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Sustainability through cost internalisation: Theoretical rudiments for the analysis and reform of global structures

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Abstract

In the last 250 years, capitalism has been the cause of great wealth and affluence. This was brought about by the interaction between a dynamic mobilisation of resources and the efficient allocation of production factors, produced goods and services through control of the market, technical progress, the spread of trade and use of comparative cost advantages. In this respect, classical and neoclassical economics since Adam Smith has been proven correct. However, this school's postulation that the market's invisible hand will also provide for a balanced development of wealth between rich and poor regions and nations has not been proven correct. On the contrary, the gap between rich and poor has grown. The contradiction between theory and reality is not at all coincidental. Classical and neoclassical economics subordinate absolute equal opportunities between all (world) market actors and exclude extra-economic factors such as, for example, the *disparity of power* as a lever of wealth increment. Furthermore, it neglects the circumstance of capital accumulation and growth in consumption through the cost-free use of nature, which has many consequences for the destruction of the ecological balance. These methodical foreclosure proceedings do not only have fatal consequences for the theory; politics is also especially affected. To be sure, neoclassicism offers no solutions to the greatest challenges of the present, namely, social inequality on a global scale and the ecological crisis. The individual measures which have been enacted, such as the *IMF's structural adjustment programme*, often cause the opposite social and ecological effects. An important prerequisite for the development of strategies in a global reform perspective is, therefore, the dealing with some fundamental deficits in the dominant economic theory. This paper will (a) develop the idea that the disparity of political and economic power has historically promoted the externalisation of social and ecological costs and, as a result, caused the rise of non-sustainable structures in the world economy as well as social and ecological crises, and (b) prove that cost internalisation by means of new basic conditions in the world economy is an indispensable must for sustainable development in the world economy. © 1997 Elsevier Science B.V.

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1. What does 'cost externalisation' mean?

The problem of cost externalisation is not unknown within neoclassical theory. Alfred Marshall discovered that a higher standard of worker education and training can have positive effects on the profits of an enterprise (Marshall, 1890). In the meantime, external effects have taken on an increasing importance in the environmental economy. Arthur C. Pigou interpreted the failure to consider the costs of environmental pollution generated by smoke emitted from factory chimneys in the cost accounting as an example of cost externalisation (Pigou, 1920). The environmental economy limits external costs to economic costs resulting from environmental damage, which are not accounted for in the operational bill of costs. The externalisation of costs were analysed in a considerably more detailed and comprehensive manner by Karl William Kapp in his study, *The Social Costs of Private Enterprise*, which was published in 1950 (Kapp, 1950). Kapp also developed a more precise and complete definition of external costs, which he characterised as social costs. These are: "all direct and indirect losses which either third parties or the general public are forced to bear as a consequence of uncontrolled economic activity. Such social costs can be expressed through damage to human health, the destruction of or reduction in property value and the premature exhaustion of natural resources" (Kapp, 1963, p. 10).

In the opinion of the author, the core of this definition is still fully applicable today. However, some specific points require further precision and addition. It is not incorrect to summarise losses through damage to human health and the premature exhaustion of natural resources within the term *social costs*. It is imperative, however, to decide between what constitute *social* and *ecological costs* in order to formulate differentiated reform measures for socially and ecologically sustainable global economic structures. This and a number of other considerations resulting from personal research have led the author to suggest a more comprehensive definition for cost externalisation, as shown below:

Externalised costs are real social and ecological costs, which individuals, groups and nations push onto the general public, other groups, nations and future generations in order to minimise expenditure and maximise profits, thereby increasing their own affluence and economic growth at the expense of others.

2. Forms of cost externalisation

On the whole, three main forms of cost externalisation can be identified: (a) externalisation through cost-free environmental damage, (b) externalisation through the cost-free utilisation of non-renewable raw materials and (c) the externalisation of social costs. Important studies have already been produced concerning the externalisation of environmental costs and their monetary valuation.[2]

This section will investigate forms of cost externalisation which until now have not been clearly identified, and which have been systematically suppressed within scientific and political discussion. The mechanisms responsible for the enforcement of cost externalisation in the genesis of the world economy and North–South relations will also be analysed. This will be done by the presentation of representative examples of historic and current importance, each of which is intended to portray an important dimension in the coming into being of non-sustainable global economic structures.

