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Global Commodity Chain Analysis and the French *Filière* Approach: Comparison and Critique

By Philip Raikes, Michael Friis Jensen and Stefano Ponte

Introduction

Since the first implementation of economic reforms in developing countries in the 1980s, there has been a vigorous debate over the nature of the changes brought about by market liberalisation and de-regulation, and over their results. As debates over ‘getting the prices right’ and ‘appropriate incentives’ subsided by the early 1990s, the discussion moved towards, on the one hand, discussion of the role of globalisation in economic restructuring, and, on the other hand, of issues of institution building and good governance. Generally, the literature has focused on issues at the international, regional, national or sectoral levels. While these debates have generated key insights, relatively little has been said on commodity-specific dynamics of change and on the possibilities (and limitations) of economic upgrading for developing countries offered by specific markets.

- The authors are members of the research programme ‘Globalisation and Economic Restructuring in Africa’ (GLAF), based at the Centre for Development Research (CDR), Copenhagen. Philip Raikes and Stefano Ponte are researchers at CDR, while Michael Friis Jensen is a Ph.D. candidate in economics at the Royal Veterinary and Agricultural University, Copenhagen. Much of the inspiration for this paper comes from two workshops held at CDR in June and September 1999: the first, on the French Filière tradition, with Benoît Daviron of CIRAD, Montpellier; the second, on Global Commodity Chain analysis with Gary Gereffi of Duke University. Their contribution and helpful comments are hereby acknowledged, as are discussions with, and suggestions from, other members of the GLAF programme: Peter Gibbon, Niels Fold, Marianne Nylandsted Larsen and Poul Ove Pedersen. Thanks also to Göran Djurfeldt, Catherine Dolan, Mike Morris and two anonymous reviewers, for useful insights. As usual, the shortcomings of the paper are the sole responsibility of the authors.

This article seeks to fill the gap by reviewing two approaches to the study of commodity chains. Both traditions study specific commodities by covering all (or most) processes and transactions from primary processing to consumption. The anglophone Global Commodity Chain (GCC) analysis was developed by Gary Gereffi and others within a political economy of development (and underdevelopment) perspective, derived from World Systems Theory. The second, the francophone *filière* tradition, was developed by researchers at the Institute National de la Recherche Agronomique (INRA) and the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD).¹ While both approaches cover the same general field, they are separated not only by geography and language but in their political and theoretical grounding.

Global Commodity Chain analysis has been developed primarily for industrial commodity chains. These chains are seen to have been globalised some time between 1960 and 1980, and thus to be related to processes normally discussed under the rubrics of globalisation and/or ‘post-Fordism’. In contrast, the *filière* approach has its origin in technocratic agricultural research, and the *filière* is seen by many adherents as a neutral and purely empirical category. The application of the *filière* approach to agriculture in developing countries was heavily influenced by the needs of the colonial and post-colonial French state, since state (agricultural) development policy in former French colonies was commodity-centred and required a matching analytical framework. Thus *filière* analysis is applied overwhelmingly to agricultural commodities and without any specific time-frame.

This article presents a critical account of the two approaches and compares their features with the aim of understanding to what extent they can be combined or supplement each other. The review does not cover all approaches to the study of commodity chains and/or systems,² and is meant to suggest future conceptual and

methodological directions for research, rather than to arrive at a unifying theoretical framework. It is also affected by the focus of the authors on agriculturally-based commodity chains originating in Africa, while most discussions of GCCs have so far analysed industrial products and focused primarily on Asia and Latin America.

In the following section, we critically examine the GCC approach. First we lay out its basic characteristics. Then we compare its treatment of international trade with those of economic trade theory and modern business theory. This is followed by an analysis of issues relating to the governance structure of GCCs, to the distinction between producer- and buyer-dominated GCCs, and to regulation/deregulation. We conclude this part of the paper with a discussion of the problematic definition of ‘global commodity chain’, of the treatment of the concept of ‘power’ and of the relative lack of quantitative analysis in GCC analysis. We then turn to the *filière* approach, first delineating its origins and evolution, then examining its main traditions and considering the main problems within these traditions. We then discuss the influence of the regulation school and convention theory on the *filière* approach. A final section briefly compares GCC analysis and the *filière* approach and assesses their potential for guiding future research.

Global Commodity Chain (GCC) analysis

Essentials of GCC analysis

The notion of a ‘commodity chain’ comes from Wallerstein’s (1974) World Systems Theory, itself an extension of dependency theory, combined with Braudelian history. The term itself, and its definition as ‘a network of labour and production processes whose end result is a finished commodity’ comes from Hopkins and [Wallerstein](#) (1986, 1994), where it is used to discuss a variety of international chains for agricultural (and timber) products, from the beginning of the early modern era.

Hopkins and Wallerstein see all firms (and specific processes, referred to as ‘boxes’) as being involved in commodity chains as either producers of inputs to others, or users of inputs from others, chains forming the ‘warp and woof of the commodity system’. This is set within a framework, influenced by the Schumpeterian notion of competition, involving the ‘demonopolisation of any highly profitable box, which is often then countered by technological change and/or redefinition of the organisational boundaries of the box by production units seeking to restore a high level of profit’ (ibid.: 18) . The whole process is seen as being regulated by the expansion and contraction of the 70-year Kondratieff Cycle. During expansionary phases, chains are extended and become more vertically integrated, while monopolistic concentration among boxes is reduced. In phases of contraction the reverse is the case. Fiercer competition weeds out the weaker firms and increases concentration, while chains are vertically ‘dis-integrated’ into layers of contractual relations, to reduce labour costs, while preventing the growth of transaction costs. This sets new changes (often interpreted as post-Fordist) in a cyclical pattern asserted to have repeated itself several times in the past few hundred years.³

If Hopkins and Wallerstein introduced the notion of commodity chains, the beginning of *Global Commodity Chain* analysis as a relatively coherent paradigm can be traced to a collection edited by Gereffi, Korzeniewicz and Korzeniewicz (1994). Although the book starts with a brief version of Hopkins and Wallerstein’s argument (1994), Gereffi and most of his collaborators are concerned specifically with industrial commodity chains. They largely ignore the historical/cyclical context, and focus on the emergence of a new global manufacturing system in which economic integration goes beyond international trade in raw materials and final products, to encompass centrally-coordinated but internationally-dispersed production of many of the activities along the chains of given commodities or manufactured products. This emergence is

seen to be related to the international extension and the externalisation of manufacturing chains previously internalised both ‘within the organisational boundaries of vertically integrated corporations’ (Gereffi *et al* 1994:7) and, to a large extent, within specific nation states.

The GCC approach has attracted significant attention since the early 1990s and, with its focal distinction between *producer-driven* and *buyer-driven* GCCs, has generated a number of case-studies. Gereffi himself has mainly applied the GCC framework to analysing exports of apparel from East Asian countries (more recently from Mexico and the Caribbean) to the United States. Other GCC and related studies have analysed tourism ([Clancy 1998](#)), services (Rabach and Kim 1994), fresh fruit and vegetables (Raynolds 1994; Dolan *et al* 1999), illegal commodities (cocaine) (Wilson and Zambrano 1994), footwear ([Schmitz 1999](#)), electronics and other commodities imported by Japan from Mexico ([Kenney and Florida 1994](#)), automobiles and auto components (Hill 1989; [Doner 1991](#); [Barnes and Kaplinsky 1999](#); [Kaplinsky and Morris 1999](#)), and semi-conductors (Henderson 1989).

