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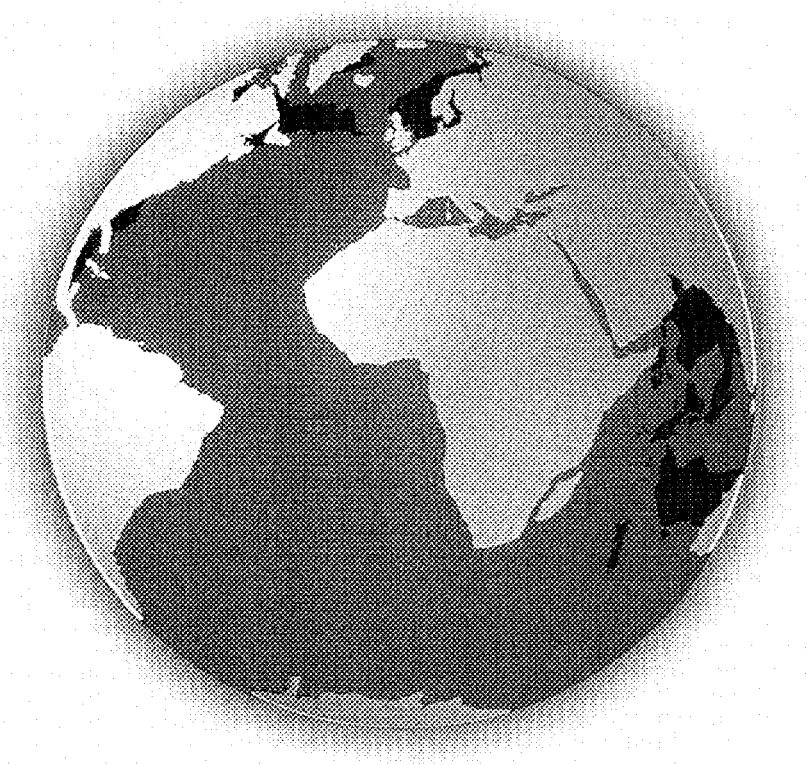
INDUSTRY AND TRADE IN A GLOBAL ECONOMY



With Special Reference to Sub-Saharan Africa

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
economy environment employment

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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Vienna, December 2000

ACKNOWLEDGEMENT
This publication has been prepared by Ms. Ankie Hoogvelt in cooperation with the Industrial Policies and Research Branch, Investment Promotion and Institutional Capacity-Building Division, of UNIDO under the direction of Ms. Remie Touré and Ms. Vera Gregor, Senior Industrial Development Officers. Overall guidance was provided by Mr. Jean Frédéric Richard, Director, Industrial Policies and Research Branch. Ms. Laura Reynaldo-Crisostomo, provided secretarial and administrative support.

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Introduction

This paper is divided into two main parts. The first part deals with deep structural changes in the global economy, with new trends in trade and capital flows, with emerging networks of global manufacturing and global services, and with the consequent reshaping of the world order based on social rather than geographic divisions. These changes are explained by the ascendancy of a "real-time" new economy driven by accelerated technological change, more especially the fusion of telecommunications with information processing. To the impatient reader it may seem that little of this has any direct bearing on the situation in sub-Saharan Africa. And indeed, in many respects this is so. The disheartening message of this tale is that sub-Saharan Africa is largely left out of the loop of the emerging global knowledge economy and informational society of the twenty-first century.

In the second part of this paper, the effects of all these changes on sub-Saharan Africa are reviewed, and two relevant propositions are made. The first is that the present neoliberal international trade regime and the complementary imposition by the international financial institutions of stabilization and structural adjustment policies on indebted countries in sub-Saharan Africa have had the effect of keeping the continent out of the loop of the emerging new economy, and instead have imprisoned its economic resource base more firmly within the old. The second proposition is much more hopeful. The very speed of contemporary technological change within the context of open and aggressively global competition, offers great opportunities, more especially, to sub-Saharan Africa precisely because it has been excluded thus far.

Consistent with the generalist ambit of this paper, the conclusion offers recommendations for strategic reorientation, rather than specific policy-based solutions.

1. Globalization and the new economy

1.1 Globalization: three perspectives

The term "globalization" became fashionable in the 1980s when it began to replace words like "internationalization" and "transnationalization" as a suitable term to denote the ever-intensifying networks of cross-border interaction in all domains of human activity: social, political, cultural, financial and economic. The concept covers an enormous variety of contemporary social change, the connections between which, even 20 years on, are not yet clear. Indeed, there is a continuing debate as to whether there is such a thing as globalization at all.

A recent authoritative review has identified three broad perspectives: a hyperglobalist, a sceptical and a transformationalist position.[1] The differences between these perspectives have to do with whether one approaches the question of globalization from the vantage point of power, of markets, or of social space.

1.1.1 Globalization: market power and the decline of the State

At one end of the spectrum is the hyperglobalist thesis. This thesis is advanced by those who focus on the transnationalization of business organization and compare it with the diminishing powers of the nation State.[2] They argue that economic globalization is bringing about the denationalization of economies through the establishment of the transnational organization of production, trade and finance. In this borderless economy, national Governments are said to be relegated to little more than transmission belts for global capital, fashioning domestic economic and social policies to the exigencies of the global market. Meanwhile the declining authority of States is paralleled by a diffusion of authority to other institutions and associations and to local and regional bodies.

Within this hyperglobalist position, normative ideologies clash. Some celebrate the triumph of the global market discipline over State power, while others bemoan the triumph of oppressive global capitalism. But the key consensus within this perspective is that there already exists today an integrated global capitalist economy which imposes a neoliberal economic discipline on all Governments such that politics is no longer the art of the possible, but rather the practice of sound economic management.

1.1.2 Globalization: historical continuity of world markets

The sceptics draw on longitudinal data based on proxy measures of cross-border market integration, namely, trade and capital flows, and point out that there is nothing new, and that the world was probably more integrated during the heyday of the colonial period than even today.[3] As Paul Krugman of the Massachusetts Institute of Technology (MIT) put it not very long ago: "There is nothing more to the global economy than trade in goods, services, capital, labour and information, and 'that's it'.... There is no more mystical sense in which we have a global economy. We are living in a world which is about as integrated, give or take a few measures, as the world of the nineteenth century."[4] A leading political scientist of the United States of America, Kenneth Waltz, echoed, in 1999: "Although interdependence may have increased in recent decades, it has done so only to 1910 levels of trade and capital flows as a percentage of GNP".[5]

Some of the facts are presented below.

In respect of capital integration, the sceptics draw attention to the fact that global financial markets continue to fail the critical test of integration, namely, interest rate convergence. Short-term interest rate differentials, for example are no smaller now than they were 100 years ago.[6] In respect of capital flows, the point is made that as a share of industrial country GDP, capital transfers are actually smaller than in the 1890s.[7] As for trade, the pertinent facts are that, until the very early 1990s, cross-border trade as a percentage of global GDP struggled to get to the level of 1913, when over one third of all that was produced in the world flowed across borders.[8] And while it is true that the growth of world trade during the 1990s has surged ahead of world output much faster than in the 1970s and 1980s, data on trade participation by various groups of countries show that intensity of trade is not the same as extensity of trade.[9]

1.1.3 Concentration and marginalization

Indeed, we must not confuse globalization with the integration of real economies worldwide. While globalization has proceeded in the last few decades, the geographic reach of world capitalism has actually receded. For example, if we take as an indicator of global reach the percentage share of all five continents, then we find that the percentage share of two and a half continents (with a population of over 70 per cent of the world total), namely Latin America and Africa plus Asia outside of the Association of South-East Asian Nations (ASEAN) and Japan, has actually decreased over the last 50 years.

The overwhelming preponderance of the four first-tier newly industrialized economies (NIEs)—Hong Kong Special Administrative Region (SAR) of China, Taiwan Province of China, the Republic of Korea and Singapore—in the developing world's trade participation is all too often ignored in the hype about world trade integration. Calculations made by the secretariat of the United Nations Conference on Trade and Development (UNCTAD) show just how much of the post-war trade growth of the developing countries has been, and continues to be, captured by just these four small economies. Their combined population is 71 million, or a mere 3.5 per cent of the total population of the developing world, and yet they contribute about one third of all the trade of the developing countries.[10]

This story of concentration and marginalization also applies to capital flows. In the colonial period, right up till 1960, the Third World had received one half of all global direct investment flows; this percentage declined to one third in 1966, to one quarter in 1974, and to an all time low of 16 per cent by 1988, when over half of the remaining trickle went to the regions of east and south-east Asia.[11] In sum, during the post-war period, foreign direct investment (FDI) switched away from the far-flung empires of the past into a concentration in just three regions of the world economy: the United States of America, Europe and east Asia.

As was the case with international trade, it seems superficially as if the 1990s have seen a monumental turnaround in fortunes, with the developing world, as a whole, receiving no less than 38 per cent of the total of world FDI by 1997.[12] This time, Hong Kong SAR and Singapore are not even included in the developing group. However, this recent FDI-led integration, too, is a highly selective affair. One third of all developing-country inflow goes into China, where it ends up in just 8 coastal provinces and Beijing, which together number just one sixth of the population; and 90 per cent of all developing-country FDI flows end up

in just 10 countries which, including the coastal regions of China, comprise about 16 per cent of the world population.[13]

A third and final proxy measure of world integration is the size and direction of portfolio flows. Excluding FDI, net long-term private flows (commercial bank loans, portfolio equity and bonds) to the developing countries increased sixfold from 20 billion United States dollars ($) in 1990 to over $130 billion in 1997.[14] But the direction of these flows, once again, has been extremely selective, with 60 per cent going to six major recipients in the developing world, and 94 per cent going to 20 countries including four so-called transition economies in central and eastern Europe.[15] In fact, as the United Nations Development Programme (UNDP) *Human Development Report* notes, today only 25 developing countries have access to private markets for bonds, commercial bank loans and portfolio equity. The rest, sub-Saharan countries included, are shut out for lack of credit rating.[16] Furthermore, if we measure these flows in real as opposed to nominal money terms, then the developing world's recent surge in capital inflows looks even more modest. As UNCTAD notes, in 1999: "Despite the much acclaimed absolute rise in capital inflows of developing countries in the 1990s, they have averaged around 5 per cent of GNP since the beginning of the decade which was roughly the level prevailing before the outbreak of the debt crisis of the 1980s. If China is excluded, the ratio during 1990-1998 was more than one percentage point lower than during 1975-1982."[17]

1.1.4 Globalization: the variable social space of the informational economy

If, for the sceptics, there is no difference between the present and the past, and for the hyperglobalizers, the future is already here, a third position is taken by the transformationalists for whom the present is qualitatively different from the past, yet the future is still open-ended. Writers such as Giddens,[18] Hoogvelt,[19] and most importantly Castells,[20] take as their starting point neither markets, nor power, but the development of information technology, and, more especially, the fusion of information technology with telecommunications which can be precisely dated to the early 1980s. Together, these have brought "the annihilation of space through time" and the consequent ascendancy of real time over clock time. Real-time economic activities and transactions (think of Internet business, satellite TV, electronic money transfers) are those in which price signals and other stimuli to economic behaviour are transmitted to economic participants simultaneously around the world regardless of clock-time differences that are determined by spatial distance.

