

GLOBALISATION, INDUSTRIALISATION AND SUSTAINABLE GROWTH: THE PURSUIT OF THE NTH RENT

IDS Discussion Paper 365*

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SUMMARY

Globalisation offers the potential to raise economic growth rates significantly. But at the same time, it also exposes firms and economies to intense competitive pressures. Declining terms of trade can result, and in some circumstances this may lead to immiserising growth, that is, an increase in economic activity which delivers lower standards of living. The result is growing unequalisation, both between and within countries.

These developmental pitfalls can be avoided if the productive sector develops the ability to withstand the intense competitive pressures that are associated with Globalisation. This requires the ability to identify and appropriate 'economic rent', and hence to escape from commodity production. A theoretical framework for understanding this process is laid out, and nine forms of rent are discussed. However, by their nature, rents are dynamic, so the developmental challenge also encompasses the need to identify and appropriate new forms of rent.

This analysis applies to all sectors, and to rich and poor countries alike. The policy implications of alternative developmental paths are discussed in the conclusion.

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1 INTRODUCTION

We live today in a world of significant – and, indeed, growing – inequality. This has both international and intranational dimensions. The origins of major national differences in living standards are to be found in the onset of the industrial (and technological) revolution. The growing application of science and technology to production has meant that the ability to sustain income growth arises not just from extensive patterns of accumulation (increases in the quantity of factor inputs) but, more important, from an intensification of accumulation (improvements in the quality of factor inputs, and in their combination in production systems). In broad terms, until very recently the systematic application of science and technology has been concentrated in the industrial sector and in a relatively small number of countries.

It is partly for this reason that industrialisation has been targeted as the route to economic growth in many countries. Sutcliffe, summarising the writings of Kuznets and Hoffman on historical patterns of growth (Kuznets 1957; Hoffman 1958), and complementing these with his own analysis of inter-country variances in living standards, concluded that the ‘facts certainly suggest a significant association between the level of national income per head and the degree of industrialization’ (Sutcliffe, 1971: 26). These and other analysts of patterns of growth (see also World Bank 1987; Syrquin and Chenery 1989) observe an inverted U-shaped curve in the relationship between industrialisation and national income growth, with the share of industry growing initially as that of agriculture declines, and then giving way to the growth of the service sector. From the perspective of less developed countries (LDCs) with low per capita incomes, the downward bend of this U-shaped curve (that is, growth in the industrial sector giving way to the growth of services) is largely irrelevant, and much development policy has thus been targeted at growth in the industrial sector. The key analytical challenge has been to identify those sectors that appear to be ‘normally’ associated with given levels of per capita incomes (Syrquin and Chenery 1989), and in so doing to identify a sectoral trajectory in industrial policy.

This belief that industrialisation leads to per capita income growth follows from the existence of a correlation between these two sets of development indicators. So it is not surprising that attempts have been made to offer a causal explanation of *why* industrialisation may provide the basis for higher living standards.¹ Two key elements of explanation are that (a) the demand for manufactures is more positively income-elastic than that for primary and agricultural products (Prebisch 1959) and (b) the development of synthetic substitutes is eroding the demand for natural materials (Seers 1962). These two factors can be seen to underlie the observed long-term deterioration in the terms of trade between manufactured products exported by the industrially advanced countries (IACs) and the primary products exported by LDCs (Sapsford and Balasubramanyam 1997).

Notwithstanding these causal explanations, it is not surprising that there is widespread recognition of the pitfalls arising from policies based upon an essentially correlative relationship: true, rich countries are generally industrialised, but which way does the causality go, and does this mean that all industry necessarily leads to high per capita incomes? One major body of criticism has focused on the dangers of inefficient industrialisation, in which the pursuit of industrialisation undermines levels of per capita income.² For example, the World Bank’s 1987 *World Development Report*, devoted to the question of

industrialisation, began with the observation that '[t]his Report stresses *efficient* industrialization because there is evidence of inefficiencies in industries in both industrial and developing countries'. These inefficiencies are hidden by the incorrect valuation of both input and output prices so that '[s]imple statistics on the share of industry or manufacturing in gross domestic product ... are suspect in many countries' (World Bank 1987: 1). The major cause of this inefficiency has been said to be the pursuit of dynamic comparative advantage, fostered by controls over the allocative process favouring what might be termed a strategy of 'marching through the sectors' (Best 1990) or 'industrialisation by getting the prices wrong' (Amsden 1990).

Faced with the prevalence of this 'inefficiency', much of the policy thrust in recent years (led particularly by the multilateral institutions) has been to induce LDCs to change their incentive systems so that factor and product prices more closely reflect short-run opportunity costs. There have been two primary objectives underlying this revisionist approach towards industrial development. First, the policy regime should be sector-neutral. This would have the effect of allowing those industrial sectors to flourish that reflect the existing stock of factor endowments. Specifically, for example, this means for most low-income countries that they should concentrate on labour-intensive sectors such as apparel and shoes, rather than on capital-intensive sectors such as textiles, automobiles and electronics. Second, market-determined factor prices will foster the choice of more appropriate techniques in all industries – for example, the hand cutting of cloth rather than the use of computer-aided cutting machines would promote the use of the abundant factor, labour. Greater exposure to global opportunity costs, arising from trade policy reforms, would force continuing efficiency, both in the domestic market and in external markets; so a neutral trade policy regime has been an important constituent of this policy agenda.

However, neither of these two approaches towards industrial development capture the important changes in the global division of labour that began to emerge from the mid-1970s. These reflected a process in which LDCs came to be increasingly inserted in the world industrial economy not in relation to inter-sectoral trade (the historically dominant form of their integration into global trade), but in relation to intra-sectoral trade; in this they followed the pattern of intra-IAC trade in the post-1945 world economy (Tharakan 1983). But here the similarity ends. In this paper I will argue that, whilst IAC intra-sectoral trade provided the basis for the growth of per capita incomes in both sets of trading parties, the evolving nature of the insertion of LDCs into global trade in manufactures increasingly poses the danger of what may be called 'immiserising growth'. That is, growing LDC participation in industrial activities – reflected in the level of industrial activity, the growth in physical trade and the increase in industrial employment – may in fact become associated with declining overall standards of living. This is despite the fact that much of this industrial activity in fact makes 'efficient' use of resources, is based on factor prices that generally reflect opportunity costs, and reflects a neutral trade policy regime, meeting the central objectives of the 'Washington Consensus' (Williamson 1990). Indeed the pattern of production that is associated with this potentially immiserising growth involves production for the global market, by definition not falling into the category of 'inefficiency' which is said to have characterised the earlier phase of inward-looking industrialisation.

If this is the case, it poses new challenges for industrial policy and for economic policy in general in developing countries. It suggests that a new approach may be required if LDCs are to achieve sustainable income growth. This paper addresses these issues by identifying the *contrasting trajectories of the global distribution of industrial activity and the global distribution of the returns to industrial activity*. It identifies a pattern of accumulation that provides the scope for sustainable income growth. This requires producers to focus on the global value chain and to develop the capacity to both change and upgrade the activities they perform in the chain so that they are able to appropriate a greater share of the returns accruing from the whole production cycle. But at the same time, the generalisation of this country-specific policy approach to economic upgrading to all countries in a globalising world poses dangers for the living standards of an increasing number of people. I will refer to this as the problem of immiserising growth.³

Section 2 provides some evidence to illustrate the dangers faced by LDCs as they retreat into specialisms based upon their static comparative advantage and rely on their endowment of cheap, generally low-skilled labour. This is by way of illustrating the potential pitfall of immiserising growth. Then, in preparing the ground for a discussion of the new approach, three analytical concepts are discussed in Section 3. The first is the definition of a commodity; the second is the issue of economic rent in its manifold forms; and the third is the identification of global production chains. Section 4 addresses nine categories of rent that provide the scope for producers to appropriate the rents which are required to sustain income growth. This is followed in Section 5 by a discussion of the interrelation between different types of rent and the dynamic nature of rents. Finally Section 6 concludes the paper with a discussion of the implications of this approach for the global distribution of income in general, and for real wages in particular.

2 THE DECLINING TERMS OF TRADE IN LDC EXPORTS OF MANUFACTURES AND IMMISERISING GROWTH

Two sets of evidence are offered to support the contention that the trajectory of much recent LDC industrial growth, based on specialisation in labour-intensive activities for the global market, does not provide the basis for sustained income growth. The first observes the performance of export processing zones (EPZs) in Central America during the late 1980s,⁴ and the second concerns the participation of China as a large-scale exporter of manufactured goods after the mid-1980s and the implications this has had for LDC terms of trade in manufactures.

2.1 Export Processing Zones in Central America

The import substituting industrialisation (ISI) policy regime favoured by many LDCs during the 1960s, 1970s and 1980s was also implemented in the countries of Central America. The consequences for their trade accounts were no different to the general experience. Early gains in foreign exchange utilisation were gradually eroded over time, so that by the mid-1980s, overall economic growth was increasingly constrained by a shortage of foreign exchange. In order to overcome this constraint (and prior to adopting an alternative policy of liberalisation), many economies in the region introduced EPZs, freeing producers from trade

controls as well as, in most cases, from taxes and labour legislation. The consequence was a rapid growth in these zones, particularly in the Mexican *maquiladora* and in the Dominican Republic.

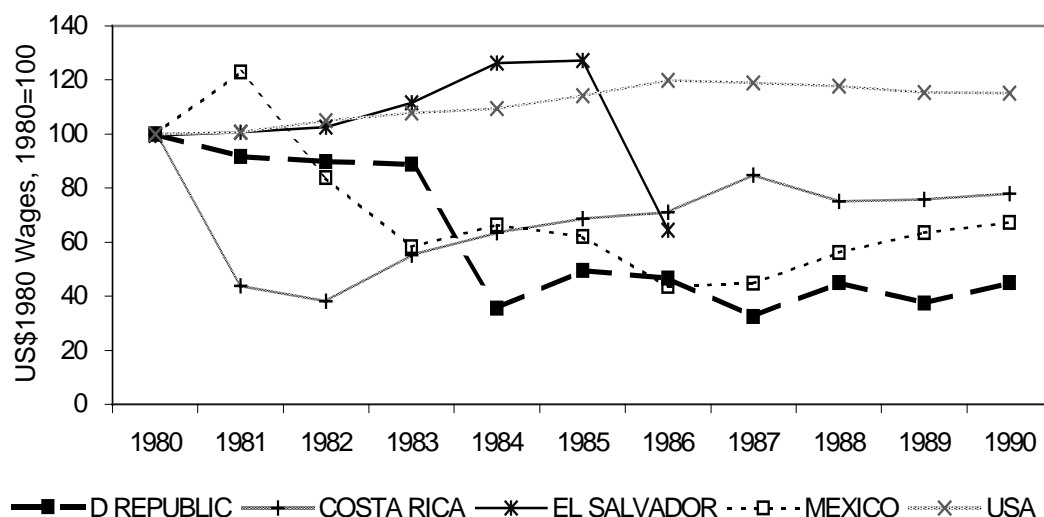
Most EPZ firms operated in the apparel, shoe or electronic sectors and value added was thin. For example, the unit value of Dominican Republic EPZ 'shoe' exports was only \$0.23 in the early 1990s. The characteristic feature of these zones – which was partly a function of US trade policy⁵ – was that they were almost entirely confined to the use of cheap labour in the assembly of materials bought in from other regions, initially from the Far East and then (as US trade policy legislation changed) from the USA. This meant that these economies were effectively competing on the basis of cheap, unskilled labour. Since this labour was sought by global producers optimising the US\$ value of operations, the key macroeconomic variable available to governments to promote the growth of EPZs was the exchange rate.

