

SPREADING THE GAINS FROM GLOBALISATION: WHAT CAN BE LEARNED FROM VALUE CHAIN ANALYSIS?

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SUMMARY

In recent years, globalisation has been associated with increasing inequality within and between countries, and with a stubbornly large share of the world's population living in poverty. If the 'losers' had been confined to those who did not participate in the global economy, then the policy implications would be clear – join the rush. But, when (as is the case) the 'losers' include those who have participated in global processes, then the policy challenge is much more daunting. It is not so much a matter of *whether* to participate in global processes, but *how* to do so in a way which provides sustainable income growth for poor people and for poor countries. In these circumstances, policy needs to address processes of production and product development, including both intra-firm organisation and the relationship between firms. It also needs to address the ways in which poor producers and poor countries connect with producers and consumers in the global economy.

Value chain analysis – which includes the whole cycle of the organisation, production and delivery of products from inception to use and recycling – provides a tool for mapping these crucial domains of private and public policy. But, more than that, by focusing on the dynamic shifting of *producer rents* through the chain, on the processes whereby key actors provide *governance* to production which occurs on a *global basis*, value chain analysis provides important insights into the policy challenges confronting both private and public actors.

This paper reviews the unequal character of recent processes of globalisation, summarises the key theoretical concepts which characterise the concept of value chains and illustrates the contribution of value chain analysis through summaries of four chain case-studies (fresh fruit and vegetables, canned deciduous fruit, footwear and automobile components). It concludes with a discussion of practical ways of how value chain analysis can inform policy.

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1. INTRODUCTION

For many of the world's population, the growing integration of the global economy has provided the opportunity for substantial income growth. This is reflected not only in higher incomes, but also in the improved availability of better quality and increasingly differentiated final products. However, at the same time, globalisation has had its dark side. There has been an increasing tendency towards growing unequalisation within and between countries and a growing incidence in the absolute levels of poverty, not just in poor countries. These positive and negative attributes of globalisation have been experienced at a number of different levels – the individual, the household, the firm, the town, the region, the sector and the nation. The distributional pattern emerging in recent decades of globalisation is thus simultaneously heterogeneous and complex.

If those who had lost from globalisation had been confined to the non-participants, the policy implications would be clear – take every step to be an active participant in global production and trade. However, the challenge is much more daunting than this, since the losers include many of those who have participated actively in the process of global integration. Hence, there is a need to manage the mode of insertion into the global economy, to ensure that incomes are not reduced or further polarised.

Three central questions arise from these observations. First, why has there been so little correspondence between the geographical spread of economic activity and the spreading of the gains from participating in global product markets? Secondly, to what extent is it possible to identify a causal link between globalisation and inequality? And, thirdly, what can be done to arrest the unequalising tendencies of globalisation? These three related questions have important methodological implications – what is the best way to generate the information required to document these developments in production and appropriation, and how can we identify policy instruments which might arrest, and perhaps partially reverse these developments?

It is the central contention of this paper that value chain analysis provides an important framework for addressing these crucial questions. In developing this argument, in Section 2 we will briefly chronicle the correlation between global integration and global unequalisation and posit a causal relationship between increasing inequality and the global integration of production and trade. In Section 3, we outline the central elements of value chain analysis, and this is followed in Section 4 by a series of short case studies which illustrate the contribution to be made by value chain analysis in understanding this causal relationship. The paper concludes by drawing conclusions for both future research and policy design and implementation.

2. GLOBALISATION AND UNEQUALISATION

Globalisation is not a new phenomenon; it has ebbed and flowed over the past century. There are many measures of 'globalisation', none of which is free from imperfections. However, one indication of growing integration is the proportion of production which is traded; this has grown significantly in most parts of the global economy (Table 1).¹ The sharp growth in trade/GDP shares for China and India are particularly

¹ An associated point which we will consider in later discussion is the nature of these trading relationships.

significant, as we shall see below. Similar levels of integration can be found with respect to financial flows and communications.²

Table 1: Trade as a proportion of GDP

Imports + Exports as a % of GDP	1960	1970	1985	1995
<u>By income categories:</u>				
High income	23.7	27.1	37.3	39.8
Middle income				55.9
Upper middle income	34.3	36.4	41.8	51.4
Lower middle income				58.7
<u>By region:</u>				
East Asia & Pacific	20.1	18.6	35.7	58.3
Latin America & Caribbean	25.8	23.4	30.8	35.6
Sub-Saharan Africa	47.4	44.3	51.0	56.1
Low income, excl. China & India		34.6	41.8	60.5
China	9.3	5.2	24.0	40.4
India	12.5	8.2	15.0	27.7
World	24.5	27.1	37.1	42.5

Source: World Development Indicators, 1998.

Before considering distributional issues, it is important to recognise that many of the world's population have experienced significant improvements in living standards in recent years. This is particularly true of east Asia after the 1960s, and China and India after 1980. For example, the Chinese economy grew at an annual rate of 10.2 per cent during the 1980s and of 12.8 per cent during the first half of 1990s. Much of the benefits of this growth have filtered through to a large number of people.

But at the same time as globalisation has been associated with an improvement in living standards for many, what has happened to the degree of global inequality? Considered at the level of countries, the pattern of inter-country income distribution has become complex, with the development of a 'twin-peak' distributional pattern. Two groups of countries have emerged between 1960 and 1988 – those clustered at a level of five per cent of US GDP/worker, and those where earnings are between one- and two-thirds of US levels (Jones, 1997).

But does this correspond to a worsening of inter-country income distribution? On the one hand, it is argued that the rapid growth of China and India in recent years has led to a narrowing of inter-country income differentials, that is, to an improvement in inter-country income distribution (Wolf, 2000). This is because these two countries which have seen a significant rise in average per capita incomes, account for a

² These are widely-chronicled events. But see Baldwin and Martin (1999) for a recent review of this evidence and a helpful comparison with levels of integration during the late nineteenth century.

very large share of global population. Therefore, comparing income differentials between countries on the basis of population-weighted average incomes produces an equalising trend.³

But, global income inequality can also be measured in relation to individual incomes, rather than to inter-country average incomes. As Ehrenpreis points out (Ehrenpreis, 2000), even if the estimations used by Wolf with regard to the inter-country distribution of income are correct (which, as we have seen in footnote 3, is disputed) the flaw in Wolf's argument is that it does not take account of worsening inequality within China (see below). That is, although average income in China may have risen, worsening income inequality means that very large numbers of the Chinese population have either been excluded from the gains from growth, or may even be worse off. If this is factored into the analysis, then the share of global income going to individuals has indeed become more unequal during the past two decades.

The growth of global inequality has been mirrored by the growth of inequality within countries, both in the high- and low-income worlds:

- In high income economies in general, income distribution has tended to become more unequal (Streeten, 1998), particularly in the Anglo-Saxon economies (Dunford, 1994)
- In the context of a very rapid pace of economic growth and integration into the global economy – the export/GDP ratio rose from 10.5 per cent in 1985 to 21.3 per cent in 1995 – China experienced a sharp rise in inequality. This was between urban and rural areas, coastal and interior provinces, and within urban and rural areas (Khan, 1999)
- In Chile, often thought to be the paradigmatic gainer from globalisation, the gini-coefficient increased from 0.46 in 1971 to 0.58 in 1989 (Rodrik, 1999)
- Inequality between skilled and unskilled wage earners has tended to increase, in the industrially advanced countries (Wood, 1995 and 1998) and in Latin America over the past decade (Wood, 1997)
- Inequality has grown markedly in the transition economies (Human Development Report, 1999)
- Absolute levels of poverty have shown little sign of reducing. According to the World Bank, the numbers of people living below the equivalent of \$1/day (in 1985 purchasing power parity figures) will have grown from 1.3bn to 1.6bn (20 per cent of global population) between 1993 and 2000 (World Bank, 1996). Even in China, which grew rapidly with its increasing participation in global markets, there is evidence that the numbers in poverty at best stabilised, and may even have increased.⁴

One possible explanation for these rising levels of inequality is that globalisation has by-passed much of the world's population, particularly those living in poor countries. Perhaps, but it is evident from Table 1 that more and more economic activity in virtually all countries is affected by the global interchange of goods and services (let alone other components of globalisation). Moreover, many of those countries which have

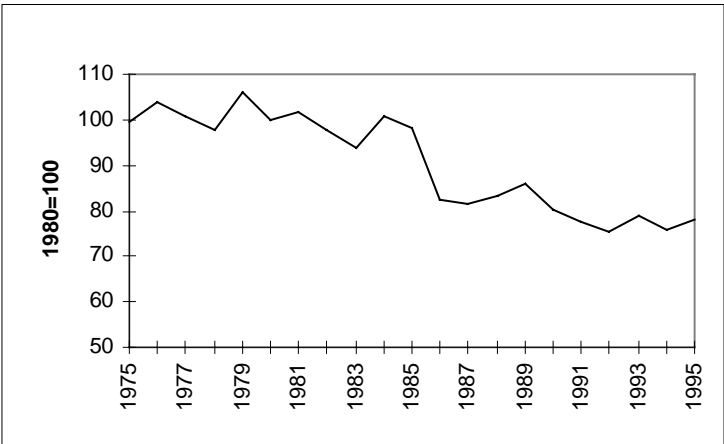
³ However, Wolf's conclusions have been questioned as resulting from a small sample of countries, and Lundberg and Milanovic cite studies using larger samples which estimate that inter-country income inequality has indeed increased (Lundberg and Milanovic 2000).

⁴ '...until about 1985, China achieved a remarkable reduction in the incidence of poverty. [But] [a]fter the mid 1980s the rate of reduction in poverty drastically slowed down and arguably was halted or even reversed' (Khan, 1999: 2).

suffered from declining income shares have experienced growing trade/GDP ratios. For example, Saharan Africa’s trade/GDP ratio rose from 51 to 56.1 per cent between 1985 and 1995. So, the explanation for increased inequality will have to also explain how it is that countries and regions can grow their participation in global exchange and at the same time see a decline in their relative income shares (and also sometimes even in their absolute standards of living). For this reason, the focus of attention must also lie with the mode in which firms, countries and regions participate in the process of global production and exchange.

