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PROTECTION(ISM) : THE ENVIRONMENT AND THE WTO

The environment has become a central issue for the World Trade Organisation. Multilateral agreements on the environment have consequences for trade which may come into conflict with the fundamental principles of the organisation. Furthermore, international trade has repercussions on the environment, on health and human safety, on the living world, from which countries are seeking to protect themselves. This raises the question of where exactly the border between protection and protectionism lies. Research using an original database makes it possible to identify the watershed between the two. It shows that the line is often crossed. It also suggests that environmental barriers are strongly discriminatory, clearly penalising the least developed countries. An examination of the impact of environmental measures on market access has been included on the agenda of the trade round which opened in Doha. It is vital that the issues in this field be clarified if the environment is not to become an alibi for reintroducing barriers to trade which have been suppressed elsewhere

Following the Doha conference, the WTO has reiterated its commitment to sustainable development and the preservation of the environment, which is included in the preamble to the Marrakech Agreements. Since the GATT brought environmental issues into its negotiating process with the Tokyo Round (1973-1979), they have taken on an important place in public discussions and multilateral agreements on the environment have developed significantly. Sanitation and risk-management considerations linked directly to international trade are also drawing attention increasingly. Article XX of the GATT provides for exceptions to the general principles of the agreements, by authorising member countries to take measures aimed at protecting human health, animal or plant life, as well as preserving non-renewable resources[1]. These measures are authorised as long as they do not reduce trade beyond what is justified under the objective in question. Are trade liberalisation and environmental concerns (as interpreted under Article XX) compatible or do they risk coming rapidly into conflict? Do environmental protection and the related border measures raise fears of new forms of protectionism?.

Having recalled that economic analysis does not provide a clear-cut answer to the first question, it will be shown how results obtained empirically provide an answer to the second.

Free-trade and the environment

The consequences of free-trade on the environment have been analysed above all in the field of pollution. The analysis is carried out on the basis of three effects on growth: a scale effect, growth signifying a rise in quantities produced, and hence, for a given state of technology, greater pollution; a technical effect, whereby growth is accompanied by an improvement in techniques, so that processes and products become less polluting; and a composition effect, by which growth leads to changes in the basket of goods and services produced which generally become less material. Overall it is held that the scale effect and the technical effect may be combined into an inverse U curve, so that when a country reaches a certain threshold of GDP per capita, growth starts to have a positive impact on the environment. As for the composition effect, it is limited on the whole, and may or may not be offset, depending on the circumstances, by two other types of effect.

International trade has a twofold impact at this point. It generally accompanies the rise in incomes, and hence the combination of the first two effects. But, trade leads countries to specialise above all. Activities shift from one producer to another, though they do not necessarily have the same environmental effectiveness. The overall consequences for the environment can be positive or negative. As market prices do not internalise environmental concerns, estimates of the impact on free-trade do not take this overall effect into account. With this proviso, the simulations carried out to estimate the impact of trade liberalisation negotiated during the Uruguay Round have shown that, at a world level,

1. This article also addressed the matters of public morality, relating to work by prisoners, artistic or historical treasures, non-renewable resources etc.

emissions of different types of pollutants will rise by between 0.1% and 0.5%[2]. In Europe, the United States and Japan, the technical effect outweighs the scale effect and the composition effect for several pollutants. But the scale effect is dominant in those countries which are on the "wrong side" of the inverse U curve[3].

However, the environmental consequences of free-trade go far beyond the emission of pollutants. But, here too, the issue is not clear-cut. Liberalisation may be favourable to the environment in as far as it tends to eliminate distortions likely to worsen distributive efficiency and foster environmental deterioration. This is especially the case of subsidies to the production and exportation of agricultural products, which lead to the over-use of resources in the protected country. But deforestation, the depletion of fisheries, environmental degradation due to intensive agricultural techniques, the increase in greenhouse gas emissions etc. may also result from specialisation and trade liberalisation[4].

There are also certain risks to the environment which follow directly from international trade. A biological risk stems from the introduction of species into new environments where they may be destructive or spread of disease. On top of this there are informational risks linked to the physical distance between producers and consumers which favours moral hazard. On the one hand, environmental damage may result from production processes and the use of non-renewable resources in producer countries about which consumers cannot easily obtain knowledge, and which in any case they do not have to deal with. On the other hand, information about damage to the environment or health etc. resulting from the consumption of exported products may not be relayed to the producer or may simply be ignored[5].

