Global Production, Polarisation and Protest

By Thomas Fritz[1]

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[1] Investigator and journalist, collaborator in the FDCL project 'Free Trade and Industrial Development' and member of the executive committee of BLUE 21 (Berlin Working Group on Environment and Development).

1. Production networks: Polarisation or Convergence ?

'The networking logic of the new global system makes possible to integrate in a network everything that is valuable, while switching off from the network everything that has no value or is devalued (...). So, the world is not divided any longer between North and South but between areas and people who are switched on/off from these networks' (Castells 2000). The binary formula of switching on or off from global networks is gaining more and more credit as a maxim for action. Allegedly, it has the power to determine the distribution of opportunities and wealth. These and similar perceptions result from quite real shifts in global economic integration. Contrary to the era of colonialism and imperialism economic interpenetration does not establish itself merely through the circulation of money and goods, but to a much higher degree through globally interconnected production. The dynamic growth of world trade is associated with structural changes that facilitated a profound restructuring of global manufacturing, particularly after the crisis of the 1970s.

The vertical disintegration of transnational companies is a fundamental characteristic of this restructuring. The spread of new and low-cost transport and communication media offered multinational enterprises unexpected opportunities to dismantle the manufacturing process and to redistribute its constituents among various countries. Since then, manufacturing has increasingly occurred in the framework of global value chains dominated by individual 'lead firms'. And while all those activities no longer considered part of the core business were being outsourced, the necessity emerged to manage these production networks, which were gradually developing sophisticated internal and external power relations. Therefore, global value chains imply power conflicts – both between the countries, regions and companies involved, as well as between capital and labour. Even more: the expansion of transnational companies itself is not only a sign of technological innovation and increased competition, but also of the conflict of classes. Global capital movements are also inevitably a reaction to workers' resistance and attained social rights. At the same time, capital movements stimulate enormous worldwide class formation processes.

The large increase of foreign direct investment (FDI) since the 1980s has been an important driving force behind the deepening of global economic integration. But the currently dominating value chains differ significantly from the foreign investments undertaken by Western companies in the first three postwar decades. Above all, countries of the capitalist periphery only allowed market access under the condition of local manufacturing with a high degree of local content. However, with the change from such domestically orientated import-substitution strategies towards liberalisation and world market integration, these structures were demolished and replaced by hierarchically structured global supply-bases. Still, the high value-adding activities remained concentrated in the industrialised countries.

However, a comparison of the various global production networks shows that today it is not only labour-intensive activities that are being relocated to so-called 'low-wage countries', but increasingly capital-intensive processes as well. In this respect the highly influential thesis of the 'new international division of labour' formulated by Fröbel et al (1977) certainly requires

a critical examination. The 'Fröbelians' were convinced that the world market factories they had analysed (above all in the textiles and electronics sectors) would contribute negatively to the current and future development of employment and qualification, to technology transfer, and to foreign-exchange earnings. Nevertheless, today it is evident that more and more capital-, technology- and knowledge-intensive processes are being transferred to the periphery. But still the question remains, whether this development will contribute to economic and technological convergence between North and South as well as diminish the enormous national and international income disparities.

For many this question – if considered at all – already seems to be resolved. For them modern network production is a process that may level the North-South divide and other polarising effects of capitalist expansion. Similar to the view of Castells, Hardt and Negri (2002) believe that the transition from the industrial to an 'informational economy' will lead to de-centralised and 'deterritorialised' production, 'so that it is no longer possible to demarcate large geographical zones as centre and periphery, North and South'. Because of the 'unifying process of capitalist development', centre and periphery 'clearly infuse into one another' (ibid, p. 334f.). In different regions of the world all stages of production can be found next to each other: elements of small farming, partial industrialisation and partial digitalisation: 'the economic stages are thus all present at once, merged into a hybrid, composite economy that varies not in kind but in degree across the globe' (ibid. 289). 'The general equalisation or smoothing of social space' (ibid: 336) does not eliminate social disparities, yet it proves increasingly difficult to define them along a dichotomy of centre and periphery.

Whereas Hardt and Negri explicitly describe capitalist development as a 'unifying' process, and transnational network production as an element in an equalising movement between centre and periphery, this decision also seems to have implicitly been taken in a large part of the literature on global value chains. 'Global value chain research and policy work examine the different ways in which global production and distribution systems are integrated, and the possibilities for firms in developing countries to enhance their position in global markets' (Gereffi et al. 2003). One of the key insights is 'that access to developed country markets has become increasingly dependent on entering into the global production networks of lead firms situated in developed countries' (Humphrey/Schmitz 2001). Accordingly, the analysis of value chains serves to develop policy instruments for industrial upgrading and job creation. Hence, the addressees of this literature mainly consist of 'policy makers at all levels' (Kaplinksy 2004). Value chain research certainly provides valuable insights into the functioning of global production networks, but its epistemological horizon is limited to integration and upgrading in value chains. It almost completely ignores the role of workers. In this type of scientific research, the labour movement and workers' resistance is widely non-existent.

In this paper we will examine the question of whether it is correct to assume that transnationalised production is associated with an equalising movement between centre and periphery. Do global value chains neutralise, reduce or even reverse the effects generally associated with capitalist expansion, i.e. polarisation and generation of inequalities? This leads us to further questions: What were the reasons for the global restructuring of production?

How does it affect the hierarchical structure of the world system and global income disparities? And what is the role of workers' movements in the expansion of capital? Naturally, it cannot be our aim to provide final answers. Rather, we will delineate mechanisms that affect the development of globalised production. To this end, drawing on David Harvey, the subsequent second chapter will describe a few mechanisms of unequal development linked to capitalist accumulation: overproduction, monopolisation and crises. The subsequent third chapter describes more or less successful attempts of integrating foreign direct investment in an import-substituting industrialisation strategy in Africa, Latin America and Asia during the first postwar decades. The fourth chapter provides a few examples of the impressive class formation processes triggered by capital expansion in the periphery which leads us to question the widely accepted thesis of a 'labour aristocracy'. The fifth chapter is dedicated to the radical 'switching crisis' in the US of the 1970s and 80s, caused by the monetaristic change, which gave momentum to the internationalisation of production, altered class relations, intensified differentiation in the periphery, and led to a number of financial crises in the countries concerned. The sixth chapter describes the historical development of the contractual forms typical for modern value chains. It offers a few insights into the automotive and electronics production networks, their internal and external power relations, the global income effects, and the contribution of the modern trading system to the hierarchical structure of global value chains. Finally, the seventh chapter gives a summary of this paper.

2. Accumulation, Monopoly and Crisis

Why do capital movements happen in the first place? And why is the worldwide distribution of capital so unequal? David Harvey (2005: pp. 89f.) explains unequal development with overproduction crises and their always unstable solution in the form of 'spatial-temporal fixes'. Drawing on Marx's accumulation theory[2], he assumes that capitalism tends to constantly generate over-accumulation crises. In such crises surplus capital (in the form of goods, money or productive assets) co-exists with a surplus labour force, and apparently the two cannot be combined in a lucrative way. A possible reaction to these crises is the devaluation of surplus capital. This is illustrated by the devastating global economic crisis of the 1930s, when goods couldn't be exported any more due to the protectionist wave initiated by the US.[3] The consequences were a gigantic destruction of surplus capital,

[2] According to Marxist theory, in addition to the working hours for which they are compensated with their wages, wageworkers do 'surplus labour', generating value which the owners of the means of production appropriate. However, capitalists do not spend all the appropriated surplus value on consumption, instead a part of it is retransformed into capital, i.e. accumulated. The entrepreneurs' renunciation to consume the entire surplus value is not at all voluntary. Rather, capitalist competition forces them to continually expand the capital invested in their enterprises, if they wish to preserve it. This expansion requires the permanent 'accumulation' or 'expanded reproduction' of capital (Marx 1962: 605ff.).

[3] In May 1929, the US Congress, followed by the Senate after the stock exchange crash of 1930, adopted the 'Smoot-Hawley Act', which erected high tariff barriers and made European products, among others,

bankruptcies, and the worldwide rise of unemployment. To prevent similar devaluations one must look for lucrative ways of surplus absorption. 'Spatial-temporal fixes', which bind surplus labour and capital, act as follows: '(a) temporal displacement through investment in long-term capital projects or social expenditures (such as education and research) (...), (b) spatial displacements through opening up new markets, new production capacities and new resource, social and labour possibilities elsewhere, or (c) some combination of (a) and (b)' (ibid: 111). The spatial-temporal fix is a metaphor for always unstable 'solutions to capitalist crises through temporal deferment and geographical expansion' (ibid: 116).

However, the geographic extension cannot be explained by absolute economic imperatives. Thus historically, the refusal of the ruling classes to absorb surpluses through investments or internal redistribution at home played an important role. After attending a meeting of unemployed 1895 in London, the British financier and colonialist Cecil Rhodes put his preferred solution for the social problem as follows: 'My cherished idea is a solution for the social problem, i.e., in order to save the 40,000,000 inhabitants of the United Kingdom from a bloody civil war, we colonial statesmen must acquire new lands to settle the surplus population, to provide new markets for the goods produced in the factories and mines. The Empire, as I have always said, is a bread and butter question. If you want to avoid civil war, you must become imperialists' (cited in Lenin 1975: 88). Thus, internal class conflicts and the unwillingness of ruling classes to absorb overaccumulation through social reform at home are determining factors of spatial expansion.

Geographical expansion requires a physical infrastructure, which in itself leaves spatial traces. Roads, rail tracks, ports, airports, electrical energy grids, water pipes and canals constitute the land-fixed capital. Generally, investors are attracted by locations that promise low costs and high profits. The advantages of individual locations are therefore reflected in a territorial and spatial division of labour, which produces a dynamic of unequal geographic development. The metropolitan areas equipped with the necessary infrastructure do not only absorb foreign capital, but also raw materials, food and the labour force from their *hinterland*, the 'internal colonies'. For a company a wise choice of location can entail a competitive advantage. For individual capitalists locational advantages may be of similar importance as technological advantages (Harvey 2002: 96). Still, the locational advantages may also expire, for instance, when the restless search for absorption opportunities leads to new, superior sites.

But such geographical moves threaten spatially-fixed values, particularly if these haven`t yet been realised. Deprived of the freedom to move, fixed capital is threatened by direct devaluation, for instance, through deflationary recession. This happened 1990 in Japan, when the bursting real estate bubble triggered a deep economic crisis, which is still going on today. But if capital is withdrawn, it leaves behind a trail of devastation and de-industrialisation. Early examples are the silver mining regions of Mexico, Peru or Bolivia, impoverished and abandoned when their markets disappeared; more recently, there are the de-industrialised

unsaleable on the US market. In reaction to this, many other countries imposed retaliatory measures that caused the collapse of the world market (Arrighi 1999).

regions of northern England, the German Ruhr Region, and some of the export processing zones that were abandoned after just a few years.[4]

Depending on the type of surplus, its territorial absorption may take different forms. A surplus of goods can be transferred to foreign markets, provided they possess the means of payment, such as money or commodities. Paying goods with other goods is still common in our times. Especially countries with low foreign exchange reserves may resort to these forms of 'barter' trade. The exchange of Cuban doctors against Venezuelan oil takes place without the intermediation of US dollars. If neither money nor goods are available, credits or aid will lend absorption a helping hand. In the 19th century London banks promoted the sale of British finished products by lending money to the US, Canada, Australia and Argentina. Today, Japanese credits for the US secure the purchase of Japanese products by US consumers. However, transactions of these kinds only offer short-term solutions to overaccumulation: Surplus goods are sent out and after short time money or other goods flow back. In contrast, foreign direct investment (FDI), which initiates new processes of capital accumulation in the receiving countries, allows for longer term absorption. The FDI wave starting in the 1980s can therefore be interpreted as an important element of a crisis-solution strategy.

Since British hegemony in the 19th century this process of territorial expansion has been accompanied by a deepening interpenetration of the trade and banking sectors. In particular, the increasing significance of states as buyers of railroads, ships or weaponry meant that the services of high finance became indispensable. Investment banks issued shares at the London Stock Exchange or offered loans to finance mines, railroads or ports in India, Argentina and Brazil. Towards the end of the 19th century capital export became one of the most important sources of income for the propertied classes investing in shares and loans. Already at that time financial institutions conditioned their loans to the purchase of goods of the creditor country – a praxis known today as 'tied credit'. Extremely close relations between banks, companies and governments supported this mechanism. Lenin (1975: 73) cites a report by the Austrian-Hungarian consul in São Paulo: 'The Brazilian railways are being built chiefly by French, Belgian, British and German capital. In the financial operations connected with the construction of these railways the countries involved stipulate for orders for the necessary railway materials.'

Still, capital export often provoked considerable rivalry among corporations, which reacted by forming cartels. The formation of the international rail cartel may serve as an illustration: 'The first attempt of the British, Belgian and German rail manufacturers to form such a cartel was made as early as 1884, during a severe industrial depression. The manufacturers agreed not to compete with one another in the home markets of the countries involved, and they divided the foreign markets in the following quotas: Great Britain, 66 per cent; Germany, 27 per cent; Belgium, 7 per cent. India was reserved entirely for Great Britain.' (ibid: pp. 81f.).

[4] These processes of decline, which only took place after the affected regions had been integrated into the capitalist world market, served as an important argument of André Gunder Frank's thesis on the 'development of under-development' formulated in the 1960s (Frank 1980).

As will be demonstrated below, in our days it is above all the periphery which suffers the adverse effects of monopolisation and cartelisation.