But here the problem was one of a fallacy of composition. It made sense for a single economy to devalue on its own, but not in the context of competitive devaluations. And it is the latter which prevailed in the region. Partly as a consequence of advice from the multilateral agencies in their structural adjustment programmes, and partly as a consequence of the structural position of these countries in the region, individual countries with EPZs increasingly came to encourage the growth of their EPZs by devaluing their currencies, the real wages of their workforces and, at the same time, the real global purchasing power of their gross domestic product (GDP). The fact that, with the exception of Mexico, these economies were all small (and that consequently their trade-to-GDP ratios were high) meant that the global unit of account used to measure their per capita incomes – in US dollars – is an appropriate reflection of real incomes in these economies. And, as Figure 1 shows, the US\$ value of average industrial wages in four of these economies fell throughout the period.⁶ Most of this decline in real US\$ wages can be attributed to a decline in the real effective exchange rate in these economies. This macroeconomic process was reflected at the firm level, and in one graphic case a Dominican Republic assembler of jeans for the US market saw its unit returns per jean fall from \$2.18 to \$1.87 in successive stages as producers in surrounding (devaluing) economies were able to offer lower wage costs. Elsewhere, the real value of manufacturing sector wages in 1989 was only 47 per cent of those in 1980 in Mexico, and 36 per cent in El Salvador (Inter-American Development Bank, 1990: 28).⁷

2.2 The China Syndrome

As the 1980s progressed, China became an increasingly important participant in global trade. The basis for this was its cheap labour costs. For example, in 1987, hourly compensation rates in China were only 1.1 per cent of those in the USA, compared to 11.2 per cent for Korea, 6.1 per cent for Mexico, and 5.8 per cent for the Dominican Republic (World Bank 1988). As a consequence, China's share of global exports in a range of labour-intensive sectors grew very significantly. As can be seen from Table 1, in two of the major final markets – the US and Japan – China became the major source of these imports. The pace of this advance has been astonishing. For example, by 1994 China was the largest global exporter of clothing (\$23.7 billion), with an annual growth rate between 1990 and 1994 of 25 per cent; in 1980 it had only been the eighth-largest exporter.

Figure 1: Index of average industrial wage in USA and Central America (US\$)



Source: Kaplinsky 1993.

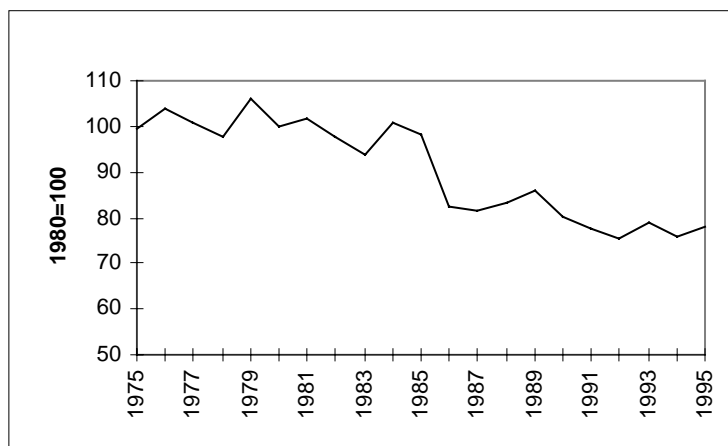
Table 1: Share of merchandise imports from China

	USA			Japan	
	1980	1990	1994	1990	1994
Textiles	5.9	10.3	11.5	19.7	32.5
Clothing	4.0	13.7	17.3	27.5	53.9
Other consumer products	0.8	11.0	24.0	4.5	17.0
Footwear	0.7	15.7	45.2	12.5	43.5
Toys and games	0.1	25.0	48.7	7.7	25.0
Total merchandise imports	0.5	3.1	6.0	5.1	10.1

Source: World Trade Organisation 1995.

The scale of China's exports of low-price manufactured goods has been so large that it has had a significant impact on the terms of trade of *all* LDC exports of manufactured products (Figure 2). Between the mid-1980s and the mid-1990s the terms of trade of LDC manufactures fell by approximately 20 per cent (Wood 1997a). Since not only is China continuing with its breakneck increase in manufactured exports, but it is also being followed by other low-income producers such as India, Indonesia, Thailand and Vietnam, the likelihood is that this decline in LDC terms of trade – this time for manufactures, rather than primary materials – will be sustained in the future. Recent devaluations in the region intensify this process of 'competitive adjustment' (Kaplinsky 1998).

Figure 2: Price of LDC manufactured exports relative to IAC manufactured exports of machinery, transport equipment and services



Source: Wood 1997a.

The significance of these developments should not be underestimated. The 20 per cent fall in terms of trade within a single decade is a major event in historical terms. Moreover, the process of competitive devaluation observed above for the case of Central America is beginning to show itself in East Asia. The economic turbulence of late 1997 was not just a reflection of the instability of financial markets. As one observer noted, ‘future historians may fix the starting point of the current turmoil at a 1994 decision by Beijing to devalue the Chinese yuan, a move that rendered its exports far more competitive, putting pressure on other Asian economies’ (Andrew Higgins, ‘Mounting crisis may topple the fixed domino’, *Guardian*, 28 November 1997). What these two case studies from Central America and Asia suggest is that the global economy of the 1990s is one in which the ‘reserve army of labour’ of Malthus, Marx and other classical economists has been brought to bear on the process of production, and one potential outcome of this is a fall in working-class incomes. Writing in a different context, with a concern about the impact of these trade patterns on wage incomes in the USA, Robert Reich (former Secretary of State for Labour) observes that ‘[r]outine producers in the United States, then, are in direct competition with millions of routine producers in other nations. Twelve thousand people are added to the world population every hour’ (Reich 1991: 209). The same logic applies to routine producers – that is, unskilled workers – everywhere as global trade leads to the bidding down of wages.

Another potential impact of these developments is a decline in national income. Here there are two possible outcomes to this globalisation of the workforce. On the one hand it could be that IAC imports of LDC manufactures are especially price-elastic, such that a 20 per cent decline in the terms of trade could be associated with an increase in demand of more than 20 per cent, in which case total export receipts will continue to grow, although with an increasing outlay of resources in LDCs to produce these exports. That is, whilst the factorial terms of trade may be declining, the income terms of trade are increasing. This is a positive-sum game, much favoured by trade economists. But, on the other hand, the overall impact may well be one in which these declining terms of trade lead to a net loss of export income in LDCs. The likely impact is one of immiserising growth – if not for countries such as China that are increasing their share of

LDC manufactured exports, then for those countries whose share is being displaced or whose manufactured exports are growing at a lower rate than the decline in the terms of trade.⁸ We will return to this subject in the concluding section.

Thus, what these examples show, is that the adoption of the Washington Consensus policies to foster growth through labour-intensive exports in LDCs may well be associated with an increase in economic activity, but not necessarily with an increase in real incomes, not just of the working class but also for the nation. And the more other LDCs jump on the same policy bandwagon, the more likely it is that declining terms of trade will erode living standards in LDCs, in the same way that falling terms of trade eroded living standards in primary exporting LDCs in previous decades. If this is the case, what is the alternative?

3 THREE ANALYTICAL BUILDING BLOCKS: COMMODITIES, RENT AND PRODUCTION CHAINS

The search for an alternative policy agenda has unavoidable analytical roots and begins with an understanding of the nature of commodity production and the concept of rent. Once the importance of rent is identified we can go on to lay out the nature of the value chain to establish the terrain for the discussion in Section 4 of the different spheres in which rent can be appropriated to ensure a sustainable rise in incomes.

3.1 Commodities

Why is that LDCs have experienced declining terms of trade in primary and agricultural products over a long period? The reason is that competition in these sectors has been fierce, and the reason why competition has been fierce is that these are sectors with low barriers to entry, operating in factor and product markets relatively free of restraint. In these circumstances, outside of abnormal fluctuations (such as seasonal factors), the price of a product will never exceed the discounted total costs of production. More often, it will be lower than this, somewhere in the territory between these discounted total costs, and the variable costs involved in production itself.

It is helpful to think of these sectors of fierce competition as involving the production of commodities, which are defined as ‘goods’ (and indeed services) in which there are no barriers to entry, and which are in widespread supply. It is important to recognise that the concept of a commodity does not refer to the product itself, but the factor and product markets in which it is produced and sold.⁹ Thus, the same product may be a commodity in some cases, and not in others. A good case of this is sugar, much of which is sold in a global ‘free market’, where the price barely covers the variable costs of growing, cultivating and harvesting the cane and the variable costs of the sugar processing factories; in these circumstances, sugar is a commodity. By contrast, in certain markets (benefitting from Lome and GSP preferences) some LDC sugar producers gain from barriers to entry and are given preferential quotas. In these cases, the price of the same good more than covers the full costs of production, and sugar is not a commodity.

Markets that are characterised by commodity production include traditional ‘commodities’ such as copper, sugar and grain. But as we have defined it, the concept also covers other, more surprising products

such as basic umbrellas and toilet paper. More relevant to our discussion, it is also possible to conceive of particular factor inputs as commodities. For, if we think about the discussion in Section 2, the widespread availability of unskilled labour in a globalising world of free trade gives this factor all the characteristics of a commodity. With the lowering of trade barriers, there are no barriers to entry to the use of unskilled labour and it is available in virtually unlimited supply. So much so that, given the enormous surplus of unskilled labour in the world economy, it is even possible that the cost of labour (its wage) will fall below its costs of reproduction, covering only the calorific costs of the human effort in production, and not the costs of rearing a child until it reaches a working age. (This is analogous to the ‘free market’ price of sugar not covering the fixed costs of production). The global wage is thus a ‘commodity price’ and will fall to the lowest cost of maintenance; in the modern world, this is in China and other Asian economies. It is this phenomenon that explains the pattern of immiserising growth observed in the previous section, when low-income countries specialise in the supply of unskilled labour and virtually nothing else; witness the value added in the Dominican Republic ‘shoe industry’ of a mere \$0.23.