In addition, there are differences in collective preferences which may be irreducible for producers or consumers (such as hormone-treated beef of cheese made from un-pasteurised milk). The WTO is not an environmental agency and does not intervene to establish standards in such areas. But, on the one hand, it must consider the trade aspects of measures taken within the framework of multilateral environmental agreements, with respect to its fundamental principles relating to market access and non-discrimination. On the other hand, certain "border measures" may be necessary to contain risks or to ensure respect for preferences: quarantines, inspections, bans etc. As has been mentioned above, Article XX of the GATT allows for such measures in as far as they are notified to the WTO and are not specifically protectionist. Herein lies the rub. While the Uruguay Round, which was completed in 1994, organised the disappearance of non-tariff barriers (in particular quotas), the number and scope of environmental barriers declared by WTO members has risen greatly. Resorting generally to technical barriers to trade (TBTS) or to Sanitary and Phytosanitary (SPS) measures raises problems. If the letter of the Marrakech Agreement is respected, can the same be said for the spirit?

Environmental Barriers

Each of the environmental measures authorised by the WTO constitutes a barrier to trade in as far as exporters have to respect them (see Box). In principle, this barrier is not protectionist: its goal is environmental. The boundary between the two is obviously slender. How is it possible to distinguish the protection of consumers, animal and vegetable life, and protectionism? Assessments undertaken for the preparation of a new trade round provide some early answers to this question[6].

BOX - ENVIRONMENTAL MEASURESS MESURES ENVIRONNEMENTALES

Six categories of motives may be invoked by countries notifying the WTO of measures aimed to protect the environment, in its wider sense. They relate to protecting the environment in its narrow definition, the fauna and flora, vegetable and animal life, human life or human safety. The WTO authorises para-tariff measures (such as customs' surtaxes), financial measures (refundable deposits), import licences, authorisations, bans and measures for controlling quantities traded (quotas, within the framework of the Montreal protocol protecting the ozone layer), monopolistic measures (a distribution system which is imposed), and lastly technical measures such as inspection before transport, the obligation to take back used products or packaging, and specific customs formalities etc. Overall, of the 115 measures notified to the WTO, three-quarters relate to environmental issues defined in their wider sense.

The rules of the WTO concerning environmental measures are fixed by the Agreement on Technical Barriers to Trade (TBTS) and on the Agreement on the application of sanitary and phytosanitary (SPS) measures. Article 2 of the SPS Agreement stipulates that measures must directly focus on an environmental objective and must be justified scientifically. These measures must not be discriminatory and must not constitute a disguised form of protectionism.

...affecting most products...

To begin with, it is necessary to establish a threshold at which it may be judged that a product is affected by environmental barriers to trade. Assuming that all barriers to trade are indeed declared, as they have to be, it may be considered that a product is affected by an environmental barrier when at least one of the 137 importing countries has notified one measure to the WTO. Products are said to

2. Cole M.A., Rayner & A.J Bates J.M. (1998), "Trade Liberalisation and the Environment: The Case of the Uruguay Round", ***World Economy***, 21(3), 337-47.
3. To help the spread of less-polluting technologies, the Doha conference has introduced the liberalisation of environmental goods and services onto the agenda of the next negotiating round.
4. Nordström H. & Vaughan S., (1999), "Trade and Environment", ***WTO Special Studies 4***, www.wto.org.
5. Thus, at the start of the 1980s, developing countries complained to the GATT about industrialised countries exporting products or materials to them which were forbidden in industrialised countries for environmental reasons.
6. Fontagné L., von Kirchach F. & Mimouni M., "A First Assessment of Environment-Related Trade Barriers", ***CEPII Working Paper***, 2001-10. The assessments are made using the Market Access Maps (MAcMaps) database developed by the ITC (UNCTAD-WTO) and the CEPII. This database uses trade flows of the COMTRADE (UN), the UNCTAD database relating to trade barriers, AMAD and WTO notifications. See Bouët A., Fontagné L., von Kirchbach F., Mimouni M. & Pichot X., "Market Access Maps: A Bilateral and Disaggregated Measure of Market Access", ***CEPII Working Paper***, 2001-18. See also the ITC website: <http://www.intracen.org>.

be greatly affected when at least 25% of the value of world imports is concerned.