[2] As an example here, reference can also be made to the work of Christian Leipert (Leipert, 1989) and the results of research put forward by an internationally recognised research team (van Dieren, 1995). This theme also plays an important role in relation to the concept of the *ecological national product* (Leipert, 1995). Here, the methodic aspects of the calculation for savings in avoidance costs and the capital costs of nature are placed in the foreground, in that scientific interest orients itself towards the monetary quantification of the product within the whole political-economic balance. In any case, in all considerations made to date, only ecological externalised costs have to be taken into consideration. Social externalised costs remain unaccounted for, however.

2.1. The externalisation of social costs in early capitalism

The striving for affluence at the expense of third parties is not a phenomenon of mankind's most recent history. With the beginning of the Industrial Revolution and capitalistic development in Europe, however, this method of increasing wealth attained a new and incomparable quality through the intense and systematic way in which it was practiced. The increase in the number of wealthy and the affluence of the factory owners during the Industrial Revolution, combined with the dynamic expansion of capitalism in Europe, was on the one hand due to technology-related increases in productivity and performance. On the other hand, however, it was also due to a global externalisation of social costs through reductions in wage levels, increased hours of work and the introduction of women and children into factories and mines. The labour force surplus, initially due to the mass exodus from the pre-industrial agricultural hinterland into the towns, gave rise to merciless competition for the low-waged labour force. The resultant negative effects upon health, human working and living conditions and ultimately on human resources through the drastic fall in life expectancy is generally accepted. The labour force surplus and the political powerlessness of the dependent workers as opposed to the predominance of the propertied classes made possible an over-exploitation of the workforce via the externalisation of social costs from the place of work into the family, and from the town into the agricultural hinterland. The first seeds of a legal, power-political dual-system of historic significance were sown here. This is explored in greater detail below. The European labour movement was only able to overcome the disparity of power and begin to put a stop to the externalisation of social costs in Europe after decades of struggle. However, neither the dual-system nor the problem of externalisation disappeared. On the contrary, while the legal, power-political dual system was transferred out of Europe to establish itself on a global scale, the increase in affluence within the global dual system was not the result, as the following examples will show, of the externalisation of social costs, but increasingly also of the externalisation of ecological costs.

2.2. The externalisation of social costs through colonial slave labour

On the threshold of the Industrial Revolution, plantations were established in overseas colonies using slave labour to supply Europe with food and semi-luxurious foodstuffs and tobacco at dumping prices. The social costs hidden behind these dumping prices were withheld from the slaves by the plantation owners, who expected them to take on the burden of a drastic reduction in life expectancy. Whereas one group was condemned to eke out an existence without rights in the newly established global dual system, the others, slave owners in the colonies and the consumers in Europe, enjoyed the increased supply of semi-luxurious goods and the increase in wealth. The lack of rights and the impotence of colonial slaves represented a magnification of the lack of rights of the working masses in the motherland. The extreme form of legal inequality which was needed to maintain the most extreme form of cost externalisation by means of slave labour required an equally extreme form of legitimation — racism. If the part-systems' inequality of rights and power are completely left out of consideration, the international division of labour, together with the flow of trade that results from this, can be interpreted by the classical and neoclassical theories and thought structures as the result of *comparative cost advantages* and the varied *provision of factors*. In reality, however, hidden behind these forms of labour division and trade in the global dual system was primarily the principal of externalising social costs by means of violence and racist ideology, which existed for the benefit of the privileged minority within the system. Apartheid and migratory labour, the dualistic coexistence of homelands, skyscrapers and wealthy villa districts, privileged rights for the few and lack of rights for the many *are* weakened forms of slavery, but, however, also represent a model of wealth increment through the externalisation of social costs which has been practiced into the present.