Further contradictions arise once the newly-opened territories produce their own surpluses. They too will then attempt to absorb theses surpluses through geographical expansion. This was the case in Japan and Germany, where postwar reconstruction was promoted by credits, Marshall Plan aid and direct investments. Yet, in the 1960s both countries' firms became competitors of US corporations, first mainly through exports, and later also through capital export in the form of direct investments, loans and portfolio investments. In the 1980s South Korea, Taiwan and other South-East Asian countries also transformed themselves into significant exporting countries. They fixed their surplus capital in many countries around the world, be it through export, as subcontractors of transnational corporations, or by setting up their own plants. Nonetheless, their spatial-temporal fixes were confronted very soon by strong competition from the current economic expansion of China, which in the wake of the capitalist reforms initiated in 1978 became a gigantic 'sink' of surplus capital. The instability of these fixes is expressed in 'switching-crises', when capital flows are redirected from one place to another because of over-investment in plants, infrastructure, goods, or public spending (Harvey 2005: 121).

Harvey finally introduces a further mechanism, which contradicts the assumption that the permanent generation of capital surpluses will be absorbed by 'constructive' productive investment. This assumption belongs to the official political ideology which seeks to create the illusion that its 'global governance' framework aimes at directing global capital flows into productive, growth promoting and poverty eradicating investments. However, the accumulation process and expanded reproduction have a far more destructive, predatory, fraudulent, violent, and at times even war-mongering side to them. Marx (1962) described these forms only for the transition period from feudalism to capitalism. Recurring to the state, its monopoly on violence and its legal system, 'primitive accumulation' creates the requirements for the new mode of production. It is 'nothing else than the historical process of divorcing the producer from the means of production'. Its methods are 'anything but idyllic' (ibid: 742): the expulsion of the peasant population; the commodification and privatisation of land; the conversion of various forms of property rights (common, collective, state-owned) into exclusive private property rights; the commodification of the labour power; the suppression of traditional forms of production and consumption; colonial and imperial appropriation of assets; the slave trade; monetarised exchange and trade; the modern tax system; national debt; and the very effective credit system.

Drawing on Rosa Luxemburg, Harvey (2005: 140) highlights the lasting significance of primitive accumulation and its 'organic relation' with expanded reproduction. Therefore, he uses the term 'accumulation by dispossession', arguing that since these processes are ongoing it would be inadequate to call them 'original' or 'primitive'. Their significance lies in the fact that to resolve the problem of overaccumulation, capitalism permanently needs a stock of assets that is somehow 'outside' of the system. If such assets, for instance, unused land or new raw materials, are not available, capitalism itself has to produce them. Thus it creates –

in a certain way – its own 'other', a form of 'exterior'. To generate lucrative outflow opportunities for surplus capital, accumulation by disposession therefore sets free a number of assets. The massive privatisations of public services and social systems or the appropriation of genetic resources in the centres of biodiversity through bio-piracy are current examples. However, in regionally limited crises this goal can also be achieved through a controlled devaluation of capital and labour power. The inexorable outcome of the debt crisis of the 1980s and the financial crises of the 1990s were large quantities of devaluated assets. As we shall demonstrate later, these crises provided transnational corporations with lots of opportunities to re-fix their surplus capital. Imperial wars, which lead both to enormous devaluations in the countries destroyed as well as to control over their natural resources, represent the violent peak of accumulation by dispossession.

However, there are risks involved, for instance, when it becomes impossible to regionally contain such crises, when devaluations cross borders or trigger revolts. 'One of the principal objectives of state interventions and international bodies is the effective concertation of devaluations, so that accumulation by dispossession can take place without triggering a generalised collapse' (ibid: 130). The credit system and the manipulation of interest rates are the main mechanisms used by the Group of 7 and the international financial institutions to generate controlled devaluation of assets. We shall later describe this mechanism in the case of the gigantic 'switching crisis' of the 1970s and 80s and the recent financial crises of two countries of the periphery – South Korea and Brazil. The costs of these 'destructive' aspects of accumulation are largely passed along to the periphery. As long as international state and financial institutions manage to regionally limit devaluations and to minimise the risk of 'contagion' of the capitalist centres, accumulation by dispossession remains a fundamental mechanism of unequal development.

3. Imperial Links: the Postwar Boom in Direct Investment

For a deeper understanding of production networks and value chains one has to recur to the common history of foreign direct investment and transnational corporations. Hence, we describe the postwar expansion of direct investment from the centres to the periphery, the fledgling workers' struggles in US industry, and the contradictory attempts to integrate FDI into import-substituting development strategies. The different results of import substitution in Africa, Latin America and Asia are related to the historical and social characteristics of these regions.

Until the 1940s, transnational companies were largely a European phenomenon, closely linked to colonial and imperial expansion. Foreign investments went into securities issued by colonial governments or into mining and railroad shares. In the British, French, Dutch, German and Portuguese colonies small enterprises, small plantations, trading houses and craftsmen shaped the company structure. The economic activity was dominated by the export of raw materials and agricultural produce. Accordingly, the internal markets of the periphery saw no significant development.

As late as 1914, Great Britain was leading as regards foreign direct investment. The British held FDI worth US$ 4 billion. In 1929, the US overtook the UK with an FDI stock of $ 7.5 bn. US companies began to set up foreign subsidiaries in the period between the wars, especially in Europe. Yet US investment increased significantly only after WWII with average growth rates of 10.4% in the period from 1950 to 1960 and 9.3% between 1960 and 1968. While in 1950 US foreign investment amounted to $ 11.8 bn, by 1960 this amount had risen to $ 31.9 bn, reaching $ 64.8 bn by 1968. Regionally, investment was mainly concentrated in Canada, Europe and Latin America, and to a lesser extent in Asia and Africa. Remarkably, as late as 1950 55% of US investment went into peripherical countries. However, by 1968 this share had dropped to 40% (Cardoso 1972).

The increase in US foreign investment was due, among other reasons, to the reconstruction aid for war-damaged Europe (and Japan) provided for under the Marshall Plan. Apart from food aid, the plan contained credits for infrastructure modernisation and individual companies, many of which already under US control. Furthermore, the US also exported to Europe the specific fordist model of mass production and mass consumption. For this purpose the Marshall Plan authority promoted the liberalisation of intra-European trade. The founding in 1952 of the European Coal and Steel Community (ECSC) was an important step in the creation of a larger economic region required for the fordist mass production of cars and other consumer goods. Besides, the Marshall Plan was also embedded in strategies to contain the Soviet Union and the expansion of communism. Trade unions were successfully divided into communist and anti-communist organisations. The rewards for renouncing anti-capitalist policies were the system of collective bargaining and rising incomes. On top of this, the global expansion of the fordist model also required Europe's consent to the independence of its colonies. Accordingly, the US linked Marshall Plan aid to the precondition that the European states would not suppress liberation movements in the periphery, unless they were pursuing a communist course. However, one of the most important objectives of US postwar activities probably was the integration of the European bourgeoisie into a Transatlantic 'class alliance' (Van der Pijl 1998: pp. 118f.).

Gindin and Panitch (2004: 17) describe US foreign direct investment as 'the crucial factor in cementing the new imperial bond'. Independent of their changing regional distribution, FDI developed a social power that increasingly integrated international and national capital. 'Their interpenetration made the notion of distinct national bourgeoisies (...) increasingly anachronistic' (ibid 15). Although in Europe the growth of US investment initially inspired defensive reactions, eventually an interest both in attracting it and responding to the 'American challenge' by investing in the US prevailed.[5] Tensions or alliances inside the ruling classes could no longer be analysed in purely national terms. German and Japanese carmakers began to share mutual concerns with their US counterparts, such as over the prices of steel. Neither did they see any problem in using the services of the new world power. 'When

[5] 'Le défi américain' (The American Challenge), which was published in 1967 and became a bestseller, mirrors the *zeitgeist*. The author, Servan-Schreiber, proposed to select 50 to 100 European companies able to stand up to US competition and award them with state subsidies.

instability in Latin America or other foci of unrest put their international investments at risk, they look to the US for protection, instead of their own governments' (ibid: 17).

Further important motives for the increase in foreign investment after WWII were the militant workers' struggles in the strongholds of fordist mass production, particularly in the US car industry in the 1930s and 1940s. After the first successful occupation of a General Motors factory in Flint in 1936/37, which ended with the capitulation of the management, who were forced to sign a contract with United Auto Workers, a wave of strikes brought unionising to the mass production industries of the US. The complex division of labour of fordist mass production, including its assembly-line manufacturing, gave workers significant 'workplace bargaining power'. They were able to effectively bring to a halt large industrial plants' production through selective strikes or sabotage actions. The companies reacted with a threefold strategy: relocating investments from union strongholds to rural areas and abroad, technological and organisational innovation, and promotion of 'responsible' and co-operative union policies, as well as the suppression of 'irresponsible' combative strategies. While after the collapse of the world market in 1930 the international emergency exit was blocked for the companies, after World War II it became viable again. Thanks to the Marshall Plan, the creation of the common market and the re-establishment of currency convertibility in 1958, Western Europe became a favourite target region. Nevertheless, investment in Latin America, South Africa and South East Asia saw a successive increase, too (Silver 2005: 65ff).

3.1. Investment and Import Substitution

The decolonisation of the periphery after WWII opened up further regions to the international expansion of US corporations, followed later by companies from Europe and Japan. In this process peripherical economies sought in various ways – and with varying success – to integrate the inflowing investments into an import-substituting industrialisation strategy. Historically this policy was a reaction to the collapse of the world market in the wake of the 1930s world economic crisis. Among the main elements of import substitution were the relative devaluation of the national currency, tariff increases and non-tariff barriers, an expansive monetary policy, the promotion of the public sector, the expansion of the internal market, as well as a diversification of the economy and an extension of the range of export products. Whereas in a number of Asian states the adaptation of these policy instruments indeed led to some economic successes, in Latin America and particularly in Africa the results were but limited. In addition, in these two regions it became evident that high external tariffs and other protectionist measures would in no way hinder the expansion of transnational corporations. Their preferred method of overcoming such barriers was foreign direct investment. Particularly in Latin America it could be observed that local subsidiaries of transnational corporations erected monopolistic positions behind the tariff barriers of import substitution, thus fighting off any potential newcomers. However, contrary to the conventional wisdom of international development 'experts', the varying level of

development in peripherical countries is not just the effect of erroneous national policies. Instead, they are closely linked to their respective colonial and post-colonial legacies.

In the African states, decolonised after WWII, a capital outflow from the sector of small colonial companies and trading houses was accompanied by a capital inflow into mining, manufacturing and export agriculture, which were dominated by oligopolistic firms and corporations. This process changed the pattern of foreign investment: while financial and trade interests, as well as small enterprises, lost significance, manufacturing and vertically integrated transnational corporations in mining and industry became more and more important. The sectorial distribution of foreign investment had three characteristics: 1.) the colonial pattern of investment in the primary sector (agriculture, mining and oil) for exports remained the same. Yet with one important difference: from then on the newly independent states themselves had to invest in the necessary road, railroad and shipping infrastructure, in ports and energy supply – partly internally financed, partly by international aid and private credits. 2.) Industrial investment concentrated either on final assembly of imported parts for export or on import substitution, such as the production of consumer goods. 3.) In contrast, investment in capital goods – especially steel, machinery and the chemical industry – remained weak. Finally, research and development of new technologies was practically absent (cf. Arrighi 1974: pp. 227f.). Although African states received comparatively small investment flows, the manufacturing sector was almost completely foreign owned. An important yet mostly underestimated reason for this development is the colonial legacy of a structural labour shortage due to the export of African slaves, which hampered economic development well into the postwar era. The slave trade led to a low population density, small local markets and a sustained disruption of productive activities. The widely accepted thesis that 'underdeveloped regions are characterised by "unlimited supply of labour" never really applied to Africa, where labour appears to have always been in short supply' (Arrighi 2002: 25). Labour shortage together with foreign ownership of colonial enterprises didn`t allow for the development of local entrepreneurs. This deficit still remained after independence. The poor development of state institutions, combined with an – often rather propagandistic – economic nationalism, deterred small non-African businesses without creating a compensating number of African enterprises.

Although Africa realised some economic success in the era of import substitution, in two aspects there was no basis for integrating direct investment into a long-term viable development strategy: firstly, a lack of effective regulatory capacities on behalf of the state, and secondly, the missing local economic basis to establish links with subsidiaries of TNCs, which could have facilitated technology- and know how-transfer. Not integrating foreign investment into a development strategy perpetuated the dependence on technology imports, which had a negative impact on the trade balance and resulted in increased debts. The internal market remained underdeveloped, and consumption was restricted to small parts of the urban population and the working classes.

In postwar Latin America foreign investment in the manufacturing industry increased steadily compared to investment in the traditional sectors of oil, mining and agriculture: while in 1940

it was just 8%, by 1968 it had climbed to 34%. The share of investment flows into manufacturing was particularly high in the economically more advanced countries of Latin America, where by 1968 it was up to 64% (Argentina), 69% (Brazil) and 68% (Mexico). In Latin America, in contrast with the African countries that only achieved independence in the 20th century, transnational corporations allowed a limited participation of domestic capital. Joint ventures and other forms of mixed ownership, in which local public and private capital was combined with international monopoly capital, were rather frequent, both in manufacturing as well as in mining. Nonetheless, majority ownership and effective control remained mostly in foreign hands. However, with the progressive increase in investment in manufacturing, the importance of the internal markets in these countries grew. Thus, the car factories of General Motors, Ford, and Volkswagen produced not just, but *also* for the Latin American market. Thus foreign investment required a certain degree of prosperity in Latin American locations. But even in these cases the capital-goods industry remained in the centres, thus enabling transnational corporations´ control over capital accumulation in the periphery – above all through their technological lead (Cardoso 1972).