3.2 Rent

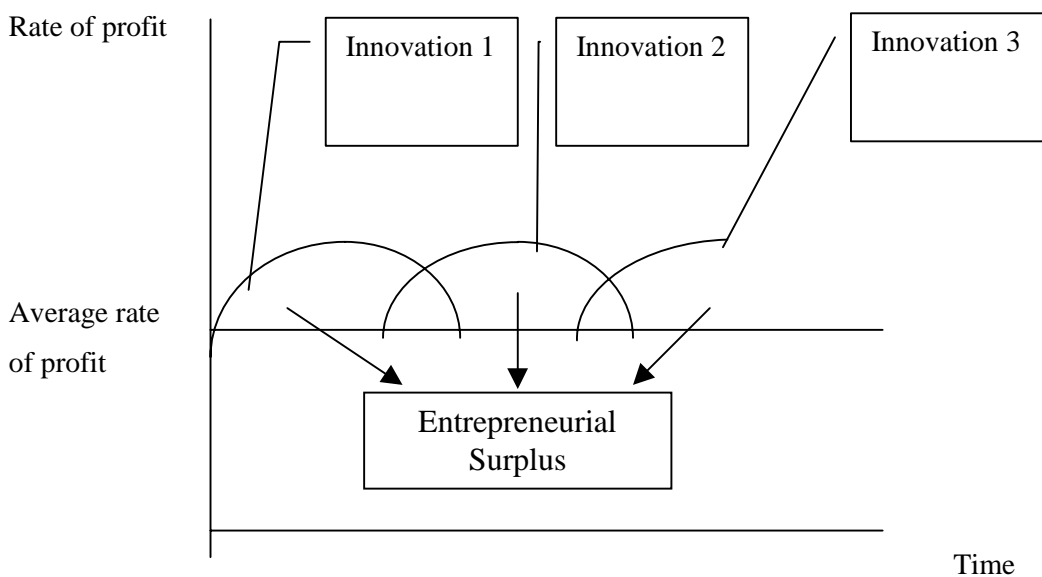
For Schumpeter, the entrepreneur played a unique role in ‘the carrying out of new combinations’ (Schumpeter 1961: 107). Entrepreneurial surplus is the return to the innovation of a ‘new combination’ and arises when the price of the product following the introduction of the ‘new combination’ provides greater returns than are required to meet the cost of the innovation.¹⁰ These returns to innovation are a form of super-profit and act as an inducement to replication by other entrepreneurs:

The spell is broken and new businesses are continually arising under the impulse of the alluring profit. A complete reorganisation of the industry occurs, with its increase in production, its competitive struggle, its supersession of obsolete businesses, its possible dismissal of workers, and so forth....

[T]he final result must be a new equilibrium position, in which, with new data, the law of costs again rules, so that now the prices of the products are again equal to the wages, and rents of the services of labor and land which are embodied [in the machine].... Consequently, the surplus of the entrepreneur in question and of his immediate followers disappears. Not at once, it is true, but as a rule only after a longer or shorter period of progressive diminution. (Schumpeter 1961: 132)

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. We might term this continual search for innovations to escape the tyranny of competition and the normal rate of profit ‘the Schumpeterian motor of accumulation’.¹¹

Figure 3: The generation and dissipation of entrepreneurial surplus



Schumpeter identifies four major types of ‘new combinations’: the introduction of new machinery; ‘replacing one product with another’; ‘the creation of a new good which more adequately satisfies existing and previously satisfied needs’; and ‘the search for new markets in which an article has not yet been made familiar and in which it is not produced’ (Schumpeter 1961: 134–5). (I will return to this question of the determinants of entrepreneurial surplus in Section 4.)

Schumpeter’s entrepreneurial, producer, surplus can be seen as a form of economic rent. The early development of the concept of rent belongs with 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) (emphasis added). Here Ricardo was highlighting the significant role played by scarcity, since economic rent does not arise from the differential fertility of land itself, but from unequal access to this resource.¹² In the case of land – or the gemstones that Marshall used as an example in his discussion of rent (Marshall, 1890) – these barriers to entry were both absolute and immutable. Marshall referred to this economic rent as ‘quasi rent’.¹³

Referring to differential qualities of machinery, Ricardo argues that rent would only arise if new machinery was *less* efficient than old machinery, providing rent to the earlier vintages of equipment.¹⁴ This is an unlikely scenario since unlike the diminishing marginal productivity of an existing resource, new vintages of machinery are generally more, rather than less, productive than earlier ones. Here, Ricardo’s example betrays a lack of concern with augmented rents. By contrast, writing in the second half of the nineteenth century when technological progress was growing rapidly, Marshall pointed to the importance of the augmentation of land as a natural resource:

Pure rent in the strict sense of the term is scarcely ever met with: nearly all income from land contains more or less important elements which are derived from efforts invested in building houses and sheds, in draining the land, and so on. (Marshall 1890: 350)

But Marshall failed to capitalise on this adequately and, like Ricardo, he missed the central role played by *dynamic* rents.¹⁵ That is, once rent can be augmented by improvements, it stands to reason that further augmentation can erode the value of these initial improvements. It is here that we can see the importance of Schumpeter's contribution. His conception of entrepreneurial surplus is effectively a form of created rent – a 'new combination' which provides for differential productivity and which is in limited supply. But it is a surplus that is inherently unstable as other entrepreneurs 'swarm' to replicate these new combinations or to improve upon them.

More recently, the concept of rent has gained widespread attention from a particular form of 'monopoly rent', that is from a process in which the holder's 'wealth potential is increased by restrictions on other potential competitors, restrictions that are artificial or contrived in not being naturally inevitable. Laws prohibiting others from selling white wine, or opening restaurants, or engaging in legal practices are examples' (Alchian 1987: 143). This form of rent has achieved widespread attention in the discussion of 'rent seeking behaviour' (Kreuger 1974). As Alchian points out, these monopoly rents may also be transient: '[t]he "monopoly rents" may be dissipated (by what is often called "rent seeking" competition for such resources)'. But he takes care to distinguish between these politically underwritten monopoly rents and the 'innovation rents' that are emphasised by Marshall and Schumpeter: '[t]hose who initially successfully and cheaply obtained such "monopoly" status may obtain a wealth increase, just as successful innovators obtain a profit stream before it is eliminated by competition from would-be imitators' (Alchian 1987: 143).

To summarise, we gain the following insights from the discussion of rent in Ricardo, Marshall, Schumpeter and Krueger:

- 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. These augmented rents have become increasingly important
- most economic rent is of a temporary 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
- 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.

These five characteristics of rent play an important role in the search for a mechanism to escape the process of immiserising growth that we observed in Section 2. We will return to them in Section 4, but before doing so we need to lay out the third set of our analytical constructs, the value chain.

3.3 Value Chains

Appreciation of the importance of taking a systemic approach to production and exchange has grown in recent years (Kaplinsky 1985; Perez 1985). One of the more useful of the systemic concepts that have emerged has been the idea of the value chain. This describes the full range of activities that are required to bring a product from its conception, through its design, its sourced raw materials and intermediate inputs, its marketing, its distribution and its support to the final consumer. In other words, the chain can be seen as incorporating production, exchange, distribution and consumption from the cradle to the grave of a given product or service.¹⁶

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 1957). It was also adopted in recent French planning literature in the form of the *filière*. 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. For example, world-leading capabilities in colour TVs would require expertise in picture tube technology, in printed circuitboard design and manufacture, in design and production of integrated circuits and other electronic components, and in metal- and plastic-forming technologies. As used in the French planning exercises, the concept of the *filière* suggested that the full range of activities should take place within national boundaries, but of course there is no necessary reason why the *filière* should have national rather than international boundaries.

The recent prominence of the value chain as an analytical structure arises from the work of Michael Porter. Setting out his ideas in three books which were published at five-year intervals, Porter argues that the building block of national wealth lies in the firm, since ‘[f]irms, not nations compete in international markets’ (Porter 1990: 34). His view of the firm is similar to Schumpeter’s in that it characterises the competitive process as follows: ‘Firms create competitive advantage by perceiving and discovering new and better ways to compete in an industry and bringing them to market, which is ultimately an act of innovation’ (Porter 1990: 45). From the national perspective

... the principal economic goal of a nation is to produce a high and rising standard of living for its citizens. The ability to do so depends not on the amorphous notion of ‘competitiveness’ but on the productivity with which a nation’s resources (labor and capital) are employed. (Porter 1990: 4)

But this capacity to promote productivity should be ongoing, since ‘s]ustained productivity growth requires that an economy continually *upgrade* itself’ (Porter 1990: 6) (emphasis in original). Finally, competitiveness now has global dimensions and ‘[i]f the industries that are losing position to foreign rivals are the relatively

more productive ones in the economy, a nation's ability to sustain productivity growth is threatened' (Porter 1990: 8).

Porter identifies two key constructs that are necessary for the upgrading of national capabilities. The first is somewhat confusingly referred to as the *value chain*, distinguishing between 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). The importance of the value chain is that it draws attention away from an exclusive focus on physical transformation to include the support services required to sustain production. From this follows the recognition that the greatest value is often added in these support services, and that '[a]lthough value activities are the building blocks of competitive advantage, the value chain is not a collection of independent activities. Value activities are related by linkages within the value chain' (Porter 1985: 48).

Porter complements his concept of the value chain (with its emphasis on different types of activities within any particular segment of the production and consumption pipeline and its emphasis on the links between these different activities as a source of a firm's competitive strength) with the concept of the *value system*. The value system basically extends the idea of the value chain to inter-industry linkages, and although Porter does not give the value chain as much attention as the value system, 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. In the discussion that follows I will use the phrase 'value chain' to cover the distribution of activities both within the firm and in the whole chain of production.

An important supplement to the concept of the value chain is the idea that many chains are characterised by a dominant party (or sometimes parties) who becomes responsible for upgrading activities within individual links and coordinating interaction between the links (Hopkins and Wallerstein 1986: Gereffi and Korzeniewicz 1994). This is a role of 'governance', and here a distinction is made between two types of governance: those cases where the coordination is undertaken by buyers ('buyer-driven commodity chains') and those in which producers play the key role ('producer-driven commodity chains').¹⁷

We thus see a growing correspondence of thinking, from a variety of fields, situating the discussion of upgrading in (1) the strengthening of inter-firm linkages in the accretion of value along the value chain, and (2) the deepening of value-added activities within each link in the chain, spreading beyond the mechanical processes of transforming inputs into outputs.¹⁸

4 DEVELOPING THE CAPACITY TO APPROPRIATE RENTS

I will summarise the argument so far. In the context of globalisation, all countries face the prospect of immiserising growth. Sustainable income growth can only be assured by developing the capacity to identify – and then appropriate – areas of value accretion that are protected to some extent from competition. These protected spheres are characterised by economic rents. But since competitive pressures are persistent, sustainable income growth requires the ability to appropriate rents on a dynamic basis. In identifying

pockets of rent, it is helpful to encompass the full range of economic activities, both within each link and in the accretion of value along the value chain (Figure 4). In each of these cells in Figure 4 there may be the potential for activities that are characterised by barriers to entry and that hence provide the potential for the value accretion – that is, upgrading – that underlies sustainable income growth.