An explanation for these declining country shares in global income in the context of growing participation in global markets can be found in the concentration of developing countries in commodity sectors. These have experienced declining terms of trade over a sustained period (Singer, 1950; Prebisch, 1950). This is indeed a problem still encountered in many developing countries, particularly in SSA. As a consequence, it has long been held that structural change should aim wherever possible to encompass the transition from the growing and extraction of primary commodities to the manufacture of industrial products. But, here, since the mid-1980s we have seen an emerging trend for the terms of trade of a range of manufactured commodities – particularly those produced by developing countries – to decline (Figure 1).⁵ It is significant that this decline in the terms of trade of developing country manufacturing exports coincides with China’s entry into global markets.⁶

Figure 1: Price of LDC manufactured exports relative to IAC manufactured exports of machinery, transport equipment and services



Source: Wood 1997.

⁵ The falling manufacturing terms of trade of developing countries were hypothesised in the early 1970s by Hans Singer (Singer, 1971). Wood’s calculation of falling terms of trade in manufactured exports is corroborated by a recent study of the barter terms of trade in manufactures between developing countries and the European Union, which estimates an annual rate of depreciation of 2.2 per cent between 1979 and 1994 (Maizels, et. al., 1998). In a further study focusing on the terms of trade in manufactures between the US and developing countries for the period 1981–1997, Maizels, et. al. (1999) conclude that ‘[o]ver the whole period, the relative terms of trade trend of developing countries, compared with that of developed countries, has significantly worsened (Maizels, et. al., 1998: 23). It is significant that both these recent studies by Maizels et. al. Do not reflect the fall in developing country manufactured export prices which followed the East Asian crisis of 1997–8.

⁶ For data on China’s rapidly growing share of global markets in labour-intensive products, see Kaplinsky (2000).

The problem of falling returns not only confronts economies, but also individual firms. When firms confine their competences to the simple assembly of imported materials, they become subject to increasing competition and hence to falling returns. For example, in the Dominican Republic in the early 1990s, the assembly of jeans in export processing zones occurred in the context of intense regional competition (often surfacing in competitive devaluations), resulting in sustained falls in unit prices (Table 2).⁷

Table 2: Increasing competition and declining unit prices: the case of jeans manufacturing in the Dominican Republic

	Volume (per week)	Unit price (\$)
January 1990	9,000	2.18
October 1990	5,000	2.05
December 1990	3,000	1.87
February 1991	Arrangement terminated and assembly transferred to Honduras	
Total investment in equipment by Dominican Republic firm was US\$150,000		

Source: Kaplinsky (1993).

The consequence of the failure of individual firms, groups of firms and national economies to insert themselves appropriately into global markets is that the spectre is raised of *'immiserising growth'*. This describes a situation where there is increasing economic activity (more output and more employment) but falling economic returns. For example, over the past two decades Brazilian shoe producers have commanded more than 12 per cent of global leather shoe exports. At the same time, between 1970 and 1980 average real wages in the sector were stagnant, and during the following decade they fell by approximately 40 per cent in real terms (Schmitz, 1995). In the Dominican Republic, real wages (as measured in international purchasing power) fell by 45 per cent during the second half of the 1990s, largely as a consequence of competitive devaluations in the region (Kaplinsky, 1993).⁸

Is it possible to determine those factors which drive the distribution of the gains from global production and exchange, explaining both why some parties have gained and others have lost from globalisation? Moreover, can we then use this analysis to identify policy levers – relevant at the level of individuals, households, firms, regions and countries – which may lead to a different, and more favourable distributional outcome? The objective of this paper is to show that value chain analysis has an important role to play in meeting these objectives.

⁷ The ability of Dominican Republic firms to upgrade was constrained by the terms of the Caribbean Trade Initiative which limited their capacity to utilise local textile inputs (Kaplinsky, 1993).

⁸ An extended discussion of immiserising growth needs to take account of the purchasing power parity of incomes, whether falling barter terms of trade are associated with falling income terms of trade, and of the opportunity costs of exporting activities in the context of falling barter terms of trade. Some of these issues are discussed further in Kaplinsky and Readman (2000).

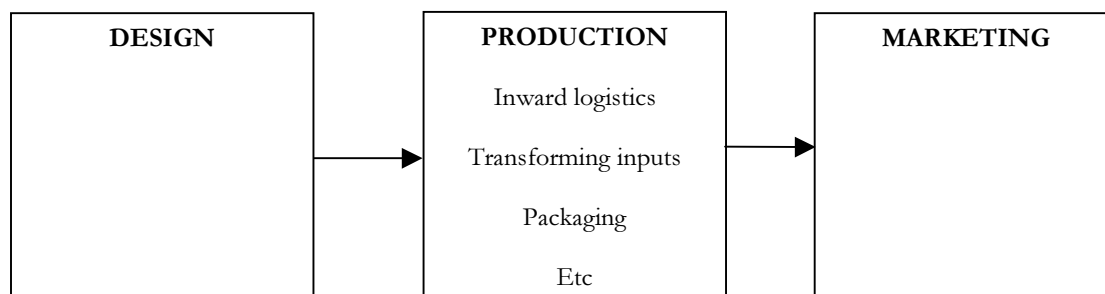
3. THE CONTRIBUTION OF VALUE CHAIN ANALYSIS

Many factors associated with globalisation will affect the distribution of returns. For example, macro economic disturbances associated with capital mobility (and particularly capital volatility) can have major consequences for the living standards of many millions of people, as was the case following the Asian crisis of 1997 (Griffith-Jones and Cailloux, 1999). But, as we shall see in the case-studies in Section 4 below, insofar as distribution is an outcome of the globalisation of production and exchange, value chain analysis provides a valuable methodological tool for explaining these developments.

3.1. What is a value chain?

The value chain describes the full range of activities which are required to bring a product or service from conception, through the intermediary phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use. Considered in its most elementary form, it takes the shape as described in Figure 2, although in reality value chains are considerably more extended than this. As can be seen from this, production *per se* is only one of a number of value added links. Moreover, there are a range of activities within each link of the chain (only those for production are detailed in the Figure).

Figure 2: A simple value chain



The concept of the value chain was used in the 1960s and the 1970s by analysts charting a path of development for mineral-exporting economies (Girvan 1987). It was also adopted in recent French planning literature in the form of the *filière*.⁹ But during the 1990s, value chain analysis has become widely used. One primary sources of the recent prominence of the value chain as an analytical structure tool arises from the work of Michael Porter who identifies two key constructs that are necessary for the upgrading of national capabilities (Porter, 1980, 1985, and 1990). The first is somewhat confusingly referred to as the *value chain*, distinguishing different stages of the process of supply (inbound logistics, operations, outbound logistics, marketing and sales, and after sales service) and the support services the firm marshals to accomplish this task (strategic planning, human resource management, technology development and procurement). (This corresponds with different components of the production link in the value chain sketched out in Figure 2 above.) The importance of the value chain in this sense is that it draws attention away from an exclusive

focus on physical transformation within the firm to include the support services required to sustain production. Porter complements his concept of the value chain with the concept of the *value system*. The value system basically extends the idea of the value chain to inter-industry linkages, and there is no essential difference between the two concepts, bar their scope. It is also clear that in essence, the value system is not that different from the concept of the *filière* discussed above, nor from the use of the phrase ‘value stream’ set out in an influential book by Womack and Jones (Womack and Jones, 1996). A second primary source of the recent prominence of the concept of the value chain arises from the work of Gereffi, building on world system analysis. We shall consider this literature in more detail below.

Considered in this way, the value chain is merely a descriptive construct, at most providing a heuristic framework for the generation of data. However, recent developments of the value chain framework have begun to provide an analytical structure which, as we shall see below, provides important insights into our twin concerns with the determinants of global income distribution and the identification of effective policy levers to ameliorate trends towards unequalisation.¹⁰ There are three important components of value chains which need to be recognised and which transform an heuristic device into an analytical tool:

- Value chains are repositories for rent, and these rents are dynamic
- Effectively functioning value chains involve some degree of ‘governance’
- Effective value chains arise from systemic-, as opposed to point-efficiency.

3.2. Three key elements of value chain analysis

Barriers to entry and rent¹¹

The theory of economic rent was first formulated by Ricardo, who distinguished between rent as a factor income – ‘[i]n popular language, the term is applied to whatever is annually paid by a farmer to his landlord’ – and economic rent – ‘Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil’ (Ricardo 1817: 33). Here Ricardo was highlighting the significant role played by scarcity, since economic rent does not arise from the differential fertility of land itself (which was central to Ricardo’s analysis), but from unequal access to this resource.

⁹ Literally, the word *filière* means ‘thread’, and was used in the late 1970s and early 1980s to describe the perceived need for French industrial capability to span the complete thread of a value chain.