Moreover, it had already become clear by the 1950s and '60s that investment stocks were increasingly rising independently of the foreign capital inflow. Instead, transnational corporations recurred to the internal savings of the affluent middle-classes, and to reinvesting a part of their Latin American profits. In the late 1960s, 60% of new investments came from reinvested profits.[6] Additionally, the subsidiaries repatriated high amounts of profit to their headquarters. Estimates for the postwar period from 1947 to 1967 calculate the relation of capital inflows to repatriated capital in Latin America at 1 to 2.7, i.e., for every inflowing dollar, 2.70 dollars left the region (Dos Santos 1970). The companies circumvented regulatory attempts to cap those outflows and prevent balance-of-payments difficulties by using more subtle forms of profit transfer, such as licence or patent fees. Thus, it is not the subsidiary abroad that pays royalties to the parent company, but its local licensee.

Hence, Latin America was also unsuccessful in integrating foreign direct investment into a sustainable import-substituting development strategy. Yet the reason for this was not only the behaviour of the multinationals, but also the strong influence of big landowners and the urban entrepreneurial classes on the state apparatus. These groups, too, had an interest in protecting the privileges of the existing production and export structures, and in blocking any redistribution policy. 'The powerful landowners and the bourgeois *compradores* influenced the composition and orientation of the bureaucracy, and of official policies (...). Therefore, Latin America did not have the relative autonomy of the state that characterised South-East Asia' (Arceo 2003). Under these circumstances, the Latin American state apparatus didn´t manage to subject the conflicting interests of different capital groups to a coherent industrialisation strategy. Such a strategy was further undermined when military dictators opened the economy to foreign direct investment. On the one hand this perpetuated dependence on technology imports, while on the other hand it led to shrinking export

[6] This pattern persists. Today many multinationals use their cash-flow to finance new investments or re-investments.

revenues due to the worsening terms of trade for traditional agricultural and raw materials exports. The only way to counter the soaring trade deficit was by increasing foreign capital inflows – with the unavoidable consequence of rising debt. Because of the refusal to carry out land reforms and redistribution policies, internal demand rested only on a few sectors of the urban population. Together with the governments' insufficient regulation of foreign investment this meant there were no conditions to advance production to higher levels of value added (ibid).

As already indicated by Arceo, the import substitution era yielded completely different results in Asia – especially in Japan and the South-East Asian countries, but also in India – compared to Africa and Latin America. The East and South-East Asian countries were characterised above all by an extremely restrictive attitude towards foreign direct investment, which they subjected to strict and efficient controls, integrating them into a consequent industrialisation strategy. Foreign investors were, for example, completely barred from certain branches, or only gradually admitted once domestic producers had established a strong market position. In many instances the authorities allowed only minority ownership, while mergers and acquisitions remained completely banned. Establishing cross-holdings prevented hostile takeovers. Joint ventures were favoured, but they remained mostly under majority ownership of locals to secure the transfer of technology and managerial knowledge. The authorities thoroughly examined whether technology was outdated, or whether royalties charged to subsidiaries were overpriced. Furthermore, permitted investments were always adjusted to economic changes. Whereas in the 1960s, South Korea and Taiwan promoted direct investment in labour intensive industries, particularly textiles and electronics, in the 1970s they turned towards more capital-intensive production, partially prohibiting direct investment in labour intensive plants. In addition, governments imposed strict requirements on the use of local content and on minimum exports to alleviate the current account. Hence, Japan, South Korea and Taiwan were among the countries with the lowest dependence on foreign direct investment. 'As a result, as of the mid-1980s, only 5 per cent of TNC subsidiaries in Korea were wholly-owned, whereas the corresponding figures were 50 per cent for Mexico and 60 per cent for Brazil' (Chang/Green 2003: 27).

Further instruments for the promotion of national industries were: governmental investment schemes, fiscal incentives, subsidies for investment and export credits, as well as state guaranties in strategic sectors, which nationalised banks further facilitated. Besides, nationalised enterprises played an important role in manufacturing and in establishing linkages with local industries. The number of state enterprises saw a clear increase precisely in the 1960s. In the context of their active industrial policies governments also encouraged national businesses to imitate foreign-patented manufacturing processes (Rodrik 2001).

However, the circumstances in East and South-East Asia were quite favourable for the development of national industries: a quite advanced state- and nation-building process, an abundant labour force, a tradition of entrepreneurship in many countries, and, not least, the impressive entrepreneurial networks of the Chinese Diaspora. In addition, like Western Europe, East Asia played an important strategic role in the anti-communist containment

strategy of postwar USA. Hence, the US granted preferential market access for the exports of their allies Japan, South Korea, and Taiwan, while at the same time tolerating their protectionism, state interventionism, and even the temporary exclusion of US companies. In addition to this, the US granted massive military and economic aid, amounting to $ 13 bn for South Korea and $ 5.6 bn for Taiwan, in the period from 1946 to 1978. While in that period economic aid for South Korea alone amounted to $ 6 bn, the whole of Africa received just $ 6.89 bn, and Latin America $ 14.8 bn. Japan, too, enjoyed in the 20 year period between 1950 and 1970 on average $ 500 million per year in US aid. Only Western Europe received comparable benefits (Arrighi 2002).

4. Capital Export and Class Formation

We will now turn to the impressive class formation processes triggered by the expansion of transnational capital, which the most narratives on direct investment and import substitution tend to ignore. The combative, independent labour movements in the periphery place question marks on the still quite popular thesis of a 'labour aristocracy'.

Whereas in the US, Western Europe, and Japan the postwar generalisation of the fordist economic and social model allowed for – always fragile – social pacts between employers, labour movements and governments, in the periphery this was achieved only to a very limited extent. Western Europe, for instance, experienced a wave of mass strikes in the late 1960s, which resulted in significant concessions from employers: permanent recognition of trade unions, extended co-decision procedures, and the linking of wages to productivity. As part of the tripartite deal typical for Western welfare states, governments committed themselves to full-employment policies, employers committed themselves to passing on part of their profits in the form of wage increases, and unions committed themselves to cooperation and moderate demands. Particularly the rising wages enabled the corporatist integration of the labour movement. The possibility of mass consumption in the West was the decisive precondition for the relative stability of this 'class compromise', which was nevertheless constantly broken, for instance, by the strike waves of the late 1960s and early 1970s.

While the labour movement in the West enjoyed the welfare state and mass consumption, this model was not deemed suitable for the rest of the world. Yet, to prevent the spread of communism, modernisation theory promised that the periphery could close the gap to the 'first world' once it had gone through all the phases of the modernisation process. One of the key figures of this development discourse was the modernisation theorist, and future US security advisor, Walt Rostow, whose book 'The Stages of Economic Growth' published in the 1960s bore the revealing sub-title 'A Non-Communist Manifesto'. According to Rostow, the starting point of any development is underdevelopment, which he understood as the lack of industrialisation. He argued that the development process begins with an initial period, followed by a boom period which leads to a takeoff of self-sustained growth, until the society finally reaches its stage of maturity with mass production and mass consumption. However, since the periphery did not have a Marshall plan to support its takeoff, and since the

generalisation of mass consumption remained distant, the US tolerated with gritted teeth the import-substituting policies in the South, as long as the doors were left open to US companies – with a few exceptions, like South Korea. In spite of the economic achievements of import substitution, social contracts like in the West were not viable because of the smaller scope for the redistribution of wealth. Hence, in the periphery this era was more strongly marked by labour protests and repression. Consequently, modernisation theorists like Walt Rostow or Samuel Huntington were among the loudest voices in support of military governments as a means of development, and among the supporters of the US intervention in Vietnam beginning in 1964 (Dos Santos 1997).

The oppressive governments supported by the West, like the authoritarian regime in South Korea, the military dictatorship in Brazil, or the apartheid regime in South Africa, turned these countries into favourite investment destinations of transnational companies from the US, Europe and Japan. But contrary to management expectations, their direct investments inspired the creation of new, combative labour movements, as illustrated by the following examples from South Korea, Brazil and South Africa:

A 'Times' article from 1975 describes the positive investment climate in South Korea under the authoritarian regime of General Park Chung Hee: 'Even if South Korea's workforce of 11 million is a key element in the country's development, it is, at the same time, a potential source of unrest. The salaries are among the lowest in the world, industrial action is prohibited by law, and the unions are but a shadow of their Western counterparts. (...) Strict labour laws enable the government to dissolve any union suspected to pose a public threat. (...) On 27 December 1971, the government issued a number of emergency measures, including the illegality of strikes. From that day, strikes are punishable with imprisonment of up to seven years' (cited in Fröbel et al. 1977: 547).

The establishment of labour-intensive assembly plants, particularly in the clothing and electronics industries, caused strong internal migration in South Korea, with above all young women moving from the countryside to the urban industrial regions. In the mid-1970s, half of the migrants fleeing family and countryside were women aged between 15 and 20. Whilst most of the jobs in the capital-intensive industries were reserved for men, female employment predominated in the precarious, badly paid and unqualified jobs of the first world market factories. Contrary to the stereotype of a 'submissive' and 'willing' workforce, often explained by Confucianism, the Korean female workers spearheaded a protest wave, which started in 1974 and lasted until the late 1970s. The protests set in at a time when such activities encountered fierce repression by the state and the employers. They were concentrated in the labour-intensive industries, and were almost exclusively supported by women, while their male colleagues either remained passive, or collaborated – as members of co-opted, male-led trade unions – in suppressing the rebellious female workers. Some of the strikes initiated by female workers were quite successful, resulting in improved working conditions and the recognition of independent unions. Yet other protests were brutally repressed by security forces. Physical abuse and imprisonment belonged to the common methods of intimidation. In consequence, some resistance activities gained much attention,

prompting acts of solidarity in the entire country. Moreover, the protests were not restricted to labour demands, but were highly politicised. Opposing the dictatorship, the female workers also acted as a democracy movement. A fundamental prerequisite of this resistance were the class formation processes among the women migrating to the cities. Many of them lived collectively in hostels or factory dormitories. Devised as a control and cost-reducing instrument, at the same time they prepared a fertile ground for the exchange of working experiences and the expression of mutual solidarity, strengthening the labour migrants for future struggles (Mikyoung 2003).

Female workers also played an important role in the disputes of the following decades, for instance in the 'Big Workers' Struggle' of 1987, which marked the starting point of South Korea's formal democratisation. After the military government had eased the investment regime in heavy industries in the early 1980s, numerous transnational corporations invested in the large state-owned car and electronics companies, above all in the form of minority shareholdings or joint ventures. They, too, expected smooth production and high profits under a repressive labour regime. But the outbreak of militant unrest in 1987 crushed their expectations. Hundreds of thousands of female and male workers took part in strike activities all over the country. Among other demands, they challenged the representational monopoly of the Federation of Korean Trade Unions (FKTU), and demanded the legalisation of independent organisations. In the following years, they founded a confederation of the independent trade unions, which in 1995 was renamed 'Korean Confederation of Trade Unions' (KCTU). In 1999, KCTU represented 573,000 workers, of a total of about 1.5 million officially registered trade union members (Kong 2005).

In Brazil investors had similar experiences. However, after General Castelo Branco's coup in 1964 and the subsequent opening up to foreign direct investment, Brazil seemed an ideal location for direct investment. The president propagated 'interdependence' and 'associated development', and the Foreign Secretary, General Juracy Magalhães, declared: 'what is good for the United States is good for Brazil, too', (cited in Dos Santos 1997: 15). The Brazilian dictatorship also promised far more stable conditions than neighbouring Argentina, which at that time was afflicted with numerous workers' protests that culminated in the so-called *'cordobazo'* of 1969, when a strike in the industrial city of Córdoba culminated in the use of military force against workers (Delich 1974). The Brazilian 'economic miracle' was not only characterised by high growth rates, rising exports and the fight against inflation, but also by terror against critics and opponents, by neglecting rural development in favour of forced industrialisation, and, related to this, migration from the countryside and growing urban unemployment. However, together with the rapidly growing manufacturing industry emerged a new working class and a combative trade union movement that broke with the state-centred corporative system. In Brazil this movement was labelled 'new unionism' (Ribeiro de Oliveira 1987: 43).

At the core of this new movement stood the automotive and metal workers in the industrial region of Greater São Paulo. The movement was born in May 1978 with a strike wave that started in the SAAB Scania car factory of São Bernardo do Campo, and which subsequently

spread to Mercedes, Volkswagen, and Chrysler factories. Employers used repressive means to keep unions out of their companies, but like their US colleagues in the 1930s, the Brazilian workers took advantage of fordist mass production for their targeted actions. Confronted with continuous protests, stoppages, sabotage and refused cooperation, by 1982 the automobile multinationals were forced to give in. They had to recognise the new independent unions, signed collective contracts, and agreed to wage increases (Silver 2005: 77). Eventually, from the grassroots mobilisations that had come to light in 1978 emerged both the Workers' Party (Partido dos Trabalhadores – PT), founded in 1980, and CUT, the confederation of independent unions (Central Única dos Trabalhadores), founded in 1983. The current PT President of Brazil, Luis Inácio '*Lula*' da Silva, stems from this new labour movement. During the heated phase of the 1978 fights he was president and influential speaker of the Metal Workers' Union in São Bernardo do Campo. He belonged to the circle of 'new unionism' leaders who defined themselves as a 'combative leadership'. Not least, the grass roots unions born in the late '70s were also important in the fight against the dictatorship, and in reinstalling democracy (Ribeiro de Oliveira 1988).