Figure 4: Pockets of potential rent: within each link and along the value chain

Value activities within each link	Design of strategy	Coordination of activities	Physical transformation of inputs	Incoming and outgoing logistics	Liaison with customers	And, so on*
Different stages in the value chain						
Basic research						
Raw material extraction						
Transport						
Physical transformation						
Transport						
Distribution						
Wholesaling						
Retailing						
After-sales service						
And, so on*						

* The category ‘And so on’ is included to emphasise the fact that the relevant categories of both intra- and inter-link activities will depend on the particular characteristics of each good and service

The most helpful treatment of economic rent is to be found in the successive writings of Ricardo, Marshall and Schumpeter. As noted in Section 3, Schumpeter identified four major types of ‘new combinations’: the introduction of new machinery, product substitution, new products, and new markets. But this is too restricted a set of categories to capture the essential determinants of global income distribution in this current phase of globalisation. Instead, I suggest that nine major types of economic rent are currently significant determinants of income growth and income distribution. As will become clear, these rents are interrelated, partly in the sense that the ability to appropriate some rents depends on the corresponding capacity to appropriate others (these might be termed ‘co-rents’), and partly because some rents become substitutes for others. These nine types of economic rent are resource rents, policy rents, technology rents, human resource rents, organisational rents, relational rents, product and marketing rents, infrastructural rents, and finance rents. Let us consider each of these briefly in the light of the preceding discussion.¹⁹

4.1 Resource Rents

It was the absolute scarcity of land that led to the concern with rent of classical scholars such as Smith, Malthus, Ricardo and Marx. Malthus in particular used the constraint on land to develop the concept of immiserisation. But, as the nineteenth century progressed, it became increasingly clear that land could be augmented, and thus be made more productive, by a combination of capital investment and technological change. At the same time, the land frontier was lifted as Europe increasingly gained access to land in other parts of the world. So, to a considerable extent, the focus of interest on resource rents switched from land to primary commodities. Here, the major source of resource rent is to be found in the differential costs of extraction, rather than in the absolute constraint on supply. Perhaps one of the most striking cases of natural resource rents of this type was the case of gold where, for a significant period, production was concentrated in a limited number of countries; the link of gold to monetary standards made this resource endowment particularly lucrative for low-income countries such as South Africa.

But constraints on resource availability are not always a bounty of nature, that is, absolute constraints on supply. They can also be artificially induced by a cartel of producers. Because of its longevity, the most striking case of this resource rent is the diamond-selling cartel, in which the De Beers Corporation has for many years organised a central selling office for diamonds, limiting the amount of diamonds put on the market, and allowing not just South Africa to sustain a relatively high level of income, but also economies such as Botswana and Russia. Indeed, Botswana was one of the most rapidly growing economies in the world over the 1970s and 1980s, despite having virtually no industry and very poor agricultural land. This was almost entirely due to its deposits of low-cost, high-quality diamonds and the workings of the diamond cartel.

Oil represents a hybrid case of resource rents. Countries with otherwise low-productivity production structures have been able to achieve relatively high incomes through their access to low-cost hydrocarbon deposits. This is especially true of the Middle East deposits where the costs of uplift are much lower than those marginal producers in other parts of the world (such as the North Sea) whose extraction costs set the world price for oil. But oil producers also gained – at least for a while – through the formation of a sellers' cartel, an artificially induced element of resource rent.

Resource rents are fundamentally unstable. This is partly because new deposits are generally found for most materials (stimulated by high resource rents) and partly as a result of the development of substitutes. One of the most striking examples of the development of new sources has been the maturation of technologies to make it feasible to mine small deposits of gold productively. This has opened up gold exploitation in Asia and in Latin America at the cost of the large-scale South African producers. Substitution has eroded resource rents in a large number of products, most notably in the case of rubber, where the synthetic product displaced production of the natural, climate-specific product. A further source of instability in resource rents arises from the fragility of sellers' cartels. The diamonds cartel is a somewhat unusual case of enduring cooperation, to be counterposed to the declining success of OPEC and the rapid death of CIPEC (the copper producers' attempt at cartelisation).

Nevertheless, there is striking evidence of the importance of resource rents in the determination of the global distribution of income. The most notable examples are oil-dependent exporters in the Gulf. But many other countries gain from the exploitation of scarce natural resources, including 'industrialised' economies such as the USA, Canada and Australia. Where the industrialised countries differ is that they have been able to extend their operations along the value chain to undertake downstream processing activities. For example, while the Gulf States extract oil, high-productivity extracting economies such as the USA and the UK have more developed hydrocarbon-based processing activities; India and South Africa are large producers of aluminium (where the primary 'resource' is in fact energy rather than bauxite), but Canada and the USA complement their aluminium production more effectively with the production of aluminium products; Brazil and South Africa produce pulp, but Finland and Sweden also manufacture paper-making machinery; Zambia and Zimbabwe grow green beans, but they share only a small proportion of total proceeds.²⁰

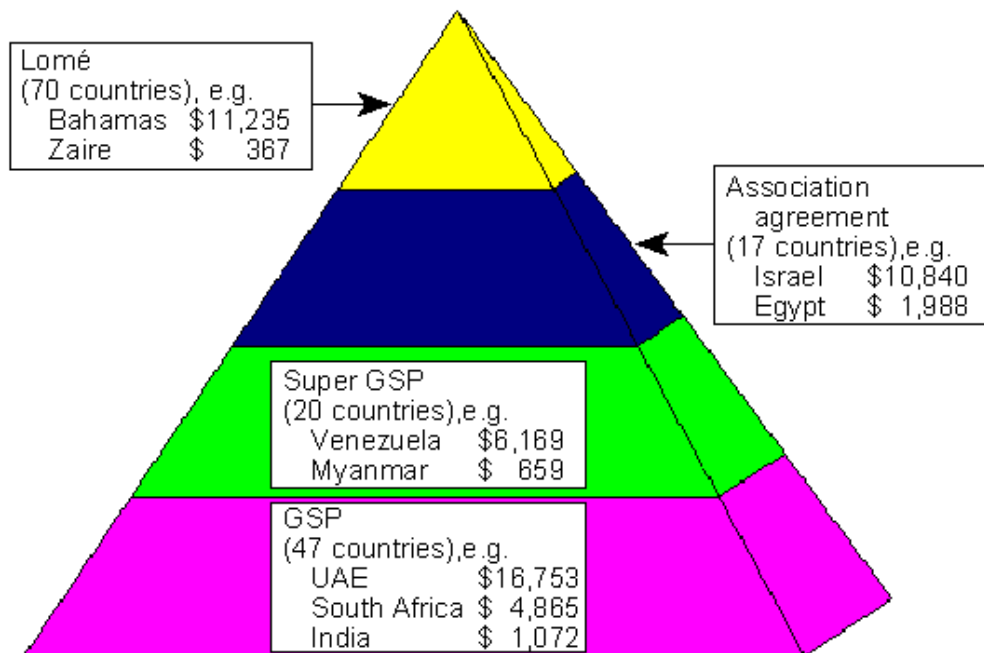
4.2 Policy Rents

Historically, policy rents have significantly affected the global distribution of income. (They have also influenced the intra-national distribution of income, but this is not the focus of attention here.) The ability to appropriate policy rents depends on the capacity individual actors have to design suitable policies, to implement them, and to take advantage of opportunities opened by policy makers in other environments.

Trade policy rents are probably the most significant form of policy rent affecting the global distribution of income and many countries have gained from them, that is from restricted access to external markets and from protection in their domestic markets. As liberalisation proceeded after World War Two, the primary beneficiaries of these trade policy rents have been LDCs, although producers in some sectors in the industrialised economies such as in apparel and textiles and in the agricultural sectors have continued to benefit from protection. In the mid-1990s, preferential market entry conditions in external markets continued to be significant; Figure 5 shows the hierarchy of these LDC trade preferences. By contrast, the growing pace of trade policy reform has severely eroded trade policy rents in the domestic markets of many LDCs.

These various forms of trade barriers are being reduced globally following the Uruguay Round. This has not only lowered the extent of trade policy rents, but also changed the distribution of potential beneficiaries. For example, the Multifibres Agreement (MFA) has allowed African states to gain relatively since their exports have not been subject to quotas; as the MFA is phased out as a consequence of the Uruguay Round, this opportunity to appropriate trade rents will be reduced.²¹ There is increasing evidence that a new form of trade barrier – certification – is flourishing, for example in the form of ISO9000 quality standards (Stevens and Young 1997) and ISO14000 environmental standards.

Figure 5: Hierarchy of LDC trade preferences



The figures shown are real GDP *per capita*, 1990 PPP\$ (UN *Human Development Report 1993*)

Source: Stevens 1996.

The experience of those countries that have taken greatest advantage of these various forms of trade policy rents to generate sustainable income growth has been that this ability is fostered by having a flexible productive system, able not only to upgrade the unit value of exports within individual sectors, but to redefine product specifications as trade preferences reach their limit or change their nature.²² But trade policy rents are not the only policy rents affecting the global distribution of activity. Some observers believe that East Asian industrial growth has been significantly aided by effective policy design and implementation (Amsden 1989; Wade 1990); others (World Bank 1993) argue that policy rents have been illusory and overestimated.

4.3 Technology Rents

As observed above, Malthus's concerns with immiserisation were eroded not just by a growing land frontier outside Europe, but also by technical change in agriculture. Technological change not only raised the productivity of all land (which did little for the erosion of resource rents), but it also allowed marginal lands to be brought into production (which did erode resource rents). However, the importance of technological change was felt most significantly in the industrial sector. As Marx observed, the ability to put the tool under the control of the machine (which he called 'machinofacture') meant that productivity growth was only limited by materials technology and energy availability, whereas productivity growth in 'manufacture'

(literally, production by hand) was inherently limited by the speed and accuracy with which labour could work. Econometric analyses show that most of the growth in per capita incomes in the industrialised countries arose from changes in the quality of factor inputs, rather than in the physical volume of factors (Abromowitz 1956); this has provided additional support for the view that it is the ability to master technological rents that explains the development of sustainable income growth. Thus, since the machine age, the industrial sector has benefited most dramatically from the introduction of a successive wave of new technologies.

It was Schumpeter who first observed that the long-wave swings of economic activity (with an approximate periodicity of fifty years) first noted by the Russian economist Kondratieff in 1917 could be explained by the development and diffusion of major, 'heartland' technologies. Building on this framework, neo-Schumpeterians have elaborated a series of five long-cycles, notably textiles and metal casting; steam power and railways; electrical and heavy engineering; automobiles, armaments and energy-intensive production systems; and information and communication technologies (ICT) (Freeman *et al.* 1982; Freeman and Perez 1988). The most recent of these – ICT – is believed to have now begun to transform productivity in the service sector.²³

The contribution of the 'mastery' of technology to sustainable income growth is influenced not just by the development and exploitation of new technologies, but also by the distribution of activities within the value chain. Even R&D can be broken down into areas with high and low barriers to entry. For example, in the late 1990s the ability to obtain returns from R&D in the pharmaceutical sector looks increasingly to be affected by command over genomics. In software, the higher-value-added activities tend to be undertaken in the USA, whilst the lower-value software writing is increasingly subcontracted to low-wage economies such as India, Hungary and Russia. A second example is more indicative of the problems faced by low-income countries. Jamaican papaya production has for some years been adversely affected by a ring-spot virus. Funded by the Jamaican Agricultural Development Foundation, a student was sent off to the USA to undertake her PhD on this topic. She discovered a solution to this problem, but although the gene stock came from Jamaica and the student and her funding were of Jamaican origin, it was the US university (through its 'charitable foundation') that acquired the property rights over this discovery. So, whilst the exploitation of this technological breakthrough may provide benefits to the Jamaican economy, much of the returns to innovation will be appropriated in the USA.