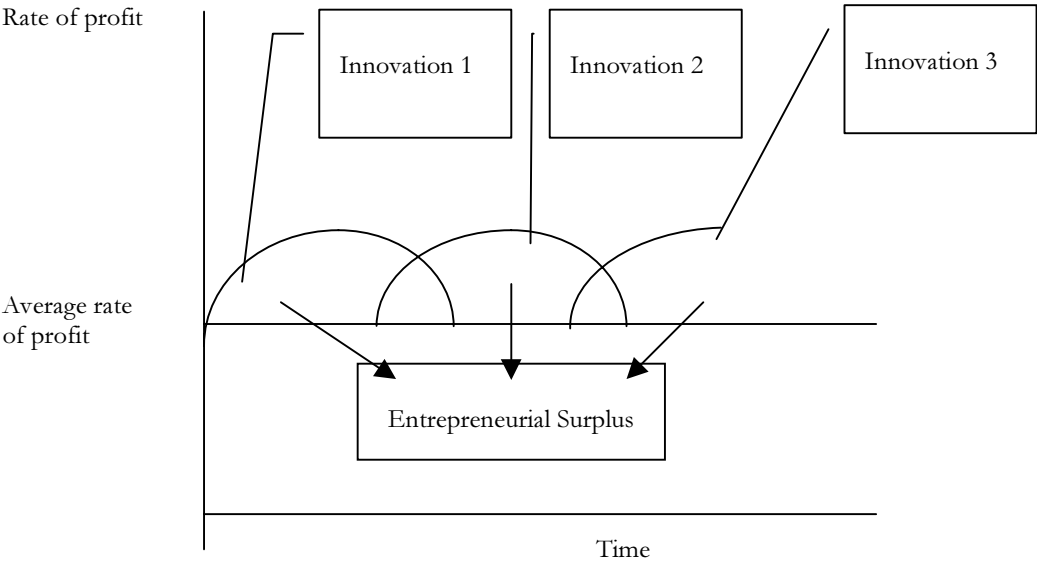
¹⁰ Unfortunately, the phrase ‘value chain’ covers both the heuristic and analytical categories. This has led some to search for a different nomenclature. For example, Gereffi has coined the phrase ‘global commodity chain (GCC)’ (Gereffi, 1994), and in a recent contribution argues that the GCC is distinct in that it incorporates an international dimension, that it focuses on power of lead firms and the coordination of global activities, and that it explicitly recognises the importance of organisational learning (Gereffi, 1999b). These are proximate to the three characteristics which we address in this paper. But, although representing a major contribution to our thinking on global production networks, Gereffi’s *phrase* ‘global commodity chain’ suffers because the word ‘commodity’ implies the production of undifferentiated products in processes with low barriers to entry. The problem with this, as we shall see below, is that the search for sustainable income growth requires producers to position themselves precisely in non-commodity, high barriers to entry activities in the value chain. For these reasons, and in the absence of an agreed phraseology, we will continue to use the words ‘value chain’, but to do so in an analytical context.

¹¹ For a longer discussion of economic rent see Kaplinsky (1998).

But as Schumpeter showed, scarcity can be constructed. That is, it can arise from purposive actions rather than as a consequence of the bounty of nature. For Schumpeter, the entrepreneur played a unique role in ‘the carrying out of new combinations’ (Schumpeter 1961: 107). Entrepreneurial surplus is the return to the innovation of a ‘new combination’ and arises when the price of the product following the introduction of the ‘new combination’ provides greater returns than are required to meet the cost of the innovation. These returns to innovation are a form of super-profit and act as an inducement to replication by other entrepreneurs:

Figure 3 shows the process at work. In each industry the equilibrium is defined by the ‘average’ rate of profit. Following the introduction of a ‘new combination’ the entrepreneur reaps a ‘surplus’ – what we might term a producer rent. Then as the new combination is copied – a process of diffusion – the producer rent is whittled away, prices fall, and the innovation accrues in the form of consumer surplus. But all this does is to renew the search for a ‘new combination’, either by the same entrepreneur or another entrepreneur, in the continual search for entrepreneurial surplus.

Figure 3: The generation and dissipation of entrepreneurial surplus



Thus, in summary:

- Economic rent arises in the case of differential productivity of factors (including entrepreneurship) and barriers to entry (that is, scarcity)
- Economic rent may arise not just from natural bounty, but also as producer surpluses that are created by purposive action.¹² These augmented rents have become increasingly important since the rise of

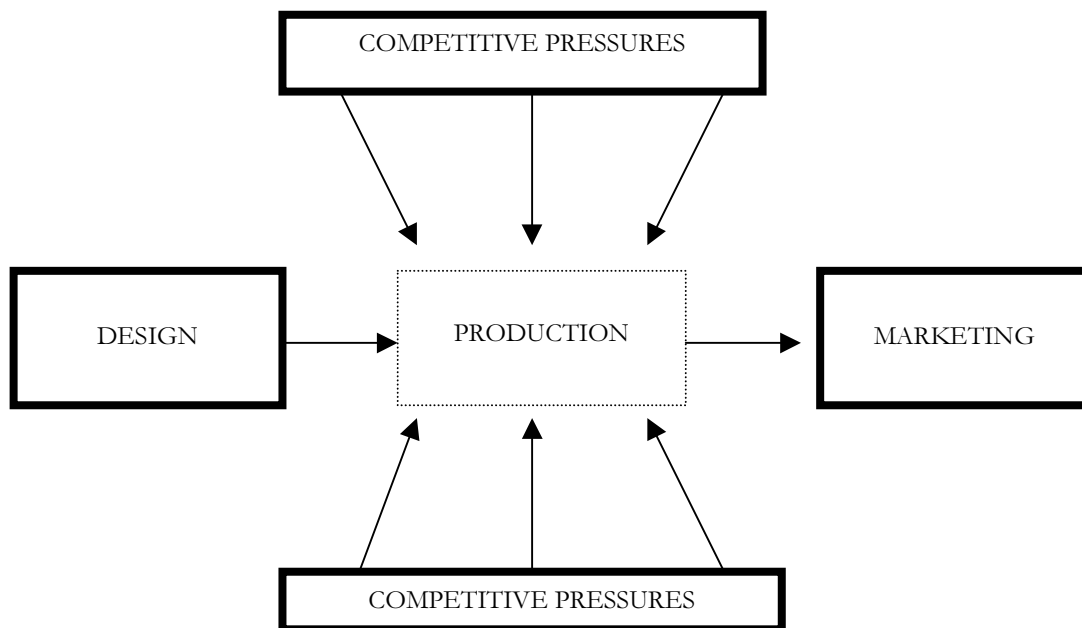
¹² Although monopoly rent (as defined by the rent-seeking literature) also arises as a result of purposive action, it is usefully distinguished from various forms of innovation rents that reflect the search for new combinations’ in the pursuit of entrepreneurial surplus.

technological intensity in the mid-nineteenth century (Freeman, 1976) and the growth of differentiated products after the 1970s (Piore and Sabel, 1984).

- Most economic rent is dynamic in nature, eroded by the forces of competition. Producer rent is then transferred into consumer surplus by the process of competition
- The process of competition – the search for ‘new combinations’ to allow entrepreneurs to escape the tyranny of the normal rate of profit, and the subsequent bidding away of this economic rent by competitors – fuels the innovation process which drives capitalism forward.

As more and more countries have developed their capabilities in industrial activities, so barriers to entry in production have fallen and the competitive pressures have heightened (Figure 4). This has become particularly apparent since China, with its abundant supplies of educated labour, entered the world market in the mid-1980s.¹³ It is this, too, which underlies the falling terms of trade in manufactures of developing countries (see above). Consequently, the primary economic rents in the chain of production are increasingly to be found in areas outside of production. We shall discuss this in more detail in Section 4 below.

Figure 4. Competitive Pressures in the Value Chain



Governance

A second consideration which helps to transform the value chain from an heuristic to an analytical concept is that the various activities in the chain – within firms and in the division of labour between firms – are subject to what Gereffi has usefully termed ‘governance’ (Gereffi, 1994). That is, there are key actors in the chain who take responsibility for the inter-firm division of labour, and for the capacities of particular participants to upgrade their activities.

¹³ The share of manufacturing exports rose from 49.4 in 1985 to 85.6 per cent in 1995 (Khan, 1999).

Why is this important? It is because of the nature rather than the extent of trade in the recent era of globalisation. For many countries the trade/GDP shares in the late 19th/early 20th century and the late 20th century were not dissimilar. The key difference is that in the earlier period this trade was largely in arms-length relationships, with final products being largely manufactured in a particular country and then exported. By contrast, in the latter period, trade was increasingly in sub-components and services and was consequently considerably more complex (Feenstra, 1998; Hummels, Ishii and Yi, 1999). (This contrast allows us to make the useful distinction between what might be called ‘internationalisation’ in the late 19th century and ‘globalisation’ in the late 20th century.) The intricacy and complexity of trade in the globalisation era requires sophisticated forms of coordination, not merely with respect to logistics (who ships what, where and when), but also in relation to the integration of components into the design of the final products and the quality standards with which this integration is achieved. It is this role of coordination, and the complementary role of identifying dynamic rent opportunities and apportioning roles to key players which reflects the act of governance.

This concept of governance – and the distinction between different types of chains – is a major contribution to our understanding of the workings of value chains. What it does is to throw light on those factors determining the nature of the insertion of different producers into the global division of labour. For, as we observed in Section 1 above, it is not just a matter of whether producers participate in the global economy which determines their returns to production, but how and on what terms they do so.

Extending Gereffi’s concept, it is possible to distinguish three forms of governance, based on principles of civic governance.¹⁴ The basic rules which define the conditions for participation in the chain need to be set. This can be termed ‘*legislative governance*’. It is also necessary to audit performance and to check compliance with these rules – this can be seen as ‘*judicial governance*’. However in order to meet these rules of participation, there needs to be some form of proactive governance (which might be termed ‘*executive governance*’) which provides assistance to value chain participants in meeting these operating rules. Much of the existing discussion of governance fails to recognise this threefold distinction, which is one of the reasons why there is often confusion about which party actually governs a particular value chain and a reluctance to recognise that different parties may engage in different forms of governance in the same chain. As Figure 5 shows, these governance roles may be provided from within, or from without, the chain.

¹⁴ For a similar, and to some extent overlapping decomposition of different forms of governance, see Dolan et. al. (1998).

Figure 5: Examples of legislative, judicial and executive value chain governance

	Exercised by parties internal to chain	Exercised by parties external to chain
Legislative governance	<ul style="list-style-type: none"> Setting standards for suppliers in relation to on-time deliveries, frequency of deliveries and quality 	<ul style="list-style-type: none"> Environmental standards Child labour standards
Judicial governance	<ul style="list-style-type: none"> Monitoring the performance of suppliers in meeting these standards 	<ul style="list-style-type: none"> Monitoring of labour standards by NGOs Specialised firms monitoring conformance to ISO standards
Executive governance	<ul style="list-style-type: none"> Supply chain management assisting suppliers to meet these standards Producer associations assisting members to meet these standards 	<ul style="list-style-type: none"> Specialised service providers Government industrial policy support

Building on this concept of governance, Gereffi has made the very useful distinction between two types of value chains. The first describes those chains where the critical governing role is played by a buyer. *Buyer-driven chains* are characteristic of labour intensive industries (and therefore highly relevant to developing countries) such as footwear, clothing, furniture and toys. The second describes a world where key producers in the chain, generally commanding vital technologies, play the role of coordinating the various links – *producer-driven chains*. Here producers take responsibility for assisting the efficiency of both their suppliers and their customers. In more recent work, Gereffi has pointed out that producer-driven chains are more likely to be characterised by FDI than are buyer-driven chains (Gereffi, 1999a).