The South African union movement envisaged a similar development. In the late 1950s and early 1960s there were sudden mass protests against the *apartheid* laws, which were brutally suppressed by the South African government. Thus, it proved to the international investor community that it could ensure political stability, and this was rewarded with a large capital inflow. To a great extent these went into manufacturing. The demand for a semi-skilled workforce exploded, and hence emerged a large sector of Black proletarians. The better paid jobs as skilled workers and employees remained a White privilege. In 1973, after a decade of relative calm, a first strike wave erupted in the factories of Durban, followed by hard repression and the persecution of illegal Black unions. Lay-offs, arrests and banning from the cities belonged to the repressive means. Despite this, the membership of independent organisations rose continuously. Eventually, in 1979, new strikes in the metals and automotive industries forced the government to legalise the Black unions. Yet this didn't contain the workers' protests, on the contrary, a new strike wave shook the country. Like their colleagues in other countries, the South African workers took advantage of their strategic positions in the fordist production process, which they used for selective and very disruptive actions. Eventually, in 1985, more than 400 of the newly founded independent unions unified under the umbrella of COSATU (Congress of South African Trade Unions). Together with the ANC, the organised workers' movement would become the most significant part of the resistance against *apartheid*. COSATU was far better able to defend itself against state persecution than many other groups (Silver 2005: 81).

These examples show that foreign direct investment has constantly triggered – or contributed to – impressive processes of class formation, resistance and unionising. The hope of many investors to find submissive worker masses under repressive regimes remained largely unfulfilled. Moreover, the thesis of a 'labour aristocracy', which still circulates today, proved to be rather difficult to sustain. It sought to explain, in different variants, that workers in the international sectors are ideologically close to the lower middle class because of their

'privileged' position and social status, forming alliances with the national bourgeoisie and transnational capital. Cardoso (1972), for instance, diagnosed a 'split of interests' between the advanced sectors of society interrelated with international capital and the retrograde national sectors. The beneficiaries of foreign interests, he argued, are not only the national bourgeoisie, but also the middle class and the 'employees in the "internationalised" sectors'.[7] Yet, as we saw earlier, the employees of the 'internationalised' sectors constantly initiated protest waves, abandoning the supposed interest alliance with transnational capital. Nor were they only fighting to improve their own situation. Rather, their demands consciously included workers of various categories, companies, and branches, be it higher minimum wages or the legalisation of independent trade unions. Their protests also far exceeded company level. Many of the grassroots unions created in transnational corporations made the fight against oppressive governments one of their principal goals. To achieve this, they formed numerous alliances with resistance groups outside the companies, or they themselves became the organisational nucleus of democracy movements.

5. The Switching Crisis in the 1970s and 1980s

The conditions for the worldwide workers' struggles changed drastically with the phenomenon we shall, like Harvey, call the 'switching crisis' of the 1970s and '80s. To evaluate the unfolding context of these struggles, we shall first outline the background of this crisis and the reactions it provoked. We will then describe, using the examples of South Korea and Brazil, on the one hand, how the subsequent devaluation crises in the periphery promote the accumulation of productive assets, and on the other hand, the profound changes they entail for the struggles of labour movements.

As previously described, contradictions arise when the new territories opened up by capital export begin to generate their own surpluses, which they too seek to absorb through geographical expansion. Such a situation emerged in the mid-1960s, when US corporations were confronted with strong competition from Japanese and West European companies. Pampered by Marshall Plan aid, loans, and direct investment, the 'late industrialisers' not only conquered the North American market, but also many of the export markets of US companies. The combination of an advanced technological and industrial base with a lower wage level gave Japanese and West European companies clear price advantages vis à vis the US manufacturing industry, for instance, in the production of textiles, steel, cars, entertainment goods, machinery and other equipment. The competitive pressures resulting from the export offensive of the newcomers, as well as workers' mobilisations leading to wage increases in the US, Western Europe and the periphery, caused a profit squeeze in the

[7] At that time Arrighi (1974) too brought forward similar arguments, stating that the elite, the sub-elite and the proletarians (excluding migrant workers) were part of Sub-Saharan Africa's 'labour aristocracy'. According to him, they enjoy a relatively high standard of living thanks to multinational corporations, but this fact blocks a more comprehensive development. He maintained that this 'labour aristocracy' would probably oppose any redistribution of wealth, or the 'de-coupling from international capitalism'.

US manufacturing industry combined with growing idle capacities.

In view of insufficient profitability, investment capital flew to the financial markets. Profits accruing from trade and production increasingly went to the unregulated Eurodollar markets (above all the City of London), which leaped upwards particularly in the critical years 1968-73 followed by 20 years of rapid growth. In 1970, the US government reacted to this profitability crisis with an expansionary monetary policy and a drastic devaluation of the Dollar vis-à-vis Deutsch Mark and Yen, hoping to re-establish the country's international competitiveness. Low interest rates provided banks and companies with the necessary liquidity to expand foreign investments and exports. Consequently, the relative revaluation of DM and Yen weakened the competitiveness of German and Japanese exporters. So the problems of overaccumulation and profitability were not solved, but instead the burden had been redistributed between the leading capitalist states (Brenner 2005). The inflationary expansion of the money supply and the lasting dollar weakness gave the Bretton-Woods system of fixed exchange rates its final blow, and in 1973 it was officially buried. Continuing this co-operative system would have implied that the US revaluate the dollar, introduce strict budgetary discipline, and follow a hard economic adjustment process, in other words, exactly the kind of drastic measures the IMF was to impose on debtor countries in the early 1980s. At that time, the US was not willing to subject itself to such a harsh adjustment programme. It went against its interests both in restoring competitiveness through expansionary monetary policy, and in continuing the Vietnam war (Arceo 2002).

However, the continued strategy of global Keynesianism further weakened the US hegemony in the 1970s, marked, inter alia, by the US withdrawal from Vietnam in 1975, rising inflation and shrinking growth, waves of workers' protests in the US, Western Europe, Latin America, and Africa, the imposition by OPEC of drastic oil price hikes, developing countries demanding a new world economic order, and not least, the threat of a demise of the dollar as leading currency due to the high money supply outside the US, above all the Eurodollar markets, which were still swelling thanks to the buoyant oil business. The chairman of the US Central Bank, Paul Volcker, initiated the decisive turn in 1979. In the last year of the Carter presidency, the Federal Reserve restricted the money supply and increased interest rates, thus imposing the monetarist structural adjustment programme for the world economy, continued under President Reagan, which has since found eager followers all over the world. The essential elements of this programme are easy to sum up: tight money supply, high interest rates, a strong dollar, low inflation rates, falling wages, rising profits, lowering capital and income taxes, deregulation of financial markets, trade liberalisation, and not least – contradicting pure monetarism – a gigantic debt financed defence programme. In fact, 'Reagonomics' applied a combination of monetarist orthodoxy with Keynesian 'deficit spending' resulting in rising budget deficits and unprecedented levels of public debt (Brenner 2005).

With the collapse of Bretton Woods and the restrictive monetary policy introduced by Volcker, the governments dismissed the 'New Deal' of the postwar era and unleashed the financial industry: 'Just as the launching of the New Deal and its subsequent globalisation

under Roosevelt and Truman were premised on the transfer of control over high finance from private to public hands, so its abandonment under Reagan was premised on the resurgence of private high finance at the commanding heights of the global economy' (Arrighi 1999: 240). The financial industry had certainly already expanded in the post-war years, together with trade and direct investment, yet the 'Volcker shock' gave an important additional push. From being a competitor, the US government turned into a supporter of private high finance. It deregulated the financial market and created positive conditions for financial transactions, similar to those already available in the unregulated Eurodollar markets and tax havens around the world. With this turnaround, the US initiated an aggressive competition for money that led to a gigantic redirection of international capital flows to the United States. In the shortest of periods the country turned from the most important source of liquidity and direct investment into the world's main debtor nation and the largest recipient of foreign capital. It created strong incentives to attract money, thus financing its growing trade and current account deficits.

At the same time, the 'reagonomics' placed their hopes on the 'disciplinary effects' of the financial markets. These were meant to enforce industrial restructuring and a reduction in unproductive overcapacities not undertaken during the Keynesian period, as well as to break the workers' 'wage militancy'. In practice, this was carried out by institutional investors (investment banks, pension funds, insurance companies and highly speculative hedge funds) who – due to the finance-led recovery – owned gigantic and growing fortunes. Yet they did not play the traditional role of bank creditors. Instead, they formulated detailed profit goals the industry had to meet in the future. The goals for 'returns on investment' were increasingly orientated at the profits that could be obtained in financial markets. From the capital perspective, the strategy was quite successful. Financialisation imposed a profound restructuring of US industry, increasing its rentability and profits. This included the closure of inefficient plants, outsourcing, the expansion of global value chains, support for innovative 'start-ups', and the dissemination of new technologies (Gindin/Panitch 2005; Brenner 2005). Besides all this, the monetarist programme also required a drastic modification of class relations. To secure the confidence of institutional investors, inflationary expectations had to be conclusively and convincingly broken. Hence, it was imperative to defeat the working class's aspirations and its demands for higher wages. Reagan's smashing of the air traffic controllers' strike in 1981 was seen as a sign of the new government's determination to take up the fight against organised labour. Paul Volcker called the defeat of the air traffic controllers the 'most important single action of the administration in helping the anti-inflation fight' (cited in Gindin/Panitch 2005: 64).

However, for the countries of the periphery, the capital 'flood' of the 1970s turned into the sudden 'drought' of the 1980s (Arrighi et al. 2002: 32). While in the 1970s the international financial expansion had been linked to high North-South capital flows, in the 1980s there was a particularly sharp decline in private credits, which were now concentrated to a much larger

extent in OECD countries.[8] The effects of the financial bleeding of the periphery became evident in 1982, when as a result of rising interest rates, Mexico became the first country to default on its debts, followed by others. The intensified competition for capital, and the redirection of financial flows to the US did not only trigger the debt crisis that persists to the present day. Rather, this turnaround has been responsible for the diverging development in the periphery since the 1980s, i.e. for the noticeable 'bifurcation' between Africa and Latin America, on the one hand, and Asia, on the other hand. The rising capital inflow allowed the US to run large deficits in its balance of trade, and thus the import of those goods, that US companies no longer found profitable to produce. This posed opportunities for those East Asian countries whose historical development, combined with the post-war order, had given them sufficient incubation time for import substitution, and for the development of a competitive export industry. Thus, the Asian 'tigers' could now also follow the Japanese example, servicing the expanding US demand for cheap industrial products. The foreign exchange earnings accruing from their exports reduced the pressure to compete with the US in world financial markets. Moreover, since the East Asian states reinvest their export earnings in the US, the latter secures both access to their fortunes, as well as to their cheap goods, i.e. to the Asian labour force. Countries in Latin America and Africa, which for historical reasons pursued the import substitution strategy with less success, lost ground in the competition for the increased US demand. Deterriorated export conditions combined with insufficient exchange earnings led them into the hopeless position to directly compete with the US in the financial markets.

The postwar development of world merchandise exports (Table 1) clearly shows the shrinking share of Africa and Latin America compared to the South-East Asian 'tigers', and more recently, to China as well. The slight increase of Latin America`s share between 1993 and 2003 (from 4.4 to 5.2%) is due almost entirely to the boom of the *maquila* industry that set in after the NAFTA treaty came into force in 1994. Maquilas account for more than 20% of all Latin American exports.

Table 1	Share in World Merchandise Exports, in %				
	1948	**1953**	**1973**	**1993**	**2003**
North America	27.3	24.2	16.9	16.6	13.7
Western Europe	31.5	34.9	45.4	44.0	43.1
Latin America	12.3	10.5	4.7	4.4	5.2
Mexico	*1.0*	*0.7*	*0.4*	*1.4*	*2.3*
Brazil	*2.0*	*1.8*	*1.1*	*1.1*	*1.0*
Argentina	*2.8*	*1.3*	*0.6*	*0.4*	*0.4*
Asia	13.6	13.1	14.9	26.1	26.1
Japan	*0.4*	*1.5*	*6.4*	*9.9*	*6.5*
China	*0.9*	*1.2*	*1.0*	*2.5*	*6.0*
South East Asia (6 'Tigers')	*3.0*	*2.7*	*3.4*	*9.2*	*9.7*
Africa	7.3	6.5	4.8	2.5	2.4

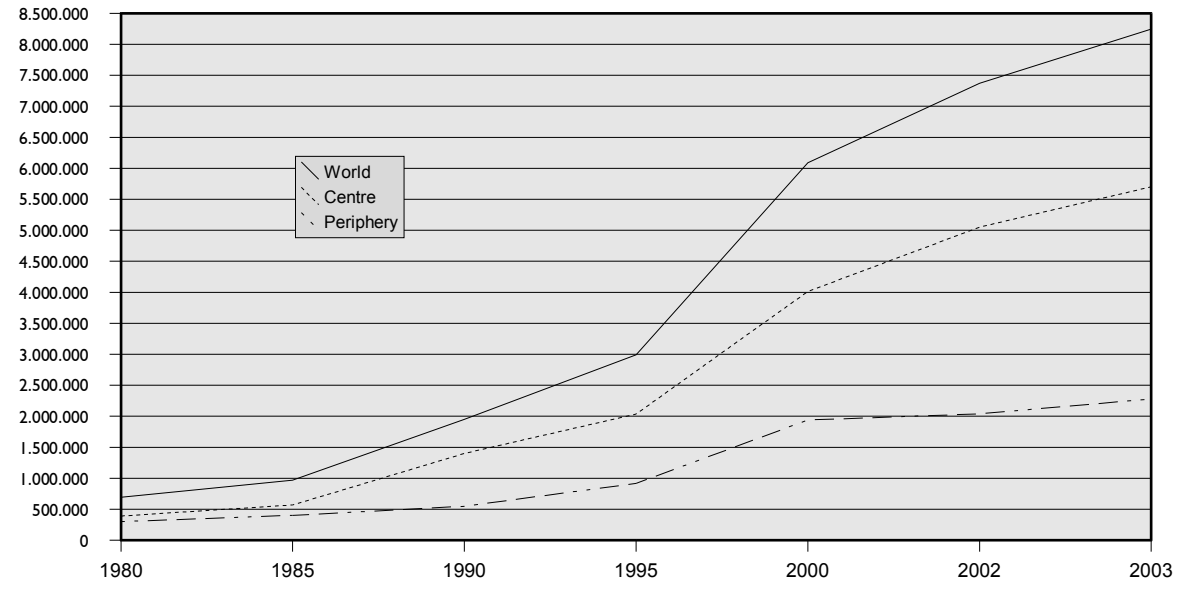
Source: WTO, International Trade Statistics 2004, p. 30

[8] The net capital transfer to developing countries between 1975 and 1982, when the debt crisis erupted, made up 4.91% of the GDP, dropping in the period of 1983-1989 to around 2.87%, and only climbing back to 5% of the GDP in the period 1990-98 (Akyüz/Cornford 1999).