In this view, globalization equates, in the first instance, to the unification of social space. This unification brings about a global network society and new economy based on the space of flows and on timeless time. Space is defined as the material support of time-sharing social practices. But while in earlier epochs space was prescribed by physical contiguity, today, space is articulated through the circuitry of electronic impulses (microelectronics, telecommunications, computer processing, broadcasting systems etc.). This space is fundamentally as borderless as it is timeless. As Manuel Castells has described it, at the coordinates of this circuitry, there emerge nodes and hubs which are, indeed, specific places, with well-defined social, cultural and functional characteristics, as well as physical locality (think of Silicon Valley in California, the "Cambridge Corridor", and the "silicon valley" of Bangalore, India). Between the nodes and hubs traverse the flows of capital, of knowledge and information, of technological designs and controls and of other organizational interactions, of images, sounds and symbols. These flows dominate the places, and not the other way around. The nodes and hubs are hierarchically organized depending on the weight

of their relative functions in the network. Thus, in the networks of the global economy only segments of economic structures, countries, regions and populations are linked up, and they are linked up in proportion to their particular position in this, the newest, international division of labour. Other sectors, agents and local groups are disconnected and marginalized. But crucially, the global network hierarchy continually adapts and adjusts to its competitive, information-driven environment with the result that sometimes places are switched off, or downgraded while others are being incorporated, upgraded or even created. Thus the global economy is highly dynamic, highly exclusionary and highly unstable in its boundaries. It is characterized by a variable geometry that dissolves historical, economic geography.[21]

This transformationalist position allows for a degree of optimism about the prospects of inclusion into the globalized economy. The pursuit of the right kind of social and economic policies by national Governments (development of information infrastructure, education and training for the new, knowledge, digital or real-time economy being the most important ones) can make a difference in so far as it may succeed in placing segments of businesses and of workers in any country within the loop of global business flows. However, this view is also marred by pessimism about the systemically exclusionary nature of the process itself.

1.2 Real-time markets, flexible enterprise organization, and a new global division of labour

The ascendancy of real time over clock time has its own logic that drives the economics of globalization. The focus in this section will be on just three areas that are relevant, namely digital or electronic markets, the network enterprise organization, and an evolving new global division of labour. Other effects, most importantly in the financial sphere, are not here addressed for lack of space.

1.2.1 Markets: from physical to digital markets

First, the ascendancy of real time supports the emergence of a global market discipline as contrasted with the existence of a mere global marketplace, or even a global market principle. Whereas a global marketplace refers to physical cross-border trade, and a global market principle refers to the emergence, through global competition, of structural constraints of unified standards of quality, costs and prices, a global market discipline refers to the manner in which these structural constraints are being internalized by individual agents in their own conduct. The real-time-mediated (through satellite TV, the Internet etc.) awareness and consciousness of the structural conditions of global competition constrain individuals and groups, and especially national Governments to conform to international standards. Workers come to accept that it is "proper" that jobs should be lost because their company has to move elsewhere, where wages and social conditions are less demanding. Charles Sabel recalls visiting German Mercedes plants where charts of defect rates for specific processes were displayed on telescreens next to equivalent data for the Mercedes subsidiary in Brazil, whose results were better than that of the German facility.[22] The workers in these two continents were constantly made aware of each other's speed and quality of operation. This establishes a global social discipline that constrains the behaviour of Brazilian and German workers alike. It is a social discipline that ultimately drives down wages and working conditions to the lowest common denominator all around the planet. The same applies, mutatis mutandis, to capitalist entrepreneurs, consumers and national Governments.

By logical corollary, we may put the theoretical proposition that the difference between a global marketplace and a global market discipline is that whereas, in the case of the former, the market price is the outcome of the interplay between supply and demand, in which supply has always been a function of so-called cost price plus calculations, in the case of a global market discipline, prices are determined on the market price minus principle. In the real-time world of digital markets we see, for example, the emergence of what have been termed reverse markets or auction markets in which consumers post online what they are willing to pay for products or services.[23] Priceline.com, for example, is an online auction place that allows consumers to set the price at which they will buy an airplane ticket. Airlines can then decide if they want to "hit the bid" and fill a consumer's order. On a big scale, producer/ manufacturing companies, such as General Electric, Ford and Chrysler, have web-based links to their suppliers that enable these to make bids for component contracts. For example, FreeMarkets Online has developed software that enables large industrial buyers to organize online auctions for qualified suppliers of semistandard parts like fabricated electronic components. Auction bidding drives the cost down to the purchaser by about 15-40 per cent.[24] The cost-reducing potential of digital (real-time) markets constitutes the core of the claims by globalists and new economy enthusiasts of all-round growth and prosperity.

1.2.2 Enterprise organization: flexible connectivity

Second, real-time social space reorders the way economic activities are being conceptualized and, as a consequence, organized. Whereas, before, it was common to classify economic activities either into three categories—primary, secondary and tertiary (agriculture, industry and services)—or, as in more recent works on international economics, into a chain of high-value-added and low-value-added activities, today, it makes more sense to reorder economic activities into two: real-time activities where distance and location are no longer relevant as a determinant of economic operations, and material activities where there is still some "friction of space" that limits choice of location. This twofold conceptualization is beginning to inform the organization of transnational business today, and, in consequence, it is generating an entirely new global division of labour.

As the costs of transporting standard products and of communicating information about them continue to drop, modern factories and state-of-the-art machinery can be installed almost anywhere on the globe. The application of information technologies (computer-aided design (CAD), computer-aided manufacturing (CAM) and computer-numerical control (CNC) for instance) to the production process has made production capacity in many industries sufficiently flexible to be viewed as a commodity. Two characteristics of modern product and process descriptions, namely, transportability and precise reproducibility have reduced the need to collocate engineering and design with manufacturing except for pilot production.[25] Virtual engineered composites (VEC) technology is the latest step in this revolutionary change. It means that thousands of moulded products can be manufactured faster, cleaner and cheaper and by remote control over the Internet.[26] The implication is that almost all activities of an industrial, indeed any firm, can be outsourced and outsourced competitively.[27]The result is the evolution of multinational enterprise from corporate organization to a loosely confederated network structure in which many discrete fabrication activities and services are bought in the short term, relieving the buyer of the cost of accessing capacity by committing to its continued use.

Consequently, in one path of evolution (e.g. the Benetton model) global industry is developing networks of small independent businesses, spatially dispersed over many

different countries, who are providers of flexible capacity and who compete with one another within the electronic network. In another path of evolution, we encounter a dramatic configuration of the corporate organizational model from vertical bureaucracy to what some have termed "adhocracy", others "the horizontal organization"[28] and still others, the "post entrepreneurial firm".[29] In a third, one observes the interlinking of large corporations in new strategic alliances and cooperative ventures.

The fusion of telecommunications with computer technology has provided the enabling technical framework for all three evolutionary paths towards flexible connectivity in which "the actual operating unit becomes the business project, enacted by the network, rather than individual companies or formal groupings of companies".[30]

On the positive side, the network enterprise model of dispersed manufacturing lowers barriers to entry to non-traditional participants. Enabling regulatory frameworks by national and supranational authorities of quality assurance through advance process certification, for example, ISO 9000, are designed to widen the scope for best-supplier status away from traditional long-term cosy relations between buyers and their dedicated suppliers and towards greater openness and inclusion. This, in principle, allows small companies from poor countries to compete for business with big established ones from rich countries.[31]

1.2.3 A new global division of labour and a new core-periphery hierarchy

Routine producers in the United Kingdom of Great Britain and Northern Ireland and the United States therefore are in direct competition with millions of producers in other nations. In his book, *The Work of Nations*, Robert Reich, one-time Secretary of State for Labor in the Clinton administration, gives spectacular examples of the speed with which factories and productive capital investments have become footloose. For instance, until the late 1970s, the American telephone and telecommunications company AT&T had depended on routine producers in Louisiana to assemble standard telephones. It then discovered that producers in Singapore would perform the same tasks at a far lower cost. Faced with intense global competition, they then had to switch to cheaper routine producers in Singapore. But already by the late 1980s, they switched production again, this time to Thailand.[32]

Such transferable routine production is no longer the preserve of deskilled jobs in "old-economy" industrial plants. The fusion of computer technology with telecommunications makes it possible for firms to relocate an ever-expanding range of operations and functions to wherever cost-competitive labour, assets and infrastructure are available. The new technologies make it feasible to standardize, routinize and coordinate activities, which previously were subject to the friction of space and, therefore, regarded as non-tradeable. They enable such activities to be turned into real-time activities.

Take, for example, data-processing services of all kinds. Airlines employ data processors from Barbados to Bombay to punch in names and flight numbers into giant computer banks located in Dallas or London. Book and magazine publishers use routine operators around the world to convert manuscripts into computer-readable form and send them back to the parent firm at the speed of electronic impulses. In the Caribbean, women do outsource work for United States firms, processing airline tickets, credit-card transactions and other company data. The New York Life Insurance Company dispatches insurance claims to Castle island, Ireland, where routine producers, guided by simple directions, enter the claims and determine the amounts due, then instantly transmit the computations back to the United States.[33]

Software firms export much of their development work to Bangalore in India which tries to position itself as the Silicon Valley of Asia. In China, call centres have been set up to handle the growth in paging services in Hong Kong SAR, while Ireland is pitching for call centre work across Europe.[34] New York medical consultants phone their patient reports to call centres in Bangalore and receive the typed versions back by e-mail attachments.

1.2.4 A new social core-periphery hierarchy

There was a time when the geography of the international (as opposed to the new global) division of labour ran parallel with the sequential transformation of goods in production from low-value-added activities to high-value-added activities.

The concept of a value-added chain expresses a sequential progression of factor incomes from lower-value-added to higher-value-added activities, as in the transformation of raw cotton to an end consumer product like a garment in a shop window, via intermediate stages of fabrication and processing: spinning, running, dyeing, weaving, cutting, designing, sewing, wholesaling, advertising, marketing and retailing. But there is more to the hierarchical progression than mere sequencing of transformation. The historical development of capitalism on a world scale had concentrated higher-value activities at the final, consumer, end of the chain (the consumer markets in the rich countries), while largely (though not exclusively) leaving low-value activities in the underdeveloped regions. This yielded a double effect, therefore, in so far as the wages of labour at higher stages of the transformation process, and, therefore, the pass-on prices, are likely to be higher there than at the lower end of the production chain. Furthermore, the more specialized the final product, again more typically at the rich consumer end of the chain, the higher the profit mark-up for such products due to the effect of limited demand. For all these reasons, bulk or volume production, which is typically concentrated at the lower end of the chain, yields lower value-added than specialized, high-tech products which are concentrated at the higher end of the value chain.

The prototype business model that exemplifies this international division of labour is the footwear company Nike. Nike subcontracts 100 per cent of its goods production to nearly 75,000 people employed by its independent subcontractors located in different countries. Its own 9,000 workers focus on design, product development, marketing, distribution, data processing, sales and administrative tasks. Nike has a performance-oriented inventory control system, making it possible to organize timely production from its different producers located abroad.[35] This looks promising until one remembers that the basketball player Michael Jordan who advertises the Nike brand name makes $20 million for his contract with Nike while all Nike's workers in the Third World together make $5 million a year.[36]

However, today something else is happening. As Paul Krugman has put it, it is now possible to "slice up" the value chain in a different way, and to also relocate the labour- intensive slices in the production of those goods traditionally viewed as skill, capital or technology-intensive, in low-wage locations.[37] Many information-intensive activities previously classed as high-value-added activities are today real-time activities that may be carried out anywhere in the global system. Software firms have exported much of their development work to Asia, in order to take advantage of much lower wages and to make up for the fact that only one third of the world's computer programmers live in the United States.