In each of these chains, production is to varying degrees affected by the three forms of governance. Consider, for example the case of what Gereffi calls ‘triangle manufacturing’ in the toy value chain where production in China is coordinated by Taiwanese intermediaries and destined for buyers (and final markets) in the US. The standards which these producers have to meet (for example, using lead-free paints) are legislated by government and by the us retailer – legislative governance. Both parties will typically also monitor compliance with these standards – judicial governance. The Taiwanese intermediaries will then coordinate production through a range of suppliers (and often also sub-suppliers) and where necessary provide assistance to firms who have to meet the standards prevailing in the chain – executive governance. Governance in other chains – for example in the computer industry – may be more complicated, with a range of buying parties legislating and monitoring different standards and specialised service providers complementing the role played by lead firms in executive governance.

Systemic efficiency

A third analytical element of value chain analysis is that it moves the focus of attention from point- to systemic- (that is, value chain) efficiency. Why might this be important? A useful example can be drawn from the strategic restructuring of one of Europe’s major retailers. Tesco has achieved a significant growth in its market share and profitability from its ability to slim-down its own inventories, ensuring a process of just-in-time deliveries from its own warehouses and those of key suppliers to its retail stores. But it has increasingly

come to realise that these activities account for only a thin share of the product's total value added and unless it 'governs' its chain to achieve broader levels of systemic integration, little more could be done to achieve competitive advantage. For example, in an exercise designed to identify areas of wasted activity in the value chain of a particular product, an analysis of the value added activities involved in the production and cooling of a tin of coca cola was undertaken. This revealed that in an optimum situation it would take a total minimum time of three hours to produce the complete product. Yet in reality, the actual elapsed time in this process was 319 days, leading to a significant cost in working capital throughout the chain (Womack and Jones, 1996). Tesco has thus begun to put significant resources into trying to improve efficiency throughout the chain, since it has come to realise that the activities which it is directly responsible for in its internal operations account for only a small share of total product costs.

As value chains become increasingly disarticulated and subject to a finer and finer division of labour – an inevitable process given the increasing knowledge content of production – so the ability to make an impact on competitiveness by improving the efficiency of individual links in the chain has become increasingly limited. Systemic integration involves closer cooperation between links in the chain, and this often involves enhanced responsibilities for governors, as well as the growth of greater levels of trust between different links in the chain. Perhaps most importantly from our perspective, value chains increasingly span national boundaries, and governors therefore are also forced to learn how to upgrade producers in low income countries.

3.3. How do these three analytical characteristics of value chains relate to our concerns with spreading the gains from globalisation?

These three analytical elements – dynamic rents, governorship and systemic efficiency gains – are closely linked. The central driver is the prevalence of competition which forces down profits by lowering barriers to entry, and which increases as producers in more and more countries enter global trade.¹⁵ This induces participants throughout the chain to search for new forms of rent. In achieving this, the more powerful actors in the chain are increasingly required to induce (and assist) their suppliers and customers to change their own operating procedures. At the same time they continually search for new suppliers (systematically striving to lower barriers to entry in other links in the chain) and customers. These objectives require them to act as value chain governors, although to varying degrees. The resulting growth in the social division of labour requires that these governors act over an increasingly large geographical and institutional terrain to search for systemic efficiency.

We observed in Section 2 that as this global spread of activities has increased, so the inter-country distribution of income has become more complex and generally has worsened. How are these phenomena linked? First, barriers to entry are the determinants of the distribution of rents. That is, they determine who gains and who loses in the chain of production. Those who command rents, and have the ability to create

¹⁵ In their 1994 book Gereffi, Korzeniewicz and Korzeniewicz noted that '[t]he GCC approach explains the distribution of wealth within a chain as an outcome of the relative intensity of competition within different nodes', but fail to take this analysis forward (p. 4). (I am grateful to Hubert Schmitz for pointing out this quote to me.)

new domains of rent when barriers to entry fall, are the beneficiaries. By contrast, those who are stuck in activities with low barriers to entry lose, and in a world of increasing competition, the extent of these losses will increase over time. Secondly, the growing areas of rent are increasingly found in the intangible parts of the value chain. A distinct development over the past decade has seen the barriers to entry in manufacturing – formerly a key scarce capability lodged predominantly in the industrially advanced countries – begin to fall. More and more countries, with lower and lower wage costs (especially China and India) have developed the capacity to reliably transform physical inputs into high quality physical outputs at a low cost. It is this which explains the diminishing terms of trade of developing countries exports of manufactures observed above. At the same time, copyright and brand-names have a very long life (more than 70 years for the former and in perpetuity for the latter), and these represent ‘absolute and immutable’ forms of economic rent. It is not surprising, therefore, that the high income countries in general (and the US in particular) have placed so much emphasis on intellectual property rights in recent years. Similarly, as value chains become increasingly complex and subject to coordination, the rent accruing from governorship itself (a particular form of relational rent – Kaplinsky 1998) has grown.

These developments can be evidenced in a number of prominent thumb-nail examples. (More detail is provided in Section 4 below). For example, Nike now concentrates on the ‘D’ (develop) and ‘S’ (sell) rather than on the ‘M’ (make) and ‘B’ (buy) of its value chain. The winners include Nike as the coordinator and through its institutionalisation of design and marketing, and key celebrities such as Michael Jordan. The losers are the factory owners and the predominantly semi-skilled workers in developing country production sites as Nike relocates production to locales with lower wages or where the pressures of competition induce governments to devalue, hence undermining the international purchasing power of domestic wages. Perhaps more significantly, the Ford Motor Company (which in the first two decades of the 20th century pioneered the development of new forms of organisational and technological rents in manufacturing) has recently begun to restructure itself. It sees its future profits as increasingly arising from its command over its brand name and in the power and efficiency of its governorship. Consequently it has begun to increase its activities over the width of the chain (buying into after-market spares, auto-leasing and marketing) and to reduce the depth of its activities in individual links, particularly in manufacturing (where it is even thinking of sub-contracting assembly, previously its core economic rent). The losers here are firms and workers in the assembly, sub-assembly and components sectors who are subject to increasing competition from a range of other suppliers or supplying countries.

All of this affects the inter-country distribution of income. But participation in global value chains also affects the intra-country distribution of income. This is because the requirements of final product markets in high income markets invariably require capabilities which are outside of the reach of poor people and poor farms and enterprises (often SMEs). These demands tend to be more exacting in ‘governed value chains’ than in arms-length trade. This is because this latter form, low barriers to entry and low returns are unattractive to the rent seeking entrepreneurship which plays such an important role in the production and exchange of more differentiated (and generally less competitive) goods and services. Consequently, small

farms and firms and those people reliant for their incomes from smallholdings and small enterprises may suffer, and those locked into large farm production may gain.

3.4. How does value chain analysis differ from conventional industry studies and from what social scientists (and especially economists) normally do?¹⁶

Traditionally, the focus on productive activities and the insertion of local producers into global markets has been on the economic branch and the economic sector. Developing countries have been seen to have a potential comparative advantage in the primary branch, and the industrial countries in secondary economic activities and value-added traded services. Within the industrial branch, the focus has most often been on individual sectors (based on ISIC or SITC/HS classifications) such as clothing, shoes, chemicals, electronics, food processing, and in a national context. Hence, the analysis has tended to focus on the size and growth of the sector in terms of employees and gross output (rather than net value added), trade performance and the size distribution of firms.

Value chain analysis throws more light on the determinants of income distribution, both within and between countries, and especially over time than this traditional industry analysis. For example:

- Because it focuses on the dynamics of rent, a value chain perspective forces the analysis to transcend economic branches and sectors. For example, in the forestry and furniture chain, the rent-rich activities are increasingly found in the genetics of seed design and in the design and branding of the furniture, rather than in the individual agricultural, industrial or service sub-sectors (which tend to be the domain of traditional branch and sectoral analyses). It is only through a comprehensive view of the whole chain that the links in the chain or segments in product markets which are characterised by high or growing rent can be identified.
- Related to this, value chain analysis makes it possible to trace through a particular thread of *rent-rich activities* which are not easily captured by branch and industry analysis. For example, we have observed that intangible knowledge is increasingly characterised by high barriers to entry, and that the owners of this knowledge gain most from the globalisation of production and exchange. Similarly, governance activities are often subject to significant barriers to entry and hence provide high returns. This being the case, the ability to identify rent-rich activities along the whole chain of added value provides the key to understanding the global appropriation of the returns to production.
- The *data* which are characteristically generated in most branch and sectoral analyses make it difficult to interpret the significance of key indicators such as ‘output’, ‘sales’ and ‘costs’. Consequently the determinants of income distribution are difficult to unravel. Trade statistics are especially problematic here, since they provide little capacity to unpick value added. For example, in the late 1980s, the Dominican Republic saw a significant increase in the gross value of shoe output and exports. But ‘shoe production’ occurred in EPZs utilising imported inputs – the value of a shoe export was a mere \$0.23.

¹⁶ This discussion has been helpfully informed by memos prepared for the Spreading the Gains from Globalisation research network by Gereffi, Sturgeon and Humphrey (2000) and Wood (2000).

By contrast unit shoe exports from Italy may more fully reflect value added. In what senses, then, may the shoe sectors in these two countries be compared unless a value chain analysis – incorporating a more sophisticated mapping of input-output relationships – is utilised?

