

## Economic Globalisation and the Environment

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### 1. General trends

Even though there is no consensus about the extent to which the current situation constitutes the largest level of global economic integration during the last two centuries (Glyn, 2004; Massey, 1999), there are remarkable trends characterizing the so-called present economic globalisation process. Some of them are the following:

- Enlarging complexity of global production and consumption chains (internationalisation of production), connecting economic agents and nodes located in very distant places, whose overall control is normally in the hands of transnational corporations. This constitutes a radical shift in relation to the traditional economic paradigm that conceived production essentially as an endogenous and national process.
- Increasing market concentration due to mergers and fusions of large transnational corporations in several sectors (UNCTAD, 2000).
- Increasing relative size of trade (in relation to GDP) and a general dismantling of trade barriers in almost all regions of the world.
- At least until some few years ago, enlarging foreign direct investments between developed countries and from industrialized to developing countries, accompanied by a generalized liberalization of investment regimes.
- A considerably much larger scale of global financial flows in comparison to investments in the “real” economy, which has been coined as “casino” capitalism.
- Although statistics are not yet systematically produced all around the world, there is some evidence suggesting a rising share of intra-firm trade to total trade at the global level (OECD, 2002; Zeile, 1997).
- Appearance of significant cases of financial “mega-frauds” inside transnational corporations (Enron, Parmalat, WorldCom, Aldelphia, Tyco, Imclone, Qwest, Xerox ,etc.) with worldwide impacts.

- Emergence of periodical economic crises in semi-peripheral countries, related to instability in financial markets and exchange rates (Mexico, Brazil, Turkey, South-East Asia and Argentina).
- Emergence of a new “core” of the world economy, namely China, which probably will constitute a major shift in the distribution of economic power at the global level and the most lasting effect of the current globalisation process. This should lead to reconsider the old classification of “core” (triad) and “peripheral” countries.

From above, maybe the three most noteworthy features underpinning the current economic globalisation process are:

- a) Increasing importance of transnational corporations and international investors as economic and political agents with worldwide leverage.
- b) A generalized adoption, by development agencies and governments, of the proposition that trade and foreign investment are major engines of economic growth.
- c) Enlarging connectivity and dependence between different world regions and production/consumption nodes, through rising flows of information, goods and services at the global level.

With regards to environmental concerns, the following regulatory/governance dynamics are also commonly linked to the current globalisation process.

- Development and consolidation of global networks (North-South, South-South, Urban-Rural) of environmental civil society organizations, which coordinate campaigns and agendas worldwide.
- Building up of inter-governmental institutional arrangements for tackling global environmental problems.
- Development of several environmental multilateral agreements and a global priority sustainable development agenda (the Millennium Development Goals).
- Emergence of global social/environmental certification schemes and codes of conducts and other forms of “voluntary” regulation, which are associated with increasing concerns by consumers, mainly in the North, for social and environmental conditions of production around the world.

## **2. Globalisation: an uneven process**

Despite these common trends, the outputs of the current globalisation process have been uneven at least in the following critical dimensions:

- i) The degree of international coordination and integration in the economic and regulatory/governance domains.

The pace of economic integration has been substantially greater compared to the construction of an international institutional regime for addressing global governance challenges, not only in the field of the environment, but

also notably in subjects such as health, access to information, security, immigration, labour, etc. This has created a so-called “global governance gap”. While in some few cases the emergence of an innovative international institutional framework has allowed worldwide concerted actions preventing the deterioration of global environmental public goods —the most effective example is the ban of CFC for avoiding the depletion of the ozone layer—, in many others the lack of such framework has been manifest, as in the case of forests and oceans worldwide degradation. Actions and tasks for the global governance of environmental issues are currently scattered in different institutions, with, on the whole, significantly lower budget and political influence than similar bodies dealing with economic issues. While some analysts think that this gap should be filled through the creation of a “World Environmental Organization” in charge of coordinating global environmental governance (Charnovitz, 2002; Cole, 2000; Esty, 2000), others argue that a new agency will add another layer of bureaucracy to an already difficult-to-handle network of treaties and organizations (Juma, 2000; van Moltke, 2001)

ii) The economic outputs between different world regions.

Sweeping generalizations about the overall economic output of the current globalisation process is not possible, due to the fact that the economic performance of world regions and countries following liberal economic policies during the last two decades have been very diverse. The following is a possible classification of the outputs of globalisation in different developing regions and countries when considering three factors: degree of integration, economic performance (growth), and inequality:

*Larger integration, good economic performance and reduced inequality.* The typical example of this output is South Korea. This country has been successful in generating national wealth in a context of economic openness, trade-orientation and foreign direct investment promotion. Additionally, at least up to the Asian crisis, economic growth has been accompanied by decreasing levels of national inequality and poverty (Fields and Yoo, 2000). If all developing countries had followed this path, income at the global level would converge upward and increased economic globalisation will lead undoubtedly to a win-win situation.