Thus, the global division of labour is rendering a core-periphery relationship that cuts across national and geographic boundaries, bringing on board, within the core, segments of the Third World, and relegating segments and groups in both the traditional core of the system and in the Third World to peripheral status. Core-periphery is becoming a social relationship, and no longer a geographic one.

This new social core-periphery hierarchy is set to become still more uneven than was previously the case. Many high-value-added activities that are contributed by so-called knowledge workers are extremely mobile. Marketing experts, computer consultants, legal affairs specialists, financial accountants and top managers can go to wherever they can obtain the highest price for their services. And, because of the operation of the global market discipline, payments for their services are being equalized across national boundaries, increasingly therefore, at the highest price. Silicon Valley in California, widely recognized as the fountainhead of today's knowledge economy where computer experts are remunerated in high salaries and stock options, has imported no less than one third of its talent from abroad.[38] But at the lower end of the value chain exactly the opposite is happening. Low-value-added activities are still typically tied to tools and equipment; that is, to knowledge embodied in capital and/or to the location where raw materials are extracted. At this end of the international production chain, it is capital and not labour that is mobile, a situation that is perpetuated by political intervention designed to stem the free migration of labour. The mobility of capital here implies that wage rates equalize at the lowest possible denominator, and this includes wage rates for such activities in the advanced countries. A recent study has warned of the global gales ahead. The move to market-oriented production in South America, Indonesia, India, parts of China and the rest of south-east Asia which is taking place today is likely to put 1.2 billion Third World workers into worldwide product and labour markets over the next generation. The vast majority of them earn less than $3 per day. As a consequence, wages in the traditional advanced countries are set to fall by as much as 50 per cent.[39]

Thus, globalization alters the balance of social classes on a worldwide scale. David Coates is right to point out that looking at it this way "globalization in its modern form is a process based less on the proliferation of computers than on the proliferation of proletariats ... . The world proletariat has doubled in size in a generation".[40]

1.3 Globalization: three global social layers

Globalization is thus rearranging the architecture of world order. Economic, social and power relations have been recast to resemble not the traditional pyramid of rich and poor countries but instead, a three-tier structure of concentric circles. All three circles cut across national and regional boundaries. In the core circle we find the elites of all continents and nations, albeit in different proportions in relation to their respective geographic hinterlands. Very roughly the figures are 40-30-30 in the rich countries, and 20-20-50 in the poor countries.[41] In sub-Saharan Africa, where the middle layer is largely missing, one would guess that the respective proportions are more like 10-20-70. Altogether, looking at the global scale and allowing for the more numerous absolute numbers living in the less developed countries, we may count in the core some 20 per cent of the world population who are "bankable".[42] They have secure incomes either from permanent employment contracts and/or from investments. They are encircled by a fluid, larger social layer of between 20 and 30 per cent of the world population (workers and their families) who labour in insecure forms of employment, thrown into intensive competition in the global market. State-of-the-art technology, frenzied capital mobility and neoliberal policies together ensure both a relentless elimination of jobs by

machines, and a driving down of wages and social conditions to the lowest global denominator. The third, and largest, concentric circle comprises those who are already effectively excluded from the global system. Performing neither a productive function, nor constituting a potential consumer market in the present stage of high-tech information-driven capitalism, there is, for the moment, neither theory, world view nor moral injunction, let alone a programme of action, to include them in universal progress. The present commitment by the international community to target aid flows on poverty alleviation, and the social protection measures that are currently on the agenda of some global agencies, are being regarded as a testimony to a fundamental shift of social policy away from redistribution and inclusion and towards residualization.[43]

One of the very first of such poverty-focused programmes was the World Bank's "Social Dimension of Adjustment" programme introduced in Ghana in 1987 under the acronym PAMSCAD (Programme of Actions to Mitigate the Social Costs of Adjustment). In his in-depth review of this programme, Eboe Hutchful has critiqued its limited funding (it relied more on restructuring of public spending rather than on new money), poor design, mistaken emphasis on income differentials between rural and urban poor, and its indifferent implementation. He argues that it reached in fact very few of the people affected by ERP (Economic Reform Programme), and that the so-called Poverty Policy of the Bank was merely a skilful blend of "smoke and mirrors" to enlist political support for the reforms.[44]

1.4 The new economy

There is today a gathering consensus that 25 years of investment in the new technologies and new business organizations, both in the traditional old-economy industries that manufacture producer goods and durable consumer goods, but more especially in the new high-tech sectors, including information technology (IT), biotechnology and the media, are finally paying off. Apostles of what has been dubbed the new economy point to the sustained productivity growth of the United States economy since 1994, which is now said to be spreading to other advanced countries.[45] At the macroeconomic level, the new-economy enthusiasts celebrate the coming together, in a virtuous circle, of this sustained productivity growth with low inflation and low unemployment. Some even hail the end of the classic business cycle, that scourge of the capitalist economy, in which short periods of boom are inevitably followed by bust. For these enthusiasts, at least, the prolonged crisis of capitalism that began in the early 1970s is definitely over.

Although the terms "real-time" economy and "new economy" are often used interchangeably, there is an analytical distinction to be made. While real time refers to the instantaneity of the process of economic interactions, the new economy is a theoretical concept that points to certain macroeconomic effects of a global economy in which real-time transactions are becoming paramount. Central to the argument of the rise of a 'new' economy is the notion that knowledge has become the most creative, value-adding factor in production. Whereas in the old economy, land, labour and capital were the only three generic factors of production, in the new economy, the critical assets are know-how, creativity, intelligence or information. Intelligence embedded in software and technology across a wide range of products has become more important than capital, materials or labour. As one writer puts it, "The key to economic advance are the 'recipes' we use to combine physical ingredients in more intelligent and creative ways".[46]

Whilst knowledge or information were always present in production, what characterizes the new economy is that the production of knowledge/information has itself become the leading branch of economic activity. In the United States, software companies now employ more than 800,000 people and employment in the industry is growing by 13 per cent per year, compared with a growth of 2.5 per cent in the rest of the private economy. At the same time, the IT sector, despite accounting for only about 8 per cent of United States GDP, now contributes 35 per cent of the country's economic growth.[47] This is why Manuel Castells, for example, characterizes capitalism in its present stage as the "informational mode of production".[48] The informational mode of production is more than just a method of production in which information is applied to production. It is one in which the production of knowledge/information itself has become the dominant sector of the economy.

The knowledge economy behaves in different ways from the traditional three factor-based economy. Brian Arthur, for example, argues that while the traditional economy obeys the general rules of diminishing returns, the new economy obeys the rules of increasing returns.[49] Knowledge is a factor of production that does not diminish but rather increases its value upon use. The first modern fax machine was worth nothing, but each fax machine that followed increased the value of all the fax machines already in use. In the same way, one might argue that the very suddenness of the e-commerce and e-business explosion since 1998 owes much to the fact that there is now a critical mass of users, so that what was not useful before suddenly becomes valuable.

As we have seen above, the information revolution has hugely extended the range of human transactions (mostly services) that can be made tradeable and thus be subject to market transactions and pricing. This works in two ways: on one hand, there are many new services that replace previously costly physical transactions or activities. The explosion in e-commerce and e-business since 1998 is mostly of this cost-reducing variety. The Secretary General of the Organisation for Economic Cooperation and Development (OECD), Donald Johnston, expects the figure of all e-transactions to rise to $1 trillion in 2003-2005.[50] Think of all those virtual shopping web sites where the transport costs of the shopper and the warehouse costs of the seller have been eliminated. They are widely seen as having been responsible for the slashing of prices and the near zero-inflation that especially the United States economy now enjoys.[51] On the other hand, there is also a market creating variety. Because of digital computability, many human activities that were previously free social or free public goods (basically because it was not worth it to put a price on them), can now be made tradeable and subject to pricing, allowing sellers to force users to pay. Think, for example, of the enormous variety of customized risk assessments that make it possible to sell insurance and assurance for an expanding range of situations not previously experienced as risky. Or think of financial services such as derivatives that owe their existence and profitability to the ability to calculate minuscule variations in movements in interest rates or exchange rates. The net result of this digitization is a deepening of commodification that can now override the limits to the market widening that brought about the previous (Fordist) crisis in the first place.

In other words, the dynamics of this new economy point to a reconstitution of macro-economic equilibrium at a global level where the global market provides for a balancing of consumption with production while majority segments of humanity are simply excluded, and political and ideological efforts are directed towards insulating this minority globalism from the majority populations.

Last but not least, the new economy is a global economy not in the sense of a worldwide economy, but in the sense that has been properly defined by Manuel Castells, as an "economy with the capacity to operate as a unit in real-time on a planetary basis".[52] The new knowledge-based economy is first and foremost a real time economy that, in principle, allows all these new services to be transacted across borders, to be instantly outsourced and hence subjected to one global market price.

2. Prospects for sub-Saharan Africa

Early post-independence growth in sub-Saharan Africa, while externally dependent, had nevertheless been a source of hope and optimism. But this was followed by stagnation and negative growth in all but a very few countries (e.g. Mauritius, Botswana) as earlier forms of incorporation into the international division of labour were rendered obsolete when the world economic system globalized and entered the new global division of labour described above.

In the last quarter of the twentieth century, Africa's primary commodities trade collapsed, as a share of overall world trade, from just over 7 per cent in 1970 to less than half a per cent in the 1990s.[53] Its share of manufacturing trade never really got a chance to lift off and went down from an already puny 1.2 per cent in 1970 to approximately 0.5 per cent today with most of its manufacturing exports originating in just three countries: South Africa, Zimbabwe and Mauritius.

Despite the enormous size of the continent and the seemingly great diversity of the countries, in size of population, in geographic location and physical resource base, in culture and colonial history, the post-independence economic trajectory has been depressingly similar. Healthy annual growth rates in the early period averaged around 5 per cent per annum and were propelled in many countries by an even more dynamic growth of manufacturing production driven by strong investment performance which rose from less than 14 per cent of GDP in 1965 to over 18 per cent in 1973 for the region as a whole.[54] Between 1965 and 1973, manufacturing output grew by 15 per cent per annum in Nigeria, 6.5 per cent in Ghana, 12.4 per cent in Kenya, 9.8 per cent in Zambia, 8.8 per cent in Ethiopia, and 8.9 per cent in Côte d'Ivoire.[55]

Reversal of these progressive trends came in the middle of the 1970s when a sharp and sustained deterioration in the region's primary commodity prices (coffee, cocoa, tea, cotton, copper, sugar and tobacco) combined with a dramatic increase of import prices caused by the oil price hikes after 1973. The resulting resource gap exposed the vulnerability of a self-reliant strategy in which manufacturing production was largely dependent on imported raw materials and technology. The terms of trade of the non-oil producing countries in sub-Saharan Africa fell by more than a third between 1977 and 1993, compared with a decline of just 20 per cent for other non-oil developing countries.[56] Only two countries, Mauritius and Zimbabwe, escaped the terms-of-trade losses between 1977 and 1993, but in 16 others such losses exceeded 30 per cent.[57]

The resulting import compression had adverse effects on both public and private investments, which declined throughout the period. This in turn meant that the States of sub-Saharan Africa were unable to make positive dynamic structural adaptations to the changing global environment. Foreign investment almost completely dried up as international capital found more profitable outlets in the booming east-Asian region. Indeed, the exclusionary logic of the present globalized world order is most dramatically attested in FDI flows. Africa's share of all FDI flows to developing countries has dropped from 13 per cent in 1980 to less than 5 per cent today,[58] the bulk of which is concentrated on the four oil exporters: Nigeria, Angola, Cameroon and Gabon. Private finance generally now contributes less than one tenth of the resource flows into the continent, the rest being made up of various forms of public and publicly guaranteed flows.[59] And while aggregate net resource flows and aggregate net transfers to sub-Saharan Africa as a whole have remained positive thanks to multilateral and

bilateral official flows, these have mainly been used to offset balance of payments difficulties rather than being targeted on investment in new technological capabilities and productive capacity. For all intents and purposes, it would appear that the region is structurally irrelevant to the new global economy.