Gereffi identifies four dimensions of GCCs: their input-output structure, the territory covered, their governance structures (Gereffi *et al* 1994:97), and the institutional framework through which national, and international conditions and policies shape the globalisation process at each stage in the chain (Gereffi 1995). The *input-output structure* and the *geographical coverage* of GCCs have been used mainly descriptively to outline the configuration of specific chains. The *governance structure* has so far received the most attention, since this is where the key notions of barriers to entry and chain co-ordination appear in the analytical framework, and where the distinction between producer-driven and buyer-driven GCC governance structures is introduced.

The fourth dimension, the *institutional framework* surrounding the chain, has been introduced in recent work by [Gereffi \(1999b\)](#), and is used to delineate the conditions under which key (or ‘lead’) agents incorporate subordinate agents through their control of market access and of information (both technological and regarding markets). Under the rubric of ‘institutional framework’ Gereffi also discusses how subordinate participation in a GCC can provide indirect access to markets at lower costs than individual small-scale producers would face, and how technological information and learning-by-doing allow (the more favoured) producers to move up the chain hierarchy.⁴ This suggests that participation in a GCC is a necessary, but not sufficient, condition for subordinate agents to upgrade, and one which involves acceptance of terms defined by key agents as a condition for participating in the chain, especially for those aiming to progress towards higher (technology, value-added) positions in the chain. Without accepting chain membership and discipline, a firm cannot partake in the process of learning from links with agents in more advanced segments of the chain which is necessary in order to move itself into higher-skill and higher value-added sections of the chain - or to preferred status within a given section (Gereffi 1999a: 39).

GCCs and international trade

The GCC approach provides a view on international trade that differs radically from economic trade theory. These differences reflect both the focus of analysis and understanding of the mechanisms of trade. Neo-classical economic trade theory considers trade alone, in isolation from investment, finance or other relations between parties to trade. It also assumes that both participants and transactions are separate and independent from each other. These constraining assumptions generate trade patterns which are determined by each country’s endowments of production factors.

More recent contributions within economic trade theory acknowledge imperfect competition and can handle increasing returns to scale, learning-by-doing, and information asymmetries. However, most still have relatively little to say about the organisation of trade, especially trade along complex chains. By contrast, the GCC approach discusses questions about what products countries do (and should) import and export in relation to complex institutions. These are often linked in ‘multilayered contractual systems’ (Arrighi 1994:343) which are built up over time. The prime concern of GCC analysis is with how internal ‘key agents’ go about setting up and maintaining production and trade networks. Therefore, it sees trade as being embedded in, and to a considerable extent determined by, specific (but changing) institutional structures, while economic theory starts from individual optimising behaviour.

GCC analysis thus directs its attention to the organisational aspects of international trade, to the whole range of activities from primary production to final consumption, and to the linkages binding them, aspects that almost entirely ignored in economic trade theory (Gereffi 1994: 96; [Gereffi and Korzeniewicz 1990](#)). Therefore, GCC analysts try to understand how ‘key’ or ‘lead’ agents build, co-ordinate and control the linkages and flow of produce between raw material suppliers, processors, primary-traders, wholesalers, and retailers. They are also interested in the roles played in this process by contractual forms, by the co-ordination of finance and business services, and by the wider regulatory framework and changes in it.

A few trade economists have recently done interesting work in the analysis of networks ([Rauch 1999](#); Casella and Rauch 1997, 1998), and this creates potentially useful points of contact with GCC analysts.⁵ However, most trade economists tend to focus on the reasons for the existence of institutions (notably transaction costs and barriers to entry).⁶ Many of them also perceive institutions primarily as regrettable departures from free trade, while GCC analysts tend to be more concerned with their

positive potential for institutionalising trade patterns and reducing the costs, risks and variability of trade flows (within GCCs).

Despite differences in focus, level of abstraction, and the methodologies applied, economic reasoning is normally an element of GCC studies, though it is more closely related to business than academic economics. In business economics, the notion of chains of activities linked by complex networks of contracts and sub-contracts is widely accepted. This is not the case in orthodox economic theory. Porter's (1990) 'value-chains' are seen by Gereffi *et al* (1994) as being somewhat similar to GCCs, while the concept of 'supply chain management' has become increasingly important in recent years. There is also some convergence with Whitley's (1992, 1999) notion of 'business systems', though Whitley (1996) is critical of several aspects of the GCC approach.

Finally, in trade theory, the implications for economic power are not pursued, whereas for GCC analysis, power – in the form of strategic behaviour affecting up- and down-stream activities and agents – is a key issue, although not a well-defined one.

GCCs and Business Systems

Whitley (1996) comments directly on the GCC approach, criticising it for ignoring the importance and embeddedness of 'national business systems' among the basic determinants of where GCCs are set up, and of how they work. For Whitley, business systems are 'distinctive forms of capitalism ... which are clearly linked to particular social institutions governing access to capital and labour and which are unlikely to converge to a single efficient type through some universalising competitive process' (1996: 411). Whitley sees them as being constituted and institutionalised over lengthy historical periods, leading him to raise the question whether observed patterns of GCC

growth for particular products derive from characteristics of the product in question, or rather from the specific business-systems in the countries concerned.⁷

Gereffi and other GCC analysts recognise the socially embedded nature of GCCs, but focus on their international dimensions. Whitley (1996) sees ‘the world economy as generally weakly organised in terms of stable networks of information and materials flows ... and in terms of stable transnational institutions which could support and reproduce such networks’ (1996:417). He does not find the sector, sub-sector, or GCC to be an important locus for the generation of specific forms of economic organisation, and sees the coordination of international trade as primarily an extension of the (national or local) business system of the dominant agent or initiator. These assertions seem to ignore a wealth of evidence that sector or product-specific factors, both technical and socio-historical, are among the factors generating differences in how global chains and networks for products such as cars, fertilizers, shoes and fresh vegetables are organised.⁸ Whitley’s stress on the weakness of international homogenising pressures also appears exaggerated. The success of strong international pressures for capital account deregulation and the resulting rapid inflow of short-term funds seems to be among the more important factors behind the 1997 ‘Asian crisis’. It may also be important to consider the increasing pressures for international homogenisation of product quality (like the ISO system), the rating of firms and securities, and their prudential regulations concerning risk management.⁹

Nonetheless Whitley poses two highly relevant questions. Should one seek the specificity of complex international relations of production and trade in products or sectors, or rather in the business-systems of the countries from where such chains are initiated? And should one restrict the term GCC to international product flows which do follow the lines set out by the GCC approach, or should one accept that flows of any one product can be organised in a variety of ways? These are important questions,

and well worth including in any research programme, but only constitute a ‘fatal’ critique of the GCC approach if this assumes that internal chain relations are the only important axis of variation. There seems to be no evidence that Gereffi takes this position, and no reason for others using this framework to do so.