2.3. The externalisation of social costs through child labour

The use of child labour requires particular emphasis because this method of minimising costs has grown at an alarming rate over the last two decades. Despite the ILO Convention, which prohibits the employment of under fifteens, an estimated 200 million children worldwide were working in 1986 — a fourfold increase compared to seven years before (Pollmann, 1988, p. 9). At the end of the twentieth century we are clearly experiencing a renaissance of those methods of Manchester Capitalism once presumed dead, which are now becoming established in a variety of countries in the southern hemisphere. In the south, child labour is on the increase in many industrial sectors producing for export to the industrial nations, such as mining, agriculture and the textile industry. A more recent ILO study has shown that every fourth child in the Third World now works (Frankfurter Rundschau, 4–5 April 1996). The increased use of child labour in the Indian carpet industry, for example, caused drastic price cuts and ruinous competition among the suppliers on the world market. Hand woven carpets have long since lost their status as a luxury item in industrialised countries, and have in the meantime become a product for the mass market. Even here we are purchasing a piece of affluence with a minimum of effort, being well positioned to exploit the merciless competition between two Southern countries. Furthermore, through our failure to contribute to the social costs in the carpet industry, instead loading these onto Indian children and their families, we participate in the exposure of countless numbers of children to the danger of illness due to infections and tuberculosis stemming from anaemia, over-tiredness, and lack of sleep, or to the danger of becoming crippled through damaged posture and slipped disks, as well as damage to the bone structure and eyesight.

2.4. The externalisation of ecological costs through the overexploitation of resources with higher natural productivity

The natural productivity of resources is highly varied. It is dependent upon the degree of concentration, chemical composition, on physical conditions and the geographical location. The differing degree of natural productivity is, in the case of valuable non-renewable resources, also the basis for the origin of *economic surplus*. In contrast to this, *absolute ground rent* is the product of non-renewability and the ability to monopolise on the resource itself. The sum of both forms of rent amount to *'natural capital' interest* or *resource capital costs* (refer to Massarrat, 1993 for more on this).

This ecological interest rate, which has been discovered in the present debate (Schily, 1994), is not at all new. It existed within all forms of expanding capitalism during the 18th and 19th centuries, both within economic reality and economic theories. For the classicists, such as Adam Smith, Malthus, Ricardo and others, *land* existed self-evidently in parallel to *labour* and *capital* as a production factor. For the physiocrats, land and nature were even considered the sources of all wealth. Marx differentiated between three different sources of income, the *wage* representing the price for manpower, *profit* representing the interest or price of capital and *ground rent* as the interest or price of property in land or natural resources. And he differentiated between two main sources of material wealth, *human manpower* and *natural forces*.

In the capitalist Europe of the last centuries, ground rent increasingly became an effective obstacle against the unrestrained growth of 'artificial' capital. If today's worldwide environmental movement and all critics of the prevailing growth model are cluelessly seeking a possible way of introducing an ecological interest rate for 'natural capital' so that prices become real ecological prices, the emerging industrial countries of the 19th century were faced with the opposite problem, namely, what they should do to eradicate the burden of ground rent, that is to say, the burden of 'natural capital', or, in more modern terms, to externalise.

For most of the European states with colonial experience, the solution lay practically before their noses: expansion in all directions at the turn of the century (1900) and the acquisition of non-settled or sparsely populated areas, expulsion of the original inhabitants from their homelands when it was assumed that some sort of natural riches were to be found and the subsequent intrusion into societies which were neither economically nor politically strong enough to protect their inherent natural riches from external intervention. This external expansion was founded on domestic political consensus; the historical compromise between the socially democratised labour movement striving for increased affluence on the one hand, and the capital factions of European companies on the other. In the opinion of the author, this compromise still represents the political foundation for the growth model still present in today's affluent countries (see Massarrat, 1995). By means of free access to the still untouched, and from the perspective of the turn of the century apparently renewable natural riches of other nations, which had comparatively higher and in some cases very high natural productivity, natural capital costs could in the first instance be drastically reduced, and in the second economic power retained by the landed owners in the European country of origin could be broken. The nature of this global development, which is new in the history of the development of the world market, was to be found in the actual elimination of the raw material owner states by the globally active European and American raw material companies, consequently, therefore, in the establishment of demand side structural dominance (Europe and USA), and, in the end, in the elimination of the resource owners' market sovereignty and market control functions. Henceforth the demand side does not only regulate the demand, but also the amount on supply — a process which inevitably leads to the overexploitation of scarce natural resources, to structural overproduction, to inelastic prices at a low level and to the loss of scarcity signals in the case of non-renewable resources. Raw material prices have decreased over the decades instead of rising, as should actually be the case with non-renewable resources and functioning methods of market control. Basically, the first stage of the globalisation of production historically took place here and was based on the massive externalisation of industrialised countries' costs for the use of natural resources to the countries of the South. Whereas the consequences of cost externalisation made a positive difference in the industrialised nations through lower costs for the use of natural resources and higher growth rates, the raw material owners of the south registered a minus due to the decreased income. By means of the globalisation of raw material production, it was also possible to produce global basic conditions for the partial or complete elimination of natural capital costs, for unrestrained growth and the enforcement of the Fordian model, for a new world division of labour and for the emergence of new goods and trends in trade. European expansion at the turn of the century paved the way for this development.