2.1 Debt and structural adjustment: outdated policies

Sub-Saharan Africa's foreign debt which has trebled from $84.1 billion to $235.4 billion since the debt crisis first broke in 1982,[60] remains its foremost intractable problem, and the noose which keeps it articulated to the global economic system. Africa's debt gives the international community enormous leverage over the political and economic trajectories of the inflicted countries. This could be the prime reason for the continuation of the outdated structural adjustment policies imposed by the international financial institutions and for the fact that, despite all the apparent progress toward debt forgiveness, only two countries, the United Republic of Tanzania and Uganda, have thus far benefited from the now formally endorsed initiative of highly indebted poor countries aimed at debt reduction for 41 highly indebted countries (33 in Africa). The number of beneficiaries is limited by linking the eligibility criteria to the acceptance by the candidate countries of "sound policies", as defined by the international community. These are all too narrowly focused on re-engagement with a now obsolete version of a world economy through trade-related measures, and the development of multiparty democracy and civil society, rather than engagement with the emerging new global economy, poverty reduction and human development.

It is important to remember that structural adjustment policies were designed in a previous epoch, under historical conditions that are no longer relevant today. They were imposed on indebted developing countries in the early 1980s when the failure of the "developmentalist" model previously authored and financed by the international community came to grief. This model had backed autocratic regimes and had helped finance bureaucratic State apparatuses in an effort to overcome what had in those days been perceived as internal blockages, for example, the absence of a local entrepreneurial business class. State-led development had spawned a plethora of government interventions in both external and internal markets, including the setting of dual exchange rates, the erection of tariffs and other import controls, as well as domestic subsidies on staple foods and petrol and the provision of social and welfare services, such as health and education, way beyond the internal financial capacity of the State. It had also buttressed a bulging bureaucracy, and in a few cases fed a kleptocratic elite and made corruption at all levels an endemic feature. But all these had been condoned by an international chorus of donors and scholars for two reasons, one scientific and one strategic and political. While the scientific reason hinged on the theory of "late development", the nature of the modernization and the need to catch up with the West, the geopolitical reason simply had to do with the realities of the cold war world and the felt need to keep Africa and other developing regions in the capitalist camp.

The moment of truth came in the early 1980s when the failure of developmentalism to raise productivity and hard-currency export earnings led to the inability to pay off the international debts incurred during the developmentalist extravaganza. In a first phase of the much-lamented[61] structural adjustment programmes the emphasis by the international donor community was largely on economic measures: replacing State-sponsored price distortions with real prices; abandoning economic planning in favour of reliance on market forces for regulating the economy; removing price controls and subsidies in favour of price determination by supply and demand; discontinuing deliberate policies of industrialization in

favour of greater incentives for the production of export commodities; dismantling import controls and liberalizing foreign trade and payments; privatization of State properties and their sale to foreign interests; cutbacks in social services and removal of the tax burden for the higher income groups. When these policies in their turn failed to deliver the desired results, the emphasis shifted from a focus on economic reforms per se to one targeted on the political will and capacity to implement such reforms. In its first review of adjustment policies in Africa, the World Bank made this crystal clear when it coined the term "good governance" for the purpose.[62] The international donor community began openly to use terms like "spoils politics", "patrimonial State", and "kleptocracy", to blame the failure of reforms in Africa on the lack of democratic legitimacy that had worsened the crisis because resources were squandered by elites rather than being used in pursuit of economic development objectives. Democratic institutions, it was argued, could provide checks and balances necessary for reform and growth.

Thus, the aim of adjustment was to shatter the dominant postwar, State-led development paradigm and overcome the problems of developmental stagnation by promoting open and free competitive market economies, supervised by minimal States. Between 1980 and 1990, World Bank structural adjustment loans increased from 7 to 187 in 60 developing countries.[63]

2.1.1 Structural adjustment in Africa: the social and economic record

The 1980s saw 29 sub-Saharan African countries accept the medicine prescribed by the International Monetary Fund (IMF) and the World Bank. Even in the stated objectives of the multilateral agencies themselves the results were very disappointing. In the region as a whole, Hewitt de Alcantara and Dharam Ghai estimated that per capita incomes declined by 30 per cent over the period 1980-1988,[64] and while it is true that political crises and civil wars in many countries have contributed to this staggering loss of income, the adverse international economic environment (as partly mediated through structural adjustment and debt management policies) can be held responsible for most of it. They argue that this is so, first, because of the simultaneous deterioration in nearly all of the countries of the region, including those relatively free from internal turmoil, and, second, because of the magnitude of the deteriorating external financial position of sub-Saharan Africa over the period. Based on United Nations figures, they note an annual loss of $6.5 billion over the period, even without taking account of capital flight. This total amounted to roughly one third of total annual imports, 45 per cent of export earnings, 10-11 per cent of the region's combined GDP and 60 per cent of gross capital formation.[65]

The result was in fact so disappointing that a World-Bank-sponsored report in 1992, given the frank title "Why Structural Adjustment has not Succeeded in sub-Saharan Africa", was retrieved from the publishers, reissued with a less controversial title and embellished with an introduction which pointed out that the analysis was anyway flawed because it failed to distinguish countries that merely signed up to a reform programme from those that carried it out.[66] It next issued a more upbeat report on the lessons of structural adjustment in sub-Saharan Africa.[67] Shifting the blame for failure on to the Governments of the countries themselves (for not having implemented the World Bank/IMF adjustment policies properly), it argued that only six countries got their macroeconomic fundamentals about right (Ghana, the United Republic of Tanzania, Gambia, Burkina Faso, Nigeria and Zimbabwe). This, the report claimed, has resulted in restored export competitiveness with low inflation and improved fiscal balance. The other countries which implemented the policies only partially or not at all, the report argued, paid the price with negligible or deteriorating growth. But even

these star performers, although eventually returning to positive GDP per capita growth rates, had deteriorating rates of investment.

However, as UNCTAD noted five years later, in 1998, the recent faster growth that has taken place in sub-Saharan Africa "has occurred in countries that were not among the World Bank's 'core group of adjusters' and most of the countries that were thought to be pursuing relatively sound policies at the time are not among the strong performers today".[68] In any case, the UNCTAD report argues that the observed surges of growth can be explained by one-off factors and are unlikely to be sustained. For the critical point is that despite the implementation of structural reforms in about two thirds of the sub-Saharan African countries, the private investment response to structural adjustment programmes continues to be weak.[69]

By the end of the millennium, the average growth rate for the continent had yet to catch up with population growth.[70] Its debt burden in relation to both GDP and in relation to export earnings had risen steeply. Indeed, as a proportion both of GDP, and of exports, the debt burden is higher than for the developing countries as a whole.[71]

Ghana's 18 years of experience with economic recovery programmes imposed by the international financial programmes is a good example of the irrelevancy of imposed macroeconomic reforms in achieving sustained growth. The more so, since Ghana is one of the few adjusting countries that has been spared the interruptions by civil strife and conflict that has bedevilled many of the other sub-Saharan African countries. Notwithstanding the accolade of "model" adjuster, Ghana's economic performance since 1983 has been going up and then down again, to finish at the starting line. GNP growth when averaged over the whole period has not quite managed to level with population growth;[72] private investment, after an early recovery, was interrupted by a decline in 1986 and has remained weak and uneven since.[73] Net FDI amounted to a mere $200 million by 1997 (up from $6 million in 1985) and net portfolio investment a negligible $46 million.[74] The size of external debt, by contrast, had trebled from $1.4 billion in 1980 to $6.2 billion in 1996 (current United States dollars).[75] In that same year, external debt amounted to 88.6 per cent of GNP, while the debt export ratio was 29.5 per cent.[76] On the social front, there has been a modest redistribution of income from urban to rural poor, resulting in a growing incidence of poverty amongst the former and a small reduction of poverty amongst the latter.[77] But this has to be put within the context of declining standards of living for the vast majority on both sides of the urban/rural divide.[78] However, on the positive side, Ghana, has slightly moved up the UNDP human development index which ranks countries by social progress (using a composite index of life expectancy, educational attainment and income). Where Ghana had ranked 100 out of 130 (placing well within the low human development group) in 1987, it now ranks 133 out of 174, and is placed within the medium human development group.[79]

Outside of IMF/World Bank circles, few observers have a positive word to say about structural adjustment in Africa. Non-governmental organizations working in the field in Africa are particularly scathing in their critique, none more so than Kevin Watkins of Oxfam. He sums up his devastating critique as follows:

> "... the application of stringent monetary policies, designed to reduce inflation through high interest rates, has undermined investment and employment. At the same time, poorly planned trade-liberalization measures have exposed local

industries to extreme competition. Contrary to World Bank and IMF claims, the position of the poor and most vulnerable sections of society have all too often been undermined by the deregulation of labour markets and erosion of social welfare provisions, and by declining expenditures on health and education. Women have suffered in extreme form. The erosion of health expenditure has increased the burdens they carry as carers, while falling real wages and rising unemployment have forced women into multiple low-wage employment in the informal sector."[80]

2.1.2 Structural adjustment: marginalization and selective integration in the old economy

Many have been compelled to ask: what was all this structural adjustment for? What purpose did it serve? The answer is that even if the structural adjustment programmes achieved nothing from the point of view of national territorial development and the improvement of standards of living of the masses in African countries, the programmes were a resounding success when measured in terms of selective integration into the old economy segment of the global economy. Structural adjustment has helped to tie the physical economic resources of the African region more tightly into servicing the global system, while at the same time oiling the financial machinery by which wealth can be transported out of Africa and into the global system.