- The dynamic nature of rents generated in the global activities of a value chain are *obscured by a focus on national industries*. For example, when production occurs in the context of falling global product prices, national accounting systems may reflect a growth in activity and value which does not correspond with the international purchasing power of this sectoral activity. The problem is particularly acute when decisions about *national* resource allocation – affecting income streams over time – are made without reference to the *global* dynamics of returns to different activities in the chain. Thus it is the global focus of value chain analysis which more accurately identifies suitable opportunities to augment incomes in a national context than the national focus of industry studies.
- Studies of market structure which fail to locate the analysis within a value chain perspective are not able to adequately explain the *determinants of firm-size distribution*. For example, the high concentration of ownership in the South African furniture industry does not arise from market conduct within the furniture sector. Instead, it is explained by high levels of concentration in the retail sector, which in turn is linked to concentration in financial intermediation (Kaplinsky and Manning, 1998). Similar observations have been made with respect to the footwear industry, but in this case the inter-sectoral linkages which are involved span national boundaries (Schmitz and Knorringa, 1999).¹⁷

So much for the content of research enquiry. But what of the implications for disciplinary focus?

- Because value chain enquiry spans different economic branches and sectors, effective analysis requires the participation of different disciplines. This is most clearly the case in relation to the focus on agricultural and manufacturing production systems, but the focus on the dynamics of rent also requires inputs from management studies and engineering. Moreover, since power is a key component of governance, and trust is critical to enhanced inter-firm cooperation and new forms of work-organisation, there is a simultaneous need to draw on the insights of political science and sociology. It is for this reason that Wood reflects that value chain analysis provides ‘a *meeting ground* for economics, business administration and industrial sociology in the study of one important aspect of globalisation, namely the simultaneous economic integration of countries, and disintegration of production processes’ (emphasis added) (Wood, 1999: 24).
- A number of challenges are posed to much of traditional *economic analysis*. The Heckscher-Ohlin factor-price equalisation theorem predicts that in an open economy, factor returns such as wages will tend to converge across (and within some) national boundaries. Yet, this is often not the case, in part due to the falling costs of mobility as highly skilled workers, operating within coordinated value chains, interact with skilled and unskilled workers in different economies (Wood, 1999). The ability to identify and capture the role played by these mobile skills is significantly enhanced when analysis occurs through the lens of

the value chain. Much economic analysis of income distribution also tends to focus on the individual as the unit of account, and it is certainly the case that incomes do accrue to individual people as holders of assets (for example, skills and equity). Yet, while individuals may receive incomes, these returns are defined by their participation in institutions (that is, firms) which systematically pursue policies designed to enhance these incomes by constructing barriers to entry against competition. Understanding the processes whereby barriers to entry are constructed takes the analysis beyond the domain of much of economic analysis which treats technological progress as exogenous, and fails to recognise the ability of firms to construct the competitive environment in which they operate (rather than acting as price-takers). Moreover, an understanding of the nature and importance of trust in inter-firm relationships within the value chain requires economists to also engage with the contingency and sociology of the determinants of social capital.

- In a similar way, other disciplines are also forced to rethink their analytical frameworks by a focus on value chains. Wood argues that economics not only provides an accounting framework in which value chains can be mapped, but also forces the enquiry to focus on the economic determinants of location, notably on cost structures (Wood, 1999). Thus, a (complementary) division of labour can be characterised as one in which economists determine the basis of *comparative advantage* (that is, the potential which different environments provide for reaping economic rents), and other disciplines identify the determinants of *competitive advantage* (the factors which explain why some firms are able to appropriate these economic rents).

Do these attributes of value chain analysis improve the policy relevance of research? Our primary conclusion is that this analytic framework provides the potential for identifying those policy actions – both by private and public actors – which may influence distributional outcomes. We will return to this in the concluding discussion below, but three observations can be made at this stage:

- As we have seen, value chain analysis covers a range of interconnected economic activities, spanning branches and sectors, and thus provides the potential for coordinating what might be termed ‘*joined-up policies*’ between different arms of government
- By focusing on the institutional determinants of rent, value chain analysis points policy towards instruments which influence the behaviour of *individuals grouped within firms and other organisations* which shape the distribution of returns from production and exchange. Thus, the key to sustaining the growth and spread of incomes lies in the ability to influence the behaviour of groups of people acting in concert, rather than that of individuals who benefit from these joint activities.
- By focusing on the dynamics of rent, value chain analysis points policy towards the *development of those capabilities and institutional trajectories* which will sustain incomes over time.

¹⁷ As a consequence, the growing concentration in the Italian, Spanish and Greek retail sectors is likely to undermine the historic strength of the SME sectors in these countries.

These are strong assertions which make powerful claims for the primacy of value chain analysis. But can these assertions be borne out in practice? In the following Section, we provide some examples to support these claims, based in large part on the findings of work which we have undertaken in a series of selected value chains.

4. SOME ILLUSTRATIVE CASE-STUDIES

In illustrating these claims, we will situate the analysis in terms of the three analytical components of value chain analysis – the changing composition of rents, the role played by governors and the systemic nature of chain efficiency – and with a focus on the distributional and policy implications of what has been observed. The case-study material considers the production, export and marketing of:

- Fresh fruit and vegetables (Dolan, Humphrey and Harriss-Pascal, 1999; Humphrey and Oeter, 1999)
- Canned deciduous fruit (Kaplan and Kaplinsky, 1999)
- Footwear (Schmitz, 1995; Schmitz and Knorringa, 1999)
- Automobile components (Barnes and Kaplinsky 2000a and 2000b forthcoming; Humphrey, 1999; Humphrey, 2000 forthcoming)

As we have seen, the dynamics of economic rent are subject to change as a consequence of increasing competitive pressures which often overwhelm historically significant barriers to entry within different parts of the value chain. This means that static positioning of producers, either within particular activities in particular links of the chain (for example, assembling rather than materials forming), or in particular links in the chain (for example, transforming inputs into outputs, rather than marketing) are likely to be associated with declining terms of trade, and hence with a worsening of relative and/or real incomes.

Table 3 illustrates this dynamic process by summarising the experience of four value chains – fresh fruit and vegetables (FFV), canned deciduous fruit (CDF), footwear and automobile components.

4.1. Fresh fruit and vegetables¹⁸

FFV represent a strategic and growing market for retailers in the industrially advanced countries, both because they are one of the few items for which consumers will change their choice of stores, and also because they are income elastic products. (The per capita income of shoppers can best be gauged by the share of FFVs in their shopping trolleys.) Moreover, FFV is (as yet, at least) largely unbranded, hence providing retail stores with the ability to wholly appropriate marketing rents rather than sharing these with branded suppliers. It has thus become a strategic sector for retailers in high income countries.

¹⁸ Unless otherwise stated, this discussion is drawn from Dolan, Humphrey and Harriss-Pascal, (1999) and Humphrey and Oeter, (1999).

Table 3: The dynamic distribution of rents in four value chains

Sector	Links in value chain	Prime source of economic rent			Implications for production activities
		Past	Present	Future	
Fresh fruit and vegetables	Seed design ↓ Growing ↓ Post-harvest processing ↓ Exporting ↓ Retailing	Growing Wholesale	Seed design and new product development Coordination of value chain efficiency Retail chains	Seed design, new product development	Growing capabilities (climatic specific) are generalised and competition high Economic rents in intangibles (seed design, growing practices, phyto-sanitary practices, etc). Battle between retail chains and brand names for shelf dominance
Canned deciduous fruit	Seed design ↓ Growing ↓ Post-harvest processing ↓ Exporting ↓ Buyers ↓ Retailing	Growers in South Africa and Australia Wholesale	European and US growers and fruit canners Buyers and export agents Brand names	Buyers Retail chain own brands	Growing capabilities (climatic specific) are generalised and competition high; intense competition leads to falling terms of trade. Low barriers to entry mean <i>that rents are low throughout the chain</i> <i>Within individual links</i> , economic rents are increasingly in intangibles (seed design, growing practices, phyto-sanitary practices, brand names and marketing). Battle between retail chains and brand names for shelf dominance
Footwear	Leather ↓ Design ↓ Assembly ↓ Exporting ↓ Buyers ↓ Retailing	Leather Assembly	Design Buying Retailing	Design Buying Retailing	Design is critical as increasing competition in production forces declining terms of trade Buyers play dominant role in global sourcing Brand names of growing importance
Automotive components	Raw material processing ↓ Design ↓ Forming ↓ Assembly ↓ Exporting ↓ OEM user ↓ Spares ←	Design Forming Assembly	Design Coordination of value chain Some in forming and assembly OEM brand name	Design Coordination of value chain OEM brand name	Manufacturing competences become widespread; growth of global sourcing, but intense competition leads to falling terms of trade. Rent achieved <i>by moving to different links in the chain</i> . <i>Within individual links</i> , economic rents are increasingly in intangibles (design, knowledge inputs into production, brand names and marketing)

* For FFV see Pascal-Haris et al, (1999) and Humphrey and Oeter, (1999). For CDF, see Kaplan and Kaplinsky, (1999); for footwear, see Schmitz (1995) and Schmitz and Knorringa, (1999); for autos and components, see Barnes and Kaplinsky (2000a and 2000b), and Humphrey (1999) and (2000).

Since this is a sector where production in some cases is geographically bounded for climatic reasons, and where it involves large inputs of relatively unskilled labour (not just in growing, but also in sorting and packaging), imports into final temperate markets from developing countries have been growing rapidly. For

example, imports of HS 0708 (peas and beans) and HS 0709 (artichokes, asparagus, mushrooms and sweet peppers) to the EU expanded by 140 per cent between 1989 and 1997 (Humphrey and Oeter, 1999).¹⁹

Before the major retailers dominated the market for FFVs, growers and wholesalers tended to operate in a near-perfect market of arms-length relationships. Price was the major determinant of market share, governed by seasonal availability. But, once these large retailers began to market FFV seriously, they began to impose new critical success factors on the industry – quality (which was prime); consistency of product; reliability of supply (increasingly meaning year-round availability achieved by global sourcing), price; and conformance to external health and environmental standards. These posed wholly new challenges to growers, particularly those in developing countries who were unused to the critical success factors in high income markets.