From this point onwards, the exploitation of the rich oil wells of the Middle East, North Africa and South America, the development of copper mines in Chile and gold mines in South Africa, to name just a few important examples, became the indispensable material basis for unbridled economic growth in the affluent countries. In the place of rising *scarcity prices*, which especially occurred in the 19th century, overexploitation, overproduction and dumping prices have become the norm in the 20th century which the Neoclassicists ahistorically interpret as the result of the free play of market forces. In reality, the globally interrelated *dualistic systems* also become recognisable here, which are equipped with desperate political and military means of power and legal positions. The one appropriates foreign natural resources by forming direct or indirect relationships based on strong-arm tactics and sanctions its position through a monopoly on know-how, information, finance and credit policy instruments. Even in respect of their own assets in scarce resources, the others fail to appropriate economic validity in relation to the opposing power. In terms of the present, the international division of labour between the industrial North and the raw material exporting South is in no way the result of an asymmetric distribution of global resources.[3]

As a matter of fact, North America, Russia and Europe alone, with a combined population of much less than a billion, possess larger reserves of non-renewable energy and mineral raw materials than the three continents of the South with a combined population of nearly four billion people (Simmons, 1991; Massarrat, 1993, p. 185f). If per capita resource provision is used as a base, a globally asymmetric distribution of resources can indeed be shown. However, this distribution would favour the South. The present asymmetric international division of labour, whereby continents relatively poor in raw materials jointly supply, for example, a country such as the USA which is rich in raw materials, is in reality, as has been shown above, the result of the massive cost externalisation of the use of natural resources from the industrial nations to the nations of the South.

2.5. *The theories of externalisation and exploitation: What's the difference?*

The theory of cost externalisation is not a paraphrase of Marxist exploitation theory. Both theories describe thoroughly different, though complementary levels of national and global economic processes.

The relationship of social classes in the workplace and national economy feature at the heart of Marxist exploitation and surplus value theory. To this extent, it is primarily a question of the source of the creation of values and distribution mechanisms under normal, i.e. balanced and symmetrical market conditions. The object of the externalisation theory, is, however, the distribution of real ecological and social costs between the companies and the social classes within a national economy, between regions and nations within the world economy with imbalanced and asymmetrical market conditions, and between generations within the universal historical context. While the theory of surplus value has the working relationship between unequal social classes as its base, the externalisation theory confirms the unequal exchange between companies, regions, nations and generations, whereby the margins of both theories are fluid when it comes to social costs. According to the theory of cost externalisation, the unequal exchange between the generations is to be seen in the light of the interest-free indebtedness of today's generation towards future ones. To be sure, this is difficult to quantify, but may be of existential importance for the creditor generations.

2.6. *Growth, externalisation, globalisation*

Growth models which either fully or partially draw on the externalisation of social or ecological costs are not self-supporting and are therefore not sustainable. We are therefore dealing with models of *pauperisation* and *environmentally destructive growth* or a mixture of both.[4] The historic forms of globalisation (production of raw materials and agricultural export plantations with slave labour) have, in their turn, contributed to the establishment of these growth models. Present globalisation appears to have varied effects. On the one hand, it has set a process of redistributing global employment from North to South in motion, whereby it must be seriously doubted whether real self-supporting growth processes are appearing through the transfer of employment to the South. On the other hand it clearly strengthens the tendency to play social systems off against each other globally, dismantling the relatively high social standards in the North without simultaneously and automatically raising the social standards in the South.

[3] This widespread supposition, which substitutes fiction for reality, is founded on the forming of legend by Neoclassical theory, which in turn attributes the asymmetric division of labour to the South's provision with abundant natural resources. As a result of its acceptance, the Neoclassical theory of the division of labour, the *factor proportion theory*, methodically anticipates the result. If, of course, power and violence asymmetries fail to materialise in the theory and the North–South labour division remains exclusively attributable to the *free play of market forces*, then only one reason remains for the asymmetric North–South division of labour: an unequal provision with natural forces.

[4] The latest Human Development Report differentiates between five non-sustainable types of economic growth: growth without new jobs, unscrupulous growth (the rich get richer, the poor poorer), growth without codetermination, growth without roots and growth without a future (due to the excessive consumption of environmental resources) (UNDP, 1996).