Governance structures in GCCs

At the nexus of GCC analysis lies the contractual linkage of formally independent firms, whether as result of the ‘out-sourcing’ of previously integrated components of TNC activities, or through the contractual subordination of suppliers previously linked through ‘open market’ transactions. While one of the attractions for Northern firms of out-sourcing to developing countries is seen as cheap labour, a more important one is seen as ‘organisational flexibility’ for the key agent. Gereffi *et al* (1994) follow Porter (1987) in finding cheap labour a ‘lower-order’ (dead-end) factor in competitiveness (for the subordinate firm), compared with ‘higher-order’ factors like ‘proprietary technology, product differentiation, brand reputation, customer relations and constant industrial upgrading’ (Gereffi *et al* 1994: 6).¹⁰ From this angle, GCCs constitute the organisational basis of participation in world trade and *a fortiori* of attempts by firms to improve their position within it. Therefore, they can be seen as forms of social capital and thus valuable competitive assets in the global economy. However, given that such advantages are contingent on chain membership (and acceptance of the strict terms imposed for this), they can also be seen as the means to exclude actors unwilling to accept the conditions and the increased costs which tend to accompany them, at least in the short-run. This further underlines the power of key agents and their capacity to incorporate less powerful actors to perform lower value-added activities, or alternatively to exclude them.¹¹ Within this general process, two different structures are distinguished:

In *producer-driven GCCs*, like the automobile and aircraft industries, barriers to entry are located in large-scale, high-technology production facilities, involving heavy investment and scale economies, so that manufacturers are the key agents. Producer-driven chains are increasingly structured so that low-profit activities are out-sourced upstream to networks of suppliers, bound by contract to produce according to tightly specified conditions. The latter compete to supply the key agent, who therefore does not need to incur a corresponding degree of obligation to them. They can also work for a more stable position as ‘preferred suppliers’.¹² Other low value-added activities downstream¹³ of manufacturing are left (or out-sourced) to the control of similarly competitive networks of retailers. Suppliers for the automobile industry are often located in developing countries, especially in Southeast Asia, and to some extent in Latin America and elsewhere. The computer industry is also characterised by capital intensive production, and categorised as producer-driven, although parts of it, as is the case for consumer electronics, could well be seen as buyer-dominated or in transition that way.

Buyer-driven chains differ from producer-driven chains in that they have low barriers to entry in production. Therefore, producers are subordinated to the key agents controlling design and marketing, specifically the control of international brand-names and retailing, where barriers to entry are high and profits concentrated. Production is increasingly out-sourced to a competitive decentralised system of sub-contractors. The majority of these are typically located in developing countries, and are often ranged in a multi-stage but also multi-quality array with the bottom technology, quality and value-added located in the countries with the lowest wages. New brand-name ‘producers without factories’ are organised entirely on this basis. Such buyer-driven structures are typical in garments, footwear, toys, and fresh fruit and vegetables.

Some problems with the producer/buyer dominated distinction

The distinction between producer and buyer-dominated GCCs generates a number of useful hypotheses. It also raises some questions. The GCC approach makes clear that the structures and other aspects of GCCs are constituted socially and processually, and are thus subject to change over time. However, the distinction between producer-driven and buyer-driven chains and the concept of ‘drivenness’ have so far been used in a rather fixed and rigid manner, which poses several general questions:

1. Is it the case that GCCs are exclusively producer-driven or buyer-driven? Is it not likely that some power may accrue at other points along the chain than the assigned ‘key agency’, and that this may vary significantly between similarly assigned chains? Therefore, could there be more than one ‘driver’ in a GCC? Are there examples of ‘multi-polar driving’ in GCCs, possibly with a diffusion of power between producers and buyers? Would there be scope for analysing degrees of ‘drivenness’ as well? Do different degrees of ‘drivenness’ entail different options for upgrading? Finally, could not other parties, for example governments and other regulatory agencies also exercise substantial power (often on behalf of certain agents but still potentially affecting the extent and type of control throughout the chain)?¹⁴

2. In relation to the questions raised above, do all ‘driving’ buyers have the same significance in terms of the governance structure of the chain? Would it not be more useful to distinguish the different dynamics of ‘control achievement’ and ‘control maintenance’ in GCCs for different types of buyers, situated in different positions in the chain structure? For example, do supermarkets (who ‘drive’ the fresh fruit and vegetables chain), processors (who seem to be the dominant agents in the case of cocoa and coffee), and international traders (the ‘drivers’ in the case of grains and

cotton) ‘drive’ their respective commodity chains similarly? If there are differences, what are they and what are their implications?

3. Is it the case that GCCs remain over time in the same category? Specifically, could there not be a tendency for power or key-agency to shift downstream over time? Such a tendency can be implicitly traced in the writing of Gereffi, though it seems incompatible with a fixed distinction between producer- and buyer-dominated GCCs. In addition to the examples of computers and consumer electronics mentioned above, large numbers of other industrially-based TNCs have out-sourced increasing portions of component manufacture, holding on to final assembly and control of brand-name. The *Financial Times* (4/8/99) reported that the Ford Motor Company is considering a move beyond this, by out-sourcing control of the whole supply-chain, including final assembly (to lower-cost developing country firms). This would transform ‘Ford from a car-maker into a global consumer products and services group’.¹⁵ This is just one example of a widespread trend among formerly ‘production-based’ TNCs, which are shifting their ‘power-base’ downstream to control promotion and marketing of the brand-names on which market access is based – as in buyer-controlled GCCs.

These observations suggest another reason for the concentration of key agents in the industrialised North, which links it to the downstream drift of economic power towards control of brand-names and final marketing. The North has long been where most of the world’s income and wealth is concentrated, and with it the most important markets for commodities and industrial products, especially those for which value-added or profits are high. Not only has the wealth imbalance increased significantly and secularly over the past quarter century, but this period has seen a clear and apparently increasing tendency to oversupply in increasing numbers of chains. This not only squeezes prices upstream along the chain, but gives an added advantage to those firms controlling market access, whether through ownership of internationally

recognised brand-names or through control of retail space. Thus not only are there gains to be made from out-sourcing production to areas of lower labour cost, but there are also strong competitive pressures to do so. This in turn raises another question:

4. To what extent *is* the location of control in ‘producer-driven’ GCCs a result of the control of advanced technology, rather than market-access deriving from control over an internationally known brand-name? Component manufacture frequently involves more capital-intensive and technologically advanced processes than final assembly, and the latter, when performed by subordinate agents, has frequently been a low value-added node (‘screwdriver industry’). Also, in some cases, location of control does not seem to be very closely related to a specific position within manufacturing. There are a number of recent examples of major TNCs out-sourcing either upstream or downstream (or both) even design and product-development, but invariably retaining the brand-name (and often the organisation, though not performance) of marketing. In this way, they can extract a rent from the ownership of patented technology rather than a profit from using it.¹⁶

5. Could it be the case that GCCs for primary agricultural products are structured in a partially different way than buyer-dominated manufacturing chains? There is a considerable degree of similarity between manufacturing chains and the fresh fruit and vegetables chain (Dolan *et al* 1999). However, in general, early attempts to apply political-economic thinking to international agricultural chains relied heavily on a ‘Fordist’ analogy, which was later found to be inappropriate in several respects (Goodman *et al* 1987; Goodman and Watts, 1994; Raikes and Gibbon, 2000). These went beyond general criticisms of the notion of Fordism, to make clear that at the micro-level, the whole basis for accumulation and the effects on labour were very different. There are also significant macro-economic differences between manufacturing and agricultural chains. While the counter-cyclical policies of

Keynesianism/Fordism were to some extent stabilising, support measures for agriculture have been directly destabilising both nationally and internationally. In sum, there is a need for GCC analysts to consider more closely the degree to which agricultural commodities require an adjustment of the analytical framework.

