study of development.

[4] See Sturgeon (2002) on recent developments in the electronics industry that contradict that dichotomy, and Raikes, Jensen and Ponte (2000) for a general appraisal of the limits of Gereffi's original formulation.

[5] See Peck (2005) for a thorough critical assessment of the "new economic sociology".

[6] Bair (2008) argues that this recourse to network theories is more rhetorical than substantive since Gereffi, Humphrey and Sturgeon actually use a more expansive notion of network than the one derived from the new economic sociology.

[7] In the recent meso/micro turn the idea of a general economic determination of "value creation and capture" is entirely jettisoned and replaced with an account explicitly and entirely based on the pure contingency of immediate direct social relations. One could argue that this sort of analysis represents the outright capitulation before the need to give a solid foundation to the formation of GCCs based on the general "macro" dynamics of the capitalist economy.

[8] For an explicit statement of the connection between the world-systems approach and monopoly capital theory, see Hopkins (1977). In particular, Harvey rightly notes that the latter's fundamental idea that the increasing centralisation of capital with the development of capitalism leads to the moderation of competition and to the undermining of the tendency for the formation of a general rate of profit is deeply problematic. See Harvey (2006:141–144).

[9] Two points should be mentioned in relation to the question of empirical quantitative evidence of differential profitability in GCCs. First, as Raikes, Jensen and Ponte note (2000:403), despite the claims about the hierarchy of profitability along the chain, GCC analysts seldom demonstrate with rigorous quantitative empirical evidence that the profits in some parts of the chain are higher than in others. Second, the kind of quantitative evidence generally provided based on share of value added in each node of the chain (cf Kaplinsky 2000) is not a meaningful measure of each individual capital's valorisation capacity (ie their profitability), and falls into the mislabelling of the rate of profit about which Hopkins and Wallerstein (1994:18) complained in their seminal paper on commodity chains. But neither are profit margins, the measure preferred by Raikes, Jensen and Ponte (2000:403). Profit margins as a measure of the individual capital's concrete rate of valorisation obliterate the distinction between advanced and consumed capital and are therefore impotent to capture the organic unity of the rotation of capital and its effects on profitability (razor thin margins can yield a high rate of profit if compensated by a high turnover speed). The only meaningful synthetic expression of the rate of valorisation of individual capitals—and hence of their respective accumulation power—is the annual rate of profit, measured as the magnitude of appropriated surplus value in relation to the total capital advanced (different from the total capital consumed in that period). Although it certainly involves a laborious and difficult process (accessibility of information is of the essence here), it is not impossible to estimate empirically as Raike, Jensen and Ponte (2000:403) claim. See Iñigo Carrera (1998) for a model to estimate the concrete rate of profit of individual capitals based on the determinations of the turnover circuit of capital, which also develops a critique of the different mainstream attempts at measuring profitability.

[10] Here I understand the term "social capital" in the specifically Marxian sense just specified above. Thus my use of the term should not be confused with the currently fashionable concept of social capital in mainstream social sciences. See Fine (2001) for a Marxist critique of the latter.

[11] Prices of production of commodities can be resolved into cost prices (ie the cost of "inputs"—labour power and means of production, including the depreciation of fixed capital), plus the normal profits of capital (the average rate of profit on the total capital advanced for its production). See Marx (1981:257–258).

[12] One could see this as another instance of the dialectic of equalisation and differentiation that characterises capitalist production discussed by Harvey (2006:441–442) and Smith (2008:ch 4).

[13] The rate of interest will vary with the magnitude of the money capital being lent out for two major reasons. First, the rate of interest is entirely dictated by the balance of forces between supply and demand of loan capital or the competition between lenders and borrowers (Marx 1981:477, 484–489), with the force of individual lenders positively affected by the magnitude of their money capital offered on the market. Second, the

costs of the management of interest-bearing capital by banks proportionally decrease with the increasing magnitude of capital.

[14] This is the underlying general reason for the competitive success of the so-called "small and medium enterprises" (SMEs). See You (1995) for a general survey of small firms in conventional (both mainstream and heterodox) economic theory, whose varied explanations contrast with the one offered here.