3. Structural dumping through cost externalisation

Viewed macroeconomically, and assuming that cost externalisation does not occur, ecologically and socially correct market prices are formulated as follows:

$$P_c = MC + E_r + P_{nr}, \qquad (1)$$

whereby P_c represents ecologically and socially correct (absolute) market prices, MC economic marginal costs, Er the ecological costs of reproducible environmental resources (for the avoidance and elimination of environmental damage) and P_{nr} the scarcity price for non-reproducible resources (see Massarrat, 1994). Then, in line with the externalisation theory, it is possible to see that actual market prices on the world market are not the ecologically and socially correct prices, but rather macroeconomic *dumping prices*, which are formulated as follows:

$$P_d = (MC - EC_l) + (E - EC_{rr}) + (P_{nr} - EC_{nr}), \qquad (2)$$

whereby EC_l represents externalised labour costs or the *social dumping factor*, EC_{rr} externalised costs of reproducible environmental resources, ECnr externalised costs from non-reproducible resources (and $EC_{rr} + EC_{nr}$ the *ecological dumping factor*) (see Massarrat, 1994). Macroeconomic market prices move, in accordance with the externalisation theory, below the level of pure business marginal costs (see Eq. (3)) in the case of ecological costs ($E = EC_{rr}$ and $P_{nr} = EC_{nr}$) being completely externalised, as is in practice very often the case, and as a result of the externalisation of social costs

$$P_d = MC - EC_l. \qquad (3)$$

Since these dumping prices do not represent a temporary but a permanent feature in the (world) social dual system, *structural dumping* in the world economy must therefore be established in all produced and monetarily valued finished goods. This, on the one hand, increases poverty, illness and the danger of epidemics due to the overexploitation of human labour and prevents socially sustainable structures from emerging. On the other hand, it is responsible for the emergence of socio-economic *non-sustainable structures* through the overexploitation of 'natural capital', unbridled environmental damage and wasteful consumption.

On the basis of the externalisation theory, the per capita income structure of the industrialised nations over the last 250 years can systematically be demonstrated in Fig. 1.

The graph is based on the well-founded assumption that the *social dumping factor*, i.e. the externalisation of social costs, was the dominant form of externalisation until the middle of the twentieth century, whereas after the transition from Manchester Capitalism to the social market economy (end of the Second World War) high economic growth rates and an exponential increase in affluence were partially attained through the externalisation of ecological costs.

4. (World) social dual system

The *theories of classical imperialism* and the *dependencia theories* have more or less systematically neglected the phenomenon of asymmetrical wealth division as well as the inner-social and inter-generative distribution levers caused by structural dumping. Moreover, their analytical scope is limited to the behaviour between states and regions (centre–periphery valuation). On ac-

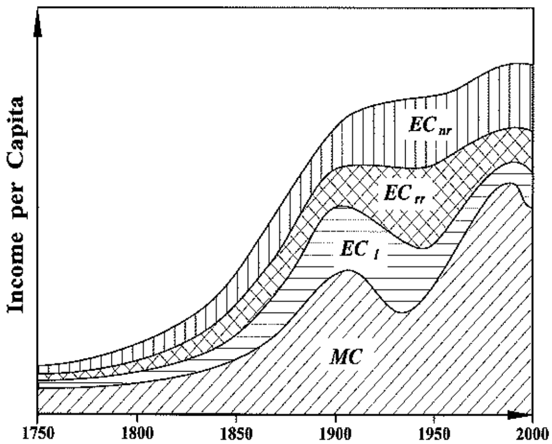

Fig. 1. Affluence (per capita income) of industrial nations through cost externalisation (schematic presentation).

count of their methodically questionable assumptions, the uneven exchange theories of Emmanuel (1969), Amin (1975) and others did not lead to any clear findings about economic distribution and redistribution mechanisms (see Massarrat, 1978).

The dual system theory represents an attempt to analyse systematically asymmetrical wealth distribution on the basis of cost externalisation and structural dumping. *Disparity of power* represents the key concept in this theory. In keeping with previous deliberations (Massarrat, 1993), the following will at first describe the core of the theory before going into the manifold effects of the dual system in actual world society.