These new critical success factors, combined with the development of production in locales distant from the final market, meant that the role played by wholesalers who traditionally sourced supplies from regions proximate to final markets and who operated at an arms-length from growers, began to be eroded. Their functions came to be played by a combination of two parties. Export agents in the producing countries assured and monitored supplies, and ‘category-managers’ (that is, importers) in the buying countries liaised with retailers and export agents (and sometimes with large producers). But the increasing availability of reliable and homogeneous supplies has in recent years also placed a premium on the development of new products and new varieties. For example, in the early 1990s, early-season salad tomatoes and new potatoes produced in Cyprus commanded premium prices. In another example, Israeli scientists developed 18 varieties of loose-skin citrus products. In some cases, this process of new product development was divorced from production itself. Although Israeli seed scientists developed new strains of tomatoes, instead of growing these vegetables themselves (in a region with a significant water shortage), they made their returns by selling the seeds to Moroccan and Spanish growers.

Who provides governance in this value chain? Driven by the search for competitive advantage and pressures from NGOs and the regulatory authorities, the retailers set the standards (‘legislative governance’) and demand that compliance be audited by the category managers, who in turn make similar demands of the export agents located in producing countries (‘judicial governance’). The proactive governance functions (‘executive governance’) are exercised by a combination of developing country-based exporters, and the category-managers based in final markets. But, effective executive governance requires an active presence in both final product markets and in sorting and packaging in the growing countries. Hence there is a growing tendency for equity links across these various links in the value chain, and a number of developing country producers and export agents have begun to establish a presence in major consuming countries (as has occurred in canned deciduous fruit, as we shall see below).

Nevertheless, despite the rents accruing to product development, the lion’s share of rewards, as we can see from Table 4, continue to be realised in the marketing end of the chain. That is, they are located in

¹⁹ By comparison, imports of wooden furniture, said to be a relatively rapidly growing export item from developing countries, only grew by 81 per cent in the same period.

retailing where the margins account for more than a quarter of total product price (compared to 12 per cent going to producers in the case of Zimbabwean mangetout).

Table 4: Cost structure of African FFV exports to the UK

Stage	One tonne export lot of mangetout from Zimbabwe		Export of fresh vegetables from Kenya
	Price per tonne (£)	% of final price	% of final price
Producer	630	11.9	14.1
Exporter	291	5.5	
Packaging	274	5.2	13.1
Air freight and handling ^(a)	1036	19.6	21.2
TOTAL CIF from Africa	2230	42.2	48.4
Importer charges and commission	624 ^(b)	11.8	6.1
Supermarket			
Stockout ^(c)	714	13.5	
Other costs	285	5.4	45.5
Mark-up	1427	27.0	
Total price	5281	100.0	100

Note:

- (a) While the air freight charges might appear high, they match those for the Gambia in the early 1990s. In this case, air freight costs came to 45% of the total CIF export cost.
- (b) Includes airport handling, transport and storage in UK, as well as importer's (i.e. category manager) commission. In the Kenyan example the UK airport costs may be included in the 'air freight and handling' category.
- (c) Includes losses from unsold produce, etc.

Source: Dolan, Humphrey and Harriss-Pascal (1999)

Hence, we can observe a shifting incidence of rent in this chain – from production, to product development, value chain coordination and marketing. But if barriers to entry continue to be eroded at various points in the chain, then it is possible that FFVs will become a commodity in the same way as tea and coffee. The strength of these barriers to entry is as yet untested in some key domains, but what is clear, is that merely growing crops is unlikely to provide substantial rewards. The key challenge confronting developing country producers trying to increase their share of returns from this value chain is to rapidly develop the capacity to develop new varieties and to coordinate production and logistics along the chain.

So much for the inter-country distribution of returns. But what of the intra-national spread of incomes in this sector? The evidence suggests that the nature of the new critical success factors in final markets requires traceability with regard to phyto-sanitary standards. Moreover, the large-scale sorting and packaging facilities and the need to ensure refrigeration and expeditious handling of air-freighted exports, involves scale economies in post-harvesting activities. Both of these factors constrain the role which can be played by

smallholder farmers and SMEs in the processing and exporting links in the chain. Already the ten leading exporters account for 70 per cent of Kenya's FFV exports, and the four largest bought less than 20 per cent of their supplies from small farms. Zimbabwe is even more concentrated – the only two of the largest six exporters which utilised produce from small farmers acquired less than 15 per cent from this source.

Insofar as the spread of incomes is correlated with scale, this suggests that participating in global markets reinforces inequities in income distribution. But the link between scale and income distribution and the indirect effects of producing for global markets are complex problems. They require the analysis to focus *inter alia* on the intra-household distribution of income, the distribution of different assets within the household, the consumption basket of those employed in the value chain, and the opportunity cost of resources devoted to the production and processing of FFVs.²⁰ It is thus too early to judge what the impact of globalisation will be on the intra-country distribution of income in low income producing countries.

4.2. Canned deciduous fruit²¹

CDF is a more processed product than FFV, and by some accounts is thus an ideal sector for low income countries to diversify into and to increase their share of returns in the value chain (Girvan, 1987). Yet the returns accruing to the growers (12.4 per cent) and the retailers in the rich countries (26.7 per cent) are not dissimilar to the case of FFV (Table 5).²² In the past, before the EU provided support for European producers, the major sources of rent were to be found in the growing and canning links of the value chain. For this reason, the primary lien on value chain returns accrued to producers in South Africa and Australia, both of which had efficiently organised agro-processing industries. But during the 1980s the European Union began to provide increasing support to the domestic industry, both on the output side (through tariff protection), and via subsidies to fruit inputs. Thus, despite having both lower costs of production and higher standards of quality, southern producers were increasingly squeezed out of global markets by European (particularly Greek) producers. Protected in the European market, they used these trade policy rents to cross-subsidise sales to third markets such as Japan and Latin America. Similarly, US farmers and canners were also protected by a combination of tariffs and spurious Food and Drug Administration phyto-sanitary standards.

²⁰ These are the subject of future research at the IDS.

²¹ This discussion is drawn from Kaplan and Kaplinsky, (1999).

²² These returns are to supermarket own brands. As we shall see later, branded products sell at a considerable premium. In the case of these branded goods, the share of returns going to the fruit growers and processors are significantly lower.

Table 5: Breakdown of canned peach value chain

Stage in value chain	Contribution to final product value (%)
Within South Africa:	
Peaches	12.4
Cans	11.6
Sugar	4.2
Canning	14.7
Labour	7.4
Other (e.g. depreciation, utilities, profit, internal transport)	7.3
Total inside South Africa	42.9
Outside South Africa	
Shipping, duties, insurance, landing charges	24.2
Importer's margin	6.3
Supermarket margin	26.7
Total outside of South Africa	57.1

Source: Kaplan and Kaplinsky (1999).

Hence, currently, two of the primary recipients of economic rent are the growers and canners in the high income countries. But a second important lien on value chain returns accrued to the holders of brand-named products. In this respect, processed deciduous fruits are very different from FFV. The retail chains often sell own brand canned fruit at a loss. They thus pay a premium for major global branded lines (54 per cent), and for other producer branded lines (22 per cent). Faced with this distribution of returns from the value chain, South African producers, attempted to move into these globally branded items, but with limited success. One of the domestic producers bought the Del Monte brand name, but this was only for markets outside of Europe and North America where the brand name carried little weight! In a second case, a royalty was paid to a major brandname holder, but this was so large that it consumed all of the brandname rent which was generated. (It should be no surprise, but the contents of these brand-name products were identical to those of the South African producers' own brands, which sold at a discount of 25 per cent!)

Governance in this chain is relatively simple. 'Legislative governance' is performed by the final product retailers who determine the standards which need to be met, informed by national legislation defining product standards. The auditing of these standards – 'judicial governance' – is performed by a combination of supermarket representatives who visit producers, and the 'category managers', that is the import agents who manage the provision of products to the supermarkets and who, together with the supermarkets search

for new sources of supply. 'Executive governance' – assisting suppliers to meet the required standards – is provided to the canners by the supermarkets, and to fruit, tin and sugar suppliers by the canners themselves. However, these acts of executive governance are generally modest in nature.

The ability of a national economy based industry to compete is heavily affected by the systemic efficiency of those parts of the value chain which are within the economy. As we can see from Table 5 from the breakdown of value added in South African CDF, the canning link's contribution to overall product value added (14.7 per cent) is only just above that added by peaches (12.4 per cent) and the production of cans (11.6 per cent). One route open to the CDF industry, which was experiencing very low levels of profitability in the face of European subsidies, was to enhance the systemic efficiency of the chain. However, low levels of trust and cooperation – endemic to the Apartheid era – meant that achieving these systemic gains was extremely difficult. This surfaced in inefficiencies between all links in the chain – between growers and canners, between steel producers and can-makers, between can-makers and canners, and between canners and sugar manufacturers.²³ These sub-optimal inter-firm links occurred despite attempts being made within each of the links to improve internal efficiency; yet the gains to enhanced inter-firm links far outweighed the benefits accruing to intra-firm improvements. Similarly, there was considerable scope for enhanced inter-firm horizontal linkages, particularly between the canning firms. For example, each firm remarked that if only they presented a united front to the global buyers they would be able to achieve a greater share of value chain returns; instead their rivalry allowed the buyers to play one firm off against another.

There are signs that in the future, rents in this chain are likely to be eroded, with few industry participants sustaining high income levels. Despite the hiccup at the Seattle trade round talks, the trade policy rents which buttress high producer incomes in Europe and North America are almost certainly going to be eroded. Moreover, many locales in the world are suitable for growing deciduous fruit. Marketing rents, too, are under threat with the growth of supermarket concentration in major markets, and the development of supermarket own-brands in a price elastic market. It is significant therefore, that two of South Africa's largest fruit manufacturers are increasingly moving into global sourcing and distribution, and have located offices in Jersey and the UK mainland respectively, at the same time as they are reducing the size of their domestic processing operations.

In terms of spreading the gains from globalisation, it is doubtful that future developments will increase the proportion of returns going to low income countries. The major developments in the share of returns over production and processing is likely to be a shift from middle income countries such as South Africa to lower income countries such as China. Within these economies, and unlike FFV, there are few intrinsic factors on the growing side which affect the size distribution of farms, although scale-intensive canning (and the production of key inputs such as cans and sugar) are likely to remain in the hands of the large-scale sector. There seems, therefore, little scope for ameliorating adverse distributional trends – within or between countries – in the CDF value chain.