The assumption still defended today by international development agencies, that 'bad governance' is responsible for this bifurcation of the periphery, implies that governments could have anticipated the monetarist turnaround in the US, and consequently also the redirection of capital flows, or they could have stopped that turnaround altogether. Both assumptions are equally unrealistic, and can be dismissed as fairy tales of official development discourses.

Under pressure of foreign debt and structural adjustment programmes imposed by the IMF, debtor governments bade farewell to internally orientated import substitution, placing their hopes on an export-oriented integration into the world market. The neo-liberal mix, which the elites of the periphery not only supported but also enforced, consisted of restrictive monetary policy, budget and wage cuts, privatisations and a further opening up to the world market. Trade barriers were lowered, foreign investment attracted and exports promoted – although with varying successes, as we have already seen. Liberalising capital movements proved to be particularly risky, since financialisation led to a significant change in the composition of capital flows. In particular, the share of volatile financial flows, that in case of a crisis could easily be redirected, increased significantly. This became evident in the crises of the 1990s in quite a drastic way. While bank credits had been the main source of finance for development countries in the 1970s, after the outbreak of the debt crisis they shrank to just 16% of their external finance. Moreover, the share of short-term credits increased as well. There was also a sudden rise of the especially volatile portfolio investments (shares, bonds, and other securities) from 3% in the 1980s to 21% in the 1990s. However, the most striking result of liberalisation was that direct investment became the primordial source of financing for peripherical countries. Before the debt crisis they only made up 9% of the net capital inflow, in the 1980s their share went up to 18%, reaching 34% in the 1990s. At the turn of the millennium, they made another leap upward: in 2003, 72% of net capital flows to developing countries consisted of direct investment (Akyüz/Cornford 1999; UNCTAD 2004).

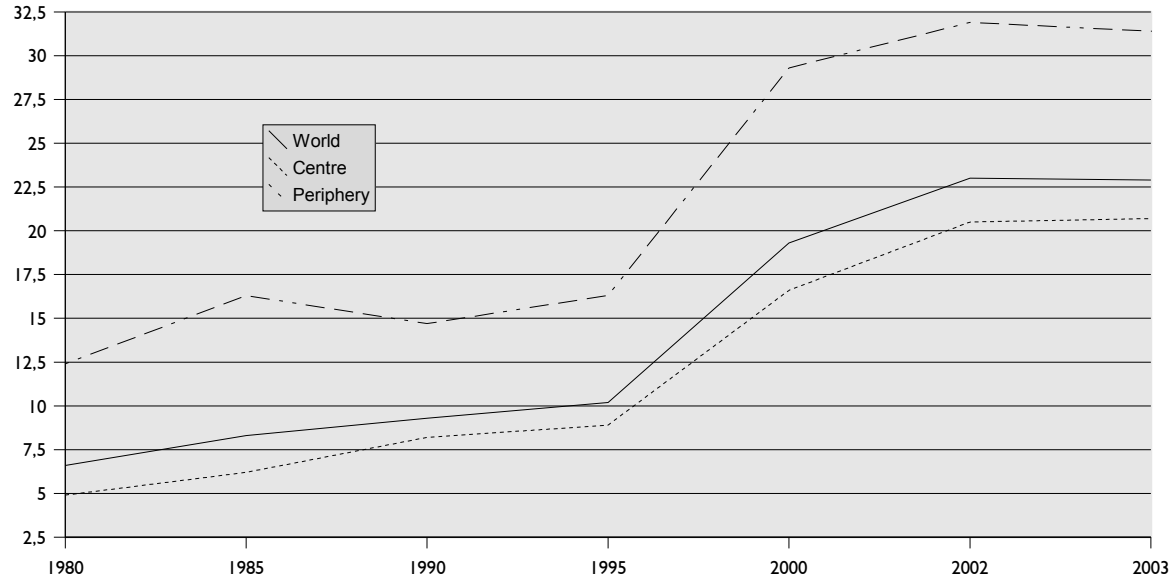
GRAPHIC 1: Foreign Direct Investment Stocks, in Million US $ (inward FDI stocks)
Source: UNCTAD 2004, Annex Table B.3.



However, the high relevance foreign direct investment (FDI) has for transnationalised production is not entirely evident from FDI flows, which fluctuate each year. Instead, FDI stocks accumulated abroad have to be examined. These increased steadily since the monetarist turn, independently of all financial crises. Whereas in 1980 world FDI stocks amounted to $ 700 bn, this sum climbed to $ 8.2 trillion by 2003 (Graphic 1, p. 25).

In this period, invested assets grew much stronger in the capitalist centres than in the periphery. While in 1980 about 56% of FDI stocks were concentrated in the centres, by 2003 this share reached 69%. Hence, the growth in foreign direct investment since the 1980s has not been accompanied by an equalising movement between North and South. On the contrary, the interpenetration of productive assets between the leading industrial countries grew much stronger than between centre and periphery.

Graphic 2: TNC Penetration: Ratio of FDI Stocks to GDP, in %
Source UNCTAD 2004, Annex Table B.6.



Despite this finding, foreign direct investment is highly relevant for many countries of the periphery. One of the instruments to measure dependence on FDI is the TNC penetration, i.e. the ratio between inward FDI stock and the gross domestic product (GDP). On average, TNC penetration rose both in the centres and the periphery, though at a far higher level in the latter. Whereas the TNC penetration in the centres amounted to about 5% in 1980, this figure had risen to more than 20% by 2003, i.e. FDI represented one fifth of GDP. In the periphery, the indicator rose from about 12% in 1980 to 32% by 2003, i.e. FDI represented one third of GDP (Graphic 2). These aggregated figures conceal large differences between individual countries. There are meanwhile a number of states where accumulated FDI stocks represent two thirds of GDP, or even more, like, for example, Chile (65%), Tunisia (66%) Congo (71.3%), Nicaragua (74.7%), Bolivia (78.5%), Gambia (88%), Angola (100%), Chad

(109.3%), Azerbaijan (117%), Equatorial Guinea (127.7%) and Guyana (125.9%).[9]

Undoubtedly, corporate power in these countries is enormous, and since very often only a few companies are involved, the level of monopolisation, too, is quite high.

5.1. Financial Crises and FDI Accumulation

Countries that had fallen into the debt trap after the monetarist turn only obtained 'fresh money' if they complied with structural adjustment and austerity programmes, imposed by the IMF and the World Bank, which included market opening and liberalisation of capital flows. These conditionalities are one of the reasons why the following devaluation crises mainly occurred in the highly indebted developing countries. The principal means used by G7 states and the international financial institutions to generate controlled devaluations are the credit system and the manipulation of interest rates. Nevertheless, the increasingly frequent regional crises that have occurred since the Latin American debt crisis (among others in Mexico 1994, Asia 1997, Russia 1998, Brazil 1999 and Argentina 2001) were barely able to stop the trend towards rising FDI stocks. Often, financial crises acted as catalysts for the accumulation of productive assets. Indebted and devaluated companies provided the ideal opportunity to absorb the surplus capital of transnational corporations. Local companies could be denationalised and merged into the monopoly capital at bargain prices. This became especially evident during the Asian crisis of 1997/98, both in South Korea, one of the countries with the lowest TNC penetration in the world, as well as in Brazil, where the dollar peg was abandoned after several crises.

After the US started a new round of its 'fight against inflation' and raised interest rates in early 1997, thus causing panic and capital flight in South-East Asia, South Korea got into severe debt-servicing difficulties, too. Central bank reserves melted to $ 6 bn, and in the following months the country had to service inter-bank loans worth $ 26 bn. Because of lower interest rates in the international capital market, Korean banks and companies had eagerly borrowed from international commercial banks, mainly short-term credits, which were not renewed in view of the crisis. Fearing that the crisis might affect the international financial system, the IMF intervened with the largest rescue package ever: $ 57 bn. The adjustment programme included requirements such as the restructuring of the business and financial sectors, as well as state authorities, and the liberalisation of the market. All governmental support that might have stopped the bankruptcy of indebted banks and companies was prohibited. Also, labour legislation had to be further 'flexibilised'. Finally, in May 1998, South Korea liberalised all types of mergers and acquisitions (M&A), including hostile takeovers. The government eliminated the cap on foreign ownership in South Korean firms, and liberalised 41 areas hitherto barred to international investors. It also announced that out of 108 state-owned companies, 38 would be completely and 34 partially privatised, with the rest being merged

[9] It comes as no surprise that 'direct investment' in the letterbox companies of unregulated tax havens in some cases exceed the GDP of these countries by several thousand per cent, as is the case with Bermuda (3,051%) or the Cayman Islands (3,157%) (UNCTAD 2004, Annex table B.6.).

and restructured (Chomthongdi 2000). The effect was compelling: by 1998, foreign direct investment had surged to $ 5 bn, and by 1999 to more than $ 9.4 bn, against an average of 1.3 bn in the period 1992-97. Mergers and acquisitions by foreign companies, which were practically nonexistent in South Korea until the mid-1990s, saw a similar leap upwards. While in 1997 they amounted to only $ 800 million, by 1998 they had rocketed to $ 4 bn, declining again only from 2000 onwards (UNCTAD 2004). In view of the sudden rise in foreign ownership, commentators in South Korea and other Asian countries spoke of a 'second Opium War' (Veneroso/Wade 1998: 14).

The crisis clearly weakened the labour movement, not only because of the steep rise in unemployment. Rather, the IMF reforms imposed by Kim Dae-Jung's government against all resistance meant a hard blow, especially regarding the new labour law, which was implemented with only minor amendments. Under Kim's predecessor, Kim Young-Sam, the two union confederations, KFTU and KCTU, had organised mass protests and a general strike against the new law. It undermines the system of unemployment benefits, flexibilises the working week, and facilitates lay-offs and the recruitement of temporary workers. The important labour conflict in the Hyundai motor works of 1998, in which unions shifted to a more defensive line, accepting the management's lay-off plans in exchange for some compensations, was seen as clear evidence of a weakened labour movement (Kong 2005).

Similarly instructive is the example of Brazil under the leadership of Fernando Henrique Cardoso. The introduction of the '*Plano real*' in 1994[10], i.e. the pegging of the *real* to the dollar, contained inflation, but at the same time it also weakened the competitiveness of Brazilian goods, especially industrial products. The trade balance and the current account dropped dramatically, while foreign debt steadily increased (table 2). The situation worsened with every revaluation of the dollar. The first time this happened was in 1994, when the US raised its interest rates from 3 to 6% in one year. While, as a result, the Mexican peso collapsed, Brazil also opted for rising interest rates to counter capital flight and speculation against the *real*: the interest rates rocketed from 42.4 to a sky-high 65.8%. Though this attracted short-term speculative capital, the drastic shortage of money supply undermined all forms of domestic development. A similar episode occurred in 1997, when Brazil was shaken by capital flight and speculation against the *real* after a dramatic increase in US interest rates and the ensuing Asian crisis. Again, the volatile financial flows could only be reverted by drastically increasing the interest rate, this time from 22 to 43%. Nevertheless, Russia's default in August 1998 was the final blow for the '*Plano real*'. Following capital flight and a speculative wave, the Brazilian Central Bank spent a large share of its foreign reserves to defend the *real*. Only an IMF rescue package of $ 41.5 bn was able to postpone the collapse of the Brazilian currency, thus securing Cardoso's second term in office. Since the IMF attached the well-known conditions of interest rate increase and budgetary surplus, the Brazilian economy was strangled even more. Eventually, a coordinated speculative attack against the *real* in January 1999 forced the government to abandon the dollar peg, and the

[10] At that time, Cardoso was still Secretary of Finance.

real was left in free fall. The Central Bank wasted more than $ 50 bn of its foreign reserves in the fruitless attempt to defend the plummeting currency (Rocha 2002).