Regulation and GCC analysis

While a number of empirical studies using the GCC approach refer to specific sets of regulations as being important for the structure and the operation of chains (for example [Gereffi 1994](#), Dolan *et al* 1999), the issue of regulation (at either national or international levels) is not adequately incorporated into its framework. At the national level, GCC analysts have rarely considered the effects of different types of national regulation (both in industrialised and developing countries) and the effects of deregulation on the dynamics of commodity chains' restructuring. An exception is Dolan *et al* (1999), which shows how the UK Food Safety Act of 1990 has had a significant effect on the fresh fruit and vegetable GCC, effectively excluding small African producers from some of the more lucrative markets for fresh produce sales to northern Europe.¹⁷

At the international level, there seems to be an implicit assumption that the 'deregulation' which characterised the present period means no more than reduction in the amount and encompassing nature of regulation, whereas in fact it means rather a shift in the type and form of regulation (consider the 25,000 pages of 'deregulations' in the final draft of the Uruguay Round Agreements). This has generally involved privatising regulation and shifting it from a politically negotiated system, where rules provide the basis for inspection, administrative action or criminal court sanctions, to one in which rules provide the basis for civil court action and award of damages. The importance of regulation is also evident in the case of the Multifibre Arrangement,

which was instrumental in generating the ‘concentric ring’ structure observed in the global textile and apparel chains ([Gereffi 1994](#)). The more general shift from tariffs to anti-dumping as the preferred form of industrial protection is also a highly relevant, but largely unremarked, factor for in the development of GCCs, especially in view of its known role as a means to shoehorn the recalcitrant into Voluntary Export Restraints (Finger 1993, Raikes n.d.).

It could be further argued that the generally increased tendency toward out-sourcing which characterises changes in many GCCs in recent years is itself a consequence of broader (de)regulative changes. Out-sourcing can be seen as part of a wider process whereby large publicly-listed corporations have come to focus on so-called ‘core competencies’. Pressures in this direction include the increasing importance of short-term yields to shareholders in determining patterns of investment, which itself follows from a broader pattern of financial sector deregulation that facilitates the international movement of large sums of short-term liquid capital.

Problems with the definition of ‘global commodity chain’

Some of the key terms within GCC analysis are defined quite loosely, and this may create problems in linking empirical studies to the theory they purport to be using or testing, and in choosing the methodology for such studies. On the other hand, both looseness of definitions and difficulties in applying ‘rigorous’ research methodologies could as well derive from the more general definition of the approach in terms of the linkage of transactions along chains, over time, and between types of chains (e.g. ‘real’ commodities and services).

A global commodity chain is defined by Hopkins and Wallerstein (1994) as ‘a network of labour and production processes whose end result is a finished commodity’. This is a minimal definition, which does not include their treatment of

economic power, and which leads to possible ambiguity in relation to the ‘industrial-based’ notion applied by Gereffi *et al* (1994). Is a GCC just any channel, or set of channels, by which produce crosses the world, or should the notion itself include the specific power and governance structures seen by Gereffi to define GCCs ?

Especially in relation to work focused on agricultural commodity chains, it may be preferable to stay with the looser Hopkins and Wallerstein definition, allowing greater flexibility in analysing how chains are structured by dominant and other agents. This also raises the question of whether it is more appropriate to refer to one commodity chain for a given commodity or manufactured good, or whether each flow of produce structured by a given key agent is to be considered a separate chain.

A related problem with the definition of GCCs concerns where they are seen to start and finish, and how they are divided up. Some researchers assume that they should include every process and transaction from primary commodity to consumer good (and inputs into its production). Others select particular segments (cotton-to-textiles, textiles-to-garments) or even single processes (referred to by Hopkins and Wallerstein as ‘boxes’ and by Gereffi *et al* as ‘nodes’). It is hard to see that there is or can be any one ‘correct’ definition, either length-wise or laterally, considering the degree to which different chains converge and diverge (for example as joint inputs - oilseed cake and grains in cattle feeds, or separate outputs - cotton-lint and cottonseed oil/cake).

This observation raises the issue of how to treat convergence, divergence and other links between separate chains, which can get lost in too close a focus on a particular chain. This, however, is less a problem of chain definition than of the complexity of the real world and of the limitations inherent in any attempt to look at parts of it.¹⁸

The concept of power in GCC analysis

A strong point of the GCC approach is its inclusion of power in economic relations and transactions, and the willingness to include aspects of power excluded from other analyses of international production

and trading relations. One important aspect is that power is seen not simply as the effect of barriers to entry, but also of organisational changes and of more effective 'supply-chain management' implemented by key agents.

Power is not given a formal definition in GCC studies, though few other analyses do better on this score. Defining economic power is difficult, and attempts to do so all too easily regress to ever finer but less usable formulations.¹⁹ Another problem with the uses of the term in both World Systems Theory and the GCC approach, is a tendency to circularity. Hopkins and Wallerstein (1994) see the power of key agents within chains as resting on 'core-like' production processes, distinguished both by more advanced technology and by higher degrees of market-power. Competitive processes within the world economy continually break down these islands of high monopoly and profit, though they are regularly replaced by actions of key agents to re-establish control and profit through technological advance or the 'redefinition of the organisational boundaries of the box'.²⁰ Hopkins and Wallerstein find that, as a matter of contingent fact rather than necessity, by far the dominant direction of flows along GCCs is from 'the periphery' to 'the core', but while they differ from dependency theory in rejecting the 'necessary' nature of this movement, they do so at the expense of two forms of circularity. Firstly, high-profit sections of a chain are 'core-like', implying either high-technology or organisational barriers to entry. Secondly, profits are explained by power, which itself is defined in terms of high profits.

Some of the same problems apply to Gereffi's link between power/profits and barriers to entry (1994). However, Gereffi further states that power involves the ability to out-source lower value-added (profit for Hopkins and Wallerstein) activities and to retain or incorporate those with higher value-added. In this case, power is exercised through the enforcement of higher standards of quality and reliability in produce flows resulting in reduced risk and investment costs (for the key agent). This, in theoretical terms, avoids both the circularity and the 'zero-sum' nature (all gains to 'core-like' key agents derive from losses to subordinate agents) of the Hopkins and Wallerstein definition.

A positive aspect of Gereffi's implicit treatment of 'power' is that it captures important changes in the organisation of commodity chains that have taken place since the mid-1960s. In particular, it can help to analyse the mechanisms underlying the movement from vertical integration within large 'Fordist' firms towards the various mechanisms (down-sizing, out-sourcing, just-in-time, comprehensive contractual structures) by which TNCs were able to cut labour costs and the cost and risk of investment, while maintaining or even increasing their control over subordinated labour-processes. On the other hand, with this concept of power, the historical span of the analysis cannot properly address changes in the organisation of commodity chains prior to the 1960s.