*Larger integration, good economic performance and increased inequality.* Jointly with some South Asian countries and transnational corporations, China has been probably the largest beneficiary of the current economic globalisation process. It has been by far the major recipient of FDI in the developing world, and capital inflows to this country have risen constantly — despite a global overall decline in FDI at the global level during the last years—. Economic growth in China has been sustained and very high during the last two decades —in spite of the Asian financial crisis and the economic stagnation of Japan— and it has been accompanied by declining poverty levels. However, income inequality at the national level has considerably increased (Lin, 2003), particularly between rural and urban areas, in part due to the fact that rural-urban labour mobility is not free.

*Larger integration, bad economic performance and increased inequality.* In sharp contrast with the previous categories, despite adopting draconian structural adjustments, liberal economic reforms, and experiencing a considerable increase in their trade/GDP ratio, most Latin American countries — with few exceptions like Chile— have had very disappointing rates of economic growth. For example, the annual average rate of GDP per capita growth of Mexico — one of the most open economies of the world— has been about 1% during the 1990s. Brazil and many other countries from the region show similar or much worse figures — Venezuela or Nicaragua, for instance, have currently lower levels of per capita income than during the 1970s. Concomitantly, inequality and poverty levels has increased in almost all the countries of the region (ECLAC, 2004a). During the last 4 years, Latin America has also faced declining amounts of FDI, whilst capital outflows have steadily increased (ECLAC, 2004b).

*Marginalisation, bad economic performance and increased inequality.* This doom scenario has been the fate of many African countries (with few exceptions like Botswana, Mauritius or Tunisia), and particularly of the least developed ones in the Sub-Sahara region. Even though African countries have also undertaken structural adjustments and have adopted policies liberalizing trade and capital flows, both the share of African exports to global exports and of the share of FDI targeting African countries to total FDI in developing countries have fallen during the last decade, which indicates a “marginalisation” of this continent from the globalisation process (Schneider, 2003).

Despite the fact that this classification is not exhaustive — because it does not include all possible outputs, and there are notable exceptions within regional trends — it reveals that there is not a universal pattern on the relationship between economic integration and economic development. The Latin American and African cases do not support the commonly assumed automatic positive relationship between openness, trade expansion and economic growth. In the case of countries with low trade barriers, it is neither clear which is the direction of the causal relationship — is growth leading to trade or trade driving growth (UNDP, 2003)? Given the above-mentioned disparities, it is reasonable to expect that there is not a clear-cut relationship between globalisation and inequality at the global level. The results of the empirical studies dealing with this issue are quite dependent on the variables, data set, scale and analysis used (Sutcliffe, 2004).

iii) The extent to which different factors of production have been mobile.

While the flows of capital and goods — both North-North and North-South— have boomed during the last two decades, the movement of people have been proportionally rather modest, due to rigid controls in industrialized countries, particularly when compared to European emigration during the beginning of the 20<sup>th</sup> century and at the end of the Second World War. Even though liberal economic policies have been based upon the proposition that free global movement of factors of production would lead to a general gain in economic efficiency, free movement of labour have not been advocated so far, at least by the Bretton Woods institutions. The absence of an international

institutional body for governing global movement of people is also noteworthy. Nevertheless, immigration has become a primary economic concern in several developing countries —such as Mexico, El Salvador and Ecuador—, where remittances are nowadays one of the main sources of foreign currency (surpassing traditional export items).

iv) Access to the benefits of new information technologies.

The global distribution of access to Internet and other new communication technologies is still very biased, and increasingly unequal both at the global level and inside developing countries. Moreover, the revolution of information technologies has not paved the road for larger access to scientific and technical information from developing countries. On the contrary, high access barriers are still very present, mainly because of a structural lock-in between the scientific community and publishing companies. This happens even though the traditional role of the latter (printing and distribution worldwide) is not necessary anymore thanks to new technological developments. The continuation of information barriers is a critical issue preventing a worldwide spill-over of positive economic externalities, since knowledge is one of the most critical factors fuelling economic growth.

v) Access to the benefits of new medicines and health-related innovations

The AIDS epidemic in Africa —in part caused by global property rights regulations on medicines— has made evident the failures of the current international institutional regime for dealing with health issues. The response of the World Health Organization, and the UN system in general, to the crisis has been slow and ineffective, with the consequence that the epidemic has reached an impetus hard to reverse. It is not difficult to figure out the economic implication of this phenomenon. The pandemic has produced severe negative welfare effects in several sub-Saharan African countries, by means of driving backward dynamics in life expectancy, morbidity and economic productivity.