The (world) social dual system is formed from two organically interwoven, yet qualitatively distinguishable social systems. On the one hand, the social system of a minority furnished with all the privileges of power and law, with a behaviour pattern and value system based on the individual maximisation of benefits; on the other hand, the social system of a majority furnished with a clearly weaker potential for power, usually locked into a largely handed-down system of values and, due to competition with the dominant social system first referred to, forced to make *survival assurance strategies*. The ability to maximise benefits in this second social system is largely limited or even totally excluded. The (world) market is the basis for interaction and communication between the two. In this dual system, the market participants from the lower-placed social system lose their market sovereignty, are deprived of the opportunity to act as equal players and are forced into passive behaviour as both suppliers and customers; structurally imbalanced market relationships, asymmetrical labour division and wealth distribution are reproduced; the gap between rich and poor and the gulf between social groups and nations in world society become deeper; market control mechanisms are turned into effective instruments of extending the dominant system's wealth and power; the economic and rational logic of market control is turned upside down and effects running counter to market laws are achieved (dual system effect). The *disparity of power* category in this theoretical rudiment comprises, as well as opportunities for political and military intervention, unequal opportunities to use economic and cultural instruments, institutions and regimes, thus enabling the dominant part-system to achieve additional wealth and growth effects regardless of performance and productivity. The dominant part-system propagates and influences lifestyles and consumer habits and exerts, in a comprehensive sense, cultural hegemony.

4.1. Dual system effect

The characteristic of the (world) social dual system is that instruments of economic and development policy as well as mechanisms of market control in the part-systems lead to different, even partially antagonistic results, which, on the one hand, conform the market and, on the other hand, are paradoxical to it. This I describe as the *dual system effect*.

(1) In historic (Manchester) capitalism, disparity of power causes industrialisation, increased productivity and economic growth to lead to wealth increment and luxury in the dominant part of the system, whereas the results in the weak part of the system feature an increase in working hours, a decrease in real wages and misery (pauperisation growth).

(2) Unbalanced resource markets with structural overproduction result from the unevenness of market sovereignty in global markets in the first half of this century. The demand side (dominant part-system) also simultaneously controls the supply amount — the owners of resources (in the weak part-system) do not have the power to assert a regulative control over the market (market paradoxical). Signals of scarcity for non-renewable resources lose their function of regulating demand (also market paradoxical). Structural overproduction and inelastic world market prices become essential characteristics of global resource markets. Whereas high growth rates are attained in the dominant part of the dual system thanks to a surplus of resources at dumping prices, which also gives the Fordian model a powerful boost, the weak part of the system loses its resource base and becomes a monostructural appendage of the dominant part-system.

(3) The economic disparity economically and politically causes opposite effects in the present dual system. This is especially true in international monetary and interest rate policy and in the GATT system. Leading and key currencies (US dollar, DM, yen, Sfr) are found in the dominant part of the dual system. Economies in this part have, on the whole, balance of payment surpluses and are creditor nations, whereas a majority of debtor economies are to be found in the weak part-system. A policy of high interest rates in the dominant part-system usually leads to import of capital and job creation, for example in the public sector. High international interest rates have, however, fatal consequences for the weak part-system: (a) a growing rate of resource exploitation in the case of stagnating raw material prices and receipts (interest rate–raw material price–mechanism, Massarrat, 1993, p. 76). (b) Exodus of capital and growing servicing of debts in debtor economies, implying an additional negative effect on resource exploitation and raw material prices in indebted raw material export countries. A policy of high interest rates in the weak part-system could, to be sure, also lead to the import of capital where there is a clear interest differential, but admittedly, at the same time lead to considerable investment barriers for the domestic market. The GATT system has aggravated the asymmetrical effects of the dual system for developing countries. While the latter have often been coerced into liberalisation at the negotiations, many restrictions aimed at protecting Japanese and European agricultural products remain untouched, as do measures protecting US industrial products against European and Japanese competition.