Table 2	The *Plano Real*, in billion US $				
	Trade balance	Current account	Foreign debt	Net FDI flows	M&A
1994	10.4	-1.7	148.2	-2.5	0.4
1995	-3.4	-17.9	159.2	1.4	1.7
1996	-5.5	-23.1	179.9	7.7	6.5
1997	-8.3	-30.7	199.9	13.7	12.1
1998	-6.5	-33.4	241.6	22.9	29.3
1999	-1.2	-25.4	241.4	23.4	9.3
2000	-0.6	-24.6	236.8	28.5	23.0
2001	2.6	-23.2	210.8	17.4	7.0

Sources: Rocha 2002; Net FDI flows: CEPAL 2005: 92; M&A: UNCTAD 2005: 413

However, during the whole period of the *Plano Real*, and especially in the turbulent crises years from 1997 to 2000, foreign direct investments – supported by Cardoso's radical privatisation programme – experienced strong growth. Thus, between 1996 and 2000, net direct investment grew from $ 7.7 bn to $ 28.5 bn. Mergers and acquisitions (M&A) saw a similarly remarkable growth. Here, the salient change took place between 1999 and 2000. The sudden rise from $ 9.3 bn to 23 bn refers to the devaluation of the *real* since 1999 making the purchase of Brazilian companies cheaper (Table 2). Between 1995 and 1999, transnational corporations were involved in more than 70% of all M&As. High internal interest rates combined with import liberalisation drove many local companies into bankruptcy, or forced them to merge with transnational corporations. As the Brazilian magazine 'Veja' said, 'in the history of capitalism, there are very few examples of such a comprehensive transfer of business control in such a short period' (cited in Rocha 2002: 23).

For the labour movement, the financial instability combined with growing foreign direct investment led to a sharp rise in unemployment. According to official estimates, which systematically underestimate the real rate, it rose from 4.6% in 1995 to 9% by March 2000. Other estimates calculate the unemployment rate in the industrial region of Greater São Paulo at 13.2% as of 1995, rising to 19.3% in 1999 and 20.4% by May 2002. Between 1999 and 2001 alone, real wages dropped by 10%, while absolute poverty increased to 34% of the population, and another 14.5% of the population were condemned to live in relative poverty. This deterioration was 'the direct result of the massacre of small and medium enterprises under the double pressure of high interest rates and drastic liberalisation' (Rocha 2002: 29). Despite the loss of about 20% of industrial jobs under Cardoso's government, grass root unions didn`t suffer an overly strong loss of members. They were even able to raise the membership, particularly of women, and in rural areas (Rodrigues 2005).

6. Global Value Chains

We will now examine the specific mechanisms of unequal development associated with modern value chains and production networks. To do so we shall describe the genesis of the contract types characteristic of modern value chains, followed by a description of production networks in the automotive and electronics industries, their internal and external power relations, and their flexibilised working conditions. We will also outline the effects of growing corporate penetration on the global distribution of wealth, as well as the services provided by the modern trading system to secure the hierarchical structure of global value chains.

Ever since the 1970s profitability crisis of 'fordist mass production', and the start of industrial restructuring in the 1980s, there has been an intense debate on the kind of production model that could replace the ailing fordism. A number of 'post-fordist' models have been discussed: Japanese 'lean production', with flexibilisation of working conditions, team work, 'just-in-time' delivery, and vertical disintegration through outsourcing to subcontractors; the 'flexible specialisation' of comparably small firms, which produce in a craftsman-like, highly modern and flexible way, and are concentrated in industrial districts or 'clusters' like those in northern Italy; and not least the 'new economy', symbolised by the boom of IT and internet companies, whose 'digital production' seemingly doesn`t need traditional industrial work anymore. (Neffa 1999; Zysman 2002). Independently of the above-mentioned fads, global value chains and production networks have become a noticeable characteristic of the new international division of labour. Their rise would have been impossible without the rapid growth of foreign direct investment that set off in the late 1980s, yet they also go beyond the classic FDI links. However, growing FDI stocks have as yet failed to prove the existence of the much-alleged equalising movement between centre and periphery. The question thus arises as to whether global value chains and production networks alter this diagnosis. Are there any signs of change in the 'oligarchic wealth' that results from the disintegration of the production process and its subsequent reintegration in remote parts of the world?

We first have to draw attention to one significant difference between the FDI-led internationalisation of production on the one hand, and value chains and production networks on the other hand. Dieter Ernst (1997) stresses that the modern means of communication and transport facilitate global production strategies that do not necessarily require direct investment. Whereas FDI implies partial or complete ownership and control over a company, the last two decades have seen an increase in cooperation models that do not require transfer of ownership or equity participation, such as licensing agreements, management contracts, contract manufacturing, franchising and strategic alliances. Drawing on UNCTAD, Ernst (1997: 33) proposes a wider definition of international production, whereby 'control over foreign productive assets is typically established through FDI, but can also be exercised through various non-equity forms'. He argues that the predominant focus on FDI is the 'Achilles' heel of research on globalisation', since it is precisely the non-equity links that enable integration of small and medium-size enterprises into international production networks. Small and medium-size enterprises habe become relevant carriers of 'systemic globalisation', since they fill the gaps which large companies can neither detect, nor fill for

themselves. At the same time they also act as buffers, and as cheap, flexible, and fast suppliers of a large variety of production inputs.

The emergence of international production networks is illustrated by the disintegration of the large vertically integrated US multinationals of fordist mass production, such as Ford, General Motors, General Electric and IBM. Since the 1980s, these firms have concentrated on their 'core competencies' and the highest value-added segments of production (like research & development, design, product strategy or marketing), while reducing direct ownership of 'non-core functions' like assembly, services or manufacturing (Gereffi et al. 2003). This also changed the international division of labour. Until the late 1970s, the linkage between the globally dispersed production sites of multinational corporations was typically that of a parent company to its wholly-owned subsidiaries. As a response to pressures from intensified competition and institutional investors, the vertical integration of these locations was deeply restructured. Since then, alternative cooperation forms like long-term contracts, contract manufacturing, strategic alliances or joint ventures, which exist alongside the traditional equity-based linkages, experienced steady growth. Having said that, the worldwide growth of FDI stocks signals that vertical integration does not at all become irrelevant, but alternative cooperation forms arrived on the scene to complement them.

6.1. The Japanese Commodity Periphery

Bunker und Ciccantell (2002) point out that the typical cooperation forms of modern value chains were not developed by US corporations, but by Japanese steel companies, which had already applied them in the postwar decades. The example of the Japanese steel industry is instructive as it illustrates how the intentional creation of dependency and power relations in value chains leads to an extremely unequal cost-benefit distribution between centre and periphery. These power relations do, in fact, reconstruct the hierarchy of the world system. To secure its postwar economic development in a country poor in natural resources, Japan's steel industry needed a permanent and cheap supply of coal and ores. Assisted by the World Bank and the US, and coordinated by its Ministry of International Trade and Industry MITI, Japan invested large sums improving the transport infrastructure – above all ports, canals and supertankers – to ensure fast and cheap delivery of the necessary raw materials for steel production even from remote regions. At the same time, transport distances were steadily growing. While in the early days coal had been delivered from relatively close countries like Australia, Indonesia, China, Taiwan and the Soviet Union, in time supplies also originated in Canada, South Africa and Brazil, among others. From the early 1960s, Japan began turning into the world's no. 1 steel producer and exporter. Whereas in 1960 Japanese firms were responsible for 8.8% of the world's steel exports, by 1976 their share had reached 40.8%.

Due to their correspondingly high demand for coal and iron ore, Japan's steel companies and government systematically took care of lowering both the costs of raw materials and transport. Before negotiating with coal producers, Japanese steel firms consulted each other. Creating cartels strengthened their position in price negotiations, enabling them to play the

coal companies against one another. Their strategy consisted in systematically generating overcapacities in the coal industry, thus lowering the world market price. Hence, the Japanese steel industry preferred to sign contracts with those companies whose governments appeared willing to subsidise coal exports. Thus, the coal companies would put pressure on their governments to promote raw materials exports to Japan. To create incentives for opening up new coal mines, the Japanese offered the prospect of long-term purchasing contracts. Japan's direct investments remained rather low, mainly joint ventures which did not exceed minority ownership. The profitability of these investments played a minor role. It was far more important to generate long-term overcapacities, thus lowering the world market price of coal. This strategy was so successful that the costs of Japanese coal imports were halved between 1959 and 1998. For the coal producing countries on the other hand, the price decline meant falling profits, merciless competitive pressures, and, in many cases, bankruptcy. The resulting restructuring of the coal industry left behind indebted companies, closed mines, and many socially and ecologically devastated regions. This decline was a calculated element of the global value chain of the steel industry: 'At the same time that joint ventures between Japanese steel firms and their Canadian partners have faced repeated crises, the Japanese steel firms have been busy signing new long-term contracts in Australia, South Africa and Indonesia to support the opening of new mines, creating even more excess capacity' (Bunker und Ciccantell 2002: 86).

Japan eventually adopted the same model in Brazil in the late '70s, when, as part of the 'Grande Carajás' project, the world's largest iron-ore mine was opened up. The Carajás region is believed to contain the densest concentration of mineral resources in the world. A year after the failure in 1977 to strike a joint venture with US Steel to develop the mine, the 'Companhia do Vale do Rio Doce' (CVRD) – at that time still state-owned – made a new attempt. After the World Bank had signalled its willingness to provide finance, consultants of JICA (Japanese International Cooperation Agency) wrote a feasability study for an integrated iron ore project in the Carajás region. Their concept was largely accepted when the Brazilian government approved the project in 1980. Such was the influence of the Japanese government on the project that it fit perfectly into Japan's global supply strategy. Promising long-term purchasing contracts Japan persuaded CVRD and the Brazilian government to build an 890km long railway line to the port of São Luis, as well as huge ships, which at that time could only dock in Japan and Rotterdam. The initial arrangement with US Steel would have been much cheaper for Brazil, since smaller vessels could have shipped the ore to the US. Despite all this, the Brazilian government opted for the more expensive concept, and, coinciding with the outbreak of the debt crisis, lots of credits were disbursed – stemming from the World Bank, the European Union, Germany, and Japan – though they covered just a part of the investment costs. And CVRD was really the model child for the Japanese strategy of surplus production. To become integrated into the value chain of Japanese (and European) steel production, CVRD lobbied politicians at federal level, obtaining generous tax exemptions and subsidies for the Carajás project: easy land purchases, cheaper loans, subsidies, credit guarantees, a 10-year waiver of the income tax, as well as a halving of import

duties and the value added tax. Integrating the Amazon into the Japanese raw materials periphery meant for Brazil high capital costs, low profits, and an impoverished state (Carvalho 1997).

In the 1980s, the innovations of the Japanese steel industry described above – long-term contracts, joint ventures and other forms of cooperation – became key elements in the global restructuring of US and European corporations, which, in response to their Japanese competitors, disintegrated to create global production networks. Bunker und Ciccantell (2002: 94) conclude that 'this new model of capital accumulation has had very similar impacts on redistributing the costs and benefits of development between centre and periphery for a wide range of global industries'. Therefore, in the subsequent chapters we want to have a look at two other global value chains: those of the automotive and electronics industries.

6.2. The Production Network of the Automotive Industry

The carmaking industry illustrates the shift from vertically integrated production to modern value chains. Particularly in the context of import substitution, many host countries of foreign direct investment – for instance, Brazil, India and South Africa – conditioned market access to local manufacturing and and the use of locally produced inputs. Automotive production developed under strict control of the state. India, for instance, regulated production through a licensing system, which controlled output, models and prices. The government promoted above all lorries, tractors and buses, while the production of cars remained far below demand. Two local companies built most of the vehicles: 'Premier Auto' and 'Hindustan Motors'. Only in the mid-1980s did the government cautiously start to open the Indian market, at first just in the form of joint ventures with foreign companies. Similarly, until the early 1990s Brazil`s automotive regime also promoted local production. Although foreign assemblers like Fiat, Ford, General Motors and Volkswagen were permitted, the parts and components industry that had been emerging since the 1960s was largely owned by local capital. In as late as 1990, imported cars made up less than one per cent of domestic sales, and the import of components covered just 10 per cent of total domestic demand. In 1991/92, India imported just 362 new and second-hand cars, i.e. 0.2% of local production. The import of components equalled 20% of internal production. However, following the forced market openings in the 1990s, these structures underwent a profound change, as the example of Mercedes Benz in Brazil demonstrates (Humphrey 1999).

In the early 1990s, the Brazilian government began liberalising trade for the first time, introducing additional measures to promote foreign direct investment in the mid-1990s. Against this background many companies already active in Brazil expanded their production capacities, and some firms not previously present on the Brazilian market erected new plants, among them Mercedes Benz, Honda, Peugeot, Renault and Toyota. The Mercedes Benz factory was intended to produce 70,000 units of the A-model series. From the start, the corporation used the typical concepts of modern production networks, i.e. 'follow design' and 'follow sourcing'. Mercedes Benz developed the model design in Germany with its major

first-tier suppliers. These design standards also apply for the suppliers at the Brazilian location, who may only carry out minor adjustments to local conditions. The supplier network in Brazil consists of about 80 main suppliers and 50 smaller firms. The preferred suppliers are those that already supply Mercedes Benz in Germany, and that also erected plants close to the Brazilian Mercedes factory so they can deliver components 'just in time' for assembly. About 70% of the European suppliers already had subsidiaries in Brazil. Mercedes encouraged suppliers not located in Brazil to also open up operations there. Thus, the principal suppliers have meanwhile become transnational companies that are servicing various carmakers worldwide. When companies already operating as suppliers in Germany cannot deliver a component, Mercedes recurs to other transnational suppliers as its second best option. Only if no transnational company can deliver in Brazil local component manufacturers may become involved. In the hierarchy of the Mercedes production network, Brazilian companies supplied only four components of the A-model series (Humphrey 1999).

A drastic effect of foreign direct investment in the automotive sector was the sale of the major local component manufacturers to transnational corporations. In the context of 'follow sourcing' it became impossible for local manufacturers to survive as independent first-tier suppliers of the automotive industry. Apart from this denationalisation of an entire industry, foreign direct investment was also associated with a sharp increase in component imports. In spite of 'just-in-time' production, not all inputs have to be manufactured in the immediate vicinity of the assembly plants. Within six years of liberalisation, the number of components imports had increased sharply. The European Union, for instance, enjoys a stable trade surplus vis-à-vis Brazil in the segment of auto parts (Fritz 2004).