### **3. Globalisation and the environment: simple myths and complex realities**

After realizing all the above-mentioned disparities, it becomes evident that the current globalisation process has been complex, multidimensional and uneven in different domains and world regions. This complexity makes it hard to reduce the worldwide consequences of globalisation to simple statements. This also holds for the relationship between economic globalisation and the environment. However, the literature on this relationship has been dominated by four related propositions (“myths”), based on broad generalizations and simplifications of complex phenomena: the pollution haven; the race to the bottom; the global convergence and the environmental Kuznets curve hypotheses. For a complementary description of some of these views see also the entry “*Trade and Environment*” of this encyclopaedia. The following is a justification of why none of these hypotheses hold as the best description of

future global scenarios, which is almost the same to say that all of them are true to a certain extent, in particular situations.

*The pollution havens:*

There is an extensive literature on this subject (for a comprehensive review see Neumayer, 2001a). Succinctly, what has been called the pollution haven hypothesis is the proposition that polluting industries tend to migrate towards (poorer) countries with weaker (or not well enforced) environmental standards. Hence, disparities of national environmental standards should lead to an unequal distribution of environmental burdens between different world regions, concentrating the most environment-intensive activities in developing countries. Although some analyses support —or find mixed results on— the above-stated hypothesis (Low and Yeats, 1992; Xing and Kolstad, 2002; Cole, 2004), most empirical works do not hold up the statement that environmental standards are a variable conditioning the international location of polluting industries (Eskeland and Harrison, 2003; Mani and Wheeler, 1998; Neumayer, 2001b; Wheeler, 2001; 2002). It is often alleged that environmental costs —pollution abatement, compliance and prevention costs— are negligible in comparison with other costs involved in location decisions, and therefore low environmental standards are not an effective source of international competitiveness. Although this assertion is usually true — labour costs, political stability and the size of the internal market seem to be the major factors driving the present global movement of industries — this does not necessarily prevent the concentration of disproportionate environmental burdens in developing countries (vis-à-vis their industrialized trade partners) basically because:

- i) Even though a developing country may not constitute a haven for polluting industries, the environmental performance of trading national or transnational industries may be considerably higher than it would be in an industrialized country due to weaker institutions and lower investment in environmental control. In fact, recent evidence suggests that although Mexico is not serving as a pollution haven for American industries, the environmental condition of the country has deteriorated at alarming rates since its full integration into the North American Market. This is explained by the lack of proper institutional mechanisms for preventing environmental impacts and systematic under-investment in environmental improvement (Gallagher, 2004).
- ii) The very nature of environmental impacts may vary from industrialized (most of them located in temperate areas) to developing countries (many of them located in tropical and biodiversity-rich areas). For instance, while soybean may be cultivated both in Brazil and the U.S., the environmental consequences of soybean expansion are quite different in these countries. Current trade-related soybean expansion into the Brazilian Amazon (in part to cover a booming Chinese demand) may produce permanent and significant biodiversity loss, while the environmental impacts of American soybean production is mainly associated with the use of agrochemicals.

- iii) Environmental impacts depend not only on standards, but also on the scale and composition of economic activities. African and Latin American countries, in general, still specialize in export of natural resources and derivatives, and further regional specialisation, according to competitive advantages —large endowment of natural resources— is a likely output of globalisation. Following thermodynamic considerations, the integration into the world economy through material-intensive and low value added products might entail significant environmental burdens linked to a rising scale of the physical outflows of the economy. Indeed, the physical scale (weight) of African and Latin American exports have increased substantially during the last two decades, while the value/weight ratio of their aggregated exports has decreased, owing to a generalized decline of the international prices of primary commodities (Muradian and Martinez-Alier, 2003). One of the contributions of ecological economics has been the analysis of the “physical” dimension of the economic system. This perspective may shed new light on the relationship between globalisation and the environment (Giljum and Eisenmenger, 2004; Muradian and Martinez-Alier, 2002; Schuetz et al., 2004). For further discussion on this topic see the entry “*Material Flow Accounting and Analysis (MFA)*” of this encyclopaedia.

#### *The race to the bottom.*

This pessimistic view of the globalisation process argues that global competition by means of absolute (not comparative) advantages, allowed by the international mobility of capital, will lead to a deterioration of both environmental and labour standards at the global level (Daly, 1999). From this viewpoint, industrialized countries would be the main losers of the process since they will face an erosion of social contracts and a deterioration of standards driven by “unfair” competition with over-populated and low-standards developing countries. The following facts and trends shed some doubts about the validity of the race to the bottom hypothesis.