At least one importing country has notified the WTO of an environmental barrier for three quarters of the products covered by the classification used: these 3746 products are worth USD 4732 billion in world imports, equivalent to 88% of world trade in goods. The vast majority of international trade thus appears to be made up of products which are affected by environmentally-related trade barriers. This does not imply that 88% of world trade is indeed directly affected by such constraints: only exports delivered to countries which have notified the WTO of barriers for the relevant products are affected directly. The importation of these products, by notifying countries, provides an assessment of trade which is concerned directly. But, this is a minimal assessment in as far as exports of such products are either partly directed to other importing countries or are likely to be discouraged by measures notified by the importing countries[7]. These flows were worth USD 680 billion, equivalent to 14% of world trade in products affected by one type of environmental measure, and 13% of overall world trade.

For the 742 products which are defined as being strongly affected, 50% of imports on average are undertaken by countries notifying environmental measures. In other words, half of the trade in significantly-affected products is directly impacted by environmental barriers.

...and being protectionist in most cases

Are the measures notified by different countries justified on precautionary grounds, given the risks set out above, or are they merely protectionist barriers? When a small number of countries apply a specific measure to a given product, it may be strongly presumed that these barriers are being used as instruments of protection. It is assumed here that when at most five countries apply environmental measures, then they are indeed protectionist barriers.

This statistical criterion leads to the estimation that of the 3746 products which are affected by environmental measures, 1983 are in fact subject to environmental protectionism (see Table).

While it was shown above that the vast majority of international trade is made up of goods affected by environmental-style barriers, it is found here that half of world trade (USD 2729 billion of a total USD 5402 billion) comprises products which are affected by environmental protectionism. Nevertheless, only 4% of world imports in these 1983 products are directly affected by such barriers.

Discriminating obstacles

In its latest report on the world outlook, which focuses on international trade and market access by poor countries, the World Bank stresses that these countries are greater victims of global protectionism than are others, given their specialisation[8]. Their exports, which are concentrated in agriculture and textiles, face tariff peaks and progressive duties that penalise the most-transformed products, factors that are characteristic of these two sectors. The analysis here too shows that environmental measures penalised the Least Developed Countries (LDCs) in particular; but in this area the nature of their specialisation is not the problem.

Table - Environmental measures according to the numer of notifying countries, 1999

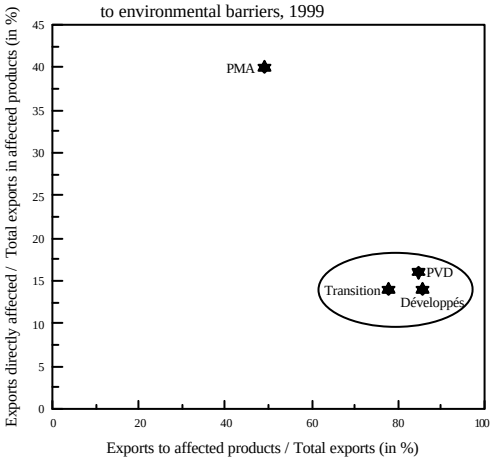
Number of countries notifying the measures	Number of products affected by these measures	Imports of affected products, in USD billions		Trade affected directly, in %
		World (1)	Notifying countries (2)	(2)/(1)
at least 1	3 746	4 732	680	14
1 to 5	1 983	2 729	110	4
more than 33	185	286	140	49
more than 50	11	21	18	86

As a reminder: Total number of countries: 137; number of products: 4 917; international trade: USD 5402 billion.

Source: Calculations based on MAcMaps data.