But, as with trade policy rents, there is a significant difference between the ability to identify these rents and to invest resources in their potential utilisation, and the ability to appropriate technology rents. Some economies (notably the UK, but also some developing countries such as South Africa)²⁴ and some firms have become adept at the process of enquiry and basic research, but poor at their exploitation. For example, the UK pioneered liquid crystal display (LCD) technology, but the major users of LCD technology were Japanese firms, initially in watches and subsequently in computer displays and flat-screen televisions. To some extent this ability to appropriate technology rents is a function of corporate dynamism, but it also reflects a matching policy environment. Historically, patents have played an important role in protecting

technological developments, and in recent years the technology-generating economies have placed the maintenance of intellectual property rights at the forefront of their global policy agenda.²⁵

But, despite the protection offered by patent legislation, technology rents are also transitory. For many years a single British company (Pilkington) gained from its property rights over the development of float glass; as the property rights expired in the early 1990s, so the profitability of this firm declined. Similar examples of expired property rights are widespread in the pharmaceutical industry. But the erosion of technology rents is not just a consequence of expired property rights. It also follows, and probably most commonly follows, from technological progress. For example, the invention of transistors swept away the market for vacuum tubes and had an enormous impact upon a wide range of products; so too did the invention of synthetic rubber as a substitute for the natural product.

4.4 Human Resource Rents

The strong inter-country correlation between per capita incomes and the quality of human resources is widely recognised. From this has come the policy response to increase investments in human resource development (HRD), mirroring the policy response to pursue industrialisation because of the correlation between per capita incomes and countries with large shares of industry in GDP (see Section 1). But enhanced investments in HRD is a problematic policy response and there is no assurance that they will deliver the desired incomes. For one thing, HRD is generally conceived in terms of formal education, but educational achievement is only one component of HRD. Much of the progress made by firms in changing their competitive profile appears to relate more directly to training and to the use of trained workers, and there is no clear lineal relationship between the capacity of workers to 'learn' and the degree of their formal education (Kaplinsky 1994). But more important, even if both education and training are considered explicitly, the simpleminded decision to expand investments in HRD in the expectation that this will be translated into higher incomes ignores the distinction between three components of labour productivity.

The first of these is relatively unproblematic for this discussion and it relates to the (embodied) capital intensity of production: the greater the quantity of (fixed) capital being used effectively, the higher labour productivity will be and thus, all things being equal (including the effective use of fixed capital), the greater the contribution of labour to corporate and national income generation. A second element of labour productivity arises from the efficiency with which labour is used. Labour with high levels of HRD may either not be applied to work (because, for example, of a shortage of fixed capital) or it may be applied in a suboptimal manner. (I will discuss this latter point below in relation to organisational rents). And, third, although educated and trained labour is more efficient than uneducated and untrained labour, and it thus stands to reason that output will be higher in physical terms with greater levels of HRD, this higher physical output need not necessarily translate into higher incomes. This is because it may be associated with declining terms of trade, that is, the unit value of this output may decline at the same, or a greater, rate than the increase in physical labour productivity. This outcome might arise if the barriers to entry in the production of these products (goods and services) were falling and the output were becoming increasingly commoditised as production was subject to intensified competition.

As we are seeing in this discussion of the manifold sources of rent in this paper, there are a variety of reasons why the barriers to entry might be falling. Amongst them might be the fact that skilled labour is in increasing supply, so that the income returns to skills (as opposed to the physical output produced by skilled labour) might be diminishing. In other words, part of the return to skilled labour arises from its very scarcity, its rent. If this scarcity vanishes, then the returns to this labour will decline to its lowest cost of production, and in an increasingly global economy, the lowest costs of production even of skilled labour might be in China or South Asia. Thus, so long as only the industrialised countries have a large proportion of PhDs in their labour force, they will sustain high incomes; as soon as all countries have many PhDs, so the returns to skills will fall. This is indeed what has happened to primary education where for many years it was believed that the literacy of the labour force in the industrialised countries was an important source of productivity, and hence provided for extended income growth. But now that literacy is widespread, this is no longer the case. For example, although only half of India's adult population is literate, the number of those with literacy (over 300 million people) is large in relation to the formal-sector labour force (around 13 million); it is not surprising, therefore, that many Indian companies employ a relatively skilled workforce in some of their plants. Table 2, for example, shows that in two plants of a large Indian firm more than 90 per cent of the labour force have had at least ten years of schooling. It is notable that Wood's widely quoted analysis of the relationship between skills and equality in fact groups those with less than four years of education in the 'no-ed' category (Wood 1994). So, as in the case of other forms of rent, human resource rents are essentially transitory in nature – with globalisation, what was scarce becomes in time a commodity.

Table 2: Educational achievement of workmen at two plants of an Indian electrical engineering company (%)

Level of educational achievement	Motors	Low-tension switchgear
Less than Senior Schools Certificate	8.0	10.6
SSC (10 years) or Higher School Certificate (12 years)	40.2	46.9
ITI (or other vocational training)	46.8	40.3
Higher qualifications	5.1	2.1

Source: Humphrey, Kaplinsky and Saraph 1998.

4.5 Organisational Rents

It is helpful to explore organisational rents through the concept of 'X-efficiency' developed by Leibenstein in the 1970s (Leibenstein 1978). His argument was that although the production function delimits the maximum output that can be achieved through the combination of particular mixes of factor inputs, many producers work suboptimally, that is, their actual output lies somewhere below the surface of this production

possibilities frontier. He characterised this gap as representing 'X-inefficiency'. Leibenstein's ideas remained largely theoretical and unacknowledged, but surfaced in an important (and largely unacknowledged) body of research and policy response during the 1980s and 1990s. This followed from attempts by the US automobile and electronics industries to reverse the inroads made in the domestic market by imports from Japan.

Initially, the US automobile producers assumed that the Japanese competitive advantage arose from the use of more advanced technologies, that is, from technological rents. The response was a heavy programme of investment in electronically controlled machinery – General Motors (GM), for example, invested \$70 billion in advanced automation and product development in the decade between 1976 and 1985. But the returns to this investment were low – GM began with a market share of 44 per cent, and ended its investment programme with a market share of 33 per cent. (This fell to 28 per cent in 1997.) Gradually the realisation dawned that the Japanese success was built not on advanced embodied technologies but on new forms of organisation, both within firms (organisational rents) and in the relationship between firms (relational rents – see below) (Hoffman and Kaplinsky 1988; Womack *et al.* 1990). If anything, in the mid-1980s, Japanese firms were using considerably less advanced equipment than their European and US counterparts.²⁶

Organisational rents arise from command over three sets of intra-firm activities – over production flow, over quality and over processes of continual change. But although the ideas are conceptually simple (Schonberger 1982; Bessant 1991), implementation is extremely difficult. This is because the reaping of organisational rent involves substantial changes in behaviour, in skills and in social relations within the firm, and in labour markets and in macroeconomic incentives outside the firm. For this reason the pace of diffusion has been slow. Moreover, as with all rents, organisational change represents a moving frontier, and involves both a breadth of adoption (the range of activities across the enterprise) and the depth to which the changes are implemented (for example, how low inventories fall). It is not surprising therefore that organisational rents have become one of the major sources of differential performance between firms. Compare, for example, the performance of General Electric (GE) and Westinghouse in the USA. In the early 1980s, Westinghouse's turnover was 60 per cent that of GE, and both firms produced electrical equipment. Westinghouse has now withdrawn from all manufacturing, concentrates on broadcasting (through its ownership of CBS) and is less than 30 per cent of GE's size. Whereas in the 1980s Westinghouse had followed a strategy of 'automate, emigrate or evaporate' (Kaplinsky 1984), under the leadership of a new chief executive officer, GE had undergone a major transformation in operating procedures. Similarly, ABB has transformed its global competitiveness since its formation in the late 1980s, largely on the basis of the effectiveness of its decentralised organisational structure and its adoption of time-based competition in its internal production organisation (Hart and Berger 1994).

A significant recent phenomenon has been the spread of these new forms of organisation to LDCs, despite relatively low levels of education. Many LDC firms have shown significant gains in competitiveness – through lower costs, shorter time-to-market, better quality, enhanced flexibility, and so on – and this has improved their ability to compete with imports both in their liberalising domestic markets and in external

markets (Kaplinsky 1994). Paradoxically, it is possible that precisely because organisational change is not investment-intensive, the relative distance between IAC firms and LDC firms may be smaller in this determinant of competitiveness than in those based on technological or infrastructural rents. Knowledge of new forms of organisation travels quickly and is widespread in many parts of the global economy. Moreover, it may be (although this is still largely an assertion) that the barriers to entry to organisational innovation are lower for new entrants than for old entrants, who tend to be caught up in old patterns of social relations. Nevertheless, there clearly are country-specific elements to organisational change which affect the pace of diffusion (Humphrey, Kaplinsky and Saraph 1998)

4.6 Relational Rents

Closely related to the impact of changed forms of organisation within firms, are the changes occurring in the relationship between firms, and between firms and other institutions in their external environment. Figure 6 points to the different modalities for inter-firm cooperative links. These may be forged either on a bilateral or a multilateral basis, and may involve upstream or downstream cooperation with firms in the value chain, or cooperative relations with firms undertaking similar activities. Recent years have seen a major shift towards closer inter-firm links, and a growing recognition that the roots of the competitiveness of individual firms are to be found in the wider systemic competitiveness of groups of firms.

Figure 6: Modalities of inter-firm cooperation

	Bilateral	Multilateral
Vertical		
Horizontal		

Source: Schmitz forthcoming

In observing the importance of relational rents, it is helpful to draw the distinction between firms gaining from the unintended consequences of proximity, and firms gaining from purposive, joint action.²⁷ There are a variety of reasons why external economies arise between geographically colocated firms (Storper and Walker 1989). Productive spillovers are primarily to be found in the labour market (a pool of experienced and trained workers) and in the exchange of ideas, and where personnel flow between firms. One of the Silicon Valley folk wisdoms is that workers can change jobs without changing car parks. Observing the success of both the Silicon Valley cluster and that of Route 128 in Boston, Saxenian argues that these are ‘classic examples of the external economies that derive from industrial localization: as cumulatively self-reinforcing agglomerations of technical skill, venture capital, specialized suppliers and services, infrastructure, and spillovers of knowledge associated with proximity to universities and informal information flows’ (Saxenian 1996: 6). These external economies are not only to be found in industrialised economies; they exist in a variety of LDCs, including Brazil (Schmitz 1995b) and Pakistan (Nadvi 1996).

But the benefits of inter-firm linkages, and the role these play in the development of competitive advantage, are also influenced by purposive actions. One type of such actions is horizontal cooperation with other firms, either on a one-to-one basis or with groups of firms. The most widely cited account of such cooperation is the phenomenon of consortia in the Third Italy (Pyke, Becattini and Sengenberger 1990). Here, groups of predominantly small firms join together to provide collective services, such as for market intelligence, design and marketing; they often also share large orders. This pattern of production appears to be particularly well suited to the production of fashion goods, but has also been used effectively in the production of machine tools in Germany and Japan (Friedman 1988) and in packaging machinery in Taiwan. It also appears to have been important in a variety of developing countries (Humphrey 1995; Nadvi 1996).

Supply chain development along the value chain is the second major type of inter-firm linkage, and it is this that underlies the growing governance role that key firms play in many value chains (see Section 3). The key factor underlying the growth of supply chain development has been the recognition that to a considerable extent, trust between firms can be socially configured. It was the weakness of these trust relationships that led many firms to internalise operations, since the transaction costs of externalisation were raised by the prevalence of unilateral default by individual parties (Williamson 1985). But following the evident advantage of the Japanese *keiretsu*, which managed to promote systemic capability by building long-term relations of trust between firms in the supply chain (Cusumano 1985; Sako 1992), many large firms have acted to outsource activities that were previously undertaken in-house. The advantages of this fragmentation of production are that they allow individual firms to focus on their core competence, but with the knowledge that their suppliers will not let them down. This represents the pole of Gereffi's 'producer-driven commodity chains', whereas the role played by large global buyers in the clothing, footwear and food sectors more closely proximates to 'buyer-driven chains'.