One of the problematic aspects of 'power' as a concept is that, once introduced into an analysis and however well and clearly defined beforehand, it has a tendency to be seen in 'all or nothing' terms. This is one problem with the otherwise useful distinction between producer-driven and buyer-driven GCCs, which ignores the different *degrees* and *sorts* of power or powerlessness to be found along the length of a chain. However, this does not prevent GCC analysts from showing that gradations do exist -- for example in the hierarchy of firms under contract producing different types and qualities of apparel for different markets and occupying different positions in the supply-chains for them. Gereffi's (1994: 111) concentric ring diagram shows that suppliers to elite high-profit markets are concentrated in the North and in the more advanced developing countries, while the more 'discount' the final market, the lower the wage and level of 'advancedness' in the producing country. Moreover, within each market there are 'preferred suppliers' with more stable contracts, and others, less preferred, which produce under lower prices and/or less certain market access (sometimes as sub-contractors to preferred suppliers). Further elaboration of the specifics of such processes could be useful for agricultural commodities, since similar

processes seem to apply within many of the food chains dominated by northern supermarkets (Dolan *et al*, 1999; Wrigley and Lowe 1996).

Another possible way of extending the GCC framework would be to incorporate insights from applied microeconomics and the industrial organisation literature in respect of the foundations of 'market power' and how it is likely to change over time – this having long been a major research issue in both traditions. Key insights from the industrial organisation literature concern the existence and consequences of barriers to entry, factors facilitating and hindering tacit collusion (how firms may cooperate without actually talking to each other), motives for product differentiation and its consequences for rent creation. Insights from this body of literature could strengthen the micro-foundations of the GCC approach. For example, one conclusion from the study of industrial organisation is the difficulty of sustaining market power in the long run. Cross-fertilisation between the GCC approach, the political economy of agriculture approach, and the industrial organization literature could provide illuminating insights into such questions.

The lack of quantitative analysis

The GCC approach has generated relatively little quantitative analysis, and its conceptual structure and definitions would need further elaboration and sharpening for this purpose. Important assertions, such as those concerning the location of profits within a chain, tend to be made at a very general level, and require quantitative treatment of detailed evidence if sceptics are to be convinced of the truth of the assertions and the merits of this way of treating commodity chains. This is not to under-estimate the difficulties of defining and measuring profits (especially net profits), particularly within multiply linked entities -- such as boxes along a chain.

Other concepts need elaboration and sharpening for either quantitative or qualitative empirical study. The binary distinction between producer- and buyer-dominated GCCs may be too coarse even for industrial chains. Some agricultural chains seem to be neither producer- nor buyer-dominated, and significant relations along GCCs will be played out between and among different subordinate agents. Detailed quantitative study of profit margins at different stages could help in the construction of more elaborate typologies. However, many other relations along chains are so complex, and involve so many different methods of achieving control that at most, limited quantification will be possible.

The French *filière* approach

Origins and evolution

While GCC analysts attempt to work under a unified theoretical framework, no such effort is made in *filière* analysis, which includes several different schools of thought or research traditions, each adhering to its own theoretical underpinnings and posing its own research questions. *Filière* analysts have borrowed from different theories and methodologies, including systems analysis, industrial organisation, institutional economics (old and new), management science and Marxist economics, as well as various accounting techniques with their roots in neo-classical welfare analysis (Kydd, Pearce and Stockbridge 1996: 23).

Therefore, while the GCC approach is centred on contributions from a distinct school of thought, the French *filière* approach is a loosely-knit set of studies with the common characteristic that they use the *filière* (or chain) of activities and exchanges as a tool and to delimit the scope of their analysis. The approach is thus a ‘meso-level’ field of analysis rather than a theory. It is also one seen by most of its practitioners as a neutral, practical tool of analysis for use in ‘down-to-earth’ applied research.

The French *filière* approach started by studying contract farming and vertical integration in French agriculture in the 1960s.²¹ It was soon applied to the analysis of developing country agriculture, where it fitted well to the requirements of French (post)colonial policy. During and since colonial times, French agricultural policy for

its dependencies focused on developing selected export commodities like rubber, cotton, coffee and cocoa. This required a commodity-focused analysis for which the *filière* approach was well-suited.²² *Filière* studies dealt initially with local production systems and consumption, while areas such as international trade and processing were largely overlooked until the 1980s. Studies of trade were seen as largely superfluous since these areas were controlled by state institutions which undertook all transport and marketing of commodities at prices set by the central administration.

Despite the bewildering number of theoretical concepts used, a few general characteristics do emerge. *Filière* scholars generally avoid neo-classical analysis apart from the use of a few quantitative techniques. *Filière* analysis has until recently been concerned less about ‘getting the prices right’ than about ‘getting the institutions right’. Much research has focused on how public institutions create a smooth flow of commodities, and on how they affect local production systems.

The main area of expansion in recent *filière* work has been in the direction of applying the transaction cost approach, which has been used by French researchers, such as Griffon (1989: 2), as a theoretical grounding for a continued interventionist approach to Francophone Africa’s primary commodities.²³ In particular, *filière* analysts have been able to integrate the insights of regulation theory and of transaction cost theory to study the restructuring of specific *filières*, something that has not been successfully attempted in Anglophone circles.

With the recent crisis in commodity chain management in Francophone Africa, and World Bank pressure for the liberalisation of the coffee, cocoa and cotton chains, the *filière* approach has been widely used to justify the maintenance of interventionist systems like the *Caisses de Stabilisation* (stabilisation funds) during a period when most Anglophone countries have seen their equivalent structures (marketing boards) disappear. An empirical justification comes from the perceived negative consequences

(in French research and academic circles) of market liberalisation in developing countries. At the same time, *filière* analysis has recently begun to deal more directly with issues of trade and marketing, in order to discuss the workings of commodity chains within an increasingly liberalised context.

Main traditions within the filière approach

An *empirical research tradition* has been dominant from the beginning of *filière* analysis. Its main objective has been to map out actual commodity flows and to identify agents and activities within a *filière*, which is viewed as a physical flow-chart of commodities and transformations. The empirical tradition does have links to theory and policy. It arose as part of a critique by Lauret (1983) of studies of the French poultry chain in the 1960s, in which it was suggested that vertical or ‘industrial’ integration represented the future of the entire agricultural sector. The critique took the form of insisting on *product specificity/diversity* as a variable independently affecting organisational forms. Lauret also coined the term ‘product system’ to emphasise the internal interdependence and external autonomy of particular commodity chains. According to Lauret, who uses the terms ‘system’ and ‘*filière*’ interchangeably, a product system includes enterprises producing and distributing the product in question, services regulating its trade, marketing and consumption, and vertical and horizontal relations between agents. On the other hand, there is no clear definition of the meaning of product specificity. Nor were its advocates able to arrive at a general formulation concerning how it affected the organisational form of a ‘product system’. Rather, they tended to rely on specific arguments -- asserting, for example, that the optimal size of poultry production units was determined by the unique technical properties of this industry.

Part of the strength of the empirical tradition is a clear focus on the totality of structures and relations around specific commodities, including relations of power. However, there are few indications of how the accounts of these totalities can be systematised. What emerged in practice were analyses of a few products (apparently arbitrarily selected). Also, the studies were confined to the parts of ‘product systems’ located in specific producing countries, and over a very short time period. As a result (and, presumably, because it was concerned to demonstrate diversity) the approach failed to draw general conclusions about *filières* and did not consider broad historical questions such as the extent to which product ‘diversity’ was increasing or decreasing.