Whether they originate from developed market economies, transition economies or developing countries, the exporters as a whole are similarly exposed to environmental obstacles to trade (see Graph 1). In contrast, exports by LDCs are characterised by a very specific model. Only half are made up of products potentially affected by environmental barriers: many of these barriers relate to products which the LDCs do not export. However, 40% of their exports in potentially affected products are directly subject to environmental measures. It is not therefore the sectoral structure of LDC exports which exposes them to trade barriers more than for other countries. The problem lies elsewhere: LDCs face environmental barriers in their actual export markets more than other countries do. Any LDC may, for example, be suspected of not respecting all the necessary sanitary precautions in preparing transformed fish. The ban on exports is thus based on a unilateral decision by the importer, accompanied by "scientific evidence" required by the WTO.

Graph 1 - Exposure of exports by different groups of countries to environmental barriers, 1999



Source: Calculations based on MAcMap data.

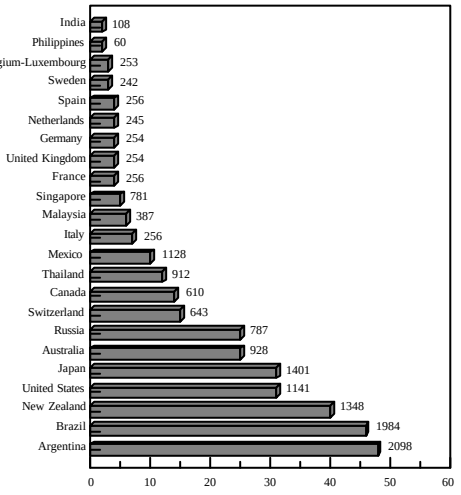
7. The classical endogeneity bias in assessing the restrictions of trade policies arises in this case. Countries only import little in product categories which are strongly protected. Thus, all measures of protectionism which are based on recorded imports tend to underestimate the real level of protection.

8. World Bank (2001), ***Global Economic Prospects 2002: Making Trade Work for the World's Poor***.

LDC exporters are thus the primary victims of barriers to trade linked to the environment. This observation was reflected at Doha in the joint declaration by the WTO and four other international organisations (World Bank, FAO, OIE and WHO), which aims at reinforcing the capacity of developing countries to participate in the formulation of sanitary and phytosanitary norms as well as in their application[9].

To what extent do the world's major importers resort to environmental obstacles to trade? The number of measures notified by the various countries (selected as an example here) is very variable, running from 60 in the Philippines to more than 2000 for Argentina (see Graph 2). Despite its position in environmental negotiations often being stigmatised - especially with respect to the "precautionary principle" - Europe does not appear among the regions that enforce environmental measures most[10]. On the contrary, it may be noted that Argentina, Brazil and to a lesser extent Japan, New Zealand and the United States, which are important exporters of agricultural products, have implemented numerous environmentally-related obstacles that impact on a significant share of the imports. This attitude contrasts with the supposedly free-trade position adopted by these countries in the trade negotiations, especially with respect to agriculture.

Graph 2 - The use of environmental barriers by several importing countries, 1999



Share of national imports affected (% on the x-axis), and the number of products affected.

Source: Calculations based on MAcMaps data.

International trade can only lead to a sustainable increase in welfare if it is accompanied by adequate environmental policies. Contrary to general opinion, this has been perfectly recognised by the WTO. The preamble of the Marrakech Agreement made sustainable development a goal, and allows for various ways for environmental measures to be adopted, which are non-discriminatory and based on scientific judgement.

In practice, however, two difficulties arise. First, certain multilateral agreements on the environment, such as the Montreal Protocol or the Basle Convention[11], included trade measures which do not respect the principles of the WTO. Second, environmental measures enforced at the national level may constitute powerful obstacles to trade. From this point of view, available, preliminary research is indeed worrying: the border between (environmental) protection and protectionism is often crossed. If the trade round which has been launched at Doha does not clarify this situation, environmental barriers taken in their broader sense will become one of the key issues in the governance of international trade. This clarification is vital if the environment is not to become an alibi for reintroducing protectionist policies suppressed elsewhere. The environment deserves more than being turned into such an instrument.

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9. http://www.wto.org/french/news_f/pres01_fr/pr254_f.htm10.
10. The countries of the European Union have a common trade policy and so impose the same restrictions on the same products. Only the absence of certain products in a country's imports explains the differences observed in the number of notifications
11. The Montreal Protocol applies to the ozone layer protection and the Basle Convention is about dangerous material transportation.

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