The competitive advantage provided by a robust and dynamic set of inter-firm relations, whether of a horizontal or vertical nature (or a combination of the two) is not the only type of relational rent that provides an advantage to early and successful innovators. Relational rents also arise between firms and their supporting institutional environment, that is, with the national system of innovation (Lundvall 1992; Nelson 1993). This may involve business associations (as, for example, in the Italian consortia), professional associations, links with universities and scientific institutions (for example, Silicon Valley in the USA, Cambridge in the UK and Bangalore in India), or effective government policy-making and policy implementation (as in Korea and Taiwan).

4.7 Product and Marketing Rents

Over the past one hundred and fifty years there have been a series of important changes in the individuality of goods (and increasingly also of services) offered for consumption. Prior to the mid-nineteenth century, almost all production occurred on a one-off basis, making it possible for every producer to stamp its individual identity on what it produced. But at the same time this posed problems in cases where interchangeability was required. For example, the stocks for rifles produced by the Enfield Company in the USA were not of a standardised size, making it difficult to cannibalise and repair damaged rifles. Similarly,

the first automobiles built at the end of the nineteenth century may have been produced to a similar design, but each replacement component had to be specifically manufactured – a cog for one gearbox did not necessarily fit another. A key step in the development of modern industry was the imposition of the discipline of measurement in production, making it possible to produce interchangeable components; this came to be known as the ‘American system of manufacture’ (Chandler 1977; Hounshell 1984).

Building on this foundation, Henry Ford and others developed the system of mass production – standardised products using standardised components. Ford’s primary concern was to reduce the costs of production, an objective achieved very successfully. But, in the process he did much to establish the market for consumer durables, not just in the auto industry but also in many other spheres of consumption. This system served the Ford Corporation well until the end of the 1920s, by which time other auto manufactures had caught up with and superseded the Model T. However, this same ability to produce standard products in large volumes soon came to be a competitive disadvantage since, having achieved interchangeability of components, customers wanted an individual identity. By the 1950s, the US automobile industry had responded to these competitive pressures with a policy of annual differentiations: fancy and often lurid trim changes to a product that was essentially unchanged (Packard 1957). It was not surprising, therefore, that the inflexible, dinosaur-like US auto firms found their products increasingly displaced in global markets by new, innovative designs with a reputation for high quality, produced by their European and Japanese competitors (Roos, Jones and Womack 1984). Increasingly, these competitors were able to offer a multitude of design modifications without enhancing product costs. It was only when their product portfolios improved in the 1990s (better quality, improved designs and greater flexibility) that the image of the US auto firms improved enough to allow them to consolidate (and even regain) their share of global markets.

This experience of the automobile industry is echoed in many other sectors. In clothing, for example, the ability to produce – and to brand – standardised denim jeans allowed Levis to become one of a select few truly global products. But as the 1990s wore on, the value of the Levi’s brand name was eroded and its premium was eaten into by designer labels such as Ralph Lauren and Tommy Hilfiger.²⁸ A similar process of ebb and flow can be observed in the colour TV industry, where brand names rose to dominance and then were eclipsed by those of competitors offering greater variety and quality (Baba 1985), and in the cola market, in which Coca-Cola has in recent years established a clear lead over Pepsi Cola, despite selling products that are virtually identical in taste. Sometimes brand identity is not just an attribute of individual firms, but characterises regional (for example Silicon Valley) and national production systems (for example, the reputation German products have for quality, or Italian products for design).

This thumbnail sketch of the importance of product identity, product differentiation and product innovation highlights a number of important elements of product and marketing rents. First, marketing rents are dynamic: Ford lost its premier position within a decade to a competitor with better design and a better image; Pepsi Cola lost its competitive advantage to an almost identical product with a better brand image. Second, brand identity can be created. For example, since the late 1980s many of the large global subcontractors (such as those producing automobiles, running shoes and consumer electronics) have begun to establish their own brand identities. Daewoo now sells its own automobiles, as does Kia; previously they

used to produce cars for GM and Ford respectively, until they realised that the major rents were to be realised in product markets rather than in production. But the creation of brand identity is neither simple or cheap. Third, it is not easy to distinguish between product and marketing rents. In some cases it is clear that competitive advantage arises from the introduction of a wholly new product, for example Sony's Walkman. At the other extreme, branding *per se* is clearly an important dimension of rent – for example, Kellogg's breakfast cereals, or Coca-Cola's cola. But in many other cases, the rents in product markets reflect a complex mixture of branding, product differentiation and product innovation. Fourth, the changes in organisational and relational rents described above have made it possible for producers to achieve simultaneously both economies of scale and brand differentiation (leading to what is sometimes referred to as 'economies of scope'), suggesting the demise of mass production and the advance of mass customisation. This provides additional scope for the appropriation of marketing rents. And, finally, the 1990s have witnessed the consolidation of global brand names, stretching beyond the confines of IAC markets and penetrating far-flung markets in LDCs and in the former command economies. This poses particular problems for indigenous LDC firms who find that many decades of investment in product identity are often rapidly swept aside. One such firm was Thumb Cola in India which was taken over by Coca-Cola soon after the barriers to the entry of foreign direct investment (FDI) were relaxed.

4.8 Infrastructural Rents

The reaping of competitive advantage by individual firms or by groups of firms is significantly affected by the availability of suitable infrastructure. With the onset of the industrial revolution, transport became a primary infrastructural input. Adam Smith observed that the division of labour (which provided scope for substantial productivity improvements) was limited by the extent of the market. Producers who had the ability to penetrate distant markets therefore found themselves at an increasing competitive advantage. So, from the onset of the industrial revolution, there has been a strong link between corporate growth and profitability, and the physical infrastructure that has provided access to markets. The importance of access is not limited to product markets, but also applies to factor markets, reflecting the ability of producers to bring suitable factor inputs (raw materials, components and also labour) to the site of production at low cost and with reliability. One of the major developments in the post-1945 global economy has been the reduction of transport costs; sea containers and low-cost air travel have had a significant impact in lowering these costs. A key component in this evolving transport infrastructure has been the role played by energy: initially steam in the case of the nineteenth-century railroads, and then hydrocarbons to fuel the internal combustion engine in the twentieth century.

In recent decades, as technology has increasingly become disembodied and located in tacit knowledge in individuals (that is, in human resource rents) and in organisational and relational rents, so the ability to communicate relatively effectively and relatively cheaply has become important. This is a reflection not just of reduced transport costs, but also of very significant advances in telecommunications and information-processing technologies. But energy and information-processing and switching technologies are not the only infrastructures that influences the efficiency of production systems. Clean water (important in the electronics

sector) and an unpolluted environment are also important constituents of effective production, as well as being incentives that help to keep highly skilled staff. So too are reliable and low-cost energy supplies.

Many infrastructural services are public goods, that is, access cannot be restricted and in general they are not used up in the process of consumption. For this reason, they are generally difficult to appropriate, and there is thus a reduced incentive for individual firms to invest in their production. Moreover, many infrastructural services also display significant externalities, and this too is a further reason why there may be a divergence between private and social benefit. It is for these reasons that governments have historically come to play an important role in the provision of infrastructure. It is also one reason why countries display different endowments of infrastructure, as is reflected by the indicators of infrastructure in Table 3. So the ability of a firm, or a group of firms, to compete in global markets is to a significant extent enhanced by the quality of national infrastructure. Since this infrastructure is unevenly spread through the global economy, it provides a form of rent to those firms operating in infrastructure-rich environments. It is significant that the disparities in national availability are higher for those forms of infrastructure that are particularly important in the latter part of the twentieth century (telecommunications and energy) than for those that were important in the nineteenth century (railroads) (Table 3).

**Table 3 Some indicators of the per capita global distribution of infrastructure, 1990–91
(in ascending order of per capita incomes)**

	Paved roads (km/million population)	Railroads (km/million population)	Electricity production (million kwh/million population)	Telephone main lines (per million population)
Bangladesh	60	26	73	2,186
India	877	87	330	5,857
Kenya	276	106	122	7,330
China	NA	NA	541	5,959
Zimbabwe	839	272	946	12,245
Colombia	365	99	1,098	73,620
Chile	733	597	1,371	64,185
South Africa	1,323	604	NA	85,219
Brazil	1,067	146	1,468	62,148
Korea	795	72	2,755	308,038
Hong Kong	256	16	4,989	426,724
Italy	5,258	447	3,753	386,678
USA	20,456	811	11,995	545,348
Japan	6,312	193	6,920	440,064

Source: Calculated from World Bank World Development Reports, 1993 and 1994.

4.9 Finance Rents

There is a large body of evidence that suggests that access to finance has been a key part of economic success in many parts of the global economy. This is partly a reflection of the quantum of finance available to spur innovation. Analyses of the experience of the East Asian newly industrialised countries (NICs) suggest that a key part of their competitive performance has been their high savings and investment ratios: in fact, total factor productivity growth rates (reflecting a combination of organisational, human resource, relational and technological rents) have been relatively low in these economies (Singh 1995). But it is a matter not just of the quantum of finance, but also of the terms on which it is made available to the productive sector. There is a strong correlation between indicators of effective financial intermediation and economic growth (King and Levine 1993a, 1993b; Griffiths-Jones 1996).

A number of factors are important here. The first is the quality of the system of financial intermediation. An efficient financial services sector reduces the cost of providing funds to borrowers. The second is the terms on which finance is made available. This is a function both of the costs of the loan and of the terms on which it is being provided. Insofar as risky innovative ventures are concerned, the system of financial intermediation needs to have a venture capital facility; this applies as much to asset-poor innovators in the industrialised countries as to those in the informal sectors in LDCs. But it is also a matter of the time horizon of loans. For example, although stock markets have an important role to play in providing finance, as the experience of the UK shows, the short-termism of much of this finance militates against the reaping of technological and other forms of rent that have relatively long gestation periods. Another important feature of the banking system is the extent to which it provides development finance to rescue ailing firms and innovators rather than to liquidate them in times of difficulty. Here the Japanese and German banking systems seem to play a different role to the banks in the Anglo-Saxon economies (Albert 1993).

A third important feature of finance rents is the extent to which domestic savings can be made available to finance innovation, particularly by domestic firms. Although external finance clearly has an important role to play, and although FDI may be a wellspring of investment and innovation, experience suggests that domestic sources tend to be less footloose. Accumulation in many countries in recent years has been plagued by sudden and significant outflows of funds (Griffiths-Jones, 1996), and departing foreign investors have been a source of instability in many developing countries, especially those depending on export processing zones (such as Jamaica).

Thus, innovators who obtain access to low-cost funds, to funds that have a relatively long maturity period, and to funds with undemanding security requirements are clearly advantaged. This is especially relevant for leading sectors (such as biotechnology in the current environment) where investments may be especially uncertain and the pay-off period relatively long. But access to such finance affects the ability of firms across the board to innovate effectively.