²³ See Kaplan and Kaplinsky (1999: 1795) for details of these inter-linkage weaknesses.

4.3. Footwear²⁴

The global footwear industry comprises a large mix of market segments and products made from different synthetic and natural materials. Being a labour-intensive sector, there has been a significant decline in the share of production accounted for by high income countries in recent years, and in some key economies such as Germany, the UK and the US, what was once a large and vibrant sector has shrunk dramatically and continues to lose producers and employment. Yet this is not true for all shoe producers, and in value terms, the global leather shoe industry continues to be heavily influenced by producers in Italy, Spain and Portugal.

There clearly remain rents to be realised in production, as is evidenced by the continued presence of Italian producers. However, the production skills involved are highly craft-oriented, and are closely allied to the design skills of the Italian industry. Thus, it has become increasingly evident that as global production skills have diffused increasingly widely, so rents have come to be concentrated in design, brands (especially in sports shoes) and buying skills. Buying agents – many of whom were formerly manufacturers but were forced out by growing competition – are largely located in the final product markets and have played a key role in creating the competition in production which erodes rents in this link in the chain.

During the late 1970s and the 1980s, Brazil became a major producer of women's leather shoes, accounting for 12 per cent of global sales. But Brazil's entry into global markets was mediated by the key governing role (that is, executive governance) played by these buyers in providing direct support to firm-level and inter-firm upgrading. One buyer became particularly important, accounting for 25 per cent of all Brazilian shoe exports, and 20 per cent of all US sales of women's leather shoes. Yet, following the development of Brazil as a key source of supply during the 1970s and the 1980s, the very same buyer then systematically cultivated production capabilities in China in the 1990s. The result was an erosion of incomes in Brazil – as we have observed earlier, real wages of shoe workers fell by 40 per cent during the 1980s and corporate profitability was squeezed during the 1990s. During the 1990s, product quality standards increased substantially, responsiveness to orders improved significantly and batches sizes fell, yet there was no increase in final product prices. Global buyers (including this lead US buyer firm) are now cultivating production in Vietnam and other low wage economies, so that if and when they benefit from the same privileged MFN trade status in the US, Chinese footwear producers will suffer from the same erosion of returns.

These developments illustrate two important elements of value chain analysis. First, they show how competitive capabilities can simultaneously be upgraded *and* diffused by key value chain governors. They also show how rent is dynamic, shifting not only within production from one country to another, but also from the production to the design, coordinating and marketing links in the chain. Value chain analysis also shows how individual links can sustain the barriers to entry which maintain their appropriation of value chain returns. As Schmitz and Knorringa observe, '[m]ost interviewed buyers seek to control the design process limiting the producers' participation to minor issues in product specification...[W]ithout their own designs, producers cannot embark on their own marketing experiments' (Schmitz and Knorringa, 1999: 20).

But an analysis of the footwear value chain illustrates a third development. This is what Gereffi has termed 'triangle manufacturing' (Gereffi, 1999a) and Ernst has called 'global production networks' (Ernst,

²⁴ This discussion is drawn from Schmitz, (1999) and Schmitz and Knorringa, (1999).

2000). This describes a world in which shifting competitive advantage leads to a situation in which producers who are forced out of the market through competition, become governors for production destined for third markets. For example, in both clothing and footwear, Taiwanese producers who initially displaced manufacturers in North America and Europe, have themselves been displaced by even lower cost production from China. Their response has been to wind down their own manufacturing operations and become the intermediaries who govern Chinese production capabilities and consign the products to final markets. A similar role was played by Hong Kong clothing entrepreneurs in Mauritius, and is now taking place with Italian shoe manufacturers in Romania.

From the inter-country distributional perspective, we can observe that low barriers to entry in production ensure that trade access permitting, producers will be faced with a systematic trend for returns to fall as buyers cultivate markets with ever-lower wages. It is likely that as in the case of the two food-sectors observed above, returns will increasingly be concentrated in design and marketing, and in some sub-sectors in branding. With regard to intra-country distribution, low capital cost barriers to entry provide the capability to include small and medium sized enterprises in production.²⁵ But if this is for large volume markets, this will only occur if there are effective intra-country value chain coordinators. From the policy perspective, the key capability which needs strengthening is design, a path pursued successfully by the Spanish government in the early 1980s. Governments, may also be able to play a role in the establishment of systems and market structures which incorporate small scale producers.

4.4. Automobile components²⁶

An automobile is an assembly of more than 5,000 discrete components. Historically, low levels of trust with suppliers involved high transaction costs, so emphasis was given to the internalisation of production by the assemblers who accounted for around 65–70 per cent of the total value of the final product. More recently, following organisational innovations pioneered in Japan which have fostered trust in the supply chain, there has been a tendency to outsource an increasing proportion of components, including the assembly of sub-components. It is not atypical therefore for final assembly plants to now account for 40 per cent or less of final product value.

Various strands of change have come together in recent years to alter the pattern of these sourcing arrangements. First, from being an assembly of heavy metal pieces in the 1950s and 1960s, the automobile has become an increasingly technology-intensive product whose assembly often involves the complex integration of diverse automation technologies. Most assemblers have therefore chosen a path in which they increasingly concentrate on the overall design and systems integration of the product and rely on their core component producers to ensure that the components involve state of the art technologies, both in product and design. A second and related development has been the move towards modular design and sub-assembly in which the first-tier supplier is expected to incorporate a range of components into its sub-assembly, some

²⁵ There are alternative market structures in this sector, which lacks many of the scale-intensive characteristics of other sectors. In the mid-1980s, the average establishment size of the footwear sector was 175 employees in South Africa, 65 in the UK and 17 in Italy (Kaplinsky and Manning, 1999).

²⁶ This discussion is based on Humphrey (2000) and Barnes and Kaplinsky (2000a and 2000b).

of which it manufactures and some of which it acquires. Third, the pace of innovation has increased considerably. This requires a parallel arrangement of design and engineering activities, in which assemblers and various tiers of suppliers work simultaneously on the overall product and its components, rather than in the previous sequential and arms-length pattern. Fourth, new forms of internal production flow and quality assurance – just-in-time production – involve the very close integration of logistics and quality procedures between assemblers and their component suppliers. And, finally, all of this is taking place against a backdrop of the growing liberalisation of trade and investment flows in the industry, and with an alarming increase in global overcapacity.

All of these developments in the auto industry have profound implications for the sourcing policies of the assemblers, and indeed for first-tier suppliers from their second-tier suppliers. A key development is the growth of global sourcing. An assembler will work closely with its core suppliers on the design of a new vehicle. This product will, with a few minor modifications, be destined for global or for cross-national regional markets. Once an agreed design of component or sub-assembled components has been reached at source, the assembler will expect to use this design in its global operations. In some cases this may involve an agreed design with two (and occasionally three) component suppliers, but even then it will be on the understanding that these designs will be utilised globally. Thus, for global sourcing to work effectively, it requires a component manufacturer to have an increasingly significant design and technological capability.

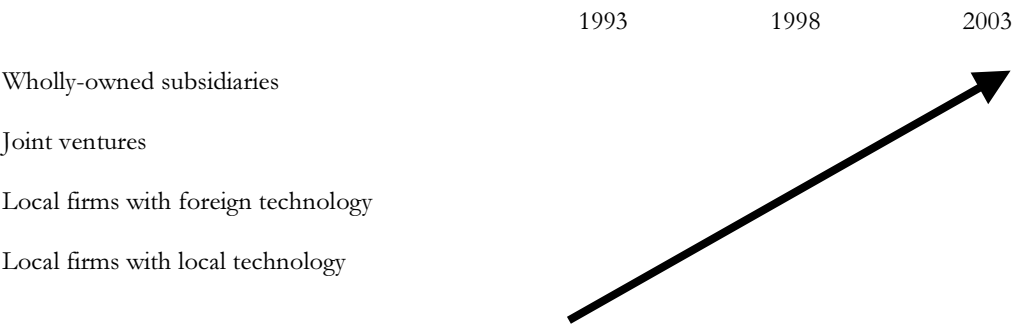
But it is not just the design that the assembler has to have confidence in. It also needs to be assured that the components which it is acquiring on a global scale will be produced at a competitive price, with adequate quality, conformance to specification. The assemblers, therefore, will commit themselves to *global sourcing* to their suppliers, on the understanding that the suppliers will commit themselves in turn to *follower supply*. That is, that they will establish plants located in proximity to all the significant assembly operations of their customers when scales permit. Failing their ability to establish and manage such a diverse group of activities, they will either work in joint ventures with local parties, or license their technology to component producers.

The pattern of governance in this value chain is one in which the major buyers – the assemblers in regard to the first-tier suppliers, or the first-tier suppliers with regard to the second-tier suppliers – set the standards with regard to cost, quality, delivery, participation in e-business buying systems, and so on. Regulatory authorities may also set standards (often pressurised by civil society organisations), for example with regard to recycling and emission standards. This is ‘legislative governance’. The same parties who set the standards generally monitor conformance to these standards (‘judicial governance’). The ability which individual links in the chain possess to meet these standards is the subject of upgrading inputs by a range of parties (‘executive governance’). Critically, the industry now expects that first-tier buyers will undertake responsibility to promote supply chain learning, ensuring that producers in the second-, third- and fourth-tier develop the capabilities to meet the industry’s critical success factors (Bessant et. al, 1999). But assistance is also provided by specialised service providers in this industry, often lodged in the consulting arms of large international accounting firms.