A further negative consequence Brazil suffers from its subordinate integration into the global production network is the loss of technical qualifications. Research and development, as well as the design of car components remain concentrated in the US, Europe and other industrial districts. As regards employment, due to growing productivity Brazil also experienced significant lay-offs in assembly and component manufacturing, with a particularly high job loss at the management level. Staff in final assembly and the workers of first-tier suppliers may enjoy comparatively good working conditions, but these remain very contradictory: management techniques such as team work, quality circles and 'job enrichment' are neither reflected in remuneration, nor in stability of employment. Quite the contrary: throughout all levels of the production network temporary work increased significantly. Moreover, working conditions at the end of the supply chain are considerably worse, including irregular sweatshops and child labour.

6.3. Contract Manufacturing in the Electronics Industry

The IT and electronics industries underwent a profound transformation towards global production networks, associated above all with contract manufacturing. Corporations from the US, Europe, and Japan – such as Cisco, IBM, Hewlett Packard, Siemens, Ericsson and Sony – largely, or even completely, made the decision to get out of manufacturing and instead

focus on the development and marketing of new technologies. These 'non-factory' brand firms outsourced the production of PCs, mobile phones, and other IT devices to contract manufacturers, which, like the first-tier automotive suppliers, also transformed into multinational firms. Hence, the five US companies Solectron, Flextronics, Sanmina DCI, Celestica and Jabil Circuit alone dominate the world market of contract manufacturing. Nevertheless, they remain widely unknown. Their names do not appear on any devices because they produce exclusively for the leading international firms. The 'nameless' contract multinationals produce in Asia, Latin America and Eastern Europe, sometimes employing several thousands of staff, mostly in large factories. They typically crowd into free export zones and other industrial clusters, for instance, in Malaysia (Penang), China (Shanghai, Shenzhen), India (Bangalore), Brazil (Campinas, Manaus), or Mexico (Guadalajara, Monterrey). Similar to the automotive production networks, these industrial districts also became the new locations of contract manufacturers which already had established business relations with the electronics multinationals in their countries of origin. Paradoxically, the disintegration of brand firms leads to the return of vertically integrated fordist mass production in the low-cost locations of the periphery (Sproll 2003). Nonetheless, South-East Asia differs from other contract manufacturing locations in that it developed a veritable domestic electronics industry, alongside Japanese and US corporations. With the exception of the state-owned conglomerates (*chaebols*) in South Korea, these companies were financed to a large extent by the regional Chinese Diaspora. Chinese foreign capital played an important role in developing industrial capacities, not only in the 'Chinese Triangle' (the People's Republic of China, Taiwan and Hong Kong), but also in Singapore, Malaysia, Indonesia and Thailand (Borrus 1997).

Contract manufacturers do increasingly engage in local sourcing, too. Local companies which manage to get listed as certified suppliers of contract manufacturers produce packaging material, plastics and user manuals, or offer services, such as programming or engineering work. The contract manufacturers are thus able to diversify products and services, which they supply simultaneously to many lead firms of the electronics industry. Meanwhile, in addition to component manufacturing and assembly, their 'one-stop-shops' comprise test routines, product re-design, storage, logistics, distribution, customer services and repairs. Nevertheless, the hierarchy of the electronics industry value chain remains unchanged: the brand firms still concentrate their research & development activities in industrialised countries, where they also manufacture strategic components and develop new prototypes. Accordingly, this structure reproduces the unequal distribution of knowledge, engineering capacities and value added. The poles of this 'profit rate hierarchy' are marked by researching centres at one end, and manufacturing peripheries at the other end.

To defend this decoupling of innovation and manufacturing, as well as their own position, brand firms have to prevent their know-how from leaking into the network. Their main defence consists in defining international product standards and technical norms. The research & development departments brood over codes of operating systems, the architecture of integrated circuits, transfer protocols in data nets, and, above all, definitions of

interfaces. These are decisive resources for controlling production networks and markets. But they are also the origin of major contradictions. To the extent in which both product and process knowledge are bundled into 'digital packages', before being transferred to the contract manufacturers, the risk of a valuable 'intellectual property' drain increases. Production knowledge can 'be copied, re-engineered, or stolen' (Zysman 2002: 41). The CAD file (computer aided design), without which a contract manufacturer could not produce any electronic element, might contain decisive lead firm knowledge. This is one of the reasons for the globalisation of legal instruments protecting 'intellectual property rights'. Worldwide recognition of patents, copyrights, product standards and technical norms secures the oligarchic structure of modern production networks. Their implementation remains an important responsibility of the state, which is coordinated by international bodies like the World Intellectual Property Organisation (WIPO) and enforced by the World Trade Organisation (WTO).

Technological knowledge is nevertheless being to some extent disseminated in the production networks of the electronics industry. Even some research and development tasks have meanwhile been transferred to 'low-cost locations' with qualified workers. The extent of this dissemination may vary between individual companies and individual locations. At present, the question of which direction the corresponding development might take remains open. Gereffi et al. (2003: 14) point out that IT systems are being developed in two different directions at the same time: on the one hand, towards 'proprietary systems', which are customised to the specific needs of brand firms, and which require a closer collaboration with suppliers but provide more effective intellectual property protection; and on the other hand, towards 'open standards', which facilitate modular network structures and the participation of third parties, but also imply a higher risk of intellectual property leakage.

However, the electronics industry has proved to be highly mobile, so the dream of 'upgrading' might rapidly turn into a nightmare of 'relocation'. This happened to Guadalajara, the Mexican 'Silicon Valley', which since 1997 enjoyed a large inflow of contract manufacturers, thanks to its qualified workforce, technical infrastructure, training centres, and flexibilised labour laws supported by corporatist unions. Some contractors erected plants for over 10,000 employees. Just a few years later, however, the tide turned. The burst of speculative bubbles and the end of the New Economy boom in 2001 generated large overcapacities in the IT sector, resulting in 'downsizing', layoffs, closures and relocations, among other places, also in Guadalajara. Flextronics and other contract manufacturers transferred large production units from Mexico to their Chinese factories. Local politicians remained paralysed in the face of enormous job losses (Sproll 2003).

One of the main contradictions of contract manufacturers is that in spite of being technologically highly modern, their division of labour remains extremely taylorist, with a correspondingly polarised qualification structure. A small group of highly qualified technicians and engineers corresponds with a large mass of poorly qualified and badly paid workers, mostly young women and migrants. Flexible labour relations, i.e. 'hire-and-fire' jobs, absorb the constant abrupt changes in order volumes. In many cases, temporary work agencies are

completely in charge of recruiting and administrating the labour force. Yet the extent of precarious working conditions also mirrors the strength of the respective working classes. Mexico, where co-opted unions – closely linked to the old state party PRI – still prevail, and autonomous, combative labour organisations are almost nonexistent, has seen the emergence of a particularly large temporary work market. Temporary employment multinationals like Adecco or Manpower appeared on the market together with contract manufacturers. This was different in Brazil, where labour resistance achieved legal restrictions and collective agreements, which managed to contain the advance of temporary work (ibid).

6.4. Industrialisation and World Income Distribution

At first sight, it seems that the expansion of foreign direct investment and the emergence of transnational value chains indeed bring about industrial convergence between centre and periphery. Arrighi et al. (2002) point out, that developing countries went through a profound structural change. As a consequence, since 1980 developing countries attained a higher degree of industrialisation than the so-called 'industrialised countries'. While in 1960 the manufacturing sector of the developed West contributed 28.9% to the GDP, this share had fallen to 24.5% by 1980, and to a mere 19.8% by 1999. In the periphery, the trend was exactly the opposite. There, the contribution of manufacturing to the GDP climbed from 21.6% in 1960 to 24.3% in 1980, falling slightly to 23.3% in 1999. The UN's Industrial Development Organisation, UNIDO, presented very similar figures: whereas in 'developing countries' the share of GDP in manufacturing climbed from 18% in 1980 to 24% in 2000, in 'industrialised countries' it dropped from 23% to around 20% (UNIDO 2004: 137). In addition, one has to bear in mind that the trend towards 'tertiarising' – i.e. the increasing significance of services – partially hides activities that are also genuinely manufacturing or industrial operations.[11] The 'outsourcing' of hitherto internal operations and 'off-shoring' them to low-cost locations only formally transformed many manufacturing jobs into independent services.

However, the apparent industrial convergence of centre and periphery has been accompanied by a persisting income gap, both between these regions, as well as within developing countries. Arrighi et al. (2002) also compared the GDP per capita of peripherical countries with that of the centres for the period from 1960 to 1998. According to them, during the period from 1960 to 1980, the GDP per capita of the periphery as a proportion of the GDP per capita of the centres fell from a modest 4.5% to 4.3%. And between 1980 and 1998, this proportion increased only marginally from 4.3% to 4.6%. The authors stress that

[11] In the OECD countries, services meanwhile account for 60 to 70% of GDP, while in the developing countries the proportion is estimated at 40% on average. Whereas their increase in the centres is associated with the declining importance of both the primary sector (agriculture and mining) and the secondary sector of manufacturing, their increase in the developing countries occured mainly to the detriment of agriculture and mining, since in these countries the relative weight of manufacturing augmented as well.

the modest decline of inter-country inequality in the 1990s 'is completely due to the rapid economic growth of a single country: China' (ibid: 36).

Kaplinsky (2004) summarises the diagnosis of poverty and inequality:

a) The number of people in absolute poverty (defined by the availability of less than one dollar per day) indeed dropped between 1990 and 2000 from 1.2 to 1.1 billion, but this decline was almost exclusively due to China's growth. Excluding China the number actually rose from 877 to 896 million.
b) Inter-country income inequality grew significantly.
c) Likewise, income inequality increased within most countries; this includes 'successful' developers like China or Chile, 'failing' countries in Sub-Saharan Africa, and most of the wealthy countries, as well (worthy of mention, income disparities grew particularly in the market liberal Anglo-Saxon countries Australia, Great Britain and the USA).

In his analysis, Bornschier (2002) concludes that international income inequalities clearly increased between 1980 and 1997. The per capita income disparities between 103 countries (among them 21 OECD members) grew, measured in real incomes, by 43.3%, and measured in purchasing power parity, by 20.1%.

Acknowledging the persisting income gap between centre and periphery – despite the apparent industrial convergence – points to the conflation of development with industrialisation, widely prevalent in mainstream development theories. It is quite obvious that peripherical societies' attempts to catch up with the centres have as yet failed to translate into a noticeable narrowing of the global income gap. The industrialisation efforts obviously came at high costs, be they social, ecological or economic. We have to recall the enormous costs of fiscal incentives aimed at attracting FDI, the losses incurred due to the intentional creation of high excess capacities in raw materials, the falling commodity prices due to powerful purchasing cartels, the abandoned mines and regions after price declines, the relocations after the burst of speculative bubbles, and not least job losses and impoverishment after 'switching crises'. The impacts of all those mechanisms of unequal development are much worse in the periphery than in highly developed centres. At the same time, the bifurcation within the 'Third World' showed that – for historical reasons – some parts of Asia derived relatively more benefits from industrialisation than many countries in Latin America and Africa. However, not even this apparent 'success' could change the oligarchic global distribution of wealth.

The persisting income disparities are a clear sign of unequal development – and they are precisely a result of integration into the capitalist world economy. Under the given circumstances, the expansion of direct investment and the integration into global value chains will unavoidably produce winners *and* losers. Capitalist production indeed expresses itself as a variety of inequality creating mechanisms. Moreover, a number of empirical studies confirm the strong correlation between TNC penetration and intra- and international inequality. The overview of current research presented by Beer und Boswell (2002: 41) shows that dependence on foreign direct investment 'has been found to be significantly associated with

high levels of inequality'. Within countries, a strong dependency on FDI mainly benefits the high-income strata of society, while the low-income majority suffers losses. These mechanisms particularly affect countries with high corporate penetration, i.e. with large FDI stocks in relation to GDP (see above). Beer und Boswell stress that, in principle, this polarising movement also concerns industrialised countries with high FDI growth, for instance, the US and Great Britain.

6.5. The Hierarchy of Value Chains

Nevertheless, not only TNC penetration generates mechanisms of unequal development, value chains do this as well. Their internal and external parameters are set to shield lead companies against potential competitors and provide them with 'rents'.[12] The players inside and outside the production networks partly assist each other in imposing and maintaining the specific hierarchies of the value chains. Lead companies take a range of measures to prevent their rents from eroding early. Doing this, they enjoy the support of an ample network of national and international institutions. But let us first turn to the internal network management.

In the research literature the terms 'chain governance' or 'governance of value chains' are used to describe the efforts to secure the hierarchy of profit rates, typical for value chains (among others Gereffi et al. 2003; Humphrey/Schmitz 2001). Specific 'governance' typologies are developed applying various criteria. The governance of 'buyer-driven' value chains – dominated, e.g., by brand firms from the electronics or textiles industries (Siemens, Nike) or by multinational retailers (Wal Mart, Carrefour) – differs from the governance in 'producer-driven' value chains, for instance, in the automotive industry. According to another typology, inter-firm relationships move between a 'market-based' pole, where changing business partners is relatively inexpensive, and the opposite pole of vertically integrated firms, where changing partners may be quite costly. Humphrey and Schmitz (2001: 10) identify as one major governance trend a high concentration of buyers combined with an increasing number of suppliers: 'a growing number of manufacturers from developing countries takes up contract manufacturing for a decreasing number of buyers'. So what obviously also grows in modern value chains is the monopoly, and thus the accumulation of 'monopoly rents' of lead firms to the detriment of potential competitors and the army of suppliers.