(4) Neoliberal development strategies such as the World Bank's export assistance policy and the IMF's structural adjustment policy in monostructural economies in the weak part of the dual system (over 70 developing countries are strongly monostructural economies) usually lead to the strengthening of existing asymmetries in foreign trade (raw material exports in exchange for imports of finished products). Recent studies (Reed, 1996) have shown that aims such as export diversification, self-supporting growth and positive environmental effects have seldom been attained. The reason for this is the *survival strategy* of the smaller supplier states (in the case of mineral resources) and the great masses of small scale farmers (in the case of agricultural raw materials), who, in order to stabilise their own income, increase the supply amount by means of greater labour intensiveness and overexploitation of resources, factors heightened by the *displacement competition* caused by export assistance and structural adjustment. By means of this, the already inelastic tendency of raw material prices is strengthened and demand can therefore be satisfied at a low price. Whereas displacement competition in the dominant part of the dual system usually ushers in a balanced market and sets limits to price cuts in the weak part of the dual system it leads, market paradoxically, to structural imbalance and overproduction. The market sovereignty of a seemingly powerful resource supplier such as OPEC is in this way undermined, demoted to its original role as a hanger-on after a short-term period of successful market sovereignty. OPEC's high price policy has long since given way to a policy of overproduction and dumping prices.

A recent World Bank study (World Bank, 1995) has shown that the growth success of several developing countries (with the exception of South Asia) has proceeded with an overexploitation of natural resources (environmentally destructive growth).

According to the dual system theory, a sort of ladder of dual systems can be identified: in a vertical direction in individual societies (asset owners, dependent workers, subsistence producers, ethnic minorities); and in a horizontal direction between societies and regions (industrialised countries, new industrialised countries in Tricont and Eastern Europe, developing countries). In world history, future generations are placed at the end of this ladder due to their utter powerlessness as opposed to the present generation. The gender-specific dual system, the patriarchy, is deeply rooted in all stages of the hierarchical pyramid of dual systems, whereby the male has historically been granted special privileges in the family and in society, whereas the female has been doubly burdened with legal inequality and real discrimination. The dual system ladder finds its equivalent in the (world) social ladder of growth and development potential: on the one hand within individual societies and regions through the increase of wealth and growth potential in either a few hands or a few affluent countries; and on the other hand in the decrease in development and survival chances for a large part of the world's population and future generations. These historically-evolved structures in world society are fundamentally non-sustainable. All reform strategies which neglect these structures in their conception are bound to fail.

5. Global reforms for a sustainable world society through equal opportunities

Three observations deriving from the previous analysis can be made before presenting possible solutions: (a) The externalisation and dual system theory should in no way give credence to the popularly-held notion that the wealth of the industrialised nations is based exclusively on the South's poverty. This wealth is partly the result of increased performance and productivity, but only partly. (b) The prevailing international division of labour and all the trade, money and capital flows stemming from it are not only a result of differing provision of factors and comparative cost advantages, but are to a large part the result of strategies to externalise social and ecological costs. (c) International labour division and free trade per se are not the main causes of structural defects in the world economy, as critics would have us believe. Having said that, free trade is also not a sacred cow which brings wealth and happiness to people everywhere.[5] Free trade is an effective instrument of allocation in a market economy. In conjunction with the limitless freedom of a privileged minority to externalise costs, free trade can metamorphosise itself in development and environmental policy into an efficient instrument in the establishment of *non-sustainable structures*.[6]

The third UN report on human development (UNDP, 1992) supplied for the first time a systematic empirical list of involuntary transfers from the South to the North. In the report which has just been published (UNDP, 1996), it has been shown that the difference in wealth between the 15 richest and the 70 poorest nations of the world community has dramatically increased. The concept presented here provides the theoretical base for these empirically proven processes. While the cost externalisation theory theoretically substantiates the involuntary South–North transfer, the inner structure of the (world) social dual system accounts for the increasing global gap between poor and rich.

The fundamental prerequisite for the establishment of sustainable structures is, therefore, the surmounting of dual systems. The reforms necessary for this are mainly to be found in the political arena. A mere reversal of the prevailing principle of the disparity of power into a principle of equality would only give weight to the illusion of egalitarianism and would, in the face of the diversity of human and natural abilities and potential in so many varied regions of the world, also lead us practically nowhere. The key to global reforms for the future is, in the author's opinion, the principle of *equal opportunities*, which should be established in individual societies, between North and South and between present and future generations in order to guarantee the lasting sovereignty of all affected players.

Equal opportunities between the part-systems in a spatial-horizontal direction requires, as a first step, the introduction of social and ecological minimum standards, including internationally agreed sanction mechanisms to ensure their implementation. By means of globally valid minimum standards for weekly working hours, annual holiday, social security in pension age and in case of

[5] In relation, compare the controversy between Jagdish Bhagwati and Herman E. Daly in "Spektrum der Wissenschaft, Digest: Umwelt und Wirtschaft" (Bhagwati, 1994; Daly, 1994).