[15] This surplus profit, it is to be emphasised, does not arise out of the active development of the productive forces of society. Quite to the contrary, it is the product of its very negation through the reproduction of small capitals.

[16] This begs the question of why this surplus profit is "retained" in those neighbouring branches of production instead of being eroded through the regular competition of normal capitals over its appropriation (thereby transferring the surplus profit over to other branches further downstream in the social division of labour until reaching individual consumption in the form of cheaper means of subsistence). However, the peculiar source of this surplus profit means that normal capitals cannot compete directly over its appropriation (Iñigo Carrera 2003:127–129). Inasmuch as this surplus profit does not derive from an increase in the productivity of labour of the early innovator but from the purchase of abnormally cheap inputs, the expansion of production resulting from the attempt by normal capitals to appropriate it would not confront any organic limit that would confine the concomitant fall of market prices to the new lower level of the aforementioned "pseudo" price of production (since that expanded output would not be regulated by changes in socially necessary labour for the production of those commodities). But this would entail a fall of the rate of profit of those normal capitals below the general level, ie their self-annihilation as normal capitals. This renders the immediate competition over this peculiar surplus profit impossible, thus blocking its transfer further downstream the division of labour. Normal capitals do compete over it but only indirectly, through the regular competition over surplus profits from innovations, which in this case includes the control of the market relation with small capitals as a "bonus prize".

[17] Here I am focusing on the determinations of the differentiation of individual capitals which are generally applicable to all kinds of commodity chains. In this sense, I am leaving aside a further differentiation of industrial capitals that springs from the more recent de-coupling between innovation and manufacturing in industries such as electronics and which has given rise to the constitution of the so-called "modular" or "turnkey" production networks (Lüthje 2002; Sturgeon 2002). As I have argued elsewhere (Starosta forthcoming), this phenomenon expresses a rather different content than the qualitative differentiation of industrial capitals stemming from the extended reproduction of small capitals.

[18] In my view, this is the tension running through Castree's attempt to marry a weak version of ANT and the Marxian critique of political economy (Castree 2002). If it is the movement of value that gives formal and substantive unity to commodity networks (2002:140), then it is not clear to me in what sense can those networks not be fully governed by the "abstraction in action" characterising the capital form (2002:139). Castree can only apparently resolve this tension by postulating an exteriority to the capital relation, a conceptual move which I see as deeply problematic, both theoretically and politically (Starosta 2004). One could argue that this recourse to a residual exteriority was already latent in Castree's idiosyncratic readings of both Postone (Castree 1999) and Harvey's earlier works (Castree 1995). These authors are interpreted as putting forward far weaker claims about capital's totalising force than, I think, they actually (and correctly) are.

[19] As Iñigo Carrera points out, despite being the ultimate beneficiaries of the "over-exploitation" of the workforce of small capitals, "lead firms" can hypocritically present

themselves as the champions of the now fashionable "corporate social responsibility" (2003:63).

[20] Although not unproblematically (Gough 2004), Harvey's *Limits to Capital* has the merit of emphasising the importance of Marx's discussion the turnover of capital at a time when few scholars were engaging with Volume 2 of *Capital*.

[21] This means that there is no general formal determination that can account for the particular firm that acts as "chain driver" other than being a normal capital (when there is more than one of them in a GCC). The role of empirical research is precisely to specify that general determination for each particular chain and it is here where the GCC approach provides valuable information.

[22] Another possibility is that they are still small capitals but that the specific magnitude of money necessary to be turned into a small capital has increased as an expression of the constantly upward-moving limit for the reproduction of the lower end of the spectrum that constitutes that qualitative category. Again, only rigorous quantitative evidence of profitability can be decisive on this.

[23] For discussions of the international division of labour and commodity chains that bring the perspective of workers into the picture, see Wills and Hale (2005) and Cumbers, Nativel and Routledge (2008).

[24] See, for instance, Gibbon's (2008) refinement of the description of governance forms, entry barriers and upgrading dynamics of the clothing commodity chain.

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