- i) As stated before, there is little evidence supporting the idea that environmental standards play a significant role in explaining international mobility of industries. Furthermore, if low environmental standards in developing countries indeed attract industries from industrialized countries, a relocation of environmental-intensive industries to the South would likely improve, rather than deteriorate, the condition of the environment in the North (Boyce, 2004). On the other hand, low-skilled workers in industrialized countries — jointly with rural smallholders in “marginal” developing countries — are probably among the most probable losers of economic globalisation. However, the failure of redistribution mechanisms in industrialized countries should be blamed for this, instead of the low wages in developing countries. The relocation of labour-intensive industries to developing countries might fuel economic growth in the North through repatriation of profits and exploitation of huge internal markets in emerging

developing countries by transnational corporations. After all, the return of foreign capital always comes back to its origin country (or to some fiscal paradise). Some redistribution mechanisms need to be put in place in order to compensate the losers of gaining efficiency through globalisation. The EU has shown that the use of such mechanisms for governing economic integration is possible. In addition, economic growth (driven by foreign capital) in China and other Asian countries have become one of the ways to finance the huge American external deficit, through the purchase of dollars and Treasury bonds, thus aiding to strengthen economic stability and resilience in the U.S.

- ii) The buck of global capital and trade flows occur between developed countries. Therefore, it is not true that standards are the main factors driving capital mobility.
- iii) This hypothesis neglects the fact that trade and capital mobility are nowadays probably the most important means for international distribution of wealth, and in some developing countries they are the key driving forces of economic growth. A world with larger trade barriers, as its supporters plead for, would probably be much more unequal and unstable than the current one.
- iv) Often, environmental externalities are internationalised due to in part “low standards” and “unfair” trade practices in the North. The possible genetic erosion of Mexican maize due to the inability of environmentally and biodiversity-friendly traditional agricultural practices in Mexico to compete with the agrochemical-intensive, genetically modified and subsidised American maize is a good example of this kind of dynamics (Wise and Nadal, 2004).

*Global upward convergence and the environmental Kuznets curve (EKC):*

These propositions are very similar, the main difference between them is the path the progress towards convergence will follow. The upward convergence hypothesis (environmental harmonisation) states that FDI, trade liberalization and efficiency gains from economic integration would allow to leapfrog “development stages” in developing countries and will speed up the adoption of cleaner technologies and management methods (Antweiler et al., 2001; OECD, 1997). The EKC proposition suggests that upward environmental harmonization will occur in the long term, but it will follow an inverted “U” shape between income and environmental condition. Therefore, a generalized improvement of the environment would be preceded by an “early” period of environmental deterioration concomitant to economic growth. There is a very extensive literature on the EKC. For recent reviews see Dinda (2004), Stern (2004) and the entry “*Environmental Kuznets Curve*” of this encyclopaedia. The shortcomings of both propositions may be summarized as follows:

- i) Economic growth is a key word for both hypotheses, since both rest upon the idea that it brings technological, composition and preferences changes favouring environmental improvement. Since global income convergence is not occurring — at least when the economic performance of different world regions are compared — and economic growth in many developing countries has been low

and unstable during the past two decades, the interpretation that economic growth will lead automatically to environmental improvement is not very useful for envisioning the evolution of the global environment.

- ii) In addition, the EKC neglects the fact that several kinds of environmental transformations, particularly biodiversity loss, are irreversible, hence they cannot follow an inverted “U” shape.
- iii) Concerns about the extent to which the EKC may be explained, at least in part, by trade and global specialization patterns and about the environmental implications of high “turning points” of income levels (after which environmental improvement starts to take place) for some forms of environmental impact have been also present in the critical literature on the EKC (Borghesi and Vercelli, 2003; Ekins, 1997; Rothman, 1998).

From the above we may conclude that what is usually coined with the generic term “economic globalisation” has been a very dynamic and irregular process, which has created diverse economic and environmental impacts around the world. Whilst some cases reveal that trade promotion and capital mobility have facilitated a transfer of green technologies and the improvement in environmental management practices in developing countries (Shin, 2004), there are also several examples of severe and irreversible environmental deterioration linked to an enlarged rate of global economic integration of some national economic sectors (Fearnside, 2001; Gfissler and Penot, 2000). This heterogeneity of trends and outputs suggests that it is not possible to arrive at wide-ranging generalisations about the relationship between economic globalisation and the condition of the global environment, particularly in comparison to a world scenario with larger trade, capital and human mobility barriers. What seems to be much clearer is that when the right institutions and regulations are missing, the boost of market forces — accelerated by the global mobility of economic factors — often leads to over degradation/exploitation of environmental assets and services. The capitalist system, either globally integrated or not, is socially and environmentally unsustainable unless governing mechanisms are in place for harnessing the “invisible” hands of the market. Recent global economic integration has not been accompanied by the development of an equivalent international institutional framework for governing its social and environmental effects. Unfortunately, the present drift towards a global order dominated by fear to terrorism does not constitute the suitable ground for building up such a framework. Given this context, it is reasonable to expect that a disproportionate concentration of environmental burdens from globalisation will occur in those developing countries with weak institutions and unable to reap the economic benefits of the process.

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