A further governance trend relates to the growing significance of brands. Lead firms spend enormous amounts of money on developing, marketing and protecting their brands, particularly in the consumer goods industry. The annual ranking of the 100 best international brands, published by the consultancy firm 'Interbrand', gives an indication of the relevance of brands (Interbrand 2005). In 2005, the leader was Coca Cola, with a brand value of $ 67.5 billion, followed by Microsoft (59.9bn), IBM (53.3bn), General Electric (46.9bn) and Intel

[12] The concept of 'rents' refers to the advantages that economic players obtain through protection from competition, i.e., when competitors are hindered from entering the market, or the economic players themselves set up barriers that close the market.

(35.5bn). These sums express the net present value of future earnings secured by the brand. US corporations, followed by European and Japanese firms, dominate the list. Only three of the top 100 brands come from the periphery, owned by the South Korean companies Samsung, Hyundai and LG. While these figures clearly exhibit those benefitting most in buyer-driven value chains, brands also stand for certain quality standards that lead firms must secure. They depend on the timely delivery of normed products by their contract manufacturers. Defective products or unforeseen delivery failures threaten the brand value, and accelerate the constant erosion of monopoly rents. So, on the one hand, brand firms have an objective interest in upgrading their contract manufacturers. Yet on the other hand, this conflicts with constant competitive pressures and price wars. To escape the dangerous 'profit squeeze', lead firms scout continuously for suppliers who offer ever cheaper labour and production costs. But the ensuing change of partners poses the danger of faltering supply or declining quality, which again would endanger the brand value.

Control may also be exerted through the contract types prevalent in global value chains. Since in many countries of the periphery one single TNC or a de facto cartel offers branded or patented products, the patent-holding multinationals can largely dictate their conditions to the local licensees. By defining production methods, prices, sales regions, and license duration, they manipulate not only the profit rate, but also prevent the leakage of their know-how, that, from the licensees' perspective, would be a welcome technology transfer. Therefore, the status of manufacturers in the periphery remains that of dependent licensees of knowledge monopolising multinationals. Considering further that 94% of research & development spending, 86% of patent applications, and 97% of licensing fees are concentrated in industrialised countries, it seems more likely that the technological gap will increase, rather than diminish (UNDP 2003: 207, UNIDO 2003: 155). The enormous growth of worldwide licensing fees – they increased at an annual rate of 17% between 1985 and 1998 – highlights the growing relevance of private 'intellectual property rights' for modern network capitalism (UNIDO 2003: 38).

6.6. The Globalisation of the State

With the transnationalisation of production emerged the need to also globalise the specific services that states provide for manufacturing. Institutions outside the value chains either had to be created from scratch, or had to be 'upgraded' to enforce private property rights and capital mobility, now on a global scale. In addition to the international financial institutions like the World Bank and the IMF, the internationally binding treaties of the World Trade Organisation (WTO), founded in 1995, provide important elements to safeguard globalised production. In a certain way they represent the transnational counterpart of the contractual and property rights guaranteed by capitalist states. The WTO treaties support precisely the lead firms of production networks in maintaining and enforcing their 'chain governance', thus contributing to the expansion of global monopolies. This support is especially effective in the periphery, since the WTO's dispute settlement mechanism permits harsh trade sanctions

against 'dissidents', which have a particular severe impact on countries with a narrow export range. However, these globalised state functions will always depend on the capacity of individual states to implement international legislation. Hence, global institutions like the WTO use state apparatuses via the respective governments.

The WTO services for transnational corporations concern both business linkages established through FDI as well as non-equity linkages typical for global value chains. Thus the TRIMS agreement (Trade-Related Investment Measures) imposes considerable obstacles if WTO members wish to link foreign direct investment to joint ventures, technology transfer, local content requirements, or export quotas. In some cases, such requirements are even forbidden. The TRIPS agreement (Trade-Related Intellectual Property Rights) in turn strengthens power relations that rely especially on modern production knowledge. It demands the introduction and harmonisation of intellectual property rights, be they copyrights, brands, industrial designs or patents, which are of particular economic relevance. Since TRIPS refers to the conventions of WIPO, their enforcement was considerably strengthened. Thereby, WTO members committed themselves to certain provisions of the Paris Convention for the Protection of Industrial Property (trademarks and patents), the Berne Convention for the Protection of Literary and Artistic Works, the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations and the Washington Treaty on Intellectual Property in respect of Integrated Circuits. Since 1995, non-compliance with those conventions covered by TRIPS may cause a WTO dispute. Similar relations between WTO treaties and international bodies also exist in other areas relevant for modern value chains, for instance, regarding technical standards (ISO) or food hygiene (Codex Alimentarius Committee of the FAO). Not least, the WTO services agreement GATS will probably also considerably ease the TNCs' burden of global network management. The deregulations negotiated under GATS aim to provide the manufacturing sector with the cheapest possible services, ranging from banking and insurance services, to legal and business consultancies, as well as to industrial infrastructures like telecommunications, energy supply and transport. Considerung the entirety of WTO services for capitalist production, one might wonder why this international body was not named 'World Manufacturing Organisation – WMO'.

Yet equally important for securing the profit-rate hierarchies are the regulatory gaps, which are intentionally left open. For instance, regulatory bodies in industrialised countries notoriously close their eyes to monopolisation, especially if it happens abroad. As has already been demonstrated with the buying cartel of the Japanese steel industry or the concentration of brand firms, modern network production entails a strong tendency towards monopolisation. By controlling both, supply and distribution channels, lead firms can effectively block market access of potential newcomers. Monopolisation is further strengthened by the dominant form of foreign direct investment, i.e. mergers and acquisitions.

The growing integration of manufacturing into global value chains increases even further the impact of national and international cartels, most of which never become public. Periphery

economies are particularly vulnerable vis-à-vis price fixing, the allocation of sales regions, or bidder cartels, because their competition authorities are either underfinanced, or simply nonexistent. According to a World Bank study, in 1997 alone developing countries spent $ 81 bn on imports from cartelised firms. Still, this calculation is based only on uncovered cartels. Since a large proportion remains in the dark, the real damage is far higher (Levenstein/Suslow 2001). Since for years the OECD countries refuse to persecute foreign effects of cartels, the situation will remain unchanged. As a rule, antitrust authorities in the centres only deal with domestic effects of anticompetitive behaviour.[13] Although the competition authorities of the US, Europe and Japan do occasionally cooperate to uncover international cartels, developing country authorities are not included in these efforts.[14]

7. Global Manufacturing, Polarisation and Protest

The dynamic transnationalisation of manufacturing, and its restructuring into global value chains, proves to be an ambiguous process. It is one of the contradictions of corporate penetration in the periphery that while on the one hand, it triggers significant class formation processes, on the other hand, it also sets off mechanisms of dependent development which create and perpetuate considerable social inequalities – both at national and international level. Compared to the capitalist centres, the class struggles in the periphery take place against the background of a drastic worldwide income gap, which is not at all equalised by network production – on the contrary, until now it has remained extremely stable. In this respect, the global income gap will probably continue to contribute to more militant forms of workers' protests in the periphery compared to countries where the concentration of wealth allows for a wider redistribution of incomes.

The mechanisms of unequal development go together with both foreign direct investment as well as the new cooperation forms of global value chains. Thus FDI stocks grow much stronger in the centre than in the periphery. The interpenetration of productive assets increases much more between the leading industrial nations than between centre and periphery. Moreover, there are clear signs that the accumulated FDI stocks boost domestic and international income disparities: the stronger the corporate penetration of a national economy, i.e. the share of FDI stocks in relation to GDP, the deeper the internal income gap. This is yet another criterion that applies above all to peripherical economies. Moreover, this

[13] Most OECD members exclude export cartels from the scope of their anti-trust legislation. This is, for instance, the case with Germany's law against anticompetitive behaviour.

[14] A particularly severe case was the infamous vitamin cartel. In 1999, the US Justice Department uncovered a large corporate network, the so-called vitamin cartel, in which pharmaceutical firms from Switzerland, Germany, France, Japan and the US were involved. For nine years, this cartel fixed prices for the worldwide sale of vitamins, which in 1999 amounted to US$ 2 billion. The uncovering of this cartel led to dozens of court cases. Hoffman-LaRoche, for instance, was condemned to pay $ 500 million, one of the highest fines ever in US history. However, although importers and consumers in developing countries were also affected by this cartel the US and European anti-trust authorities did not share their findings with their colleagues in these countries (Levenstein/Suslow 2001).

mechanism seems to be intensifying: while in the 1970s FDI accounted for less than 10% of net capital inflow into developing countries, its current share now exceeds 70% (see above). Thus the polarising effect persists. Expectations that value chains and network production will eventually equalise the differences between centre and periphery also prove too optimistic. Instead, the dominant trend is to internally and externally safeguard the hierarchical structure of value chains with research & development activities concentred in the centres and assembly work in the periphery. This does not exclude the continuing transfer of capital-, technology- and knowledge-intensive processes to peripherical countries. But there is no evidence as yet that these capital movements contribute to technological convergence, or any substantial narrowing of the enormous global income gap. Nor is this conclusion altered by the fact that – for historical reasons – some Asian countries integrated themselves more successfully into global production networks than the vast majority of Latin American and African states. Only the steady growth of China has modified – albeit minimally – the global distribution of wealth. The enormous monopolisation of production and marketing knowledge as well as other forms of 'intellectual property' obstruct any noticeable equalising trend. In this context, the international trade regime, which thanks to the WTO has been transformed into a veritable production regime, plays an increasingly important role. International economic organisations support the lead firms in protecting their privileged positions in the profit-rate hierarchy of global value chains.

To this must be added the always unstable fix of surplus capital, including the destructive aspect of the reproduction process: 'accumulation by dispossession'. A large part of the capitalist devaluation crises have happened in the periphery, especially since the monetarist turn – the *Volcker shock* of high interest rates and short money supply. The adjustment costs are, if possible, passed on to the periphery and the global working class. The G7 and the institutions it controls are firmly determined to preserve this *status quo*. As long as they succeed in geographically restricting the devaluation crises, these will remain a strong mechanism of unequal development. Network production obviously provides no protection against this mechanism. The most devastating crises in the last years happened precisely in those South-East Asian and Latin American countries that had successfully integrated themselves into global value chains. The recurrent pattern of the latest 'shifting crises' may include the flight of speculative capital as well as of some companies, but transnationalised productive assets as a whole continue to grow with stoic calm. Frequently, FDI stocks have increased considerably just after a crisis. At the same time that factories were being devalued and productive assets withdrawn from quite a few regions, the internationalisation of manufacturing continued to expand.

The monetarist programme and the 'disciplinary effect' of financial markets meant a worldwide weakening of the working class. The dogmatic 'fight against inflation', the global industrial restructuring imposed by competitive pressures and financial investors, outsourcing and precarious labour conditions added up to a neo-liberal attack that has deeply changed class relations. However, transnational expansion and the formation of global value chains are not just an effect of technological innovation and intensified competition, but also of the

conflict between capital and labour. Global capital movements also react to resistance from labour movements, and to attained social rights, which in turn affect the profitability of firms. Consequently, workers cannot be reduced to mere objects of capital mobility and organisational restructurings – they are instead important players within these processes.

Furthermore, the new technological possibilities for global restructurings do not automatically increase real capital mobility across all industrial branches, nor do they inevitably mean a power shift at the expense of the working class. Internationalisation alone is not a satisfactory sign of any real possibility of relocating productive assets. Capital mobility depends on a variety of factors. It also differs from one branch to the other, and it depends on the position within the hierarchy of a value chain. Nor are global production networks in all cases and at all places accompanied by a weakening of the working class. On the contrary: principally, they may also provide workers with new weapons in their struggles. Transnational corporations may have lots of possibilities to resist strikes and other forms of labour unrest, 'but at the same time, they are vulnerable at many points of their cross-border production chains. (...) Joint cross-border actions by local unions in different countries can cripple even the largest TNCs in their major markets. As the perception of this possibility becomes more widely recognised, the rules of the game will change' (Moody 1997: pp. 63f.).

The possibilities of resistance are favoured by the fact that contract manufacturers and subcontractors often concentrate in certain areas of the host countries. Thanks to their clustering in industrial parks and free export zones, including the return of fordist mass production in the electronics and other industries, they become hot houses of class formation and constant labour struggles. The first strikes for independent unions at contract manufacturers' plants in the special economic zone of the Chinese city Shenzhen prove that there is no place in the world where the international low-wage mafia is safe from resistance.

The high economic significance and immense vulnerability of network production put workers in the international sectors in a particularly strategic position. The thesis that they belong to a 'labour aristocracy' that forms an alliance with transnational capital has proved particularly untenable with respect to the periphery. Again and again, it has been precisely the workers of transnational corporations and contract manufacturers who spearheaded massive protest waves, taking on board the demands of the working class as a whole, and closing alliances with various resistance groups far beyond the factory gate. Today in North America and Europe, a reorientation and extension of union struggles is debated under the keyword of a 'social movement unionism' (Moody 1997). Its roots go back to the combative and independent labour movements in South Africa, Brazil, South Korea and many other countries of the periphery. One of the challenges of emancipatory movements today is to internationalise these approaches along the lines of global value chains. The vulnerability of transnational production networks already increased the 'workplace bargaining power' of workers. Internationalising a 'social movement unionism' would supplement these possibilities with global 'organisational power' and strengthen labour movements as a whole.

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