Commodity specialization and debt go hand in hand. Both the World Bank and IMF have used their leverage on indebtedness to require that production be concentrated on commodity exports. The consequence of this has been a flooding of the commodity markets which forced prices downwards. During the 1980s, the terms of trade for sub-Saharan African commodities fell more rapidly than for any other region of the globe.[81] In fact, the terms of trade of sub-Saharan Africa today are lower than in 1954.[82] For example, taking 1985 as a base year, Ghana's exports as a percentage of GDP increased by 70 per cent, while imports rose by 55 per cent.[83] But its terms of trade, as seen above, have declined dramatically. Thus, although Ghana is now exporting and importing considerably more as a percentage of GDP than it did before, this selective integration into old and declining world markets is not doing it any good at all. During critical structural adjustment years between 1985 and 1994, terms of trade losses of over 50 per cent were recorded in many populous states, e.g. Nigeria, Congo, Kenya and Uganda.[84] As UNCTAD has noted in the case of all developing countries (excluding oil exporters and China), income losses arising from declining terms of trade, already large in the 1980s, have grown larger still in the 1990s and trade deficits too have grown, partly as a result of the increased share of trade in GDP for those countries.[85]

By far the most pertinent critique to make against the structural adjustment programmes is that the excessive focus on export-oriented primary production has contributed to a decline in food production, making many countries vulnerable to famine and epidemics during periods of droughts, war or other catastrophes. In many sub-Saharan African countries, food production per head is today lower than it was in the mid-1970s.[86] According to the UNDP *Human Development Report*, in sub-Saharan Africa, between 1970 and 1996, the daily per capita supply of calories declined from 2,226 to 2,205 while the daily per capita supply of protein decreased by 5.7 per cent.[87]

Secondly, forced privatization was a standard feature of all structural adjustment programmes. In the words of one senior World Bank manager who resigned after 12 years of service: "Everything we did from 1983 onwards was based on our new sense of mission to

have the South 'privatized' or die; towards this end, we ignominiously created economic bedlam in Latin America and Africa."[88]

According to the World Bank, 400 industries were privatized in Africa in the 1980s. These included public utilities such as telecommunications, electricity companies, railways, and credit organizations.[89] Inevitably, while national stock markets are still small and in the process of being formed, these privatization policies ensured that foreign investors got a large slice of the action. The undercapitalization of the emerging stock markets proved an attractive hunting ground for the active money managers of core countries' investment funds and more speculative instruments such as hedge funds.[90] The World Bank reports that between 1989 and 1995 $1,630 million worth of foreign exchange was raised through privatization in sub-Saharan Africa, well over half of the total of privatization revenues in the continent.[91] But note that privatization does not equate with new, so-called, green field investments. The foreign takeover of existing State utilities does not add to the investment base: it merely offers foreign investors an opportunity to shift resources out of the country.

Thirdly, imposed devaluations and interest rate liberalization have been justly critiqued as encouraging high profits for the largely foreign-owned financial sector while production is undermined.[92] For while devaluation increases foreign debts in local currency terms, interest rate liberalization means that Governments have to pay higher interest rates on domestic debt. The net result is that budget deficits actually worsen, and because Governments are not allowed under structural-adjustment-programme rules to print money, they end up borrowing more from the international financial institutions and the private financial markets.[93]

Fourthly, liberalization of the capital account has encouraged capital flight by domestic residents from African countries to personal accounts and profitable international investment throughout the world. There is ample evidence of growing substantial private accumulation that is not reinvested in the countries where the wealth is generated.[94]

Fifthly, and finally, while African business cannot compete in the global economy, the traditional agricultural sector has been forced into conversion to export-oriented agriculture and specialized cash crops in a desperate attempt to sell into international markets. Out-of-season luxury crops have been added to traditional export crops to reach the supermarkets in the rich countries, for example, cut flowers from Kenya and Zimbabwe, strawberries from Senegal, even lettuce from drought-ridden Niger. Thus, even though the agricultural sector is very marginal globally, it is still central in Africa and its deepening insertion into the world economy contributes to disorganizing traditional economic forms. In this sense, Africa is not external to the global economy.

To sum up, largely thanks to structural adjustment policies, disinvestment in Africa has occurred at the precise moment in history when the information technology revolution has transformed the infrastructure of production, management, and communications elsewhere in the world. While African firms and labour have been delinked from the workings of the emerging new global economy, structural adjustment programmes have helped to selectively embed traditional sectors more deeply in a (proportionately) declining old-world economy, while at the same time opening up the arteries whereby local elites can suck some of the remaining wealth out of the continent.

2.2 Implications of globalization and of the new economy

As noted in part one of this study, globalization involves a seismic shift in market orientation towards intangible information-based products, while the application of information technologies to the production process itself results in a long-term downward shift in prices for resource inputs. This is bad news for those peripheral regions in the world economy, more especially sub-Saharan Africa, that have to pay their way by exporting primary commodities (other than agricultural foodstuffs), and/or depend on low wages for comparative advantage. The reconstitution of global markets, their flexibility and the reorganization of the structures of enterprise have further implications for the relinking of Africa with the world economy.

2.2.1 Decline of resource inputs

First, it has already been seen that the terms of trade for (non-oil) primary exporters have declined over a long period. In the case of sub-Saharan Africa, an additional contributory factor has been the imposition of structural adjustment policies that have made the terms of trade of sub-Saharan Africa today lower than in 1954. But all this is nothing compared to the expected future decline of primary producer prices arising from the maturing of the global informational economy. Web-based global production and procurement networks (as opposed to automated production systems) can cut procurement cycles in half and processing costs by a third.[95] Smart technologies applied to industrial processes cut waste and hence the unit of resource inputs in relation to each unit of output. In short, any long-term development strategy based on increasing primary commodity exports is doomed to failure.

One exception to this general rule is, possibly, the export of organically grown foodstuffs. There is indeed a fast-growing niche market for out-of-season fruits and vegetables to cater for environmentally anxious and increasingly health-conscious consumers in rich countries. There may well be a new market, for example, for organic cocoa and coffee. However, most such luxury crops typically displace staple foods grown for the domestic markets. It is hard to justify basing a development strategy on feeding the rich to live to be 90, when local producers struggle to get to the age of 50.

2.2.2 Markets not labour

The advent of the new economy has profoundly altered the historical dynamics of the capitalist mode of production. Previously, the logic of capitalist accumulation time and again came up against the contradictions of overaccumulation and underconsumption, leading to crises, which were eventually overcome by the invention and diffusion of new technologies, as well as the enlargement of markets. The assumption of both neoclassical trade theories and of their Marxist critics (as in dependency theories) was that the capitalist system, or the world market system, was inherently expansive in character. As such, it was thought to be forever driven by its own needs to incorporate (and exploit) ever-larger areas of the world. The paradigmatic controversy between the two camps was over the nature of this expansive process: whether it was exploitative and underdeveloping, or progressive and uplifting. But that the process of expansion was inexorable was not questioned by either perspective. It was thought that the relentless search for raw materials, for cheap labour and for market outlets, time and again would drive capitalism either into fresh geographic regions, or when these were no longer available, into upgrading existing ones.

However, today, and this is the quintessence of the new-economy claims, productivity gains in the core of the global, informational economy can be and are being absorbed by an extraordinary intensification of commodification, in which markets are deepened but not widened. This is why exclusion is a systemic counterpart of globalization in the new informational age. In a world in which the richest quintile of the world population has income 170 times the 20 per cent poorest quintile, market strategy depends entirely on producing for the "have-lots", rather than producing for the "have-nots". With the advent of the new economy, where informational products are becoming the leading branches of industrial activity (see section 1.4 above), such market deepening seems to have, at least for the foreseeable future, overcome the problem of capitalist crisis and accumulation. Already even in the traditional heartlands of the capitalist world economy, the growing polarization of income which is no longer balanced by Keynesian policies of welfare-induced demand management has meant that, for example, old-economy industries such as the car industry are abandoning the middle-income mass market.

These new dynamics of global capitalism nullify all earlier debates over the pros and cons of import-substitutive industrialization in the poor countries. For the relevant question is no longer whether protection of infant industries is uncompetitive, wasteful and inefficient, rather the question is whether in the absence of such domestic industries, traditional old-economy products will be supplied at all.

2.2.3 Rich markets, flexible markets and the logistics flow

There is evidence that today the choice of location for direct or portfolio investments associated with dispersed, or networked, manufacturing, are first and foremost guided by proximity to large and/or growing markets while low-wage conditions come bottom in a long list of perceived competitive advantages.[96] This is very different from the historical situation that prevailed in the late 1970s and early 1980s when the success of the so-called newly industrializing countries of south-east Asia was initially solely based on comparative labour-cost advantages, and for that reason became the favoured developmental model replacing the import-substitutive paradigm that had reigned in earlier periods of modernization .

There are other competitive conditions that rule out Africa for a long time to come: stable currencies, and a conducive business environment that includes today not merely favourable credit, tax and property regulations, but also local managerial skills and capabilities that assist rather than hinder the logistics flow. For networked manufacturing is tightly linked to the emergence of flexible markets in which the pattern of managerial coordination is influenced by constant innovation and adjustment to changing consumer tastes and styles, and in which speed of delivery has become just as important as quality or costs.

To know what this implies it is instructive to listen to the words of Victor Fung, the head of a Hong Kong SAR company which acts as a regional sourcing agent for large western retailers seeking far-eastern supplies.

> "Say we get an order from a European retailer to produce 10,000 garments. It is not a simple matter of our Korean office sourcing Korean products or our Indonesian office sourcing Indonesian products. For this customer we might decide to buy yarn from a Korean producer, but have it woven and dyed in Taiwan. So we pick up the yarn and ship it to Taiwan. The Japanese have the best zippers and buttons, but they manufacture them in China. Okay, so we go to YKK, a big

> Japanese zipper manufacturer and order their best zippers from China. Then we determine that because of quotas and labour conditions the best place to make the garments is in Thailand. So we ship everything there. And because the customer wants quick delivery we may divide the value chain to suit the customer's needs. Five weeks after we have received the order the garments arrive on shelves in Europe, all looking as if they were made in the same factory." [97]

The problem of the logistics flow is that at each stage of this "carbo-aggressive" cross-hauling of components, subcontractors must be relied upon not just to deliver their single low-value-added operation, but be entrusted with the unpackaging and repackaging, quality inspection, and speedy onward shipment of what frequently are higher-value-added operations. Thus, and this is a potentially positive development, the new sequencing of the value chain which was described above puts a premium on a new operational strategy on the part of global network producers, namely that of handling the logistics flow in such a manner that high-skill upstream activities are not at the mercy of low-skill downstream activities. The developmental implication of this new sequencing is in principle positive, namely that there is in fact a renewed impetus to congregate upstream and downstream activities in the same region. In addition, flexibility and speed of operations means that global network producers prefer to have access within their network to several same-component suppliers who compete for orders within their electronic networks. For their part, suppliers want, and are encouraged by, their main purchaser to develop links with other, even competing, global manufacturers, and they are expected to develop industrial skills that are commonly used elsewhere.

All of the above put together—markets, flexibility and logistics—implies that one effect of globalization is actually a trend towards regional clustering of industrial activity and markets. Indeed, regionalization is now widely recognized to be a necessary condition for globalization.[98] Without a growing and prosperous regional consumer market, regional business skill development and supportive regionally coordinated regulatory frameworks, low wages cannot be relied upon as a strategy for global re-engagement through dispersed manufacturing of "old" economy goods. In the context of sub-Saharan Africa, one would therefore have doubts about the long-term success of the export processing enclaves that have been established so as to attract foreign manufacturers, unless these policies were to be welded to a vigorous programme of regional integration. The stated intention of some Economic Community of West African States (ECOWAS) countries to create a currency zone by 2003 is an essential step to such integration.