5 THE MOVING FRONTIER: THE SEARCH FOR THE NTH RENT

Can the nine different categories of rent identified in Section 4 be clustered in some way into categories that allow for different strategic approaches, reflecting the differing starting points and resource bases of different firms, sectors, regions and countries? One intuitively appealing categorisation involves the distinction between various forms of ‘natural’ rent, as in the case of resource rents; this sphere of rent is particularly appealing to low-income LDCs who may have difficulty in augmenting rents. Resource rents could perhaps be usefully distinguished from a range of augmented rents, such as human resource rents and relational rents. But the problem with this distinction, as we saw in earlier discussion, is that even natural resource rents are open to various forms of augmentation. For example, the ability to mine subterranean ores effectively depends increasingly upon new labour processes in which team working is important; it also depends upon efficient supplier industries and skilled labour. Moreover, technological developments lead to the creation of substitutes, or the ability to mine alternative deposits. A similar story can be told with regard to horticulture, where there is a rapidly moving frontier of rent-rich ‘exotics’.

A second possible category is that of policy rents, in that these may be defined by decisions outside the control of producing firms or countries; this may be especially evident for trade policy rents. However, there is abundant evidence that the nature and extent of these policy rents, and particularly the ability of firms and countries to appropriate potential rents, is subject to various forms of augmentation. Governments show a differential ability to lobby for trade policy privileges, and to facilitate the capacity of their firms to take advantage of potential rents; they also show the capacity to improve their performance in this regard. Firms too learn how to take advantage of trade policy rents, or if they do not, the gains are appropriated by others in the same value chain. For example, East Asian firms are increasingly operating in the Central American clothing sector to gain quota access to the USA. In principle, local firms could have taken full advantage of these quotas, but have lacked the motivation and capabilities to do so.

So, for these reasons, it is not possible to place these nine categories of rent in tight groupings. Moreover, it is clear from many of the examples given in Section 4, that many types of rent interact. For example, in considering the ability to reap resource rents let us consider two types of commodities – sugar and gold. In the case of sugar, the following rents are significant: (1) relational rents – extracting the maximum sucrose from cane requires the ability to grow cane effectively and to crush the cane within twenty-four hours of harvesting; and these capabilities make great demands of agricultural extension and the links between the farm and the factory; (2) infrastructural rents – the road network is critical to deliver cane to the mill for crushing, and reliable energy is important in sugar-processing; (3) finance rents – sugar mills are costly and have a long gestation period in construction; (4) trade policy rents – these are the single most important determinant of profitable operation. On the other hand, some rents are not important in this sector. Technological and organisational rents in sugar processing are insignificant since most producers have mastered these functions. The inability to differentiate the final product means that marketing rents play a small role, and resource rents are unimportant since high-yielding cane can be grown in many countries.

By contrast, resource rents are important in gold production, where ore concentrations play the critical role in profitability. So, too are organisational rents, as new work practices are adopted based upon the

experience of the manufacturing sector. Both of these make demands on training and human resources. Relational rents are beginning to become important in supply chain development, and finance and infrastructural rents have been critical in this sector since the onset of modern gold-mining. However, product and marketing rents, and trade policy rents are not important in this sector.

Similar but different stories can be told across and within each sector. In some – especially the discrete products sector which involves the assembly of components – organisational and relational rents are important, as are product and marketing rents. In others such as biotechnology and information and communications technologies, high-level human resource rents and infrastructural rents are critical. Finance is important in capital-intensive process industries, and so on.

Thus, whilst it may be empirically difficult to separate out the role played by different components of rent, the analytical distinctions between these different types of rent are nevertheless important. But, more important, and perhaps the single most important observation that can be made with regard to the structure of rents, is that they are transient in nature. Although there is a continuous ebb and flow of rents in any one sector as innovations change the boundaries of profitability, two types of rent are particularly threatened in the current environment. The first of these are trade policy rents. Between 1930 and 1950, these rents were of considerable significance as a consequence of beggar-my-neighbour protectionism. But the advance of liberalisation after World War Two has meant that they have become progressively less important. Post-Uruguay Round, it is even possible that most trade rents will be eliminated, posing considerable problems for countries previously dependent on them. For example, the Caribbean and Windward Islands are suffering as their preferential access to the European banana market has been eroded. Some developing countries that have gained through MFA quota access in the clothing and textiles sectors – for example, Mauritius and Bangladesh – are also likely to be adversely affected in coming years. The second type of threatened rents are those involving resources that have been increasingly threatened by technological progress: for example natural rubber by synthetic substitutes, and steel, whose market in the auto industry is increasingly being eroded by aluminium and composites. Not all forms of resource rent are threatened however: for instance, water is likely to become an increasingly important asset in the twenty-first century. But it is a general trend, and one of particular significance to LDCs, not just because many of them are rich in natural resources but also because their relative inability to appropriate other forms of rent makes them particularly vulnerable to the erosion of resource rents.

Other forms of rent are also transient in nature. Although organisational rents were important at the turn of the twentieth century when mass production and Taylorist work processes were introduced across industries, they were relatively unimportant in subsequent decades. However, in the 1980s, a range of new organisational techniques was introduced which have transformed intra-firm organisation and made this a major source of rent. The same can be said for advances in inter-firm relations. Recent innovations in supply chain development and in networking arising out of Japanese and Italian experience raise the importance of relational rents. And as global incomes have risen, so product and marketing rents have become prevalent across a range of sectors.

From the perspective of a firm or country trying to come to terms with this dynamic structure of rents, three lessons are critically important. The first is an awareness of the importance of different forms of rent in a dynamic context: which types of rent are waxing and which are waning. The second is to develop the capacity to appropriate rents. For example, for firms in LDCs, it is all very well being aware of the growing importance of technology rents, but the barriers to entry may be insuperable. Instead, it may be easier to appropriate organisational and relational rents, in part because they are not capital-intensive, in part because they do not require high-level human resource skills, and in part because LDC firms are not fettered by the legacy of anachronistic work processes. But, third, to avoid immiserising growth it is essential that new forms of rent are identified and appropriated. This applies in relation to different types of ‘sub-rents’, that is, new forms of organisational rent, access to new types of trade policy rent, and so on. However it also involves the identification of new categories of rent, beyond the nine categories discussed in Section 4 – the Nth rent. The search for the Nth rent may be considered the holy grail of sustainable income growth.

6 WHAT DOES THIS MEAN FOR THE GLOBAL DISTRIBUTION OF INCOME?

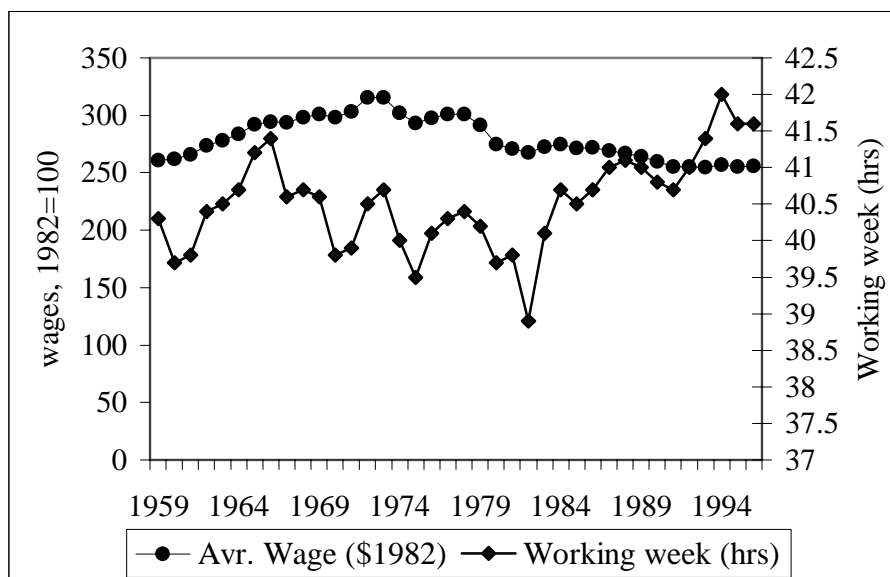
The primary concern of this paper has been to explore changing patterns in the global distribution of activity and the global distribution of income. In previous eras, participation in industrial segments of the value chain provided the source for sustainable income growth. But, increasingly, in a globalising economy these industrial niches have become highly competitive, raising the spectre of immiserising industrial growth. In order to explore this subject I have used three theoretical and heuristic concepts: rent, commodities and value chains. Working in this framework I identified nine spheres of rent – that is, attributes that enable producers to escape from the competitive pressures that drive down their terms of trade and that drive them into patterns of immiserising growth. The key developmental tasks are to develop first the ability to identify emerging areas of rent and then the capacity to appropriate those rents that are realistically within grasp. But because of the dynamic nature of rents, it is essential that firms develop the capacity to learn, so that they can adjust nimbly to changing circumstances.

This analysis has policy implications at a number of levels: for the firm; for inter-firm relations; for non-firm institutions in the national system of innovation that support innovative activities (for example, business associations and science and technology institutions); for governments (both regional and national); and for trades unions and other workers’ organisations. It involves the adoption of a strategy that runs against the advice given to developing countries to specialise in activities and sectors of static comparative advantage. This is because segments of static comparative advantage are invariably highly competitive and involve the production of commodities. As Porter remarks, ‘[c]ompetitive advantage that rests on factor costs is vulnerable to even lower factor costs somewhere else, or governments willing to subsidize them. Today’s low labor cost country [which produces commodities] is rapidly displaced by tomorrow’s... Rapidly shifting factor advantage continually attracts new entrants who bid down profits and hold down wages.’ Porter adds that ‘[d]eveloping nations are frequently trapped in such industries’ (Porter 1990: 15).

The danger of immiserising growth is not confined to developing countries. Real average wages in the USA have fallen despite an increase in the length of the working week (Figure 7) and there has been a

significant increase in the share of the workforce earning less than \$15,000 at 1995 prices (United States 1997: Chart 5–3). It is also instructive that American exports are growing most rapidly in those sectors paying below-average wages, and imports are growing most rapidly in those sectors paying above-average wages (Lee 1997). This would suggest that even such a sophisticated economy as the USA faces the prospect of moving from rent-rich to rent-poor segments of production.

Figure 7: Index of real wages and the length of the working week in the USA, 1959–96



Source: Calculated from United States 1997: Table B-45

This analysis has implications for the distribution of income, both intra-nationally and internationally. I will conclude by briefly focusing on the international dimensions of this problem. Here, two conclusions can be drawn from the analysis. First, there will be a tendency for the income of ‘commodity factors’ – that is, factors of production in widespread supply – to fall. In the current phase of history, the factor income most affected by these competitive forces is the wage of those elements of the labour force that are abundantly available. (In previous eras with an unlimited supply of land, it would have been land rents that would have fallen.) Increasingly this is a phenomenon affecting not just unskilled and illiterate labour, but also those with basic education (‘bas-ed’ in Wood’s terms – Wood 1994). This is because, as we saw above, even countries with low levels of HRD such as India have hundreds of millions of people who are literate.