[6] Only when free traffic could fulfil its allocating function on the basis of ecological and social comparative advantages without cost externalisation and structural dumping would a global implementation of Herman E. Daly's demand to replace the principle of *Integrating Political Economies By Free Trade In All Circumstances* with that of *As Much Integration And Free Trade As Is Absolutely Necessary* be possible (Daly, 1994).

sickness, outlawing child labour and removing gender-specific discrimination as well as by means of global environmental minimum standards, it should be possible to prevent social and ecological costs within the dual system hierarchy being externalised from top to bottom and the social system of localities, regions and the world society being played off against one another.

Equal opportunities between generations means the present generation making a *commitment* to limit the worldwide use of the environment and punish any violation with sanctions. By the recognition of their fundamental legal position, future generations will be involved in all existential decisions of the present. A quasi-market sovereignty will be produced for potential, yet currently absent, actors. Equal opportunities in relation to the environment require that a new evaluation of property rights to existential natural resources (water, forests, energy sources and raw material sources) be put on the agenda of the world community. Special privileges which are based on coincidence fundamentally restrict the establishment of equal opportunities in several parts of the globe.

The globally comprehensive implementation of equal opportunities would at first produce the *basic conditions* for new global relations, taking into account the thorough differences in wage levels, lifestyles and profiles depending on regional potential, human ability and cultural characteristics. The rearranging and reordering from non-sustainable to sustainable structures in individual states and regions will, in this way, become the real challenge of sovereign actors. However, one question remains unanswered above all these considerations for reform. If, as a result, the inner motor of capitalistic compulsive growth could actually by brought under control.

References

Amin, S., 1975. Die ungleiche Entwicklung. Essays über die Gesellschaftsformationen des peripheren Kapitalismus. Hamburg.

Bhagwati, J., 1994. Ein Plädoyer für freien Handel. In: Spektrum der Wissenschaften. Digest: Umwelt–Wirtschaft, pp. 48–53.

Daly, H.E., 1994. Die Gefahren des freien Handels. In: Spektrum der Wissenschaft. Digest: Umwelt–Wirtschaft, pp. 54–60.

Emmanuel, A., 1969. L'échange Inégal. Paris.

Kapp, K.W., 1963. Social Costs of Business Enterprise. Bombay, London.

Leipert, Ch., 1989. Die heimlichen Kosten des Fortschritts. Wie Umweltzerstörung das Wirtschaftswachstum fördert. Frankfurt/M.

Leipert, Ch., 1995. Auf dem Weg zum Ökosozialprodukt? In: Informationsdienst IÖW/VÖW, No. 2, March–April 1995, pp. 17–20.

Marshall, A., 1890. Principles of Economics. London, Basingstoke.

Massarrat, M., 1978. Die Theorie des ungleichen Tausches in der Sackgasse. Versuch einer Erklärung der Terms of Trade. In: Die Dritte Welt, No. 1, pp. 40–73.

Massarrat, M., 1993. Endlichkeit der Natur und Überfluß in der Marktökonomie. Marburg.

Massarrat, M., 1994. Exhaustible Resources at Dumping Prices. Affluence at the Expense of the South and of Future Generations. Oil. A Case Study. In: The Yearbook of Renewable Energies, 1994.

Massarrat, M., 1995. Demokratisierung des politischen Systems. Plädoyer für eine Dritte Kammer für soziale Bewegungen und Nichtregierungsorganisationen. In: Blätter für Deutsche und internationale Politik, June 1995.

Pigou, A.C., 1920. The Economics of Welfare. London.

Pollmann, G., 1988. Zum Beispiel Kinderarbeit. Bornheim-Merten.

Reed, D. (Editor), 1996. Structural Adjustment. The Environment and Sustainable Development. London.

Schily, O., 1994. Flora, Fauna und Finanzen. Hamburg.

Simmons, I.G., 1991. Earth, Air and Water. Resources and Environment in the Late 20th Century. London, New York, Melbourne, Auckland.

van Dieren, W. (Editor), 1995. Taking Nature into Account. New York.

UNDP, 1992. Human Development Report. New York, Oxford.

UNDP, 1996. Human Development Report. New York, Oxford.

World Bank, 1995. Monitoring environmental progress. A report on work in progress, Washington.