2.2.4 Production of information goods: get wired

A third effect of the New economy is in theory more promising. The production of information goods per se, namely, data processing, computer and Internet software, design and advertising, music and entertainment, indeed anything to do with images, symbols and sounds and "virtual" services of all kinds are in principle able to be outsourced and traded anywhere in the world, and low-wage-cost advantages can kick in without any problems of logistics or proximity of markets. Pundits of the digital economy argue that increased global networking leverages opportunities for latecomers to skip the industrial stage altogether and enter straight into global electronic markets. Some are therefore very optimistic about Africa's potential. As Nicholas Negroponte, founder of MIT's pioneering Media Lab and John Perry Barlow, co-founder of the Electronic Frontier Foundation, have put it:

> "In an information economy, difference is everything ... Africa's strength is difference ... Most Africans stayed out of the loop of the 20th Century and were not homogenised into the generica that is now much of the Northern Hemisphere ... And thus their continent—so intensely different from the rest of the world, so vastly different within itself—represents a huge and still unconnected battery of stored potential. All it would take for Africa to leapfrog into the wonderland of an information economy would be to attach the electrodes—get it wired, in other words—and then watch its huge voltage zap the gap."[99]

However, without the requisite information infrastructure in respect of network capability and network connectivity, sub-Saharan Africa will remain the "switched-off" region of the world. Whereas one in six people use the Internet in North America and Europe, the figure for Africa is one in 5,000. Africa generates only 0.4 per cent of global Internet content.[100] In sub-Saharan Africa, there is one phone line for every 200 people; the total number of phones in the whole of Africa is less than the number in New York.[101]

There is clearly a mammoth effort needed to bring Africa online, and to educate its people in basic computer skills. On the plus side, the Internet is growing vigorously in Africa today. For example, at the end of 1996, only 11 countries had Internet access, but by March 2000, 51 countries (including in north Africa) had achieved permanent connectivity, and the total number of computers permanently connected to the Internet in Africa (excluding South Africa) grew by 20 per cent in 1999, to reach 12,000 in January 2000. A growing number of countries in sub-Saharan Africa, namely Ghana, Kenya, Madagascar, Mozambique, Namibia, Nigeria, South Africa, the United Republic of Tanzania, Zambia and Zimbabwe have points of presence not only in the capital cities but also in secondary towns.[102]

Even so, there is still clearly a long way to go, but—surprisingly—it is in respect of the technical aspect of connectivity that—for once—the very speed of technological change works in Africa's favour, and Africa's underdevelopment in fact can give it a head start. Low Earth Orbit (LEO) satellite technology and radio spectrum technology are making terrestrial connectivity technology obsolete. This next or third generation information infrastructure will combine telephony with digital television, as well as with computer capability (PCs) and Internet access, eventually all rolled into hand-held devices. The costs of this technology are high, and, at present, unlikely to come down much in the advanced countries where the traditional telecommunications giants fight "gatekeeping" battles because they face massive write-offs in stranded terrestrial investments.[103] Africa, by contrast, practically starts with a clean slate. There are tremendous opportunities here that must not be missed.

2.3 Online connectivity and off-line self-reliance: a two-tier strategy for sub-Saharan regional development

By way of conclusion, an argument is put below for a development strategy for sub-Saharan Africa that is predicated on the above analysis of a globalized, information-driven economy. But as a caveat, the point must be made that international debt forgiveness is an absolutely essential precondition without which the whole exercise becomes pretty pointless.

2.3.1 Online connectivity

The top priority clearly must be to get online in order to participate in the global informational age. This for three reasons: first, to allow firms and labour to participate in the

growing Internet-based global service economy; secondly, to prepare for future participation in regional networks of global manufacturing, and thirdly, to stop a process that is already under way, namely, the control by and dependency on foreign web-based operators of the management of market information and coordination of traditional economy sectors. For example, international tour operators and travel agencies already control what is a promising tourist industry. Even agricultural and mineral exports, constituting the bulk of Africa's exports, are increasingly dependent for the management of information on international operations, as well as on electronic equipment and chemical/biotechnical inputs for advanced agricultural production.

The expression "online connectivity" is also a metaphor for connectivity with other spheres in the new economy. New technologies, not just in electronics, but across a whole range of products and processes continually alter the landscape of comparative advantage. Indeed, there is actually no such thing as a static fixed economic resource. All throughout history, resources have become economic only when they became defined as such by available technology that identified, and exploited, their use. This is an extremely important point to bear in mind in the present time of heart-stopping accelerated technological change. And it is one that actually gives a tremendous potential advantage to the continent of Africa.

Take, for example, photoelectricity. Technological advances are bringing the costs of conversion of solar energy down to levels where soon they will be competitive with fuel-generated energy. Equatorial Africa is set to become the energy hothouse of the twenty-first century. And while electricity indeed cannot be transported over long distances, solar-generated electricity will offer location-specific advantages for energy-intensive production. There is even a suggestion that Equatorial Africa could become a preferred location for laser-guided commercial satellite launch pads.[104]

Biomedicine is another example. Transgenic technologies now enable pharmaceutical companies to mine the biodiversity of the planet by taking infinitesimally small samples of plants and soil, carrying it back home to their laboratories and producing a variety of drugs and cosmetics which they then patent for exclusive production and distribution. The World Trade Organization (WTO) regime (as, for example, in the transnational intellectual property rights) has come into being to protect these patents. Sub-Saharan Africa has the biggest genetic resource base on the planet. There are more mineable species here per square metre than anywhere else. Given the present domination by the developed (rich) countries and their multinationals, it is pointless to try and stop the rapacious exploitation after the fact. For example, Madagascar's unique rose periwinkle plant has been used successfully to develop two anticancer drugs, vincristine and vinblastine, which together have generated more than $100 million in sales for one global pharmaceutical company. However, as the World Bank notes, Madagascar has received no financial return from these discoveries.[105]

Instead, one needs to be ahead in the game and seek out proactive alliances with companies before the deed is done, so that legal frameworks for joint resource sharing may be put in place. And, while the environmental movement may well abhor the encouragement of biodiversity mining, there is good justification if one considers that bioharvesting, if properly regulated, is a lot less depleting of biodiversity than the monoculture associated with the current emphasis on expanded commercial production of old-economy crops.

Thus, when searching for comparative advantage, sub-Saharan African countries should proceed from a dynamic resource concept, and start not with what they have, but what they

might have along the trajectory of ever-faster technological change. To stay ahead in this way, it is essential that Governments seek cooperation with the international scientific community, for example, by encouraging their own scientists to set up Internet panels with sympathetic colleagues abroad. An immediate policy idea here would be the establishment of a technology observatory. International organizations like UNIDO might help develop such an observatory as an experiment in capacity-building along the lines of, for example, the African Economic Research Consortium, which has successfully pioneered the linking of African and non-African scholars working on economic issues.[106]

More generally, the "get-online" strategy requires a three-pronged policy platform: (a) technical, in particular, the expansion of service bandwidth, and the increase in Internet service providers; (b) content creation; and (c) training and education, for access, use and content creation. Regarding the technical and content-creating aspects, a requisite institutional framework should be developed, from the beginning, within a regional space, involving partnerships between Governments and foreign and regional private enterprises. Cross-regional cooperation is the more important, since, without it, the global telecommunications giants are unlikely to put their faith in the growth of African markets. Recently, the United Kingdom Government raised £26 billion literally out of thin air by auctioning off the franchise for the radio spectrum for the next generation broadband mobile phones networks. But it succeeded because Britain is a rich market with 25 million mobile phone users and an only slightly smaller number of Internet users. There has to be that scale of operations.

In respect of training and education for access, content creation and use, Governments could consider the establishment of "teleports" in communities nationwide, where, amongst other things, small businesses in the export sector are helped to engage via the Internet with importers overseas. For example Digilead.com is a database of trade leads to find the latest worldwide business opportunities for exporters and importers. It contains listings for companies who are interested in buying or selling a particular product. There are many more such databases. Governments should set up an overseas business observatory as a backstop for such teleports. There could be many more such ideas. The main point is to define a strategic reorientation towards the new economy away from the old.

2.3.2 Off-line self-reliance

Assuming that economic development is still intended to be universal in scope, that is, with the aim of raising the standards of living of all people, the reality of the present situation is that ambitions of national industrialization and international competitiveness in respect of old economy products, are contradictory. Given the nature of contemporary global manufacturing, international competitiveness is restricted to participation in global networks, and such participation is, as already noted, increasingly regionally coordinated. It is no longer feasible to slot in with one or two single operations, nor to expect to build upon such operations backward and forward linkages of the kind that used to be dreamt about in earlier epochs when comprehensive patterns of integrated industrial progress were on the agenda, and a coherent interface between domestic and export industries could be envisaged. The absence of regional markets, the problem of logistics and physical distance from core markets in Europe and elsewhere and the currency instability endemic in indebted countries are all formidable barriers to FDI in manufacturing. Meanwhile, production of basic and simple technology-based industrial commodities that meet the needs of developing consumers and producers are likely to be scaled back as the advanced core of the global system moves to

ever-more sophisticated products and processes. In short, the gap in industrial activity between the rich and poor of the world is now simply too big to be overcome by the imports of technology by the poor from the rich in the manner of the classic modernization and industrialization paradigm of earlier epochs. Besides, the expected further decline of the terms of trade for primary products is likely to widen the resource gap that already bedevilled this paradigm in the past.

The inference, therefore, is that in respect of industrial (i.e. in the broad sense of manufacturing, as well as construction) end products and processes that meet domestic needs, all previous arguments of the purported failure of import substitutive industrialization (ISI) and the inefficiencies of local infant industry protection must be revisited and reassessed. It is often forgotten that within the parameters of the then prevailing historical situation, import substitution was after all a successful strategy for delivering consumer goods. Duncan Green reminds us that, for example in Latin America, ISI was successful within its own terms and transformed the region's economies:

> "By the early 1960s, domestic industry supplied 95 per cent of Mexico's and 98 per cent of Brazil's consumer goods. From 1950 to 1980 Latin America's industrial output went up six times, keeping well ahead of population growth ... In the mid 1950s, Latin America's economies were growing faster than those of the industrialized West."[107]

Enabling policy frameworks can be established, even within the limits of the present international trade regimes, to support domestic producers with subsidies and tariffs (although these concessions are time-bound under WTO rules), but the case must be made that such enabling protective frameworks should be extended to the broad context of African regional markets. Furthermore, a vigorous case must be made against the current donor agenda to allow taxes, levies and even export bans on unprocessed agricultural resource exports where these compete with domestic processing industries. African countries can simply not meet basic needs unless they are permitted to harness their agro-resources for their own consumption. In his interesting study of the Mozambican cashew nut industry, Joseph Hanlon reports in detail how the current debt relief negotiations under the HIGHLY INDEBTED POOR COUNTRIES programme frustrate government and popular demands for local-processing-industry protection.[108]

There is a big task ahead in challenging the forums (e.g. WTO, World Bank) overseeing the international trade regime after the Uruguay round of the General Agreement on Tariffs and Trade (GATT). Following the analysis in this essay, one could argue that this trade regime is based on an outdated model of international trade and competitiveness. The concept of international competition must be better understood within the context of the now operating centrifugal forces of global concentration, regionalization and marginalization. Global networks of non-governmental organizations are vigorously challenging the above-mentioned forums. In this context, it is interesting to note that non-governmental organizations now disburse more funds to Africa than the Bretton Woods institutions. They are well resourced, and well plugged into networks of personnel skilled in alternative technologies and community-oriented sustainable development, and, by and large, many believe that they are more sympathetic to Africa's problems.