How low will these factor incomes fall? Maintaining our focus on labour, this depends on the size of the labour reservoir, the costs of reproduction of labour and the size of the social wage. Consider first the case of a closed economy with excess labour. One possibility is that the labour reservoir will be rapidly mopped up with growth. But if the labour reservoir is too large to be absorbed, wages will fall to a level that covers the basic cost of living. However, this cost of living is socially defined, and in a country with a long history of labour organisation and above-subsistence living standards, the socially defined ‘minimum wage’ will be greater than the costs of ensuring basic survival. But if the size of the labour reservoir is increased as

the economy is opened up into a labour-surplus global world, this socially defined 'minimum wage' will alter to reflect the social conditions pertaining in the labour reservoir. With globalisation, this reservoir is now increasingly in China and East and South Asia. A third factor influencing the fall in real wages is the size of the social wage provided by the state. Unlike the USA, most European governments provide a social wage which means that workers do not have to experience reduced real wages – they can choose the alternative of unemployment. The durability of this intra-national cross-subsidy is not easy to predict but it is likely that with the passage of time, the levels of subsidy required will become socially unacceptable, not least because of the changing demographic profile in the industrialised countries. In addition, the mobility of capital globally means that the ability of states to generate the taxes necessary to support the social wage is increasingly diminished. Thus, a solution to this impasse – restricted state revenues on the one hand and political resistance to the lowering of the wage on the other hand – is to impose barriers to the entry of 'imported labour' (that is, labour embodied in imported goods and services), suggesting a rise in protectionism. A further possibility is that, with global growth, the labour reservoir dries up, so that labour scarcity forces a rise in the global minimum wage. However, this is an academic possibility, since the vast numbers of unemployed and underemployed labour around the world makes this scenario difficult to envisage, at least in the foreseeable future.

One final point on the implications of globalisation for wages concerns the definition of the minimum wage. This is not just a reflection of the socially defined parameters we have discussed above, but also a matter of the time horizon. In the long run, wages need to cover the investment costs in feeding and training workers until they reach working age. But in the short run, with a reservoir of surplus labour, it is possible that the wage rate will fall to the marginal costs of living in the labour reservoir, that is, covering only the calorific value of sustaining a basic working life. The difference between these two rates will be affected by the size of the labour reservoir.

The above discussion has focused on the returns to labour-as-a-commodity, that is, unskilled labour in a globalised economy with few barriers to entry in either final product markets or in labour markets (that is, through migration). The same principles apply to all those factor and product markets characterised by low barriers to entry. In the contemporary world, this particularly affects firms and countries depending on natural resources and trade policy privileges. But increasingly as global competition spreads 'best practice', these conditions of intense competition are to be found with respect to the other types of rent discussed above.

The second distributional issue highlighted by the analysis concerns the inter-country distribution of income. I have argued that through a process of competitive devaluation, levels of national income may depreciate as a consequence of global competitive pressures. This suggests a zero-sum game in international trade: that is, the gains in living standards of some countries (which are able to appropriate rents) are achieved at the expense of those countries that are locked into the production of commodities. Indeed, this is a logical outcome of the process of 'upgrading', that is, *production is upgraded in comparison to the achievements of competitors*. The very act of upgrading necessarily downgrades those who fail to match the innovation. Once again, though, these conditions only pertain in a world of surplus labour, or where barriers

to entry in a significant number of factor and product markets are being continuously eroded through competition.

This is an argument about the barter terms of trade, the rate of exchange between (rent-rich) and (rent-poor) products. This need not necessarily translate into declining national incomes, that is, into declining income terms of trade. For declining income terms of trade to prevail, it is necessary that the rate of growth of exports should not compensate for the declining barter terms of trade. Some countries, such as China, have been able to sustain higher levels of average national per capita income despite falling barter terms of trade as a result of the growth in the market for their goods in major consuming countries. Here two points need to be borne in mind. First, the market for China's products has grown at the cost of those for other countries; that is, China's market share has grown (see Table 1). Second, it has also grown at the cost of employment in the consuming countries (Wood 1994). Thus, in a world of significant structural unemployment – in both consuming and producing countries – it is unlikely that this increase in the income terms of trade can be sustained, except for a select group of countries who either are able to depreciate their wages most rapidly ('a race to the bottom') or begin to appropriate one or more of the categories of rent discussed in Section 4. But even if the income terms of trade increase – that is, if export growth outweighs the depreciation of the exchange rate – this may not translate into economic growth, or into the optimal rate of economic growth. This is because the export of these commodities (which amounts to only a part of national output) involves the allocation of scarce resources which could have been used in other activities.

On the other hand, although both the barter and income terms of trade might decline, there might nevertheless be an improvement in the factoral terms of trade. That is, if the productivity of factors in producing countries increases more rapidly than the decline in income terms of trade, then those employed might still gain in real terms. However, even if this occurs, the implications for national average levels of income growth might still be negative. This is possibly what is currently occurring in China, where large numbers of people are facing a decline into poverty, even as real wages in the exporting sectors continues to rise.

What follows from all of this is a gloomy picture. In a globalising world of surplus labour, the focus on rent and upgrading seems to lead to the prediction of declining real wages and declining real incomes in those countries specialising in rent-poor products.²⁹ These developments are most graphically illustrated in relation to unskilled labour or labour with low levels of skills. But in principle they apply to other factors and products as well. The challenge thus confronting producers everywhere it is upgrade by appropriating whatever categories of rent are within their grasp, but to do so more rapidly than competitors in the knowledge that a rate of innovation lower than the average will result in immiserising growth. It suggests a frantic and ever-quickening pace of continual adjustment.

Is this process of globalisation durable? Who knows, since the outcome is essentially a consequence of complex social processes. But the likelihood exists that in many countries there will be a revolt against these pressures of globalisation, an attempt by those who lose from the process of globalisation to redefine the boundaries of who they are competing against. This is essentially a fight around the *social* costs of labour

reproduction, and will inevitably once again bring the discussion of trade barriers, of other forms of regulation and of government revenues and social expenditures to the forefront of political discourse.

NOTES

1. Sutcliffe's 1969 text remains the most comprehensive and helpful statement of the case for industrialisation.
2. Another important set of critiques (which is not germane to this paper) has focused on the pattern of intranational inequality associated with industrialisation. See Sutcliffe (1984) Stewart (1979) and Kaplinsky (1990).
3. The phrase 'immiserising growth' was first introduced by Bhagwati (1958). For a review of thinking on the concept, see Bhagwati (1987).
4. For an elaboration of this discussion, see Kaplinsky (1993).
5. This was because duty-free access to the US market was contingent upon using materials sourced from the USA.
6. Calculations have not been made for other economies in the region, but there is no reason to believe that these would show a different picture.
7. I am grateful to Gary Gereffi for drawing this data to my attention.
8. In fact, immiserising growth need not only follow when export volumes grow more slowly than the decline in terms of trade, since exports have a real resource cost, and even when overall export receipts do grow, the opportunity cost of these exports may lead to a decline in income levels.
9. I am aware that it is common to view particular products as being commodities, such that sugar is a 'commodity' irrespective of the market in which it is produced and sold. However, for reasons that will become clear in the discussion that follows, it is important to tighten this definition, in the same way (as we shall see) that the distinction is made between rent as a factor income, and economic rent as a return to scarcity.
10. Schumpeter (1961: 128) identifies four sets of costs: wages, rent on land, interest on capital, and a premium for risk.
11. 'Without development there is no [entrepreneurial] profit, without [entrepreneurial] profit there is no development. For the capitalist system, it must be added further that without [entrepreneurial] profit there would be no accumulation of wealth' (Schumpeter 1961: 154).
12. '[N]o rent could be paid for such land [which is first settled and is abundant], for the reason stated why nothing is given for the use of air, and water, or for any of the other gifts of nature that exist in boundless quantity.... [N]o charge is made for the use of these natural aids, because they are inexhaustible and at every man's disposal' (Ricardo 1817).
13. 'The balance of advantage seems to lie in favour of reserving the term Rent for the income derived from the free gifts of nature, whenever the discussion of business affairs passes from the point of view of the individual to that of society at large. And for that reason the term Quasi-rent will be used ... for the income derived from machines and other appliances for production made by man. That is to say, any particular machine may yield an income which is of the nature of a rent, and which is sometimes called a Rent; though, on the whole, there seems to be some advantage in calling it a Quasi-rent' (Marshall 1890: 62-3).

14. 'If the surplus produce which land affords in the form of rent be an advantage, it is desirable that, every year, the machinery newly constructed should be less efficient than the old, as that would undoubtedly give a greater exchangeable value to the goods manufactured, not only by that machinery but by all the other machinery in the kingdom; and a rent would be paid to all those who possessed the most productive machinery' (Schumpeter 1961: 39).

15 . Notwithstanding Alchian's view of Marshall's treatment of quasi-rent that 'Quasi-rent resembles an "economic rent" in that it exceeds the amount required for its current use, *albeit temporarily*' (emphasis added) (Alchian 1987: 141).

16. Indeed, with growing concerns about the environmental impact of consumption, the concept of the production chain should also incorporate the final link of disposal.

17. The insights provided on chain governance are a valuable contribution to conceptual understanding. The problem with the use of the phrase 'global *commodity* chain' is that it implicitly negates the idea of upgrading that underlies the challenge of providing sustainable income growth, since as we observed in earlier sections, it is the commoditisation of products that explains the phenomenon of immiserising growth.

18. This is not the same as bringing more of the productive activities into the firm. On the contrary, in many cases it is argued that it is only by outsourcing peripheral activities that the firm can concentrate on its core competences and hence upgrade its operations.

19. Readers may wish to skip the detailed discussion in this section and to proceed to sections 5 and 6 to the subject of new categories of rent and their implications for the global distribution of income.

20. According to a BBC documentary, farm labour only accounts for 1 per cent of the UK supermarket selling price of mangetout.

21. On the other hand, there are some cases where new trade policy rents are to be found. New forms of regional integration – such as the proposed Free Trade Area for SADC – show the possibilities for significant trade creation, which is likely to pave the way for future dynamic benefits (Evans 1996). However, here too, in the medium- to long-run, upgraded productive capabilities will also be required if income growth is to be sustained.

22. Yoffie (1983) gives a number of examples of the flexibility of East Asian producers in taking advantage of changing trade policy rents. For example, in the 1970s, Hong Kong producers had exceeded their MFA quota limits on coats, but not on vests or apparel components. A fashion was thus deliberately created of jackets that had zipped sleeves and collars. This allowed the Hong Kong producers to continue to ship 'vests' and 'components' (sleeves and collars), and then allowed these to be rapidly assembled in the final markets prior to sale.

23. Some believe that the benefits of this latest round of technological change have systematically been underrecorded in national accounts statistics (European Commission 1996).

24. For the case of South Africa, see Blankley and Kaplan 1997.

25. For example, under US pressure, most countries have been forced not only to agree to recognise copyright, but also to use the US formulation of the life of the originator plus seventy-five years, rather than the European standard of life plus fifty years. For a discussion of the power politics the primary generators

of technology used to enforce their property rights over users in other parts of the world, especially LDCs, see Kaplinsky 1988.

26. There were of course important differences between Japanese firms. Nissan systematically pursued a more advanced technological path than did Toyota (Cusumano 1985).

27. Schmitz (1995a) characterises the combination of these two elements as collective efficiency.

28. As a consequence of pressure both from the top end of the market and from low-end non-branded goods, in 1997 Levi's was forced to retrench one-third of its US labour force (*Guardian*, 4 November 1997).

29. Benefits arising to consumers as a consequence of low-price imports are taken account of in the consumer price index used in the calculation of real wages.

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