The *quantitative tradition* of *filière* analysis has mainly attempted to measure inputs and outputs, prices and value-added along a commodity chain. In this tradition, the chains considered are mainly those for primary commodities in the former French colonies and there is a strong linkage to heavily state-regulated marketing systems and to actual and proposed aid projects. Efforts to measure inputs and outputs use an accountancy framework specific to French economics known as *méthode des effects*, a variant of input-output analysis in which economic behaviour is taken as given, but in which non-price incentives are given greater attention.

The quantitative tradition reflects a key characteristic of French economics *vis à vis* Anglo-Saxon tradition. In France, economics was a science of accountancy and not of behaviour. Therefore, the concept of shadow prices was ignored in Francophone Africa, following the implicit assumption that prices set by public institutions were ‘right’ by definition.

In the 1990s the main question examined by proponents of this tradition, like Griffon and Hugon (1996), has been the relative ‘competitiveness’ of primary commodity exports emanating from the former French colonies in the context of efforts to maintain the equilibrium of the CFA Franc.²⁴ In these studies there has been

a tendency to reduce competitiveness to production costs, with a common assumption that peasant family farm systems ‘naturally’ favour competitiveness.²⁵ In general, any gains in precision from quantitative analysis have also been achieved at the cost of neglecting the examination of *filières* along their entire length. Therefore, agencies and agents between peasant farmers on the one hand and the forces generating international price formation on the other have not been adequately studied.

The *anthropological tradition* within *filière* work dates from the 1970s, with the first investigations dealing with Sahelian grain markets against the background of the contemporary food crisis in that region. The key distinguishing feature of this tradition is that it focuses on markets and power in a ‘real world’ sense. From this point of view, it most closely corresponds to the spirit of the GCC approach.

The main recent representatives of this tradition (Leplaideur 1992; Coste and Egg 1996; Moustier 1998) work implicitly or explicitly with a dualistic model of post-liberalisation food crop *filières* in Francophone Africa. One of their typologies of *filière* is based on imports or re-imports of wheat flour and rice from outside Africa. This type of *filière* is dominated by private oligopolists with good connections with the state. Its shape at any one time – in terms of scope, price levels, supply sources, types of product exchanged, main area of end-consumption – is primarily determined by disparities in external trade policy between different West African states. Alongside this *filière* there is another, apparently completely separate, small-scale one. The small-scale *filière* is much more dispersed and somewhat less episodic, but within it there are processes of competitive price formation (and a high degree of price instability), coupled with regular shifts in power relations between different agents and a relatively undeveloped division of labour. What is said to allow the small-scale *filière* to flourish, or at least survive, is a high degree of adaptability and a variety of risk-spreading/limiting institutions and practices. Finally, whereas the first *filière* is

underwritten politically, the second is underwritten socially by ethnic solidarity and a series of patron-client relations.

While the description of the two *filières* in question is based on detailed empirical fieldwork, their separateness is probably exaggerated, as is the internal coherence and degree of integration of the second. In demonstrating this coherence and integration, the tradition frequently has recourse to concepts and assumptions drawn from transaction cost theory, although these often seem to be employed in a circular way.²⁶

In the following two sections we outline recent influences on the *filière* approach from, respectively, the regulation school and convention theory. We cannot do justice to the variety of contributions in either tradition. However, we will dedicate more space to convention theory, since it is less well-known in anglophone circles.²⁷ The analysis will be limited to outlining the aspects of these theories that have had a direct relevance in the study of *filières*.

Inputs from the regulation school

The French regulation school, a descendant of French Marxist thinking, is best known for its analyses of the transition from ‘Fordist’ to ‘Post-Fordist’ forms of economic regulation and their accompanying ‘modes of accumulation’ ([Aglietta 1979](#)). The concept of ‘Post-Fordism’ is meant to describe the current conjuncture in industrialised countries. It includes processes such as the disaggregation of mass consumption and production, the withdrawal of the state from corporatist and/or Keynesian forms of macro-economic management, and the displacement of vertically-integrated forms of industrial organisation by contract-based ones.²⁸

The regulation school provided a direct input into *filière* analysis in a thesis by Bartoli and Boulet (1989) on the French wine *filière*,²⁹ focusing on the crisis in the low-quality wine sub-sector and its ‘Post-Fordist’ restructuring. The authors discuss

the role of regulative mechanisms and institutions (norms, policies, ‘regime environment’) in modifying, ‘producing’ and reconfiguring ‘sectors’ in ways independent of their specific logics of production and consumption. This view challenged the apparently naturalistic assumptions about product specificity found in the empirical tradition of the *filière* approach through the introduction a much stronger historical perspective.³⁰

The influence and historicity of regulative mechanisms is a strong theme in several recent *filière*-related works on international markets particularly for grain, soya and coffee (see, among others, Daviron 1995). In these works, there is an ongoing emphasis on the importance, singly and collectively, of regulative regimes based on nation-states against the power of multinational corporations (rather than against international regulative agencies like GATT/WTO). Crises in international markets are seen to derive from crises of regulation in certain national states. This, in turn, has the secondary effect of eroding the hierarchy of producing states which has normally formed the basis of international commodity agreements.

Inputs from convention theory

Convention theory has developed distinctly from the *filière* approach, but overlaps with it in important ways. The theory’s origins (Salais and Thévenot 1986; [Boltanski and Thévenot 1989](#)) lay in neo-institutional economics (the perspective of limited rationality and Stiglitz’s work on the economics of information), but many of its formulations also have a marked ‘regulationist’ tone. On the basis of the assumption that for markets to function there must exist a common ‘language’ between participants (founded on asymmetries of information), convention theory suggests that – over time – different markets come to embody a succession of different criteria

under which the goods traded on them become ‘qualified’ for trade, and according to which trade is subsequently ‘managed’.

Initially, convention theory developed around the theme of the specificity of ‘labour’, and analysed the rules, norms and conventions that formed the basis of the ‘wage relation’ (Salais and Thévenot 1986). Later, this approach was extended to other commodities and to the analysis of economic activity in general ([Boltanski and Thévenot 1989](#); [Valceschini 1993](#); [Nicolas and Valceschini 1995](#); [Sylvander 1995](#); [Sylvander and Biencourt 1999](#)).

One of the tenets of convention theory is the observation that under Fordism, quantification was the main criteria for characterising production, while the current economic dynamic is based on ‘an obsession with quality’. According to this approach, conventions are necessary when price alone cannot evaluate quality. In this case, economic agents set up ‘quality conventions’ that lead to four different forms (or modes) of coordination:

1. In *domestic coordination*, uncertainty about quality is solved through trust (long-term relationships between agents or use of private brands which increase the quality reputation of products). In this case, the definition of quality is resolved internally, and the identity of a product is guaranteed or ‘institutionalised in the repetition of history’ by its region or country of origin (Swiss watches, Champagne) or by a brand-name (Chiquita, Del Monte).
2. In *industrial coordination*, uncertainty about quality is solved through the actions of an external party which determines common norms or standards and enforces them via instrument-based testing, inspection and certification.
3. In *market coordination*, differences in price are equated with quality, and price is the main market management form. Therefore, there is no uncertainty about quality, and prices are sufficient indicators.