In making the challenge to the current hegemonic international trade regime, two broad analytical distinctions should be given special attention. First, conceptual distinctions must be

made between real-time activities and those activities that still incur the friction of space, broadly speaking, new-economy versus old-economy activities. Real-time service activities do not pose any burden on the global environment, while real-time globally coordinated old-economy production has in fact added to environmental costs, because it permits ever more frantic cross-hauling of components and semi-processed commodities. In an interesting book, *Natural Capitalism—Creating the Next Industrial Revolution*, Hawken, Lovins and Lovins, estimate that at present capitalist business is a free rider on the earth's biosphere roughly to the tune of $36 trillion, about the same as world GDP.[109] One might argue that the developing countries should make alliances with the ever-stronger environmental movement in the west and argue in favour of costing and labelling of so-called travel miles. This could then be used to justify tariffs on material (as opposed to real-time) imports, thus giving local producers a competitive chance in the domestic markets.

Secondly, the argument has to be put that there is a difference between those internationally traded goods that are substitution-competitive in the domestic, even regional, sphere and those which are truly internationally competitive. It is one thing to subsidize, for purposes of exports beyond the region, a bicycle or hairdryer, that incorporates patented technology from an overseas parent, but surely it is another to subsidize products that do not meet international standards and are destined for the regional local markets only. The current controversy over the generic production and distribution of AIDS drugs in sub-Saharan Africa is a case in point.

2.3.3 Other policy implications

These strategic challenges put a special premium on the ability of Governments in sub-Saharan Africa to put in place an enabling framework for dynamic industrial competitiveness. On the one hand, given the existing level of development and capabilities in sub-Saharan Africa, the Governments must pursue a policy of (existing) resource-driven industrialization in which increased agricultural productivity aims to improve rural incomes to stimulate domestic demand for domestic industrial goods, preferably embedded within a wider policy framework for regional cooperation. At the same time, and on the other hand, Governments must engage in strategic interventions to foster export competitiveness for so-called rising stars, i.e. those dynamic products for which international trade is, or in future will be, growing faster than the average for all products.

Monetary and fiscal policies must be fine-tuned to ensure that support for one strategy does not inhibit the objectives of the other. For example, import tariffs that afford a reasonable level of effective protection to domestic producers must be counterbalanced by a current exchange rate policy that does not induce a bias against exports in favour of imports.

Within the current globalized economy, it is generally understood that it is firms and not countries or Governments that compete. But this does not deny the essential role of government in providing the structural preconditions for international competitiveness. On the contrary, there is, today, ample evidence that Governments have an enhanced role in developing the physical, informational, human skills and business infrastructure, that will allow their peoples and businesses to compete successfully in the global economy. Nor does a strategy for domestic industrial development run counter to one of international competitiveness. More than before, policy objectives that aim to overcome inadequate technological and managerial skills at small or medium enterprise level become in fact essential prerequisites to promote best practice at the international level. The role of

government is to encourage enterprises to improve product quality and manufacturing technology and, thereby, to help companies graduate from protected domestic sectors to more demanding international markets. They have a mediating role in effective marketing that is closely tied to product quality and reliability and in ensuring investment in human and physical capital. These are prerequisites for establishing a reputation as a reliable trading partner.

The experience of the so-called second-tier newly industrialized countries of south-east Asia is an instructive reminder both of the essential enabling role of government and of the ramping effect of manufacturing expertise that is built up during a prolonged period of import-substitutive industrialization in resource-intensive sectors and which subsequently acquired export capacities, including jewellery, food-processing and wood-based products.[110]

3. Conclusion

If the tasks outlined above seem somewhat daunting, this is so because the new and the old economy offer very divergent, indeed contradictory, opportunities and challenges. This has implications not just for Governments, but also for international organizations that were set up a long time ago, when other historical structures prevailed. The current dynamics of global capitalist development, and the emerging dichotomy not only between new and old economy but also between the socially and economically reconstituted core and periphery have profoundly altered the prospects for national economic development, even survival, in largely excluded areas. Certainly in the case of sub-Saharan Africa, the notion of nationally coherent strategies for economic development seem increasingly threadbare. From a pragmatic perspective, we have to accept and work with the idea instead that the dual economy is here to stay. Small segments of economies and society in sub-Saharan Africa will be integrated into the borderless global economy, but the present strictures and fixtures of the global trade regime and donor agenda precludes the possibility of articulating the benefits into productive and survival gains for the excluded sectors.

Previously, the concept of national economic development was predicated on the political mobilization of national elites and their commitment to territorial accumulation and development. The turbulent history of Africa in the past decades, the financial openness of the global economy in addition to the open globalized trade regime, as well as the sobering facts of the brain drain from the region have all put paid to this illusion. Moreover, as this study goes to press, some States members of the European Community (notably the United Kingdom, the Netherlands and France) are considering a dramatic turnabout in immigration policy involving an active programme of recruitment of highly skilled foreign workers to meet the growing shortage of skilled labour in their IT sectors as well as to address the demographic deficit of their greying populations. Thus, changing public policy in the advanced countries is set to underpin the current evolution towards a global citizenry and confirm an emerging historical logic. This is a logic that draws a new line in the sand, a new primary cleavage in the world economy which is neither one between nations, nor between classes, but instead between those individuals and groups who can participate in the timeless, spaceless flows of money, production and consumption, and those who cannot, and who are thus, in the words of Zygmunt Baumann "glebae adscripti"—forcibly localized.[111]

International organizations such as UNIDO face an enormous challenge in addressing these new realities. UNIDO acknowledges that industrial development needs to be rethought and reconceptualized to accommodate the cleavage between global competition, on the one hand, and local development for survival, on the other. In the advanced countries themselves, such realities are beginning to be met through quite fundamental changes in public policy. For example, in the United Kingdom, government support for small and medium-sized businesses is channelled through Training and Enterprise Councils in all regions, and these are the responsibility of the Department of Education and Employment, and not of the Department of Trade and Industry whose work is largely focused on the internationalized segment of national industry. A range of social support initiatives are currently targeted on small and medium-sized enterprises to encourage them to engage more effectively with deprived communities and excluded social groups.[112] From the other side, the concept of community development is being stretched to encompass community economic enterprise and community finance. In short, local economic development is beginning to be reconstructed as a domain of social policy, while economic policy per se is focused on international competitiveness.

Notes

[1] D. Held, A. Mc Grew et al. *Global Transformations* (Cambridge, Polity Press, 1999).

[2] For classic statements see S. Strange, *The Retreat of the State: The Diffusion of Power in the World Economy* (Cambridge, Cambridge University Press, 1996), and K. Ohmae, *Borderless World* (London, Collins, 1990).

[3] The most developed position here is that of P. Hirst and G. Thompson, *Globalization in Question* (London, Routledge, 1999), cf. p. 28, where they argue that using gross figures of ratios of trade relative to output "confirms unequivocally that "openness" was greater during the Gold Standard period than even in the 1980s".

[4] P. Krugman, *Fortune*, 27 June 1994.

[5] K. Waltz, Globalization and Governance, in *Political Science and Politics*, vol. 32, No. 4, 1999, p. 693.

[6] R. Zevin, "Are financial markets more open? If so, why and with what effects", in T. Banuri and J. Schor (eds.), Financial Openness and National Autonomy (Oxford University Press, 1992).

[7] See UNDP, *Human Development Report, 1997* (New York, UNDP, 1997), p. 83: "Much of this has happened before. For 17 industrial countries for which there are data, exports as a share of GDP in 1913 were 12.9 per cent, not much below the 1993 level of 14.5 per cent. And capital transfers as a share of industrial country GDP are still smaller than in the 1890s."

[8] The historical trade and output calculations were done by Noble prize winner Simon Kutznets in his benchmark work that appeared in 1967, see S. Kuznets, "Quantitative aspects of the economic growth of nations: X-level and structure of foreign trade: long-term trends", table 1, pp. 4-5, in *Economic Development and Cultural Change*, 15 (2) (1967), and footnote to table 1, p. 7. According to Kutznets, the peak year for international trade was 1913, when the foreign trade proportion of world output stood at 33 per cent.

[9] For extensive discussion and calculations, see A. Hoogvelt, *Globalisation and the Post-colonial World* (London, Macmillan, 1997, and second edition, 2001), ch. 4, which compares Kutznets' (ibid.) historical data with GATT trade data for more recent periods. Throughout the late nineteenth and early part of the twentieth century, trade participation by the developing countries as a group increased till it peaked at 25.5 per cent in 1953, after which time it remained relatively unaltered until the early 1990s, since when it has resumed its upward path, to stand at 29.1 per cent in 1996.

[10] UNCTAD, *Trade and Development Report, 1997* (Geneva, 1997), table 47, p. 183.

[11] For the 1960 figure, see M. Barratt Brown, *The Economics of Imperialism* (London, Penguin, 1974), pp. 206-7. For 1966, see L. B. Pearson, *Partners in Development* (London, Pall Mall Press, 1970), p. 100. For 1974, see *Transnational Corporations in World Development* (note 13), table III, p. 242. For 1989, see UNCTC, *World Investment Report* (New York, 1991), table 4, p. 11.

[12] Based on chart 5.10 of UNCTAD, *Trade and Development Report, 1999* (Geneva, 1999), p. 116.

[13] P. Hirst and G. Thompson, op. cit., note 3, p. 74.

[14] *Economic Report of the President*, transmitted to the United States Congress, February 1999 (Washington, D.C., pp. 221-222).

[15] United Nations Development Programme, *Human Development Report, 1999* (New York, Oxford University Press, 1999), chap. 1, figure 1.1.

[16] Ibid., p. 27.

[17] UNCTAD, *Trade and Development Report, 1999* ..., p. 101.

[18] A. Giddens, *The Consequences of Modernity* (Cambridge, Polity Press, 1990).

[19] A. Hoogvelt, *Globalisation and the Post-colonial World* (London, Macmillan, 1996, and second edition, 2001).

[20] M. Castells, Trilogy on the *Society, Culture and Politics in the Informational Age*, vol. 1, *The Network Society* (Blackwells, Cambridge, Massachusetts, and Oxford, United Kingdom, 1996); vol. 2, *The Power of Identity* (ibid., 1997); vol. 3, *End of Millennium* (ibid., 1999).

[21] M. Castells, *The Network Society*, p. 106.

[22] C. Sabel, "Experimental Regionalism and the Dilemmas of Regional Economic Policy", paper presented to the *Conference on SocioEconomic Systems of Japan, the United States, the United Kingdom, Germany, and France*, Institute of Fiscal and Monetary Policy, Tokyo, 16 February 1996.

[23] For example, see W. Sahlman, "The new economy is stronger than you think", in *Harvard Business Review*, November-December 1999, p. 184.

[24] Ibid., p. 101.