Developments in this global value chain have a number of implications for the inter-country distribution of activities and of returns. On the one hand, the desire to integrate production schedules in

assembly with those in component manufacture, and to reduce the costs of holding inventories in the value chain as a whole, has meant that there is considerable scope for decentralised component manufacture. On the other hand, the growing consolidation of the assembly industry, and the desire to standardise production in a limited number of designs (albeit with superficial external modifications) has meant that the global standards of key buyers (‘judicial governance’) are becoming increasingly important. Thus, component producers need to be connected to final buyers, to be incorporated within a value chain, but in order to do so, they have to utilise global designs. The consequence of global sourcing and follower supply policies by the assemblers and first tier suppliers has meant the erosion of local ownership and local technology in developing countries. Interviews with the assemblers in South Africa show the extent of this problem (Figure 6). In Brazil, in 1995, of the largest 25 Brazilian component manufacturers 12 were wholly or majority, local-owned. By the end of 1998 five of these had been taken over by foreign firms, and only one out of the 13 largest suppliers remained in domestic ownership (Humphrey 2000).

Figure 6: South African assemblers strategic perspectives on the ownership of component suppliers



Source: Barnes and Kaplinsky, (2000a).

Where does this leave low income country producers of automobile components? In terms of the inter-country distribution of returns, it means that the design activities in this value chain – where the rents are increasingly to be found – lie in the hands of a decreasing number of global components manufacturers. Their core design activities are being undertaken in design centres in high income countries, with only peripheral design activities occurring in low income countries. From the perspective of independent low income country component suppliers, there are few alternatives to this global division of labour. They can either manufacture to the designs of the global first- and second-tier component suppliers, or produce spare parts for the aftermarket. But this, too, is heavily dominated by global brand names (where the rent is concentrated). The unbranded aftermarket is highly competitive, often exhibiting low barriers to entry and is subject to growing competition in production as buyers systematically cultivate competition from new producers. In regard to the intra-country distribution of returns, this is a sector with decreasing space for SMEs (insofar as they may be a conduit for spreading the gains from participation in global markets), so that the key instrument of distribution is likely to lie in wage rates. Here, on the one hand, wages in this sector are generally relatively high in most countries by comparison with other sectors; on the other hand, the

component sector is being subject to increasing competition,²⁷ and it is possible that the privileged status of these workers will be eroded over time.

In the light of these developments, Humphrey questions whether participation by developing countries in this value chain represents the optimal allocation of resources

‘it is worth asking whether efforts to promote the auto industry are worthwhile. The industry is increasingly dominated by a small number of assemblers and component manufacturers, and concentration in the components sector is proceeding rapidly. The increasing oligopolisation of the components industry raises barriers to entry and places the power to develop and handle component networks in the hands of the leading global suppliers. Potentially, this makes developing country component manufacturers very vulnerable. The protection they receive from current trade regimes are likely to decline. In these circumstances, it might be better to focus industrial promotion efforts and finance on industries which offer a clearer upgrading path to local companies’ (Humphrey, 2000: 12).

5. CONCLUSIONS

The objective of this paper is to illustrate how value chain analysis can contribute to a better understanding of the determinants of inter- and intra-country income distribution, and consequently also to the identification of policies which might improve the distributional outcome of countries’ insertion into the global economy. We have argued that a focus on three elements of value chains – the dynamics of rents within the chain, the governance of the chains and their transnational systemic character – is necessary to turn an heuristic construct into an analytical tool.

In the preceding section we presented a number of case-studies illustrating the way in which value chains – understood in their analytical sense – can explain why some parties gained, and some lost from the globalisation of production and exchange. They consequently were able to contribute to an explanation, rooted in production and exchange (rather than in finance or other spheres of globalisation), of why the growing global spread of economic activity has not been associated with an equivalent spreading of the gains from this economic activity.

But can value chain analysis tell us about the policies which are required to reverse these malign outcomes? Here, two key insights are provided by value chain analysis. First, global production networks are becoming increasingly complex and arms-length trade is increasingly being confined to commodities with low returns. Access to high-income yielding activities therefore requires participating in global value chains, and the key challenges are thus to identify ways in which poor countries and poor producers can both enter these chains, and participate in ways which lead to sustainable income growth. Second, the analysis of governance relations which permeate value chains leads to the identification of the major institutional actors,

²⁷ This is a sector subject to systematic ‘cost-down’ (that is, price reduction) pressures. Most often this requires annual price decreases (in real terms) of more than 5 per cent, in virtually all producing regions. But in some cases (such as the UK in the current period), price deflation is running at more than 10 per cent annually in many component sub-sectors.

and this provides insights into policy levers which might influence the behaviour of key stakeholders in the value chain.

Value chains are not homogeneous, and the opportunities for rent appropriation by different parties will vary. Essentially, however, when threatened by competition, there are four directions in which *economic actors* can move; these paths are not mutually exclusive:

- Increasing the efficiency of internal operations such that these are significantly better than those of rivals
- Inter-firm linkages can be enhanced to a greater degree than that achieved by competitors
- Introducing new products or improving old products faster than rivals
- Changing the mix of activities conducted within the firm or moving the locus of activities to different links in the chain, for example from manufacturing to design.

The analysis of the four value chains in Section 4 above suggests that on their own, the first two steps are unlikely to realise a greater share of value chain returns. This is because these capabilities are increasingly widely diffused through the global economy (underlying the falling terms of trade of developing countries trade in manufactures observed in Section 2) and concentration in these areas (particularly in intra-firm efficiency) may well lead to immiserising growth. In other words, they are generally only the necessary conditions for an enhanced spreading of the gains from participating in global markets. It is the third and fourth steps which are likely to provide the greatest results. But here, poor producers and producers in poor countries run up against relations of power, embedded in value chain governance (Figure 7). These are highly protected domains, precisely because they are repositories of economic rent. As we saw in the earlier discussion of footwear, the global buyers who dominate this chain are happy to assist developing country producers in the first three of these policy alternatives, but zealously exclude them from the fourth.

Figure 7: Scope for actions to promote the spreading of gains to low income producers

	Upgrade within link	Upgrade relationship between firms	Redefining activities undertaken within links	Move to new links in the chain
Fresh fruit and vegetables	Special action needed for small farms and firms	Closer links required between producers and export agents	Individual producers may take responsibility for post-harvest processing	Exporting agents become category managers
Canned deciduous fruit	Special assistance needed for small growers	Need to improve vertical and horizontal cooperation	Little scope for additional action	May be possible to build global or regional brand names
Footwear	Required by all firms	Need to improve cooperation between vertical and horizontal links	Little scope for additional action	Difficult as buyers block move into design
Automobile components	Special assistance needed for SMEs	Supply chain efficiency and learning are critical	Possible for first-tier suppliers mainly, but few in low income countries	Difficult as buyers block move into design

The fact that the move into other links in the chain is difficult does not reduce the necessity for action, since in almost all value chains this is clearly the optimal route. It also does not mean that firms should always pursue this path at the expense of upgrading their internal operations, in improving their links with other parts of the domestic chain or in increasing the range of activities or repositioning themselves within the link in which they already operate. In each of the four cases, there is scope for pursuing multiple objectives.

It is likely that the same conclusion will apply to many other value chains in which poor countries operate. But in some cases, the judgement may be that barriers to entry are so low throughout the chain that it will never support acceptable levels of income. This, for example, may be the case in CDF, where producer surpluses are systematically channeled into consumer surpluses through the competitive process and where, over time, the returns to production are whittled away in ‘a race to the bottom’. It is possible that a similar picture may emerge in time with respect to FFV, as barriers to entry are eroded through competitive processes.

So much for the policy response from the corporate sector. But, *what can governments do?* Governments have a number of key roles to play. First, they can proactively assist the private sector, workers’ organisations and other stakeholders to recognise the opportunities and threats posed by participating in global value chains. Secondly, measures can be taken to assist producers to enter these chains. Thirdly, various policy instruments can be used to support the repositioning of the corporate sector within value chains so that they can derive a greater share of the gains. (This occurred in the UK through the Enterprise Initiative Programme during the 1980s, for example). Support can be provided for the enhancement of design skills, as the Spanish government showed with regard to the clothing and footwear industries in the same decade, and as local government does in Brazil for footwear (Schmitz, 1999).

But, fourthly, producer rents are not the only form of economic rent which may bolster the returns accruing to poor countries and poor producers (Kaplinsky, 1998). Producers require relatively good access to a range of complementary assets. For example, as Wood and Jordan show for Uganda, physical infrastructure is an important determinant of participating in global product markets, particularly in the manufacturing sector (Wood and Jordan, forthcoming). In the past this meant relatively good roads, railways and ports but increasingly it also applies to telecommunications. Other forms of rent where government has a role to play include financial intermediation (relatively smooth access by producers to adequate levels of productive capital, which may or may not be provided by ‘efficiently functioning financial markets’) and human resource rents (access to relatively skilled workers at relatively low wages). Critically, it also includes trade policy rents, where the government either negotiates trade policy privileges, or acts to erode the privileges open to other producers. It is also important that governments help their producers – especially poor producers – to take advantage of trade policy rents, since in many cases low income countries do not fill their quotas or benefit from preferential tariffs in high income markets.

In the preceding discussion on individual value chains (Section 4 above), the focus was predominantly placed on the insights provided by value chain analysis to the determinants of the inter-country distribution of income. Yet, as we saw in Section 2, increasing inequalities are not just being experienced at the inter-country level, but also with regard to intranational distribution, affecting different regions, different sized

firms, different households and different genders. But here, too, value chain analysis has a role to play, particularly in regard to those production structures which involve international exchange. What it does do is to illustrate how critical success factors in external markets, allied to governance structures within individual chains circumscribe the role played by domestic actors. We have seen the implications which this has for SMEs in furniture and for small farms in FFV, but this is an underexplored issue, particularly with regard to gender and household distributional factors.

In summary, it is not so much that value chain analysis tells us anything new, for most of these policy responses have found their way into corporate and government decision-making in many chains and in many sectors. But what it does do is to provide a comprehensive framework for a 'joined-up' series of responses which forces us into a wider, dynamic and more strategic consideration of these issues. Partial analysis and partial responses are likely to be severely sub-optimal in meeting the challenges which are posed, particularly in relation to medium and long run positioning of poor producers and poor countries. To return to the beginning of this paper, positioning and path dependency are critical since participation in the global economy in itself may not provide a path to sustainable income growth or to an equitable distribution of returns.

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