4. In *civic coordination*, there is collective commitment to avoid conflicts, and identity of a product is often related to its impact upon society (for example, fair trade coffee).³¹

Each of these forms of coordination implies asymmetries of information which benefit one group of participants over others. Different forms may exist side by side at the same time, even for the same product. According to Allaire and Boyer (1995), each of these modes of coordination exists in a state of tension because it is trying either to resist or to encroach on other modes.³² However, a change in the dominant form implies a process of *filière* restructuring. Also, while most markets will have a mixture of different quality conventions, and most *filières* will have a combination of different enterprise types, broad trends of historical transition can also be identified in most primary commodity *filières*.

Therefore, the explicit link between convention theory and the analysis of *filière* structure and/or restructuring is made in two ways. Firstly, *filières* may be considered to be more or less coherent or articulated, depending upon the extent to which a single quality convention reigns along their whole length.³³ Secondly, for each quality convention there is held to be a corresponding ‘form of enterprise’, which will constitute the dominant type of economic agent within specific *filières*.³⁴

Another potential contribution of convention theory to *filière* analysis could be as a source of historical and regulatory insights, although these insights are a long way from systematisation, and their relation to earlier contributions of the regulationist literature is still a loose one. Quality ‘conventions’ are not given either the empirical scope or the causal force attached by regulationists to ‘regimes of accumulation’. Neither does there seem to be a coherent explanation of why and how changes take place from one convention to another. Also, the categorisation of modes of coordination is not always analytically useful. For example, one of the problems with

the ‘domestic’ mode is that ‘region of origin brand-names’ and ‘non-region of origin brand names’ often compete with each other (see Sylvander and Biencourt 1999). Therefore, collapsing the two types into the same category is problematic, especially as international brand-names can hardly be considered ‘domestic’.

On the other hand, convention theory offers useful components of a potentially interesting project of disaggregating and qualifying some of the key historical categories of regulation theory, and re-founding them on sectoral specificities – and thus potentially at the level of *filière*.

Concluding remarks

A recent contribution by Wilkinson (1997) has underlined the potential of some schools of French economic thought (notably the regulation school and convention theory) for providing common grounds for an alternative paradigm of economic analysis to the dominant neo-liberal one. It has also explored points of convergence with other schools in social science such as action-network theory, new economic sociology and neo-Schumpeterian economics. This article has a similar aim, but with a narrower focus on commodity-based analyses. Our examination of the GCC approach and the *filière* tradition leads to a number of general observations.

Firstly, the study of commodity chains shows its potential for illuminating some of the key characteristics of contemporary capitalism, and the dynamics of change which have emerged in the age of globalisation. It can also capture the changing role of developing countries in the more detailed context of the structure and governance of a variety of global commodity chains (therefore explaining diversity as well as common trajectories).

Secondly, both the GCC and *filière* traditions seem to be ‘approaches’ to the study of commodity chains rather than ‘theories’. The lack of consistency within the *filière* tradition has recently led to calls for a more unified approach. The GCC tradition provides a more coherent approach, but is still some way from constituting a solid theoretical paradigm, although its most recent work on upgrading (Gereffi 1999; Gereffi and Tam 1999) is moving toward the fine-tuning of theoretical concepts.

Thirdly, the GCC approach seems to hold more potential for the study of commodity chain restructuring to the extent that it is generally concerned with the full length of global chains, while the *filière* tradition mostly focuses on local or national levels of the chain. Also, the GCC approach deals with power issues more specifically, and stresses the control of key agents within the chain, while *filière* analyses have generally attached more importance to the technical side of the material flow than to the role of social actors (except for the ‘anthropological tradition’). Until recently, the only powerful agents in *filière* studies were the public institutions which regulate trade and marketing -- on whose behalf much of the *filière* analysis was performed.

In sum, the GCC approach provides a useful basis for the study of globalisation and economic restructuring both in industrialised and developing countries. However, a number of problems remain to be solved:

1. A number of concepts seem to be too loosely defined. The definition of GCC itself, as invariably dominated by a key agent, tends to exclude flows of any given commodity or product which are not organised and controlled according to the standard ‘key-agent’ pattern. This could be constraining in considering flows of produce from Africa, which in some cases may not qualify for chain status. On the other hand, this could have a useful function in warning that seemingly attractive

alternative means of organising such flows may be less easy to start, or maintain, than seems the case.

2. The producer-driven versus buyer-driven distinction may be useful as a general guide at the beginning of a research project, but appears too rigid and uncontextualised time-wise to be used uncritically thereafter. Similarly, the asserted close relation between capital intensity, technological advancement and chain-dominance does not hold in detail. Present trends seem to indicate a movement of key agents towards the control of brand-names and thus access to markets, which represents a movement away from productive activities, including the most technologically advanced.

3. Having been developed largely in relation to industrial commodity chains, some aspects of the GCC approach need significant adaptation for use in relation to flows of agricultural produce. Certainly, there are agricultural products, such as fresh fruit and vegetables, whose analysis is much advanced by setting them within the rubric of buyer-dominated GCCs. But even in this case, there seem to be subordinate (or ‘junior’) chains which are differently organised, while chains for non-perishable products seem to fit less well into this set of concepts – for example, having power concentrated neither with producers nor with retailers but dispersed among different locations on the chain. Moreover, in considering the impact of regulation on GCCs, the differences between industrial and agricultural regulation are likely to be significant.

4. The concept of power in the GCC approach could usefully be elaborated and qualified through empirical grounding. Replacing the notion of ‘power’ with that of ‘coordination’ is one option, but it seems questionable whether this answers, or simply shifts, the whole question. After all, the two terms are by no means synonymous, since there are large elements of ‘power’ which are not contained in ‘coordination’ and vice versa.

More generally, the GCC approach could also be enriched by some of the insights gained in the *filière* tradition. For example, the GCC approach needs to pay more systematic attention to regulatory change, both in general and as regards specific regulations relating to particular commodity-groups. In this realm, *filière* work may guide GCC analysts to study the differences between regulations governing the production of and trade in food and agricultural products on the one hand, and those for manufactured products on the other.

Filière studies have also shown considerably greater historical focus and depth than GCC ones. This relates both to the approach adopted by researchers and to the fact that it has been in existence much longer. Some *filière* studies have more seriously attempted to quantify the distribution of profit/value added along chains. Finally, the application of some of the insights of convention theory could also benefit the GCC approach, in particular the analysis of how quality conventions may shape the structure and/or restructuring of commodity chains, and the importance of quality conventions in determining current competitive strategies.

In conclusion, both the GCC and *filière* approaches make useful contributions to the study of commodity chains. Their different strengths and weaknesses make them, to a considerable extent, complementary and indicate the potential usefulness of combining aspects from both.

Notes

¹ The French word *filière* has a large number of different English translations, dependent on context. In the present context it is used to describe studies where a given product is followed along a 'chain' of activities from producer to the final consumer. Similar terms are used in Anglophone studies that describe all the activities involved in commodity systems (and sub-systems), complexes, chains, and sectors (or

sub-sectors). In this article, the terms ‘chains’ and ‘*filières*’ will be used interchangeably.

² This paper does not review literature on the political economy of food and agriculture which emerged from dependency theory in a somewhat different direction than world systems theory and which concerns itself with commodity-complexes and systems (see for example Friedmann and McMichael 1989; Friedmann 1993; Goodman and Watts 1994; Friedland 1994, and Little and Watts 1994). Such authors present a number of interesting hypotheses, specifically related to agriculture, which the GCC approach, with its manufacturing focus, does not cover, but are not considered systematically in this paper. A brief account of this tradition, and comparison with GCC analysis is found in Raikes and Gibbon (2000).