[25] For the detailed argument, see R. Jaikumar and D. Upton, "The Co-ordination of Global Manufacturing", in S. Bradley, J. Hausman and R. Nolan, *Globalization, Technology and Competition, The Fusion of Computers and Telecommunications in the 1990s* (Boston, Harvard Business School Press, 1993), pp. 169-184.

[26] Frank Gibney Jr., "The Revolution in a Box", *Time Magazine*, 31 July 2000.

[27] Cf. Th. Malone and J. Rockart, "How Will Information Technology Reshape Organizations? Computers as Coordination Technology", in Bradley, Hausman and Nolan, op. cit., p. 47.

[28] F. Ostroff, *The Horizontal Organization: What the Organization of the Future Actually Looks Like and How It Delivers Value to Customers* (Oxford, Oxford University Press, 1999).

[29] R. Moss Kanter, "The Future of Bureaucracy and Hierarchy", in P. Bourdieu and J. S. Coleman, *Social Theory for a Changing Society* (Boulder, Colorado, Westview Press, 1991).

[30] M. Castells, *The Network Society*, op. cit., note 20, p. 165.

[31] N. Negroponte, "Everything will be Digital", in *Time Magazine*, Visions 21: Our Technology, 3 July 2000.

[32] R. Reich, *The Work of Nations* (London, Simon & Schuster, 1991), p. 210.

[33] R. Reich, ibid., p. 211.

[34] For these and more such examples, see Arun Kundnani, "Where do you want to go today? The rise of information capital", *Race & Class*, vol. 40, No. 2/3 (1998/99).

[35] UNCTAD, *World Investment Report, 1994* (New York and Geneva, 1994), p. 193.

[36] J. Harris, "Globalization and the technological transformation of capitalism", in *Race & Class*, vol. 40, No. 2/3 (1998/99), p. 27.

[37] P. Krugman, "Growing World Trade: Causes and Consequences", in *Brookings Papers on Economic Activity*, 1 (1995), pp. 327-377.

[38] Ch. Leadbeater, *Living on Thin Air, The New Economy* (London, Viking, 1999), p. 109.

[39] P. Kennedy, "The global gales ahead", *New Statesman and Society* (3 May 1996), pp. 28-29. In his acceptance speech for the United States presidential nominations on behalf of the Green Party, Ralph Nader reports that today, in the United States, there are about 47 million workers, over one third of the workforce, making less than $10 per hour, many at $5.25, $6.00, $7.00, with no or few benefits. The majority of workers still, after ten years of overall economic growth, make less today, in inflation adjusted dollars, and work 160 hours longer per year than workers did in 1973! See, http://www.votenader.com

[40] D. Coates, *Models of Capitalism, Growth and Stagnation in the Modern Era* (Cambridge, Polity Press, 2000), p. 256.

[41] These are, of necessity, very rough calculations. Will Hutton has argued, as others have done, that in the rich countries there is an emerging social structure of 40-30-30 per cent, while the consensus amongst third world observers is that the proportions there are reversed. See W. Hutton, *The State we're In* (London, Jonathan Cape, 1995), p. 105 ff. The International Labour Organization has estimated that over 1 billion people, or about one third of the global workforce, are unemployed or underemployed, working substantially less than full time, or earning less than a living wage. The global workforce is expected to swell by 1.5 billion new job seekers in the next 50 years, almost all living in the developing world, where about half of the population is under the age of 25. See ILO, *World Labour Report, 2000* (Geneva, 2000).

[42] John Reed, one time Chairman of Citicorp, the biggest of United States banks, in an interview with Anthony Sampson, see A. Sampson, *The Midas Touch: Money, People and Power from West to East* (London, Hodder & Stoughton, 1989), p. 179.

[43] For a balanced, sensitive and detailed account of the differences between the social policy discourses of various global agencies, see B. Deacon, with M. Hulse and P. Stubbs, *Global Social Policy, International Organizations and the Future of Welfare* (London, Sage Publications, 1997). Also, B. Deacon, *Globalization and Social Policy, The Threat to Equitable Welfare,* United Nations Research Institute for Social Development, Occasional paper 5 (Geneva, UNRISD, 2000).

[44] Eboe Hutchful, "'Smoke and Mirrors': The World Bank's Social Dimensions of Adjustment (SDA) Programme", in *Review of African Political Economy*, No. 62, 1994, pp. 569-584.

[45] From the annals of general business and management literature the "new economy" voices have been heard for longer than those emanating from the general economic discipline. Amongst the former, useful general introductory books are: D. Coyle, *The Weightless World* (Oxford, Capstone, 1997); J. III Hagel, and A. Armstrong, *Net Gain* (Boston, Harvard Business School Press, 1997); K. Kelly, *New Rules for the New Economy* (New York, Viking, 1998) and B. Davis and D. Wessel, *Prosperity: The Coming 20-Year Boom and What It Means to You* (New York, Times Business, 1998); Bill Gates, *Business @ the Speed of Thought, Succeeding in the Digital Economy* (London, Penguin Books, 1999). Amongst economists, see R. Lester, *The Productive Edge: How U.S. Industries Are Pointing The Way to a New Era of Economic Growth* (London, W. W. Norton, 1998). For a sober assessment of pros and cons, see OECD, *The Future of the Global Economy* (Paris, 1999). Surveys of the new economy debates may also be found in recent issues of *The Economist*, e.g. "Business and the Internet Survey", 26 June 1999, and "The New Economy", 24 July 1999.

[46] C. Leadbeater, op. cit., note 34, p. 9.

[47] *The Economist*, 24 July 1999, p. 21.

[48] M. Castells, op. cit., note 26, p. 91.

[49] B. Arthur, "Increasing Returns and the New World of Business", *Harvard Business Review*, July/August 1996.

[50] See D. Johnston, "Global electronic commerce: realizing the potential", in Anne Leer, ed., *Masters of the Wired World, Cyberspace Speaks Out* (Harlow and London, Pearson Education Ltd., 1999), p. 229.

[51] In a glowing article on the "new economy", William Sahlman says "inflation is dead—dead as a doornail", cf. W. Sahlman, "The new economy is stronger than you think", *Harvard Business Review,* November/December 1999.

[52] M. Castells, op. cit., note 26, p. 92.

[53] Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), "L'économie mondiale 1990-2000: l'impératif de la croissance" (Paris, Economica, 1992), cited in M. Castells, ibid., p. 134.

[54] UNCTAD, *Trade and Development Report, 1998* (Geneva, 1998), p. 115.

[55] World Bank, *World Development Report, 1986* (Washington, D.C., 1986), table 2.

[56] UNCTAD, *Trade and Development Report, 1998* ..., p. 122.

[57] Ibid., p. 119.

[58] D. Simon, "Debt, democracy and development: Sub-Saharan Africa in the 1990s" in S. Simon, W. van Spengen, Ch. Dixon and A. Naarman (eds.), *Structurally Adjusted Africa: Poverty, Debt and Basic Needs* (London, Pluto Press, 1995), p. 28.

[59] UNCTAD, *Trade and Development Report, 1998* ..., p. 127.

[60] World Bank, *Global Development Finance, 1997* (Washington, D.C., World Bank, 1997), p. 202.

[61] There has been a mountain of literature on the failure of structural adjustments. Besides numerous country case studies, critical "generic" reviews of structural adjustment programmes have appeared in special issues of the *Journal Review of African Political Economy (ROAPE)*, Nos. 47 (1990) and 62 (1994). More recently, *ROAPE* has published good overviews by P. Carmody, "Constructing Alternatives to Structural Adjustment in Africa", *ROAPE*, No. 75 (1998), pp. 25-46; Stefano Ponte, "The World Bank and 'Adjustment in Africa'", *ROAPE*, No. 66 (1995); and S. Bromley, "Making Sense of Structural Adjustment", *ROAPE*, No. 65 (1995), pp. 339-348. For more general critiques that are not restricted to Africa see E. Helleiner, *States and the Re-emergence of Global Finance: from Bretton Woods to the 1990s* (Ithaca, New York, Cornell University Press, 1994); S. George and F. Sabelli, *Faith & Credit, the World Bank's Secular Empire* (Boulder, Colorado, Westview Press, 1994); D. Ghai (ed.), *The IMF and the South* (London, Zed Books, 1991).

[62] For a discussion on the introduction of political criteria, see C. Baylies, "Political Conditionality and Democratisation", *Review of African Political Economy*, No. 65 (1995), pp. 321-337. See also A. Leftwich, "Governance, Democracy and Development in the Third World", *Third World Quarterly*, 14 (3) (1993), pp. 605-624. See other contributions to the same issue of *Third World Quarterly*, including the literature review by E. Reinierse, pp. 647-664.

[63] See A. Leftwich, op. cit., note 57, p. 606.

[64] D. Ghai and C. Hewitt de Alcantara, "The Crisis of the 1980s in Africa, Latin America and the Caribbean: An Overview", in D. Ghai (ed.), *The IMF and the South* (London, Zed Books on behalf of the United Nations Research Institute for Social Development, 1991), pp. 14-17.

[65] Ghai and Hewitt de Alcantara, ibid., p. 16.

[66] Reported in *The Economist*, 5 March 1994.

[67] World Bank, *Adjustment in Africa: Reform, Results, and the Road Ahead, a World Bank Policy Research Report* (New York, Oxford University Press, 1994).

[68] UNCTAD, *Trade and Development Report, 1998*, p. 125.

[69] UNCTAD, ibid., p. 125.

[70] International Monetary Fund, *World Economic Outlook* (Washington, D.C., October 1999), statistical appendix.

[71] UNCTAD, op. cit., note 63, p. 127.

[72] UNDP, *Human Development Report, 1999*, gives the figure of minus 0.4 per cent over the whole period of 1975-1995 (p. 182).

[73] D. Goldsbrough, et al., *Reinvigorating Growth in Developing Countries* (Washington, D.C., International Monetary Fund, July 1996), p. 9 and p. 17.

[74] UNDP, *Human Development Report, 1999*, table A1.2, p. 51. However, a recent forum on Private Capital Flows to Africa, Perception and Reality, held in the Netherlands argues that, since the 1990s, sub-Saharan Africa has in fact been the fastest-growing destination for portfolio and direct foreign investments and that the illusion of Africa's exclusion is largely maintained because of lack of adequate reporting of data. These unrecorded flows are however still largely concentrated in traditional mining sectors. See, *The Economist*, 3 July 2000.

[75] World Bank, *World Development Report, 1998/1999* (Washington, D.C., 1998), table 21.

[76] Ibid., table A1.2, p. 51.

[77] M. Nowak, op. cit., note 55 , p. 46.

[78] For an interesting critique of the World Bank's definition of "poverty", in the context of Ghana, see E. Hutchful, op. cit., note 44.

[79] UNDP, *Human Development Report, 1990* and *1999*. Note that the *Human Development Report* in the most recent issue has reversed the order of rankings. They have been put back here for the sake of comparison.

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[98] This point was already understood in the late 1980s, when the impact of the application of information technology to the manufacturing process became first fully grasped. In their worldwide best selling book: *The Machine that Changed the World*, Womack et al., confidently predicted a future dominated by multiregional companies in which the entire production process from paper design to finished product would be executed in each of the main three regions of the world. J. Womack, D. Jones and D. Roos, *The Machine that Changed the World* (New York, Rawson Associates, 1990), pp. 218-222.

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Printed in Austria
V.80402-February 2001-800

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
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