³ For a similar, but considerably more elaborate, position see Arrighi (1994), who works with a much longer, less regular ‘systemic cycle’, and draws a main distinction between material and financial accumulation.

⁴ Gereffi has replaced the notion of ‘hierarchy’ with the notion of ‘spider web’ in another contribution (1999b: 3). However, the ‘spider web’ configuration cannot explain dynamism, since the only actors are spider and fly, and the web coordinates neither move nor take any other actions.

⁵ Evidence of this potential convergence is the recent symposium on ‘Business and Social Networks in International Trade’ in the *Journal of International Economics* (Feenstra and Rauch 1999).

⁶ Kim, Linsu and Nugent (1997) and Abdel-Latif and Nugent (1996) look at the choice

of export-channels available to small and medium enterprises in Korea and Egypt through the lens of transaction costs, while Lall (1991) and Keesing and Lall (1992) study marketing barriers to developing countries' exports.

⁷ Other authors make similar points. Thus Arrighi (1994: 343 & ff) sees the transnational expansion of the textile and consumer electronic chains in East and South-East Asia as being extensions of the 'Japanese multilayered contractual system' and of its local variants.

⁸ A number of studies indicate the relevance of product-specific factors (among others) in determining the shape of industrial commodity chains (see Storper and Walker 1989). This seems to be especially true of agricultural (and agricultural-based) chains (Goodman *et al* 1987; Page 1997).

⁹ On the Asian Crisis see, among others, Cambridge Journal of Economics 1998, 22(6). On prudential regulation (and successive Basle Accords), and its continued inadequacy, see Reszat (1997).

¹⁰ A problem with Porter's terminology is that it seems not to distinguish between 'competitive advantage' of the dominant key agent and of those subordinated to it. All but one of the 'higher order factors' seem likely to be retained by the key agent, while the one remaining (industrial upgrading) can occur only at its will and on its premises.

¹¹ This leaves open the question of whether these activities are 'inherently' lower value-added or become so, wholly or in part, as a result of a subordinate position in the chain.

¹² While reaching this position may provide added security, it is normally an informal preference, which lasts only as long as the subordinate firm provides satisfaction.

¹³ By 'downstream' in this article we mean movement from the producer end to the

consumer end of a chain. Therefore, ‘upstream’ characterises a movement from consumer to producer.

¹⁴ For instance, the continued subsidisation of Northern agriculture hardly makes, say, wheat production ‘producer-controlled’. On the other hand, it has significantly affected the structure of many sections of the wheat GCC.

¹⁵ The same article points out that constraints on such shifts among car firms hitherto have not reflected efforts to retain a profitable process, but rather the efforts of unionised labour to prevent changes.

¹⁶ This seems to be the case in the Indonesian electronics industry (Peter Gammeltoft, verbal communication), and, among other cases, in the computer industry (i.e. Hewlett-Packard) (Dieter Ernst, verbal communication).

¹⁷ The crucial point in this case is the requirement for final sellers of food products to exercise ‘due diligence’ in ensuring adequate standards of food safety and hygiene, which is far more easily and cheaply achieved for large (often white-owned) farms than for groups of small peasants. A number of requirements that have been out-sourced to producers (including washing, grading, packing and even bar-coding) have had similar effects.

¹⁸ In the example of cotton-textiles and textiles-apparel, looking at only parts of the chain can exclude an important intermediary set of decisions and processes, such as the combination of cotton and other natural or synthetic fibres (although there are theoretical reasons why the definition of the chain could not be extended to include

synthetic fibres). The issue of competition between natural fibres and petrochemical-based synthetics, with its complex relation between industrial requirements (breaking-strength limits and machine speed) and consumer demand, is a particularly relevant one.

¹⁹ For example, this seems to be the case in Pujo (1991).

²⁰ One clear problem with this statement is the way in which power and profit are defined for boxes, where the point at issue here is control along a chain.

²¹ The French *filière* approach was influenced by studies of US agriculture of the 1950s and 1960s. These studies sought to go beyond the analysis of farm-level production in the recognition that increasing shares of value-added was created by processors and distributors (Kydd, Pearce and Stockbridge 1996).

²² The main French research institution on agriculture in developing countries (CIRAD) continues to be internally organised into commodity-specific programmes.

²³ Among the key influences in this realm are the writings of Oliver Williamson (1975; 1985), which include non-market institutions, such as vertically integrated firms, within a market economy context.

²⁴ See also Daviron and Fousse (1993) for the case of the competitiveness of African coffee.

²⁵ Similar assumptions are also made by some anglophone analysts such as Lipton

(1996).

²⁶ The circularity (not uncommon in transaction cost analysis) lies in the assumption that institutions (for example, ethnically-based local trader cartels) exist in order to minimise transaction costs, which are then assumed to be low by virtue of the presence of these institutions.

²⁷ For a comprehensive review of convention theory and a comparison between the regulation school and convention theory, see Wilkinson (1997).

²⁸ Recent regulation school work (see Boyer and Saillard 1995; Aglietta 1998), suggests that regulationists are moving away from structuralist interpretations towards a reading of institutions as ‘context’ within which routines and collective behaviour are developed.

²⁹ The regulation school also offered inspiration to the body of work dealing with the transition between different international food regimes (Friedmann and McMichael 1989; [Goodman and Watts 1994](#); Friedland 1994; Little and Watts 1994).

³⁰ See also a continuation of the discussion on the wine *filière* and, more generally, on the role of regulation in the functioning of *filières* in Bartoli and Boulet (1990) and Boyer (1990).

³¹ This is not the only attempt by convention theorists at categorising ‘convention regimes’ or ‘world of production’, although it is the most interesting from the point of view of our discussion. For example, [Boltanski and Thévenot \(1989\)](#) highlighted the

historical emergence of six legitimate forms of common welfare ('worlds'): (1) inspirational; (2) opinion-based; (3) domestic; (4) industrial; (5) market; and (6) civic. These 'worlds' are not defined in evolutionary or hierarchical terms. Rather, they are simultaneously present in organisations and institutions (see Wilkinson 1997). Salais and Storper (1992) developed a typology of 'worlds of production' on the basis of a theory of production organisation based on the nature and quality of a product. They identified four such 'worlds' defined on the axis of specialised versus standardised products and of dedicated versus generic products. These 'worlds' depend on the development of appropriate conventions with specific operationalisations of quality and flexibility, which in turn shape the forms of competition and cooperation.

³² An example given is the contemporary tension between countries such as France and Italy, which defend the 'domestic' mode of coordination through legislation guaranteeing quality *via* certification of origin (for wine, AOC denomination in France, DOC denomination in Italy) and Anglo-Saxon countries which favour brands and full consumer information.

³³ Where quality conventions are in contention within a *filière*, there is said to be a tendency for a specialised function of mediation to emerge.

³⁴ These agents are distinguished by dependence on different clusters of resources. For example, forms of enterprise based on cash reserves and resources with variable costs are dominant where market-based conventions reign, while enterprises based on major accumulations of fixed capital are dominant where industrial-based conventions reign. Enterprises based on ownership of so-called 'specific' resources dominate where 'domestic' conventions reign. 'Specific' resources may be reputational

(including not only brand names but also business contacts) or related to augmented efficiency (for example, through the adoption of a specific business practice like JIT).

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